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Crouse-Hinds Airport
Lighting Products
ISO 9001:2000
File No: A5312



Airport Lighting
PRODUCT CATALOG

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STANDARD TERMS AND CONDITIONS OF SALE

Terms and Conditions

Note 1. ACCEPTANCE OF ORDERS

(a) Unless otherwise specifically agreed in writing by an authorized representative of Crouse-Hinds Airport Lighting Products (“Crouse-Hinds”), a division of Cooper Industries, Inc., the following terms and conditions of sale shall apply to all contracts resulting from Crouse-Hinds’ acceptance of customer’s order for products, materials, supplies, components, drawings, data or any other items. All quotations and bids, and the acceptance of all contracts and orders, are subject to final written approval and acceptance by the home office of Crouse-Hinds Airport Lighting Products in Windsor, Connecticut.

(b) Crouse-Hinds will accept orders and bill in accordance with published prices in Crouse-Hinds’ current price list and terms found herein, even though incorrect or conflicting prices and terms may appear on the customer’s purchase order.

(c) Prices are stated in U.S. dollars, are exclusive of sales, use, excise or similar taxes, and are subject to any price adjustment necessitated by Crouse-Hinds’ compliance with applicable laws or any act of government.

Note 2. TERMS DOMESTIC ORDERS

Payment terms are net 30 days after date of invoice. Crouse-Hinds reserves the right to modify or withdraw credit terms at any time without notice and to require guarantees, security or payment in advance of the amount of credit involved or payment in advance of shipment of products if the customer fails to fulfill the terms of payment. Crouse-Hinds may defer further shipments to the customer or, at its option, cancel the unshipped portion of the customer’s order. The customer agrees to pay interest on all past due invoices at the rate of 1% per month. Payments are to be in United States currency.

EXPORT ORDERS

Unless Crouse-Hinds has agreed in writing to extend credit, the customer shall make payment for export orders as follows:

(a) Payment must be made through a letter of credit, established by the customer at its own expense, including any bank confirmation charges. Letters of credit shall be in favor of and acceptable to Crouse-Hinds, shall be in sufficient amounts and for the period necessary to meet all payment obligations, shall be payable upon presentment of invoice and bill of lading, and shall be unconditional, irrevocable, and confirmed by a U.S. bank acceptable to Crouse-Hinds.

(b) Partial shipments shall be permitted at Crouse-Hinds’ discretion unless otherwise agreed by Crouse-Hinds and customer in writing at the time the customer places its order.

(c) Charges for insurance, freight, dock handling, storage, forwarding and related items, when quoted by Crouse-Hinds, are ESTIMATES ONLY. Such charges shall be for customer’s account and invoiced at actual charges.

(d) Export packaging or any special handling requested by customer shall be at its expense.

If credit terms have been extended to the customer, payment terms are net 30 days after date of invoice. Crouse-Hinds reserves the right to modify or withdraw credit terms at any time without notice and to require guarantees, security or payment in advance of the amount of credit involved, or payment in advance of shipment of products, if the customer fails to fulfill the terms of payment. Crouse-Hinds may defer further shipments to the customer or, at its option, cancel the unshipped portion of the customer’s order.

The customer agrees to pay interest on all past due invoices at the rate of 1% per month. Payments are to be in United States currency and shall be made by customer without regard to exchange rate fluctuations.

Note 3. IMPORTANT PRICE INFORMATION

(a) Billing Price: Orders, except “Hold for Release” and orders with deferred ship dates, will be billed at the price in effect at the acceptance of the order. “Hold for Release” orders will be billed at price in effect on date of release. Deferred orders will be billed at prices in effect on date of shipment.

(b) Claims for billing errors on invoices must be made to Crouse-Hinds within 30 days from the date of the invoice.

(c) Price Protection: Written quotations are firm for 31 days from the date of the Crouse-Hinds quotation.

(d) Cancellation: Orders may be cancelled only with Crouse-Hinds’ prior written consent. In order to reimburse Crouse-Hinds for all applicable costs incurred by virtue of the order, including costs of purchased materials, engineering costs, and a reasonable allowance for profit, a cancellation charge may be made when an order is cancelled. Partial cancellation of an order may necessitate a small order handling charge and eliminate prepayment of freight.

(e) Additions to orders already processed will be considered separate orders.

(f) Partial shipments made at the customer’s request will be considered as separate orders for determination of shipping charges, freight prepayment, and whether the small order handling charge applies.

Note 4. SPECIAL CHARGES

(a) Due to the cost of handling small orders, a minimum billing of \$150.00 net will be made.

(b) An extra charge will be made for special packing.

Note 5. TAXES

Crouse-Hinds reserves the right to add to the price of such products at any time an amount equivalent to any duties, imports, revenues, sales, use, manufacturer’s payroll, excise or other taxes which may be imposed and made applicable to its products.

Note 6. SHIPMENT AND DELIVERY

(a) All material is sold FOB Crouse-Hinds Point of Shipment. Risk of loss passes to customer upon delivery to the Common Carrier at Crouse-Hinds Point of Shipment. (The customer should file with the transportation company any claim for loss or damage in transit within 30 days from the date of delivery or what would be considered the normal delivery date. Since shipments are made at released value, customer should carry its own insurance for any deficiency in carrier coverage.) Risk of loss for damages to the products sold hereunder passes to the Buyer upon delivery to the carrier regardless of F.O.B point. Title to the products sold hereunder passes to Buyer upon payment of the full purchase price.

(b) Shipment will be made by surface freight FOB Crouse-Hinds Point of Shipment. For all orders totaling \$3,500.00 net or more, freight will be prepaid and allowed to any free delivery point on a common carrier to any state of the United States except Alaska and Hawaii. Freight on shipments to Alaska or Hawaii will require a minimum value of \$4,000.00 net to earn prepaid and allowed freight. No freight allowed for orders under \$3,500.00 net. Such orders will be shipped freight collect. No freight allowance will be made on shipments forwarded collect at the request of the customer.

(c) Crouse-Hinds will use its own discretion in routing all shipments upon which it assumes transportation charges. Where practical to do so, shipments will be made in any manner requested by the customer, if the customer will assume the extra transportation costs.

(d) Express, parcel post and air shipments amounting to \$3,500.00 net or over will be made, at the customer’s request, with transportation charges collect or prepaid and added to the invoice.

(e) Partial shipments made at the customer’s request must each total \$3,500.00 net or more for prepaid transportation. No freight allowed or partial shipments under \$3,500.00 net. Such orders will be shipped freight collect.

Customer partial shipments are limited to the following number of shipments per net dollar value:

| | | | |
|-------------|-------------|--------------|-------------|
| <\$10K | 1 Shipment | \$100-\$500K | 4 Shipments |
| \$10-\$50K | 2 Shipments | \$500K-\$1M | 5 Shipments |
| \$50-\$100K | 3 Shipments | \$1M+ | 6 Shipments |

f) Unless otherwise agreed by Crouse-Hinds and the customer in writing, Crouse-Hinds may make partial shipments at its discretion. In the case of partial shipments of an order, Crouse-Hinds will invoice each shipment as it is made, but on terms applicable to the entire order.

g) Crouse-Hinds will not assume, allow, or pay any charges for cartage. The customer should inspect all material upon receipt. All claims for damages, errors or shortages, other than attributable to in-transit handling, must be made by the customer within thirty (30) days from receipt of the shipment at destination. The customer's failure to make such claims within a thirty (30) day period shall constitute irrevocable acceptance of the material. The customer must report damage or loss attributable to in-transit handling to the transportation company and request inspection within 30 days from the date of delivery.

(h) Crouse-Hinds will make reasonable efforts to ship as scheduled. However, Crouse-Hinds shall not be liable for any failure to perform or delay in performing its obligations under this agreement resulting directly or indirectly from or contributed to by any strikes, lockouts, or other labor disturbances, fires, floods, epidemics, war, riot, or embargoes, breakdowns, lack of or inability to obtain raw materials, components, labor, fuel or supplies, lack of shipping space, lack of customer approvals, correction or clarification of orders, governmental regulations, acts of God, or any circumstances beyond the control of Crouse-Hinds.

(i) Orders received with a "HOLD" (for release, for approval, etc.) are not processed for manufacture until written release is given. Normal shipping time will apply starting from time of release.

Note 7. STANDING INSTRUCTION

Crouse-Hinds cannot accept standing, general, or blanket instructions. Each transaction must be accompanied by full instructions on the order itself.

Note 8. RETURN OF MATERIAL

Material may be returned for credit only when authorized in writing by Crouse-Hinds, which may include a 30% restocking fee.

Note 9. GOVERNMENT RESTRICTIONS

The acceptance, processing and fulfillment of orders will be subject to and contingent upon restrictions and conditions imposed by the governments having jurisdiction over points of manufacture or passage of the merchandise.

Note 10. LIMITED WARRANTY

Products (excluding lamps) of Crouse-Hinds' manufacture are warranted against defects in workmanship and material for a period of one year from the date of installation or two years from date of shipment from the factory, provided that no warranty is made with respect to:

(a) any product which has been repaired or altered in such way, in Crouse-Hinds' judgment, as to affect the product adversely,

(b) any product which has, in Crouse-Hinds' judgment, been subjected to negligence, accident, or improper storage,

(c) any product which has not been operated and maintained in accordance with normal practice and in conformity with recommendations and published specifications of Crouse-Hinds, and

(d) any products, component parts or accessories manufactured by others but supplied by Crouse-Hinds (any claims should be submitted directly to the manufacturer thereof). **THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT BY WAY OF LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. CROUSE-HINDS' OBLIGATION UNDER THIS WARRANTY IS LIMITED TO THE FURNISHING OF NEW PARTS FREE OF CHARGE IN EXCHANGE FOR PARTS WHICH HAVE PROVEN DEFECTIVE AND DOES NOT INCLUDE ANY OTHER COSTS SUCH AS THE COST OF REMOVAL OF DEFECTIVE PARTS, INSTALLATION, LABOR, OR ANY OTHER DAMAGES OF ANY KIND, THE EXCLUSIVE REMEDY OF THE PURCHASER FOR BREACH OF WARRANTY BEING TO REQUIRE SUCH NEW PARTS TO BE FURNISHED.** Crouse-Hinds assumes no responsibility for proper selection and installation of its products.

Note 11. EXCLUSIVITY OF REMEDY; LIMITATION OF LIABILITY

Crouse-Hinds' entire liability and customer's exclusive remedy shall be as follows: In the

event that customer claims that Crouse-Hinds has breached any of its obligations under this agreement, whether of warranty or for any cause whatsoever, whether in contract or in tort, including negligence and strict liability, Crouse-Hinds may request the return of the products and tender to customer the purchase price paid therefor, and in such event, Crouse-Hinds shall have no further obligations under this agreement except to refund such purchase price upon redelivery of the products. **THE REMEDIES PROVIDED FOR IN THIS AND THE PRECEDING PARAGRAPH SHALL CONSTITUTE THE SOLE RECOURSE OF CUSTOMER AGAINST CROUSE-HINDS FOR BREACH OF ANY OF CROUSE-HINDS' OBLIGATIONS UNDER THIS AGREEMENT, WHETHER THE CLAIM IS MADE IN TORT OR CONTRACT, INCLUDING CLAIMS BASED ON WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE.**

IN NO EVENT SHALL CROUSE-HINDS BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY) NOR FOR LOST PROFITS, NOR SHALL CROUSE-HINDS' LIABILITY FOR ANY CLAIMS OR DAMAGES ARISING OUT OF OR CONNECTED WITH THIS AGREEMENT OR THE MANUFACTURE, SALES, DELIVERY OR USE OF THE PRODUCTS EXCEED THE PURCHASE PRICE OF THE PRODUCTS.

Note 12. CHANGES; ENTIRE AGREEMENT; GOVERNING LAW

These Standard Terms and Conditions of Sales, together with Crouse-Hinds' acknowledgment of customer's order, contain the entire agreement between the customer and Crouse-Hinds and may not be modified, waived, rescinded, or terminated in whole or in part except by a writing signed by the party against whom it is to be enforced. Any different or additional terms and conditions proposed by customer in its order or otherwise are hereby rejected by Crouse-Hinds and shall not be incorporated into this agreement. This agreement shall be governed by and interpreted in accordance with the laws of the State of New York, including its provisions of the Uniform Commercial Code. In the case of export orders, Crouse-Hinds and customer agree that such laws shall govern the parties' agreement instead of the provision of the 1980 U.N. Convention on Contracts for the International Sales of Goods.

Note 13. IMPORTANT NOTICE

The product information published in our catalogs and literature is not guaranteed. It has been compiled with care and is sufficiently accurate for most purposes. It is subject to change without notice. Occasionally it may be necessary to modify the materials, finishes, or other components of the product without reducing the performance or function of the product.

Note 14. CONFIDENTIAL INFORMATION

The customer agrees that it will not disclose to Crouse-Hinds any confidential information of the customer unless Crouse-Hinds has, prior to such disclosure, agreed in writing to accept such information as confidential under clearly defined obligations of confidence. The customer agrees that all information disclosed by it (except such information as is specifically subject to a written confidentiality agreement which has been executed by Crouse-Hinds prior to such disclosure) is non-confidential information, and that Crouse-Hinds is free to use and disclose any of such information without accounting to customer therefor. Crouse-Hinds shall not be obligated to treat as confidential any information already known by it, or information that is or becomes public knowledge without the fault of Crouse-Hinds, or information that is properly acquired by Crouse-Hinds from a third party.

Note 15. PATENTS

Crouse-Hinds expressly disclaims any warranty that the products sold to customer do not infringe any intellectual property right of any third party, including, without limitation, any patent granted to such third party by any governmental or other body.

Note 16. ASSIGNMENT

This agreement is not assignable without the prior written consent of Crouse-Hinds. Any attempt by the customer to assign any of the rights, duties, or obligations of this agreement without such consent shall be void.

Note 17. Approved Component Parts

Crouse-Hinds Airport Lighting Products are certified to FAA - AC 150/5345-53 for airport lighting equipment. Modification to any product will void warranty and FAA certifications. The owner assumes all liability associated with the use of non Crouse-Hinds parts.



Specifications & Standards

Federal Aviation Administration

| Specification | Advisory Circular | Equipment Description | Product | Page No. |
|---------------|-------------------|---|------------------|-------------------------------|
| L-801 | 150/5345-12 | Beacons | ARB | 3.10 |
| L-802 | 150/5345-12 | Beacons, High Intensity | ARB | 3.10 |
| L-804 | 150/5345-46 | Light, Holding Position Edge | RGL | 2.12 |
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| L-853 | 150/5345-39 | Markers, Retroreflective | TRM | 6.8 |
| L-854 | 150/5345-49 | Radio Controllers | RC | 4.26 |
| L-858 | 150/5345-44 | Signs, Taxiway Guidance | DMS | 5.15 |
| L-861 | 150/5345-46 | Lights, Runway & Taxiway Edge, Medium Intensity | ERL | 2.2 |
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| L-867 | 150/5345-42 | Light Base, Non-Load Bearing | ALB | 7.2 |
| L-868 | 150/5345-42 | Light Base, Load Bearing | ALB | 7.2 |
| L-880 | 150/5345-28 | Precision Approach Path Indicator | PAPI | 3.2 |
| L-881 | 150/5345-28 | Precision Approach Path Indicator, Abbreviated | PAPI | 3.2 |
| L-890 | 150/5345-56 | Airfield Lighting Control & Monitoring System | DIGITRAC | 4.28 |

* Contact Crouse-Hinds

Note: All Specifications & Standards in this general guide are subject to the latest issue revisions which are not noted herein. Equipment compliances are subject to change without notice.

International Civil Aviation Organization

| Specification | Specification Paragraph | Equipment Description | Isocandela Diagram Appendix 2 | Inpavement | | Elevated | |
|---------------------------------|-------------------------|--|-------------------------------|------------------|------------------------|------------|----------|
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| | 5.3.3 | Aeronautical Beacon | | | | ARB | 3.10 |
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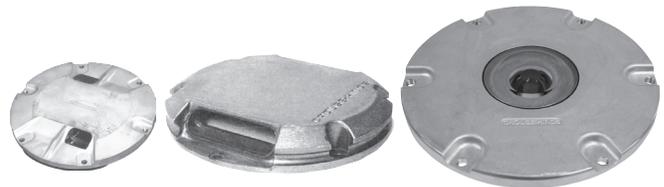
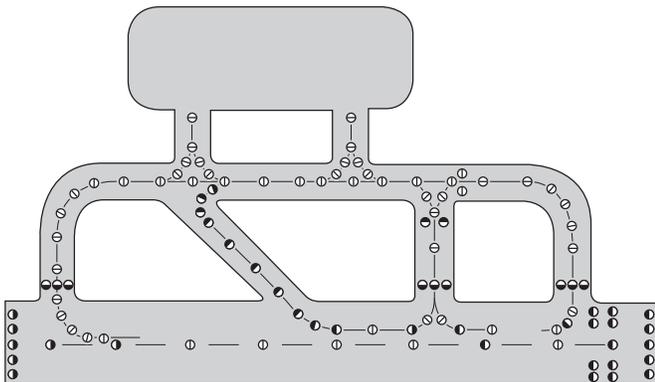
Application Overview

Originally created to meet the needs of the fledgling Aviation industry Crouse-Hinds Airport lighting has grown into an industry leading global manufacturer of airfield lighting. Our fixtures are operating night and day all over the world. CHALP products are requested by major airports because our fixtures have performed dependably in the most challenging environments for decades. Crouse-Hinds builds quality and performance into every product. We work with both the Federal Aviation Administration and the International Civil Aeronautics Organization providing the best possible product to the aviation community.

Airfields present unique environmental, mechanical and photometric needs. How you address those needs depends on what meteorological conditions you will be operating under. Crouse-Hinds Airport Lighting produces fixtures to meet the latest FAA & ICAO

specifications. No matter what your application we produce a fixture to meet your needs; from approach to taxiways Crouse has the products. We manufacture inset and elevated lighting, power and control systems in addition to obstruction lighting for all airfield operating conditions. Utilizing incandescent, fluorescent and LED light sources, the best possible resource solution is applied to your airfield's needs.

Section 1 — Runway and Taxiway Inset Lights



Runways and taxiways are the operational backbone of the airfield and pose unique environmental, mechanical and photometric needs. How you address those needs depends on what category certification you will be operating under. Location, color and intensity are all important to the pilot when determining his position on the airfield. The Federal Aviation Administration has set forth standards dictating how fixtures must perform determined by fixture location on the field and the present operating conditions. Crouse-Hinds Airport Lighting Products has the correct fixture for your airfields operating category certification.

Application Icons



Inset Runway & Taxiway Center-Line Lighting



Inset Runway & Taxiway Edge Lighting



Inset Threshold/End Lighting



Inset Approach & Threshold Lighting



Inset Land & Hold Short Lighting

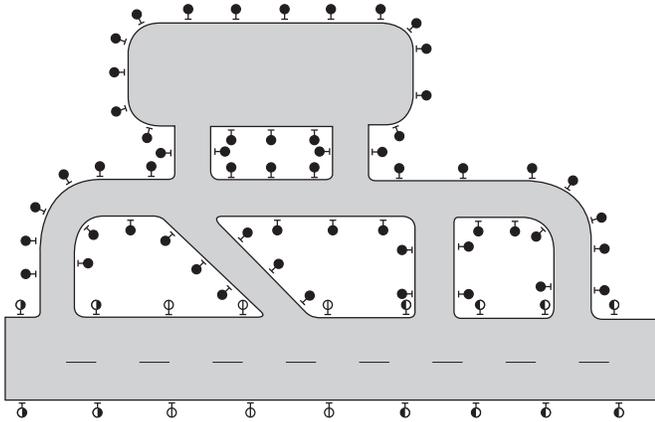


Inset Stop Bar & Guard Lighting



Touchdown Zone Lighting

Section 2 — Runway and Taxiway Elevated Lights



Runways and taxiways are the operational backbone of the airfield and just like inset fixtures elevated fixtures provide vital movement information to the pilot. Location, color and intensity are all important to the pilot when determining his position on the airfield. The Federal Aviation Administration has set forth standards dictating how elevated fixtures must perform determined by fixture location on the field and the operating conditions. For elevated fixtures Crouse-Hinds Airport Lighting Products has the correct fixture for your airfields operating category certification.

Application Icons



Runway Light

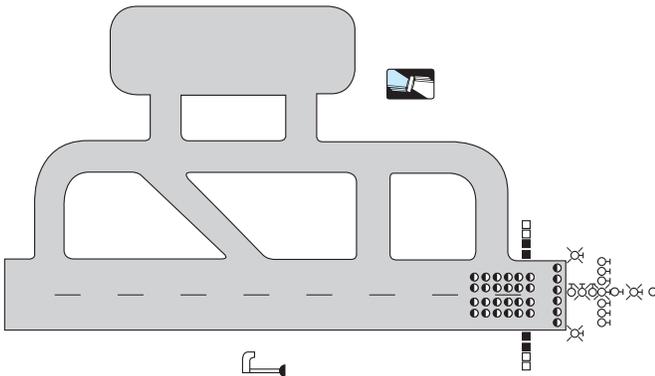


Runway/
Threshold
Light



Elevated Stop
Bar Light

Section 3 — Approach & Navigational Aids



Coordinating movement on the airfield is crucial to the safe and efficient operation of any airfield. Add to that flight operations taking place in unique environmental conditions and the needs for highly visible airfield markers takes on even more importance. How you address those needs depends on what meteorological conditions you will be operating under. Location, color and intensity are all important to the pilot when determining his position and movement options on the airfield. The Federal Aviation Administration has set forth standards dictating how signs must perform and where they must be located. Crouse-Hinds Airport Lighting Products has the signs designed to meet those standards for your airfields needs in all certification categories.

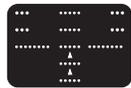
Application Icons



PAPI



Runway End



Flash System



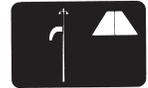
Rotating
Beacon



Approach



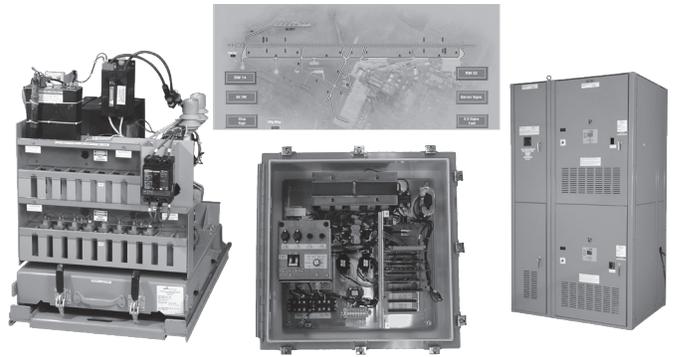
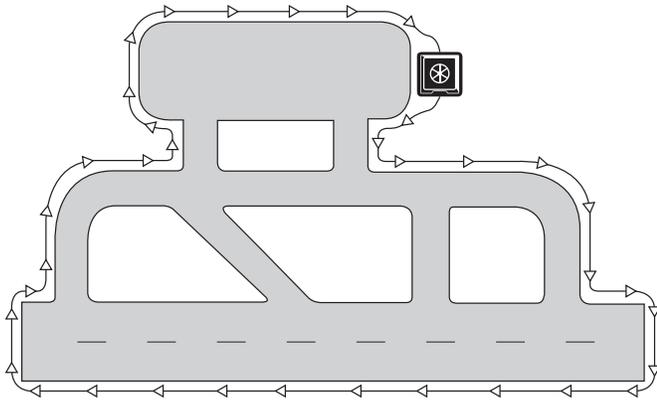
Threshold and
Approach



Wind Cone



Section 4 — Power & Control Equipment



Power and control are at the heart of the lighting control system for any airfield. The Federal Aviation Administration has set forth standards dictating how fixtures and signs may be powered and controlled. Crouse-Hinds Airport Lighting Products has the constant current Ferro-resonant and series type regulators in a variety of sizes for all airports. Our regulators and control gear are designed to provide precision control of airfield circuits and interface with a wide array of control and monitoring options.

Application Icons

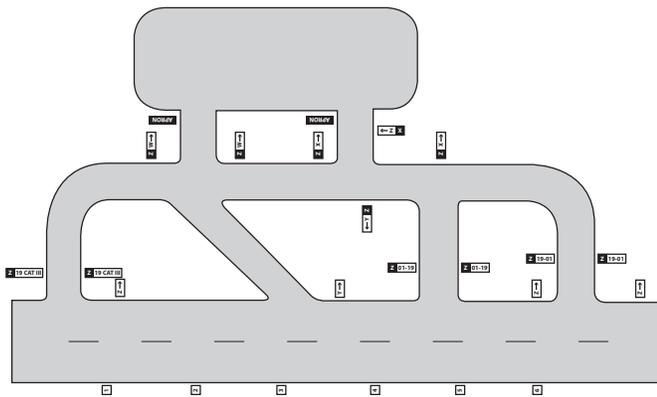


Power Vault



Lighting Control

Section 5 — Guidance Signs



The safe and efficient movement of aircraft around the airfield is of paramount importance. The FAA and ICAO have set color, intensity, performance and location standards for all airfield guidance signs. In concert with inset and elevated airfield lighting fixtures guidance signs allow the pilot to move efficiently around the airfield whether in New York, Cairo or Beijing.

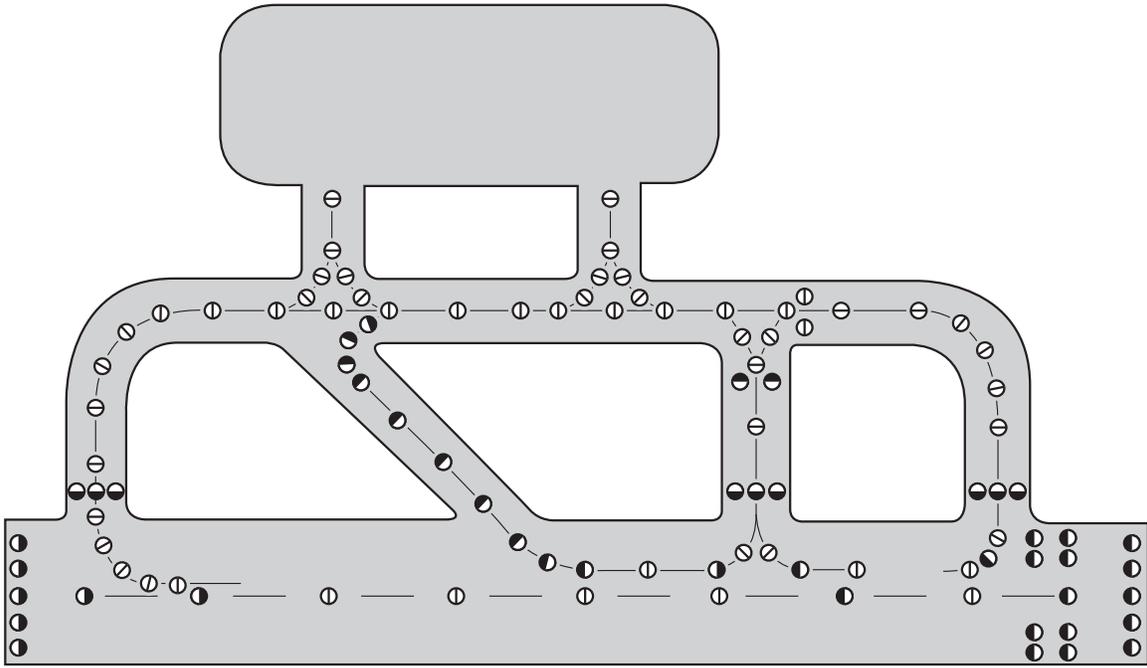
Application Icon



Airfield Guidance Sign

SECTION 1

Runway & Taxiway Inset Lights



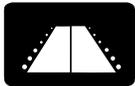
Runways and taxiways are the operational backbone of the airfield and pose unique environmental, mechanical and photometric needs. How you address those needs depends on what category certification you will be operating under. Location, color and intensity are all important to the pilot when determining his position on the airfield. The Federal

Aviation Administration has set forth standards dictating how fixtures must perform determined by fixture location on the field and the present operating conditions. Crouse-Hinds Airport Lighting Products has the correct fixture for your airfields operating category certification.

Application Icons



Inset Runway & Taxiway Center-Line Lighting



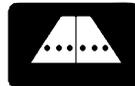
Inset Runway & Taxiway Edge Lighting



Inset Threshold/End Lighting



Inset Approach & Threshold Lighting



Inset Land & Hold Short Lighting



Inset Stop Bar & Guard Lighting



Touchdown Zone Lighting



PRO III™ RCL/TDZ



Runway Centerline Light or Touchdown Zone Light

Compliances: FAA AC 150/5345-46: L-850A; L-850B
ICAO Annex 14: Fig. A2-5 and A2-7
USN NAVAIR 51-50AAA-2
Transport Canada Specification K 271: Fig B5 and B8
UFC 3-535-01



RCL / TDZ 8"
8" with 12" Ring

Applications

The RCL/TDZ light does double duty as a runway centerline light and touchdown zone light. The RCL is a bidirectional light, typically clear/clear or clear/red, with two 48 W lamps. The TDZ is a clear unidirectional light, with a 48 W lamp. RCL /TDZ may be used for any category FAA, ICAO, or military runway.

Features



- ETL Certified
- Low Profile, < .25" (6mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for Snow Plow Protection
- Low Power Consumption
- Few Parts to Stock
- Beam Orientation can be easily changed to left or right toe-in
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W

Ordering Information



Fixture Type:
A = Runway centerline light
B = Touchdown zone light

Color Filters:
CC = Clear/Clear (L-850A)
CR = Clear/Red (L-850A)
RX = Red/Blank (L-850A)
C = Clear (L-850B)
CX = Clear/Blank

Fixture Diameter:
12F = Optical assembly with 12" FAA support ring
NSR = Optical assembly without support ring

L-823 Plug Connection:
P1 = One plug
P2 = Two plugs (L-850A only)

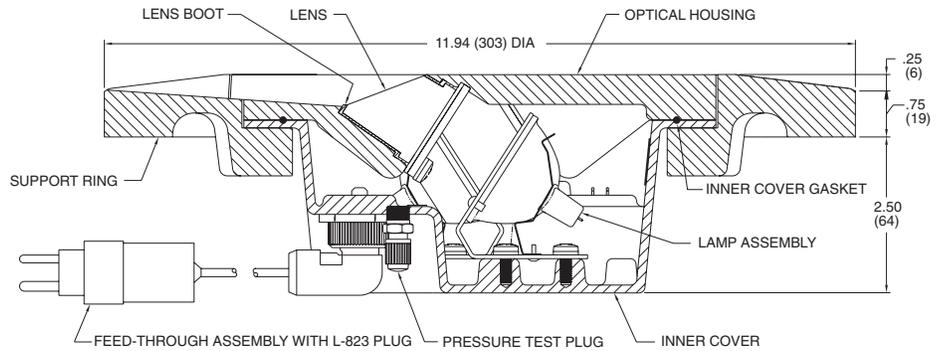
Beam Orientation (L-850B only):
L = Left Toe-in
R = Right Toe-in
S = Straight

Option:
G = External gasket between optical assembly and support ring*

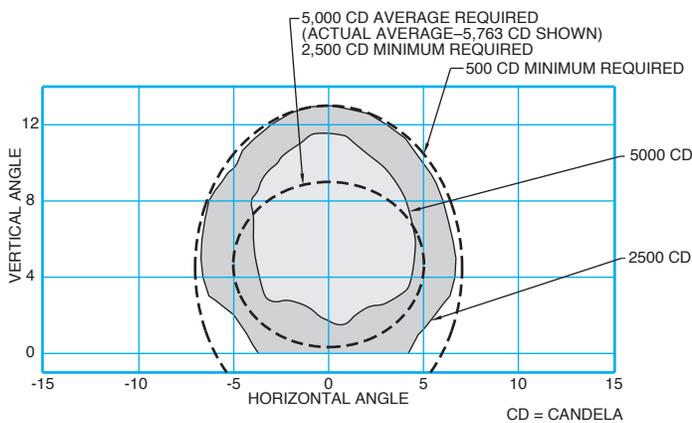
* Optical assemblies with this option only fit support rings marked "G" on top surface.

Outline Drawings

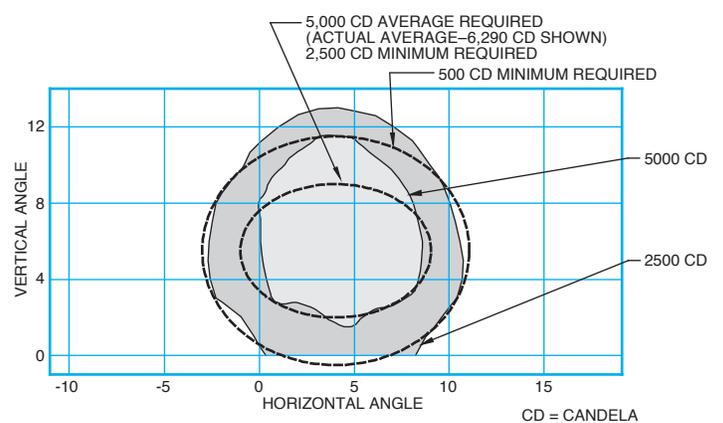
| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9913 |
| Shipping Weight: | 23.0 lbs 10.4 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m ³ |



Typical Photometric Data



L-850A Runway Centerline Light



L-850B Touchdown Zone Light

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base - L-868B, Class I, 24" Deep | 823KP-D4-D4 | Connector Kit - L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer - 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit - 1 Piece |
| 33004 | Isolation Transformer - 100 W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit - 2 Piece |
| 33005 | Isolation Transformer - 100 W, 20/6.6 A | 21180 | External Support Ring Gasket |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|------------------|---|
| 21116 | Lamp - 48 W, 6.6 A | 21121 | Feed-through Assembly - 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit - Clear | 21122 | Feed-through Assembly - 1 Lamp, 1 Connector |
| 21126-R | Lens Replacement Kit - Red | 10048-25 | Gasket Lubricant - 5.3 oz Container |
| 10035-62 | Gasket - Bottom Cover | 850X3-XX-NSR-XXX | Spare Optical Assembly |
| 21508 | Ductile Iron Mounting Ring | | |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ RCL/TDZ



Runway Centerline Light or Touchdown Zone Light

Compliances: FAA AC 150/5345-46: L-850A; L-850B
USN NAVAIR 51-50AAA-2
Transport Canada Specification K 271: Fig B5 and B8
UFC 3-535-01



RCL / TDZ 12"
1 Piece 12" Fixture

Applications

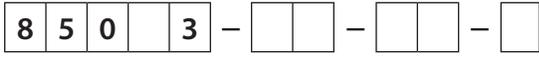
The RCL/TDZ light does double duty as a runway centerline light and touchdown zone light. The RCL is a bidirectional light, typically clear/clear or clear/red, with two 48 W lamps. The TDZ is a clear unidirectional light, with a 48 W lamp. RCL/TDZ may be used for any category FAA or military runway.

Features



- ETL Certified
- Low Profile, < .25" (6mm) – FAA Style 3
- High-strength aluminum optical assembly
- Low Power Consumption
- Few Parts to Stock
- Beam Orientation can be easily changed to left or right toe-in
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W

Ordering Information



Fixture Type:
A = Runway centerline light
B = Touchdown zone light

Color Filters:
CC = Clear/Clear (L-850A)
CR = Clear/Red (L-850A)
RX = Red/Blank (L-850A)
C = Clear (L-850B)
CX = Clear/Blank

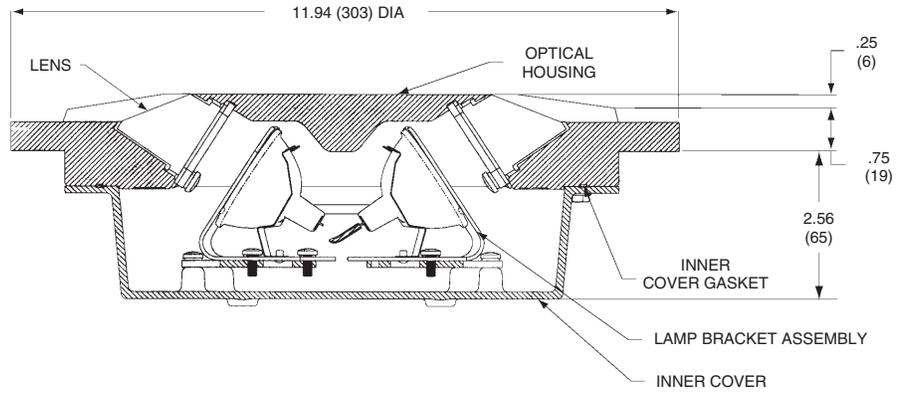
L-823 Plug Connection:
P1 = One plug
P2 = Two plugs (L-850A only)

Beam Orientation (L-850B only):
L = Left Toe-in
R = Right Toe-in
S = Straight

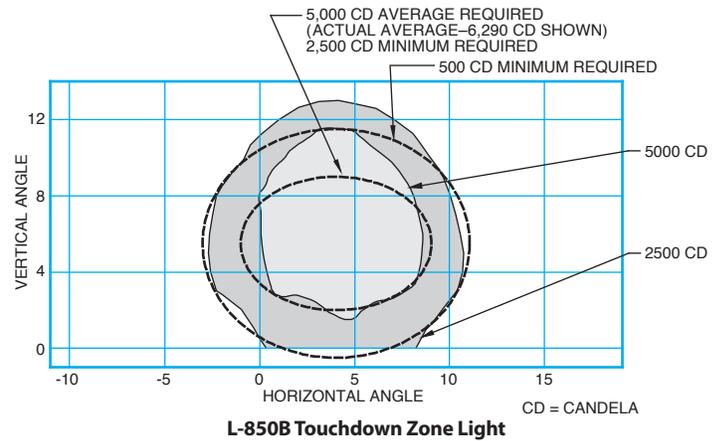
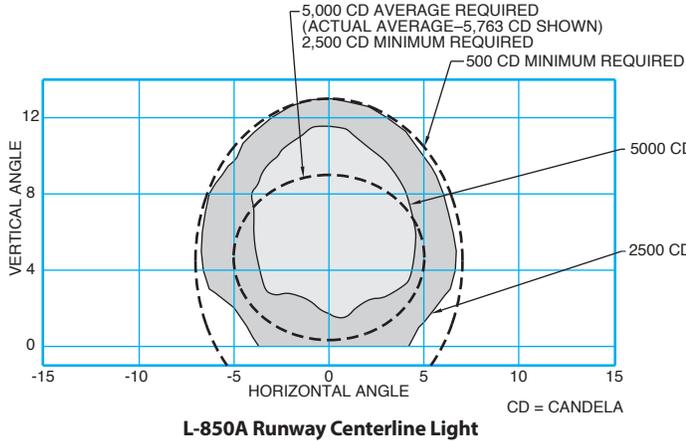
Note: "S" Beam Orientation not certified under FAA

Outline Drawings

| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2404 |
| Shipping Weight: | 16.0 lbs 7.3 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m ³ |



Typical Photometric Data



Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base: L-868B, Class I, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-------------|---|
| 21116 | Lamp – 48 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-R | Lens Replacement Kit – Red | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21140 | Gasket – Bottom Cover | | |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ RCLI/TDZI



Runway Centerline Light, Touchdown Zone Light or Rapid Exit Taxiway Indicator Light – ICAO



RCLI/TDZI 8"

Compliances: ICAO Annex 14: Fig. A2-5, A2-6 and A2-7
Transport Canada Specification K 271: Fig B5 and B8

Applications

The RCLI/TDZI light does triple duty as a runway centerline light, a touchdown zone light, or as a rapid exit taxiway indicator light. The RCLI is a bidirectional light, typically clear/clear or clear/red, with two 48 W lamps. The TDZI is a clear unidirectional light, with a 48 W lamp. RCLI /TDZI may be used for any category ICAO, or military runway.

Features

- ETL Tested and Verified
- Low Profile, < .25" (6mm) – FAA Style 3
- Low Power Consumption
- Few Parts to Stock
- Beam Orientation can be easily changed to left or right toe-in
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W
- High-strength forged aluminum
- Standard sealing gasket

Ordering Information

8 5 0 3 – 8 –

Fixture Type:

- A = Runway centerline light or Rapid Exit Taxiway Light
- B = Touchdown zone light

Color:

- CC = Clear/Clear (850A3)
- CR = Clear/Red (850A3)
- YX = Yellow/Blank (850A3)*
- C = Clear (850B3)
- CX = Clear/Blank (850B3)*
- GG = Green/Green (850A3)
- GX = Green/Blank(850A3)*

8-Inch Diameter ICAO Fixture:

L-823 Plug Connection:

- P1 = One plug
- P2 = Two plugs (850A3 only)

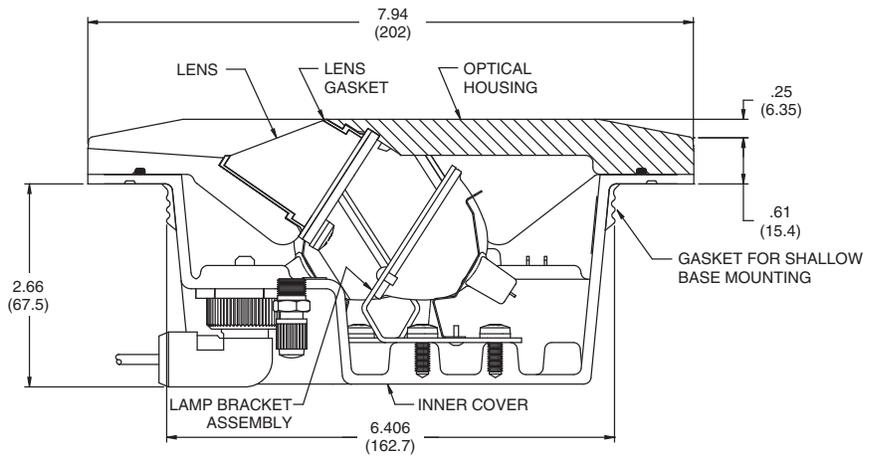
Beam Orientation (850B3 only):

- L = Left Toe-in
- R = Right Toe-in
- S = Straight

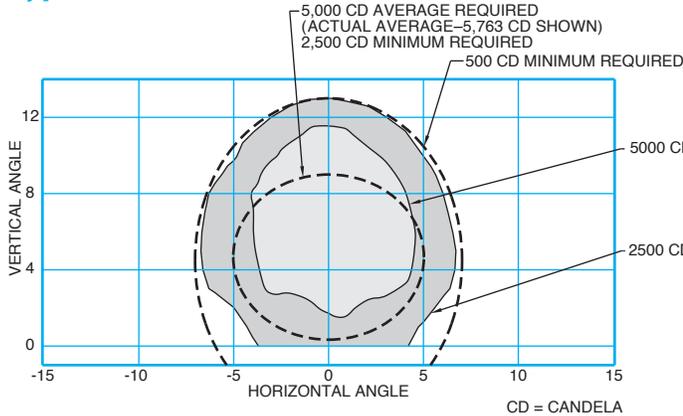
* Blank color units will have a threaded plug installed (blank is not considered a color).

Outline Drawing

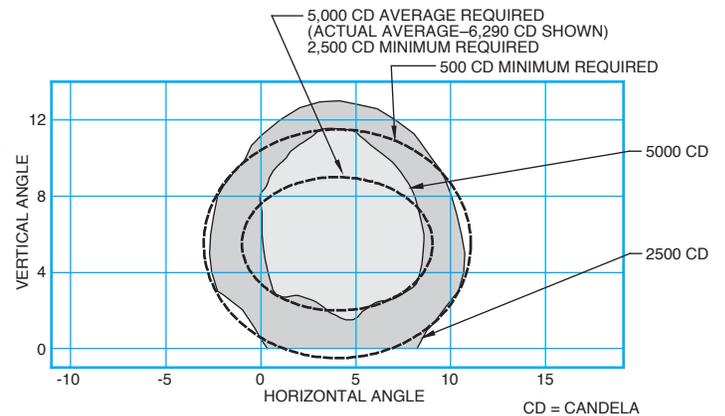
| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2003 |
| Shipping Weight: | 5.0 lbs 2.3 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m ³ |



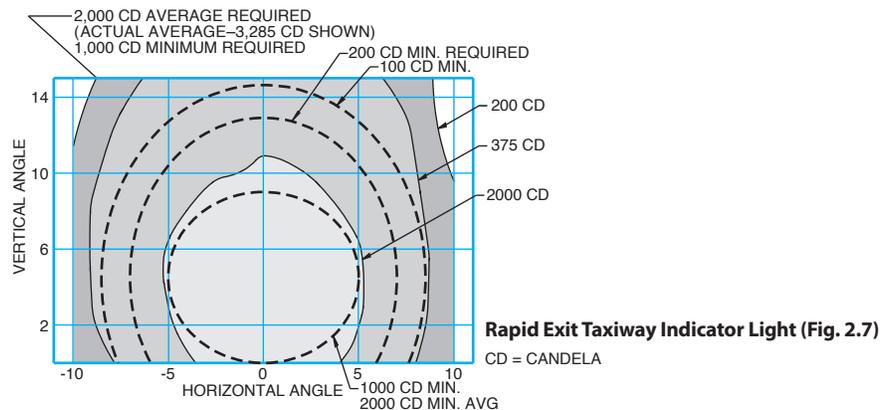
Typical Photometric Data



Runway Centerline Light (Fig. 2.7)



Touchdown Zone Light (Fig. 2.5)



Rapid Exit Taxiway Indicator Light (Fig. 2.7)

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| 21388-1 | Shallow Base – One Connector | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 21388-2 | Shallow Base – Two Connectors | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | | |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|-------------------------------|-------------|---|
| 21116 | Lamp – 48 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-R | Lens Replacement Kit – Red | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21126-Y | Lens Replacement Kit – Yellow | 10035-62 | O-Ring – Bottom Cover |
| 21126-G | Lens Replacement Kit – Green | 21180 | Gasket – Shallow Base |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ RCLI/TDZI



Runway Centerline Light or Touchdown Zone Light or Rapid Exit Taxiway Indicator Light

Compliances: ICAO Annex 14: Fig. 2.5, Fig. 2.6 and 2.7



RCLI / TDZI 12"
1 Piece 12" Fixture

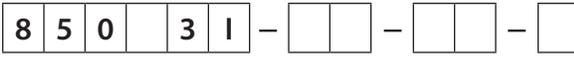
Applications

The RCLI/TDZI light is a multi-use fixture for use as a runway centerline, touchdown zone and rapid exit taxiway light. The RCLI is a unidirectional and bidirectional light; typically clear/clear or clear/red, with two 48W lamps. When used as a rapid exit taxiway light it uses one 48W lamp in a yellow/blank configuration. The TDZI is a clear unidirectional light, with one 48W lamp. The RCLI/TDZI may be used on any ICAO airfield.

Features

- Low Profile, < .25" (6mm) – FAA Style 3
- High-strength aluminum optical assembly
- Low Power Consumption
- Few Parts to Stock
- Beam Orientation can be easily changed to left or right toe-in
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W

Ordering Information



Fixture Type:
A = Runway centerline light or Rapid Exit Taxiway Light*
B = Touchdown zone light

Color Filters:
CC = Clear/Clear (Fig. 2.7)
CR = Clear/Red (Fig. 2.7)
RX = Red/Blank (Fig. 2.7)
C = Clear (Fig. 2.5)
CX = Clear/Blank (Fig. 2.7)
YX = Yellow/Blank (Fig. 2.7)*

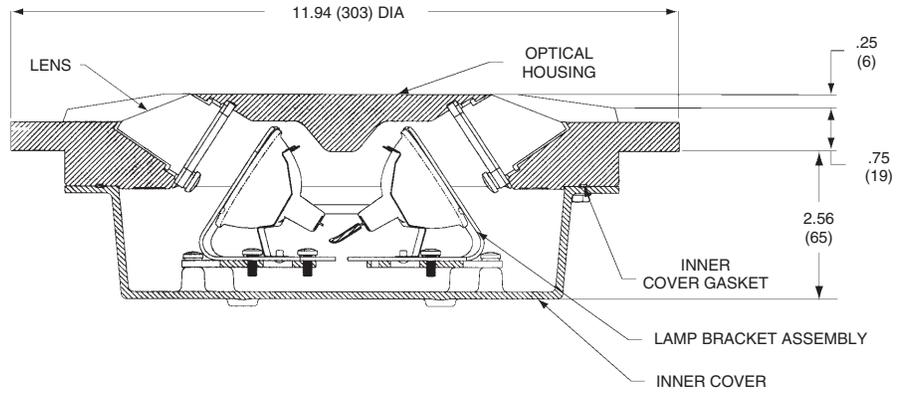
L-823 Plug Connection:
P1 = One plug
P2 = Two plugs (Fig. 2.7. Two color units only. Note: For this feature only, blank is not considered a color.)

Beam Orientation (Fig. 2.5 only):
L = Left Toe-in
R = Right Toe-in
S = Straight

*Note: Rapid Exit Taxiway Light is YX configuration only.

Outline Drawings

| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2404 |
| Shipping Weight: | 16.0 lbs 7.3 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m ³ |



Typical Photometric Data

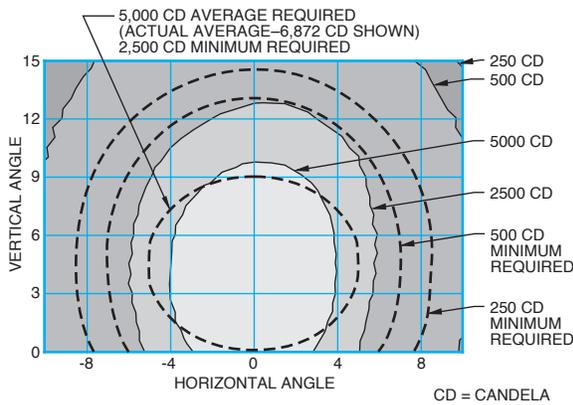


Fig. 2.7 – Runway Centerline Light, Clear

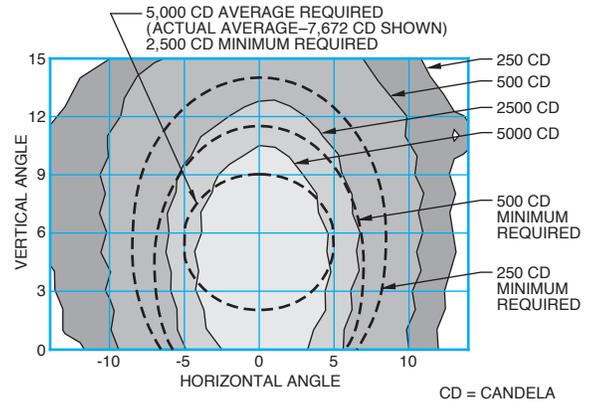


Fig. 2.5 – Touchdown Zone Light

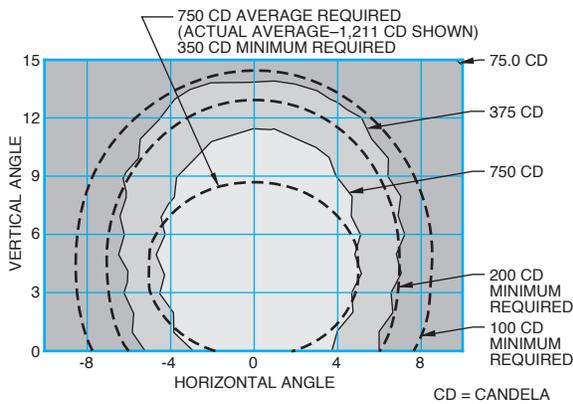


Fig. 2.7 – Runway Centerline Light, Red

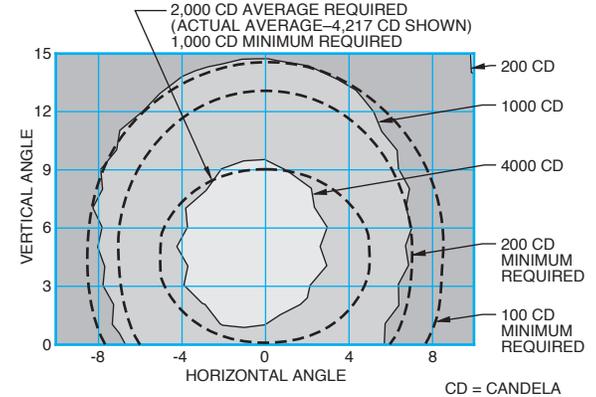


Fig. 2.7 – Rapid Exit Taxiway Indicator Light, Yellow

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base: L-868B, Class I, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-------------|---|
| 21116 | Lamp – 48 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-R | Lens Replacement Kit – Red | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21140 | Gasket – Bottom Cover | | |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ IREL



Inset Runway Edge Light



IREL

Compliances: FAA AC 150/5345-46: L-850C
ICAO Annex 14: Fig. A2-9
Transport Canada Specification TP 312: Fig. B1.10
UFC 3-535-01

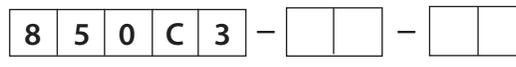
Applications

The IREL is a high intensity bidirectional light (using four 48 watt lamps.) This fixture is used where taxiways intersect the runway and any other runway edge locations where it is impractical to use an elevated light.

Features

- ETL Certified 
- Low profile, < .25" (6mm) – FAA Style 3
- Low power consumption
- Few parts to stock
- Beam orientation can be easily changed to left or right toe-in
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W, 6.6A
- High-strength forged aluminum

Ordering Information



Fixture Type:

Color* :

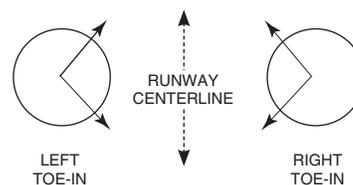
- CC = Clear/Clear
- CY = Clear/Yellow
- YC = Yellow/Clear
- CR = Clear/Red
- RC = Red/Clear
- YR = Yellow/Red
- RY = Red/Yellow
- CX = Clear/Blank
- XC = Blank/Clear
- YX = Yellow/Blank
- XY = Blank/Yellow
- RX = Red/Blank
- XR = Blank/Red
- GY = Green/Yellow
- YG = Yellow/Green

L-823 Plug Connection:

P1 = One plug

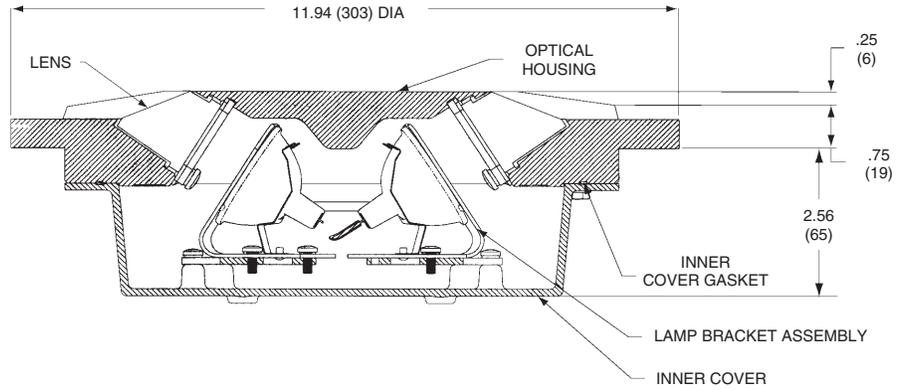
P2 = Two plugs (Two color units only. Blank is not considered a color.)

* Refer to the color symbol position:
The first color is left toe-in;
The second color is right toe-in.

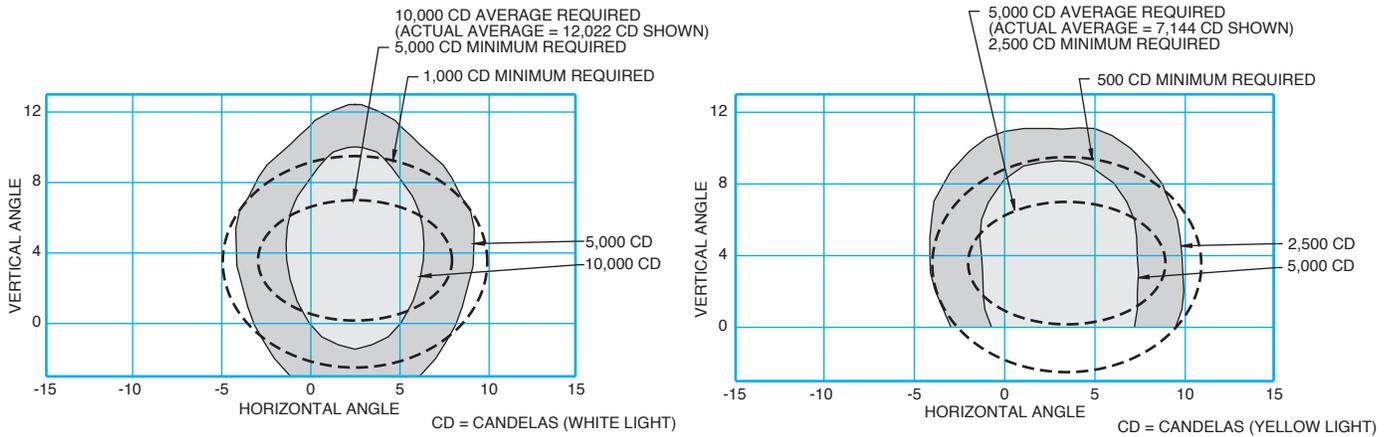


Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9929 |
| Shipping Weight: | 16.0 lbs. 7.3 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |



Typical Photometric Data



L-850C Inset Runway Edge Light – White

L-850C Inset Runway Edge Light – Yellow

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep* | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | 21151 | Adapter Ring – 15" L-868C Base (11.25" bolt circle to 14.25" bolt circle) |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|-------------------------------|-------------|---|
| 21116 | Lamp – 48 W, 6.6 A | 21140 | Gasket – Bottom Cover |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-Y | Lens Replacement Kit – Yellow | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21126-R | Lens Replacement Kit – Red | | |

* Fixture with total lamp wattage greater than 150W should not be mounted on 12 inch diameter bases less than 20 inches (500mm) deep.
Class II bases are not recommended for this application.

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ IRELI




Inset Runway Edge Light - ICAO

IRELI

Compliances: ICAO Annex 14: Fig. A2.10

Applications

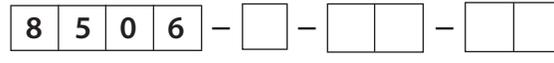
The IRELI is a high intensity bidirectional light (using two 105 watt lamps) or unidirectional light (using one 105 watt lamp). This fixture is used where taxiways intersect the runway and any other runway edge locations where it is impractical to use an elevated light.

Features

- Low profile, .50" (12 mm)
- Few parts to stock
- Easy to maintain – no sealant required for prism
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 105 W, 6.6 A

| | |
|----------------------------|----------------------|
| Instruction Manual: | 2707 |
| Shipping Weight: | 17.0 lbs 7.7 kg |
| Shipping Volume: | 0.6 cu ft 0.04 m3 |

Ordering Information



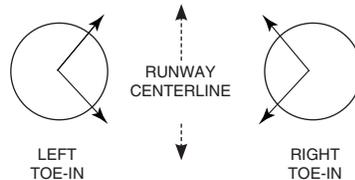
Fixture Type:
850 = Runway
6 = Model 6

C-H Style:
A = ICAO Fig. A2.10

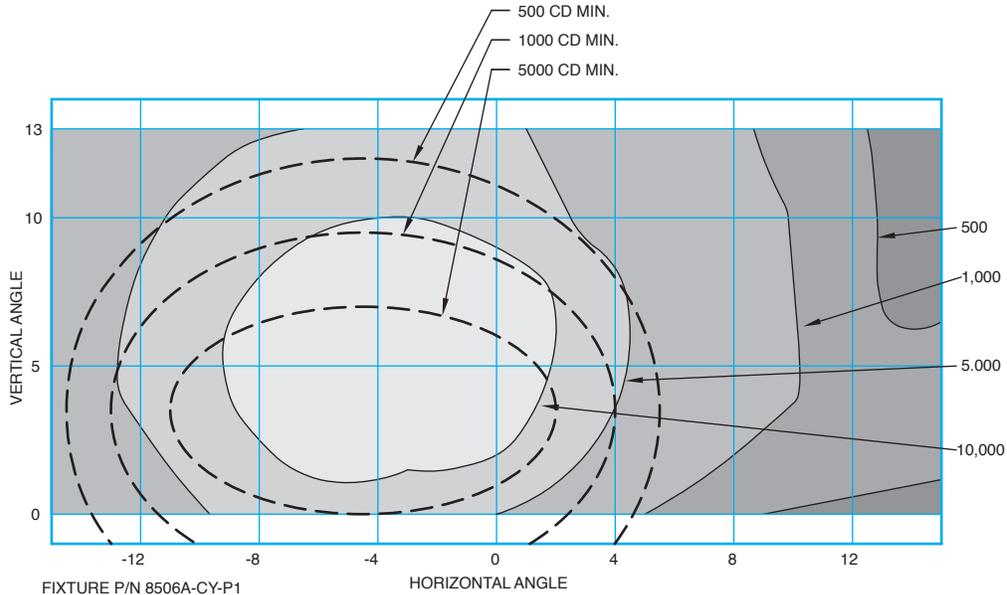
Color:
CC = Clear
CY = Clear/Yellow
YC = Yellow/Clear
YX = Yellow/Blank
XY = Blank/Yellow
CX = Clear/Blank
XC = Blank/Clear

L-823 Connection:
P1 = One plug
P2 = Two plugs

* Refer to the color symbol position:
The first color is left toe-in;
The second color is right toe-in.

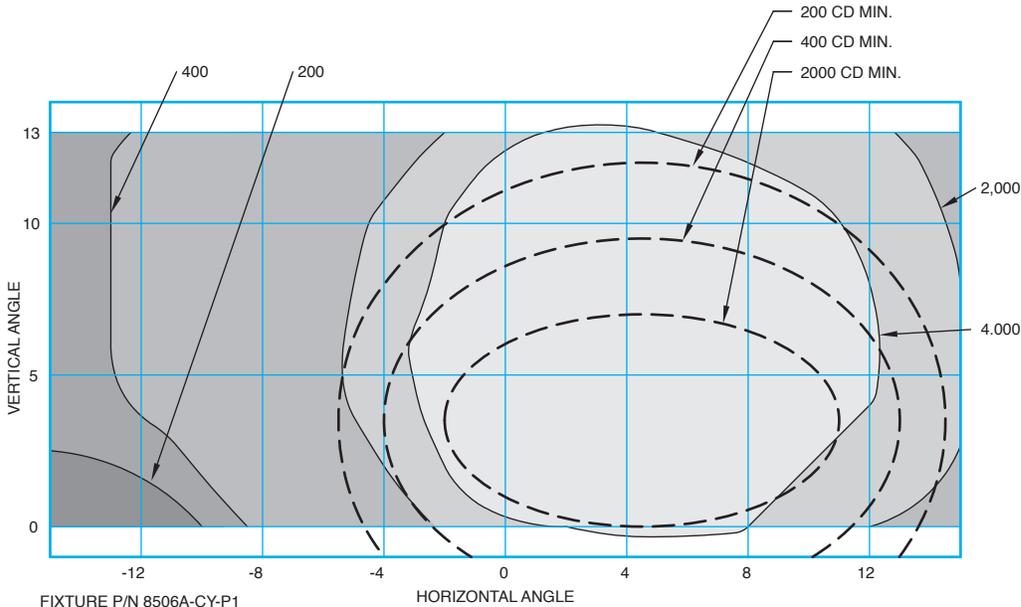


Fixture Type 8506A - 105 Watt MR-16 Lamp
 Function: ICAO Fig. 2.10



FIXTURE P/N 8506A-CY-P1
 ICAO FIGURE 2.10, CLEAR
 MAIN BEAM MINIMUM = 6,298 CD
 MAIN BEAM MAXIMUM = 15,886 CD
 MAIN BEAM AVERAGE = 11,352 CD
 MAX/MIN RATIO: 2.52
 105 WATTS

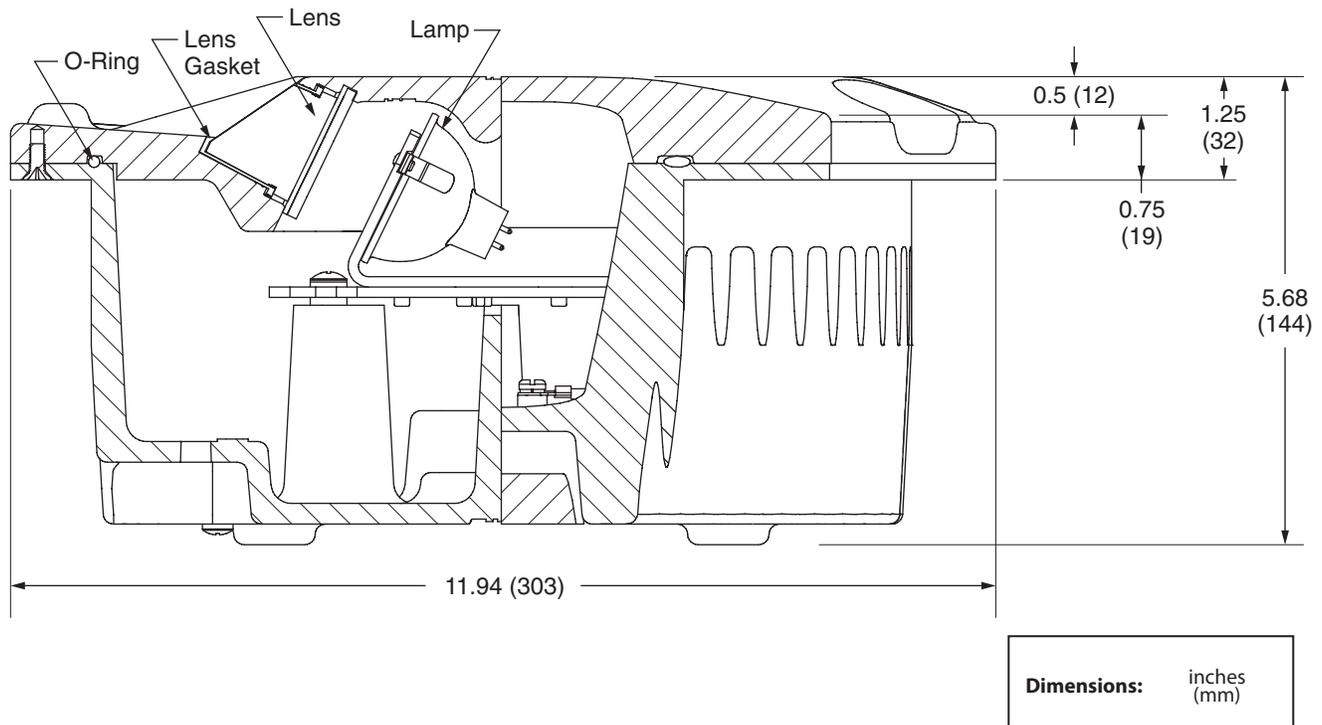
Fixture Type 8506A - 105 Watt MR-16 Lamp
 Function: ICAO Fig. 2.10, yellow



FIXTURE P/N 8506A-CY-P1
 ICAO FIGURE 2.10, YELLOW
 MAIN BEAM MINIMUM = 3,847 CD
 MAIN BEAM MAXIMUM = 8,268 CD
 MAIN BEAM AVERAGE = 6333 CD
 MAX/MIN RATIO: 2.15
 105 WATTS



Outline Drawing



Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep* | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|-------------------------------|--------------|-----------------------|
| 21128 | Lamp – 105 W, 6.6 A | 10035-33-273 | O-Ring – Bottom Cover |
| 21321-C | Lens Replacement Kit – White | | |
| 21321-Y | Lens Replacement Kit – Yellow | | |

* Fixture with total lamp wattage greater than 150W should not be mounted on 12" diameter bases less than 20 inches (500mm) deep. Class II bases are not recommended for this application.

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.

Inset Runway Threshold/End Light



IRTEL

Compliances: FAA AC 150/5345-46: L-850D

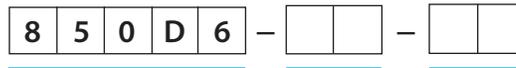
Applications

The IRTEL is a medium intensity bidirectional light (using one 48 W lamp for the green side and one 105 watt lamp for the red side). This fixture is used on runways where the threshold and end lighting are co-located and where it is impractical to use an elevated light.

Features

- ETL Certified 
- Low profile, < .50" (12mm) – FAA Style 2
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 48 W, 6.6 A
Quartz Halogen, 105 W, 6.6 A
- High-strength forged aluminum

Ordering Information



Fixture Type:

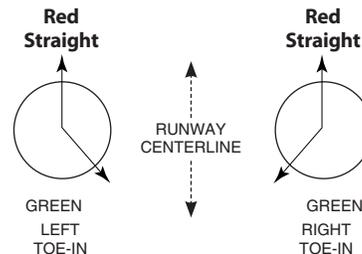
Color*:

- RG = Red/Green
- GR = Green/Red
- GX = Green/Blank
- XG = Blank/Green
- RR = Red/Red

L-823 Plug Connection:

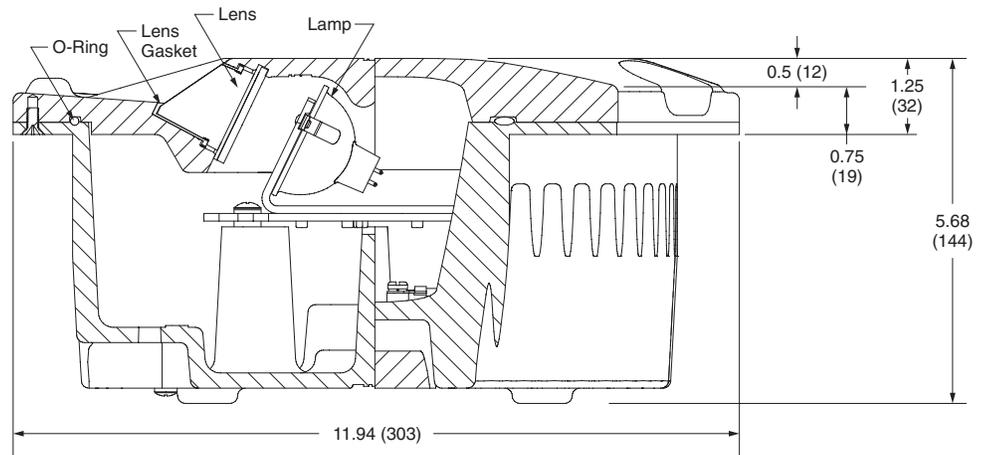
- P1 = One plug
- P2 = Two plugs (Two color units only. Blank is not considered a color.)

* Refer to the color symbol position: the red beam is always straight.
RG means right toe-in of the green beam.
GR means left toe-in of the green beam.
GX means right toe-in of the green beam.
XG means left toe-in of the green beam.

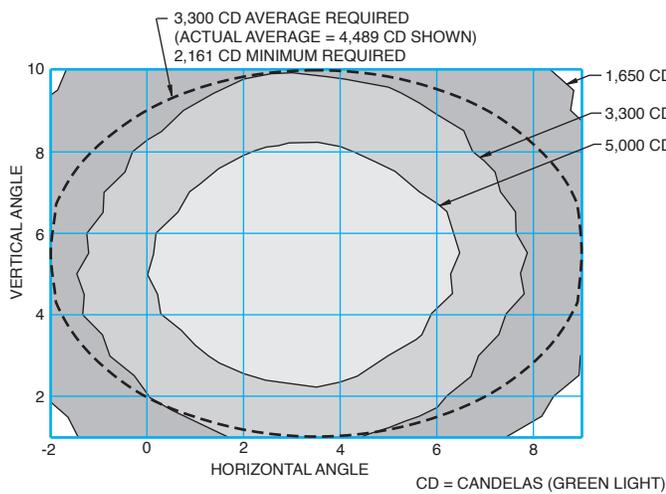


Outline Drawing

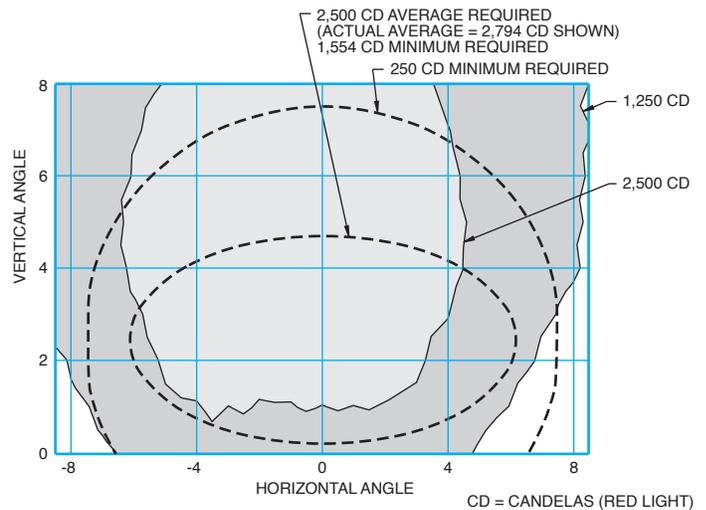
| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2811 |
| Shipping Weight: | 17.0 lbs 7.7 kg |
| Shipping Volume: | 0.6 cu ft 0.04 m ³ |



Typical Photometric Data



L-850D Inset Runway Threshold/End Light – Green



L-850D Inset Runway Threshold/End Light – Red

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep* | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---|--------------|--------------------------------------|
| 21474 | Lamp – 48 W, 6.6 A | 10035-33-273 | O-Ring – Bottom Cover |
| 21128 | Lamp – 105 W, 6.6 A | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21480-G | Lens Replacement Kit – Green ¹ | | |
| 21480-R | Lens Replacement Kit – Red ¹ | | |

* Fixture with total lamp wattage greater than 150 W should not be mounted on 12" diameter base less than 20" deep.
Class II bases are not recommended for this application.

Note:

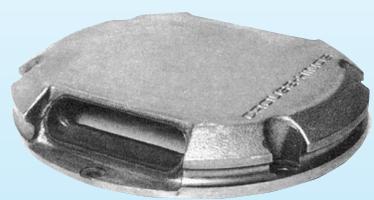
1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



RTEL

Runway Threshold and End Light

Compliances: FAA AC 150/5345-46: L-850D
ICAO Annex 14
UFC 3-535-01



RTEL

Applications

The RTEL is a high intensity bidirectional light used on runways where the threshold and end lighting are co-located. The green threshold light's main beam may be straight or toed-in 3.5 degrees. The red runway end light has a straight beam. The two lamps are typically connected to separate circuits with the red side operated by the runway edge lighting circuit.

Features



- ETL Certified
- FAA Approved L-850D
- Proven reliability
- Variety of mounting methods
- Optional high-strength casting approximately double the tensile strength of ductile iron
- Optional metallic-ceramic coating for increased corrosion resistance

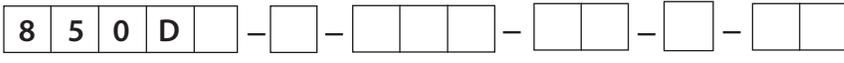
Application Notes

- Sectional Class I bases may be required for proper installation.
- Size B fixtures require that the bases be installed with any two opposite mounting bolt holes parallel to the runway centerline.

Ordering Information

How to Order: Select the number of leads to match the number of isolation transformers to be used. Choose the letter to match the base size to be installed. Add designations for the lamp wattage and colors. The orientation of the color symbols determines the optical beam toe-in.

Example: An 850D2-C-185-RG is a bidirectional threshold and end light with right toe-in on the green beam and a straight red beam. It mounts on a 14.25-inch bolt circle base. This fixture is furnished with two 185 watt lamps. It has two leads for making connections with two 200 watt isolation transformers.



Fixture Type: []

Number of Leads: []
1 or 2 with L-823 plugs

Base Size: [][]
B = 11.25-inch bolt circle
C = 14.25-inch bolt circle

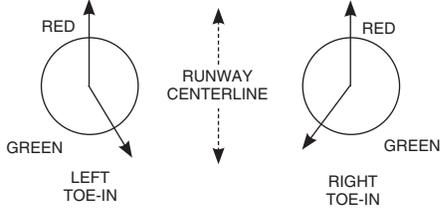
Lamp Wattage: [][]
185 = 2 x 185 W lamps

Color/Color:** [][]
G = Green/Clear
R = Red/Blank

Beam Orientation: [][]
S = Straight beams both sides
No symbol means there is toe-in**

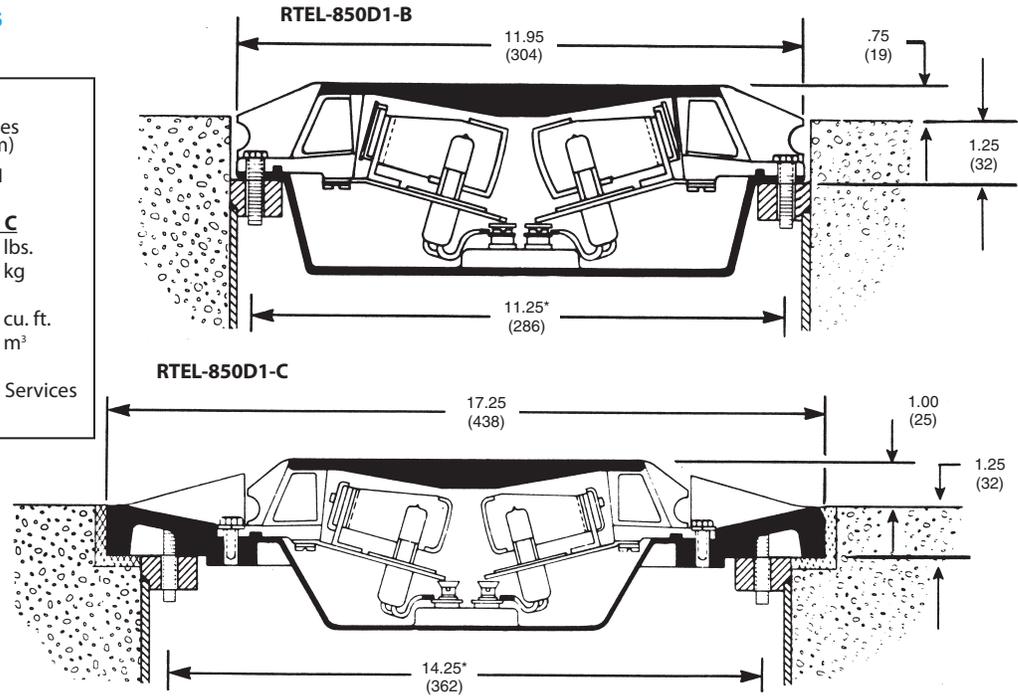
Options: [][]
NM = High-Strength Casting
CR = Corrosion Resistant Coating

** Refer to the color symbol position:
The red beam is always straight.
The first color is left toe-in;
The second color is right toe-in.



Installation Drawings

| | | |
|---|-------------------------------------|-------------------------------------|
| Dimensions: | inches (mm) | |
| Instruction Manual: | 8401 | |
| Shipping Weight: | Size B | Size C |
| | 55.0 lbs. 25.0 kg | 90.0 lbs. 41.0 kg |
| Shipping Volume: | Size B | Size C |
| | 0.75 cu. ft. .021 m ³ | 1.00 cu. ft. 0.32 m ³ |
| Photometric Data: Contact Field Services | | |



* Diameter for six (6) equally spaced bolts.

Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|----------------|
| | | Lbs. | kg | Cu. Ft. | m ³ |
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep | 63.0 | 28.6 | 2.5 | .070 |
| AC35242Q200303 | Base: L-868C, Class I, 24" Deep | 78.0 | 35.4 | 3.0 | .085 |
| 20452-S234 | Base: Shallow, Size B (for one lead RTEL) | 25.0 | 11.3 | 0.8 | .022 |
| 20452-S234A | Base: Shallow, Size B (for two lead RTEL) | 25.0 | 11.3 | 0.8 | .022 |
| 33004 | Transformer L-830-4, 100 W 6.6/6.6 A | 12.0 | 5.4 | 0.4 | .011 |
| 33006 | Transformer L-830-6, 200 W 6.6/6.6 A | 16.0 | 7.3 | 0.4 | .011 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |
| 10047-1425 | Heat Shrink Kit | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|--------------|-------------------------|---------------|---------------------------------|
| 20496 | Lamp 115 W | 20253 | Bottom Cover Assembly (2 Leads) |
| 20538 | Lamp 185 W | 20257 | Bottom Cover Assembly (1 Lead) |
| 20268 | Lamp 200 W | 10047-409 | Film Disc Cutout |
| 20073-Y | Filter Assembly, Yellow | | |
| 20073-BR | Filter Assembly, Red | | |
| 20073-BG | Filter Assembly, Green | | |
| 20148 | Reflector | | |
| 10035-33-274 | O-Ring | | |
| 10035-33-010 | O-Ring | | |
| 21038 | Lead Assembly | | |
| 19095 | Socket | | |
| 19096 | Socket Holder | | |
| | | | FAA Base Size C Only: |
| | | 20261-XXX-XX* | Optical Assembly: 2 Leads |
| | | 20266-XXX-XX* | Optical Assembly: 1 Lead |
| | | 20183 | Mounting Ring |
| | | 10000-365M | Bolt |
| | | 11A11-031D | Lock Washer |
| | | | *Add lamp wattage and colors |





IRTL

Compliances: FAA AC 150/5345-46: L-850E

Applications

The IRTL is a medium intensity unidirectional light (using two 62 W lamps). This fixture is used on runways where the threshold lighting is co-located and where it is impractical to use an elevated light.

Features



- ETL Certified
- Low profile, < .5" (12mm) – FAA Style 2
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 62 W, 6.6 A
- High-strength forged aluminum

Ordering Information

8 5 0 E 6 – G

Fixture Type:

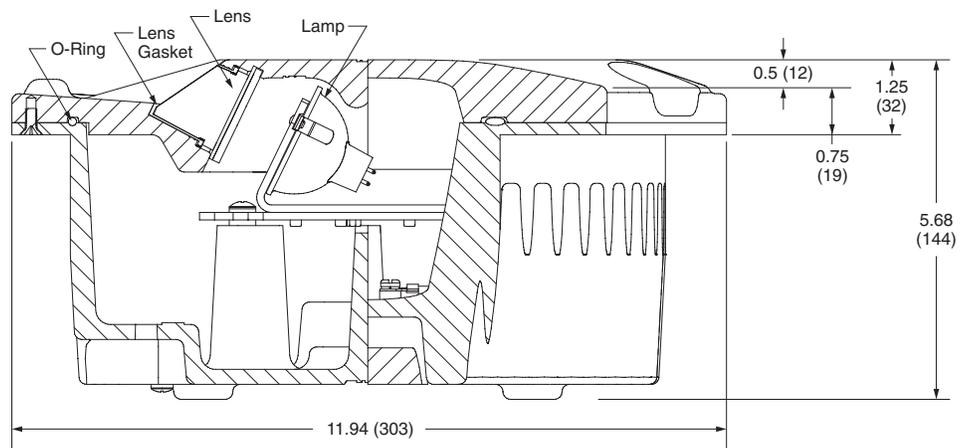
Color:

G = Green (Straight beam)*

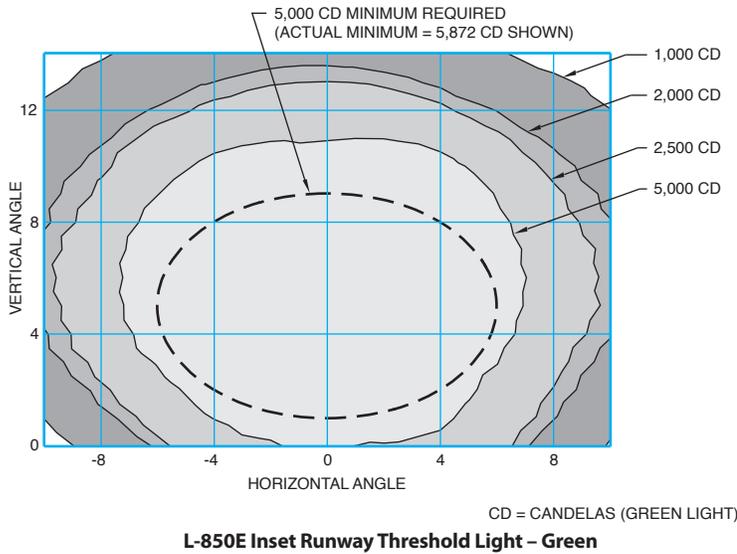
* For fixtures which require toe-in or other color, please consult factory.

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2810 |
| Shipping Weight: | 17.0 lbs. 7.7 kg |
| Shipping Volume: | 0.6 cu. ft. 0.04 m ³ |



Typical Photometric Data



Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 21151 | Adapter Ring – 15" L-868D Base (11.25" bolt circle to 14.25" bolt circle) |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | | |
| 19999 | Lifting Tool | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|--------------|-----------------------|
| 21169 | Lamp – 62 W, 6.6 A | 10035-33-273 | O-Ring – Bottom Cover |
| 21480-G | Lens Replacement Kit – Green | | |

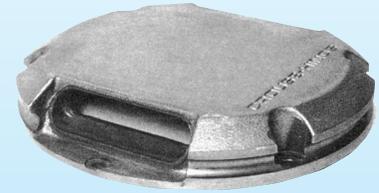
Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



Approach Threshold Light

Compliances: FAA AC 150/5345-46: L-850E
ICAO Annex 14
USAF Regulation 88-14
USN NAVAIR 51-50AAA-2
NATO STANAG 3316



ATL

Applications

The ATL is a high intensity unidirectional inset runway threshold light. This light is typically used as a green threshold light with a 185 watt lamp. The main beam may be straight or toed-in 3.5 degrees toward the runway centerline. The ATL may be used as a red end of runway light and as a red stopbar light.

Features

- Proven reliability
- Variety of mounting methods
- Optional high strength casting approximately double the tensile strength of ductile iron
- Optional metallic-ceramic coating for increased corrosion resistance

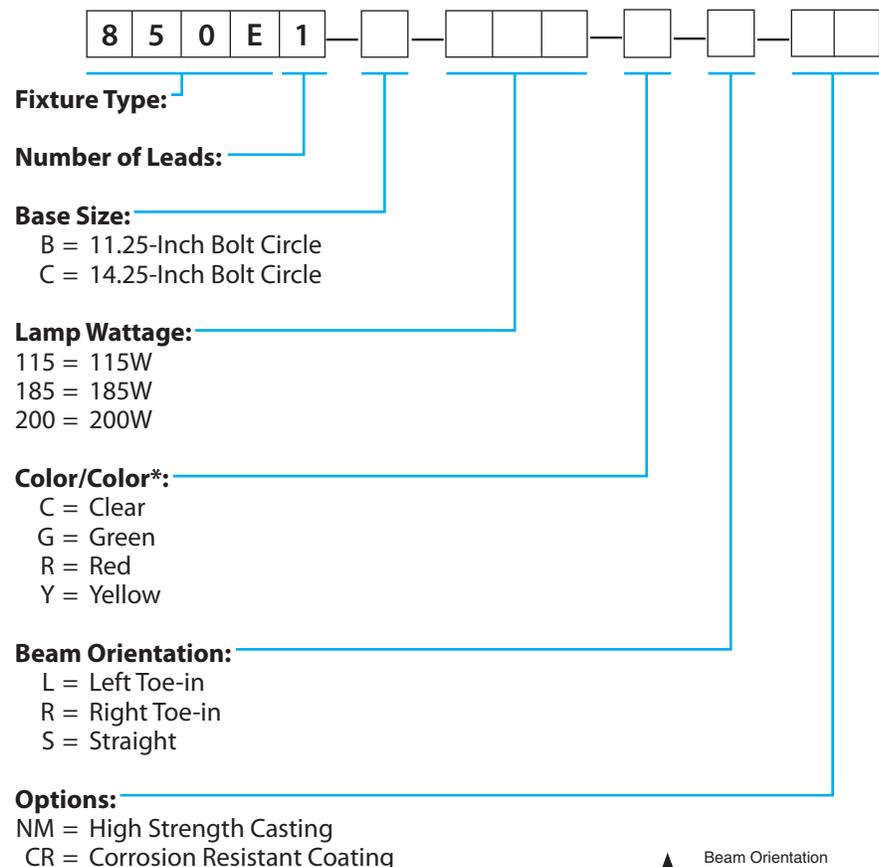
Application Notes

- Sectional Class I bases may be required for proper installation.
- Size C ATL will also mount on a FAA-L867D base for special applications.
- Size B fixtures require that the bases be installed with any two opposite mounting bolt holes parallel to the runway centerline.

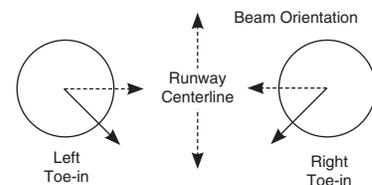
Ordering Information

How to Order: To the basic catalog number, add the letter to match the base size to be installed. Add designations for the lamp wattage and color. Complete the catalog number with a symbol to determine the optical beam toe-in.

Example: An 850E1-B-185-G-L is a unidirectional threshold light with left beam toe-in using a 185 watt lamp. It mounts on an 11.25-inch bolt circle base. There is one lead to plug into a 200 watt isolation transformer.



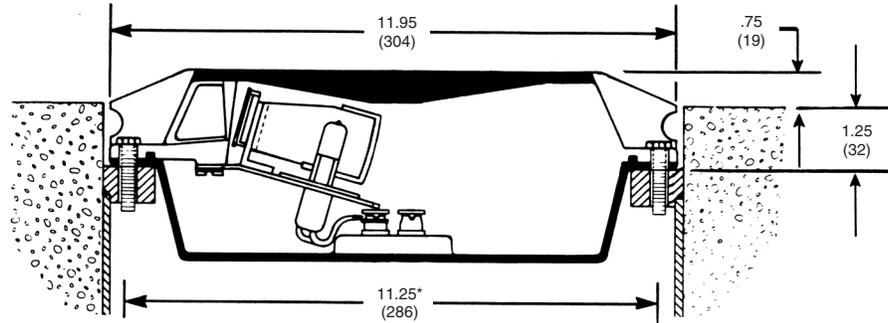
* Use 115 watts for VFR approaches only. Use 185 watts for all red lights and precision approaches.



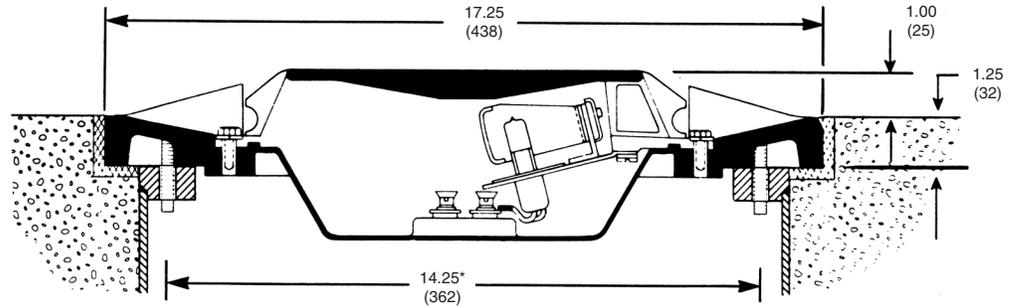
Installation Drawings

| | | |
|----------------------------|-------------------------|---------------------------|
| Dimensions: | inches (mm) | |
| Instruction Manual: | 8401 | |
| | Size B | Size C |
| Shipping Weight: | 55.0 lbs. 25.0 kg | 90.0 lbs. 41.0 kg |
| Shipping Volume: | 0.75 cu.ft. .021 cu. | 1.00 cu.ft. .032 cu.m. |
| Photometric Data: | Contact Field Services | |

ATL-850E1-B



ATL-850E1-C



* Diameter for six (6) equally spaced bolts.

Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|-------|
| | | Lbs. | Kg | Cu.Ft. | Cu.M. |
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep | 63.0 | 28.6 | 2.5 | .070 |
| AC35242Q200303 | Base: L-868C, Class I, 24" Deep | 78.0 | 35.4 | 3.0 | .085 |
| AC63242Q200303 | Base: L-867D, Class I, 24" Deep | 67.0 | 30.4 | 4.3 | .122 |
| 20452-S234 | Base: Shallow, Size B | 25.0 | 11.3 | 0.8 | .022 |
| 33004 | Transformer L-830-4, 100W 6.6/6.6A | 12.0 | 5.4 | 0.4 | .011 |
| 33006 | Transformer L-830-6, 200W 6.6/6.6A | 16.0 | 7.3 | 0.4 | .011 |
| 33200 | Transformer 200W 240V/30V for FAA MALS | 16.0 | 7.3 | 0.4 | .011 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to 43" O.D. | | | | |
| 10047-1425 | Heat Shrink Kit | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|--------------|----------------------------------|----------------|-----------------------|
| 20496 | Lamp 115W | 19095-1 | Socket |
| 20538 | Lamp 185W | 19096 | Socket Holder |
| 20268 | Lamp 200W | 20462-2 | Bottom Cover Assembly |
| 20073-Y | Filter Assembly — Yellow | 10047-409 | Film Disc Cutout |
| 20073-R | Filter Assembly — Red DICHROIC | | |
| 20073-G | Filter Assembly — Green DICHROIC | | |
| 20148 | Reflector | | |
| 10035-33-274 | O-Ring | 20483-XXX-X-X* | Optical Assembly |
| 10035-33-010 | O-Ring | 20481 | Mounting ring |
| 21038 | Lead Assembly | | |

FAA Base Size C Only:

*Add lamp wattage, color, and beam orientation



PRO III™ LHS




LHS

Compliances: FAA AC 150/5345-46: L-850F

Applications

The LHS is a high intensity unidirectional light that uses two 48 watt lamps, one lamp as primary and one as back-up. This fixture is used as part of the Land and Hold Short system (LAHSO). The system consists of six L-850F lights, a power and control unit (PCU), and a tower control panel.

Features



- ETL Certified
- Low profile, < .25" (6mm) – FAA Style 3
- Redundant lamp unit with automatic switch over to back-up lamp
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long Lamp Life – Quartz Halogen, 48 W, 6.6 A
- High-strength forged aluminum

Ordering Information



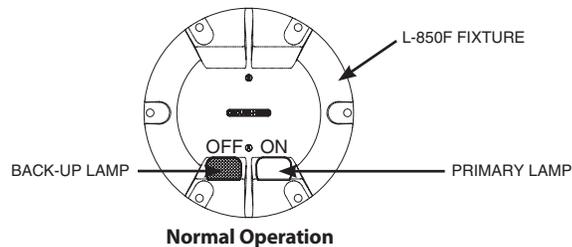
Fixture Type:

L-823 Plug Connection:

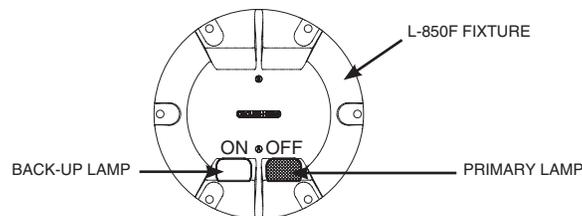
*P1 = One plug

**P2 = Two plugs

- * Unit is furnished with one plug, two lamps and film disc cutout for automatic switching to back-up lamp upon failure of primary lamp.
- ** Unit is furnished with two plugs and two lamps. Each lamp is powered by a different circuit (only one circuit energized at a time).



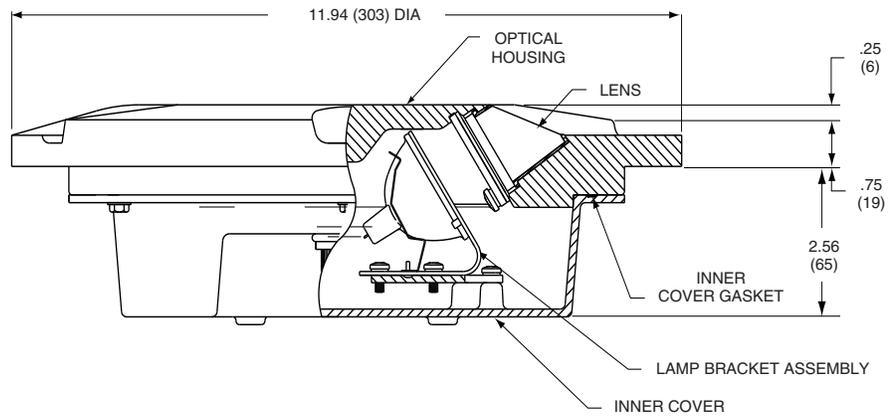
Normal Operation



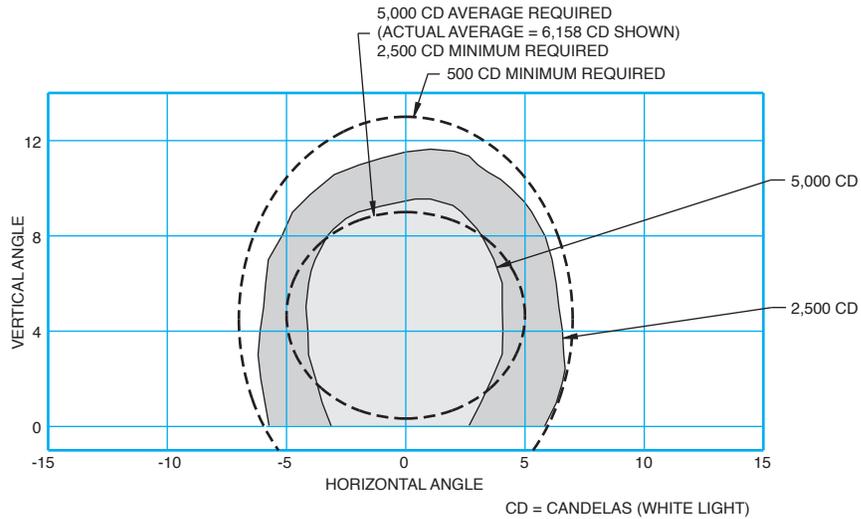
Back-up Operation

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9929 |
| Shipping Weight: | 16.0 lbs. 7.3 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |



Typical Photometric Data



L-850F Land and Hold Short Light

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33002 | Isolation Transformer – 45 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 21238 | Shallow Base – Aluminum | 19999 | Lifting Tool |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-------------|---|
| 21116 | Lamp – 48 W, 6.6 A | 21140 | Gasket – Bottom Cover |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 10047-409 | Film Disc Cutout | 10048-25 | Gasket Lubricant – 5.3 oz Container |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ TCL




TCL

Compliances: FAA AC 150/5345-46: L-852 A, B and C
UFC 3-535-01

Applications

The TCL is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The TCL is often a bidirectional light (using two 32 W lamps), but it also may be a unidirectional light (using one 32 watt lamp) on certain taxiways, such as high speed turnoffs.

Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for snow plow protection
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 32 W, L-852

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9927 |
| Shipping Weight: | 23.0 lbs. 10.4 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

Ordering Information



Fixture Type:

- A = L-852A (Narrow, Cat. II)
- B = L-852B (Wide, Cat. II)
- C = L-852C (Narrow, Cat. III)

Color Filters:

- GX = Green/Blank
- YY = Yellow/Yellow
- YX = Yellow/Blank
- GY = Green/Yellow
- GG = Green/Green

Fixture Diameter:

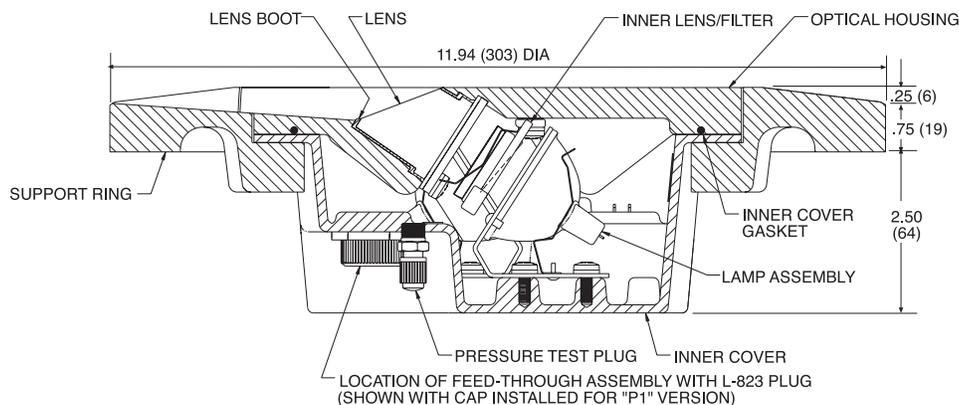
- 12F = Optical assembly with 12" FAA support ring
- NSR = Optical assembly without support ring

L-823 Plug Connection:

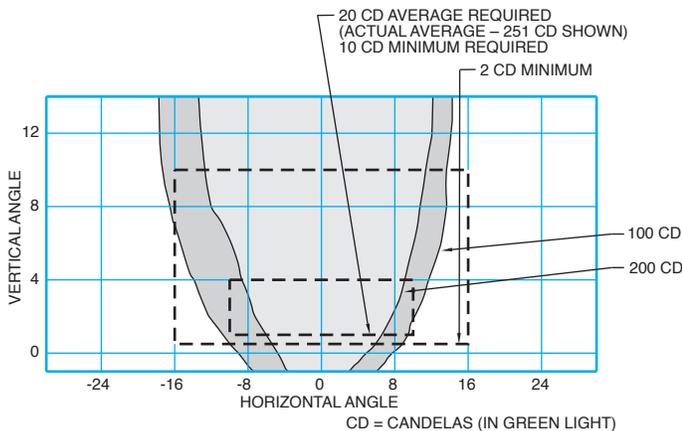
- P1 = One plug (Blank color units will have a threaded cap installed.)
- P2 = Two plugs (Two color units only. Note: For this feature only, blank is not considered a color.)

Options:

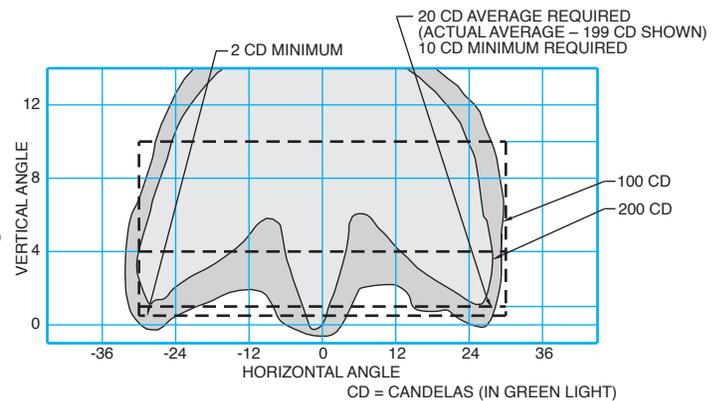
- G = External gasket between optical assembly and support ring (Note: Optical assemblies with external gasket will only fit support rings marked "G" on top surface.)



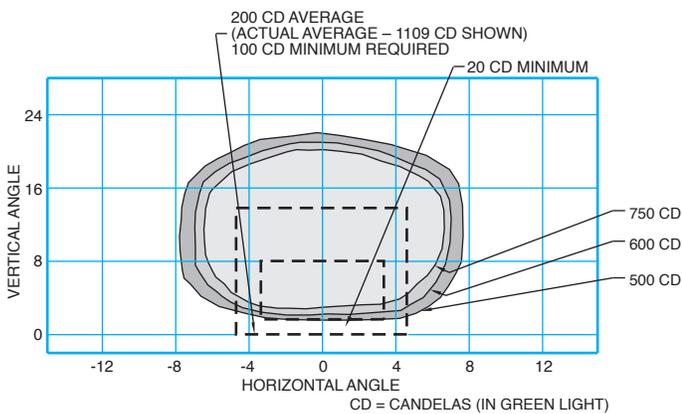
Typical Photometric Data



FAA L-852A Narrow (Straight Section), CAT II



FAA L-852B Wide (Curved Section), CAT II



FAA L-852C Narrow (Straight Section), CAT III

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33002 | Isolation Transformer – 45 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33003 | Isolation Transformer – 65 W, 6.6/6.6 A | 19999 | Lifting Tool (for outer ring) |

* Sectional bases may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-----------------|---|
| 21127 | Lamp – 32 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21116 | Lamp – 48 W, 6.6 A | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit – Clear | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21438-G | Filter – Green, L852A | 852X3-XX-NSR-XX | Spare Optical Assembly |
| 21438-Y | Filter – Yellow, L852A | 21180 | External support ring gasket |
| 21436-G | Filter – Green, L852B | 21508 | Ductile Iron Mounting Ring |
| 21436-Y | Filter – Yellow, L852B | | |
| 21133-G | Filter – Green, L852C | | |
| 21133-Y | Filter – Yellow, L852C | | |
| 21124* | Gasket – Bottom Cover | | |
| 10035-62* | O-Ring – Bottom Cover | | |

* See instruction manual (9927).

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ TCL 6



TCL

Taxiway Centerline Light

Compliances: FAA AC 150/5345-46: L-852 D
UFC 3-535-01

Applications

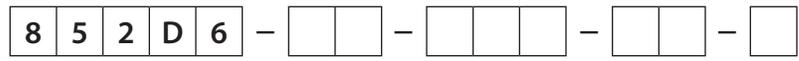
The TCL is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The TCL is often a bidirectional light (using two 32 W lamps), but it also may be a unidirectional light (using one 32 watt lamp) on certain taxiways, such as high speed turnoffs.

Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for snow plow protection
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 32 W

Ordering Information



Fixture Type:
D = L-852D (Wide, Cat. III)

Color Filters:
GX = Green/Blank YY = Yellow/Yellow
YX = Yellow/Blank GY = Green/Yellow
GG = Green/Green

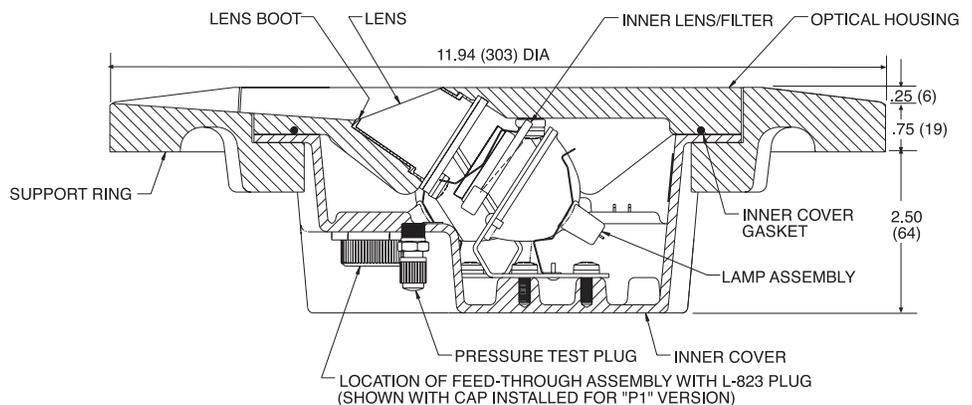
Fixture Diameter:
12F = Optical assembly with 12" FAA support ring
NSR = Optical assembly without support ring
(See note 2; next page)

L-823 Plug Connection:
P1 = One plug (Blank color units will have a threaded cap installed.)
P2 = Two plugs (Two color units only. Note: For this feature only, blank is not considered a color.)

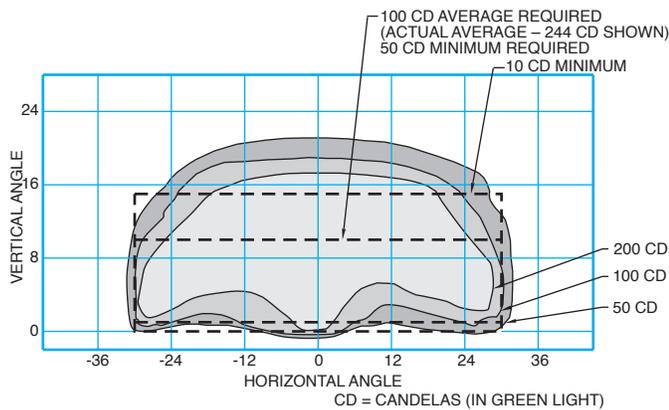
Options:
G = External gasket between optical assembly and support ring
(Note: Optical assemblies with external gasket will only fit support rings marked "G" on top surface.)

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2803 |
| Shipping Weight: | 23.0 lbs. 10.4 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |



Typical Photometric Data



FAA L-852D , Wide (Curved Section), CAT III

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33002 | Isolation Transformer – 45 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33003 | Isolation Transformer – 65 W, 6.6/6.6 A | 19999 | Lifting Tool (for outer ring) |

* Sectional bases may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-----------------|---|
| 21127 | Lamp – 32 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit – Clear | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21130-G | Filter – Green (wide) | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21130-Y | Filter – Yellow (wide) | 852X6-XX-NSR-XX | Spare Optical Assembly |
| 21124* | Gasket – Bottom Cover | 21180 | External support ring gasket |
| 10035-62* | O-Ring – Bottom Cover | 21132 | Fresnel gasket |

* See instruction manual (2803).

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.
2. 852D6 fixtures and rings are not compatible with 852D3 fixtures and rings.





Taxiway Centerline Light-LED

Compliances: FAA AC 150/5345-46
FAA Engineering Brief 67
UFC 3-535-01



TCL LED 8"
8" with 12" Ring

Applications

The TCL LED 8" is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The TCL LED 8" is often a bidirectional light, but it also may be a unidirectional light on certain taxiways, such as high speed turnoffs.

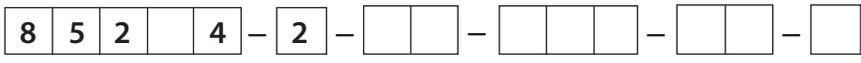
Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for snow plow protection
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long life LED
- Direct Replacement on existing circuit
- Less than 20VA at highest step for a bidirectional fixture.
- Complies with intensity curve requirements for a 3 step circuit

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2609 |
| Shipping Weight: | 23.0 lbs. 10.4 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

Ordering Information



Fixture Type:

- C = L-852C (Narrow, CAT III)
- D = L-852D (Wide, CAT III)

Color Filters:

- GX = Green/Blank
- YY = Yellow/Yellow
- YX = Yellow/Blank
- GY = Green/Yellow
- GG = Green/Green

Fixture Diameter:

- 12F = Optical assembly with 12" FAA support ring
- NSR = Optical assembly without support ring

L-823 Plug Connection:

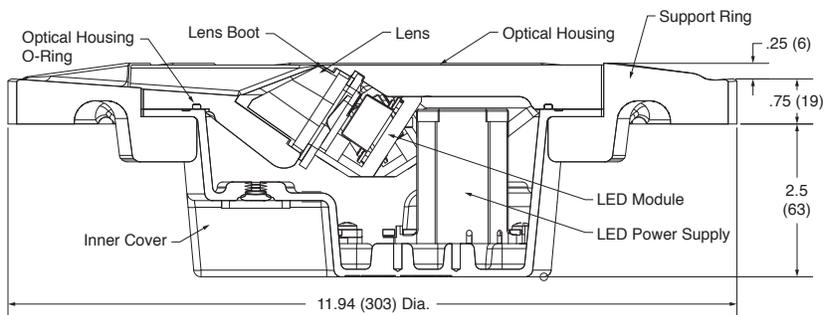
- P1 = One plug
- P2 = Two plugs (For bidirectional units only)

Options:

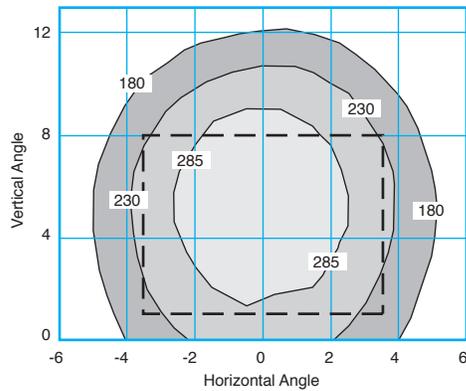
- 1 = Arctic Kit
- G = External gasket between optical assembly and support ring
(Note: Optical assemblies with external gasket will only fit support rings marked "G" on top surface.)

Note: Blank unit optical housing supplied with (1) lens opening only.
60 Hz Operation Only.

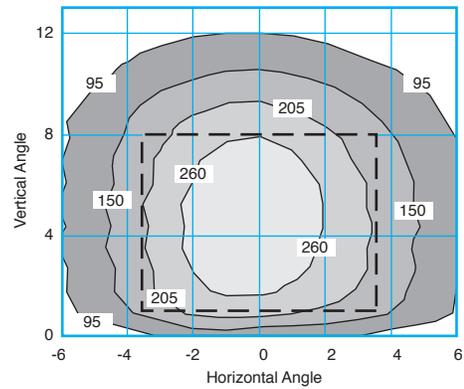
Outline Drawing



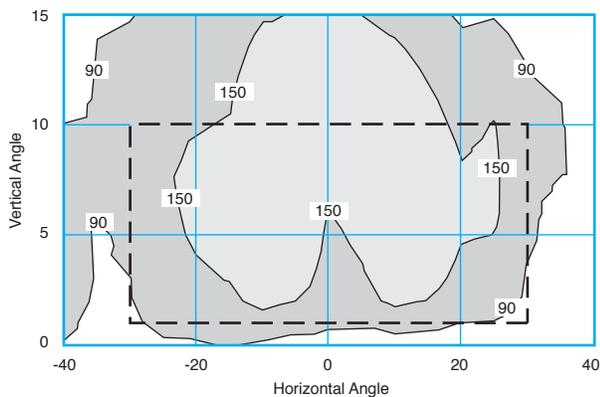
Typical Photometric Data:



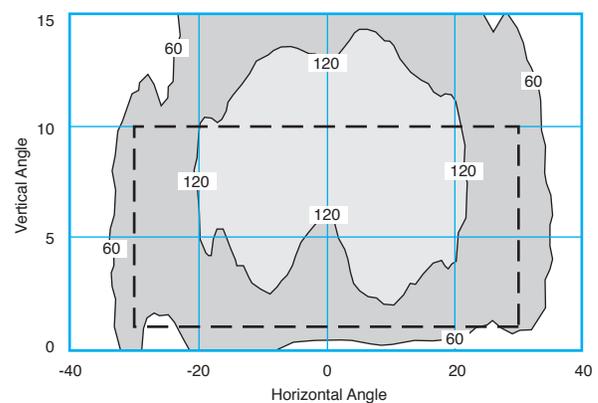
L-852C LED Green ISO Candela Plot / CD Avg: 251.65 / Max/Min: 2.32



L-852D LED Yellow ISO Candela Plot / CD Avg: 115.77 / Max/Min: 3.25



L-852D LED Green ISO Candela Plot / CD Avg: 136.84 / Max/Min: 3.21



L-852D LED Yellow ISO Candela Plot / CD Avg: 115.77 / Max/Min: 3.25

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 30/45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33003 | Isolation Transformer – 65 W, 6.6/6.6 A | 19999 | Lifting Tool (for outer ring) |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | | |

* Two-Piece can may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-------------|---|
| 21126-C | Lens Replacement Kit, L-852C | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21366 | Lens Replacement Kit, L-852D | 10035-62 | O-ring |
| 21317 | LED Module, L-852D, Green | 21508 | Ductile Iron Mounting Ring |
| 21318 | LED Module, L-852D, Yellow | | |
| 21354 | LED Module, L-852C, Green | | |
| 21355 | LED Module, L-852C, Yellow | | |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ TCL1

Taxiway Centerline Light - Single Lamp



TCL1

Compliances: FAA AC 150/5345-46: L-852 A, and C
ICAO Annex 14: Fig. A2-13 & A2-15
UFC 3-535-01

Applications

The TCL1 is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The TCL1 is a single 45W lamp fixture that supplies the same performance as our standard Pro III™ Fixture. It is not available with a blank side (i.e. GX or YX)

Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for snow plow protection
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2410 |
| Shipping Weight: | 21.0 lbs. 9.5 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

Ordering Information



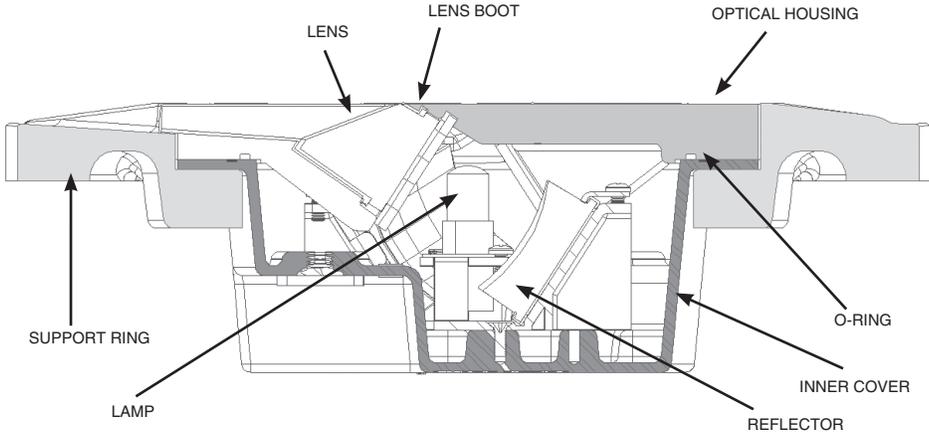
Fixture Type:
A = L-852A (Narrow, Cat. II)
C = L-852C (Narrow, Cat. III)

Color Filters:
YY = Yellow/Yellow
GY = Green/Yellow
GG = Green/Green

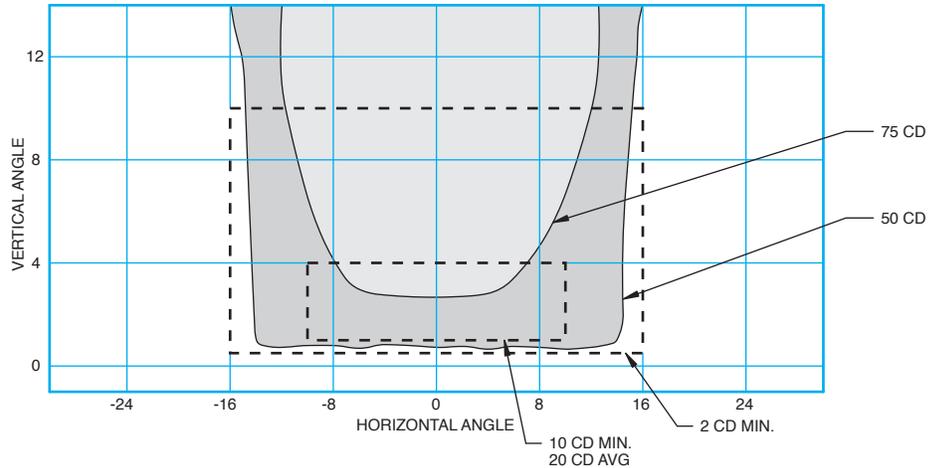
Fixture Diameter:
12F = Optical assembly with 12" FAA support ring
NSR = Optical assembly without support ring

L-823 Plug Connection:
P1 = One plug (Blank color units will have a threaded cap installed.)

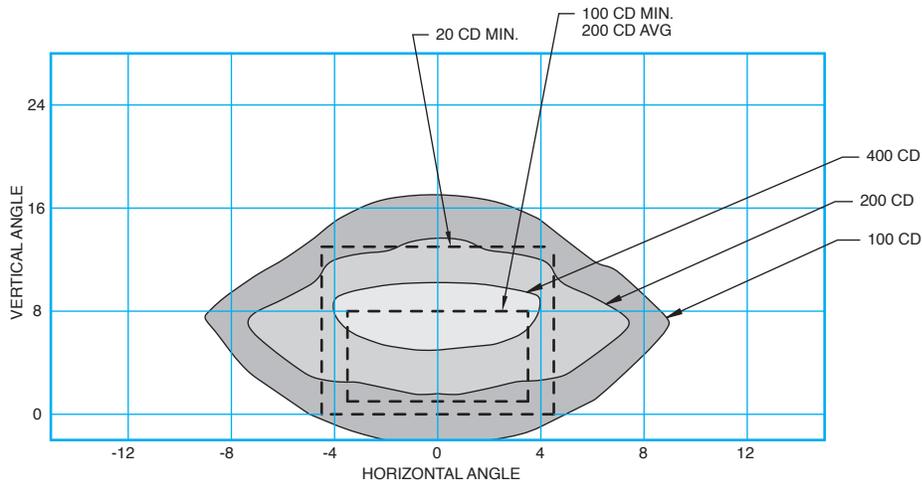
Option:
G = External gasket between optical assembly and support ring
(Note: Optical assemblies with external gasket will only fit support rings marked "G" on top surface.)



Typical Photometric Data



FAA L-852A Narrow (Straight Section), CAT II



FAA L-852C Narrow, (Straight Section), CAT III

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| | | 10047-1425 | Heat Shrink Kit – 2 Piece |
| | | 19999 | Lifting Tool (for outer ring) |

* Sectional bases may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|-------------------------------|-----------------|---|
| 21126-G | Lens Replacement Kit – Green | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21126-Y | Lens Replacement Kit – Yellow | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21508 | Ductile Iron Mounting Ring | 852X3-XX-NSR-XX | Spare Optical Assembly |
| | | 10035-62 | O-Ring |
| | | 10047-2888 | 45W Lamp, 6.6A |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ FTCL



Taxiway Centerline Light

Compliances: FAA AC 150/5345-46: L-852 A, B, C and D
UFC 3-535-01



FTCL

Applications

The FTCL is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The FTCL is often a bidirectional light (using two 32 W lamps), but it also may be a unidirectional light (using one 32 watt lamp) on certain taxiways, such as high speed turnoffs.

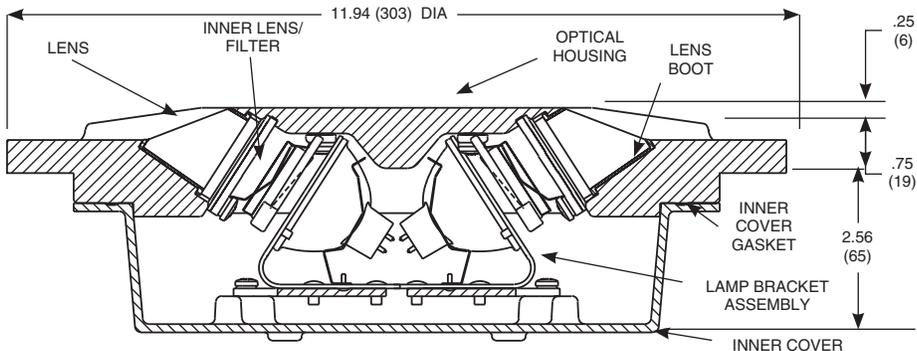
Features



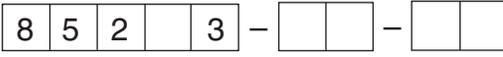
- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 32 W, L-852 A-D

Outline Drawing

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 16.0 lbs. 7.3 kg |
| Instruction Manual: | 2215 |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |



Ordering Information



Fixture Type:

- A = L-852A (Narrow, Cat. II)
- B = L-852B (Wide, Cat. II)
- C = L-852C (Narrow, Cat. III)
- D = L-852D (Wide, Cat. III)

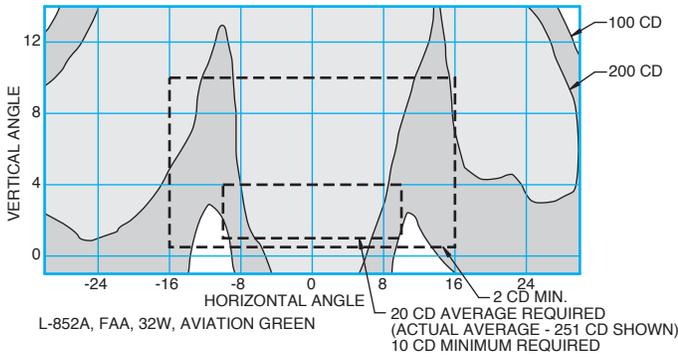
Color Filters:

- GX = Green/Blank
- YY = Yellow/Yellow
- YX = Yellow/Blank
- GY = Green/Yellow
- GG = Green/Green

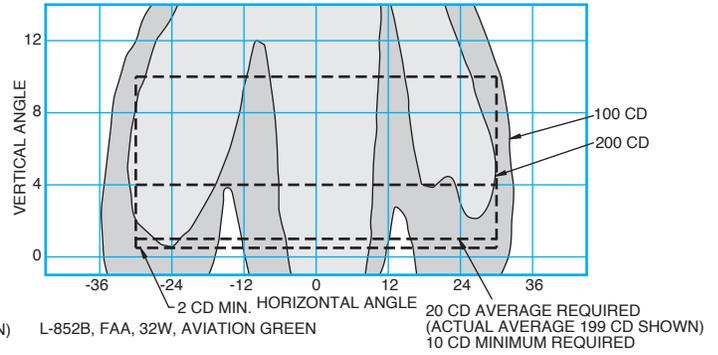
L-823 Plug Connection:

- P1 = One plug (Blank color units will have a threaded cap installed.)
- P2 = Two plugs (Two color units only. Note: For this feature only, blank is not considered a color.)

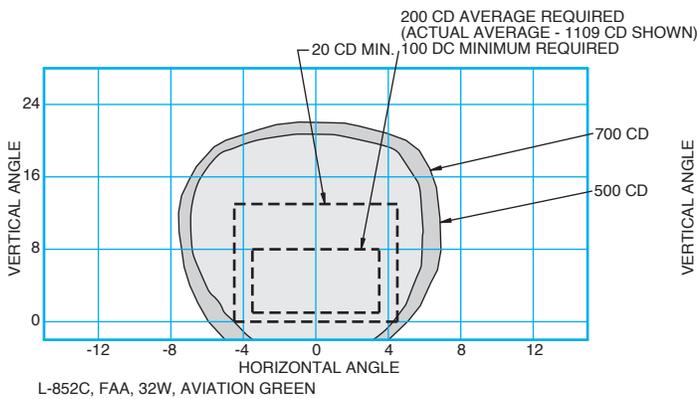
Typical Photometric Data



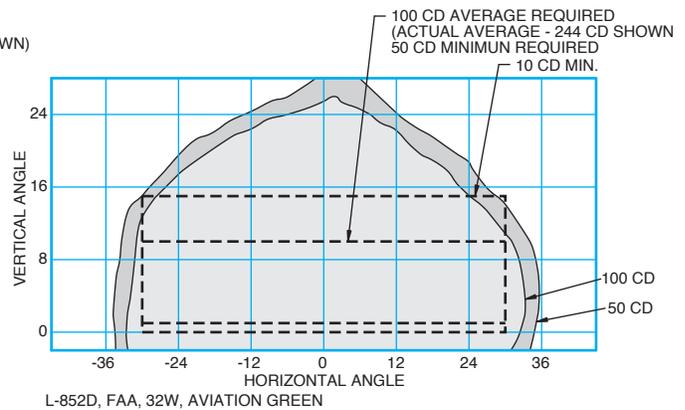
FAA L-852A Narrow (Straight Section), CAT II



FAA L-852B Wide (Curved Section), CAT II



FAA L-852C Narrow (Straight Section), CAT III



FAA L-852D Wide (Curved Section), CAT III

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit - L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer - 30/45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit - 1 Piece |
| 33002 | Isolation Transformer - 30/45 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit - 2 Piece |
| 33003 | Isolation Transformer - 65 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33004 | Isolation Transformer - 100 W, 6.6/6.6A | | |
| 33005 | Isolation Transformer - 100 W, 20/6.6A | | |

* Sectional bases may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---------------------------------|-------------|---|
| 21127 | Lamp - 32 W, 6.6 A | 21121 | Feed-through Assembly - 2 Lamp, 1 Connector |
| 21126-C | Lens Replacement Kit - Clear | 21122 | Feed-through Assembly - 1 Lamp, 1 Connector |
| 21140 | Gasket - Bottom Cover | 10048-25 | Gasket Lubricant - 5.3 oz Container |
| 21436-G | Filter Assembly, Green, L-852B | 21132 | Fresnel gasket |
| 21436-Y | Filter Assembly, Yellow, L-852B | | |
| 21438-G | Filter Assembly, Green, L-852A | | |
| 21438-Y | Filter Assembly, Yellow, L-852A | | |
| 21133-G | Filter-Green, L852C | | |
| 21133-Y | Filter-Yellow, L852C | | |
| L21130-G | Filter-Green, L852D | | |
| L21130-Y | Filter-Yellow, L852D | | |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ FTCLI




Taxiway Centerline Light - ICAO

Compliances: ICAO Annex 14: Fig. A2-12 through A2-16

FTCLI

Applications

The FTCLI is a taxiway centerline light that is used primarily as a ground traffic aid during periods of low visibility to guide aircraft between the runway and the parking stand. The FTCLI is often a bidirectional light (using two MR-16 lamps), it may also be a unidirectional light (using one MR-16 lamp).

Features

- Low profile, < .25" (6 mm) – above grade
- High-strength forged aluminum
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long life Quartz Halogen lamp

Ordering Information



Fixture Type:

- C2 = Curved Sections, CAT II, Fig. 2.16
- C3 = Curved Sections, CAT III, Fig. 2.14
- N3 = Narrow Beam, CAT III, Fig. 2.13
- W2 = Wide Beam, CAT II, Fig. 2.15
- W3 = Wide Beam, CAT III, Fig. 2.12

Color Filters*:

- XG = Blank/Green
- GX = Green/Blank
- XY = Blank/Yellow
- YX = Yellow/Blank
- GG = Green/Green
- YY = Yellow/Yellow
- GY = Green/Yellow
- YG = Yellow/Green
- XR = Blank/Red
- RX = Red/Blank

L-823 Plug Connection:

- P1 = One plug (Blank color units will have a threaded cap installed.)
- P2 = Two plugs (Two color units only. Note: For this feature only, blank is not considered a color.)

Option:

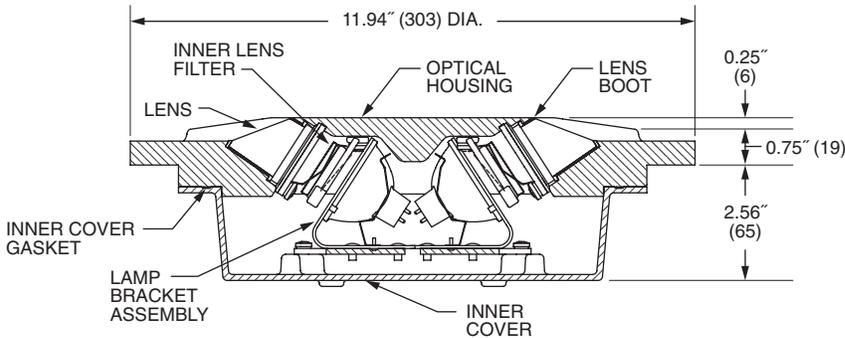
- 1 = 48 watt lamp

* For fixture types C2 & C3, refer to color designation: The first color is left toe-in; second color is right toe-in.

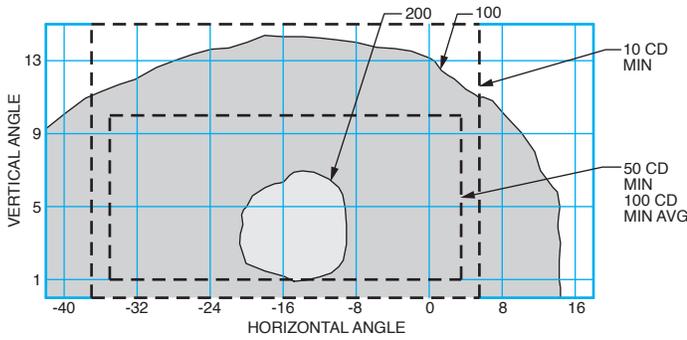
| Fixture Type | Color | Lamp Wattage |
|--------------|-------|--------------|
| C2, W2 | G,Y,R | 32W |
| W3, N3 | G,Y | 32W |
| N3 | R | 62W |
| C3 | G,Y | 32W |
| C3, W3 | R | 105W |

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 16.0 lbs. 7.3 kg |
| Instruction Manual: | 2108 |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

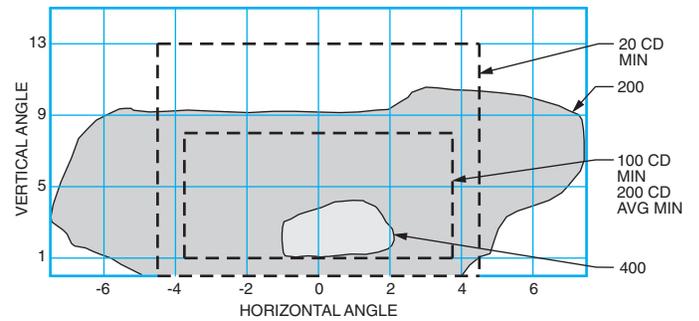
Outline Drawing



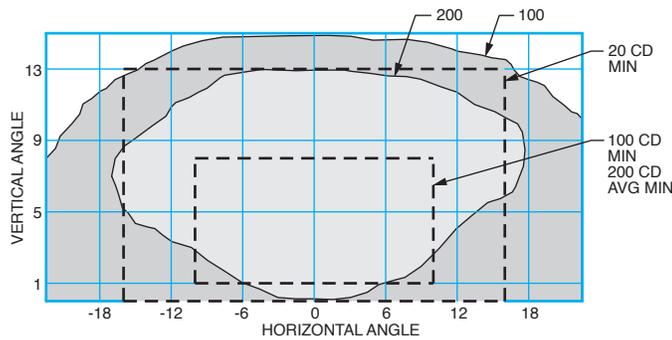
Typical Photometric Data



ICAO Fig. 2.14, Curved Sections, CAT III / CD Avg: 165 / Max/Min: 2.5



ICAO Fig. 2.13, Narrow Beam, CAT III / CDAvg: 353 / Max/Min: 1.7



ICAO Figure 2.12, Wide Beam, CAT III / CD Avg: 245 / Max/Min: 1.7

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242H200303 | Base: L-868B, Class I*, 24" Deep | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33001 | Isolation Transformer – 30/45 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33002 | Isolation Transformer – 30/45 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33003 | Isolation Transformer – 65 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33004 | Isolation Transformer - 100 W, 6.6/6.6A | | |
| 33005 | Isolation Transformer - 100 W, 20/6.6A | | |

* Sectional bases may be required depending upon the paving technique

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--------------------------------------|-------------|---|
| 21127 | Lamp – 32 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21116 | Lamp – 48 W, 6.6 A | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21169 | Lamp - 62 W, 6.6 A | 21179-G | Fresnel - Green |
| 21128 | Lamp - 105 W, 6.6 A | 21179-Y | Fresnel - Yellow |
| 21126-C | Lens Replacement Kit - Clear | 21179-R | Fresnel - Red |
| 21140 | Gasket - Bottom Cover | 21228-G | Fresnel with baffle - Green (N3) |
| 10048-25 | Gasket Lubricant - 5.3 oz. container | 21228-Y | Fresnel with baffle - Yellow (N3) |
| | | 21228-R | Fresnel with baffle - Red (N3) |
| | | 21132 | Fresnel gasket |

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ IRGL/ISBL



Inset Stop Bar and Runway Guard Lights

IRGL / ISBL

Compliances: FAA AC 150/5345-46: L-852 G and S

Applications

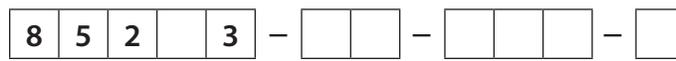
The IRGL and ISBL fixtures are used for runway incursion protection and traffic control on taxiways just before active runways. They are required for SMGCS operations during low visibility conditions as defined in FAA AC 150/5340-30 and AC 120-57A. These unidirectional lights are designed for use in all weather conditions with any kind of control system including the Digitrac® Control and Monitoring System.

Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- Unique combination of high-strength aluminum optical assembly and ductile iron outer ring for snow plow protection
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 105 W
- Control and Monitoring – Fixture can be supplied with a Crouse-Hinds Logitrac for individual lamp control and monitoring as required for flashing guard light operation or stop bar control. Contact Crouse-Hinds for more info

Ordering Information



Fixture Type:

- G = L-852G, Runway guard light
- S = L-852S, Stop bar light

Color Filters:

- Y = Yellow (L-852G only)
- R = Red (L-852S only)
- YX = Yellow/Blank*
- RX = Red/Blank*

Fixture Diameter:

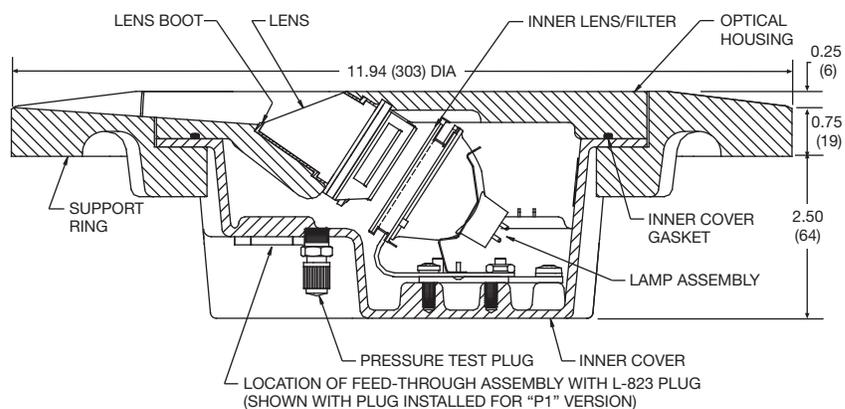
- 12F = Optical assembly with 12" FAA support ring
- NSR = Optical assembly without support ring

Option:

- G = External gasket between optical assembly and support ring
(Note: Optical assemblies with external gasket will only fit support rings marked "G" on top surface.)

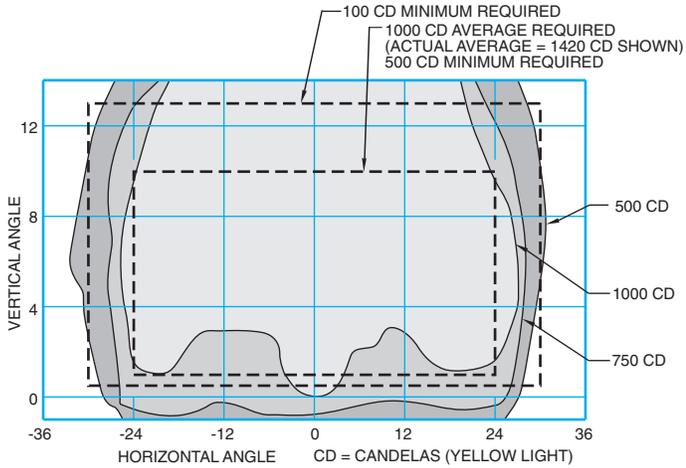
* Blank color units will have a threaded plug installed (blank is not considered a color).

Outline Drawing

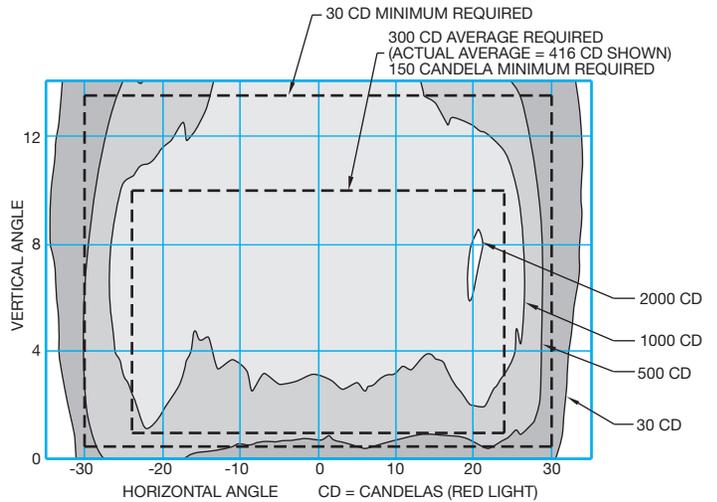


| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9927 |
| Shipping Weight: | 23.0 lbs. 10.4 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

Typical Photometric Data



L-852G Runway Guard Light



L-852S Stop Bar Light

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|-------------------------------|
| AC24242Q200303 | Base L-868B, Class I*, 24" Deep | 19999 | Lifting Tool (for outer ring) |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | T6540-02-01-00 | Logitrac Device, L852s |
| 33005 | Isolation Transformer – 100 W, 20A/6.6 A | T6540-01-01-00 | Logitrac Device, L852g |
| 823KP-D4 -D4 | Connector Kit – L-823, 8AWG, .32" to .43" O.D. | | |
| 10047-2154 | Heat Shrink Kit – 1 piece | | |
| 10047-1425 | Heat Shrink Kit – 2 piece | | |

* Sectional bases may be required depending upon the paving technique.

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|-------------------------|-------------|---|
| 21128 | Lamp – 105 W, 6.6 A | 21121 | Feed-through Assembly – 2 Lamp, 1 Connector |
| 21126-AR | Lens Replacement Kit | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21130-TY | Fresnel Filter – Yellow | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21130-TR | Fresnel Filter – Red | 852X3-X-NSR | Spare Optical Assembly |
| 21124* | Gasket – Bottom Cover | 21180 | External support ring gasket |
| 10035-62* | O-Ring – Bottom Cover | 21508 | Ductile Iron Mounting Ring |
| 21491 | Fresnel Filter – Clear | 21132 | Fresnel gasket |
| 21490 | Filter – Red | | |
| 21488 | Bracket – Red Filter | | |
| 21487 | Bracket – Clear Fresnel | | |

* See instruction manual.

Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



PRO III™ SBGL



Inset Stop Bar / Runway Guard Light



SBGL

Compliances: FAA AC 150/5345-46: L-852 G and L-852S

Applications

The SBGL fixtures are used for runway incursion protection and traffic control on taxiways just before active runways. They are required for SMGCS operations during low visibility conditions as defined in FAA AC 150/5340-30 and AC 120-57A. This unidirectional light is designed for use in all weather conditions with any kind of control system including the Digitrac® Control and Monitoring System.

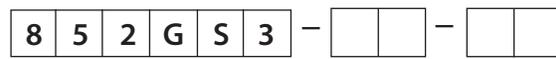
Features



- ETL Certified
- Low profile, < .25" (6 mm) – FAA Style 3
- High-strength forged aluminum
- Low power consumption
- Few parts to stock
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 105 W
- Control and Monitoring – Fixture can be supplied with a Crouse-Hinds Logitrac for individual lamp control and monitoring as required for flashing guard light operation or stop bar control. Contact Crouse-Hinds for more info

| | |
|----------------------------|------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2106 |
| Shipping Weight: | 16.0 lbs. 7.3 kg |
| Shipping Volume: | 0.7 cu. ft. 0.02 m ³ |

Ordering Information



Fixture Type:

GS = L-852/S, Stop bar/Runway guard light

Color Filters:

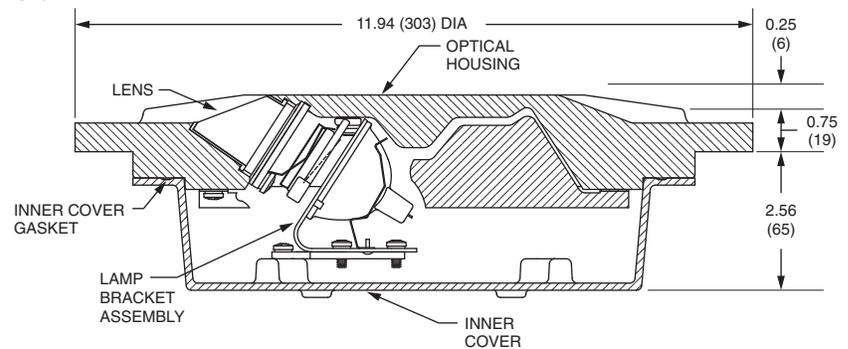
YR = Yellow (Left side)/Red (Right side)
YX = Yellow (Left side)/Blank (Right side)
XR = Blank (Left side)/Red (Right side)

L-852 Plug Connection:

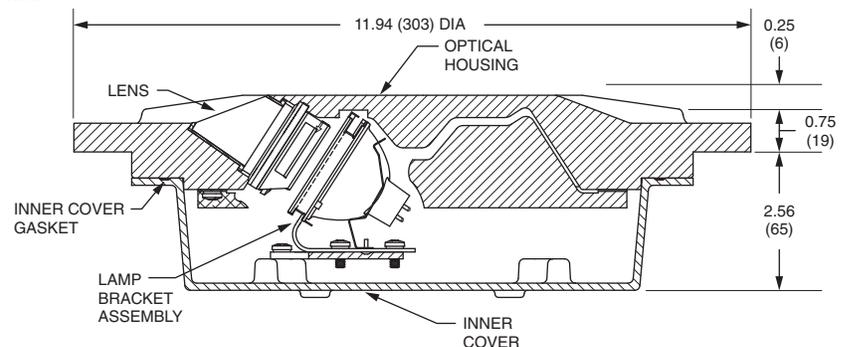
P1 = One Plug (One-color units only. Blank is not considered a color.)
P2 = Two Plugs (Two-color units only. Blank is not considered a color.)

Outline Drawing

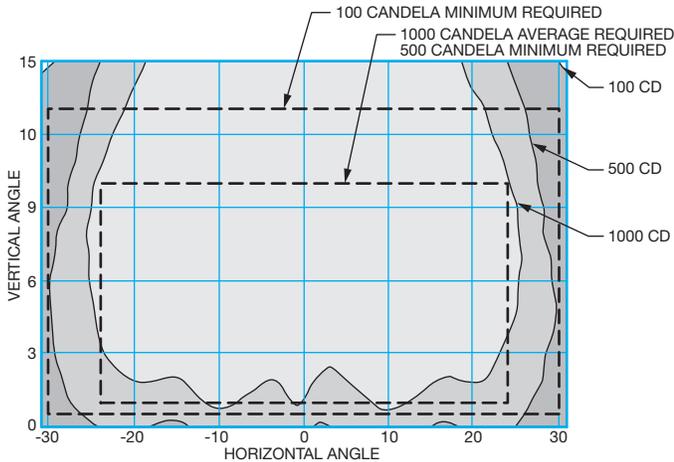
Yellow



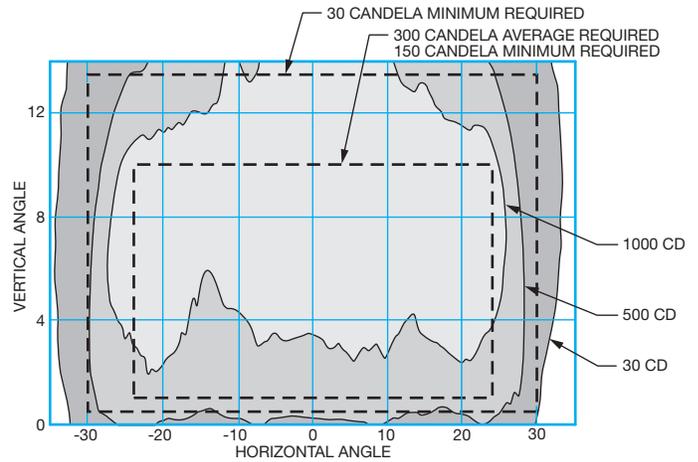
Red



Typical Photometric Data



L-852G Runway Guard Light-Yellow



L-852S Stop Bar Light-Red

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|-------------------------------|
| AC24242Q200303 | Base L-868B, Class I*, 24" Deep | 19999 | Lifting Tool (for outer ring) |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | T6540-03-01-00 | Logitrac Device, L852GS |
| 33005 | Isolation Transformer – 100 W, 20A/6.6 A | T6540-02-01-00 | Logitrac Device, L852s |
| 823KP-D4 -D4 | Connector Kit – L-823, 8AWG, .32" to .43" O.D. | T6540-01-01-00 | Logitrac Device, L852g |
| 10047-2154 | Heat Shrink Kit – 1 piece | | |
| 10047-1425 | Heat Shrink Kit – 2 piece | | |

* Sectional bases may be required depending upon the paving technique.

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--------------------------------|-------------|---|
| 21128 | Lamp – 105 W, 6.6 A | 21140 | Gasket - Bottom Cover |
| 21126-AR | Lens Replacement Kit | 21122 | Feed-through Assembly – 1 Lamp, 1 Connector |
| 21130-TY | Fresnel Filter – Yellow | 10048-25 | Gasket Lubricant – 5.3 oz Container |
| 21490 | Filter – Red | 21132 | Fresnel gasket |
| 21488 | Bracket – Red Filter | | |
| 21491 | Fresnel Filter – Clear | | |
| 21487 | Bracket – Clear Fresnel Filter | | |

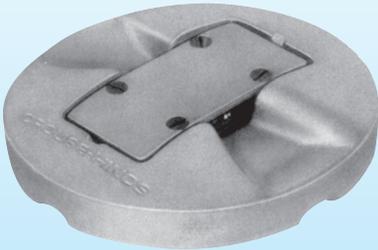
Note:

1. Lens Replacement Kit includes lens, lens boot, lens retaining gasket, gasket lubricant, and lens retaining bracket and screws.



RCLN

Runway Centerline Light – Navy



RCLN

Compliances: U.S. Navy NAVAIR 51-50AAA-2

Applications

The RCLN has been designed to meet the harsh environment of military runway centerline lighting where tail hooks may be present. These lights come with an extra-strength stainless steel base and thick top optical assembly. The optical assembly houses the lamp, filters and lenses required to form the proper light beam. Lights are available in four types for various installation requirements.

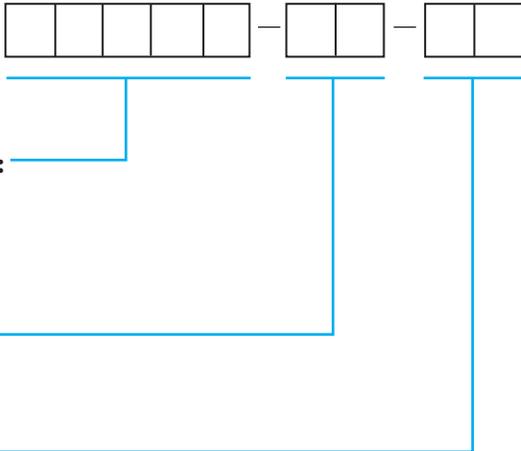
Features

- Removeable optical high-strength ductile iron cartridge
- Variety of mounting choices.
- Hardened stainless steel base for tail hook resistance.
- Zinc plating on stainless steel base for maximum corrosion resistance.
- Meets U.S. Navy requirements.
- Optional metallic-ceramic coating for increased corrosion resistance.

Ordering Information

How to order: Select the basic catalog number. Add suffixes for filter, lamp type and options (if any).

Example: 18749-RC is a bidirectional L-852N Type 5 light with red filter on one side and with the other side clear. The lamp with film disc cutout is furnished with this light.



Fixture Type:
18749 Type 5
20324 Type 6
20381 Type 7
20382 Type 8

Filter Code:
C = Clear
R = Red

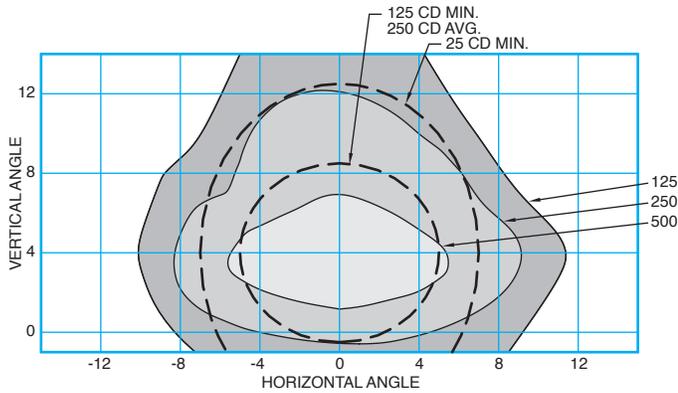
Options:
65 = 65 W Lamp (45 W standard)
CR = Corrosion Resistant Coating (Optical Assembly only)
NF = Lamp Without Film Disc Cutout

Accessories

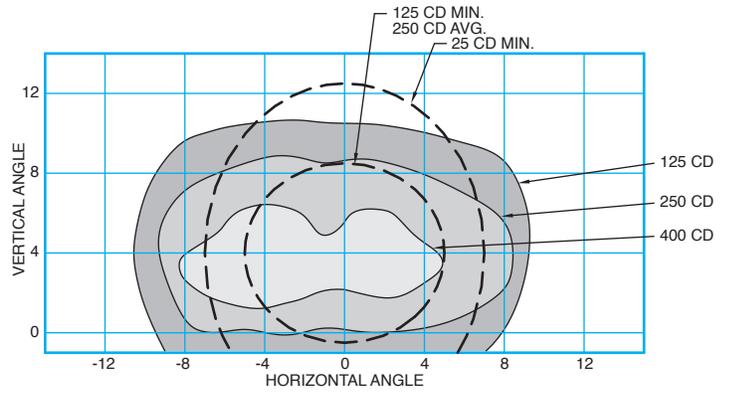
| Description | Catalog Number | Specification | Shipping Weight | | Shipping Volume | |
|--|------------------|---------------|-----------------|------|-----------------|-------|
| | | | Lbs. | Kg | Cu.Ft. | Cu.M. |
| Transformer, 30/45 W, 6.6/6.6 A | 33001-2 | MS27289-1 | 8.0 | 3.6 | 0.2 | 0.006 |
| Transformer, 30/45 W, 6.6/6.6 A | 33001 | FAA L-830-1 | 8.0 | 3.6 | 0.2 | 0.006 |
| Transformer, 65 W, 6.6/6.6 A | 33003 | FAA L-830-3 | 9.0 | 4.0 | 0.1 | 0.006 |
| Connector Kit – Refer to data sheet ET-8.1 | | | | | | |
| Type 7 Base, Size A, 10" diameter L-868 | AC15242H200003** | | 43.0 | 20.0 | 2.1 | 0.06 |
| Spacer Ring, 3/4" thick (10") | AF5102-12 | | 6.0 | 2.7 | 0.043 | 0.001 |
| Type 8 Base, Size B, 12" diameter L-868 | AC24242H200003** | | 63.0 | 29.0 | 2.5 | 0.10 |
| Spacer Ring, 3/4" thick (12") | AF5402-12 | | 7.25 | 3.3 | 0.06 | 0.002 |

** Other bases, such as sectional type, may be required, depending on method of installation.

Typical Photometric Data



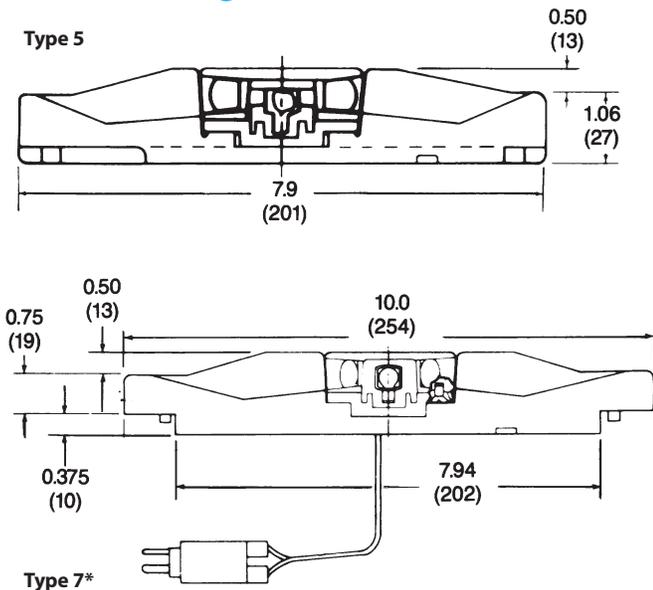
RCLN - Clear Filter / CD AVG: 538 / MAX/AVG: 1.46



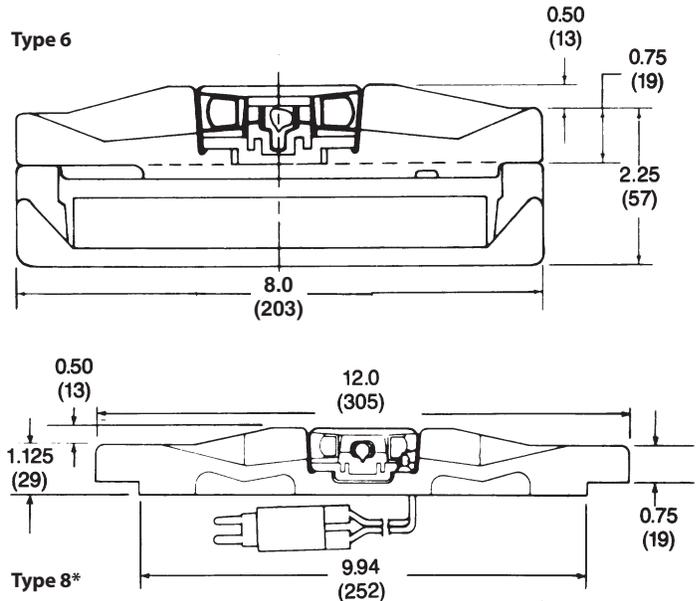
RCLN - Red Filter / CD AVG: 394 / MAX/AVG: 2.34

| | |
|----------------------------|------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 8005 |
| Shipping Weight: | 12.0 lbs. 5.44 kg |
| Shipping Volume: | .3 cu.ft. .01 cu.m. |

Outline Drawings



* For FAA shallow or deep base mounting.



Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---|-------------|----------------------------|
| 19899 | Housing/Lens Assembly | 85203-5-F | Optical Base/Lamp Assembly |
| 19241 | Gasket | 18448 | Sleeve - Waterproofing |
| 19848 | Screw - High-Strength Mounting Blk. Oxide | 19694 | Socket Assembly |
| 19463 | Filter Spring | 19695 | O-Ring - Optical Assembly |
| 20654-R | Filter, Red | 19313-3 | Lead Assembly |
| 19900-XX | Optical Assembly (Add Colors) | 20936-** | Lamp assembly (45 W) |
| | | 19484-** | Lamp assembly (65 W) |

** Insert "F" for lamp with film disc cutout (standard) or "NF" for lamp without film disc cutout (optional).



PRO III™ TOL

Omnidirectional Taxiway Light

Compliances: FAA AC 150/5345-46: L-852T & E
ICAO Annex 14
UFC 3-535-01
IEC 97/98A/DTS



TOL3

Applications

The TOL is an inset taxiway edge and taxiway intersection fixture. The TOL is intended for use on a 6.6A constant current circuit through an L-830 isolation transformer.

Features

- ETL Certified 
- Low profile, <.25" (6 mm) – FAA Style 3
- High-strength aluminum optical assembly
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- It is recommended that caution be used during snowplow operations. Use of a rubber tipped blade is recommended. Fixture is not warranted against snowplow damage.

| | |
|----------------------------|----------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2528 |
| Shipping Weight: | 10.5 lbs 4.8 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m3 |

Ordering Information



Fixture Type:

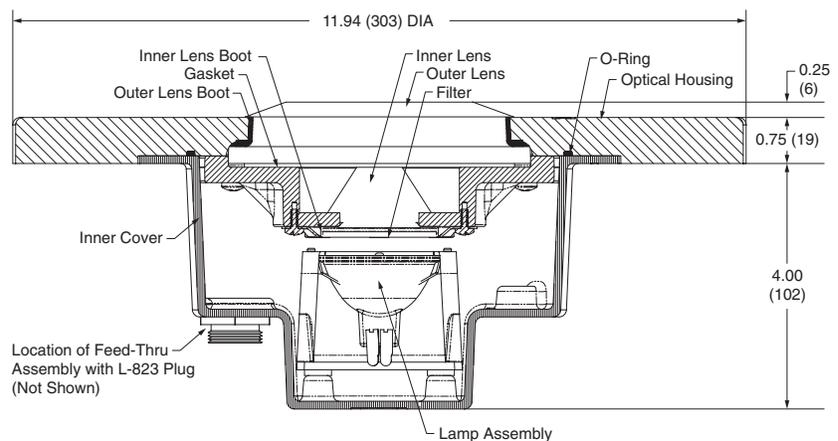
Color:

- T = Taxiway Edge (Omni-Directional Blue)
- E = Taxiway Intersection (Omni-Directional Yellow)

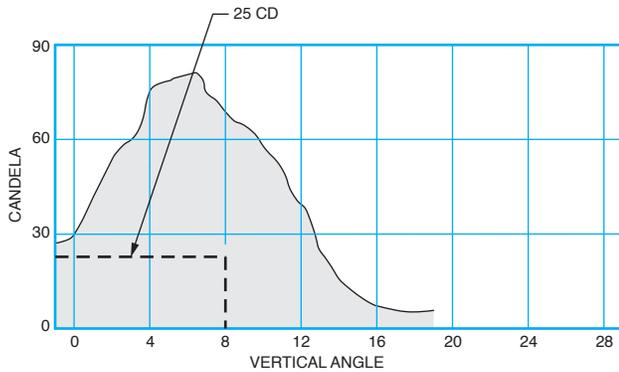
Fixture Diameter:

- 008 = 8" Fixture with mounting bolt pattern per IEC specifications
- 12A = 12" Fixture with 11.25" mounting BC
- 12B = 12" Fixture with 10.25" mounting BC

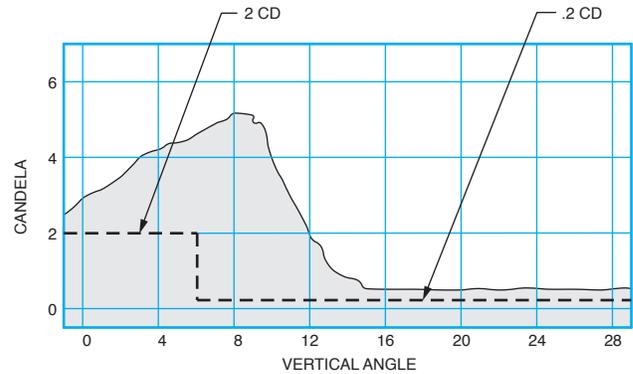
Outline Drawing



Typical Photometric Data



L-852E Taxiway Intersection Light



L-852T Taxiway Edge Light

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|-----------------------------|
| AC24242H200303 | Base: L868B, Class 1, 24" Deep | 823KP-D4-D4 | Connector Kit – L823, 8 AWG |
| AC21242H200301 | Base: L867B, Class 1, 24" Deep | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33001 | Isolation Transformer – 30/45W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 21431 | 8" Diameter Shallow Base – Aluminum | | |
| 21238 | 12" Diameter Shallow Base – Aluminum | | |

Renewal Parts

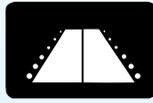
| Part Number | Description | Part Number | Description |
|-------------|-------------------------------------|-------------|---|
| 21116 | Lamp – 48W, 6.6A | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21265 | Bottom Cover Assembly | 21122 | Feed Through Assembly – 1 Lamp, 1 Connector |
| 21335* | Lamp Replacement Kit | 21332** | Outer Lens Replacement Kit |
| 21257 | Inner Lens Boot | 21255 | Inner Lens |
| 21285-Y | Absorption Filter – Aviation Yellow | 10035-62 | 3/32" O-Ring, 6.25" I.D. |
| 21285-B | Absorption Filter – Aviation Blue | | |

* Includes 20356 Rubber Grommet, 19143-2 Spacer, 21116 Lamp, 21294 Locking Spring and 21263 Bracket.

** Includes 21258 Gasket, 21256 Lens Boot and 21254 Outer Lens.



PRO III™ TOL-LED



Omnidirectional Taxiway Edge Light



TOL4

Compliances: FAA AC 150/5345-46: L-852T
ICAO Annex 14
UFC 3-535-01
IEC 97/98A/DTS
FAA Engineering Brief 67

Applications

The TOL is an inset taxiway edge fixture. The TOL is intended for use on a 6.6A constant current circuit through an L-830 isolation transformer.

Features



- ETL Certified (852T4 @ 6.6A only)
- Low profile, <.25" (6 mm) – FAA Style 3
- Low power consumption, less than 8VA at highest step
- High-strength aluminum optical assembly
- Easy to maintain – no sealant required for prism or feed-through assembly replacement
- Pressure test plug for seal integrity verification
- Long life LED
- Direct Replacement on existing circuit
- Complies with intensity curve requirements for a 3 step circuit (6.6A input fixture only)
- It is recommended that caution be used during snowplow operations. Use of a rubber tipped blade is recommended. Fixture is not warranted against snowplow damage.

Ordering Information



Fixture Type:

Color:

- R = LED (Omnidirectional Red)*
- T = Taxiway Edge – LED (Omnidirectional Blue)

Fixture Diameter:

- 008 = 8" Fixture with mounting bolt pattern per IEC specifications
- 12A = 12" Fixture with 11.25" mounting BC, L868 base can
- 12B = 12" Fixture with 10.25" mounting BC, L867 base can

Options:

- 1 = Arctic Kit (not available with Options 2-4)
- 2 = 12 VDC Input**
- 3 = 24 VDC Input**
- 4 = 90-250 VAC, 50/60 Hz, Input**

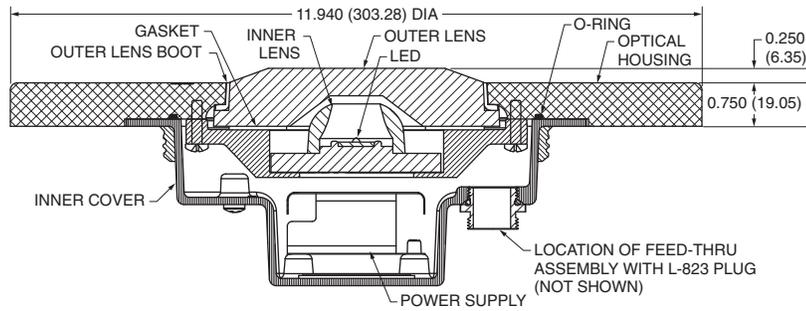
Note: 6.6A @ 60 Hz Only

* Not defined by FAA Advisory Circular

** Mode 2 fixtures not defined by FAA Advisory Circular

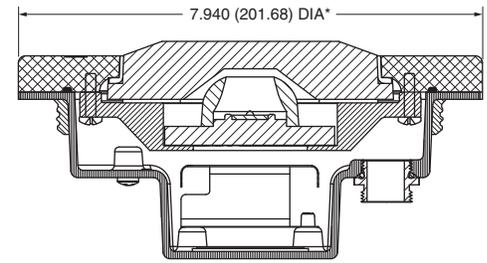
Outline Drawings

12" Fixture



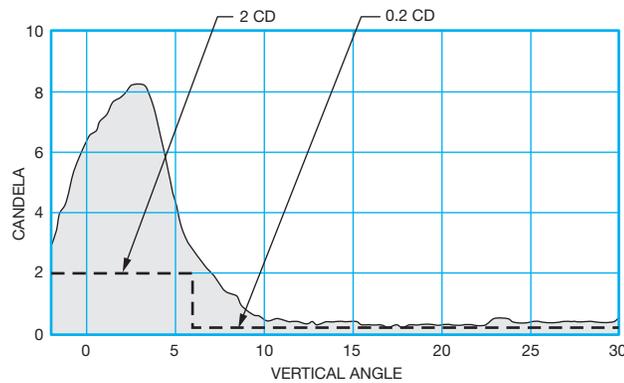
| | |
|---------------------|------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2529 |
| Shipping Weight: | 10.5 lbs (4.8 kg) |
| Shipping Volume: | 0.7 cu ft (0.02 m3) |

8" Fixture



* All other dimensions and callouts equivalent to 12" Fixture.

Typical Photometric Data



L-852T4 Taxiway Edge Light – LED

Current driven - Lumen intensity steps powered by series circuit (6.6a/20a with proper isolation transformer).

Non-Arctic Kit - Max fixture load 18W, 23.3Va, PF.77, isolation transformer required 20/25 W.

Arctic Kit - Max fixture load 39.7W, 42.4Va, PF.93, isolation transformer required 30/45 W.

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|---|----------------|--------------------------------------|
| AC24242H200303 | Base: L868B, Class 1, 24" Deep | 823KP-D4-D4 | Connector Kit – L823, 8 AWG |
| AC21242H200301 | Base: L867B, Class 1, 24" Deep | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33001 | Isolation Transformer – 30/45W, 6.6/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 21431 | 8" Diameter Shallow Base – Aluminum | 21238 | 12" Diameter Shallow Base – Aluminum |

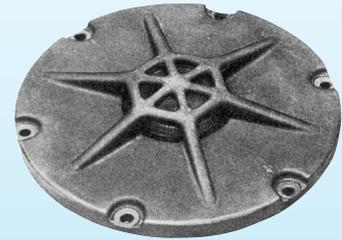
Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|-------------|--------------------------------------|
| 21122 | Feed Through Assy. | 21306 | Bottom Cover Assembly |
| 21326* | Thermoswitch Replacement Kit | 10035-62 | 3/32" O-Ring, 6.25" I.D. |
| 21254 | Outer Lens | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21256 | Outer Lens Boot | 21486 | LED Replacement Assembly (Blue) |
| | | 21365-9T | Power Supply, No Arctic Kit |
| | | 21365-10T | Power Supply, With Arctic Kit |
| | | 21326 | Arctic Kit |

* Includes 10047-2943 Thermoswitch, 21320 Locking Bracket and 10033-81 Pop Rivet.



Taxiway Omnidirectional Light



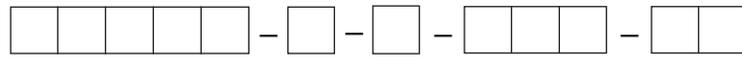
Compliances: FAA AC 150/5345-46: L-852E
ICAO Annex 14

TOL

Features

- Variety of Mounting Methods
- Optional high-strength casting approximately double the tensile strength of ductile iron
- Optional metallic-ceramic coating for increased corrosion resistance

Ordering Information



Fixture Type:

21078 = 11.25 Inch Bolt Circle
20510 = 10.25 Inch Bolt Circle

Type of Leads:

P = Lead with L-823 Plug
(Blank) = Leads with Spades

Color:

B = Blue R = Red
C = Clear Y = Yellow
G = Green

Lamp Wattage:

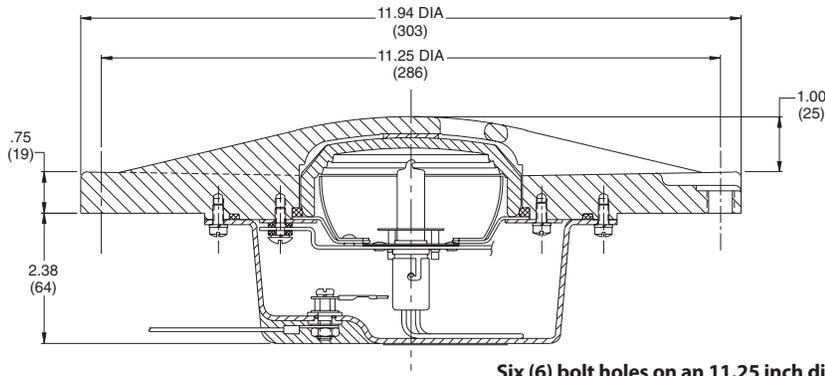
| | | |
|------------|------|-----------|
| 40 = 40W | 120V | 10047-612 |
| 45 = 45W | 6.6A | 20553 |
| 115 = 115W | 6.6A | 20496 * |

Options:

NM = High-Strength Casting
CR = Corrosion Resistant Coating

* 115W Lamp not applicable for fixtures with Blue and Green Lenses.

Outline Drawing TOL: 21078



Six (6) bolt holes on an 11.25 inch diameter

| | |
|----------------------------|-------------------------|
| Instruction Manual: | 8352 |
| Shipping Weight: | 32 lbs. 14.5 kg. |
| Shipping Volume: | 0.7 cu.ft. .02 cu.m. |
| Photometric Data: | Contact Field Services |

Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lb. | Kg. | Cu.Ft. | Cu.M. |
| AC24242Q200303 | Base L-868, Class I, 24" deep | 63.0 | 28.6 | 2.5 | .070 |
| 33004 | Transformer 100W, 6.6/6.6A | 12.0 | 5.4 | 0.4 | .011 |
| 33001 | Transformer 30/45W, 6.6/6.6A | 8.0 | 3.6 | 0.2 | .006 |
| 823KP-D4D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |
| 10047-1425 | Heat Shrink Kit 2 PC | | | | |

Note: Sectional bases may be required depending upon the paving technique.

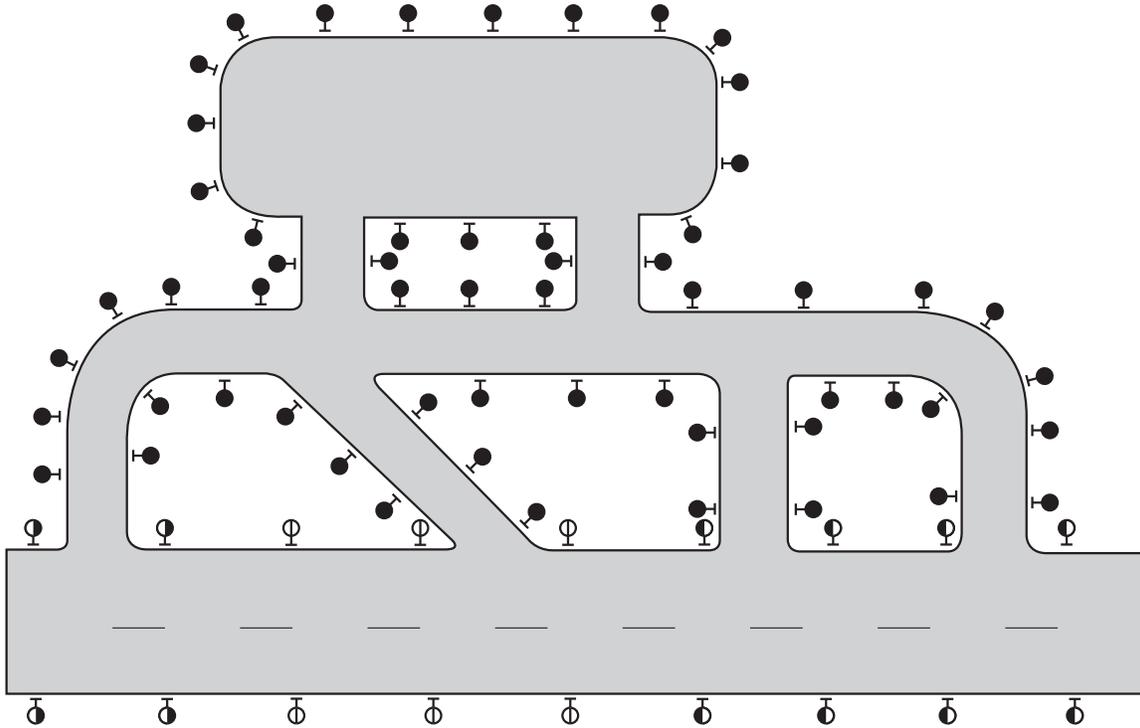
Renewal Parts

| Part Number | Description | Part Number | Description |
|---------------|-------------------------|--------------|--|
| 20801 | Socket Bracket Assembly | 10035-33-345 | O-Ring for Lens |
| 19095-1 | Socket Assembly (6.6A) | 20512-1 | Inner Cover Assembly w/ L823 Connector |
| 20405 | Socket Assembly (120V) | 20512-2 | Inner Cover Assembly w/ Spade Connector |
| 19412-(color) | Lens | 20400-2 | O-Ring for Inner Cover |
| 10047-612 | Lamp 40W (120V) | 20512-3 | Inner Cover Assembly (120V) w/ L823 Connector |
| 20553 | Lamp 45W (6.6A) | 20512-4 | Inner Cover Assembly (120V) w/ Spade Connector |
| 20496 | Lamp 115 (6.6A) | | |



SECTION 2

Runway & Taxiway Elevated Lights



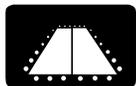
Runways and taxiways are the operational backbone of the airfield and just like inset fixtures elevated fixtures provide vital movement information to the pilot. Location, color and intensity are all important to the pilot when determining his position on the airfield. The Federal Aviation Administration

has set forth standards dictating how fixtures must perform determined by fixture location on the field and the operating conditions. For elevated fixtures Crouse-Hinds Airport Lighting Products has the correct fixture for your airfields operating category certification.

Application Icons



Runway Light



Runway/
Threshold
Light



Elevated Stop
Bar Light





Elevated Runway Light



ERL

Compliances: FAA AC 150/5345-46: L-861 Series
ICAO Annex 14
UFC 3-535-01
USN NAVAIR 51-50AAA-2
NASA Guidelines

Applications

The ERL Model 5 is used as a medium intensity runway edge light, taxiway edge light, medium intensity threshold light, and heliport perimeter light for both constant current and voltage circuits.

Features



- ETL Certified (As listed in Table 1 only)
- Clamp band for globe
- Single piece die-cast aluminum body
- Adjustable height
- Frangible coupling for stake, baseplate, or junction box mounting
- Prismatic globe
- Full range of standard aviation color globes
- Constant current or voltage operation available
- Prefocused quartz halogen or incandescent lamps available
- Available with 1.5 inch or 2 inch frangible coupling

Ordering Information

How to Order: A complete assembly will consist of separate order items for the ERL fixture, stake or baseplate with base or junction box with cover, isolation transformer, and L-823 connector kit.

Taxiway edge lights are typically blue (-B); threshold/end lights are typically green/red (-GR); heliport lights are typically yellow (-Y).

Example: 40938-CY-45-24 is a 24 inch high fixture with a clear/yellow globe and 45 watt quartz bi-pin lamp.



Fixture Type:

- 38 = Quartz/Bi-Pin
- 39 = Incandescent/Medium Prefocus
- 43 = Incandescent/Medium Screw (E27)

Color:

- C = Clear
- B = Blue
- G = Green
- R = Red
- Y = Yellow
- X = Opaque/Blank

Lamp Wattage:

- 30 = 30 watt lamp
- 40 = 40 watt lamp
- 45 = 45 watt lamp
- 69 = 69 watt lamp
- 100 = 100 watt lamp
- 116 = 116 watt lamp

Height in Inches:

14 = Standard height 14 inches
Available in 2 inch increments to 30 inches.

Options:

MC2 = Metal Frangible Coupling 2 Inch

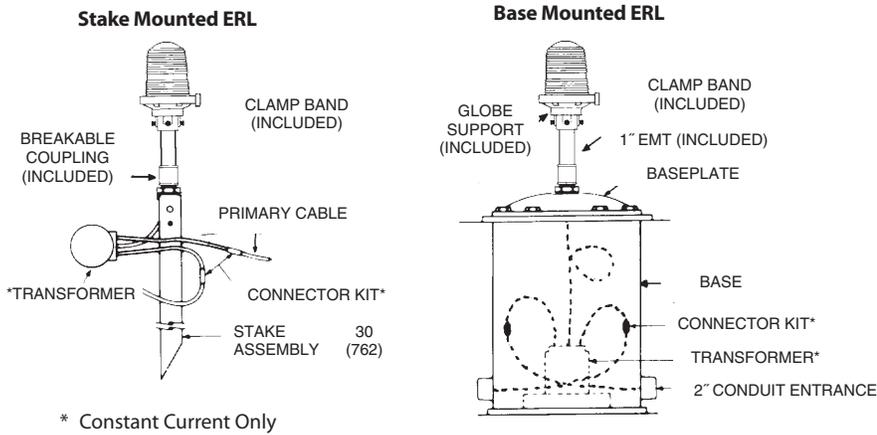
Table 1

| Type | Part Number | Color | Lamp Wattage | Lamp Type | Lamp P/N |
|--------|-------------|--------------|--------------|---------------------------|------------|
| L-861 | 40938 | Clear | 45W/6.6A | Tungsten-Halogen / Bi-Pin | 40732 |
| | 40938 | Clear/Yellow | 45W/6.6A | Tungsten-Halogen / Bi-Pin | 40732 |
| | 40939 | Clear | 45W/6.6A | Incandescent | 10047-1497 |
| | 40939 | Clear/Yellow | 45W/6.6A | Incandescent | 10047-1497 |
| L-861E | 40938 | Green/Red | 30W/6.6A | Tungsten-Halogen / Bi-Pin | 40737 |
| | 40938 | Green/Red | 45W/6.6A | Tungsten-Halogen / Bi-Pin | 40732 |
| | 40939 | Green/Red | 45W/6.6A | Incandescent | 10047-1497 |
| L-861T | 40938 | Blue | 30W/6.6A | Tungsten-Halogen / Bi-Pin | 40737 |
| | 40938 | Blue | 45W/6.6A | Tungsten-Halogen / Bi-Pin | 40732 |
| | 40939 | Blue | 30W/6.6A | Incandescent | 10047-1493 |

Other Lamps Available

| Lamp/Socket | Lamp Rating | Lamp Style | Lamp P/N |
|-------------|-------------|-------------------------|------------|
| 40939 | 40W/120VAC | Incandescent | 10047-608 |
| 40943 | 40W/120VAC | Incandescent | 10047-1636 |
| 40943 | 69W/120VAC | Incandescent | 10047-1558 |
| 40943 | 116W/120VAC | Incandescent | 10047-1577 |
| 40943 | 100W/240VAC | Incandescent | 10047-2145 |
| 40938 | 45W/6.6A | Tungsten-Halogen/Pk 30d | 10047-2137 |
| 40938 | 100W/6.6A | Tungsten-Halogen/Pk 30d | 10047-2138 |
| 40939 | 45W/6.6A | Incandescent | 10047-1497 |

Installation Drawings



* Constant Current Only

Note: All ERL 6.6A versions include a lead with L-823 plug. All ERL 120v versions have wire leads without connectors.

| | |
|----------------------------|--|
| Dimensions: | inches (mm) |
| Instruction Sheets: | 8627 (40938) 8628 (40939) 8803 (40943) |
| Shipping Weight: | 3.0 lbs. 1.4 kg. |
| Shipping Volume: | 0.1 cu.ft. .003 cu.m. |
| Photometric Data: | Contact Field Services |

Accessories

| Catalog Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | .14 | .004 |
| AP1935 | Baseplate, 1.5" Hub, Painted Steel | 8 | 3.6 | .14 | .004 |
| AC21242H200301 | Base L-867, class I, 24" deep | 52 | 23.6 | 2.6 | .074 |
| AW2202 | Stake Assembly, 2" HUB | 8 | 3.6 | .2 | .006 |
| AW2205 | Stake Assembly, 1.5" HUB | 8 | 3.6 | .2 | .006 |
| AW7609/AW7805 | Junction Box & Cover | 12 | 5.4 | .2 | .006 |
| 33001 | Transformer L-830-1, 6.6/6.6A | 8 | 3.6 | .2 | .006 |
| 33002 | Transformer L-830-2, 20/6.6A | 8 | 3.6 | .2 | .006 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--|--------------|---|
| 40878-2P | 1" EMT Extension (14" Standard) | 50035-1* | Globe Support Assembly 19" leads (40939) |
| 40878-7P | 1" EMT Extension (24") | 50035-2* | Globe Support Assembly 29" leads (40939) |
| 40878-10P | 1" EMT Extension (30") | 10H27-013D20 | Set Screw-Socket |
| 50107 | Clamp Band | 40937 | Socket Mounting Bracket (40938) |
| ML5411 | Clear Globe - Glass | 40749 | Socket (40938) |
| ML331 | Blue Globe - Glass | KL6168 | Socket (40939) |
| ML2075 | Red Globe - Glass | 10047-1559 | Socket (40943) |
| FL6477 | Yellow Globe - Glass | 40918 | Lead Assembly 14" (40938) |
| ML5412 | Clear/Yellow Globe - Glass | 40918-7 | Lead Assembly 24" or 30" (40938) |
| ML5571 | Clear/Red Globe - Glass | FL3621 | Lead Assembly 14" (40939 & 40943) |
| ML5413 | Green/Red Globe - Glass | FL1012A | Lead Assembly 24" and 30" (40939 & 40943) |
| 50034* | Globe Support Assembly (40938) | 10035-37 | O-Ring Seal |
| 50034-1* | Globe Support Assembly 19" leads (40938) | 50186 | Frangible Coupling - Aluminum 1.5 Inch |
| 50034-2* | Globe Support Assembly 29" leads (40938) | 50184 | Frangible Coupling - Aluminum 2 Inch |
| 50035* | Globe Support Assembly (40939) | 40948* | Globe Support |

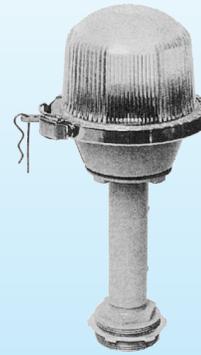
* Includes Clamp Band



HRLQ



High Intensity Runway Light/Quartz



HRLQ

Compliances: FAA AC 150/5345-46: L-862 Series
ICAO Annex 14, Figure A2-9
UFC 3-535-01
USN NAVAIR 51-50AAA-2 / NATO STANAG 3316

Applications

The HRLQ High Intensity Runway Light is used for elevated runway edge lighting and elevated threshold and end lighting.

Features

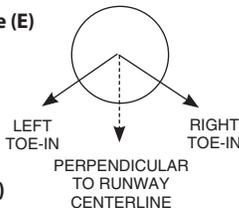


- ETL Certified (As listed in Table 1 only)
- Meets ICAO Recommendations for runway edge and end lighting
- Inner Lens and Outer Globe to focus the main beam
- Clamp Band for the outer globe
- Available with 1.5 inch or 2 inch thread frangible coupling with 1.5 inch column
- Uses a 6.6 amp quartz bi-pin lamp for most applications
- Cast Aluminum Housing painted yellow
- Available in heights from 14 inches to 30 inches

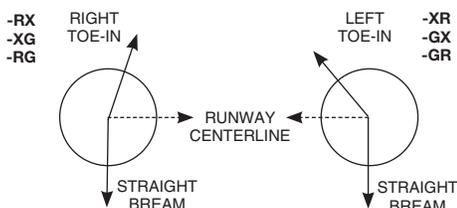
Table 1

| Edge Lights | Threshold/End Lights |
|-------------------|----------------------|
| 86241-E-XX-120-XX | 86241-T-RG-200-XX |
| 86242-E-XX-120-XX | 86242-T-RG-200-XX |
| 86241-E-XX-150-XX | |
| 86242-E-XX-150-XX | |

Runway Edge (E)



Threshold (T)



Ordering Information

How to Order: Construct the basic catalog number by adding the frangible coupling thread diameter. Choose the application which determines if one or both directions have the light beam toed-in toward the runway centerline. Add the colors, lamp wattage, and height. A two conductor lead with L-823 plug and the lamp are included. Threshold lights should be ordered with half the quantity right toe-in and half left toe-in.



Fixture Type: []

HRLQ Model: []

Frangible Coupling Size: []

- 1 = 1.5" Thread
- 2 = 2" Thread

Application*: []

- E = Runway Edge
- T = Threshold/Runway End

Color/Color*: []

- C = Clear G = Green X = Opaque/Blank
- B = Blue R = Red Y = Yellow

Lamp Wattage: []

- 120 = 120w Bi-Pin 20058 - L-862, ICAO Fig. 2.10
- 150 = 150w Bi-Pin 40925 - ICAO Fig. 2.11
- 200 = 200w Bi-Pin 20172 - FAA L-862E **
- 201 = 200w Pk-30d 10047-2477 - L-862E **
- 151 = 150w Pk-30d 10047-2310 ICAO FIG. 2.11
- 122 = 115w DCR 20496 **
- 202 = 200w DCR 20268 **

Height in Inches: []

Standard Height 14 Inches
Available in 2 inch increments to 30 inches.

* Beam orientation is determined by the application and the color position in the catalog number. For the Threshold version, the green beam is always toed-in and the red beam is always straight.

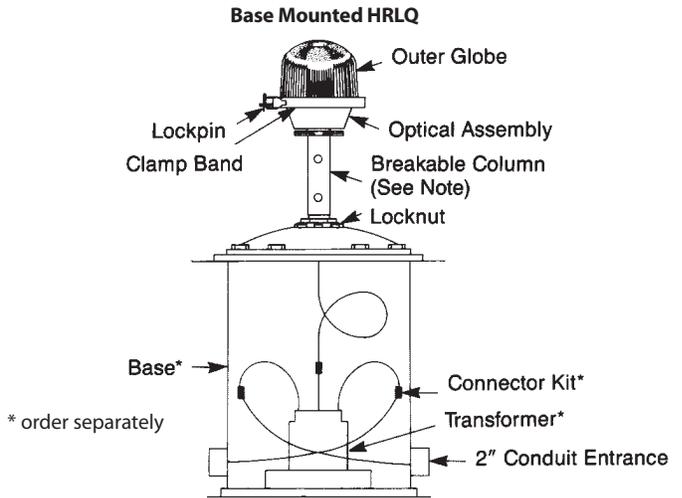
** 200 Watts for FAA Threshold/End Light.

Note: All glass will have inherent variations in color. Allowing for this Crouse-Hinds products are certified to meet FAA requirements.

Installation Drawings

| | |
|---------------------------|---------------------------|
| Instruction Sheet: | 8922 |
| Shipping Weight: | 4.5 lbs 2.0 kg. |
| Shipping Volume: | 0.31 cu.ft. .009 cu.m. |
| Photometric Data: | Contact Field Services |

Note: For fixtures extended above standard 14 inch height, the breakable column is a three piece assembly.



Accessories

| Catalog Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AP1935 | Baseplate, 1.5" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AC21242H200301 | Base L-867, class 1, 24" deep | 52 | 23.6 | 2.6 | .074 |
| AW2202 | Stake Assembly, 2" Hub | 8 | 3.6 | 0.2 | .006 |
| AW2205 | Stake Assembly, 1.5" Hub | 8 | 3.6 | 0.2 | .006 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG Stranded, .32" to .43" O.D. | | | | |
| 40999 | Leveling Fixture | | | | |
| 33004 | Transformer, 100W, 6.6/6.6A | 8.6 | 3.9 | 0.3 | .009 |
| 33150 | Transformer, 150W, 6.6/6.6A | 16.0 | 7.3 | 0.4 | .011 |
| 33006 | Transformer, 200W, 6.6./6.6.A | 16.0 | 7.3 | 0.4 | .011 |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---|-------------|--|
| 10050-20 | Clear Outer Globe-Edge | 40972-* | Inner Lens Assembly (360°) |
| 10050-21 | Red/Green Outer Globe - Threshold/End, R# | 40989 | Globe Gasket |
| 10050-21-RX | Red/Blank Outer Globe, End, L# | 40992-1 | Optical Subassembly and Lead for 16-20" Height |
| 10050-21-XG | Blank/Green Outer Globe | 40992-2 | Optical Subassembly and Lead for 22-30" Height |
| 10050-22 | Green/Red Outer Globe -Threshold/End, L# | 40947 | Clamp Band |
| 10050-22-XR | Blank/Red Outer Globe, End, R# | 40718 | Locknut, 1.5" |
| 10050-22-GX | Green/Blank Outer Globe, Threshold, L# | 10047-589 | Locknut, 2" |
| 10050-23-B | Blue Inner Lens (180°) | 10038-31 | Lockpin |
| 10050-23-C | Clear Inner Lens (180°) | 40983-1 | Breakable Column 1.5" (Standard Height) |
| 10050-23-G | Green Inner Lens (180°) | 40983-2 | Breakable Column 2" (Standard Height) |
| 10050-23-R | Red Inner Lens (180°) | 40994-5 | EMT Extension Pipe for 24" Height |
| 10050-26 | Clear/Blank Outer Globe - Edge, L# | 40994-8 | EMT Extension Pipe for 30" Height |
| 10050-27 | Blank/Clear Outer Globe - Edge, R# | 41852 | Upper Fitting, Support Column (All Extensions) |
| 10050-29 | Clear/Green Outer Globe, R# | 50184 | Frangible Coupling 2" Aluminum |
| 10050-30 | Green/Clear Outer Globe, L# | 50049 | Frangible Coupling 1.5" - Plastic |
| 10050-31 | Red Outer Globe | 50186 | Frangible Coupling 1.5" - Aluminum |
| 40959 | Yellow Inner Lens (180°) | | |

Indicates left or right toe-in

* Add letters for two colors such as -CC or -CY. For red and green combinations, order colored outer globe and -CC inner lens.



HRLI

High Intensity Runway Light/Quartz - ICAO



HRLI

Compliances: ICAO Annex 14, Figures A2-9, A2-10

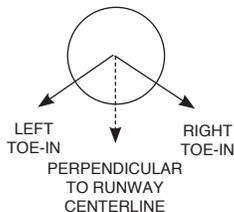
Applications

The HRLI High Intensity Runway Light is used for elevated runway edge lighting and elevated threshold and end lighting.

Features

- The HRLI is the same high quality light fixture as the Cooper Crouse Hinds ETL certified, FAA compliant light. The inner and outer glassware is engineered to produce a light beam that meets ICAO recommendations for 45 Meter or 60 Meter wide runways.
- 2 inch (50mm) frangible column
- Uses a 6.6 amp quartz bi-pin or PK-30d lamp.
- Cast Aluminum Housing painted yellow
- Available in heights from 14 inches (350mm) to 30 inches (750mm).

Runway Edge (E)



Ordering Information

How to Order: Construct the basic catalog number by adding the frangible column thread diameter. Choose the application which determines if one or both directions have the light beam toed-in toward the runway centerline. Add the colors, lamp wattage, and height. The lamp and 2 conductor lead with L-823 plug are included. Threshold lights should be ordered with half the quantity right toe-in and half left toe-in.

Example: 86212-E-CY-150-24-60 is a 24 inch high HRLI with a 150 watt lamp and 2 inch frangible column. It is used as a bidirectional edge light and the clear beam is left toe-in and the yellow beam is right toe-in. It is designed for runways up to 60 Meters wide.

| | | | | | | | | | | |
|---|---|---|---|--|--|--|--|--|--|--|
| 8 | 6 | 2 | 1 | | | | | | | |
|---|---|---|---|--|--|--|--|--|--|--|

Fixture Type: []

Frangible Column Size: []

1 = 1.5" Thread (38mm)
2 = 2" Thread (50mm)

Application*: []

E = Runway Edge

Color/Color*: [] []

C = Clear Y = Yellow

Lamp Wattage: []

120 = 120w Bi-Pin 20058 - L-862, ICAO Fig. A2-9
150 = 150w Bi-Pin 40925 - ICAO Fig. A2-10
151 = 150w Pk-30d 10047-2223 ICAO FIG. A2-10

Height in Inches: []

Standard Height 14 Inches
Available in 2 inch increments to 30 inches.

Runway Width: []

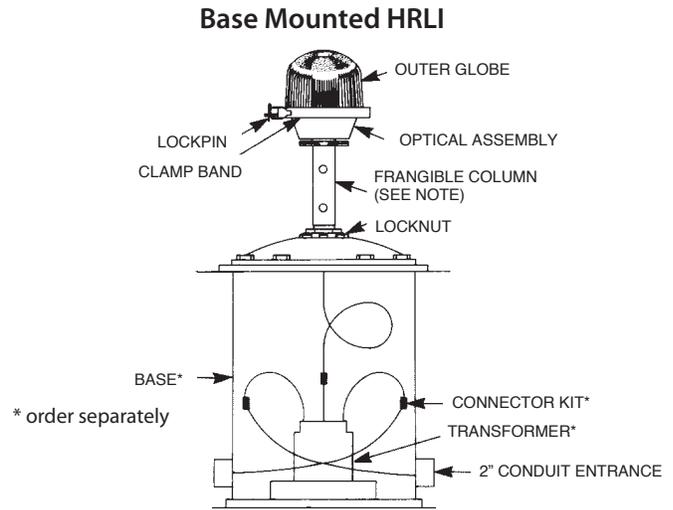
45 = 45 Meters
60 = 60 Meters

* Beam orientation is determined by the application and the color position in the catalog number. For the Threshold version, the green beam is always toed-in and the red beam is always straight.

Installation Drawings

| | |
|--------------------------|---------------------------|
| Shipping Weight: | 4.5 lbs 2.0 kg. |
| Shipping Volume: | 0.31 cu.ft. .009 cu.m. |
| Photometric Data: | Contact Field Services |

Note: For fixtures extended above standard 14 inch (350mm) height, the frangible column is a three piece assembly.



Accessories

| Catalog Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AC21242H200301 | Base L-867, class I, 24" deep | 52 | 23.6 | 2.6 | .074 |
| AW2202 | Stake Assembly, 2" Hub | 8 | 3.6 | 0.2 | .006 |
| 823KPS-ED4-ED4 | Connector Kit L-823, 6mm Stranded, Shielded | | | | |
| 40999 | Leveling Fixture | | | | |
| 33004 | Transformer, 100W, 6.6/6.6A | 8.6 | 3.9 | 0.3 | .009 |
| 33150 | Transformer, 150W, 6.6/6.6A | 16.0 | 7.3 | 0.4 | .011 |
| 33006 | Transformer, 200W, 6.6./6.6.A | 16.0 | 7.3 | 0.4 | .011 |

Renewal Parts

| Part Number | Description |
|-------------|--|
| 40989 | Globe Gasket |
| 40947 | Clamp Band |
| 10047-589 | Locknut, 2" |
| 10038-31 | Lockpin |
| 40983-2 | Frangible Column 2" (Standard Height) |
| 40994-5 | EMT Extension Pipe for 24" Height |
| 40994-8 | EMT Extension Pipe for 30" Height |
| 41852 | Upper Fitting, Support Column (All Extensions) |
| 50184 | Frangible Coupling 2" Aluminum (Spare) |
| 50519 | Clear Outer Globe |
| 10050-23-C | Clear Inner Lens |
| 40959 | Yellow Inner Lens |



HRLQ-5

High Intensity Runway Light/Quartz



HRLQ-5

Compliances: FAA AC 150/5345-46: L-862 and L-862-E
ICAO ANNEX 14: FIG. A2-9

Applications

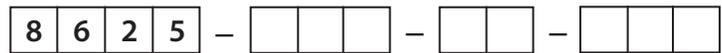
The HRLQ-5 High Intensity Runway Light is used for elevated runway edge lighting and elevated threshold and end lighting.

Features



- ETL Certified
- Requires no tools to relamp – fixture hinges open for lamp access and ease, and is held shut by a spring clip
- Easy to level – unique swivel design allows fixture to be leveled by loosening and tightening one exterior fastener
- Easy to change filters – twist in place allowing beam color to be field adjustable (LH & RH toe-in) on standard “edge” lights and on blue/clear displaced threshold “edge” lights
- 300 MPH wind tested
- Modular design
- Uses a 6.6 amp quartz bi-pin lamp
- Die-cast aluminum housing painted yellow
- Available in heights from 14-30 inches
- Airbus 380 Approved
- Standard 2” Threaded Frangible Coupling

Ordering Information



Fixture Type:

HRLQ Model:

Application and Beam Color:
(See “YYY”, Table 1)

Height in Inches:

Standard Height 14 Inches. Available in 2-inch increments to 30 inches maximum.

Options:

- 1 = 1.5”-12 UNF threaded coupling (standard is 2”-11.5 NPSM)
- 2 = 200 W lamp in place of 120 W or 150 W, L-862 (not available for blue color edge lights)
- 3 = Level adjustment lever in place of standard hex socket cap screw
- 5 = 150 W lamp in place of 120 W, L-862
- EX = Extra strength fixture (high wind/heavy snow)
- Options 1 & 3 not available with EX Option

Note: All glass will have inherent variations in color. Allowing for this all Crouse-Hinds products are certified to meet FAA requirements.

Table 1 (*Indicates FAA Approved to AC 150/5345-46)

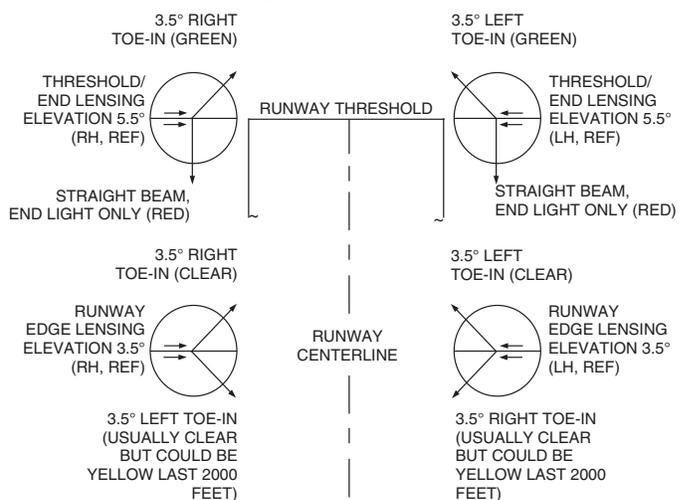
| YYY | Application | Beam Color | Specification Number (FAA) | Min. Lamp Wattage |
|-----|--------------------------------|--------------|----------------------------|-------------------|
| ECC | Edge, Standard* | Clear/Clear | L-862 | 120 |
| ECY | Edge, Standard, LH* | Clear/Yellow | L-862 | 120 |
| EYC | Edge, Standard, RH* | Yellow/Clear | L-862 | 120 |
| ECR | Edge, LH, Displaced End* | Clear/Red | L-862 | 150 |
| ERC | Edge, RH, Displaced End* | Red/Clear | L-862 | 150 |
| ERY | Edge, LH, Displaced End | Red/Yellow | L-862 | 150 |
| EYR | Edge, RH, Displaced End | Yellow/Red | L-862 | 150 |
| TCG | Edge, RH, Displaced Threshold | Clear/Green | L-862 | 200 |
| TGC | Edge, LH, Displaced Threshold | Green/Clear | L-862 | 200 |
| TYG | Edge, RH, Displaced Threshold* | Yellow/Green | L-862 | 200 |
| TGY | Edge, LH, Displaced Threshold* | Green/Yellow | L-862 | 200 |
| TRG | Threshold/End, RH* | Red/Green | L-862E | 200 |
| TGR | Threshold/End, LH* | Green/Red | L-862E | 200 |
| TXG | Displaced Threshold, RH* | Blank/Green | L-862E | 200 |
| TGX | Displaced Threshold, LH* | Green/Blank | L-862E | 200 |
| SRR | End (Straight Beam)* | Red/Red | L-862E | 200 |
| SRX | End (Straight Beam) | Red/Blank | L-862E | 200 |

RH = RIGHT-HAND; LH = LEFT-HAND; SEE FIGURE A FOR LIGHT BEAM DIRECTIONS.
E = RUNWAY EDGE LIGHT; T = RUNWAY THRESHOLD LIGHT; S = RUNWAY END LIGHT

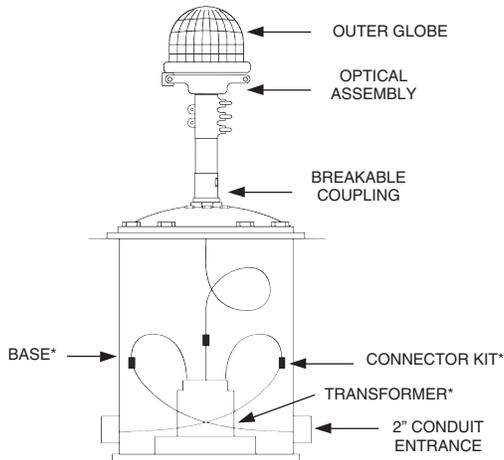
Figure A

LIGHT BEAM DIRECTIONS

Colors indicated are the normal standards. Other special application combinations available are listed in Table 1. View runway edge lights from runway centerline perpendicular to fixture when determining color in conjunction with right- (RH) and left-hand (LH) fixtures. The first color will be on the left toe-in side of the globe.

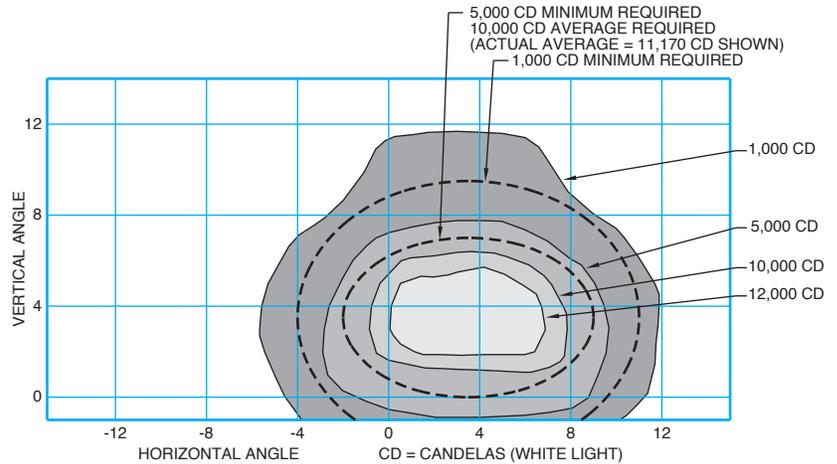


Outline Drawing



* Order separately.

Typical Photometric Data



L-862 High-Intensity Runway Light, 120 W Clear

Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|----------------|
| | | lbs. | kg | cu. ft. | m ³ |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AP1935 | Baseplate, 1.5" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AC2124H200301 | Base L-867, Class I, 24" deep | 52 | 23.6 | 2.6 | .074 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG Stranded, .32" to .43" O.D. | | | | |
| 50359 | Leveling Fixture | | | | |
| 33004 | Transformer, 100 W, 6.6/6.6 A | 8.6 | 3.9 | 0.3 | .009 |
| 33006 | Transformer, 200 W, 6.6/6.6 A | 8.9 | 4.04 | 0.3 | .009 |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--|-------------|----------------------------|
| 50344-C | Clear Outer Globe (for "ECC", "ECY", "EYC", applications) | 40989 | Globe Gasket |
| 50344-R/G | Red/Green Outer Globe (for "TRG" applications) | 50351 | Filter Gasket |
| 50344-R/X | Red/Blank Outer Globe (for "SRX" applications) | 50366 | Filter Spring |
| 50344-X/G | Blank/Green Outer Globe (for "TXG" applications) | 20058 | Lamp, 120 W, 6.6 A, Bi-Pin |
| 50344-G/R | Green/Red Outer Globe (for "TGR" applications) | 20172 | Lamp, 200 W, 6.6 A, Bi-Pin |
| 50344-G/X | Green/Blank Outer Globe (for "TGX" applications) | 40925 | Lamp, 150 W, 6.6 A, Bi-Pin |
| 50344-R | Red Outer Globe (for "SRR" applications) | | |
| 50360-C | Clear Inner Filter Half (2 required on units with clear, blank or colored outer globe) | | |
| 50360-Y | Yellow Inner Filter Half | | |
| 50344-C/G | Clear/Green Outer Globe (for "TCG" and "TYG" applications) | | |
| 50344-G/C | Green/Clear Outer Globe (for "TGC" and "TGY" applications) | | |
| 50344-C/R | Clear/Red Outer Globe (for "ECR" and "EYR" applications) | | |
| 50344-R/C | Red/Clear Outer Globe (for "ERC" and "ERY" applications) | | |
| 50184 | Frangible Coupling 2" Aluminum | | |
| 60683-E | Frangible Coupling 2" Aluminum—EX Option | | |

| | |
|---------------------------|-------------------------------------|
| Instruction Sheet: | 2016 |
| Shipping Weight: | 4.5 lbs. 2.0 kg |
| Shipping Volume: | 0.31 cu. ft. .009 m ³ |
| Photometric Data: | Contact Field Services |





Elevated Stop Bar Light



SBL

Compliances: FAA AC 150/5345-46: L-862S

Applications

The SBL fixture is used for runway incursion protection and traffic control on taxiways just before active runways. It is required for SMGCS operations during low visibility conditions as defined in FAA AC 150/5340-28 and AC 120-57A. This unidirectional light is designed for use in all weather conditions with any kind of control system including the Digitrac® Control and Monitoring System.

Features

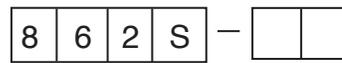


- ETL Certified L-862S
- Uses PK-30d low power consumption lamp
- Easy to install – mounts on a standard 2-inch (50 mm) mounting pipe with frangible coupling
- Mounting pipe extension included
- Easy to relamp – special tools are not required
- Cast aluminum housing
- Easy to aim
- Traffic signal red lens – eliminates need for separate filter
- Light head shipped fully assembled with lead assembly
- Control and Monitoring – Fixture can be supplied with a Crouse-Hinds Logitrac for individual lamp control and monitoring as required for flashing guard light operation or stop bar control. Contact Crouse-Hinds for more info

Ordering Information

How to Order: To the basic catalog number, add the height. A breakable coupling is required for proper mounting and is supplied with the fixture. Order base plate separately.

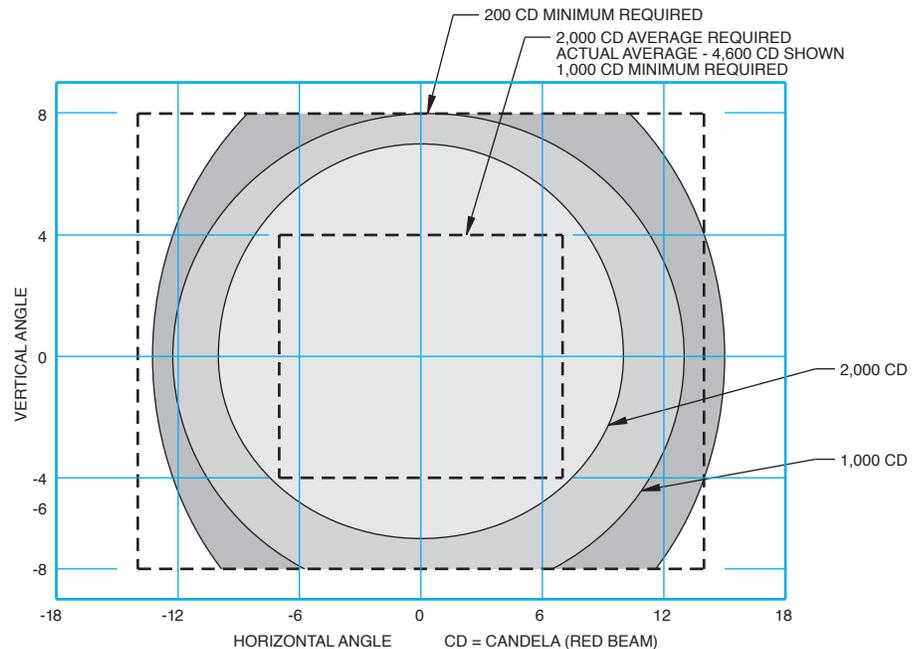
Example: 862S-14 is a red stop bar light 14-inches high.



Fixture Type:

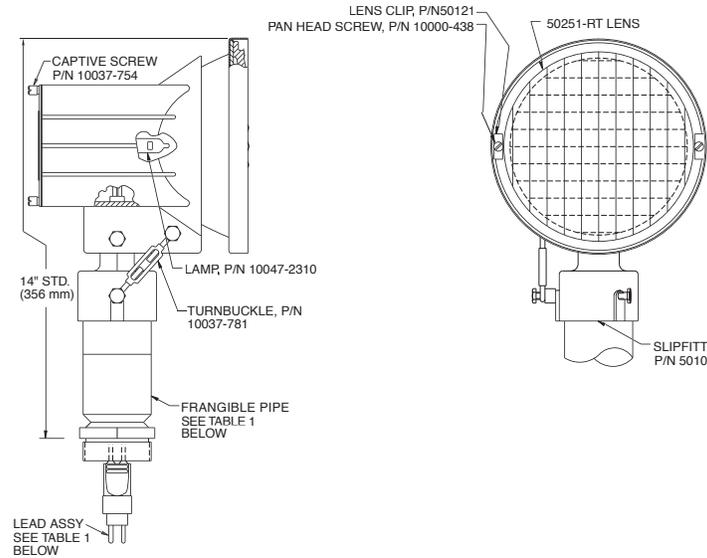
Height, Inches:

Standard Height 14 inches
Available in 2-inch increments to 26 inches.



Typical photometric at 0° and 6.6 amps

Outline Drawing



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lbs. | Kg | Cu.Ft. | Cu.M. |
| 10047-2154 | Heat Shrink Kit (1-piece) | | | | |
| 10047-1425 | Heat Shrink Kit (2-piece) | | | | |
| 33006 | Isolation Transformer 200 W, 6.6/6.6 A | 8.9 | 4.04 | 0.3 | 0.009 |
| 33150 | Isolation Transformer 150 W, 6.6/6.6 A | 8.9 | 4.04 | 0.3 | 0.009 |
| 50133 | Aiming Device (Optional) | 2.0 | 0.91 | 0.13 | 0.004 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |
| AC21242H200301 | Base L867, Class I, 24" Deep | 52.0 | 23.6 | 2.6 | 0.074 |
| AP1932 | Baseplate, 2" Hub, 12" Diameter | 8.0 | 3.6 | 0.14 | 0.004 |

Renewal Parts

| Part Number | Description | Part Number | Description |
|--------------|----------------------------|-------------|--|
| 10A10-025D32 | Bolt, Slipfitter Hex | 10037-781 | Turn Buckle |
| 10000-438 | Pan Head Screw | 50121 | Lens Clip |
| 10047-754 | Captive Screw | 50251-RT | Lens, Traffic Signal Red |
| 10047-2310 | Lamp, PK-30d, 150 W, 6.6 A | 50306 - X | Frangible Pipe Extension (See Table 1) |
| 50106Y | Slipfitter, Less Hardware | 50307 - X | Lead Assy., 6.6 A, (See Table 1) |

Table 1

| Height Inches (mm) | Frangible Pipe Part No. | Lead Assembly Part No. |
|--------------------|-------------------------|------------------------|
| 14 (355.6) | 50306-1 | 50307-1 |
| 16 (406.4) | 50306-2 | 50307-2 |
| 18 (457.2) | 50306-3 | 50307-3 |
| 20 (508.0) | 50306-4 | 50307-4 |
| 22 (558.8) | 50306-5 | 50307-5 |
| 24 (609.6) | 50306-6 | 50307-6 |
| 26 (660.4) | 50306-7 | 50307-7 |

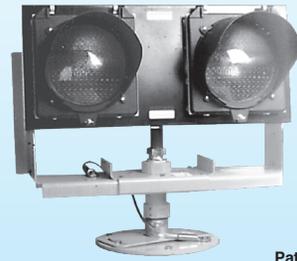
| | |
|---------------------------|----------------------------|
| Instruction Sheet: | 9818 |
| Shipping Weight: | 6.7 lbs 3.04 kg |
| Shipping Volume: | 0.80 cu.ft. 0.024 cu.m. |





Runway Guard Light

Compliances: FAA AC 150/5345-46: L-804
ICAO Annex 14, Fig. A2-25



RGL

Patent No. Des. 403,263

Applications

The RGL (Runway Guard Light) is used to enhance the visibility of taxiway holding positions. Two RGL fixtures are installed at each end of the holding position line. Each fixture alternately flashes its two lamps.

Features



- ETL Certified L-804
- Uses two 100 W (PK-30d) quartz halogen lamps
- Adjustable light beam elevation with positive locking in one-degree increments
- Minimum average intensity exceeds 3000 candelas in traffic yellow
- Alternately flashes 45–50 times per minute
- Easy to maintain – no tools are required for relamping or replacing circuit cards
- External ON/OFF switch allows field relamping or circuit card replacement without de-energizing entire power loop (see option 1)
- High-strength frame and aluminum housing
- Base mounted with 2-inch frangible coupling
- Supplied with tether and 12-inch anti-rotation locking plate
- 300 MPH jet blast resistant
- Basic unit supplied with dry contact monitoring
- Computer control and monitoring available (see option 4)

| | |
|----------------------------|--------------------------------------|
| Instruction Manual: | 2520 |
| Shipping Weight: | 55 lbs. 25 kg |
| Shipping Volume: | 7.22 cu. ft. 0.204 m ³ |

Ordering Information



Fixture Type:

Elevated:

RGL Model:

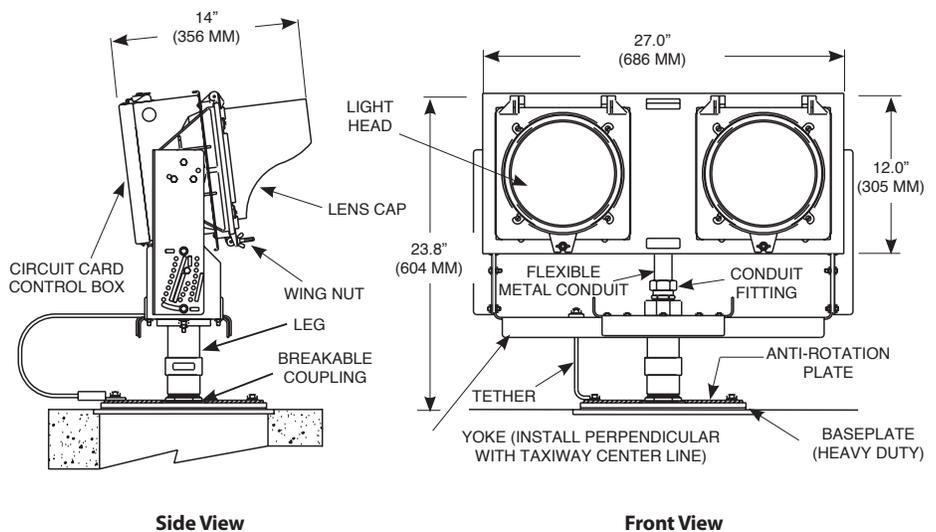
2 = Two 100w Lamps

Input Power:

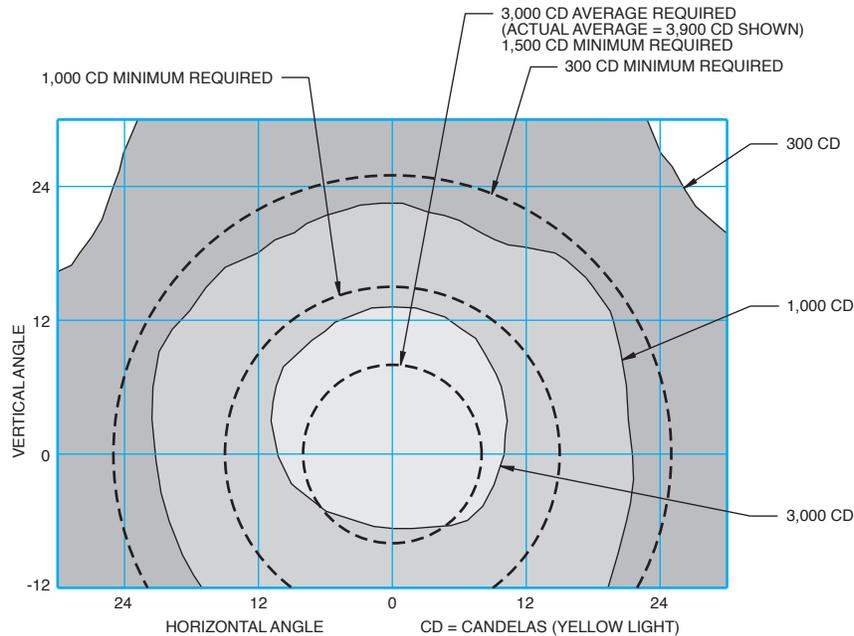
066 = 6.6 Amp Series Circuit

Options:

- 1 = External ON/OFF switch, 6.6 A.
- 2 = Not available.
- 3 = Without monitoring feature.
- 4 = Internal Logitrac digital control & monitoring (6.6 A series circuit only). Consult sales for assistance.
- 5 = Anti-rotation plate for 16-inch diameter baseplate.



Typical Photometric Data



Typical photometric output of runway guard light, yellow, steady burning @ 6.6 amps (804E2-066 shown)

Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|----------------|
| | | lbs. | kg | cu. ft. | m ³ |
| AC21242H200301 | Base L867, Class I, 24" Deep | 52.0 | 23.6 | 2.6 | 0.074 |
| 33004 | Isolation Transformer, 100 Watts, 6.6/6.6 A | 8.9 | 4.04 | 0.3 | 0.004 |
| AP1832 | Baseplate, 12" Diameter | | | | |
| AP2832 | Baseplate, 16" Diameter | | | | |

Renewal Parts*

| Part Number | Description | Part Number | Description |
|-------------|--|-------------|--|
| 10000-367 | Circuit Card Mounting Screw | 50260-1 | Control Circuit Card, 6.6 A Units |
| 10037-409 | Male-Female Hex Standoff, for Units with Monitoring (except option 4) | 50265-1 | Monitor Circuit Card, 6.6 A Units (except option 4) |
| 10047-2138 | Lamp, 100 W, 6.6 A (PK-30d) | 50276 | Logitrac Mounting Plate (option 4 only) |
| 10056-1752 | Logitrac Circuit Assembly (option 4 only) | 50500 | Control Box Door Assembly (includes gasket, warning label, hinge half and strike) |
| 50244 | Anti-rotation Plate, 12" | | |
| 50244-1 | Anti-rotation Plate, 16" (option 5 only) | 60683-10A | Frangible Coupling |
| 50255 | Wire (group E replacement, option 4 only) | 60984 | Tether |

* Traffic Visor, Traffic Signal Head and PC Weldment parts have changed as of June 2005. Consult factory for replacement availability.



TEL-5

Medium Intensity Runway Threshold/End Light



TEL-5

Compliances: FAA AC 150/5345-46: L-861SE

Applications

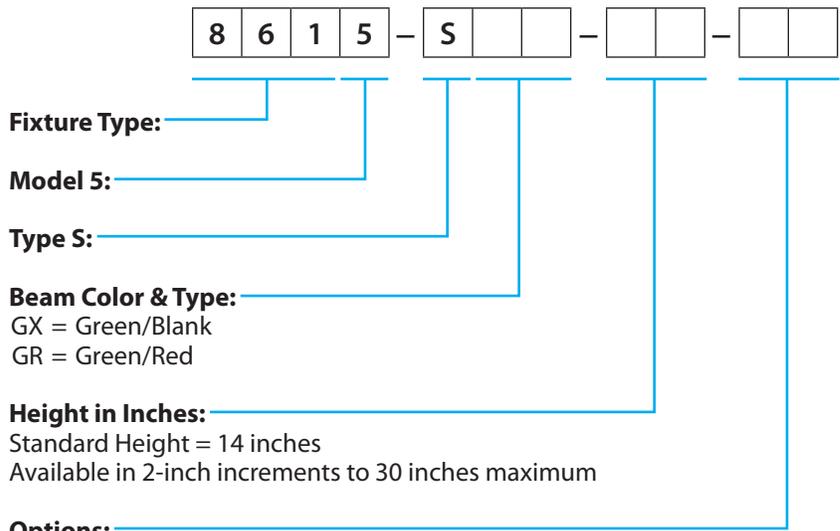
The TEL-5 is intended to enhance the visibility of thresholds on medium intensity runways that do not have approach lighting.

Features



- ETL Certified
- L861SE Fixture with 120W lamp
- Requires no tools to relamp - fixture hinges open for lamp access and ease, and is held shut by a spring clip
- Easy to level - unique swivel design allows fixture to be leveled by loosening and tightening one exterior fastener
- Easy to change filters - twist in place
- 300 MPH wind tested
- Modular design
- Utilizes 6.6 amp quartz bi-pin lamp
- Die-cast aluminum housing, painted yellow
- Available in heights 14 inches to 30 inches
- Standard 2" Threaded Frangible Coupling

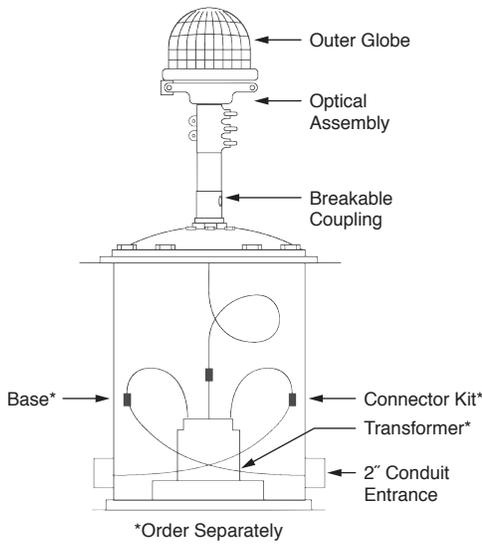
Ordering Information



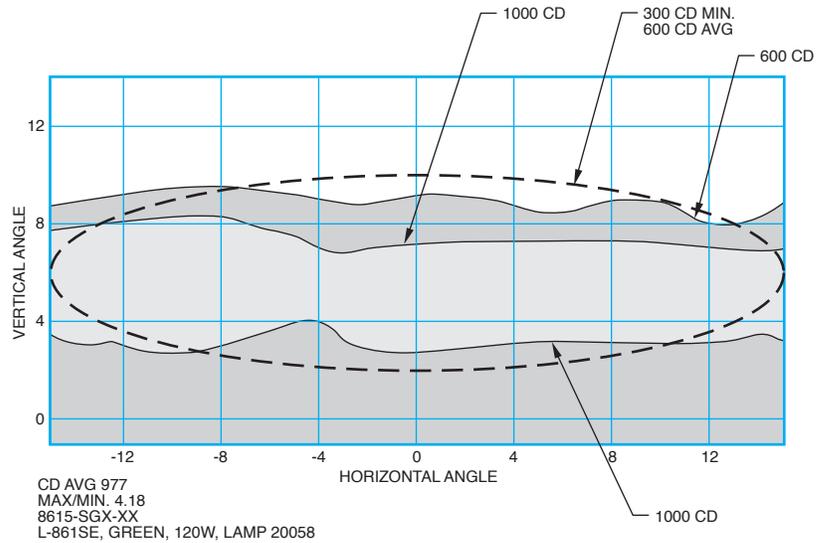
Options:

- 1 = 1.5"-12 UNF threaded aluminum frangible coupling
- 3 = Level adjustment lever in place of standard hex socket cap screw
- EX = Extra strength fixture for high wind and heavy snow areas. This option replaces the standard frangible coupling, housing column, and clamps with extra strength components.

Outline Drawing



Typical Photometric Data



Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AP1935 | Baseplate, 1.5" Hub, Painted Steel | 8 | 3.6 | 0.14 | .004 |
| AC21242H200301 | Base L-867, Class I, 24" Deep | 52 | 23.6 | 2.6 | .074 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG Stranded, .32" to .43" O.D. | | | | |
| 50359 | Leveling Fixture | | | | |
| 33004 | Transformer, 100 W, 6.6/6.6A | 8.6 | 3.9 | 0.3 | .009 |

Renewal Parts

| Part Number | Description |
|-------------|--|
| 50376-C | Clear Outer Globe |
| 50360-G | Green Inner Filter |
| 50360-R | Red Inner Filter |
| 50376-C/X | Clear/Blank Outer Globe |
| 40989 | Globe Gasket |
| 50351 | Filter Gasket |
| 50366 | Filter Spring |
| 20058 | Lamp, 120W, 6.6A, Bi-Pin |
| 50184 | Frangible Coupling 2" Aluminum |
| 60683-E | Frangible Coupling 2" Aluminum—EX Option |

| | |
|---------------------------|---|
| Instruction Sheet: | 2121 (standard fixtures) 2325 (-EX fixtures) |
| Shipping Weight: | 4.5 lbs. 2.0 kg. |
| Shipping Volume: | 0.31 cu. ft. .009 cu. m. |





Taxiway Edge Light-LED



Compliances: FAA AC 150/5345-46: L-861 Series
ICAO Annex 14

Applications

The TEL Model 5 is used as a medium intensity, taxiway edge light, for constant current circuits.

Features

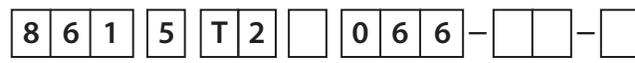


- ETL Certified (Blue only)
- Blue or Red glass globe for day light recognition
- Durable high impact sealing boot
- Single piece die-cast aluminum body
- Adjustable height
- Breakable coupling for stake, baseplate, or junction box mounting
- Constant current operation
- Available standard with 1.5 inch or optional 2 inch frangible coupling
- Long life LED
- Internally mounted, sealed, electronic power supply
- Direct replacement on existing baseplate
- Less than 8 VA at the highest step
- Complies with intensity requirements for 3 - step circuit
- Power Consumption - Lumen intensity steps powered by series circuit (6.6a/20a with proper isolation transformer)
- Non-Arctic Kit - Max fixture load 13.3W, 16.3Va, PF.8, Isolation transformer required 10/15 W
- Arctic Kit - Max fixture load 25.3W, 27.4Va, PF.9, Isolation transformer required 30/45 W

| | |
|----------------------------|---|
| Dimensions: | inches (mm) |
| Instruction Sheets: | 2907 (Standard Fixture) 2908 (Fixture with Option 1) |
| Shipping Weight: | 3 lbs. 1.4 kg. |
| Shipping Volume: | 0.1 cu.ft. .003 cu.m. |

Ordering Information

How to Order: A complete assembly will consist of separate order items for the TEL fixture, stake or baseplate with base or junction box with cover, isolation transformer, and L-823 connector kit.



Fixture Type:
861 = FAA L-861

Model:
5 = C-H Model 5 LED Fixture

Type:
T2 = Taxiway

Beam Color:
B = Blue
R = Red*

Input Power:
066 = 6.6A Constant Current

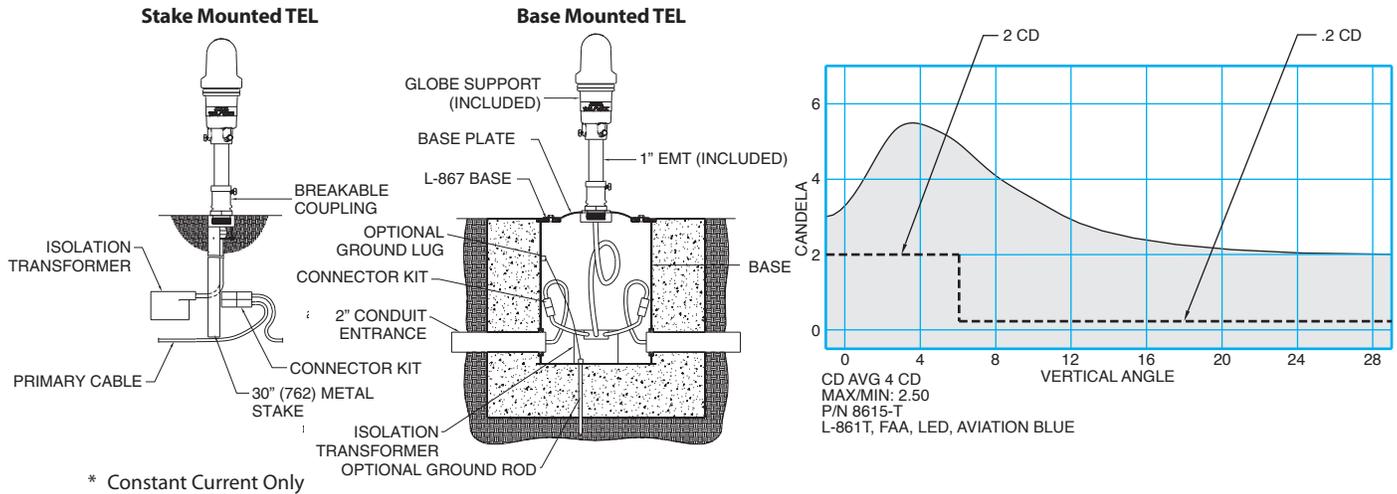
Height (Inches):
14 inches Standard
18 inches
22 inches
24 inches
30 inches (Maximum)

Options:
1 = Arctic Kit
2 = 2" NPS Aluminum Frangible Coupling

Accessory - Leveling Device, Order P/N 50400

Note: Standard fixture 6.6A@60Hz
* Not recognized by FAA Advisory Circular

Installation Drawings



Note: All ERL 6.6A versions include a lead with L-823 plug.

Accessories

| Catalog Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub, Painted Steel | 8 | 3.6 | .14 | .004 |
| AP1935 | Baseplate, 1.5" Hub, Painted Steel | 8 | 3.6 | .14 | .004 |
| AC21242H200301 | Base L-867, Class I, 24" Deep | 52 | 23.6 | 2.60 | .074 |
| AW2202 | Stake Assembly, 2" HUB | 8 | 3.6 | .2 | .006 |
| AW2205 | Stake Assembly, 1.5" HUB | 8 | 3.6 | .2 | .006 |
| 33001 | Transformer L-830-1, 6.6/6.6A - 30/45w | 8 | 3.6 | .2 | .006 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D.* | | | | |

* There will be no shipping info with this item

Renewal Parts

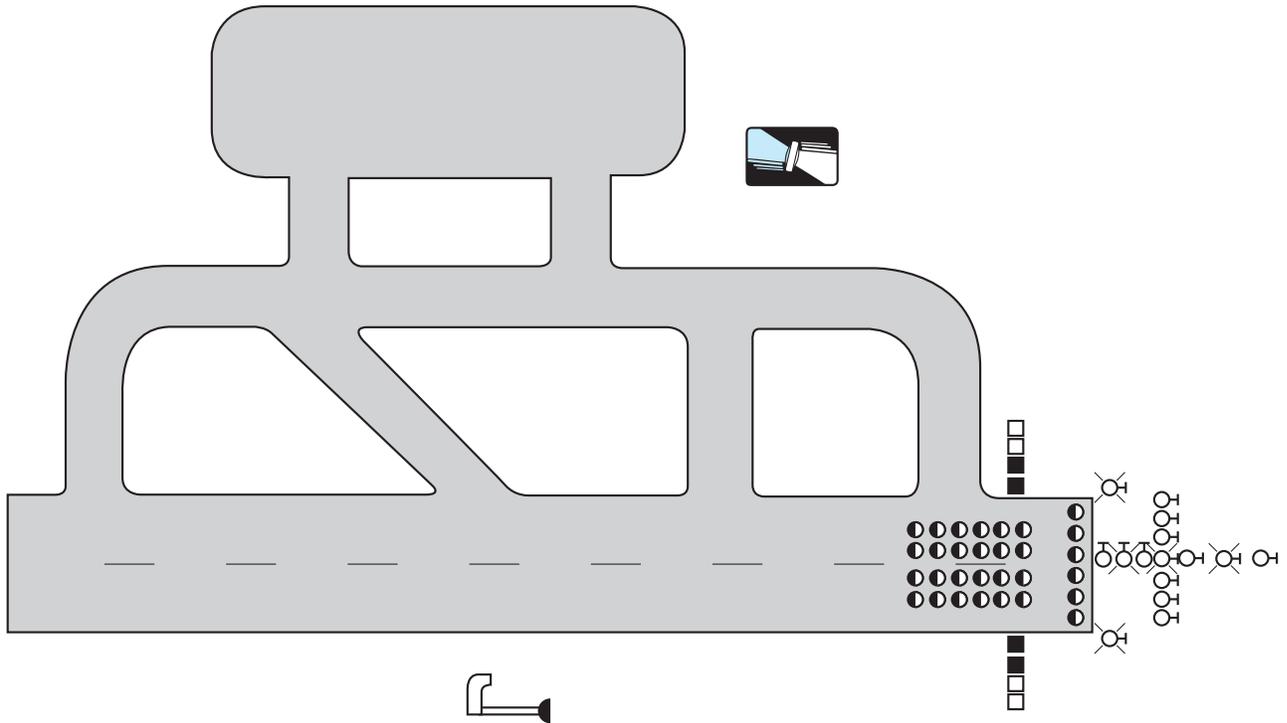
| Part Number | Description | Part Number | Description |
|-------------|--|--------------|---|
| 40878-13P | 1" EMT Extension (14") | 50388 | Sealing Boot |
| 40878-14P | 1" EMT Extension (18") | 10035-63-230 | O-Ring Seal |
| 40878-15P | 1" EMT Extension (24") | 50430 | Heatsink Assembly with LED (Lens, LED, Heatsink) (Blue) |
| 40878-16P | 1" EMT Extension (30") | 50527 | Globe/Heatsink Assembly with LED & Arctic Kit (Lens, LED, Heatsink, Globe with Heater) (Blue) |
| 50380 | Blue Globe - Glass* | | |
| 50390 | Globe Support Assembly | 50392 | LED Power Supply |
| 50186 | Frangible Coupling - Aluminum 1.5 Inch | 50398-2 | Lead Assembly 14 inch |
| 50184 | Frangible Coupling - Aluminum 2 Inch | 50398-3 | Lead Assembly 20 inch |
| 10037-883 | S.S. T-Band | 50398-4 | Lead Assembly 26 inch |
| | | 50396 | Thermal Tape for Housing/Heatsink |

* Non Arctic Kit model only



SECTION 3

Approach & Navigational Aids



Coordinating movement on the airfield is crucial to the safe and efficient operation of any airfield. Add to that flight operations taking place in unique environmental conditions and the needs for highly visible airfield markers takes on even more importance. How you address those needs depends on what meteorological conditions you will be operating under. Location, color and intensity are all important to the

pilot when determining his position and movement options on the airfield. The Federal Aviation Administration has set forth standards dictating how signs must perform and where they must be located. Crouse-Hinds Airport Lighting Products has the signs designed to meet those standards for your airfields needs in all certification categories.

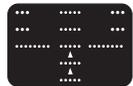
Application Icons



PAPI



Runway End



Flash System



Rotating Beacon



Approach



Threshold and Approach



Wind Cone



PAPI

Precision Approach Path Indicator



PAPI

Compliances: FAA AC 150/5345-28: L-880 and L-881
Transport Canada Specifications K342
ICAO Annex 14

Applications

The PAPI System provides the pilot a positive visual indication of the aircraft's position relative to the optimal glide slope during final approach to the runway.

The L-880 PAPI system consists of four units in a line or bar, each unit having two or three 200 watt lamps. The PAPI unit produces a beam of light, the upper portion being white, the lower red. As the pilot's vertical position changes, the color of the light as seen by the pilot changes instantaneously.

The Style A PAPI uses a Power and Control Unit (PCU) which has a photocell for automatic day/night intensity control. The PCU can be operated by using an L-854 radio controller signaled by an approaching aircraft. The Style B PAPI is powered by an L-828 constant current regulator.

Features

PAPI UNIT

- ETL Certified 
- 1500 Hour Lamps
- Meets ICAO Recommendations
- Sharp Signal Transition: 3 Minutes of Arc
- Precise Setting Tool: ± 2 Minutes of Arc
- Lamp Bypass Circuit (Style B)
- Tilt Switch Indicator Lights (Style B)

POWER AND CONTROL UNIT(PCU) (Style A)

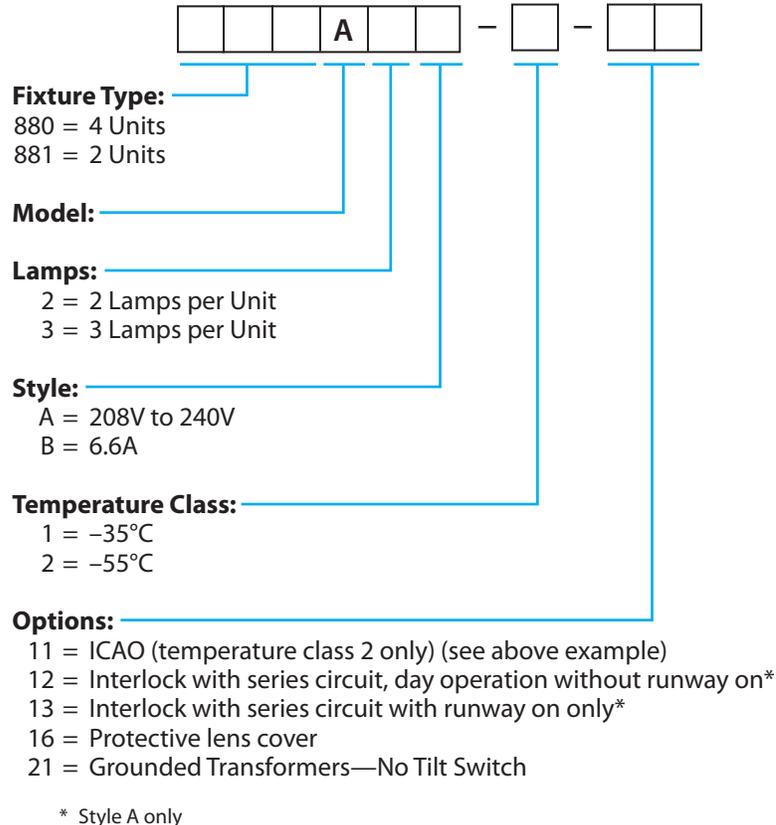
- Power Circuit Breaker
- Adjustable Power Supply - 195 to 265 VAC
- 50 Hz or 60 Hz Operation
- Indicator Lights:
 - Internal D.C. Power Supply Operation
 - Remote Control Status
 - Tilt Switch Status
 - Lamp Circuit Overvoltage
 - Photocell Status
 - Main Contactor Status
 - High Intensity Mode
 - Remote Control Override

Ordering Information

How to Order: Construct the basic catalog number based on the number of units per system and the power available. Add dash numbers for the temperature class and options. Style A includes the PCU. Style B includes the isolation transformers and connector kits. Above ground mounting hardware is included except 2 inch EMT for the legs. Order baseplates, transformer bases, and all other below ground items separately.

Examples: 880A2A-2 is an FAA L-880 system. It includes the PCU and tilt switches for voltage operation.

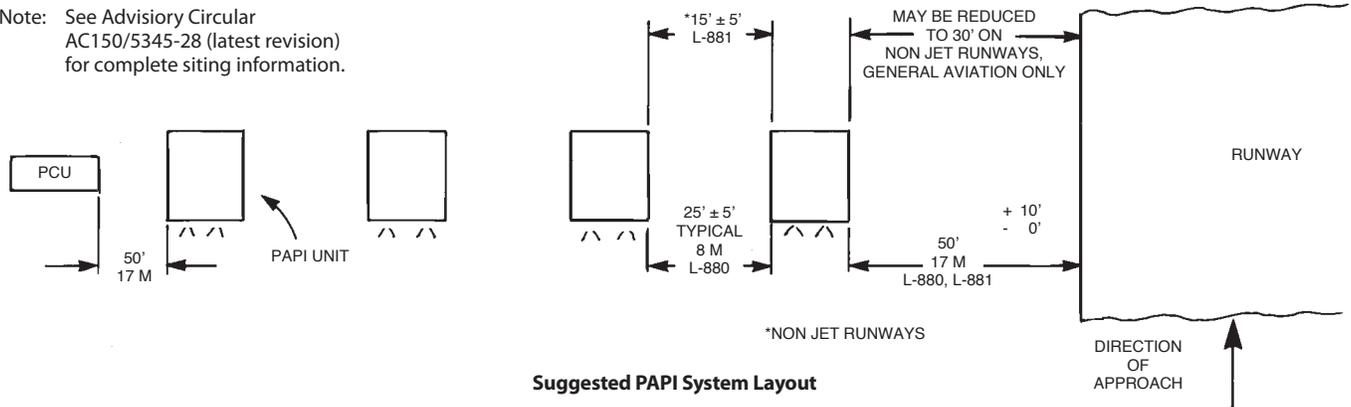
880A2B-2-11 is an ICAO PAPI system. It includes the EMT legs and it does not have tilt switches.



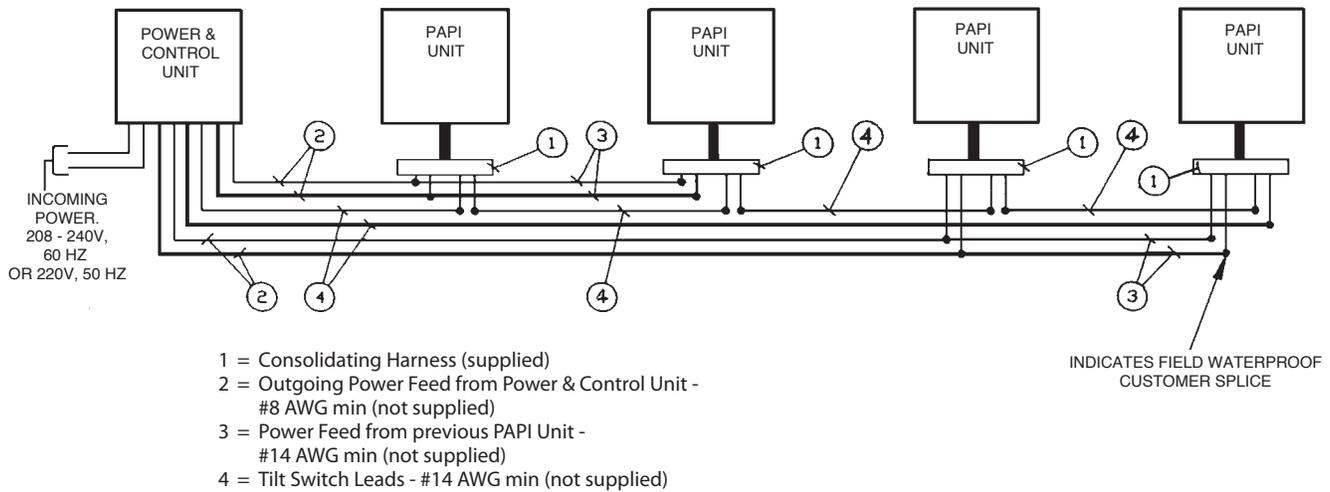
Note: Order one clinometer (aiming device) 25220 separately.

Installation Information

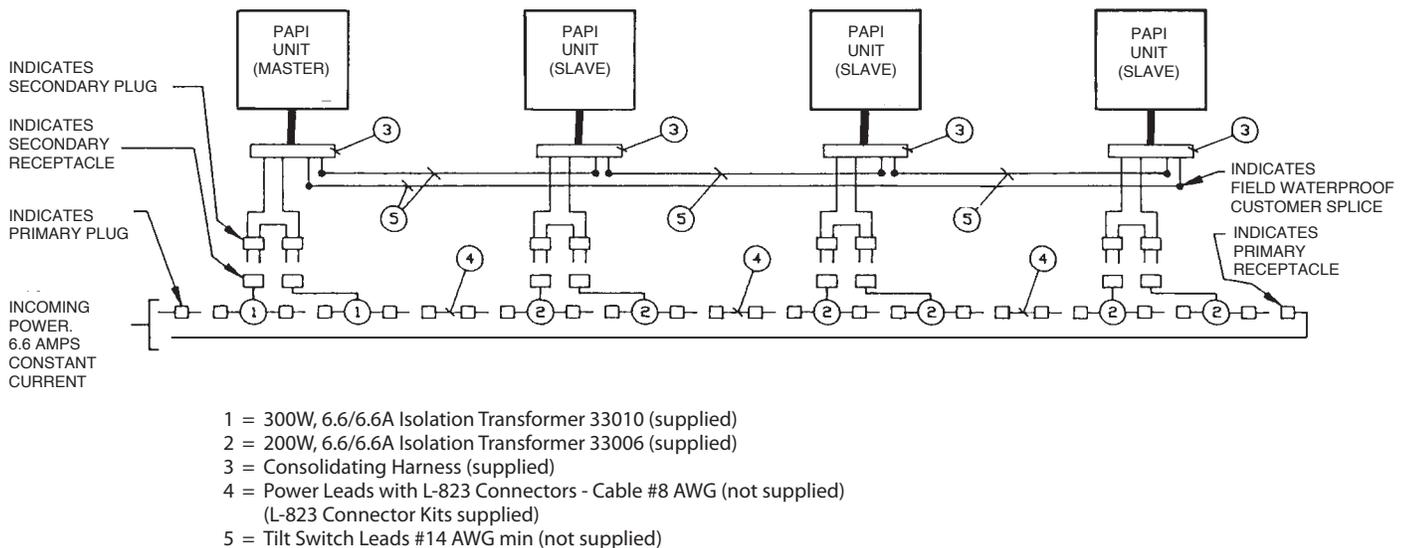
Note: See Advisory Circular AC150/5345-28 (latest revision) for complete siting information.



Typical Wiring Diagram: FAA Style A

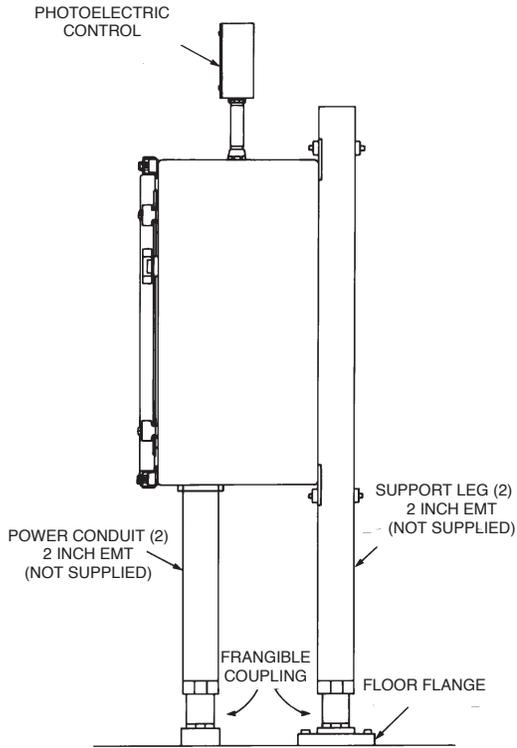


Typical Wiring Diagram: FAA Style B (2-Lamps)

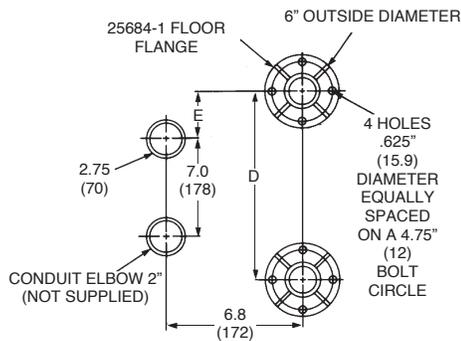


Outline Drawings

**POWER & CONTROL UNIT (PCU)
(Style A System Only)
SIDE VIEW**



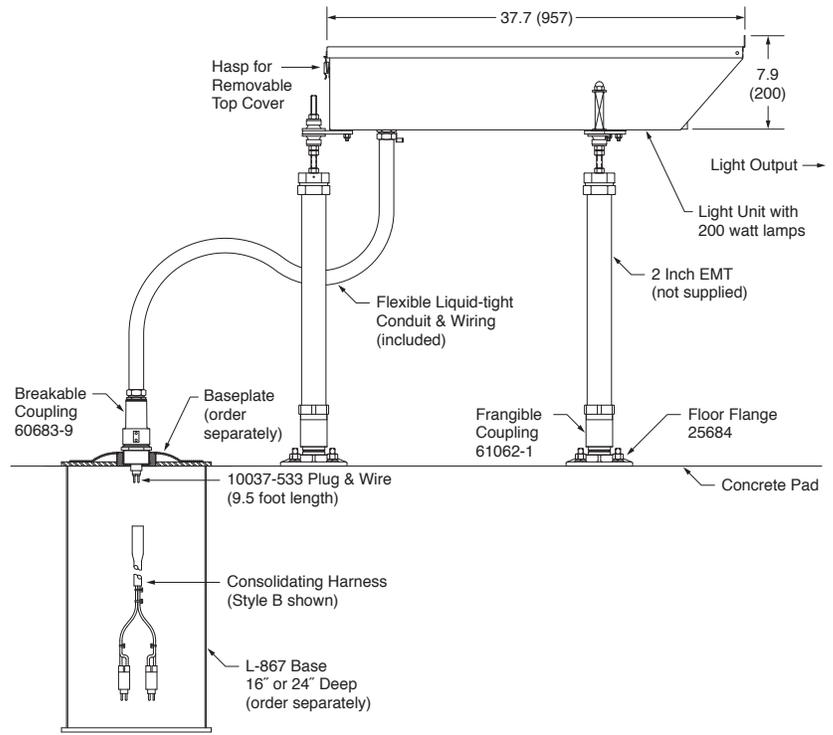
PCU FOOTING PLAN



Note: PCU mounting height is not specified. It is recommended to minimize the mounting height. The PCU may be wall mounted.

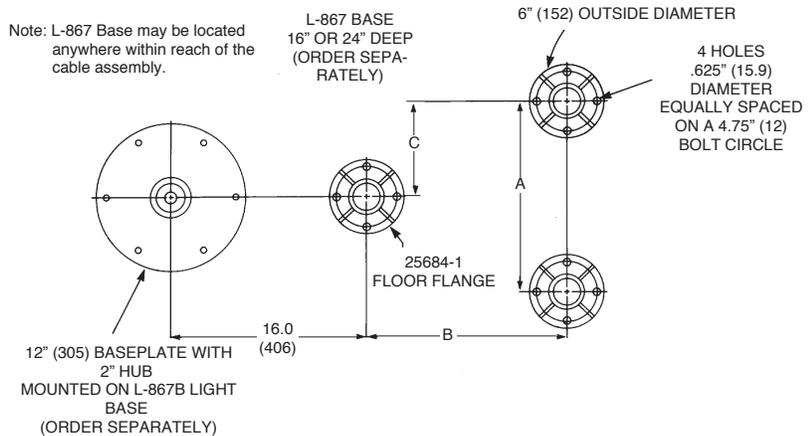
PAPI Light Unit

SIDE VIEW



Note: L-867 Base may be located anywhere within reach of the cable assembly.

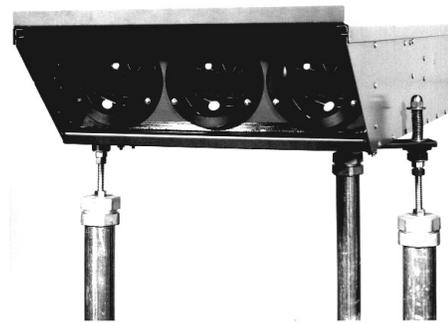
PAPI UNIT FOOTING PLAN



Footing Dimensions Chart

| Inches (Millimeters) | A | B | C | D | E |
|------------------------|-------------|-------------|-------------|------------|-----------|
| PAPI Light Unit 2-Lamp | 15.75 (400) | 25.75 (654) | 7.9 (200) | - | - |
| PAPI Light Unit 3-Lamp | 22.50 (572) | 25.75 (654) | 11.25 (286) | - | - |
| PCU for 8803A Systems | - | - | - | 18.0 (457) | 5.5 (140) |
| All other PCU's | - | - | - | 10.0 (254) | 1.5 (38) |

| | | | |
|---------------------------|--------------------------------|-------------------------|--------------------------|
| Dimensions: | inches (mm) | | |
| Instruction Manual | 2438 (2-Lamp) 2439 (3-Lamp) | | |
| | Light Unit (2)* | Light Unit (3)* | PCU |
| Shipping Weight: | 75 lbs. 34 kg. | 100 lbs. 45 kg. | 105 lbs. 48 kg. |
| Shipping Volume: | 9.3 cu.ft. 0.26 cu.m. | 12 cu.ft. 0.34 cu.m. | 3.7 cu.ft. 0.10 cu.m. |
| Photometric Data: | Contact Field Services | | |
| *Each Unit | | | |



3-Lamp Light Unit

Accessories

| Catalog Number | Item Description | Shipping Weight | | Shipping Volume | |
|----------------|-------------------------------|-----------------|------|-----------------|-------|
| | | lb. | kg. | cu.ft. | cu.m. |
| AP1932 | Baseplate, 2" Hub | 8 | 3.6 | .14 | .004 |
| 21242Q200301 | Base L-867, class I, 24" deep | 52 | 23.6 | 2.6 | .074 |
| 25220 | Clinometer/Tilt Level | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|------------------|---|---|--|
| PAPI UNIT | | PCU | |
| 10047-2896 | Lamp 200W | 27045 | Photocell Assembly |
| 40749 | Lamp Socket | 27138-1 | Power & Control Unit (PCU) PC Board Standard with no Options |
| 27069 | Red Filter | | Power & Control Unit (PCU) PC Board with Options "12" |
| 31329 | Transformer T1 | 27138-3 | Relay K1,K2 |
| 60683-9 | Breakable Coupling (1 per Unit) | 10047-2901 | Transformer T1, 900VA |
| 61062-1 | Breakable Coupling (3 per Unit) | 27039 | Transformer T1, 1800VA |
| 25684-1 | Floor Flange (3 per Unit) | 27038 | Transformer T1, 2800VA |
| 10037-533 | Plug 4-Pin with 4-Conductor wire 9.5' | 27120 | Lightning Arrestor |
| 25225-1 | Tilt Switch (Class 1) | 10047-885 | Fuse F1 |
| 25225-3 | Tilt Switch (Class 2, Style B) | 10047-1005 | Fuse F2 |
| 25225-4 | Tilt Switch (Class 2, Style A) | 10047-1143 | Floor Flange (2 per PCU) |
| 33010 | Isolation Transformer 300W (Style B) | 25684-1 | Frangible Coupling (4 per PCU) |
| 33006 | Isolation Transformer 200W (Style A) | 61062-1 | |
| 33004 | Isolation Transformer 100W (Style B) | | |
| 27123-1 | Tilt Switch Control Board (2-Lamp) | | |
| 27123-2 | Tilt Switch Control Board (3-Lamp) | | |
| 27123-3 | Tilt Switch Control Board (3-Lamp) | | |
| 10037-534 | Consolidating Harness Style A | | |
| 27068-1 | Consolidating Harness Style B - FAA (2-Lamp) | | |
| 27068-2 | Consolidating Harness Style B - ICAO | | |
| 27068-3 | Consolidating Harness Style B - FAA (3-Lamp) | | |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | |
| | | SPARE PAPI UNITS: (Without Harness & Mounting Hardware)* | |
| | | 2-Lamp | 3-Lamp |
| | | 27178-1 | 27179-1 |
| | | 27178-2 | 27179-2 |
| | | 27178-3 | 27179-3 |
| | | 27178-4 | 27179-4 |
| | | 27178-5 | 27179-5 |
| | | 27178-6 | 27179-6 |
| | | 27178-7 | 27179-7 |
| | | 27178-8 | 27179-8 |
| | | | Style A, Class 1 |
| | | | Style A, Class 2 |
| | | | Style B, Class 1 (Master) |
| | | | Style B, Class 2 (Master) |
| | | | Style B, Class 1 (Slave) |
| | | | Style B, Class 2 (Slave) |
| | | | Style A, Option 11 |
| | | | Style B, Option 11 |

* For complete 2-Lamp units, order 27170.

* For complete 3-Lamp units, order 27175.





Runway End Identifier Lights



REIL

Compliances: FAA/AC 150/5345-51; L-849 A,B,E,F
ICAO Annex 14
Transport Canada Specification K 312

Applications

The primary application of a REIL system is to positively identify the end or the threshold of a visual or instrument non-precision runway.

This REIL system consists of two synchronized flashing lights. One flasher unit is located at each side of the runway threshold.

Features

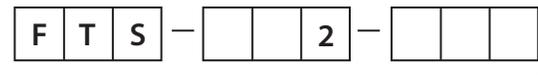


- ETL Certified
- CSA Certified
- Easy to install – each REIL unit consists of a flash head and a control box, mounted on the same support leg(s).
- Easy to maintain – special tools are not required.
- Does not require separate control cabinet – REIL Master Unit with integral system control.
- Elapsed time meter
- Safety interlock in each control box and flash head.
- Weather resistant – painted parts are coated with U.V. resistant paint, electrostatically applied.

NOTE: Each current (series circuit) operated REIL must be powered by a dedicated 4kW (minimum) constant current regulator.

Ordering Information

How to Order: To the Basic Catalog Number, add the symbols for FAA Style and Input Power, as shown below. Add Option numbers as required.



Fixture Type:

Beam Orientation:

- 4 = Omni Directional (FAA Style B,F)
- 8 = Uni Directional (FAA Style A,E)

Input Type:

- 1 = Voltage operated with internal (SC 415) controller**
- 3 = Current (series) operated

Voltage* (Input Type 1 Only):

- 240 = 240 V. 60 Hz
- 230 = 230 V. 50 Hz

* For optional 120 V, 60 Hz consult factory
FTS SERIES products are manufactured by Flash Technology, Franklin, TN.

** For optional current sensing control of the voltage operated REIL, also order FTC-435 Controller and (1) 30/45W isolation transformer

Technical Data

Instruction Manual: FTS 400/800
FTS 430/830

Primary Power:

Voltage Unit, 240VAC +10% 60Hz / 230VAC +10% 50Hz, 1 Phase
Current Unit, Direct connect to secondary of standard FAA type L830

Isolating Transformer

120 Watts (High) 85 Watts (Med) 65 Watts (Low)
300 Volt Amperes (High Intensity)

Effective Intensity:

Style A, E = 20,000, 2000, 450 effective candelas.
Style B, F = 300 ± 50%, 1,500 ± 5% and 5,000 ± 5% effective candelas

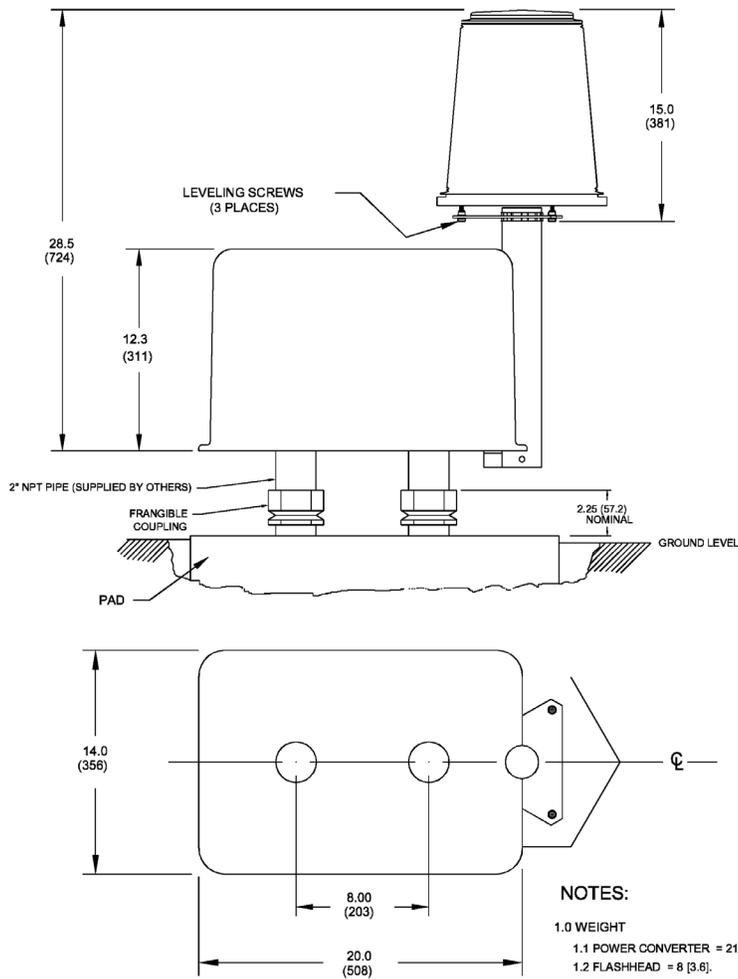
Flash Rate:

60 Flashes per minute (400)
120 Flashes per minute (800)

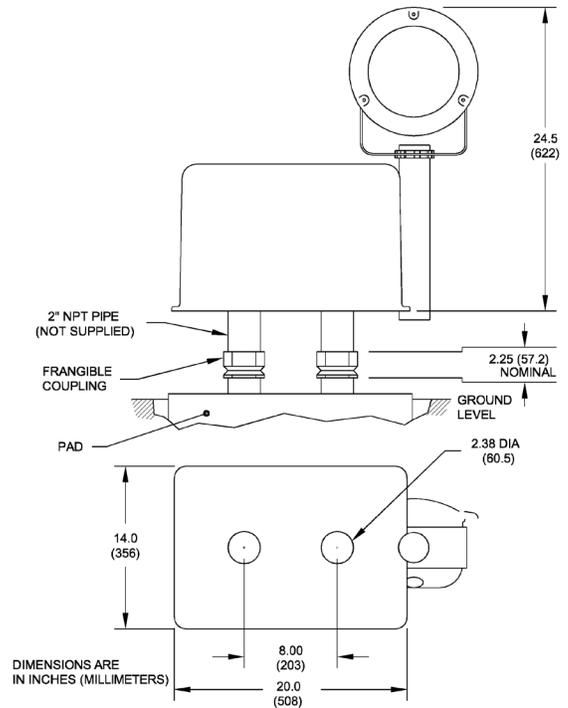
Beam Pattern:

Omnidirectional coverage: 360 degrees horizontal, 8 degrees vertical
Unidirectional coverage: 30 degrees horizontal, 10 degrees vertical

Outline Drawings



**FTS 4 Series Co-Mounted
Omni Directional**



**FTS 8 Series Co-Mounted
Uni Directional**

NOTES:

- 1.0 WEIGHT
 - 1.1 POWER CONVERTER = 21 [9.5].
 - 1.2 FLASHHEAD = 8 [3.6].
- 2.0 DIMENSIONS ARE IN INCHES [MILLIMETERS].
WEIGHTS ARE IN POUNDS [KILOGRAMS].

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--------------------------------------|-------------|----------------------------------|
| 8384329 | Flashtube (FH 400) | 2711402 | HV Rectifier Board |
| 8901701 | Flashtube (FH 800) | 8900494 | Relay, mode (K1, K2) |
| 8743701 | Lens (FH 400) | 2730300 | Timing & Trigger Board |
| 8288201 | Trigger Transformer (FH 400, FH 800) | 2458005 | HV Rectifier Board (Voltage) |
| 33010 | 300W 6.6/6.6A Isolation Transformer | 2652318 | Timing & Trigger Board (Voltage) |

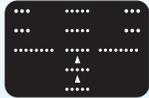
For additional replacement parts contact factory

Shipping Weights and Volumes

| REIL Catalog Number | Shipping Weight | | Shipping Volume | |
|---------------------|-----------------|------|-----------------|-------|
| | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| FTS 4 Series | 29 | 13.1 | 37 | 1.048 |
| FTS 8 Series | 25 | 11.3 | 37 | 1.048 |



ALSF



Flasher System



ALSF

Compliances: FAA AC 150/5345-51
SSALR (Type I)
ICAO ANNEX 14
TRANSPORT CANADA K312

Applications

Precision approach to runway in visibility conditions where the runway visual range (RVR), is less than one-half mile requiring steady-burning approach lights with sequence flashing lights.

The system consists of a master controller for monitoring and individual flashing lights that can be incorporated with steady burning lights to create various types of approach light systems such as the classic 21-position ALSF-1 or ALSF-2.

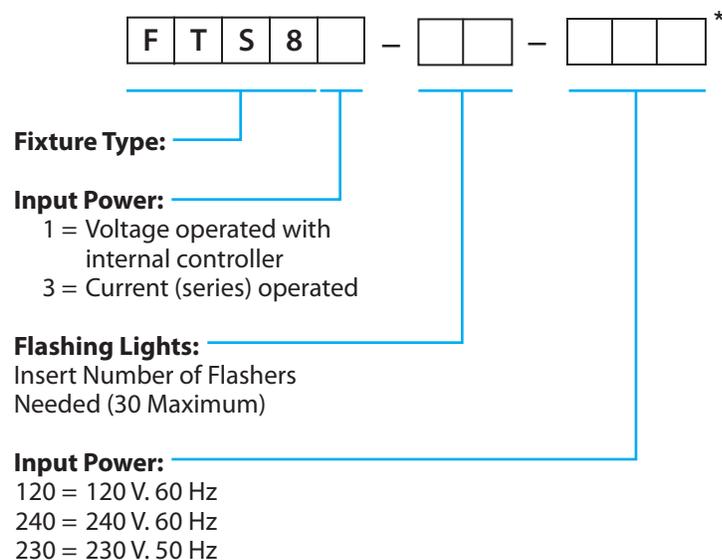
Flashhead and power converter may be mounted as one unit or individually to meet local terrain needs. Inset (surface mount) flashers are also available.

Other parts of the system, such as steady burning lights, towers, light bases, transformers and regulators must be ordered separately.

Features

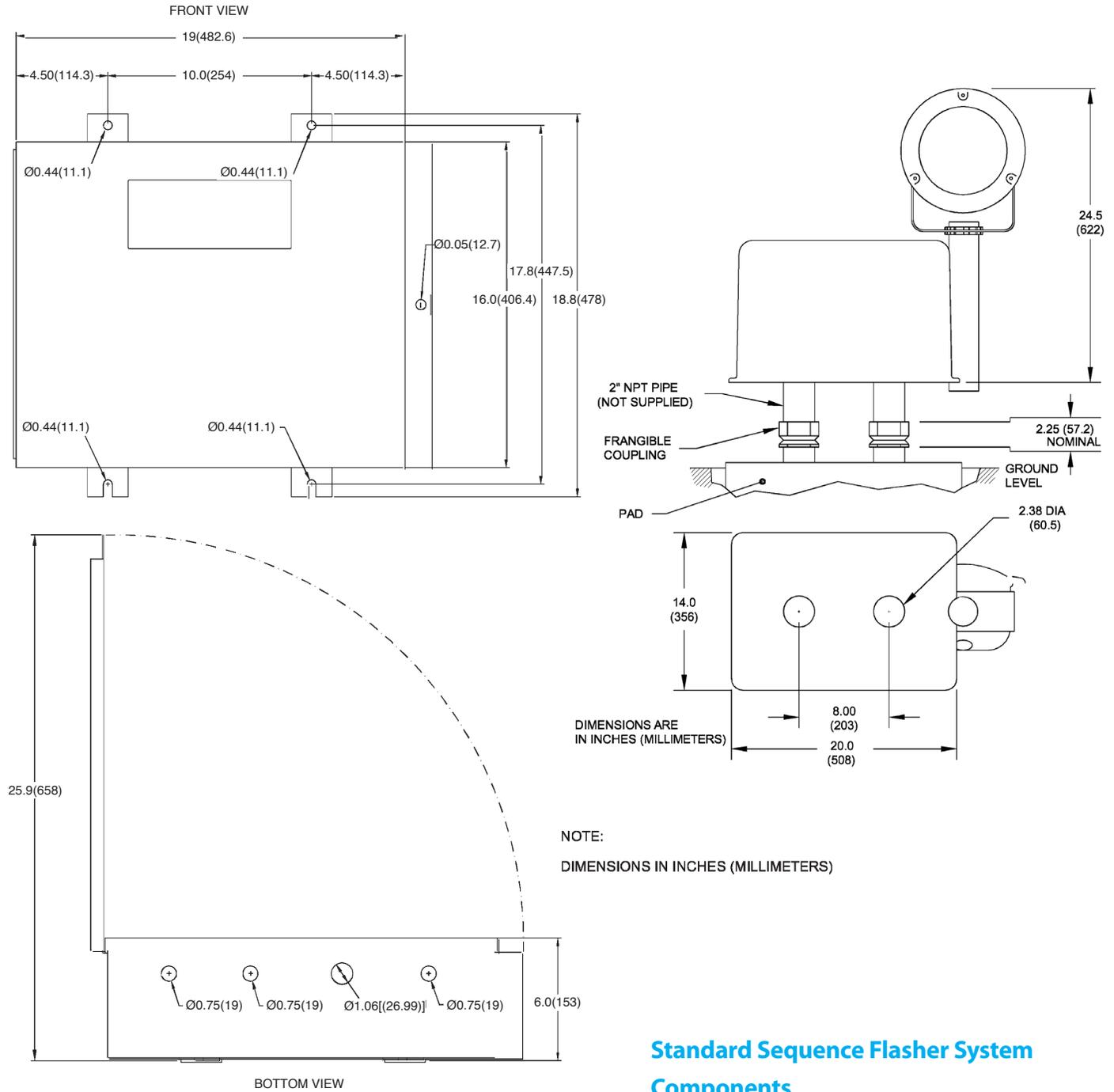
- ETL Tested and Verified
- Real-time dynamic fault detection and isolation
- Elapsed time metering (user-setable alarms)
- Standard input voltages 60 Hz 120 V, 240 V, 50 Hz-230 V
- Micro-processor control
- Transient protection
- Monitoring and dimming capability
- Local and remote control operation
- High-intensity default and failure detection, and caution indication
- NEMA 4 outdoor cabinet with locking provisions
- -55°C to +55°C operation
- Remote tower and vault control panels available
- Computer-control compatible (dry contacts)
- 120 Flashes per minute (factory calibrated)
- LED display
- FTC183 25 Watts, Average power consumption
- Can be installed up to 2500' from the approach system

Ordering Information



* FTS Series product are manufactured by Flash Technology, Franklin, TN.

Outline Drawings



| | |
|----------------------------|--------------------|
| Instruction Manual: | FTC 183 / FTC 435 |
| | Master Flasher |
| | Timer Power Supply |
| Shipping Weight: | 29. lbs. 25. lbs. |
| | 13. kg 11.3 kg |

Standard Sequence Flasher System Components

| Item* | Part Number |
|----------------------|-------------|
| Fuse, Power, MDL2A | 4900342 |
| PCB100 Control Board | 2471912 |
| VRI Varistor 120 V | 6901079 |
| Relay, Alarm | 4900501 |
| PCB200 Panel Board | 2472001 |





Airport Rotating Beacon



ARB

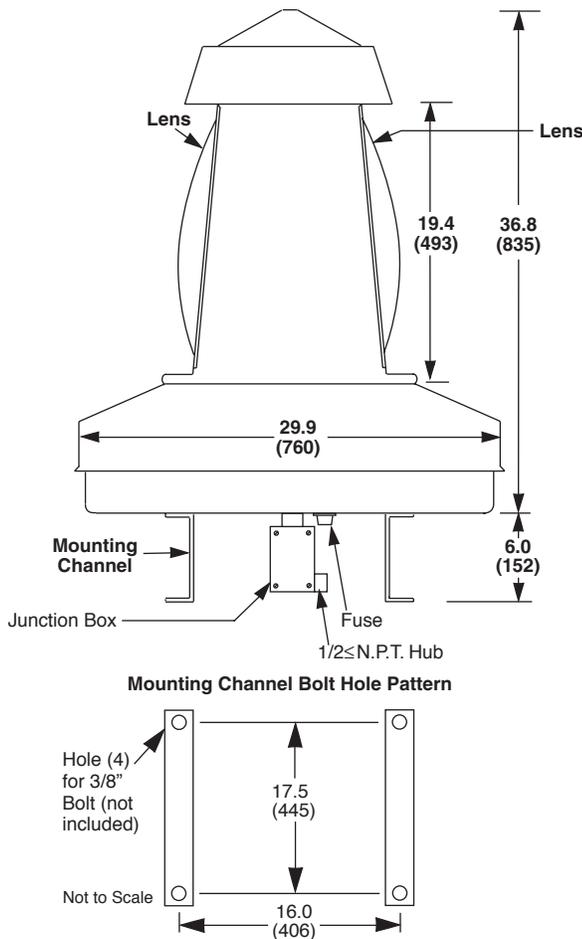
Compliances: FAA AC 150/5345-12: L-801 & L-802
ICAO Annex 14
TRANSPORT CANADA K312

Features

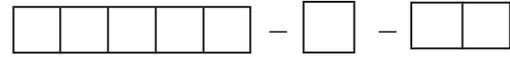


- ETL Certified
- FAA Approved: L-801 400W
L-802 1000W
- Metal Halide Lamp (included):
400W for medium intensity beacons
1000W for high intensity beacons
- Long Lamp Life
- No Lamp Changer
- Simple Design with few moving parts
- Light weight for easy handling

Outline Drawing



Ordering Information



Fixture Type:

- 801 = L-801 Medium Intensity
- 802 = L-802 High Intensity

Application**:

- A = Airport: White/Green
- S = Seaplane: White/Yellow
- H = Heliport: White/Green/Yellow

Class:

- 1 = -35°C
- 2 = -55°C*

Power:

- 1 = 120V, 60Hz
- 2 = 220V, 50Hz

Options:

- BC = Low-Angle Beam Cutoff 2°
- TR = Tell-Tale Relay with 250W Quartz Lamp
- WW = Two White Lenses
- WWG = Two White Lenses and One Green Lens***

- * All Class 2 ARB's require the TR option
- ** Standard Application – Options Available
- *** Not intended for military use, reference UFC 3-535-01

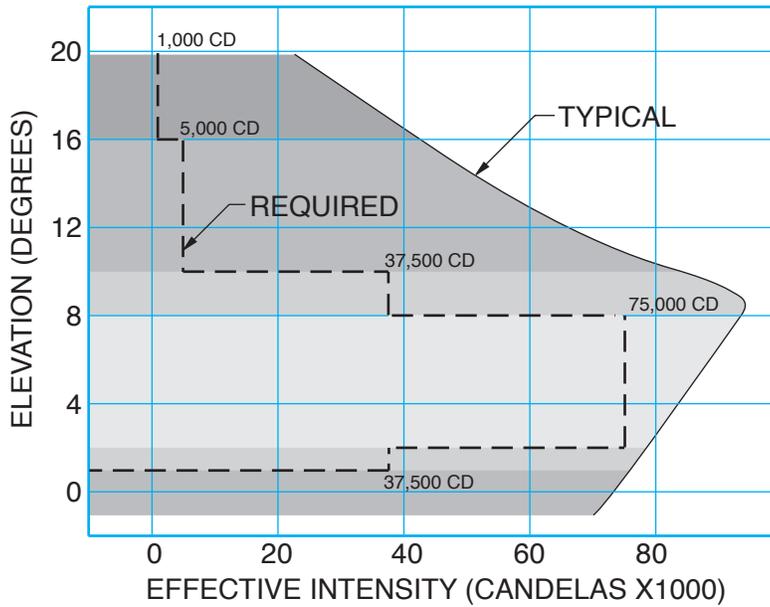
Renewal Parts

| Part Number | Description |
|-------------|---|
| 10047-1802 | Lamp, 400W Metal Halide (801XX) |
| 10047-2795 | Lamp, 1000W Metal Halide (802XX) |
| 10047-2293 | Tell-Tale Lamp, 250W Quartz (Option TR) |
| 65020-1 | Clear Lens (1000W ARB) |
| 65020-2 | Green Lens |
| 65020-4 | Clear Lens (400W ARB) |
| 65045 | Relay Assembly, TR option |
| 65020-3 | Yellow Lens |
| 65018 | Gearing Assembly |
| 65057 | Motor Assembly |
| 65058-1 | Ballast Assembly, 1000W, 120V, 60Hz |
| 65058-2 | Ballast Assembly, 1000W, 220V, 50Hz |
| 65058-3 | Ballast Assembly, 400W, 120V, 60Hz |
| 65058-4 | Ballast Assembly, 400W, 220V, 50Hz |
| 10047-2344 | Fuse, F1 |

| | | | |
|----------------------------|------------------------------|-------------------------|----------------------------|
| Dimensions: | inches (mm) | Shipping Weight: | 243 Lbs. 110 kg. |
| Instruction Manual: | 9218 (802XX) 9301 (801XX) | Shipping Volume: | 47.5 cu.ft. 1.345 cu.m. |

Photometric Data

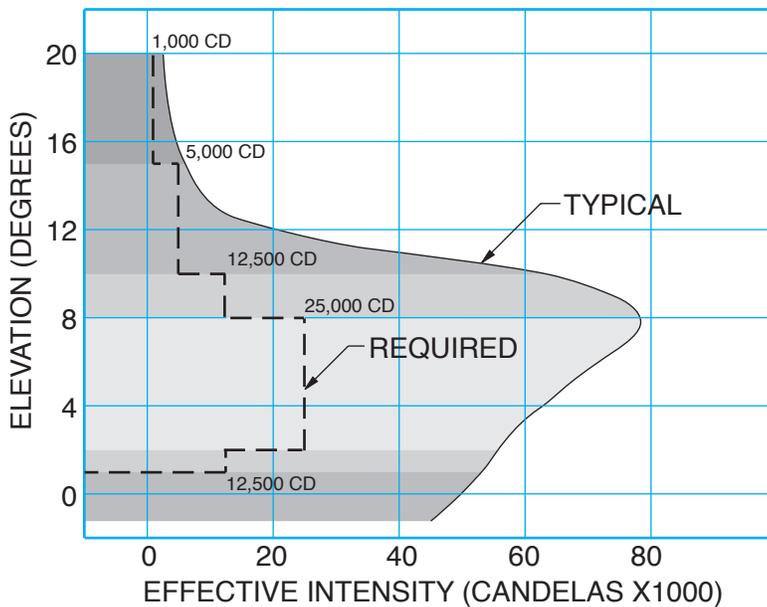
ELEVATION vs EFFECTIVE INTENSITY
L-802A/S, 1000W, 2 LENS BEACON, WHITE LENS



Notes:

- Beacon Rotates:
 - 12 RPM @ 60Hz
 - 10 RPM @ 50Hz
- Flash Rate: (L-801H)
 - 36 Flashes/min @ 60Hz
 - 30 Flashes/min @ 50Hz
- Flash Rate: (L-802 A/S)
 - 24 Flashes/min @ 60Hz
 - 20 Flashes/min @ 50Hz

ELEVATION vs EFFECTIVE INTENSITY
L-801H, 400W, 3 LENS BEACON, WHITE LENS





Elevated Approach Light



EAL

(98240-G-300-Unit Shown)

Compliances: FAA Specification FAA-E-982*
ICAO Annex 14
Transport Canada Specification K-302

Applications

The EAL is a unidirectional elevated light which may be used as a clear or red approach light, a red end of runway light, and a green threshold light. For more information, refer to the Application/Fixture Selection Table on page 3.14.

Features

- Meets FAA photometric requirements, using standard PAR 56 lamps, as specified in FAA-E-982 document.
- Suitable for replacement of MB-2 MILSPEC MIL-L-26990 lights per U.S. Air Force AFR 88-14.
- Easy to install - mounts on a standard 2" EMT (50mm pipe) and a frangible coupling or approach mast mounted.
- Sturdy filter clips - resist high winds and jet blasts.
- Cast aluminum housing.
- Easy to relamp - special tools are not required.
- Easy to aim - uses precise aiming device** with digital readout.
- Shipped fully assembled.

Ordering Information

How to Order: To the basic catalog number, add the symbols for Color, Lamp type, Cable Assembly and Options (if any). A frangible coupling may be required for proper mounting and must be ordered separately.

Examples:

98240-C-200 is a clear approach light with a 200 watt lamp, less cable.

98240-G-300-20 is a green threshold light with a 300 watt lamp and 6.5' (2m) long 20 amp cable.



Fixture Type:

Light Color:

- C = Clear (No Filter or Clips)
- R = Red, Absorption Filter with Clips
- G = Green, Absorption Filter with Clips
- DR = Red, Dichroic Filter with Clips
- DG = Green, Dichroic Filter with Clips

Lamp Type:

- 200 = 200 Watts, 6.6 Amp, PAR-56
- 300 = 300 Watts, 20 Amp, PAR-56
- No symbol means no lamp is included

Cable Assembly:

- 66 = 6.5 Feet (2 meters) Long Cable, 6.6 Amp Rated with L-823 Plug
- 20 = 6.5 Feet (2 meters) Long Cable, 20 Amp Rated, with L-823 Plug
- No symbol means a cable is not included

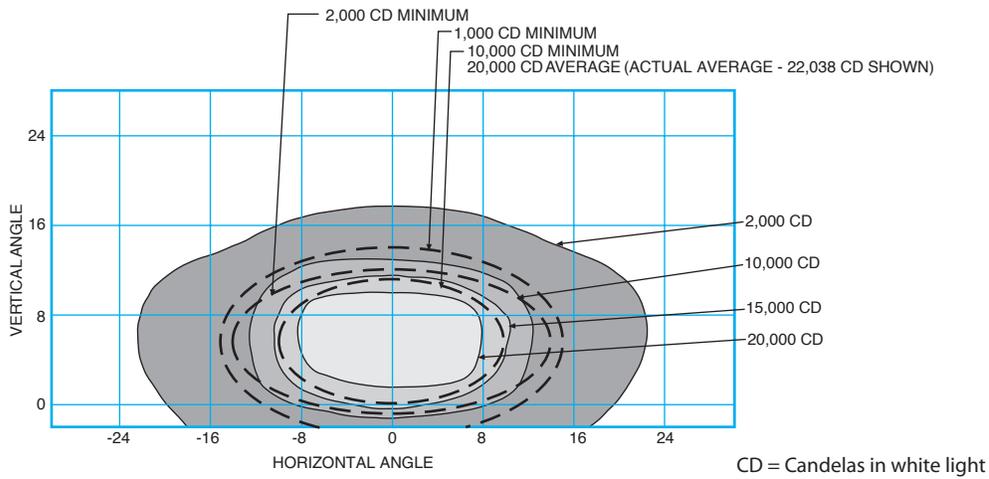
Options:

- 10 = Mounting Kit (consist of 61062-1 Frangible Coupling and 25003 Cable Clamp Assembly).
- 11 = Ground Wire

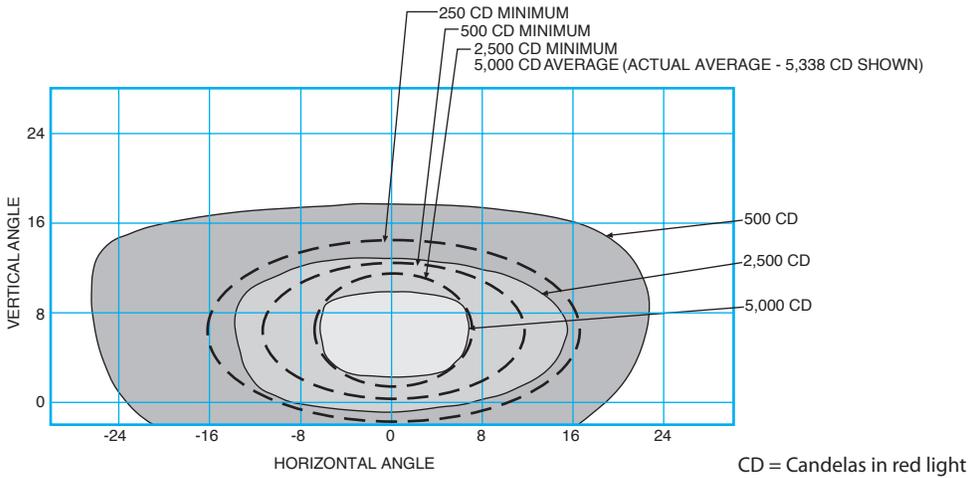
* With Exception of the Weight.

** Order 50133 aiming device separately (one per facility).

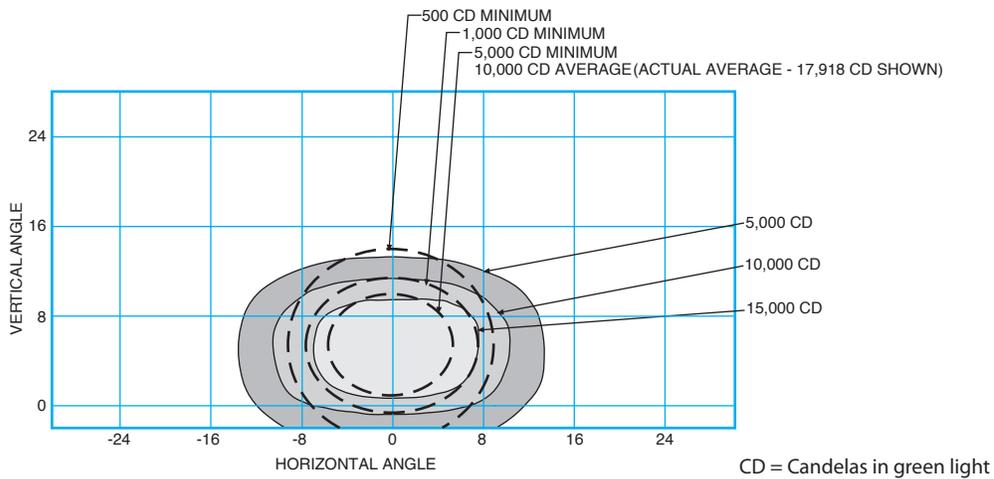
Photometric Data



APPROACH CENTERLINE & CROSS BAR WHITE LIGHT - 200 WATTS
(ICAO FIGURE 2.1)

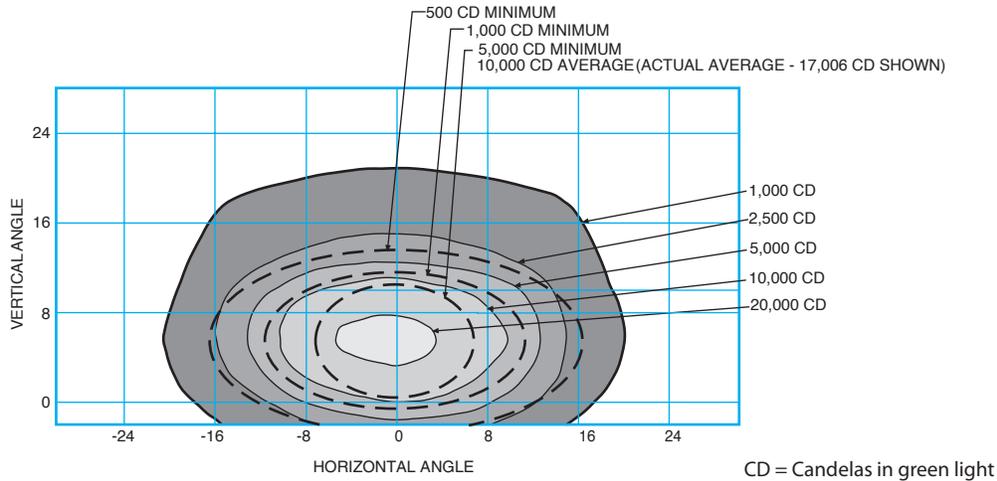


APPROACH SIDE ROW RED LIGHT - 200 WATTS
(ICAO FIGURE 2.2)

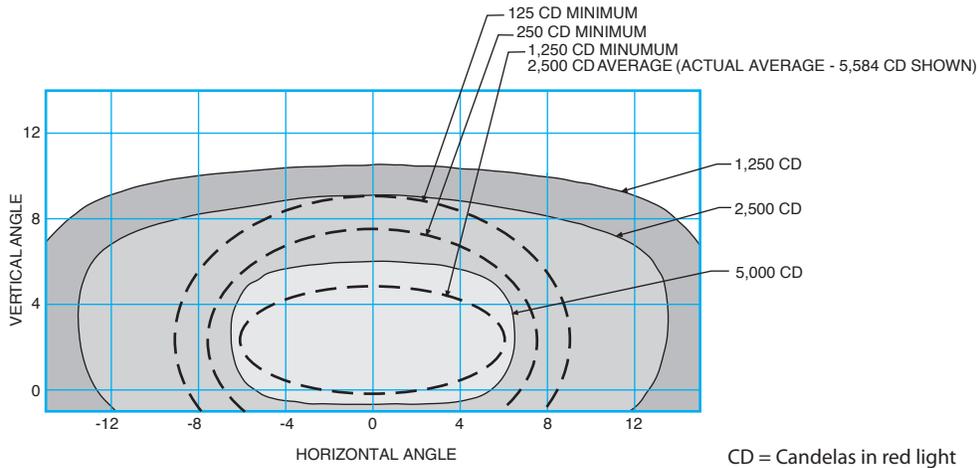


THRESHOLD GREEN LIGHT - 200 WATTS
(ICAO FIGURE 2.3)





THRESHOLD WING BAR GREEN LIGHT - 200 WATTS
(ICAO FIGURE 2.4)



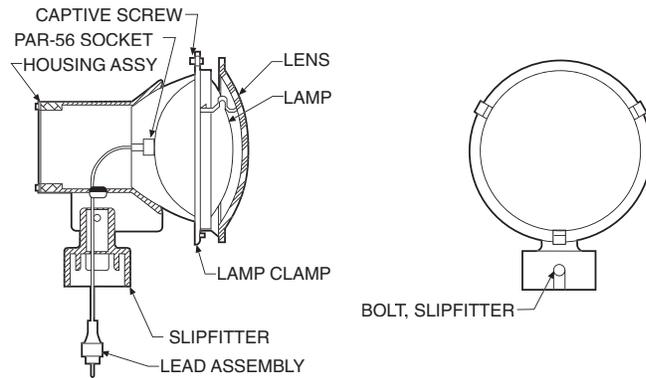
RUNWAY END RED LIGHT - 200 WATTS
(ICAO FIGURE 2-8)

APPLICATION/FIXTURE SELECTION TABLE

| Application | Compliances | Catalog Number |
|--|----------------------------|----------------------------------|
| White, Approach Centerline and Cross Bar Light | ICAO, USAF/NAVY, NATO, FAA | 98240-C-200-66 98240-C-300-20 |
| Red, Approach Side Row Light | ICAO, USAF/NAVY, NATO, FAA | 98240-DR-200-66 |
| Green, Runway Threshold and Wing Bar Light | ICAO, USAF/NAVY, NATO, FAA | 98240-DG-200-66 |
| Red, Runway End Light | ICAO, USAF/NAVY, NATO, FAA | 98240-R-200-66 |

Outline Drawing

Instruction Manual: 9701



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 61062-1 | Breakable Coupling with Compression Fitting | 1 | 0.5 | 0.03 | 0.001 |
| AP1932 | Baseplate, 2" Hub, 12" Diameter | 8 | 3.6 | 0.14 | 0.004 |
| AP2932 | Baseplate, 2" Hub, 16" Diameter | 14 | 6.4 | 0.14 | 0.004 |
| AC21242H200301 | Base L-867B, Class I, 24" Deep | 52 | 23.6 | 2.6 | 0.074 |
| AC63242H200301 | Base L-867D, Class I, 24" Deep | 87 | 30.4 | 4.3 | 0.122 |
| 33006 | Transformer L-830-6, 200 watts 6.6/6.6A | 8.9 | 4.04 | 0.3 | 0.009 |
| 33007 | Transformer L-830-7, 200 watts 20/6.6A | 8.9 | 4.04 | 0.3 | 0.009 |
| 33008 | Transformer L-830-8, 300 watts 6.6/20A | 15.0 | 6.8 | 0.7 | 0.019 |
| 33009 | Transformer L-830-9, 300 watts 20/20A | 17.2 | 7.8 | 0.7 | 0.019 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |
| 823KP-D3-D3 | Connector Kit L-823, 6 AWG, .32" to .43" O.D. | | | | |
| 10047-2154 | Heat Shrink Kit (1-piece) | | | | |
| 10047-1425 | Heat Shrink Kit (2-piece) | | | | |
| 50133 | Aiming Device | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|----------------------------------|--------------|---------------------------------|
| 50115-1 | Housing Assembly | 50135 | Lead Assy., 20A, 6.5' (2m) Long |
| 42381-1 | Lamp Clamp (without Filter) | 50252 | PAR-56 Socket |
| 42381-3 | Lamp Clamp (with Filter) | 10037-754 | #6-32 Captive Screw |
| ML4265 | Lens, Absorption Red | 40941 | Lamp, PAR-56, 200 watts, 6.6A |
| ML4266 | Lens, Absorption Green | 10047-684 | Lamp, PAR-56, 300 watts, 20A |
| 41360-R* | Lens, Dichroic Red | 10A10-025D32 | Bolt, Slipfitter |
| 41360-G* | Lens, Dichroic Green | | |
| 50106 | Slipfitter (Less Bolts) | | |
| 50136 | Lead Assy., 6.6A, 6.5' (2m) Long | | |

* Should be used with 200W fixtures.

Shipping Weights and Volumes

| Catalog Number | Shipping Weight | | Shipping Volume | |
|--|-----------------|-----|-----------------|-------|
| | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 98240-C-200 (or 300)-66 (or 20) | 5.5 | 2.5 | 0.70 | 0.020 |
| 98240-R (or G)-200 (or 300)-66 (or 20) | 7.0 | 3.2 | 0.70 | 0.020 |





Elevated Approach Light/ PK-30 Type



EALK

Compliances: ICAO Annex 14
Transport Canada Specification K-302

Applications

The EALK is a unidirectional elevated light which may be used as a clear or red approach light, a red end of runway light, and a green threshold light.

Features

- Suitable for replacement of MB-2 lights per U.S. Air Force AFR 88-14.
- Uses PK-30d low power consumption lamps.
- Easy to install - mounts on a standard 2" (50mm) pipe and a frangible coupling or approach mast mounted.
- Easy to relamp - special tools are not required.
- Cast aluminum housing.
- Easy to aim - uses precise aiming device* with digital readout.
- Sealed colored lens - eliminates need for filter and clips.
- Shipped fully assembled.

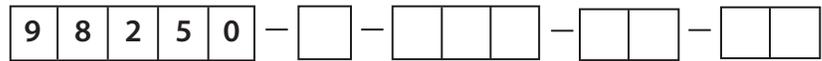
Ordering Information

How to Order: To the basic catalog number, add the symbols for Color, Lamp type, Cable Assembly and Options (if any). A frangible coupling may be required for proper mounting and must be ordered separately.

Examples:

98250-C-200 is a clear approach light with a 200 watt lamp.

98250-G-200-66 is a green threshold light with a 200 watt lamp and 6.5' (2m) long 6.6 amp cable.



Fixture Type:

Light Color:

- C = Clear Lens
- R = Red Lens
- G = Green Lens

Lamp Type:

- 100 = 100 Watts, 6.6 Amp, PK30d
 - 150 = 150 Watts, 6.6 Amp, PK30d
 - 200 = 200 Watts, 6.6 Amp, PK30d
- No symbol means a lamp is not included.

Cable Assembly:

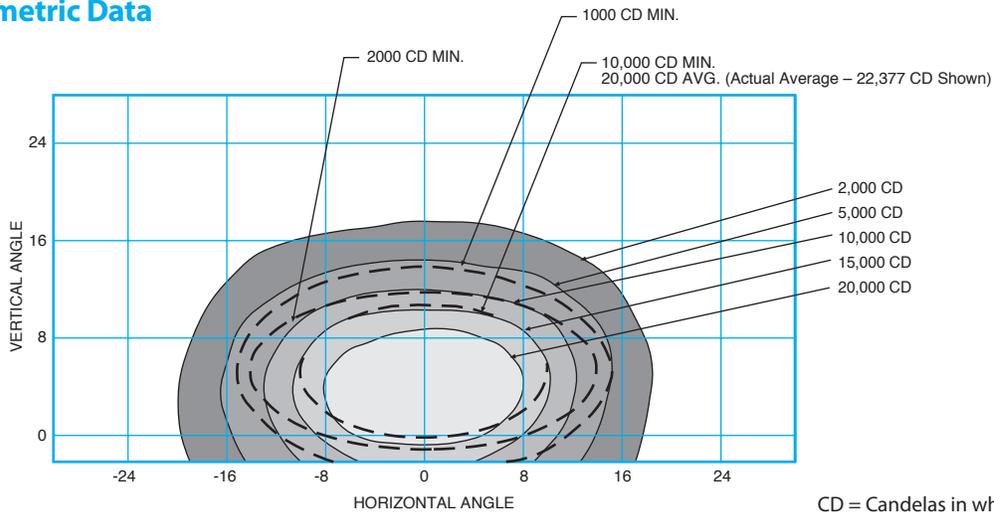
- 66 = 6.5 Feet (2 Meters) Long Cable, 6.6 Amp Rated with L-823 Plug
- No symbol means a cable is not included.

Options:

- 10 = Mounting Kit (Consist of 61062-1 Frangible Coupling and 25003 Cable Clamp Assembly).
- 11 = Ground Wire

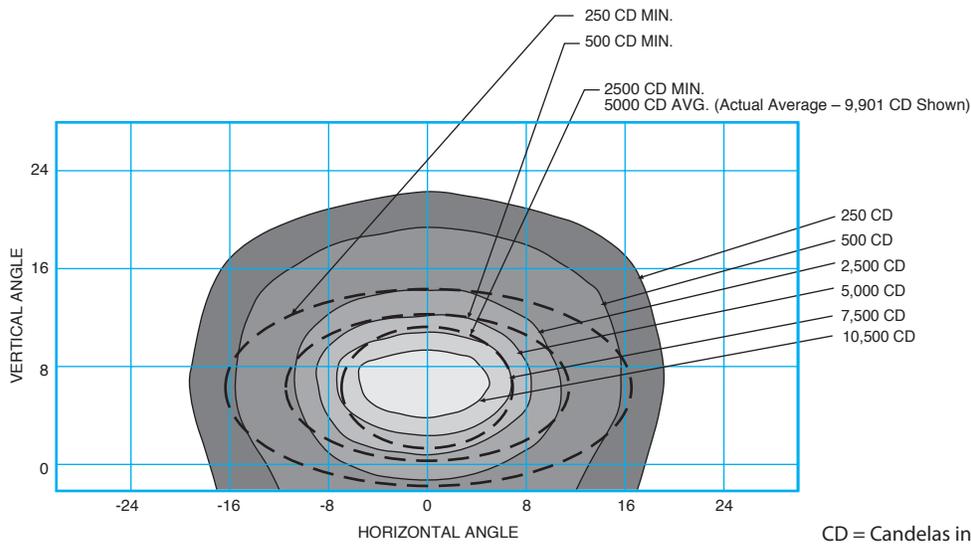
* Order 50133 aiming device separately (one per facility).

Photometric Data



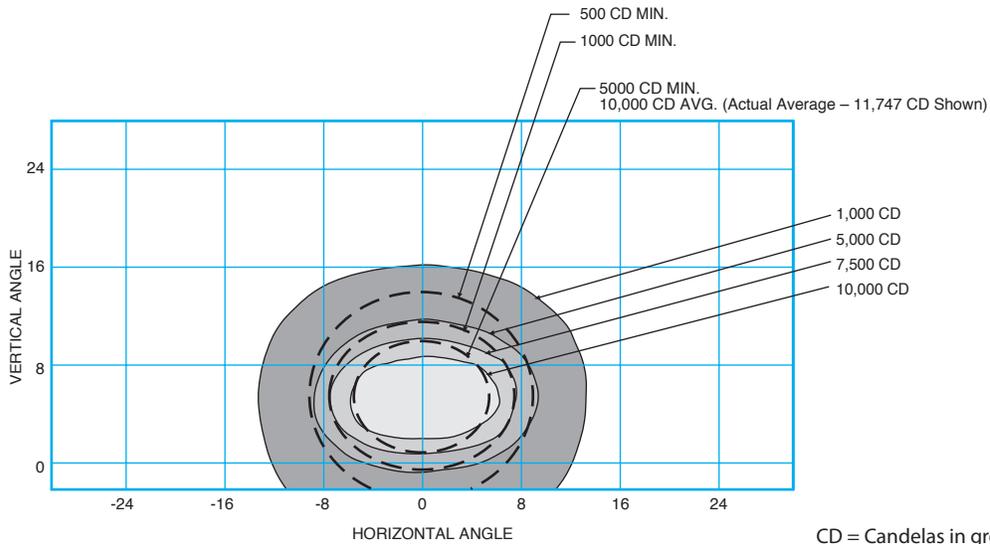
CD = Candelas in white light

APPROACH CENTERLINE & CROSS BAR WHITE LIGHT - 200 WATTS
(ICAO FIGURE 2.1)



CD = Candelas in red light

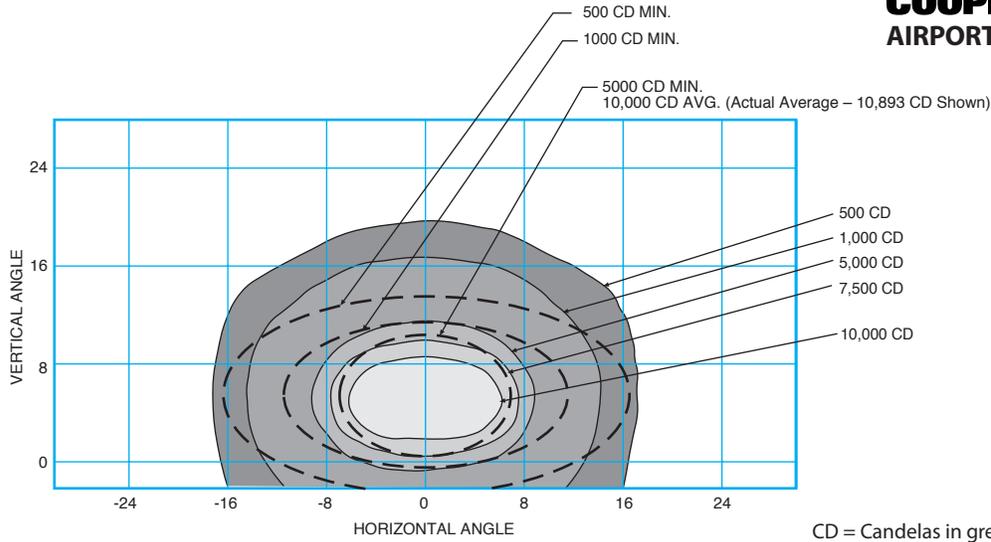
APPROACH SIDE ROW RED LIGHT - 200 WATTS
(ICAO FIGURE 2.2)



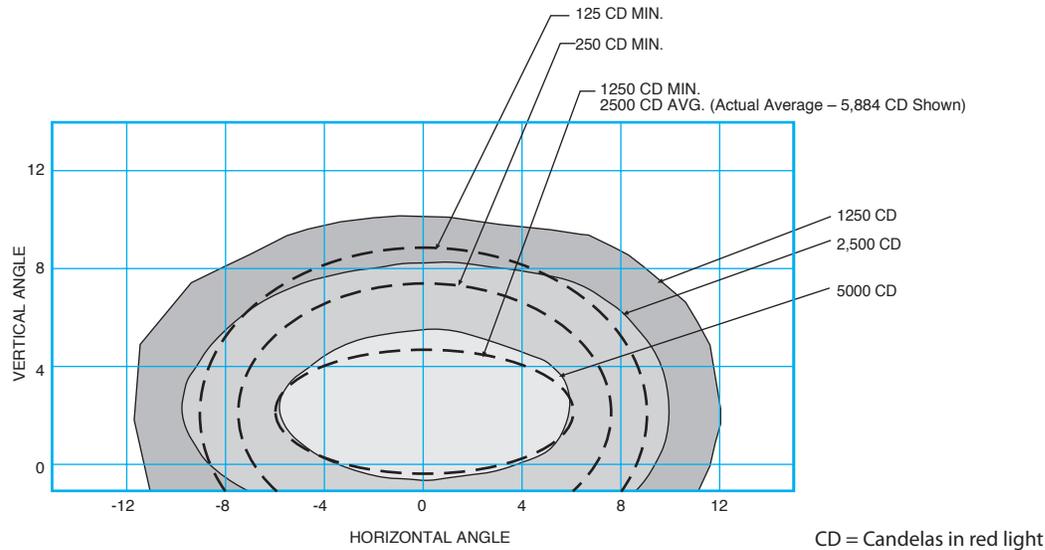
CD = Candelas in green light

THRESHOLD GREEN LIGHT - 150 WATTS
(ICAO FIGURE 2.3)





THRESHOLD WING BAR GREEN LIGHT - 200 WATTS
(ICAO FIGURE 2.4)



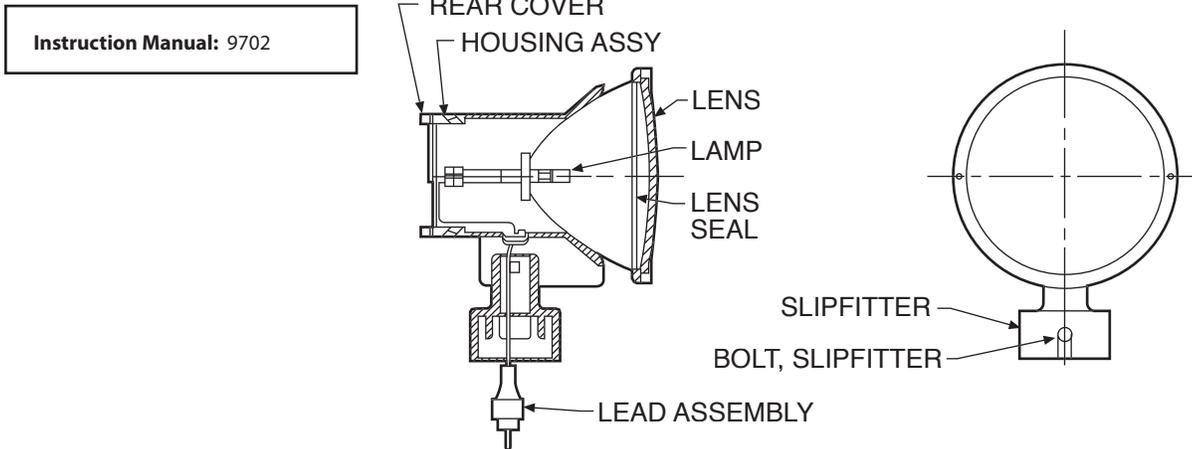
RUNWAY END RED LIGHT - 100 WATTS
(ICAO FIGURE 2-8)

APPLICATION/FIXTURE SELECTION TABLE

| APPLICATION (ICAO, USAF, NATO, U.S. NAVY) | CATALOG NUMBER |
|--|------------------------------------|
| White, Approach Centerline and Cross Bar Light | 98250-C-150-66* 98250-C-200-66* |
| Red, Approach Side Row Light | 98250-R-150-66* 98250-R-200-66* |
| Green, Runway Threshold Light | 98250-G-150-66 98250-G-200-66* |
| Green, Runway Threshold Wing Bar Light | 98250-G-200-66* |
| Red, Runway End Light | 98250-R-100-66 |

* Confirmed by CSA Letter of Attestation.

Outline Drawing



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 33004 | Isolation Transformer, 100 watts, 6.6/6.6A | 8.6 | 3.9 | 0.3 | 0.009 |
| 33005 | Isolation Transformer, 100 watts, 20/6.6A | 8.6 | 3.9 | 0.3 | 0.009 |
| 33150 | Isolation Transformer, 150 watts, 6.6/6.6A | 8.9 | 4.04 | 0.3 | 0.009 |
| 33006 | Isolation Transformer, 200 watts, 6.6/6.6A | 8.9 | 4.04 | 0.3 | 0.009 |
| 33007 | Isolation Transformer, 200 watts, 20/6.6A | 8.9 | 4.04 | 0.3 | 0.009 |
| 61062-1 | Breakable Coupling with Compression Fitting | 1 | 0.5 | 0.03 | 0.001 |
| AP1932 | Baseplate, 2" Hub, 12" Diameter | 8 | 3.6 | 0.14 | 0.004 |
| AC21242H200301 | Base L-867B, Class I, 24" Deep | 52 | 23.6 | 2.6 | 0.074 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" O.D. | | | | |
| 50133 | Aiming Device | | | | |
| 10047-2154 | Heat Shrink Kit (1-piece) | | | | |
| 10047-1425 | Heat Shrink Kit (2-piece) | | | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---------------------------|--------------|----------------------------------|
| 50115-2 | Housing Assembly | 50136 | Lead Assy., 6.6A, 6.5' (2m) Long |
| 50124 | Rear Cover Assembly | 50126 | Lens Seal |
| 50256 | Lens, Absorption Clear | 10047-2138 | Lamp, PK30d, 100 watts, 6.6A |
| 50251-R | Lens, Absorption Red | 10047-2310 | Lamp, PK30d, 150 watts, 6.6A |
| 50251-G | Lens, Absorption Green | 10047-2477 | Lamp, PK30d, 200 watts, 6.6A |
| 50106 | Slipfitter, Less Hardware | 10A10-025D32 | Bolt, Slipfitter |

Shipping Weights and Volumes

| Catalog Number | Shipping Weight | | Shipping Volume | |
|---|-----------------|------|-----------------|-------|
| | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 98250-C (or R or G) -100 (or 150 or 200)-66 | 4.5 | 2.04 | 0.70 | 0.020 |



Inset Approach Light



Compliances: ICAO Annex 14: Figures A2-1, A2-2, A2-3, A2-4, A2-8

Applications

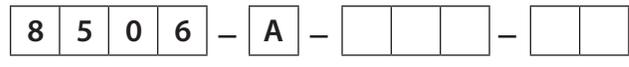
The IAL is an unidirectional inset approach light, inset threshold light and inset end light compliant to ICAO specifications. It is also a bidirectional ICAO threshold/end fixture.

Features

- Low profile, .50" (12 mm)
- Few parts to stock
- Easy to maintain – no sealant required for prism
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 105 W, 6.6 A

| | |
|-------------------------|----------------------|
| Shipping Weight: | 17.0 lbs 7.7 kg |
| Shipping Volume: | 0.6 cu ft 0.04 m3 |

Ordering Information



Fixture Type:

850 = Runway
6 = Model 6

C-H Style:

A = ICAO Approach

ICAO Figures:

- CS = Figure A2-1 – Clear, straight, unidirectional
- R2L = Figure A2-2 – 2 degree toe-left, red unidirectional
- R2R = Figure A2-2 – 2 degree toe-right, red unidirectional
- G3L = Figure A2-3 – 3.5 degree toe-left, green unidirectional
- G3R = Figure A2-3 – 3.5 degree toe-right, green unidirectional
- G2L = Figure A2-4 – 2 degree toe-left, green unidirectional
- G2R = Figure A2-4 – 2 degree toe-right, green unidirectional
- RS = Figure A2-8 – Red, straight, unidirectional
- GR* = G3L / RS – Bidirectional
- RG* = G3R / RS – Bidirectional
- GS = Green, straight, unidirectional

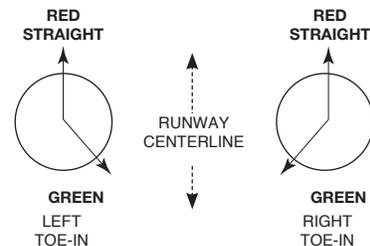
L-823 Connection:

P1 = One plug P2 = Two plugs (GR and RG units only)

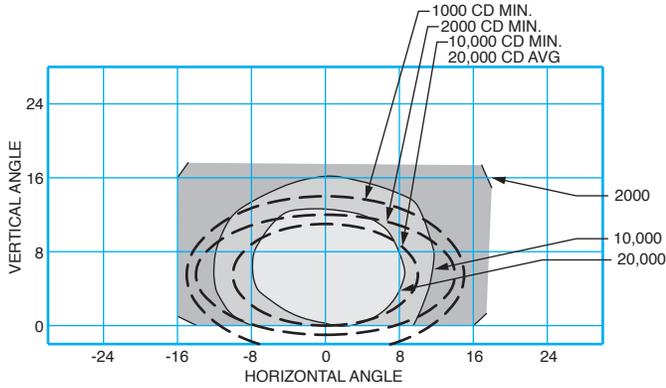
Table 1

| XXX | 62W | 105W |
|-----|-----|------|
| CS | - | 3 |
| R2L | - | 3 |
| R2R | - | 3 |
| G3L | - | 2 |
| G3R | - | 2 |
| G2L | - | 2 |
| G2R | - | 2 |
| RS | - | 1 |
| GR | - | 3 |
| RG | - | 3 |
| GS | - | 2 |

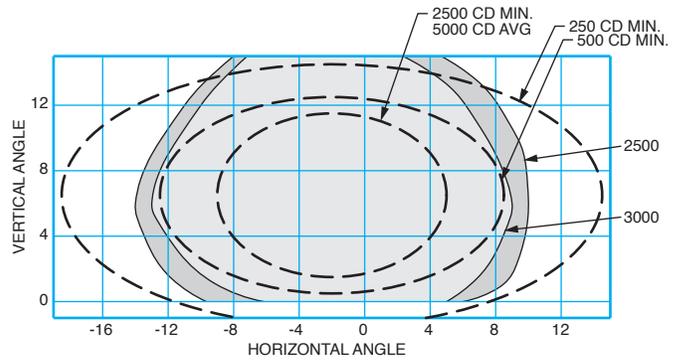
* Refer to the color symbol position: the red beam is always straight. RG means right toe-in of the green beam. GR means left toe-in of the green beam.



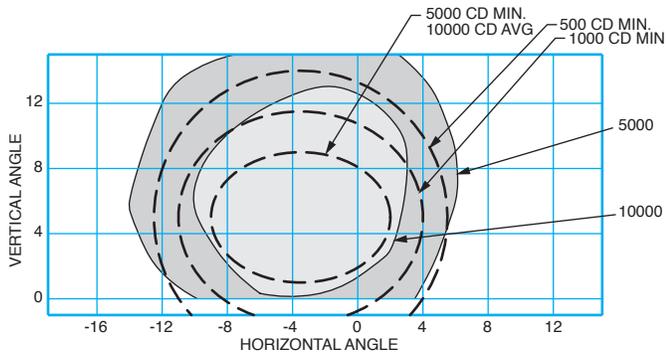
Typical Photometric Data



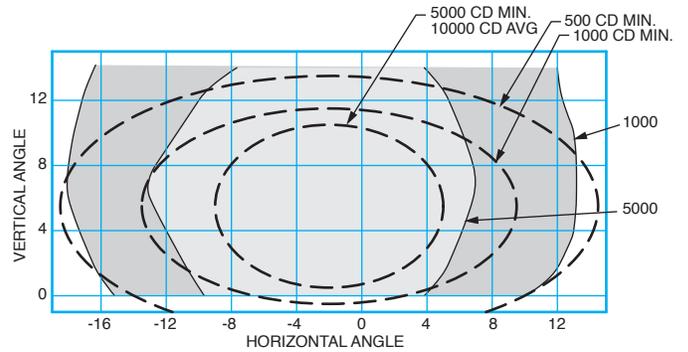
ICAO Fig. A2-1, 3 x 105W Lamp, White, Straight



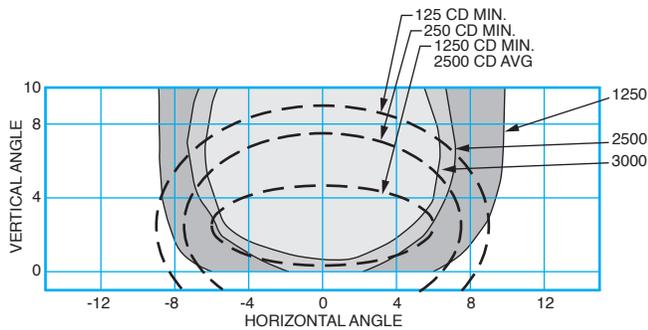
ICAO Fig. A2-2, 3 x 105W Lamp, Red, Toe-In (Toe Left Shown)



ICAO Fig. A2-3, 2 x 105W Lamp, Green, Toe-In (Toe Left Shown)



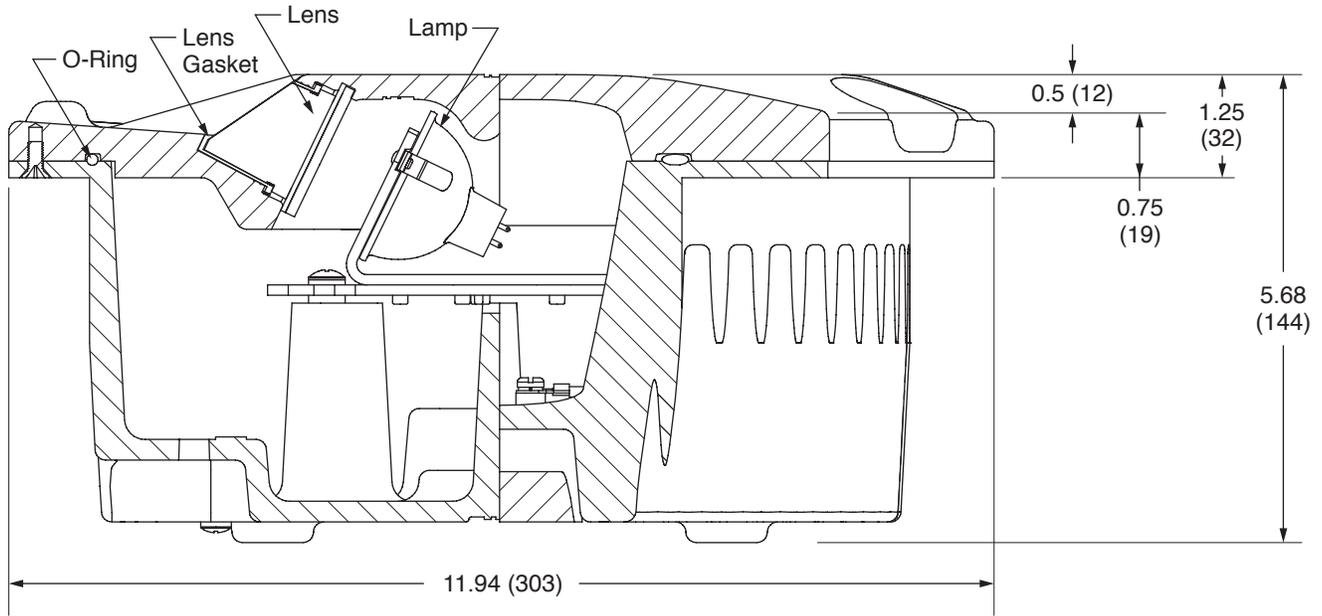
ICAO Fig. A2-4, 2 x 105W Lamp, Green, Toe-In (Toe Left Shown)



ICAO Fig. A2-8, 1 x 105W Lamp, Red, Straight



Outline Drawing



| | |
|--------------------|----------------|
| Dimensions: | inches (mm) |
|--------------------|----------------|

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep* | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | 2421 | Instruction Manual |
| 33010 | Isolation Transformer – 300 W, 6.6/6.6 A | | |
| 33011 | Isolation Transformer – 300 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|--------------|--------------------------------------|
| 21128 | Lamp – 105 W, 6.6 A | 10035-33-273 | Gasket – Bottom Cover |
| 21321-G** | Lens Replacement Kit – Green | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21321-R*** | Lens Replacement Kit – Red | | |
| 21321-C**** | Lens Replacement Kit – White | | |

* Fixture with total lamp wattage greater than 150W should not be mounted on 12 inch diameter bases less than 20 inches (500mm) deep. Class II bases are not recommended for this application.

** Includes 21276-G lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.

*** Includes 21276-R lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.

**** Includes 21276-C lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.

Inset Approach Light



Compliances: Designed in accordance with FAA Specification E-2952 for high intensity approach lighting applications and FAA Specification E-2968 for MALS applications. ETL tested to meet photometric requirements for FAA Specification E-2952 and E-2968. Complies with UFC 3-535-01 specification.

Applications

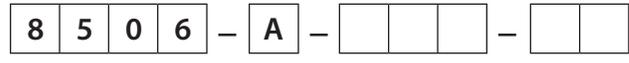
The Crouse-Hinds IALE semi-flush fixture is used in FAA high intensity approach lighting systems in the runway overrun pavement. They are also used at other locations beyond the overrun that require a low profile light fixture. The fixtures are uni-directional and provide applicable light beam colors of green for threshold, red for side row barrettes and white for centerline barrettes and crossbars.

Features

- Low profile, .50" (12 mm)
- Few parts to stock
- Easy to maintain – no sealant required for prism
- Pressure test plug for seal integrity verification
- Long lamp life – Quartz Halogen, 105 W, 6.6 A

| | |
|----------------------------|----------------------------------|
| Shipping Weight: | 17.0 lbs 7.7 kg |
| Shipping Volume: | 0.6 cu ft 0.04 m ³ |
| Instruction Manual: | 2623 (FAA) 2645 (UFC) |

Ordering Information



Fixture Type:

850 = Runway
6 = Model 6

C-H Style:

A = Approach

FAA Specifications:

C52 = FAA-E-2952, Clear
C68 = FAA-E-2968, Clear
G52 = FAA-E-2952, Green
G68 = FAA-E-2968, Green
R52 = FAA-E-2952, Red

UFC Specifications:

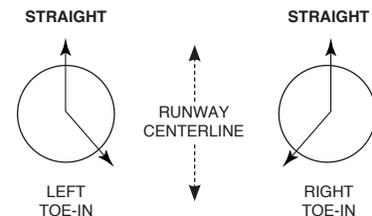
GX1 = UFC 3-535-01, Green Straight, Blank, Unidirectional
GR2 = UFC 3-535-01, Green Straight, Red Straight, Bidirectional

L-823 Connection:

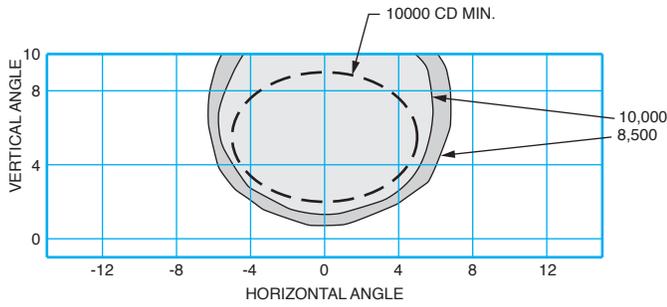
P1 = One plug
P2 = Two plugs

Table 1

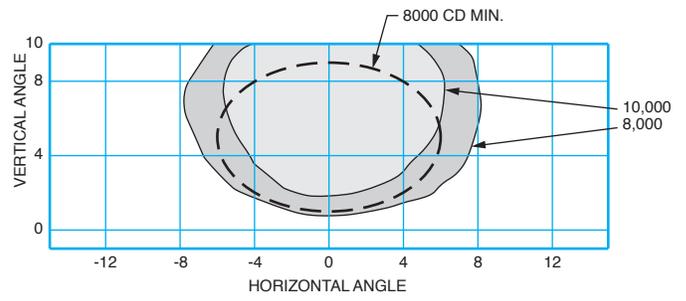
| XXX | 105W |
|-----|------|
| C52 | 3 |
| G52 | 2 |
| R52 | 3 |
| C68 | 1 |
| G68 | 2 |
| GX1 | 2 |
| GR2 | 3 |



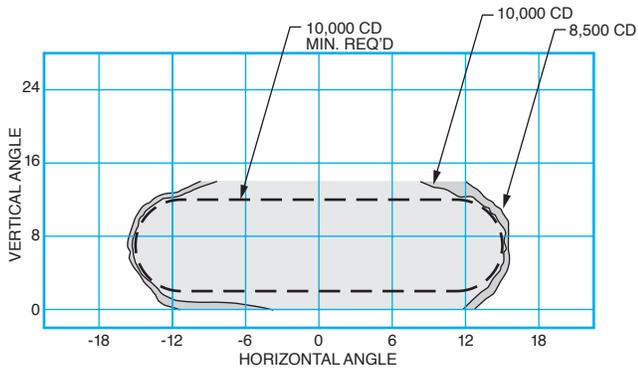
Typical Photometric Data



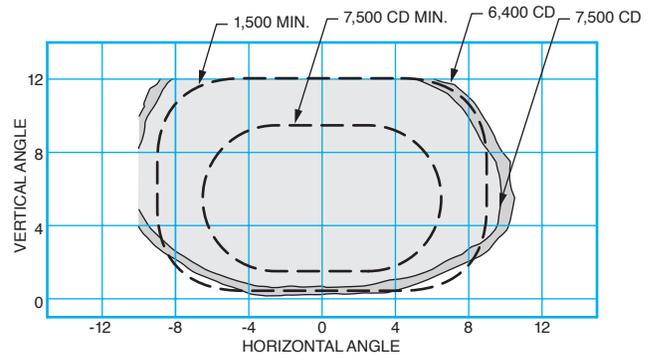
FAA-E-2968, 8506A-C68 105W Lamp, White



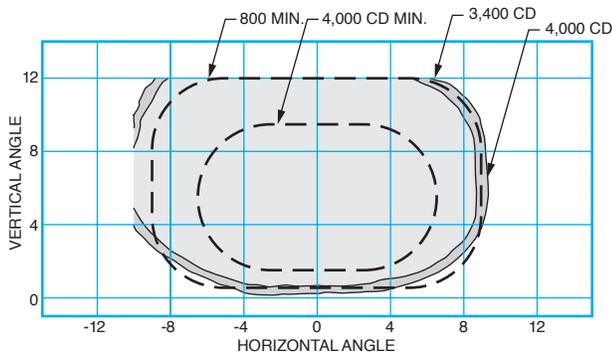
FAA-E-2968, 8506A-G68 2 x 105W Lamp, Green



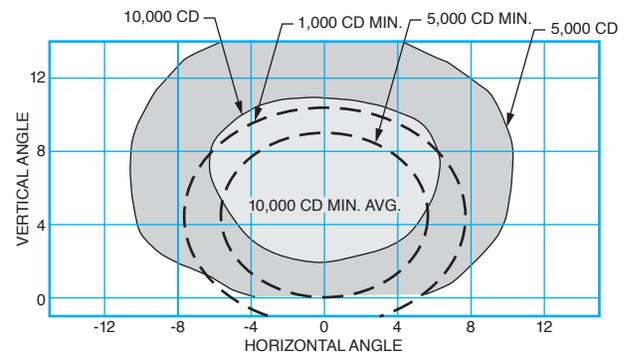
FAA-E-2952, 8506A-C52 3 x 105W Lamp, White



FAA-E-2952, 8506A-G52 2 x 105W Lamp, Green



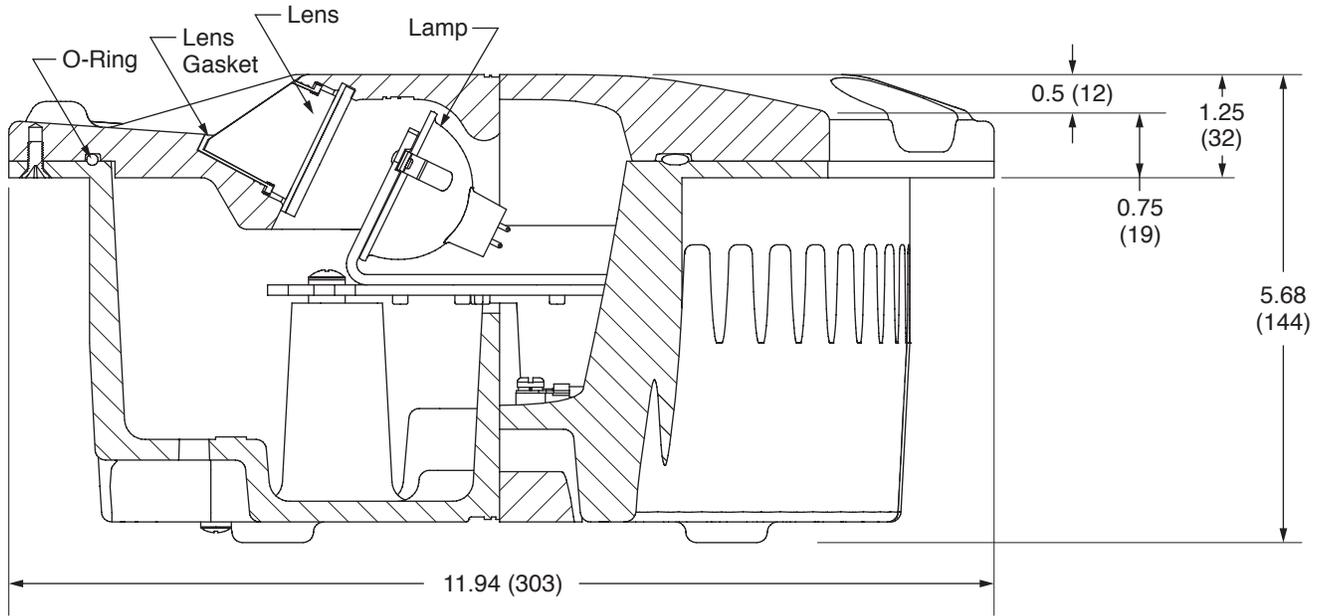
FAA-E-2952, 8506A-R52 3 x 105W Lamp, Red



UFC 3-535-01 2 x 105W Lamp, Green



Outline Drawing



| | |
|--------------------|----------------|
| Dimensions: | inches (mm) |
|--------------------|----------------|

Accessories

| Catalog Number | Item Description | Catalog Number | Item Description |
|----------------|--|----------------|---|
| AC24242Q200303 | Base: L-868B, Class I, 24" Deep* | 823KP-D4-D4 | Connector Kit – L-823, 8 AWG, .32" to .43" O.D. |
| 33004 | Isolation Transformer – 100 W, 6.6/6.6 A | 10047-2154 | Heat Shrink Kit – 1 Piece |
| 33005 | Isolation Transformer – 100 W, 20/6.6 A | 10047-1425 | Heat Shrink Kit – 2 Piece |
| 33006 | Isolation Transformer – 200 W, 6.6/6.6 A | 19999 | Lifting Tool |
| 33007 | Isolation Transformer – 200 W, 20/6.6 A | 2421 | Instruction Manual |
| 33010 | Isolation Transformer – 300 W, 6.6/6.6 A | | |
| 33011 | Isolation Transformer – 300 W, 20/6.6 A | | |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------|--------------|--------------------------------------|
| 21128 | Lamp – 105 W, 6.6 A | 10035-33-273 | Gasket – Bottom Cover |
| 21321-G** | Lens Replacement Kit – Green | 10048-25 | Gasket Lubricant – 5.3 oz. Container |
| 21321-R*** | Lens Replacement Kit – Red | | |
| 21321-C**** | Lens Replacement Kit – White | | |

* Fixture with total lamp wattage greater than 150 W should not be mounted on 12" diameter base less than 20 inches (500mm) deep. Class II bases are not recommended for this application.

** Includes 21276-G lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.

*** Includes 21276-R lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.

**** Includes 21276-C lens, 21277 lens boot, 21101 lens retaining gasket and gasket lubricant.



Inset Threshold and Approach Light



ITAL

Compliances: FAA AC 150/5345-46: L-850E
ICAO Annex 14: Fig. A2-1, A2-2, A2-3 & A2-4
UFC 3-535-01
U.S. Navy NAVAIR 51-50AAA-2: Fig. 5
NATO STANAG 3316: Fig. 1 & 2

Applications

Known as the **TriLITE™**, the ITAL does triple duty as an inset approach light, an inset threshold light, and an inset runway end light. The ITAL is a unidirectional light with one or two 150 W lamps depending upon the application. It may be used for any category ICAO or military runway and for FAA CAT I runways.

Features

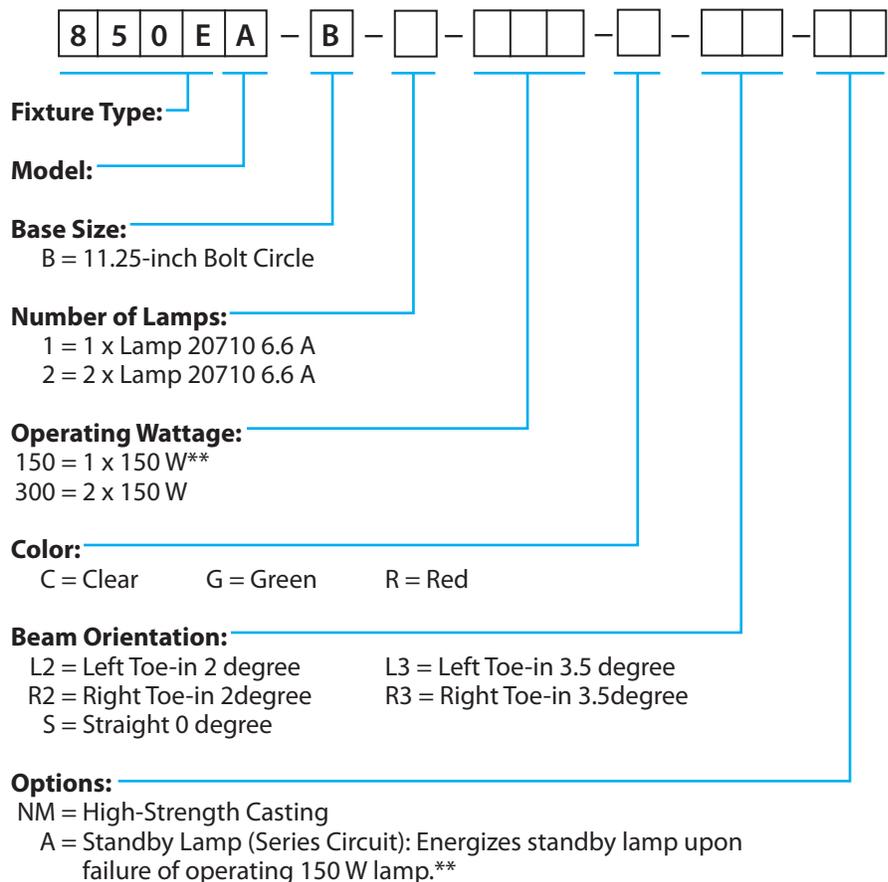


- ETL Certified*
- Meets USAF and ICAO photometric requirements for threshold, end and approach lighting systems
- Metallic-Ceramic Coating for greatly increased corrosion resistance
- Common Optical System for all applications
- Dual-Light Channels with narrow windows
- Center Rib between windows resists military tailhook damage
- One-Piece 12-inch Casting resists snowplow damage
- Soft-Mount Optical System to resist shock damage
- Pressure Tested for watertightness
- Single Plug Lead Assembly for use with one isolation transformer
- Optional Standby Lamp Transfer to reduce light maintenance for single lamp applications (Option - A)
- Optional High Strength Casting: approximately 2 times the tensile strength of ductile iron

Ordering Information

How to Order: Select the basic catalog number for the application from Table A on the following page. Add symbols for options as required. Order separately a single isolation transformer and a mounting base. See beam orientation diagram on following pages.

Example: 850EA-B-2-150-R-S-A is a unidirectional red runway end light with one operating 150 W lamp and one standby 150 W lamp. Upon failure of the first lamp, power is automatically transferred to the spare lamp. The light operates on a single 150 or 200 W isolation transformer powered by a series circuit.



* Crouse-Hinds catalog number 850EA-B-1-150-G-S only.

** For Option A, select basic catalog number 850EA-B-2-150-X-XX-A.

Technical Data

Table A

| Compliance | Application** | Color | Catalog Number*** |
|------------|-------------------------------|-------|---------------------|
| ICAO | Threshold | Green | 850EA-B-2-300-☆-3 |
| | Threshold: Wing Bar | Green | 850EA-B-2-300-☆-2 |
| | Runway End | Red | 850EA-B-1-150-R-S |
| | Approach: Centerline Barrette | Clear | 850EA-B-2-300-C-S |
| | Approach: Side Row Barrette | Red | 850EA-B-2-300-R-☆-2 |
| NATO | Threshold* | Green | 850EA-B-2-300-G-S |
| | Runway End | Red | 850EA-B-1-150-R-S |
| | Approach: Centerline Barrette | Clear | 850EA-B-2-300-C-S |
| | Approach: Terminating Bar | Red | 850EA-B-2-300-R-S |
| | Approach: Inboard Wing Bar | Red | 850EA-B-2-300-R-S |
| | Approach: Side Row Barrette | Red | 850EA-B-2-300-R-S |
| USAF | Threshold* | Green | 850EA-B-2-300-G-S |
| | Runway End | Red | 850EA-B-1-150-R-S |
| | Approach: Centerline Barrette | Clear | 850EA-B-2-300-C-S |
| | Approach: Terminating Bar | Red | 850EA-B-2-300-R-☆-2 |
| | Approach: Pre-Threshold Bar | Red | 850EA-B-2-300-R-☆-2 |
| | Approach: Side Row Barrette | Red | 850EA-B-2-300-R-☆-2 |
| FAA | Threshold*: Category I | Green | 850EA-B-1-150-G-S |
| | Runway End | Red | 850EA-B-1-150-R-S |

* Includes Wing Bars.

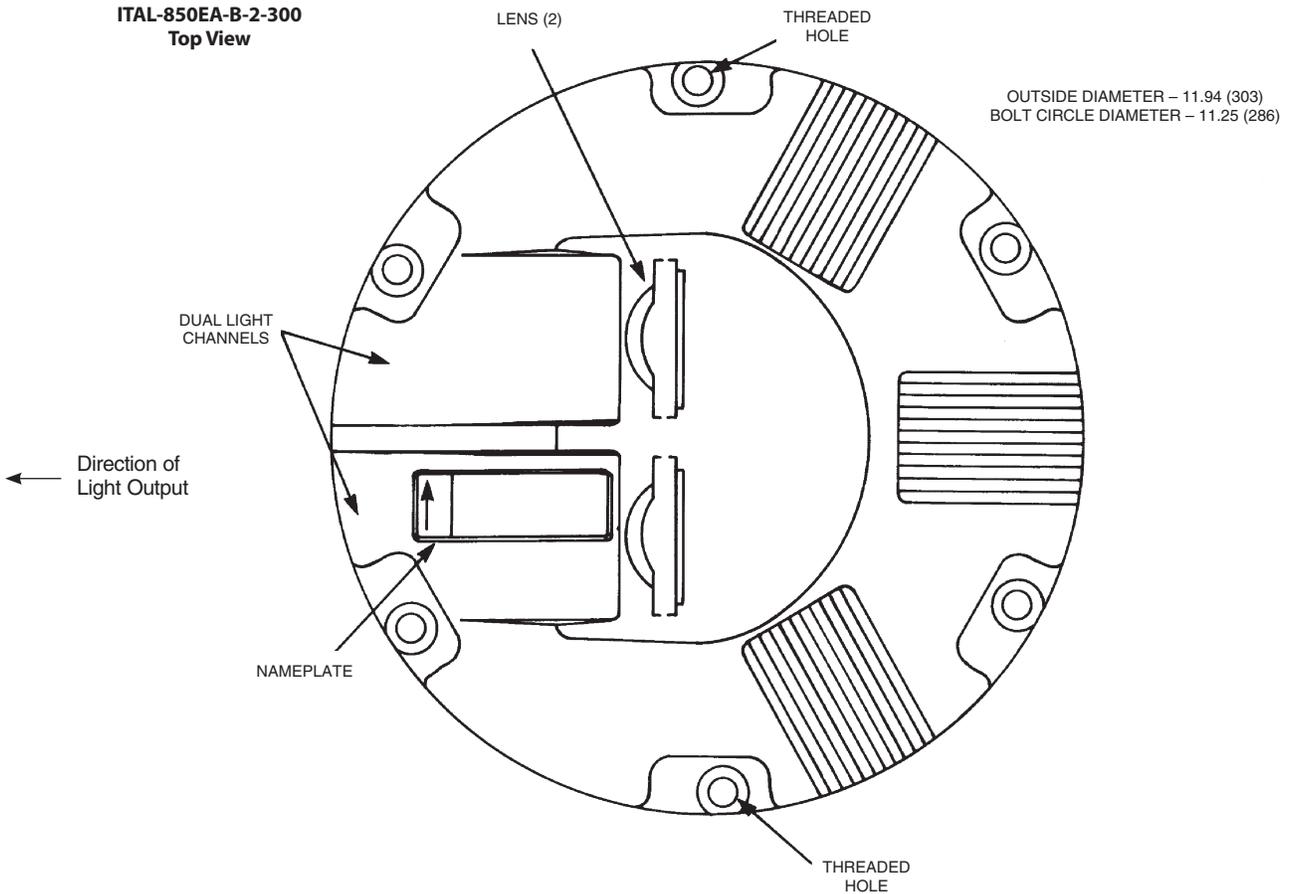
** If the runway category is not noted, then the catalog number is used for all applicable categories.

*** Add options as required.

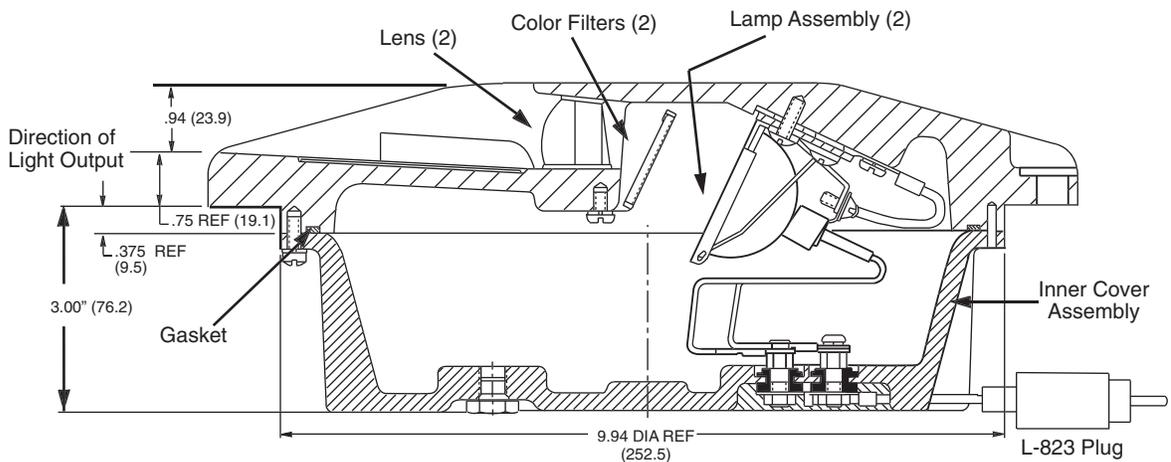
☆ Select equal quantities of left and right toe-in.



ITAL-850EA-B-2-300
Top View

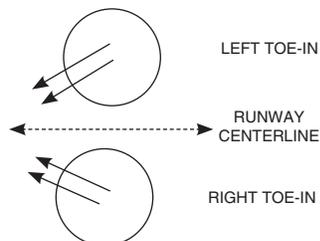


Side View (cutaway)



| | |
|----------------------------|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9013 |
| Shipping Weight: | 26.0 lbs 11.8 kg |
| Shipping Volume: | 0.7 cu ft 0.02 m ³ |
| Photometric Data: | Contact Field Services |

Beam Orientation* Diagram



* The beam orientation is not field adjustable.

Application Notes

- Only the mounting bases listed below are approved for use with ITAL. Other bases must be explicitly approved by Crouse-Hinds or the warranty is voided.
- Only the high quality paving sealants and epoxies listed in manual 9013 are suitable for use with ITAL.
- Beam orientation is achieved by the fixture casting bolt drilling pattern. Light bases are installed with any two opposite bolt holes perpendicular to the runway centerline.
- The beam orientation is not field adjustable.
- There are two threaded holes 180° apart perpendicular to the centerline for attachment of lifting handle 19999.
- Install shallow base using setting jig 19583 (for base with light mounted) or 19583-2 (for base only).
- For FAA MALS with 240 V power, use isolation transformer 33300 for each 300 W ITAL or 33151 for each 150 W ITAL.

Accessories

| Catalog Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|--|-----------------|------|-----------------|----------------|
| | | Lbs | Kg | Cu Ft. | M ³ |
| AC24242H200303 | Base L-868, Size B, Class I* | 63.0 | 28.6 | 2.5 | .070 |
| 33150 | Transformer, 150 W 6.6/6.6A | 16.0 | 7.3 | 0.4 | .011 |
| 33151 | Transformer, 150 W 240 V/22.7 V (6.6 A lamp) MALS | 16.0 | 7.3 | 0.4 | .011 |
| 33010 | Transformer, 300 W 6.6/6.6 A | 23.0 | 10.4 | 0.6 | .017 |
| 33011 | Transformer, 300 W 20/6.6 A | 23.0 | 10.4 | 0.6 | .017 |
| 33300 | Transformer, 300 W, 240 V/45.5 V (6.6 A lamp) MALS | 23.0 | 10.4 | 0.6 | .017 |
| 823KP-D4-D4 | Connector Kit L-823, 8 AWG, .32" to .43" | | | | |
| 10047-1425 | Heat Shrink Kit | | | | |
| 19999 | Lifting Handle | | | | |
| 20734 | Lens Alignment Jig | | | | |

* Sectional bases may be required depending upon the paving technique.

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|------------------------------------|--------------|---|
| 20710 | Lamp 150 W 6.6 A | 10035-33-270 | O-Ring, Inner Cover |
| 20704-1 | Lamp Bracket Assembly, 1 Lamp Unit | 20984-1 | Inner Cover Assembly, 150 W Versions |
| 20704-2 | Lamp Bracket Assembly, 2 Lamp Unit | 20984-3 | Inner Cover Assembly, 300 W Versions |
| 20708-R | Filter Assembly, Red | 20984-4 | Inner Cover Assembly, Option – A Versions |
| 20708-G | Filter Assembly, Green | 21038 | Lead/Plug Assembly |
| 20707 | Lens Assembly | 10047-409 | Film Disc Cutout (Option – A) |
| 10048-25 | Silicone Grease | | |





Wind Cone

Compliances: FAA AC 150/5345-27: L-806 & L-807
NASAO Guidelines

WC

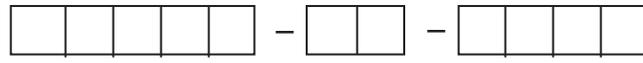
Applications

A wind cone visually indicates prevailing wind direction at a particular location on an airfield or heliport. FAA Size 2 wind cones are used for airports at a central position on the airfield. FAA Size 1 rigid wind cones are installed at small airfields and heliports. FAA Size 1 frangible wind cones are called “supplemental wind cones” as they are installed in addition to the main wind cone adjacent to each runway touchdown zone to indicate local wind conditions. Wind cones are commonly supplied with a single obstruction light and four floodlights to illuminate the windsock.

The customer may select lighting, windsock color, and windsock material without affecting FAA approval. Rigid wind cones use hinged poles which allow the top windsock and lighting assembly to be lowered for servicing.

• ETL Certified 

Ordering Information



Basic Catalog Number:
Select from the chart below

Windsock Color:
W = White
O = Orange

Windsock Material:
N = Nylon

Options:
RF = Reflector Floodlights on 3 ft. arms.
S302 = Lighting powered by 6.6A series circuit.***
Includes lamps and connector kit. (Not for -RF version.)
Order 300W isolation transformer separately.
W = Winch for lowering hinged pole (L-807 only).

Wind Cone Selection Chart

| Basic Catalog Number* | FAA Approval | FAA Size** | Rigid | Frangible | Obstruction Light | Floodlights (4) | Windsock | |
|-----------------------|--------------|------------|-------------|----------------|-------------------|-----------------|--------------|----------------|
| | | | Hinged Pole | Breakable Pole | | | Length (ft.) | Diameter (in.) |
| 48310 | L-807 | 2 | X | | X | X | 12 | 36 |
| 48311 | L-807 | 2 | X | | | | 12 | 36 |
| 48312 | L-807 | 2 | X | | X | | 12 | 36 |
| 48313 | L-807 | 2 | X | | | X | 12 | 36 |
| 44481 | L-807 | 1 | X | | X | X | 8 | 18 |
| 44482 | L-807 | 1 | X | | | | 8 | 18 |
| 44483 | L-807 | 1 | X | | X | | 8 | 18 |
| 44484 | L-807 | 1 | X | | | X | 8 | 18 |
| 71043 | L-806 | 1 | | X | X | X | 8 | 18 |
| 71044 | L-806 | 1 | | X | | | 8 | 18 |

* An “X” on the chart denotes a feature of that catalog number wind cone. Order lamps separately.

** Size 1 = 8 ft. (2.4 m.) long windsock (WC-18) Size 2 = 12 ft. (3.7 m.) long windsock (WC-36)

*** S302 Option Wind Cone is not ETL Certified.

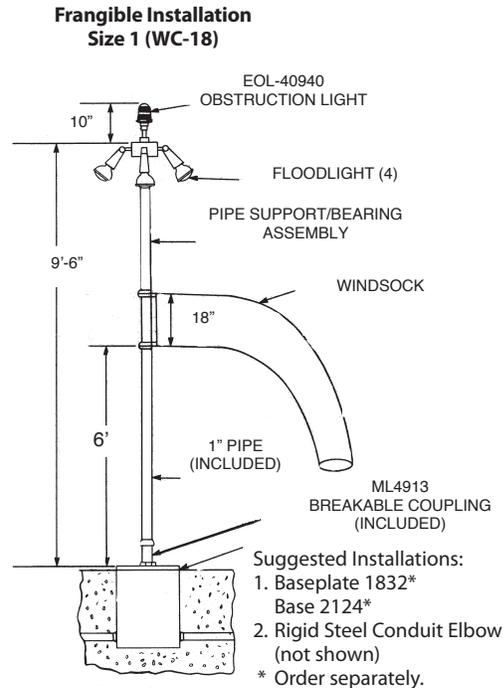
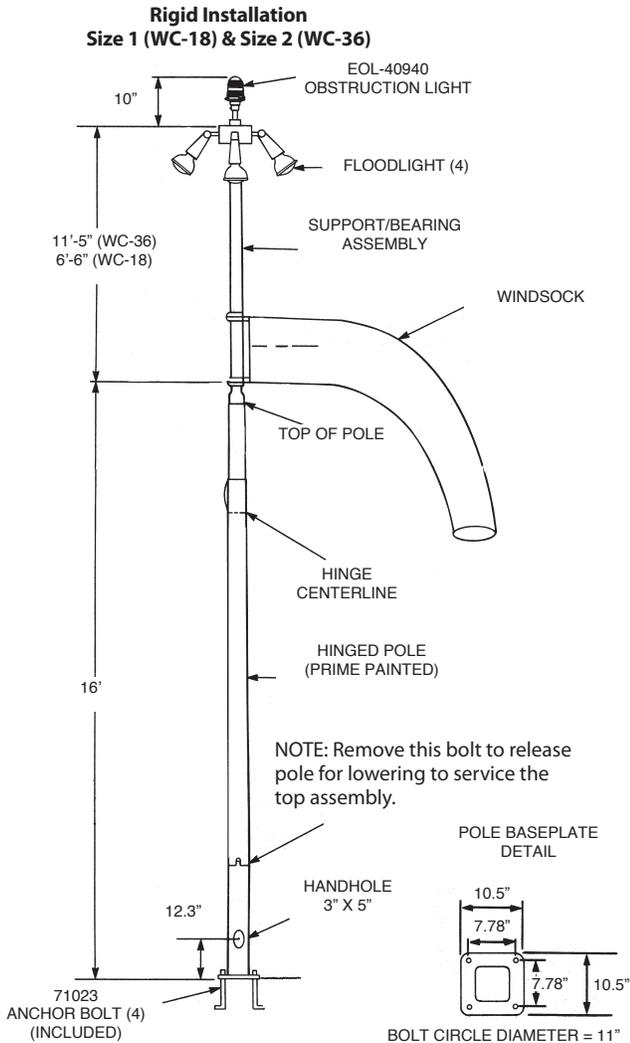
Application Notes

- The voltage may be 120 or 220-240 if the proper voltage lamps are used. All lamps have medium screw (E27) bases. Order lamps separately.
- For connection to a series circuit, order option S302 and an isolation transformer or order the standard wind cone and

a power adapter. The transformer or adapter may be directly buried or installed in an L-867 base with coverplate.

- Anchor bolts should extend 4 inches above grade.
- The Size 1 and Size 2 wind cone hinged poles are identical except for the tenon diameter.

Installation Drawings



Dimensions: Feet-Inches

| Instruction Manuals: | 9553 Size 2 Rigid | 9554 Size 1 Rigid | 8512 Size 1 Frangible |
|-------------------------|-------------------------|-------------------------|-------------------------|
| | 4831X | 4448X | 7104X |
| Shipping Weight: | 510 lbs. 232 kg. | 450 lbs. 205 kg. | 250 lbs. 114 kg. |
| Shipping Volume: | 40 cu.ft. 1.13 cu.m. | 40 cu.ft. 1.13 cu.m. | 30 cu.ft. 0.85 cu.m. |

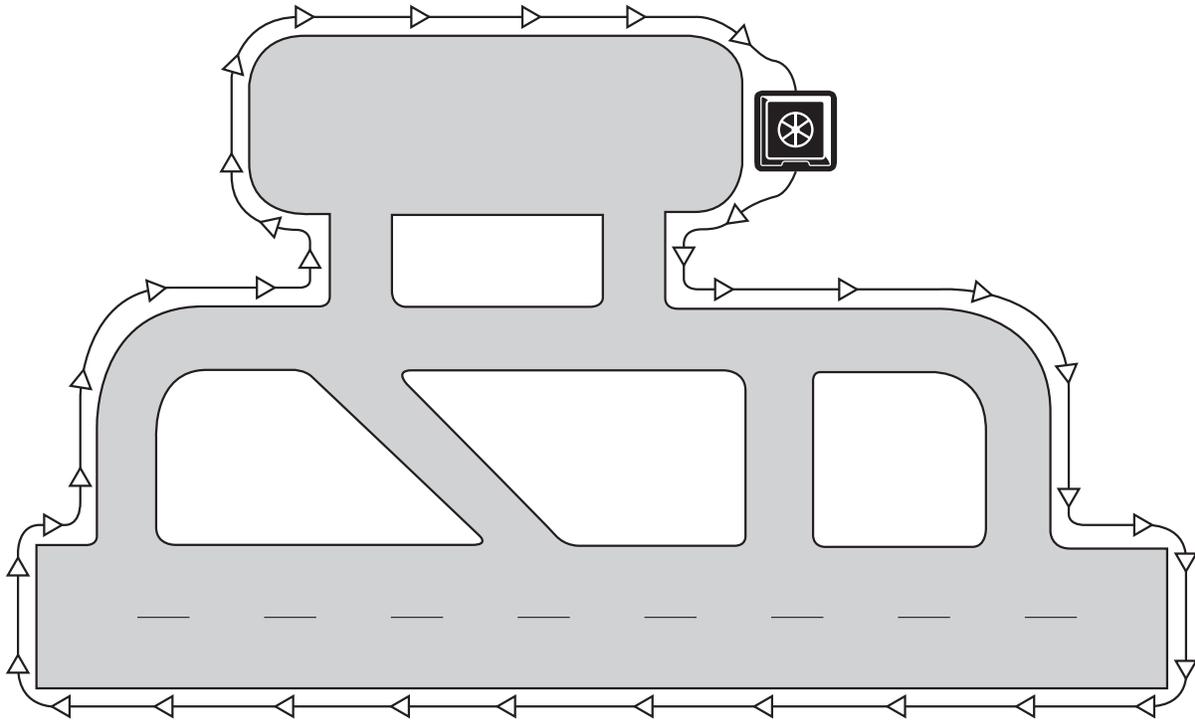
Renewal Parts

| Part Number | Description | Part Number | Description |
|--------------------------------|---|--------------------------------|---------------------------------------|
| 10047-1577 | Lamp 116W, 120V | KL8096A | Floodlight (4) Assembly (-RF option) |
| 10047-2145 | Lamp 116W, 220-240V | 0501413-4 | Reflector (-RF option) |
| 10047-2882 | Lamp 250W, 120V, PAR-38 | 40940 | EOL Obstruction Light |
| 150/CL | Lamp 150W, 120V (-RF option) | 50026 | Red Globe |
| 10047-2167 | Lamp 45W, 6.6A, PAR-38 (-S302 option) | 71023 | Anchor Bolt 0.75" x 28" (5" Threaded) |
| 10047-2942 | Lamp 150W, PAR-38, 220/230V | HSSLDW | Winch |
| FAA Size 1 (WC-18) Only | | | |
| 71073-ON | Windsock - Orange Nylon 8 ft. | FAA Size 2 (WC-36) Only | |
| 71073-WN | Windsock - White Nylon 8 ft. | 71045-ON | Windsock - Orange Nylon 12 ft. |
| 71048-18 | Hinged Pole (Rigid) | 71045-WN | Windsock - White Nylon 12 ft. |
| ML364B | Support/Bearing Assembly (Rigid) | 71048-36 | Hinged Pole |
| 0600696 | Pipe Support/Bearing Assembly (Frangible) | KL7897 | Support/Bearing Assembly |
| 0504611-1 | Bearing (Rigid) | KL8097A | Bearing |
| FL579 | Slipfitter (Rigid) | FL623 | Slipfitter 3" Diameter |
| ML4913 | Breakable Coupling (Frangible) | 44621A | Complete 48310 less Hinged Pole |
| 44036 | Complete 44481 less Hinged Pole | 71046-BN | Bicolor Red & White Wind Sock |
| 44478 | Complete 44482 less Hinged Pole | (Size 2 only) | |
| 44479 | Complete 44483 less Hinged Pole | | |
| 44480 | Complete 44484 less Hinged Pole | | |
| 10047-2215 | Lampholder PAR 38 | | |



SECTION 4

Power & Control Equipment



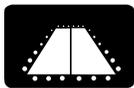
Power and control are at the heart of the lighting control system for any airfield. The Federal Aviation Administration has set forth standards dictating how fixtures and signs may be powered and controlled. Crouse-Hinds Airport Lighting Products has the constant current Ferro-resonant and series

type regulators in a variety of sizes for all airports. Our regulators and control gear are designed to provide precision control of airfield circuits and interface with a wide array of control and monitoring options.

Application Icons



Power Vault



Lighting Control



REGF

Constant Current Regulators - Ferroresonant

Compliances: FAA AC 150/5345-10: L-828
ICAO Aerodrome Design Manual, Part 5



REGF
Shown with Megatrac™ option

Small/4-10kW Unit

Applications

The REGF Constant Current Regulator is designed to provide precision control of runway lighting circuits. The equipment can be supplied with a wide range of control and monitoring options.

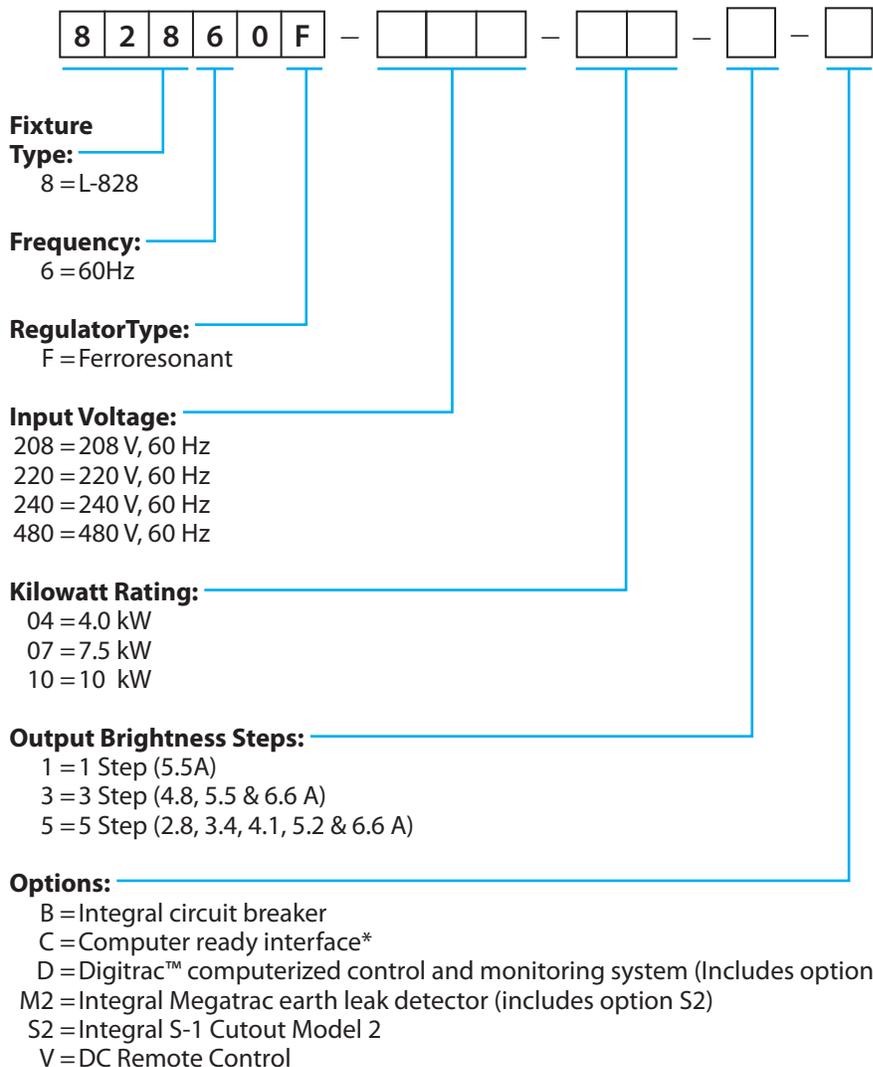
These regulators are air cooled and designed for indoor service.

Features



- ETL Certified
- Air cooled
- Ferroresonant Design
- Built-in digital ammeter (0.5% accuracy)
- Low Total Harmonic Distortion (THD) < 10%
- Clean output sinusoidal wave form
- Stackable design (3 High Max)
- Regulation ±1% over 0 to 100% load and +10% to -5% line voltage with no tap changes
- On-off switching under load
- Lightning and transient protection: input and output lines
- Efficiency – 90% minimum (High step, fully loaded)
- High power factor .99 (High step, fully loaded)
- Remote reset capability
- Output current maintained with 30% open isolation transformer secondaries
- Open circuit protection
- Over current protection
- Soft On/Off
- 10,000 feet remote control @ 120V
- Temperature – 40°C to +55°C
- Single control board for all sizes
- Rotary switch for step-control
- Field selectable brightness steps (1, 3, 5)
- Hinged front door with key lock handle

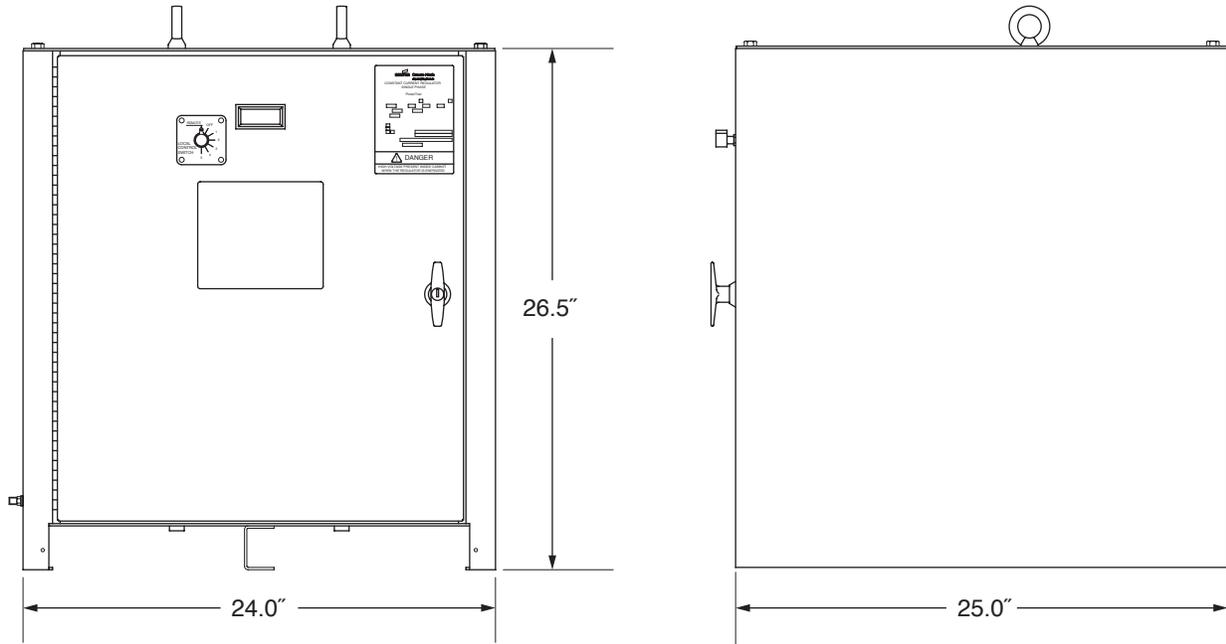
Ordering Information



* Includes potential and current transformers and relay contacts for indication of loss of input power and local/remote control.

Standard remote control voltages are 24 Vdc, 48 Vdc, 60 Vdc & 120 Vdc, 60 Hz.

Outline Drawing



Technical Data

Power Factor/Efficiency Data (100% load/10kw)

| 5 - Brightness Step CCR | | |
|-------------------------|--------------|-------------|
| Step (output) | Power Factor | Efficiency% |
| B5 (6.6A) | .99 | 93% |
| B4 (5.2A) | .98 | 93% |
| B3 (4.1A) | .98 | 91% |
| B2 (3.4A) | .98 | 89% |
| B1 (2.8 A) | .79 | 84% |

| | | | |
|----------------------------|-------------------------|-------------------------|-------------------------|
| Dimensions: | inches (mm) | | |
| Instruction Manual: | 2501 | | |
| | 4Kw | 7.5Kw | 10Kw |
| Shipping Weight: | 490 lbs. 222 kg. | 581 lbs. 264 kg. | 711 lbs. 323 kg. |
| Shipping Volume: | 9.2 cu.ft. .26 cu.m. | 9.2 cu.ft. .26 cu.m. | 9.2 cu.ft. .26 cu.m. |

Renewal Parts

| Part Number | Description |
|-------------|---|
| 10041-31 | Switch knob |
| 32752 | Display printed circuit card |
| 34031-1* | Main printed circuit card, 120 VAC internal control voltage |
| 34031-1V* | Main printed circuit card, for use with Option V |
| 10047-2789 | Solid State Relay |
| 32990 | Capacitor, 50uF, 660 VAC |
| 10047-2937 | Thermal Pad for Solid State Relay |

* Serial Number units prior to 300 consult factory.



REGF

Constant Current Regulators - Ferroresonant

Compliances: FAA AC 150/5345-10: L-828
ICAO Aerodrome Design Manual, Part 5



REGF1
Shown with Megatrac™ option

Medium/15-20kW Unit

Applications

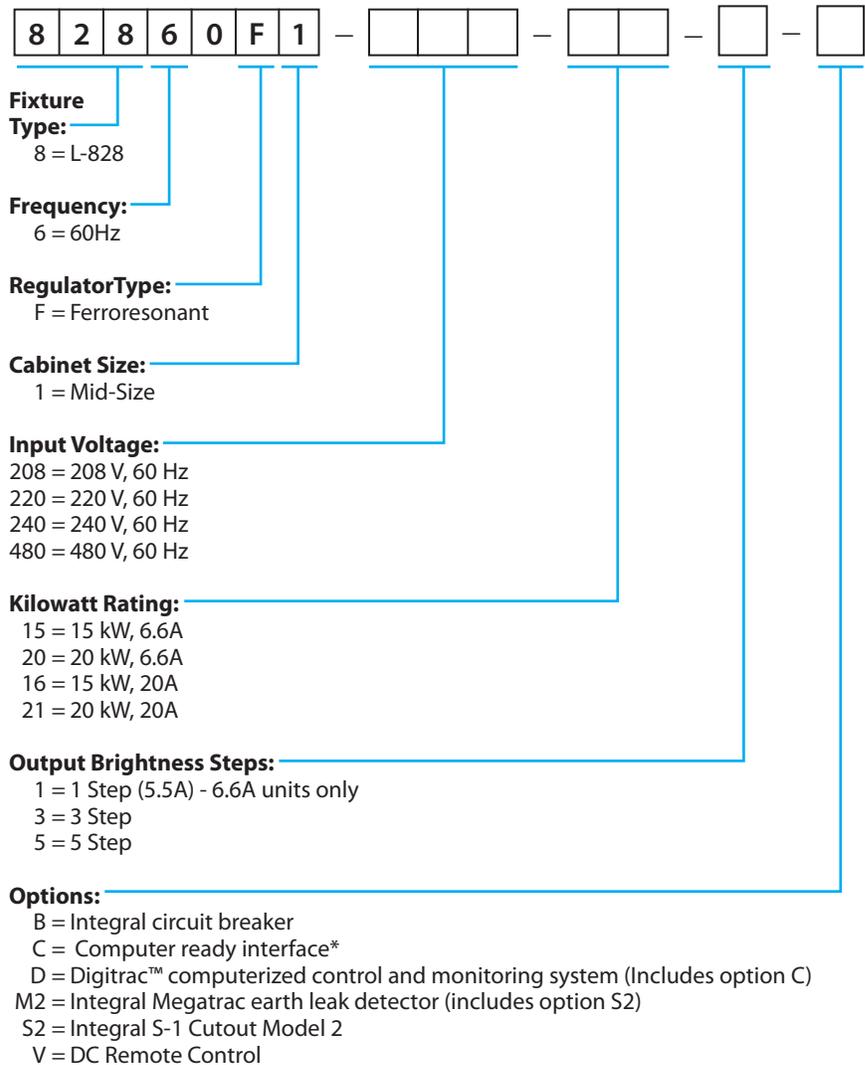
The REGF Constant Current Regulator is designed to provide precision control of runway lighting circuits. The equipment can be supplied with a wide range of control and monitoring options.

These regulators are air cooled and designed for indoor service.

Features

- ETL Certified 
- Air cooled
- Ferroresonant Design
- Built-in digital ammeter (0.5% accuracy)
- Low Total Harmonic Distortion (THD) < 10%
- Clean output sinusoidal wave form
- Stackable design (2 High Max)
- Regulation ±1% over 0 to 100% load and +10% to -5% line voltage with no tap changes
- On-off switching under load
- Lightning and transient protection: input and output lines
- Efficiency – 90% minimum (High step, fully loaded)
- High power factor .99 (High step, fully loaded)
- Remote reset capability
- Output current maintained with 30% open isolation transformer secondaries
- Open circuit protection
- Over current protection
- Soft On/Off
- 10,000 feet remote control @ 120V
- Temperature – 40°C to +55°C
- Single control board for all sizes
- Rotary switch for step-control
- Field selectable brightness steps (1, 3, 5)
- Hinged front door with key lock handle

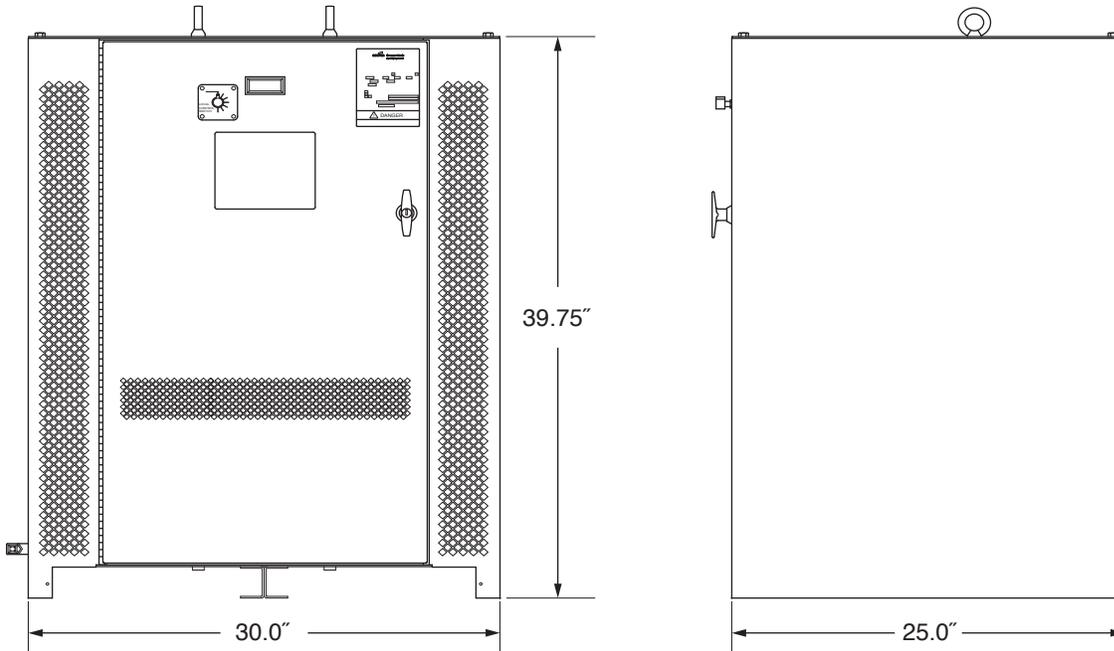
Ordering Information



* Includes potential and current transformers and relay contacts for indication of loss of input power and local/remote control.

Standard remote control voltages are 24 Vdc, 48 Vdc, 60 Vdc & 120 Vdc, 60 Hz.

Outline Drawing



Technical Data

Power Factor/Efficiency Data (100% load/20kw)

| 5 - Brightness Step CCR | | |
|-------------------------|--------------|-------------|
| Step (output) | Power Factor | Efficiency% |
| B5 (6.6A) | .99 | 91% |
| B4 (5.2A) | .98 | 90% |
| B3 (4.1A) | .98 | 89% |
| B2 (3.4A) | .91 | 87% |
| B1 (2.8 A) | .71 | 84% |

| | | |
|----------------------------|--------------------------|--------------------------|
| Dimensions: | inches (mm) | |
| Instruction Manual: | 2334 | |
| | 15Kw | 20Kw |
| Shipping Weight: | 860 lbs. 390 kg. | 1070 lbs. 485 kg. |
| Shipping Volume: | 13.8 cu.ft. .39 cu.m. | 13.8 cu.ft. .39 cu.m. |

Renewal Parts

| Part Number | Description |
|-------------|---|
| 10041-31 | Switch knob |
| 32752 | Display printed circuit card |
| 34031-1 | Main printed circuit card, 120 VAC internal control voltage |
| 34031-1V | Main printed circuit card, for use with Option V |
| 10047-2789 | Solid State Relay |
| 32990 | Capacitor, 50uF, 660 VAC |
| 10047-2937 | Thermal pad for solid state relay |



REGF

Constant Current Regulators - Ferroresonant

Compliances: FAA AC 150/5345-10: L-828
ICAO Aerodrome Design Manual, Part 5



REGF2

Large/30kW Unit

Applications

The REGF Constant Current Regulator is designed to provide precision control of runway lighting circuits. The equipment can be supplied with a wide range of control and monitoring options.

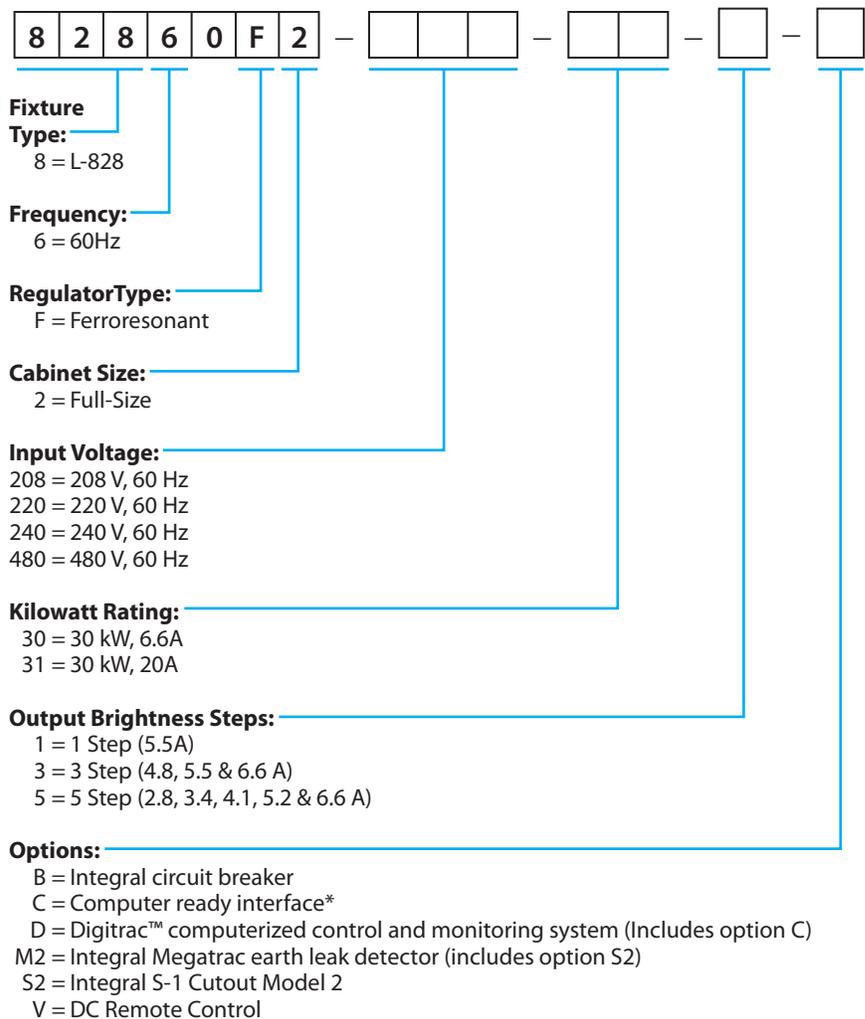
These regulators are air cooled and designed for indoor service.

Features



- ETL Certified
- Air cooled
- Ferroresonant Design
- Built-in digital ammeter (0.5% accuracy)
- Low Total Harmonic Distortion (THD) < 10%
- Clean output sinusoidal wave form
- Stackable design (2 High Max)
- Regulation $\pm 1\%$ over 0 to 100% load and +10% to -5% line voltage with no tap changes
- On-off switching under load
- Lightning and transient protection: input and output lines
- Efficiency – 90% minimum (High step, fully loaded)
- High power factor .99 (High step, fully loaded)
- Remote reset capability
- Output current maintained with 30% open isolation transformer secondaries
- Open circuit protection
- Over current protection
- Soft On/Off
- 10,000 feet remote control @ 120V
- Temperature – 40°C to +55°C
- Single control board for all sizes
- Rotary switch for step-control
- Field selectable brightness steps (1, 3, 5)
- Hinged front door with key lock handle

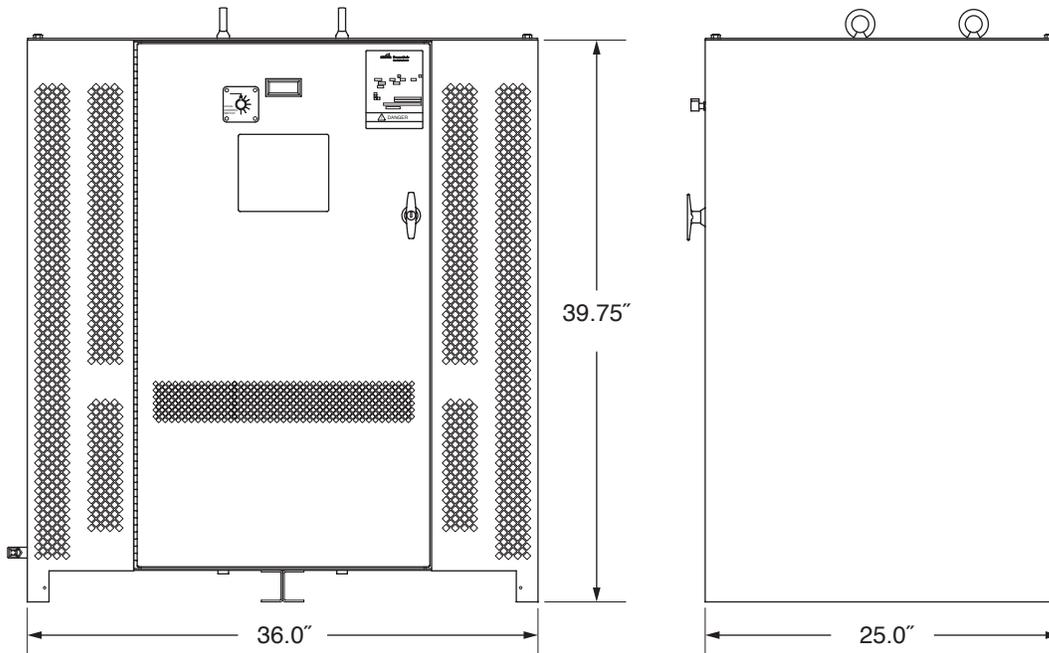
Ordering Information



* Includes potential and current transformers and relay contacts for indication of loss of input power and local/remote control.

Standard remote control voltages are 24 Vdc, 48 Vdc, 60 Vdc & 120 Vdc, 60 Hz.

Outline Drawing



Technical Data

Power Factor/Efficiency Data (100% load/30kw)

| 5 - Brightness Step CCR | | |
|-------------------------|--------------|-------------|
| Step (output) | Power Factor | Efficiency% |
| B5 (6.6A) | .99 | 93% |
| B4 (5.2A) | .98 | 91% |
| B3 (4.1A) | .98 | 90% |
| B2 (3.4A) | .92 | 88% |
| B1 (2.8 A) | .74 | 85% |

| | |
|----------------------------|--------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2349 |
| Shipping Weight: | 1,635 lbs. 742 kg. |
| Shipping Volume: | 20.7 cu.ft. .58 cu.m. |

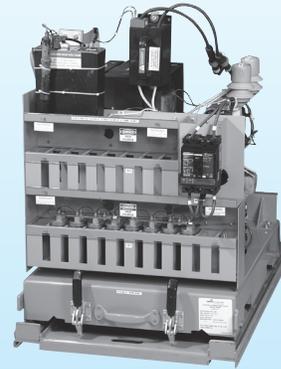
Renewal Parts

| Part Number | Description |
|-------------|---|
| 10041-31 | Switch knob |
| 32752 | Display printed circuit card |
| 34031-1 | Main printed circuit card, 120 VAC internal control voltage |
| 34031-1V | Main printed circuit card, for use with Option V |
| 10047-2789 | Solid State Relay |
| 32990 | Capacitor, 50uF, 660 VAC |
| 10047-2937 | Thermal pad for solid state relay |



CCR-SGS

Constant Current Regulator - Switchgear System



CCR-SGS

Compliances: FAA AC 150/5345-10: L-828

Applications

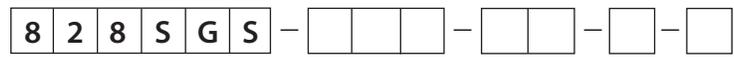
The Crouse-Hinds Constant Current Regulator-Switchgear System (CCR-SGS) utilizes Ferroresonant Transformer technology for the distribution of electrical power and the precision control of airfield lighting circuits. The equipment meets all applicable FAA standards, integrates enhanced safety features, provides for cost-effective installation and serviceability, is air-cooled and designed for indoor installations.

Features



- ETL Certified
- Superior power factor and efficiency over all steps (Refer to Table A, next page)
- Superior low-line harmonics and low EMI characteristics
- Standardized design for maximum space utilization
- Modular construction for interchangeability
- Integrated Model 2 S-1 Cutout provides added safety during servicing
- Diagnostic LEDs, and digital ammeter for enhanced troubleshooting capabilities
- Capability for line and load circuit switching while in operation
- Lightning protection for both input and output lines
- Integrated soft start and remote reset functions
- Internal 120VAC Control Voltage
- Integral Circuit Breaker
- Rotary Switch off/remote & step control
- Air Cooled
- Designed for Indoor Installation

Ordering Information



Fixture Type:
L-828

Switchgear CCR Model:

Input Voltage:
480 = 480 V, 60 Hz

Kilowatt Rating:

- 04 = 4.0 kW (6.6A Unit Only)
- 07 = 7.5 kW (6.6A Unit Only)
- 10 = 10 kW (6.6A Unit Only)
- 15 = 15 kW, 6.6A
- 16 = 15 kW, 20A
- 20 = 20 kW, 6.6A
- 21 = 20 kW, 20A
- 30 = 30 kW, 6.6A
- 31 = 30 kW, 20A

Output Brightness Steps:

- 1 = 1 Step (5.5 A, not available with 20 A units)
- 3 = 3 Step
- 5 = 5 Step

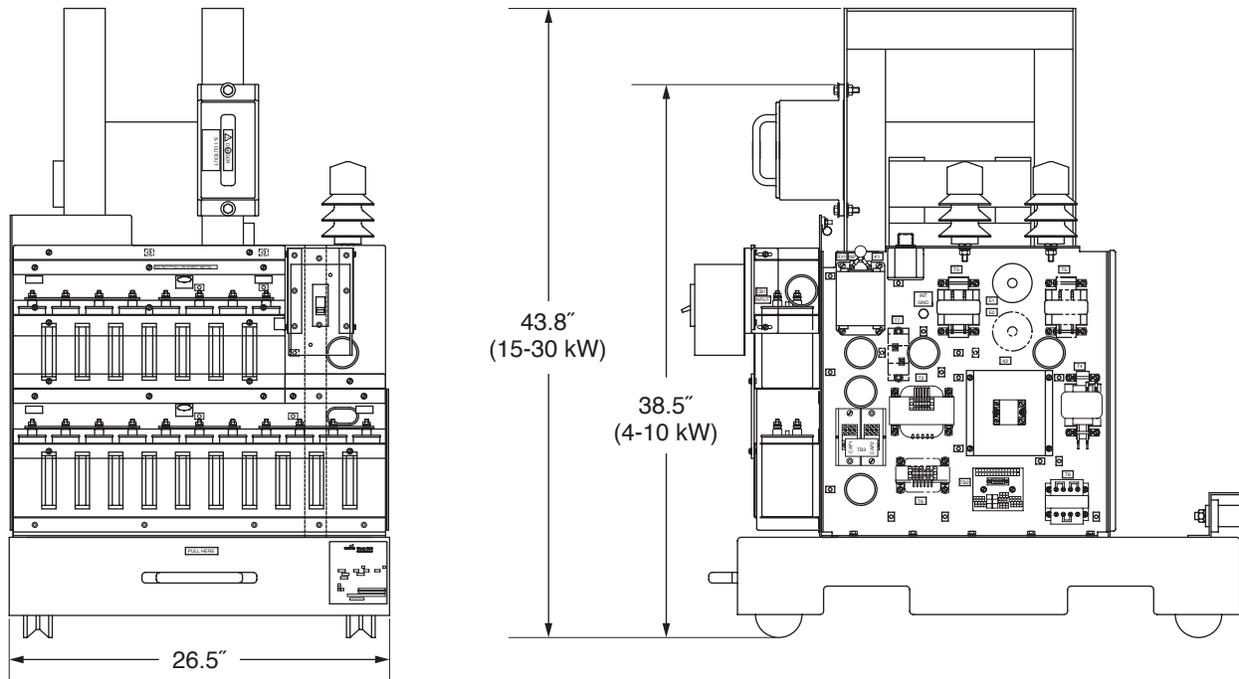
Options:

- C = Computer ready interface*
- D = Digitrac™ computerized control & monitoring system (includes option C)
- M = Megatrac™ Integral earth leakage detector
- V = DC Remote Control

* Potential & current transformer included, Circuit Board with relay contacts for loss of input power & local/remote control.

Standard remote control Voltages are 24, 48, 60 VDC & 120 VAC, 60 Hz.

Outline Drawing



Technical Data

Table A – Power Factor/Efficiency Data (100% load)

| 5-Brightness step CCR | | | 3-Brightness step CCR | | |
|-----------------------|--------------|-------------|-----------------------|--------------|-------------|
| Step (output) | Power Factor | Efficiency% | Step (output) | Power Factor | Efficiency% |
| B5 (6.6 A or 20 A) | .99 | 94% | B100 (6.6 A or 20 A) | .99 | 93% |
| B4 (5.2 A or 15.8 A) | .99 | 93% | B30 (5.5 A or 16.5 A) | .98 | 91% |
| B3 (4.1 A or 12.4 A) | .94 | 91% | B10 (4.8 A or 14.4 A) | .79 | 84% |
| B2 (3.4 A or 10.3 A) | .87 | 89% | — | — | — |
| B1 (2.8 A or 8.5 A) | .79 | 81% | — | — | — |

Renewal Parts

| Part Number | Description |
|-------------|---|
| 10041-31 | Switch Knob |
| 32752 | Display printed circuit card |
| 34031-1 | Main printed circuit card, 120 VAC internal control voltage |
| 34031-1V | Main printed circuit card, for use with Option V |
| 10047-2789 | Solid State Relay - 4-30 kW unit |
| 32990 | Capacitor, 50uF, 660 VAC |
| 10047-2937 | Thermal pad for solid state relay |

| | | | |
|----------------------------|--------------------------------|---------------------|---------------------|
| Instruction Manual: | 2447 | | |
| Shipping Weight: | 4 kW–10 kW | 15 kW–20 kW | 30 kW |
| | 1230 lbs. 558 kg | 1435 lbs. 651 kg | 1650 lbs. 748 kg |
| Shipping Volume: | 36 in. W x 48 in. D x 57 in. H | | |





Cabinet - Switchgear



C-SGS

Compliance: UL 891

Applications

The Crouse-Hinds Switchgear System (SGS) utilizes a UL compliant bus for the distribution of electrical power and the precision control of airfield lighting circuits. The equipment meets all applicable UL and NEMA standards, integrates enhanced safety features, provides for cost-effective installation and serviceability, is air-cooled and designed for indoor installations.

Features

- Complies with UL891, standard for dead-front switchboard
- NEMA1 cabinet
- Seismic zone 4 rated system
- 65,000 AIC bus bracing
- 800 Amp copper main horizontal bus with deadfront
- 300 Amp copper ground bus
- Field changeable (CCR-SGS) load balancing
- Modular design for easy add-on field installations
- Rated for 480 VAC
- Two regulators (CCR-SGS) per cabinet

Ordering Information

8 2 8 S Y S

Combinations
(Specify installation line up left to right):

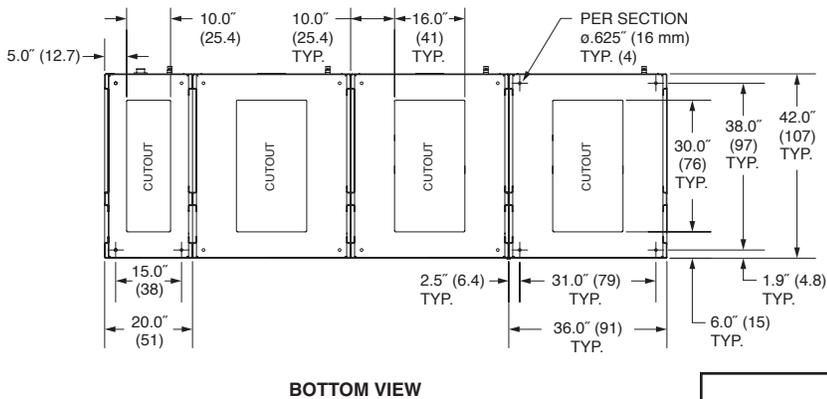
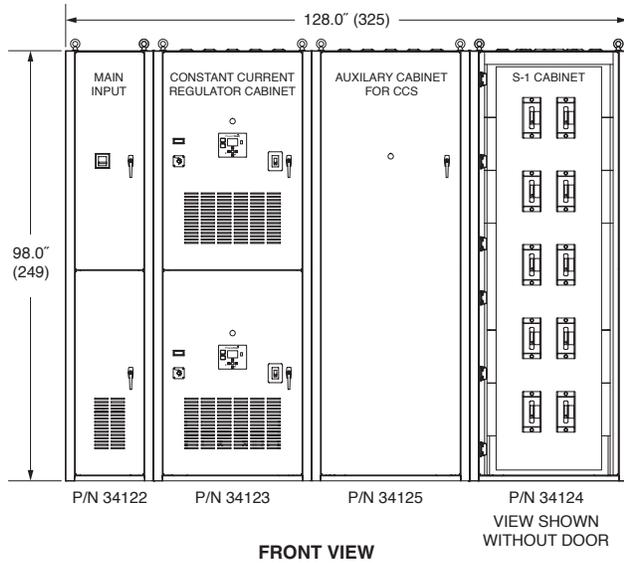
Airport Code: _____

Project Number: _____

Maximum Bus Bar System Capacity:
280 kW (at 480V, Input Voltage)

| CCR-SGS | Power Requirements Data | |
|---------|-------------------------|--|
| | 480 V, Input | |
| | CCR (Rated Current) | |
| 04 kW | 9 A | |
| 7.5 kW | 17 A | |
| 10 kW | 23 A | |
| 15 kW | 34 A | |
| 20 kW | 46 A | |
| 30 kW | 69A | |

Outline Drawing



Inches
(cm)

Dimensions: inches
(mm)

Instruction Manual: 2516

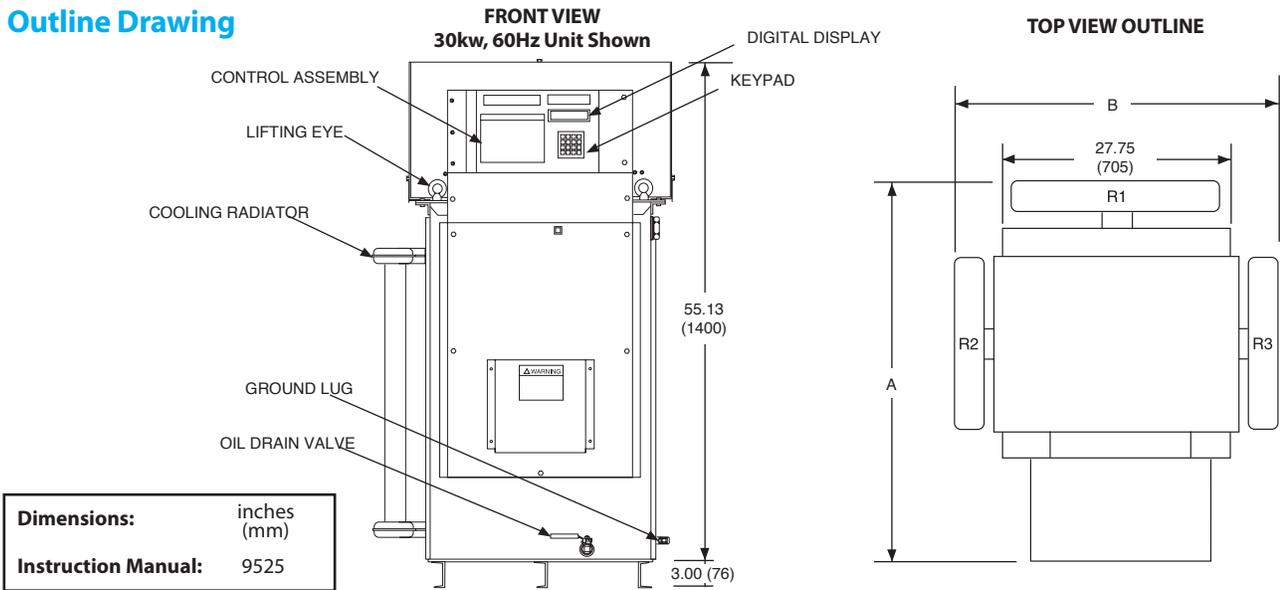
Shipping Weight: Main Input Cabinet - 700 lbs
Auxiliary Cabinet - 700 lbs
Constant Current Regulator Cabinet - 1200 lbs

Renewal Parts

| Part Number | Item Description |
|-------------|--|
| 34122 | Main input cabinet & circuit breaker |
| 34192 | Constant Current Regulator Cabinet (2 power modules) |
| 34124 | S1 Cabinet |
| 34125 | Auxiliary Cabinet |
| 34126 | Upper Track Extension |
| 34127 | Lower Track Extension |



Outline Drawing



Technical Data

| Brightness | Current Output | | Percentage (%) |
|------------|----------------|------------|----------------|
| | 6.6A System | 20A System | Light Output |
| Step | | | |
| 5 | 6.6 | 20.0 | 100.0 |
| 4 | 5.2 | 15.8 | 20.0 |
| 3 | 4.1 | 12.4 | 4.0 |
| 2 | 3.4 | 10.3 | 0.8 |
| 1 | 2.8 | 8.5 | 0.2 |

| KW | Shipping Weight | | Shipping Volume | |
|----|-----------------|------|-----------------|-------|
| | Lb. | Kg. | Cu.Ft. | Cu.M. |
| 10 | 1575 | 715 | 103 | 2.92 |
| 15 | 1700 | 770 | 103 | 2.92 |
| 20 | 1825 | 830 | 103 | 2.92 |
| 30 | 2000 | 910 | 103 | 2.92 |
| 50 | 2600 | 1180 | 103 | 2.92 |
| 70 | 3000 | 1360 | 103 | 2.92 |

Dimensions—Inches(Millimeters)

| KW | A | B | Radiators | | |
|-----------------|--------------|-------------|-----------|-----|-----|
| | | | R1 | R2 | R3 |
| 10 | 38.36 (974) | 27.75 (705) | — | — | — |
| 15 | 43.19 (1097) | 27.75 (705) | Yes | — | — |
| 20 | 43.19 (1097) | 27.75 (705) | Yes | — | — |
| 30 60Hz only | 43.19 (1097) | 31.63 (803) | Yes | Yes | — |
| 50 | 43.19 (1097) | 38.25 (972) | Yes | Yes | Yes |
| 70 | 49.19 (1249) | 38.25 (972) | Yes | Yes | Yes |

Note: 30kw, 50Hz and 37.5kw, use data as shown for 50kw.

Renewal Parts

| Part Number | Description |
|------------------|------------------------|
| 32323-"X"-"Y" | L-828 Control Assembly |
| 32323-"X"-"Y"-61 | L829 Control Assembly |

Insert 1, 3, or 5 in place of "X" for the number of brightness steps required.
 Insert 1 for 6, 6A or 2 for 20A in place of "Y" for the output current required.

| | |
|------------|--------------------------------|
| 10047-1005 | Fuse, 1/8 Amp, Slo-Blo |
| 10047-1205 | Fuse, 1 Amp, Slo-Blo |
| 31505-1 | SCR/Heatsink Assembly, 10-20KW |
| 31505-2 | SCR/Heatsink Assembly, 30-70KW |



REGD

Constant Current Regulators-Dry

Compliances: FAA AC 150/5345-10: L-828 and L-829
ICAO Aerodrome Design Manual, Part 5
USN NAVAIR 51-50AAA-2

Small/4-10kW Unit



REGD

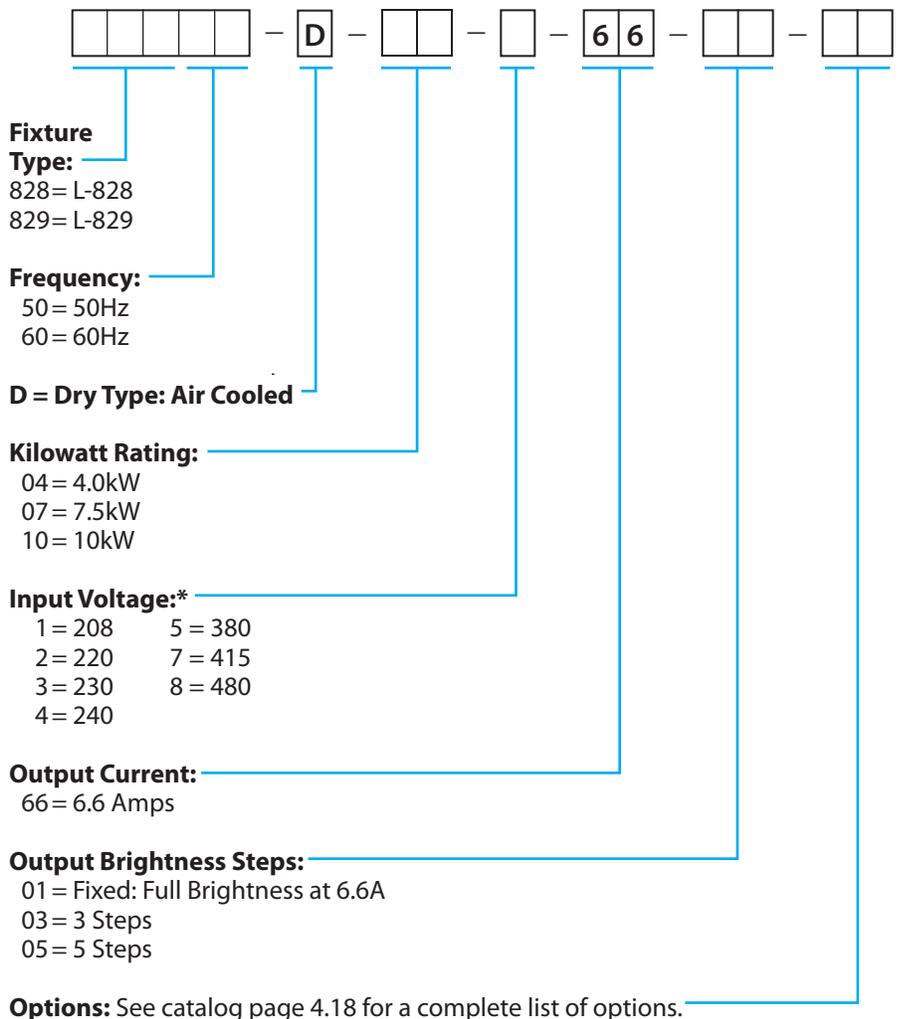
Applications

The REGD Constant Current Regulator is designed to provide precision control of runway lighting circuits. The equipment can be supplied with a wide range of control and monitoring options. These regulators are air cooled and designed for indoor service.

Features

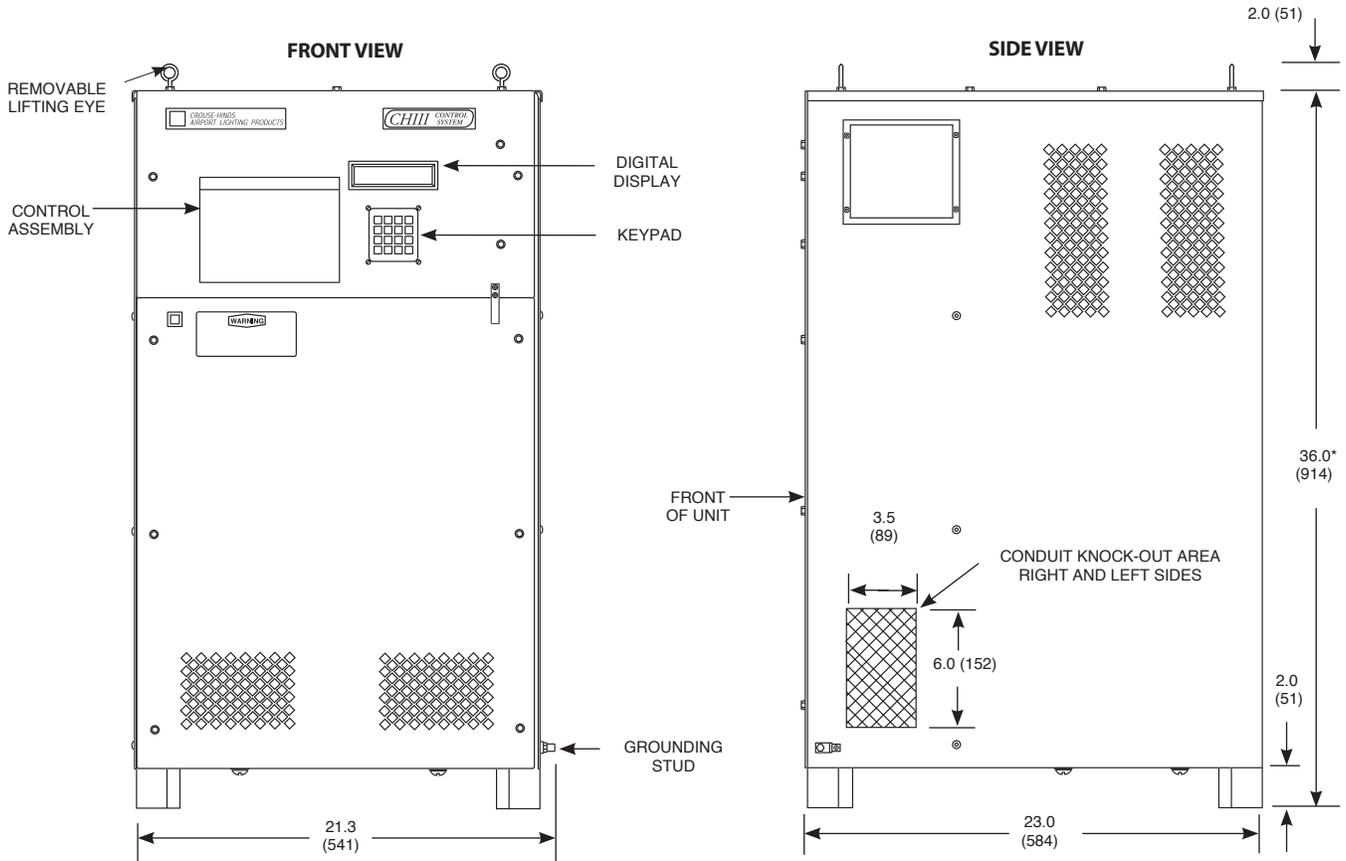
- ETL Certified 
- Air cooled
- Advanced Diagnostic Aids
- Series transformer type regulator
- Elapsed Time Indicator: each step and total
- Built-in digital ammeter (0.5% accuracy)
- Regulation $\pm 1\%$ over 0 to 100% load and +10% to -5% line voltage with no tap changes
- On-off switching under load
- Lightning and transient protection: input and output lines
- Efficiency – 90% minimum
- High power factor**
- Remote reset capability
- Output current maintained with 30% open isolation transformer secondaries
- Open circuit protection
- Over current protection
- Compatibility of Multiple Options
- Soft On/Off
- Integral L-829 Monitoring
- 10,000 feet remote control @ 120V
- Temperature – 40°C to +55°C
- Plug-in printed circuit boards
- Circuit board compatibility with large dry CCR***

Ordering Information



* Voltage Availability
50Hz only: 230, 380 60Hz only: 208, 480 50 or 60Hz: 220, 240
** When Fully Loaded
*** Field adjustments may be required.

Outline Drawing



* The unit with options 41, 42, 43, or 44 is 12" higher.

Technical Data

| Brightness Step | REGD Output | | Percentage (%) | |
|-----------------|----------------|--------|----------------|--------|
| | Current (Amps) | | Light Output | |
| | 3-Step | 5-Step | 3-Step | 5-Step |
| 5 | — | 6.6 | — | 100 |
| 4 | — | 5.2 | — | 20 |
| 3 | 6.6 | 4.1 | 100 | 4.0 |
| 2 | 5.5 | 3.4 | 30 | 0.8 |
| 1 | 4.8 | 2.8 | 10 | 0.2 |

Note: For 10, 15, 20, and 30Kw shunt type REGD regulators, refer to catalog page 4.2.

| Dimensions: | inches (mm) | | |
|---------------------|---------------------------|---------------------------|---------------------------|
| Instruction Manual: | 9517 | | |
| | 4Kw | 7.5Kw | 10Kw |
| Shipping Weight: | 250 lbs. 114 kg. | 325 lbs. 145 kg. | 370 lbs. 168 kg. |
| Shipping Volume: | 17.6 cu.ft. 0.50 cu.m. | 17.6 cu.ft. 0.50 cu.m. | 17.6 cu.ft. 0.50 cu.m. |

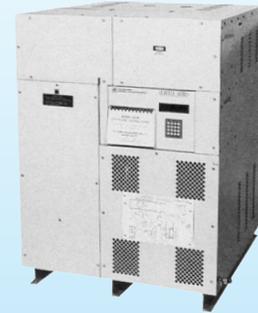
Renewal Parts - 82X50-D/82X60-D Small Dry Regulators

| Part Number | Description |
|--|--|
| 32322 - "X" | L-828 Control Assembly |
| 32322 - "X" -61 | L-829 Control Assembly |
| Insert 1, 3, or 5 in place of "X" for the number of brightness steps required. | |
| 10047-1005 | Fuse, 1/8 Amp, Slo-Blo |
| 10047-1205 | Fuse, 1 Amp, Slo-Blo |
| 31814 | SCR/Heatsink Assembly, All units except noted by P/N 31817 |
| 31817 | SCR/Heatsink Assembly, 208-240VAC, 10Kw units |



REGD

Constant Current Regulators-Dry



REGD

Compliances: FAA AC 150/5345-10: L-828 and L-829
ICAO Aerodrome Design Manual, Part 5
USN NAVAIR 51-50AAA-2

Large/11-30kW Unit

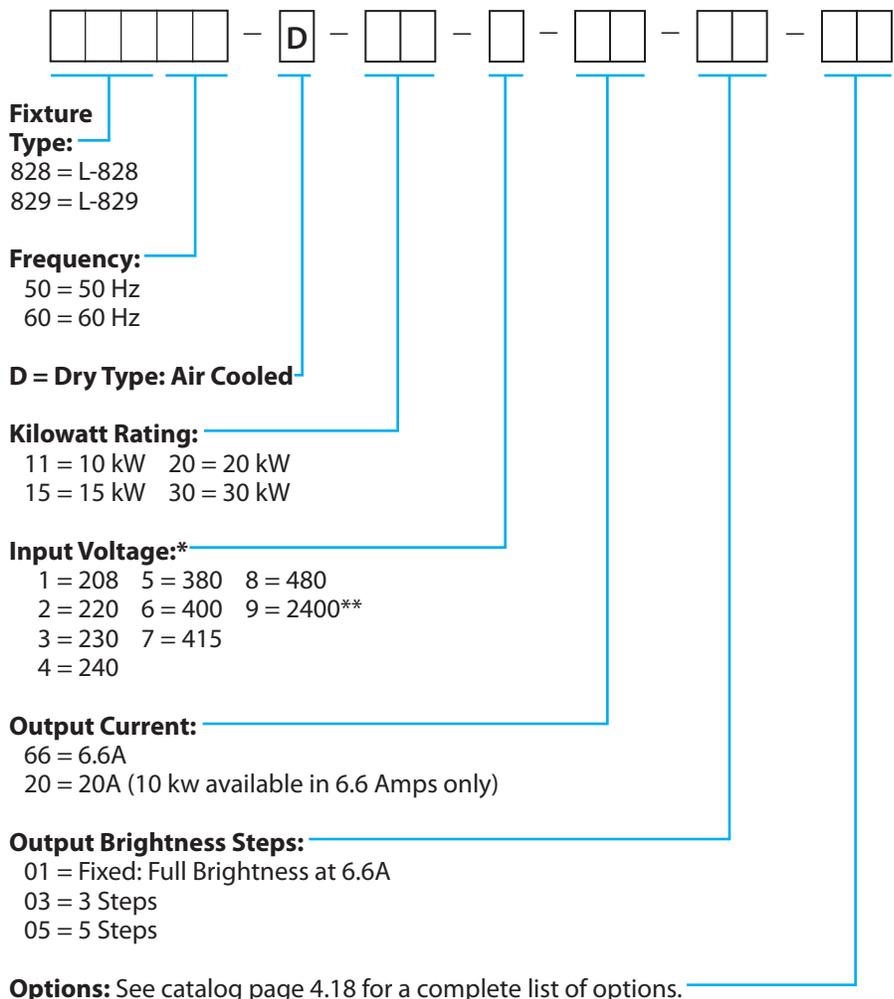
Applications

The REGD Constant Current Regulator is designed to provide precision control of runway lighting circuits. The equipment can be supplied with a wide range of control and monitoring options. These regulators are air cooled and designed for indoor service.

Features

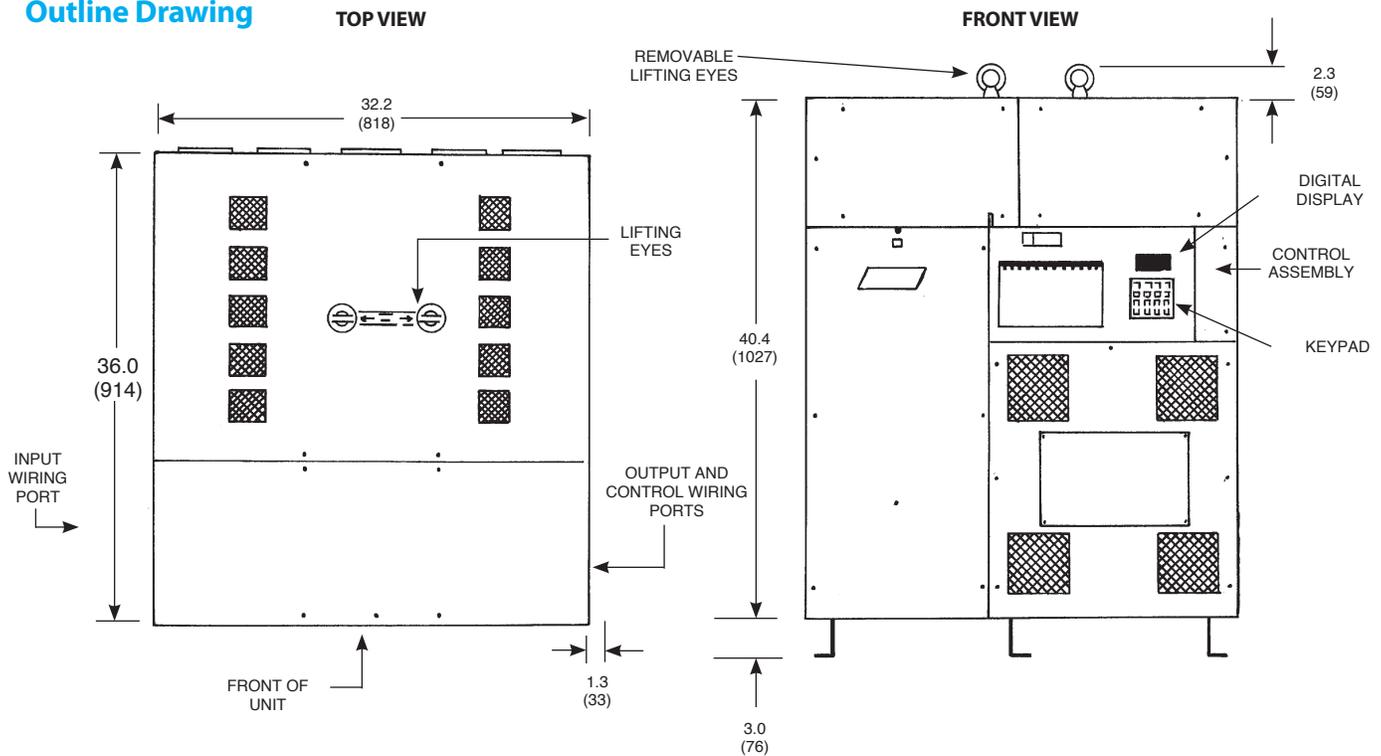
- ETL Certified 
- Air cooled
- Advanced Diagnostic Aids
- Shunt type ferro-resonant regulator
- Elapsed Time Indicator: each step and total
- Built-in digital ammeter (0.5% accuracy)
- Regulation $\pm 1\%$ over 0 to 100% load and +10% to -5% line voltage with no tap changes
- On-off switching under load
- Lightning and transient protection: input and output lines
- Efficiency — 90% minimum
- High power factor
- Remote reset capability
- Output current maintained with 30% open isolation transformer secondaries
- Open circuit protection
- Over current protection
- Compatibility of Multiple Options
- Soft On/Off
- Integral L-829 Monitoring
- 10,000 feet remote control @ 120V
- Temperature -40°C to $+55^{\circ}\text{C}$
- Plug-in printed circuit boards
- Circuit board compatibility with small dry CCR***

Ordering Information



* Voltage Availability
50 Hz only: 230, 380, 400, 415 60 Hz only: 480, 2400 50 or 60 Hz: 208, 220, 240
** Wye system is standard with one-pole breaker. For Delta System see Option 94.
*** Field adjustments may be required.

Outline Drawing



Technical Data

| Brightness Step | REGD Output | | Percentage (%) | | |
|-----------------|----------------|--------|----------------|--------|-----|
| | Current (Amps) | | Light Output | | |
| | 3-Step | 5-Step | 3-Step | 5-Step | |
| 5 | — | 6.6 | 20.0 | — | 100 |
| 4 | — | 5.2 | 15.8 | — | 20 |
| 3 | 6.6 | 4.1 | 12.4 | 100 | 4.0 |
| 2 | 5.5 | 3.4 | 10.3 | 30 | 0.8 |
| 1 | 4.8 | 2.8 | 8.5 | 10 | 0.2 |

| | | | | |
|----------------------------|-------------------------|---------------------|----------------------|----------------------|
| Dimensions: | inches (mm) | | | |
| Instruction Manual: | 9540 | | | |
| | 10 KW | 15 KW | 20 KW | 30 KW |
| Shipping Weight: | 800 lbs. 363 kg. | 880 lbs. 399 kg. | 1015 lbs. 460 kg. | 1170 lbs. 531 kg. |
| Shipping Volume: | 84 cu.ft. 2.37 cu.m. | | | |

Note: For 4, 7.5 and 10 kw series type REGD regulators, refer to catalog page 4-03.

Renewal Parts

| Part Number | Description |
|-------------------|------------------------|
| 32323-"X"- "Y" | L-828 Control Assembly |
| 32323-"X"- "Y"-61 | L-829 Control Assembly |

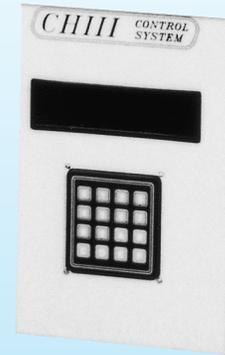
Insert 1, 3, or 5 in place of "X" for the number of brightness steps required.
Insert 1 for 6, 6A or 2 for 20A in place of "Y" for the output current required.

| | |
|------------|--------------------------------|
| 10047-1005 | Fuse, 1/8 Amp, Slo-Blo |
| 10047-1205 | Fuse, 1 Amp, Slo-Blo |
| 31505-1 | SCR/Heatsink Assembly, 10-20KW |
| 31505-2 | SCR/Heatsink Assembly, 30KW |
| 10047-1141 | Fuse, 2 Amp, Slo-Blo |





Constant Current Regulator Options- For REGD & REGW Units



CCRO

Applications

The options described below apply to the Crouse-Hinds REGD and REGW constant current regulators (CCR's) listed in the catalog. Many options may be combined in one CCR. However, contact Crouse-Hinds when specifying multiple options to insure compatibility.

Option Number Description

- 11 **48 VDC Control Voltage (Remote Source)**
The regulator control voltage is 48 VDC supplied by the user from a remote source. The source is typically a DC power supply but it may also be batteries. This option replaces the standard internal 120 VAC supply.
- 16 **48 VDC Control Voltage (Internal Source)**
The regulator control voltage is 48 VDC supplied by a built-in power supply. No separate power supply in the tower is required. Using individual power supplies for each regulator lessens the possibility of control system failure than when using a single central source. This option replaces the standard internal 120 VAC supply.
- 21 **On/Off Output Current Monitor**
Also called simple remote back indication, this option supplies a set of dry contacts for remote monitoring of the output current. It provides a positive signal to the tower that the constant current regulator is really "on", that is, there is current output to the circuit.
- 22 **Individual Step Output Current Monitor**
This option is remote back indication for the individual brightness steps of the constant current regulator. It provides a positive signal to the tower that the constant current regulator is really "on" at the commanded step, that is, there is current output to the circuit. There are five (5) normally open contacts for brightness step indication and one (1) normally open contact that monitors two fault conditions: overcurrent and open circuit.
- 23T **Computer Interface**
This option is used only for FAA L-828 regulators and provides sets of dry contacts for remote status monitoring. There are two (2) normally open / normally closed Form C contacts to monitor: local or remote status; and regulator input power indication. (This option provides potential and current transformers and related items for a CROUSE-HINDS computerized control system).
- 31 **Lamp Failure Detector (829X0 only)**
This option is used only for FAA L-829 regulators and provides additional eight (8) dry contacts for remote indication from zero to eight (8) individual failed airfield lighting lamps.
- 41 **Digital Display of Line Voltage & Current**
Displays on one (1) meter the regulator's input line volts and amps.
- 42 **Digital Display of Line Voltage, Line Current & Load Voltage**
Combines the functions of options 41 and 44 using two (2) meters.

- 43 **Digital Display of Line Voltage**
Displays on one (1) meter the regulator's input line volts.
- 44 **Digital Display of Load Voltage**
Displays on one (1) meter the regulator's output series circuit volts.
- 62 **Discrete Status Indication (829X0 only)**
This option is used only for FAA L-829 regulators and provides seven (7) dry contacts for remote status monitoring of the L-829 functions. Without this option, the L-829 alarms are indicated only by a single global alarm signal locally at the regulator.
- 63T **Digitrac Computer Interface**
Integrated Digitrac Unit that provides full CCR control and L-827/L-829 monitoring, as described below, to a Crouse-Hinds Airfield Lighting Control System.
- 1) Loss of input power to the CCR.
 - 2) CCR shutdown by open-circuit/over-current protective devices.
 - 3) Drop of more than 10% in the CCR VA load.
 - 4) Failure of the CCR to deliver the selected output current.
 - 5) The number of burnt-out lamps in each series circuit.
 - 6) CCR status (local or remote control).
 - 7) The actual CCR output current.
 - 8) The actual CCR output voltage.
 - 9) The actual CCR output load (wattage).
 - 10) The status of the computer-controlled interposing relays that activate the CCR (commanded brightness acknowledge).
- 94 **Primary Switch. 2 Poles**
The standard primary switch for 2400V input power is made for a Wye configuration, which consists of (1) 2400V line and (1) neutral. This Option provides a primary switch for a Delta configuration, which consists of (2) 1200V lines.
- S-486 **Integrated Megatrac – REGD Large Dry (pages 4.16 & 4.17)**
Integrated Megatrac Unit that monitors and displays the insulation resistance to ground of the airfield lighting series circuit. The Megatrac Unit also provides a warning and/or alarm when the cable's insulation resistance measurement falls below customer selectable thresholds
- S-548 **Integrated Megatrac – REGD Small Dry (pages 4.14 & 4.15)**
Integrated Megatrac Unit that monitors and displays the insulation resistance to ground of the airfield lighting series circuit. The Megatrac Unit also provides a warning and/or alarm when the cable's insulation resistance measurement falls below customer selectable thresholds

Important Note: Where applicable, the contacts provided for external remote indication are limited to two (2) amps resistive load. The external wiring and indicators are not supplied by Crouse-Hinds. Improper external wiring voids the regulator warranty.



LAHSO

Land and Hold Short Lighting System Power and Control Unit (PCU)



LAHSO

PCU with open door shown

Compliances: FAA, AC 150/5345-54: L-884

Applications

The L-884 power and control unit (PCU) is a power supply designed to power and simultaneously pulse all lights in a land and hold short operations (LAHSO) light bar.

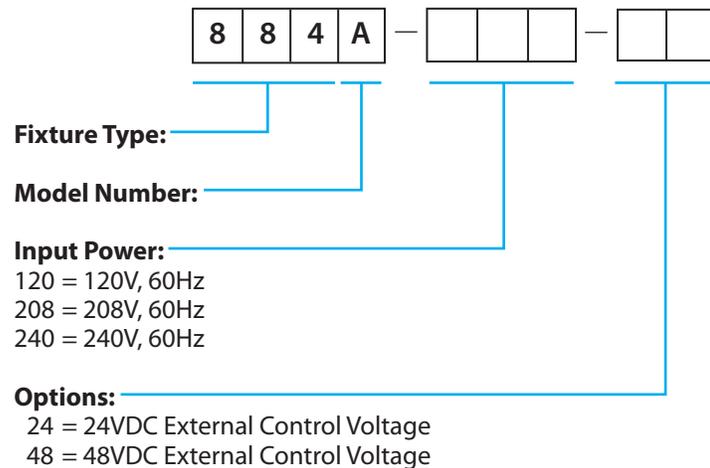
Features

- ETL Certified 
- Style I: For indoor use (all units include photo cell)
- Unit can be field configured for MIRL or HIRL (HIRL, configured from factory) operation
- Alarm relays provided for discrete alarm indication for each monitored parameter
- Plug-in printed circuit cards with LED diagnostic indicators
- Unit can operate 6 or 7 light LAHSO light bar
- -55°C to +70°C temperature operation range
- Optional 24VDC or 48VDC circuit boards for user supplied external control voltage. 120VAC internal/external control voltage circuit board is factory supplied.
- Tower control panel available as an accessory for installation in ATC tower

Ordering Information

The Power and Control Unit (PCU) is sold as a separate piece of equipment and all other LAHSO system components are sold separately.

How to Order PCU: To the basic catalog number, add the symbols for Input Power, and Options (if required).



LAHSO System Description

The lighting system consists of six (6 or 7) unidirectional in-pavement light fixtures conforming to FAA L850F, a Power and Control Unit and a tower control panel. The six or seven lights are flashed synchronously when activated by Air Traffic Control. Each Power and Control Unit supplies power to the six or seven lights, adjusts the brightness level and detects the failure of a lamp or the failure of the lamps to flash.

The brightness level of the six or seven flashing in-pavement lights is determined by the Power and Control Unit after receiving inputs from a photoelectric control and detecting the existing brightness level of the runway edge lights. During daytime, the lights are always operating at maximum brightness level.

At night, the intensity is varied and depends on the brightness level of the runway edge lights. See Table 1 for the various brightness levels utilized. Monitoring of the runway edge lights is accomplished by inserting a 45 watt 6.6/6.6 amp or 20/6.6 amp isolating transformer in the runway circuit and feeding the secondary current back to the Power and Control Unit. Figure 1 below is a system diagram depicting a functioning system. The input circuit breaker for each PCU should be sized approx. 25% above the actual peak input current (7 Amps) for any specified voltage (120VAC, 208VAC or 240VAC).

Figure 1

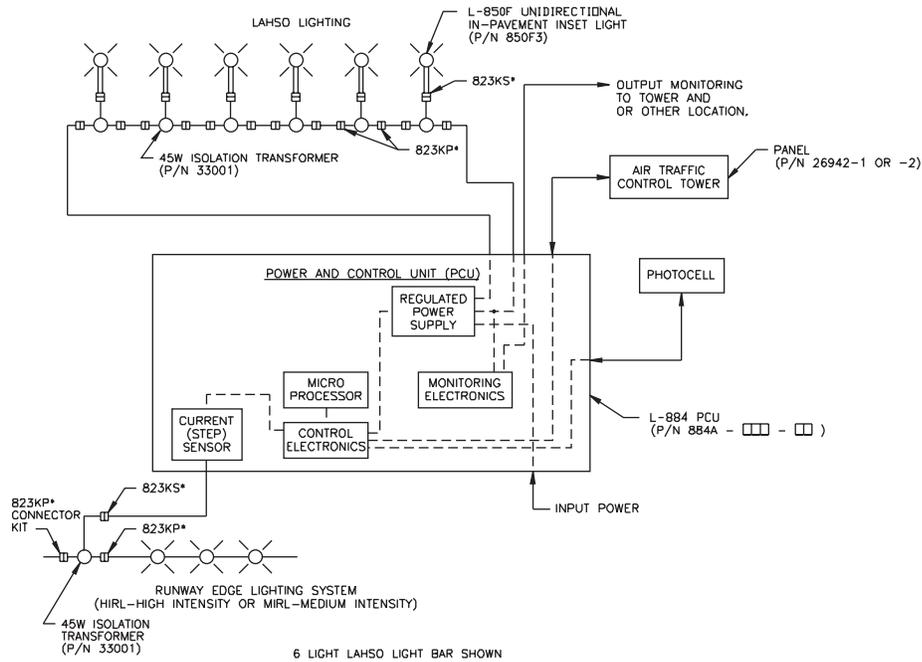


Table 1

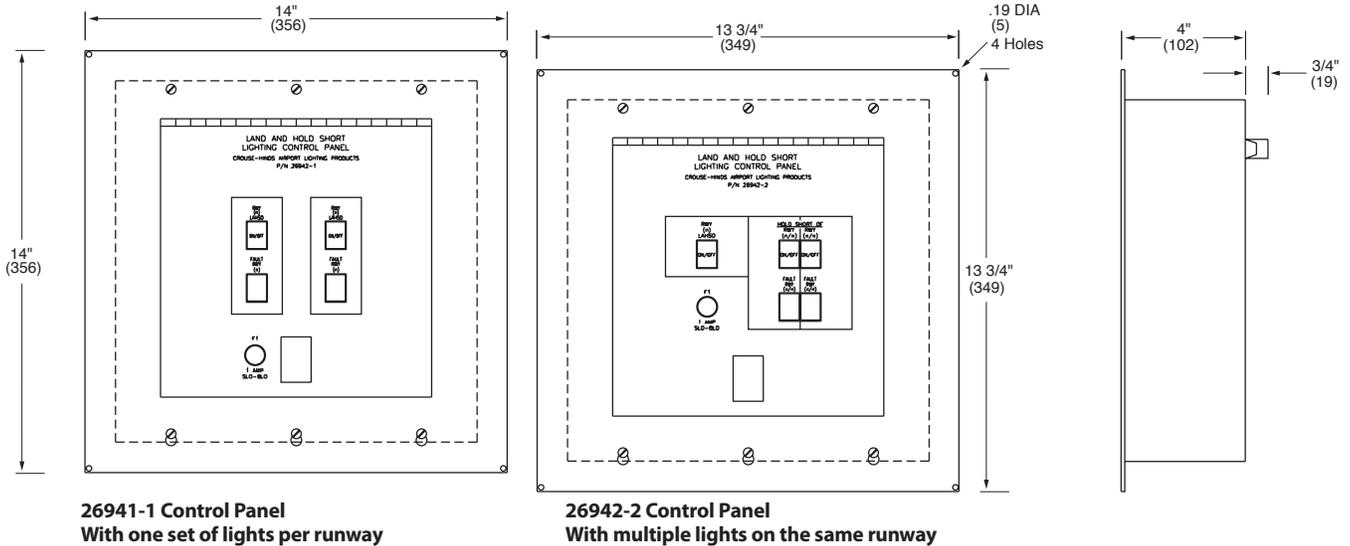
| Remote Control Performance | | |
|-------------------------------------|--------------------------|----------------------------|
| Runway Edge Lighting Intensity Step | PCU Intensity Step (Day) | PCU Intensity Step (Night) |
| B1 | 5 | 3 |
| B2 | 5 | 3 |
| B3 | 5 | 4 |
| B4 | 5 | 5 |
| B5 | 5 | 5 |
| OFF | 5 | 3 |
| B10 | 5 | 3 |
| B30 | 5 | 3 |
| B100 | 5 | 4 |

* Refer to pg. 4.32 for L-823 Connector Kits selection.



Instruction Manual: 2217

Dimensions: inches
(mm)



Accessories

| Part Number | Suggested Quantity (per system) | Description | Shipping Weight | | Shipping Volume | |
|----------------|------------------------------------|---|-----------------|------|-----------------|-------|
| | | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 850F3 | 6 or 7 | Runway Centerline Light, L-850F, 48 Watts | | | | |
| 20453-1 | 6 or 7 | Shallow Inset Light Base (For L-850F Fixture) | - | - | - | - |
| AC63242H200301 | 1 | L-867, Size D Base (Isolation transformers housing) | 67.0 | 30.3 | 4.30 | 0.006 |
| AK200006 | 1 | Coverplate for L-867, Size D Base | - | - | 0.20 | 0.006 |
| 10530281 | 1 | Gasket, 16" (406mm) | 0.5 | 0.2 | - | - |
| 21116 | 6 or 7 | 48W, 6.6A Lamp for 850F3 | | | | |
| 10047-409 | 6 or 7 | Film Disc Cutout for 850F3 | | | | |
| 33001 | 7 or 8 | Isolation Transformer, L-830-1, 45 Watts, 6.6/6.6A | 5.2 | 2.36 | 0.03 | 0.009 |
| 33002 | 7 or 8 | Isolation Transformer, L-830-2, 45 Watts, 20/6.6A | 5.2 | 2.36 | 0.03 | 0.009 |

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|--|-------------|-----------------------------------|
| 10047-1505 | Fuse, 0.4 Amp | 32277-4 | P.C. Board, Microprocessor |
| 10047-1686 | Fuse, 0.8 Amp | 31879-4 | P.C. Board, Regulation |
| 10047-1143 | Fuse, 0.5 Amp | 31971 | P.C. Board, Power Supply |
| 10047-2552 | Fuse 1.0 Amp | 31926-2 | P.C. Board, Load Monitor |
| 26984-120 | P.C. Board, 120VAC Remote Control (Standard) | | |
| 26984-48 | P.C. Board, 48VDC External Remote Control | | |
| 26984-24 | P.C. Board, 24VDC External Remote Control | 26993 | P.C. Board, Ferroresonant Control |

Shipping Weights and Volumes

| Catalog Number | Shipping Weight | | Shipping Volume | |
|----------------|-----------------|-----|-----------------|-------|
| | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 884 A | 95 | 46 | 5.0 | 0.142 |



Circuit Selector Switch

Compliances: FAA AC 150/5345-5: L-847
Unified Facilities Criteria UFC 3-535-01



Applications

The CSC Circuit Selector Switch is connected to the output of a single constant current regulator and switches that output to one or more airfield lighting series circuits. Common applications include circuits for PAPIs, stopbars, and taxiway centerlines. The CSC can also be used as the interface between a standby backup regulator and several operating regulators.

Features

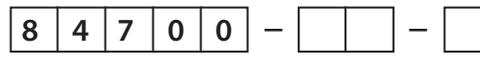


- ETL Certified (6.6 Amp circuits only)
- Simultaneous or Exclusive Switching
- For 6.6 or 20 Amp circuits
- Locally and Remotely Controllable
- Units may be interconnected to serve any number of circuits with a single regulator
- Clear Dead-Front Cover for high-voltage compartment with interlock switch
- Wall or Conduit Mounting
- Deenergized Switching to protect regulator circuitry
- Ambient Temperature Range -40° to +55°C

Ordering Information

How to Order: To the basic catalog number, add the number of series circuits to be switched and options from the chart below.

Example: An 84700-2-3-5 is a two-circuit selector switch for use with 48 VDC remote control. It features a relay for on/off remote back indication.



Basic Number: _____

Number of Series Circuits: _____

Options: _____

Refer to the chart below

Selection Chart

Standard Features & Options

Select one standard feature or option within each group. If the total number of options selected exceeds two (2), consult Cooper Crouse-Hinds for determination of compatibility.

GROUP A: INPUT VOLTAGE

| | |
|------------------|---------------------|
| Standard Feature | 120 V, 50/60 Hz |
| Option -2 | 220-240 V, 50/60 Hz |
| Option- 15 | 480 V, 50/60 Hz |

GROUP B: CONTROL VOLTAGE

| | |
|------------------|-------------------------|
| Standard Feature | 120 V (Internal Source) |
| Option -3 | 48 VDC (Remote Source) |
| Option -4 | 120 V (Remote Source) |
| Option -11 | 24 VDC (Remote Source) |

GROUP C: STATUS INDICATION

| | |
|------------------|--------------------------------------|
| Standard Feature | No Status Indication |
| Option -5 | On/Off 6.6 A Circuit Current Monitor |
| Option -6 | On/Off 20 A Circuit Current Monitor |

GROUP D: CIRCUIT SELECTION

| | |
|------------------|--|
| Standard Feature | Simultaneous: Any combination |
| Option -8 | Exclusive: One circuit at a time |
| Option -9 | Spare Regulator Switching: Prevents Interconnection of the two CCRs (2-circuit only) |

GROUP E: CABINET TYPE

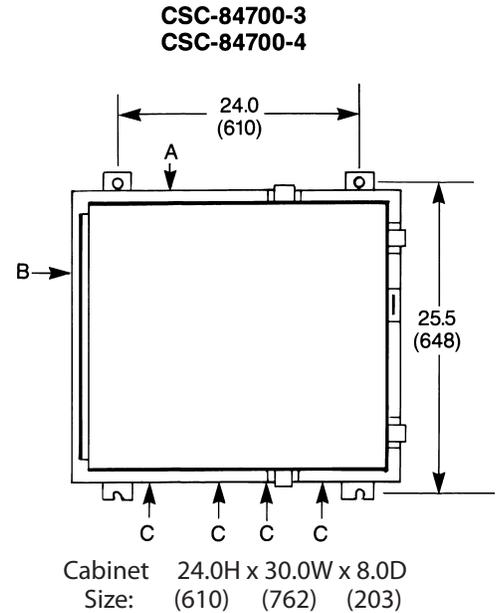
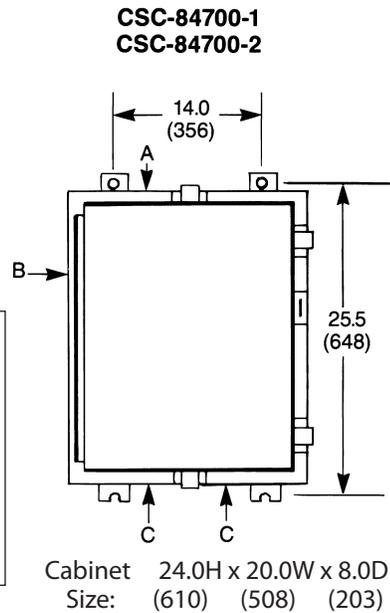
| | |
|------------------|--|
| Standard Feature | NEMA 1—Indoor (Painted) |
| Option -10 | NEMA 4—Indoor/Outdoor (Painted) |
| Option -13 | NEMA 4X—Indoor/Outdoor (Stainless Steel) |
| Option -12 | Cabinet Door Interlock Switch |
| Option - 14 | Without Cabinet |

Outline Drawings

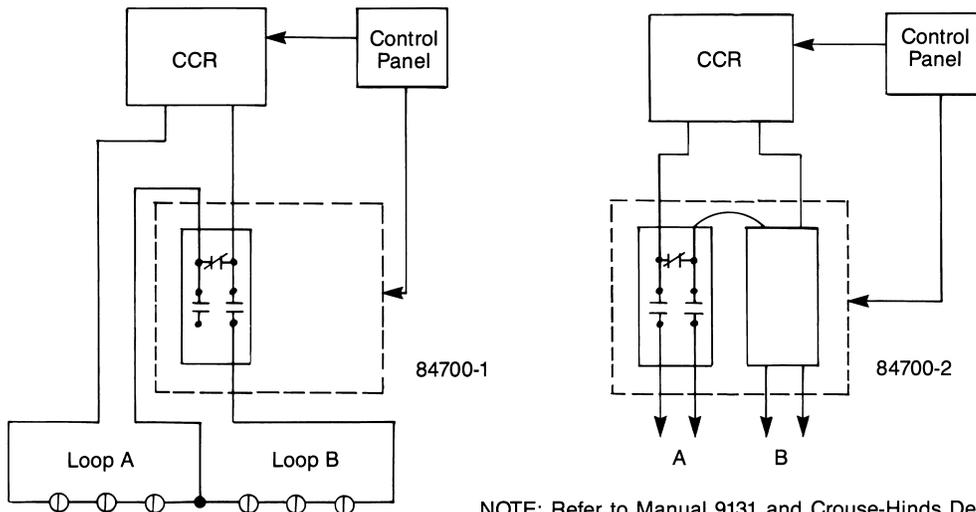
Suggested Conduit Entrances

A = Control Power
B = Regulator
C = Series Circuit

| | | | | | | | | | | | | | |
|----------------------------|--|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|
| Dimensions: | inches (mm) | | | | | | | | | | | | |
| Instruction Manual: | 9131 | | | | | | | | | | | | |
| Shipping Weight: | <table border="0"> <tr> <td>-1</td> <td>-2</td> <td>-3</td> <td>-4</td> </tr> <tr> <td>70.0 lbs.</td> <td>70.0 lbs.</td> <td>95.0 lbs.</td> <td>95.0 lbs.</td> </tr> <tr> <td>31.8 kg.</td> <td>31.8 kg.</td> <td>43.2 kg.</td> <td>43.2 kg.</td> </tr> </table> | -1 | -2 | -3 | -4 | 70.0 lbs. | 70.0 lbs. | 95.0 lbs. | 95.0 lbs. | 31.8 kg. | 31.8 kg. | 43.2 kg. | 43.2 kg. |
| -1 | -2 | -3 | -4 | | | | | | | | | | |
| 70.0 lbs. | 70.0 lbs. | 95.0 lbs. | 95.0 lbs. | | | | | | | | | | |
| 31.8 kg. | 31.8 kg. | 43.2 kg. | 43.2 kg. | | | | | | | | | | |
| Shipping Volume: | <table border="0"> <tr> <td>3.4 cu. ft.</td> <td>5.0 cu. ft.</td> </tr> <tr> <td>.096 cu. m.</td> <td>.142 cu. m.</td> </tr> </table> | 3.4 cu. ft. | 5.0 cu. ft. | .096 cu. m. | .142 cu. m. | | | | | | | | |
| 3.4 cu. ft. | 5.0 cu. ft. | | | | | | | | | | | | |
| .096 cu. m. | .142 cu. m. | | | | | | | | | | | | |



Wiring Diagrams



NOTE: Refer to Manual 9131 and Crouse-Hinds Design Guide for additional wiring configurations.

Renewal Parts

| Part Number | Description | Part Number | Description |
|-------------|---|-------------|---|
| 34197 | Relay K1 SPNC | 31955-6 | Timing Circuit Board (84700-1 or 2, w/Option 3) |
| 34196* | Relay Module K2 DPNO | 31955-7 | Timing Circuit Board (84700-3 or 4, w/Option 3) |
| 34195* | Relay Interface Assembly | 31978-1 | Current Sensing Circuit Board (84700-1 or 3 w/Option 5) |
| 32849* | Relay Interface Harness | 31978-2 | Current Sensing Circuit Board (84700-2 or 4 w/Option 5) |
| 30848-1 | K1 and K2 Relay Module Assembly | 10047-1444 | Control Transformer 220/120 (84700 w/Option 2) |
| 31955-1 | Timing Circuit Board (84700-1 or 2) | 10047-1590 | Fuse 2.0 Amp (84700-1 or 2) |
| 31955-2 | Timing Circuit Board (84700-3 or 4) | 10047-1591 | Fuse 3.0 Amp (84700-3 or 4) |
| 31955-3 | Timing Circuit Board (84700-1 or 2, w/Option 8) | | |
| 31955-4 | Timing Circuit Board (84700-3 or 4, w/Option 8) | | |

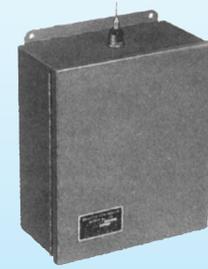
* These items must be ordered together





Radio Controller

Compliances: FAA AC 150/5345-49: L-854
FCC Rules & Regulations: Part 15
NASAO Guidelines



RC
RC-1T5A shown

Applications

The Radio Controller permits the remote activation of the airport lighting system by the pilot. This is accomplished by keying the aircraft's microphone in a particular sequence at a designated frequency. The controller activates the lighting system upon receiving a series of pulses of radio frequency energy within a five second period. At the third pulse the first relay closes, at the fifth pulse the second relay closes, at the seventh pulse the third relay closes. At any time the pilot has the option of sending three, five, or seven pulses to command the intensity level to his desires. The system will remain at the intensity of the last command received. The solid state timer will continue to operate for 15 minutes after which it will cause the system to revert to the "off" condition. The Timer is reset by the receipt of any command at any time, re-initiating the 15 minute "run" cycle.

Features

- ETL Certified 
- Frequency: 118 to 136 MHz
The UNICOM frequency of 122.8 MHz is commonly selected
- Outdoor Enclosure
- Whip or Remote Antenna
- Input Voltage: 120V
- Solid-State Circuitry
- Ambient Temperature: $\pm 55^{\circ}\text{C}$

| | |
|-------------------------|----------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 18.0 lbs. 8.2 kg. |
| Shipping Volume: | 0.62 cu.ft. 0.018 cu.m. |

Ordering Information

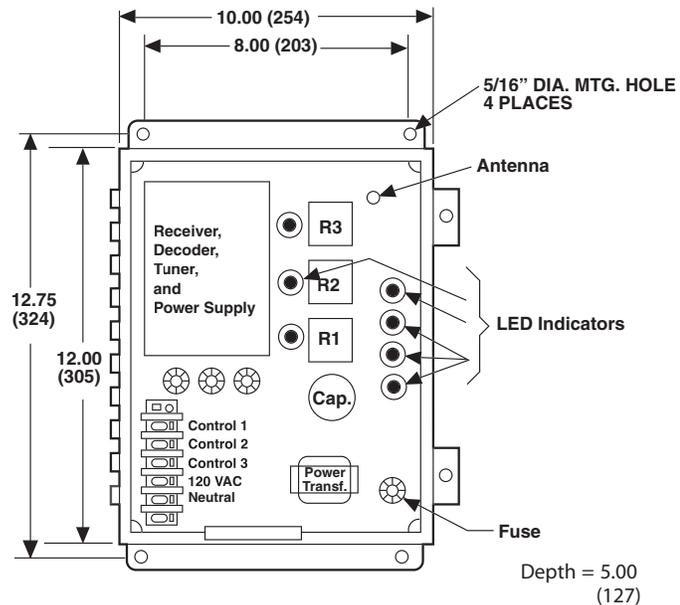
Crouse-Hinds supplies radio controllers by a FAA approved manufacturer such as Control Industries. Each controller includes an antenna. If desired, specify by description a remote antenna with 50 feet (15 m) of coaxial cable. Specify the radio frequency.

| Catalog Number | Description |
|----------------|--------------------------|
| RC-1T5A | Radio Controller |
| RIU-1200* | Regulator Interface Unit |

* A regulator interface unit is not required for the operation of any Crouse-Hinds latest model regulator (with CH-II or III control system).

Note: For detailed technical data contact Crouse-Hinds.

Outline Drawing



Depth = 5.00
(127)



SPC2

Series Plug Cutout Type S-1 (MODEL 2)

Compliances: FAA AC 150/5340

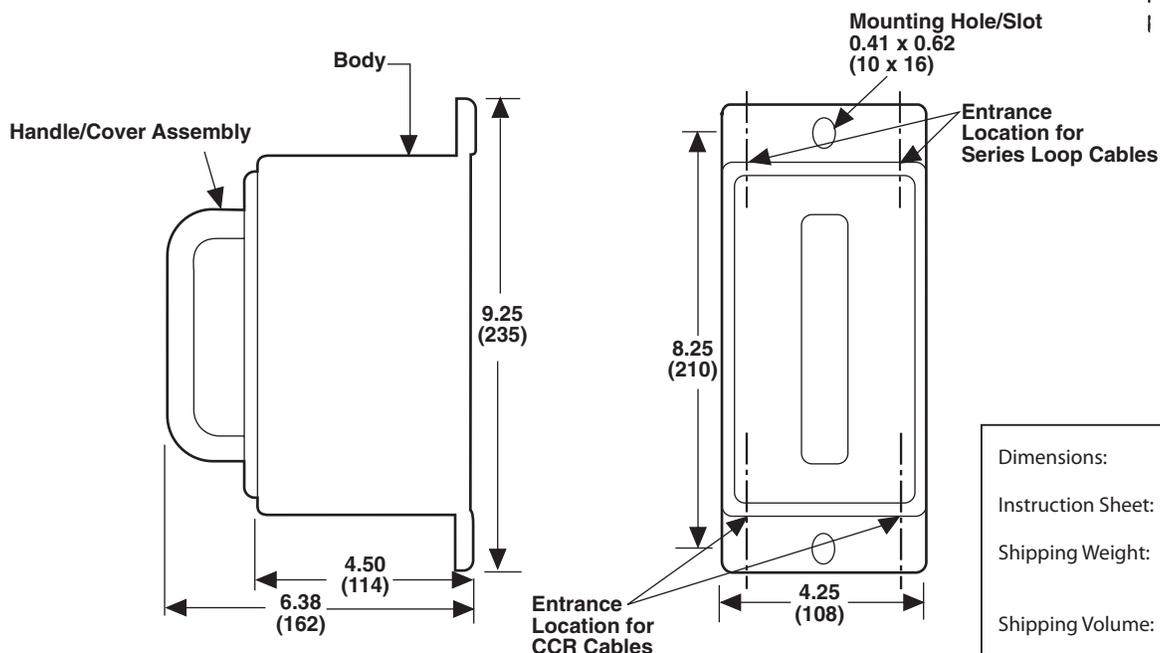
Applications

The Series Plug Cutout Type S-1 is a device installed at the constant current regulator (CCR) output through which the series circuit passes. With the handle assembly removed, the SPC isolates the CCR output from airfield series loop for maintenance personnel safety. The SPC also shorts the series loop and shorts the regulator secondary aiding in maintenance checks and troubleshooting.

Features

- Provides positive proof that the series circuit cannot be energized during maintenance
- Shorts the series circuit for maintenance continuity checks
- Shorts the regulator secondary for maintenance checks
- Body constructed of high strength engineered plastics
- Suitable for 6.6A or 20A circuits
- Protected against arcing

Outline Drawings

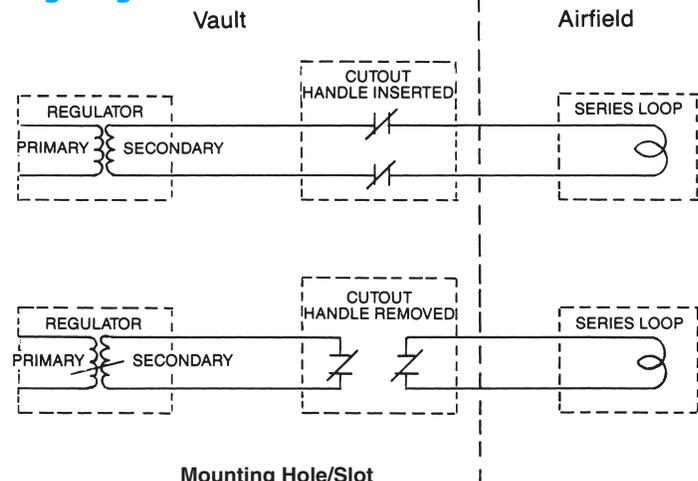


Ordering Information

3 0 7 7 5

Catalog Number:

Wiring Diagrams



DIGITRAC™



Computer Control System

Compliances: FAA AC 150/5345-56: L-890

ALCMS



ETL Certified

The Crouse-Hinds Digitrac Control System is ETL Certified at all four levels of AC 150/5345-56. This provides our Customers with options ranging from a basic system with Control Only to a complete SMGCS system for low visibility operation.

Advanced Distributed Computer Technology for Airfield Lighting Control and Monitoring

The Crouse-Hinds Airport Lighting Products Digitrac™ Control System is a comprehensive and integrated solution to meet a wide range of airfield lighting control and monitoring requirements. Advanced, distributed architecture ensures reliable operation and greatly simplifies installation and maintenance.

Fail-safe design

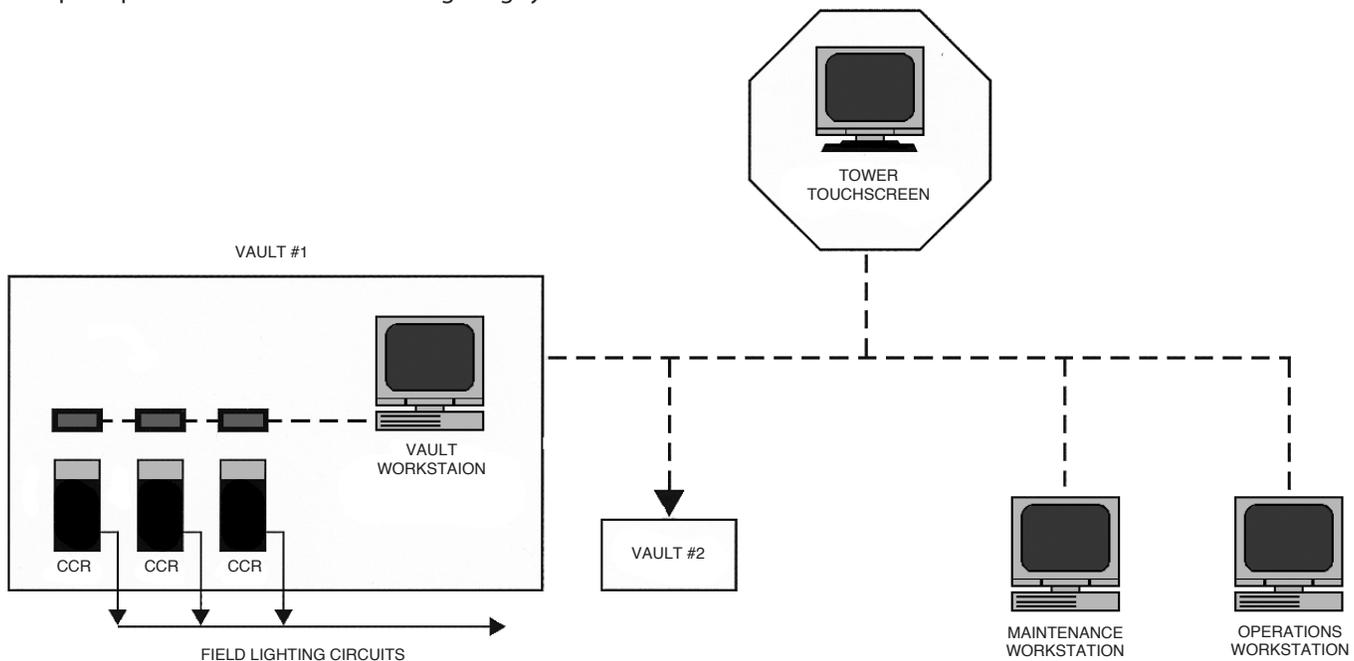
Each controllable element in the lighting system, a constant current regulator, selector switch or generator, has its own interface with the Digitrac communication network. In the event of component failure, a fail-safe feature assures continued operation of all elements at preset levels.

Touch-screen control

Choose color CRTs or flat-panel LCDs. Single or multiple touch screens for control and monitoring.

Comprehensive, real-time data

The scope and depth of information provide air traffic control, operations, maintenance and airport management with a complete picture of the entire airfield lighting system in real time.



Adaptable and flexible

Innovative design and modular architecture keep pace with airport growth and technological progress. Digitrac can manage a virtually unlimited number of elements; quick configuration to meet lighting control requirements for airports of any size.

Networking

Digitrac utilizes a wide area network to link the control tower, operations center, electrical vaults and maintenance areas. Circle or star configurations are available. Media include: Fiber optic cable, twisted pair or wireless. For increased reliability and security, we recommend and typically install redundant communication channels.

Within the electrical vaults, Digitrac uses two highly reliable independent communication networks for fast, reliable data transmission. The network protocol supports communications on a variety of wired and wireless media including twisted pair, power line, infrared, radio frequency, fiber optic and coaxial cable.

Digitrac interface

Each constant current regulator (CCR) and each controllable element has a Digitrac Interface. The Interface is a microprocessor-based module that includes all communication, command, monitoring, input/output and fail-safe functions. This distributed structure simplifies installation and significantly increases reliability and ease of maintenance. The controllable elements receive the air traffic controller commands via the communications network, execute the commands and report back the status of each controlled element to all control locations.

Software

The system is based on a network-capable operating system. The application, database and graphic software are off-the-shelf windowing packages refined to fit the specific needs of airport environments. The system provides security interlocks between various operator stations and the operational procedures used to define user access and capabilities. User-friendly definition tools modify the system easily. Simply install a Digitrac interface into new CCRs or control elements, connect to the local vault network and add its parameters to the system through a simple menu-driven interface.

Maintenance capabilities

One of the major benefits of Digitrac, beyond meeting requirements for air traffic control, is the availability of real-time historical information regarding the operation of the airfield lighting system. Digitrac notifies airport maintenance and operations personnel of malfunctions as they occur, reporting the time, type and nature of the problem as well as the area of system in which the malfunction occurred. Digitrac stores all malfunction reports and the associated information; hard copy reports are available through a printer connected to the maintenance computer.

Other capabilities

The Digitrac system is the solution for advanced requirements. This includes the control and monitoring of stop bars and guard lights as part of a Surface Movement Guidance and Control System plan, failed lamp locator and automatic series circuit insulation resistance monitoring.



TRANS

Series Isolation Transformers



Compliances: FAA AC 150/5345-47: L-830 & L-831
ICAO Design Manual, Part 5
UFC 3-535-01
NAVAIR 51-50AAA-2

TRANS

Applications

Isolation transformers are used in series airfield and highway lighting circuits to electrically isolate the lighting fixture from the medium voltage usually present. Specialty transformers are also available for non-standard applications. The transformers are totally encapsulated in Santoprene® and, when applied with proper connections, are suitable for direct burial in the soil.

Features



- ETL Certified
- Military Transformers comply with MIL-T-27535
- Totally Encapsulated
- Primary Leads (2) with plug and receptacle
- Secondary Lead (1) with two wire receptacle
- Suitable for 50 to 60 cycle applications except as noted
- For a grounded core and secondary, add (-GRS) to the catalog number. (Contact Crouse-Hinds for suitability and availability of this option.)

Ordering Information

| Catalog Number | Nominal Wattage | Primary Rating | Secondary Rating | Specification |
|--|-----------------|----------------|------------------|---------------|
| FAA Isolation Transformers | | | | |
| 33001 | 30/45 | 6.6A | 6.6A | FAA |
| 33002 | 30/45 | 20A | 6.6A | FAA |
| 33003 | 65 | 6.6A | 6.6A | FAA |
| 33004 | 100 | 6.6A | 6.6A | FAA |
| 33005 | 100 | 20A | 6.6A | FAA |
| 33006 | 200 | 6.6A | 6.6A | FAA |
| 33007 | 200 | 20A | 6.6A | FAA |
| 33008 | 300 | 6.6A | 20A | FAA |
| 33009 | 300 | 20A | 20A | FAA |
| 33010 | 300 | 6.6A | 6.6A | FAA |
| 33011 | 300 | 20A | 6.6A | FAA |
| Military** and Specialty Transformers | | | | |
| 33001-2 | 30/45 | 6.6A | 6.6A | MS 27289-1 |
| 33101 | 100 | 5.5A | 6.2A | |
| 33102 | 200 | 5.5A | 6.2A | |
| 33103 | 300 | 5.5A | 6.2A | |
| 33125 | 65 | 120V | 9V | * |
| 33150 | 150 | 6.6A | 6.6A | |
| 33151 | 150 | 240V | 22.7V | |
| 33200 | 200 | 240V | 33.3V | FAA MALS |
| 33215 | 115 | 240V | 17.4V | * |
| 33226 | 200 | 20A | 6.6A | MS 27286-1 |
| 33266 | 200 | 6.6A | 6.6A | MS 27288-1 |
| 33322-3 | 300 | 20A | 20A | MS 27305-1 |
| 33366-1 | 300 | 6.6A | 6.6A | MS 27134-1 |
| 33522 | 500 | 20A | 20A | MS 27302-1 |
| 33154 | 400 | 6.6A | 6.6A | |
| 33001CGRS | 30/45 | 6.6A | 6.6A | Canada |
| 33004CGRS | 100 | 6.6A | 6.6A | Canada |
| 33006CGRS | 200 | 6.6A | 6.6A | Canada |

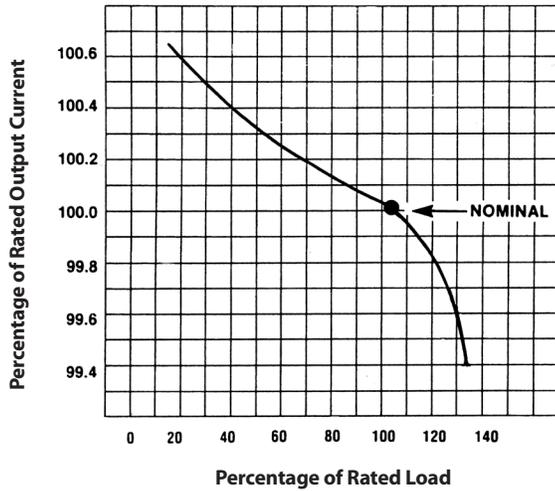
* 60 cycle applications only.

** FAA transformers are acceptable for military applications unless specified to the contrary in a contract's specifications.

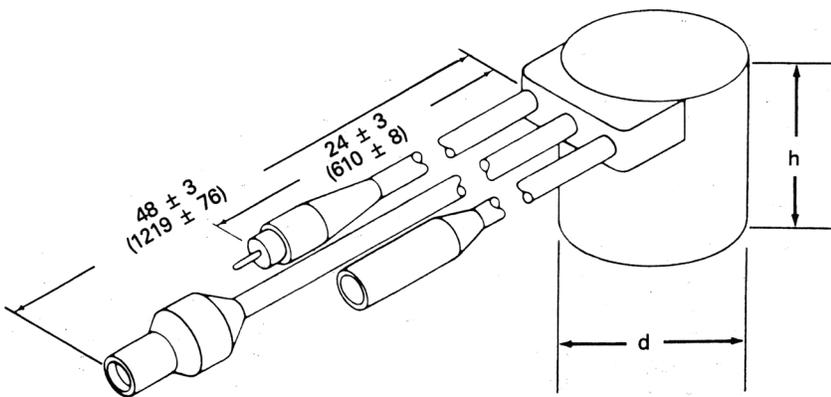
® Santoprene is a registered trademark of Advanced Elastomer Systems.

Technical Data

Typical Transformer Performance Data



Isolation transformers are designed to operate within the specification for loads $\pm 25\%$ of the nominal rating. Consult Crouse-Hinds for applications outside that range.



Dimensions: inches (mm)

| Rated Wattage | Dimensions | | Shipping Weight | | Shipping Volume | |
|---------------|------------|---------|-----------------|------|-----------------|--------|
| | d | h | lbs. | kg. | cu. ft. | cu. m. |
| 30/45 | 4.2(107) | 3.8(97) | 5.2 | 2.36 | 0.3 | 0.009 |
| 65 | 4.2(107) | 3.8(97) | 5.3 | 2.40 | 0.3 | 0.009 |
| 100 | 5.3(135) | 3.8(97) | 8.6 | 3.90 | 0.3 | 0.009 |
| 200 | 5.3(135) | 3.8(97) | 8.9 | 4.04 | 0.3 | 0.009 |
| 300 (6.6A) | 6.3(160) | 3.8(97) | 15.0 | 6.80 | 0.7 | 0.019 |
| 300 (20A) | 7.1(180) | 3.8(97) | 17.2 | 7.80 | 0.7 | 0.019 |
| 500 | 7.1(180) | 3.8(97) | 17.3 | 7.85 | 0.7 | 0.019 |





Primary Connector Kits

Compliances: FAA AC 150/5345-26: L-823
ICAO Annex 14

CKP

Applications

The connection of series isolation transformers to the power cables requires primary connector kits that can be applied to cable ends in a few minutes by the electrical installer following simple illustrated instructions.

Metal plug and receptacle fittings are crimped onto the conductors and then inserted into the molded rubber housings.

Primary kits provide both a plug and a receptacle. One kit is required for each transformer location for the ends of the series cable.

The circuits may be readily disconnected for testing or for replacing faulty equipment and then quickly rejoined for continued use. Typically, L-823 connections are taped and/or sealed using heat shrink kits (HSK).

Note: Connector Kits designed for metal shielded cable are available. Contact Crouse-Hinds for information. CKP series products are manufactured by Cooper Interconnect, LaGrange, NC.

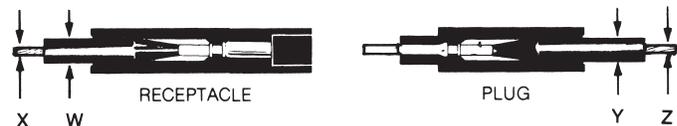
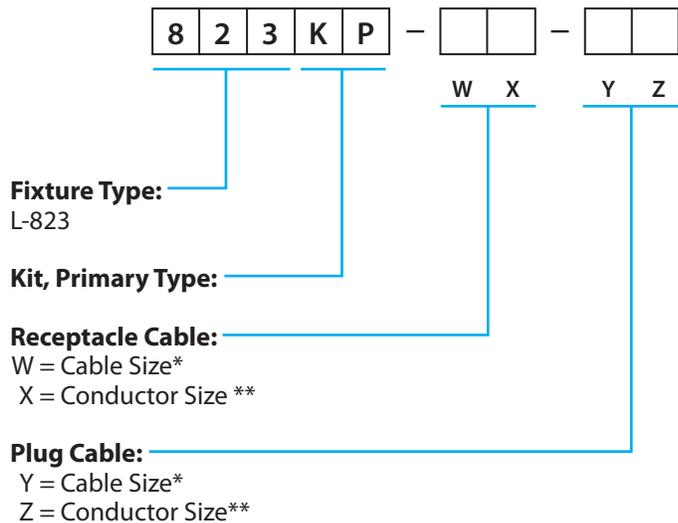
Refer to page 6.4 for Crimping Tools.

| *Cable Size Table | | | | |
|------------------------|--------|---------|--------|-------------------|
| Cable Outside Diameter | | | | Symbol W and Y |
| Minimum | | Maximum | | |
| mm | inches | mm | inches | |
| 5.0 | .195 | 6.6 | .260 | B |
| 6.4 | .250 | 8.4 | .330 | C |
| 8.1 | .320 | 10.9 | .430 | D |
| 10.7 | .420 | 14.9 | .585 | E |
| 14.6 | .575 | 19.9 | .785 | F |
| 19.7 | .775 | 25.0 | .985 | G |

Molded rubber adapters are a part of kits B & C for small diameter cables.

Diameters vary along cable lengths. Take several measurements. Select a tight fit rather than a loose one.

Ordering Information



To specify the proper kit for an installation, select from the tables below the symbols which meet the requirements and substitute for (W, X) and (Y, Z) respectively.

Example:

A 823KP-D4-D4 is a connector kit for #8 stranded conductor and a cable diameter of .390 inch.

| **Conductor Size Table | | | | |
|------------------------|-------|-----------------|------|-------------------|
| Conductor Size | | | | Symbol X and Z |
| Concentric Stranded | | Solid | | |
| mm ² | AWG | mm ² | AWG | |
| 4 | 10-12 | 6 | 8-10 | 6 |
| 6 | 8 | 10 | 6 | 4 |
| 10 | 6 | 16 | 4 | 3 |
| 16 | 4 | - | - | 2 |



Secondary Connector Kits

Compliances: FAA AC 150/5345-26: L-823
ICAO Annex 14

CKS

Applications

Secondary Plug Kit Type 823KS-0P

Designed to meet FAA Specifications L-823, Figure 4, style 4, each kit forms a plug for two single conductor cables for connection to a secondary receptacle kit or to an isolation transformer.

Both cables must be the same size.



Secondary Receptacle Kit Type 823KS-0R

Designed to meet FAA Specifications L-823, Figure 4, style 11, each kit forms a receptacle for two single conductor cables for connection to a secondary receptacle plug kit. Both cables must be the same size.



Secondary Plug Kit Type 823KS-1P

Designed to meet FAA Specifications L-823, Figure 4, style 5, each kit forms a plug for a two conductor cable for connection to a secondary receptacle kit or to an isolation transformer.



Secondary Receptacle Kit Type 823KS-1R

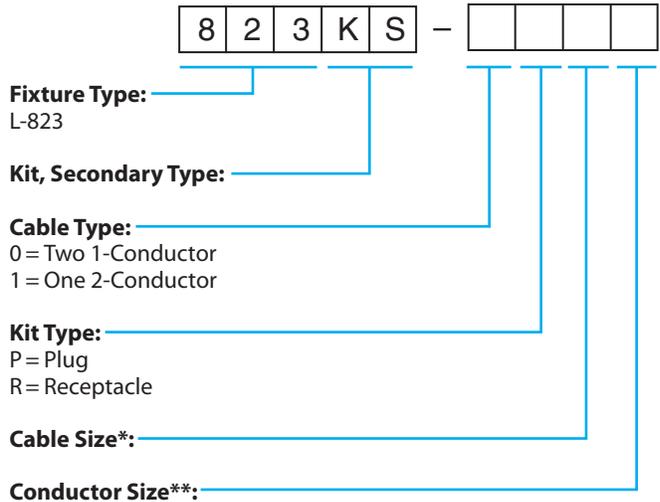
Designed to meet FAA Specifications L-823, Figure 4, style 12, each kit forms a receptacle for a two single conductor cable for connection to a secondary plug kit.



Note: To order Style 6 Plug & Style 8 Connector, consult factory. CKS series products are manufactured by Cooper Interconnect, LaGrange, NC.

Refer to page 6.4 for Crimping Tools.

Ordering Information



| *Cable Size Table | | | | | |
|------------------------|--------|---------|--------|-------------|------------|
| Cable Outside Diameter | | | | Size Symbol | Cable Type |
| Minimum | | Maximum | | | |
| mm | inches | mm | inches | | |
| 3 | .120 | 4 | .160 | S | 0 |
| 3.9 | .155 | 5.2 | .205 | A | 0 |
| 5.0 | .195 | 6.6 | .260 | B | 0 |
| 6.4 | .250 | 8.4 | .330 | C | 0 |
| 8.1 | .320 | 10.9 | .430 | D | 1 |
| 10.7 | .420 | 14.9 | .585 | E | 1 |
| 14.6 | .575 | 19.9 | .785 | F | 1 |

| **Conductor Size Table | | | | |
|------------------------|-------|-------------------|-------|-------------|
| Conductor Size AWG | | | | Size Symbol |
| Concentric Stranded | | Solid | | |
| 2mm ² | 14-16 | 3mm ² | 12-14 | 8 |
| 4mm ² | 10-12 | 6mm ² | 8-10 | 6 |
| 6mm ² | 8 | 10mm ² | 6 | 4 |





Heat Shrink Kit

HSK

Applications

The airport lighting Heat Shrink Kit features a mechanically tough polyolefin heat-shrinkable sleeve. The sleeve is designed so that one diameter will fit all common L-823 connector/cable combinations including cables as small as 0.360 inch diameter. The 1-piece HSK sleeve is factory coated with a waterproof sealant at the ends only, leaving the L-823 connector clean and re-enterable. The main purpose is to seal the L-823 connector/cable joint, not to seal the plug/receptacle mating. The 2-piece HSK has sealant the full length.

The crosslinked polyolefin sleeve provides excellent moisture, oil and fuel protection for L-823 connectors used in L-868 and L-867 bases, or direct buried. The sleeves are tough and withstand direct burial abuse.

Upon the application of heat in excess of 275°F (135°C) the sleeve quickly shrinks to a tight fit, conforming to the irregular shape of the L-823 connector/ cable transition. The shrinking action causes the sealant to melt and flow, forcing it into contact with the under-lying surfaces. Upon cooling, the sealant forms a positive barrier with high adhesive strength. The process is complete when the sealant is squeezed from the ends of the sleeve and the heat-sensitive paint on the outside of the sleeve changes color from blue to gray.

Important Note:
Use the 2-piece HSK for connections at the isolation transformer as illustrated below. For cable-to-cable splices, use the 1-piece HSK to enclose the entire connection.

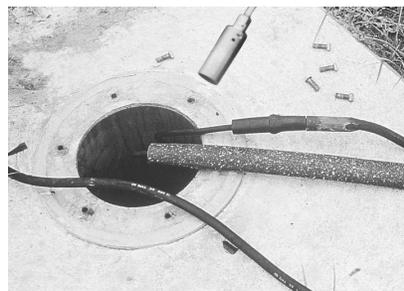
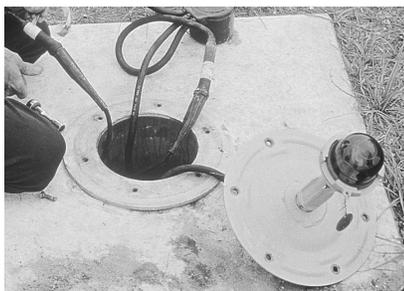
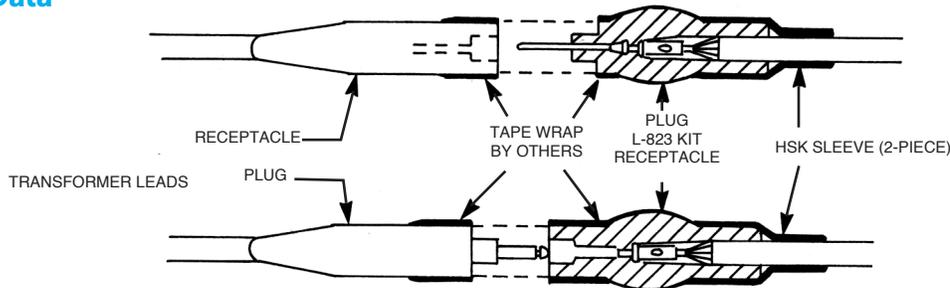
Ordering Information

| Catalog Number | Description* |
|----------------|---------------|
| 10047-1425 | HSK (2-piece) |
| 10047-2154 | HSK (1-piece) |

* Both pieces contain the same total length of tubing: 16 inches (406 mm)

| | |
|------------------|-------------------------------|
| Shipping Weight: | 0.5 lbs. 0.23 kg. |
| Shipping Volume: | 0.05 cu. ft. 0.0014 cu. m. |

Technical Data



1. Slide the sleeve over cable before making electrical connection. Mate connector sections and wipe dirt from connector and cable. Clean cable with solvent wipe.
2. Pre-heat cable jacket. Begin shrinking at center, working toward both ends. Use a back-and-forth, sweeping motion of the torch.
3. Shrinking is complete when melted sealant is squeezed from both ends of the sleeve and all heat-sensitive paint has changed from blue to gray.



Cable Assemblies

Compliances: FAA AC 150/5345-26: L-823
FAA AC 150/5345-7: L-824
ICAO Annex 14

CA

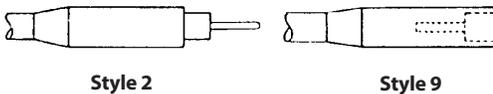
Applications

Airfield lighting Cable Assemblies are used when the lights and/or isolation transformers are installed remote from the series primary cable location.

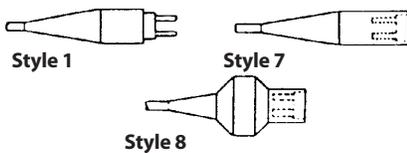
Features

- Uses FAA approved L-823 connectors
- Uses FAA approved L-824 cables
- Factory molded for watertight connections between connectors and cable
- Any length available

†Primary CA Connector Configurations



Secondary CA Connector Configurations



Ordering Information



Cable Assembly:

Assembly Type:

P = Primary
S = Secondary

Connector Type:

1M = Secondary: 2-Conductor 600 volts
Style 1 Plug
Style 7 Receptacle

3M = Secondary: 2-Conductor 600 volts
Style 1 Plug
Style 8 Receptacle

4M = Primary: 1-Conductor 5 kV
Style 2 Plug
Style 9 Receptacle

Connector Configuration*:

P = Plug
R = Receptacle

Cable Size†:

A = Secondary: 2/12 AWG (4 mm²)
 B = Secondary: 2/14 AWG (2 mm²)
 C = Secondary: 2/16 AWG (2 mm²)
 D = Secondary: 2/10 AWG (4 mm²)
 F = Primary: 1/8 AWG (6 mm²)
 G = Primary: 1/16 AWG (10 mm²)

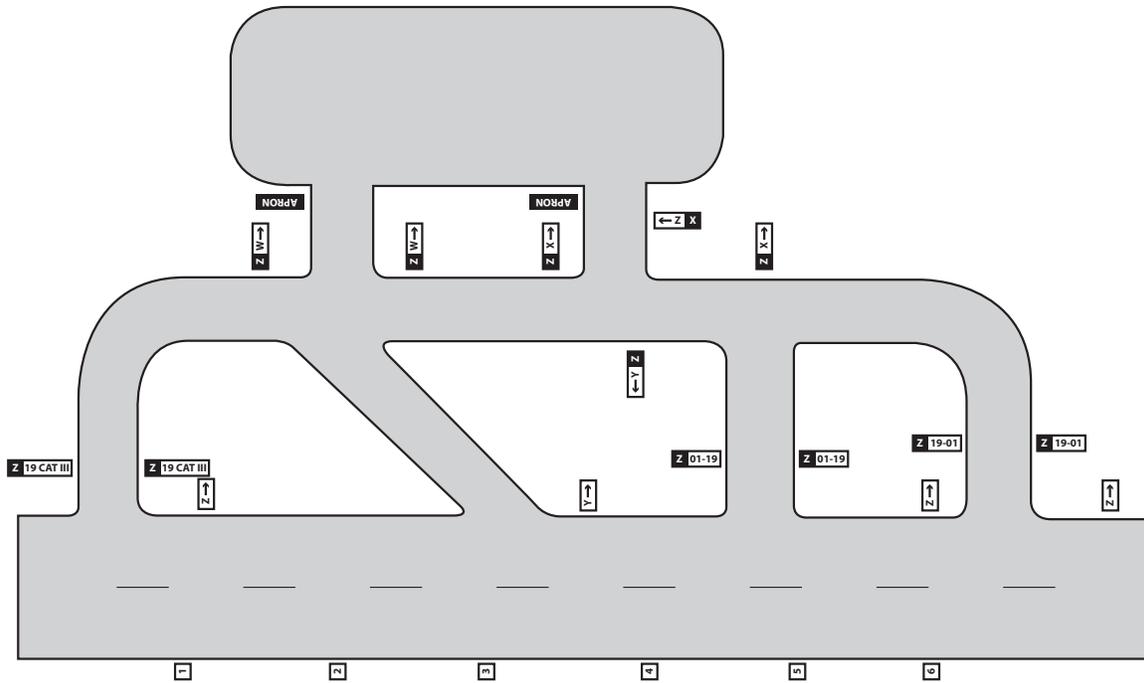
Length in Meters:

* If both ends of the cable are to be terminated, use two letters. If only one end is to be terminated use only one letter. If the cable is only terminated on one end, the other end will be unprepared.



SECTION 5

Guidance Signs



The safe and efficient movement of aircraft around the airfield is of paramount importance. The FAA and ICAO have set color, intensity, performance and location standards for all airfield guidance signs. In concert with inset and elevated

airfield lighting fixtures guidance signs allow the pilot to move efficiently around the airfield whether in New York, Cairo or Beijing.

Application Icon



Airfield
Guidance
Sign



AGS-2

Airside™ Guidance Sign



AGS-2

Compliances: FAA AC 150/5345-44: L-858
Unified Facilities Criteria UFC 3-535-01

Applications

Airside™ signs Model AGS are designed for use on airport taxiways to mark taxi routes and intersections. Colors may be black on yellow, yellow on black, or white on red depending on the application as defined by the governing standard FAA AC 150/5340-18. Black signs with white numerals are used to indicate distance remaining in thousands of feet of runway.

Features



- ETL Certified
- 62W Lamp
- Specification grade electrical system
- Power factor greater than 0.95 across all brightness steps
- Self-adjusting circuit board and internal transformer automatically maintains illumination level and uniformity across all steps (common for 3 or 5 step)
- Relamp without removing sign cover
- Modular design with uniform leg spacing
- One lamp per module
- Only one internal transformer per sign
- Slip-in sign faces without sealants
- Frangible couplings may be pre-installed on pad and sign lowered onto them for easy installation
- Available with fixed brightness (5.5A) for use on dedicated sign circuits
- Enclosed power entry through sign leg or
- Enclosed power entry through flexible liquidtight conduit (Option 11)
- External power disconnect switch breaks all electrical connections to the sign for safe maintenance (Option 12)
- Stainless steel tethers, two per sign except for one for single module. Single module additional tether available (option 20).
- High strength aluminum extrusion housing

Ordering Information

How to Order: To determine the number of modules to fit your message, contact Crouse-Hinds. For estimating purposes, use two characters per module. Do not count a 1 as a character except when the message contains an M or W. Maximum of four (4) modules per sign to comply with the FAA specification.*

Order isolation transformer, transformer housing, coverplate and gasket or baseplate, and connector kit separately. The colors of the sign faces and the legends must be specified for each sign. Multiple messages and colors may appear on a sign face.



Fixture Type:

FAA Size:

- 1 = Taxiway Sign, 30" High
- 2 = Taxiway Sign, 36" High
- 3 = Taxiway Sign, 42" High
- 4 = Distance Marker, 60" High**
- 5 = Distance Marker, 42" High

Number of Faces:

- 1 = Single Face
- 2 = Double Face

Brightness Levels:

- 1 = FAA Class 1 & 2, Style 5 (Fixed, 5.5A)***
- 3 = FAA Class 1 & 2, Style 2 (3 Steps, 4.8 to 6.6A)
- 5 = FAA Class 1 & 2, Style 3 (5 Steps, 2.8 to 6.6A)

Number of Lamp Modules: 1 to 4

Options:

- 10 = Unenclosed Power Cable: 3 Ft. with Plug****
- 11 = Flexible Liquidtight Conduit Enclosed 3 Ft. Power Cable****
- 12 = External Power Switch
- 19 = Lamp Out Indicator (Not available on brightness level option 1 signs (Fixed, 5.5a))
- 20 = Additional Tether (Single module sign only)

* 4 Module size 2 exceeds specifications by 0.6 inches.
 ** Size 4 Distance Marker provides 2 lamp modules—transformer to be sized accordingly.
 *** Use 33101, 33102 or 33103 isolation transformers only. Resistive load only. Use step 2 of a 3-step regulator.
 **** Not FAA compliant.

Technical Data

Airside™ Guidance Signs (AGS)

Measured Load (VA) & Power Factor (PF)

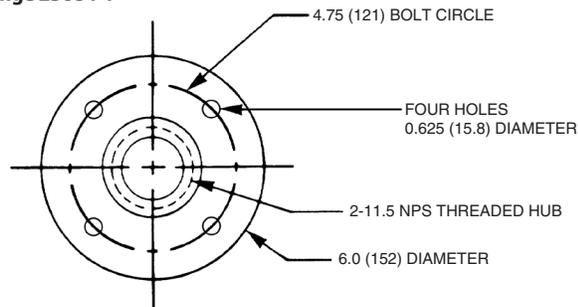
| Lamp Modules | Isolation Transformer | CCR | VA* | PF (min) |
|--------------|-----------------------|--------|-----|----------|
| 1 | 100W | 5-Step | 100 | 0.95 |
| | 100W | 3-Step | 100 | 0.95 |
| 2** | 200W | 5-Step | 160 | 0.95 |
| | 200W | 3-Step | 160 | 0.95 |
| 3 | 300W | 5-Step | 230 | 0.95 |
| | 300W | 3-Step | 230 | 0.95 |
| 4 | 300W* | 5-Step | 290 | 0.95 |
| | 300W* | 3-Step | 290 | 0.95 |

* Applies to all FAA sizes, single and double face. Measured wattage exceeds the total of the lamp wattages due to the power consumption of the sign's internal electrical system, and isolation transformer.

** Includes FAA Size 4 distance marker sign.

Dimensional Information

Floor Flange 25684-1

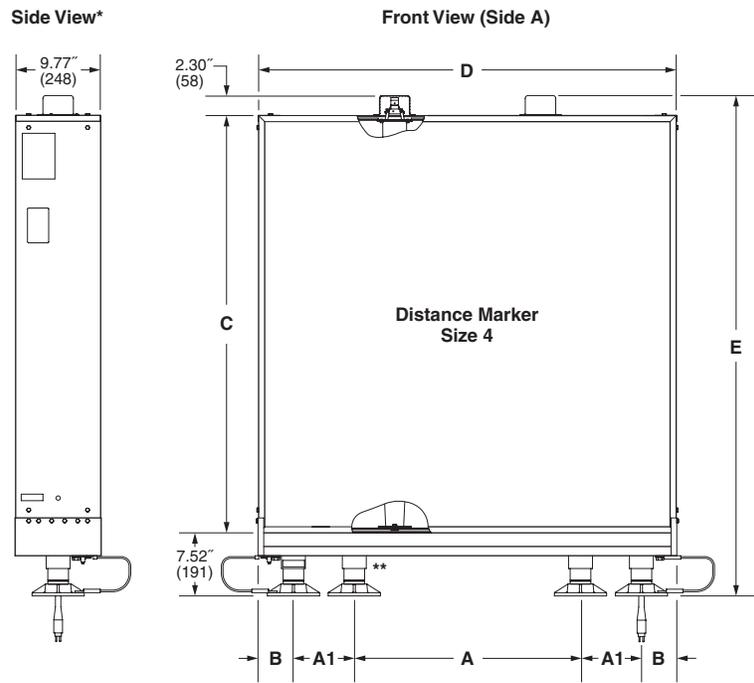
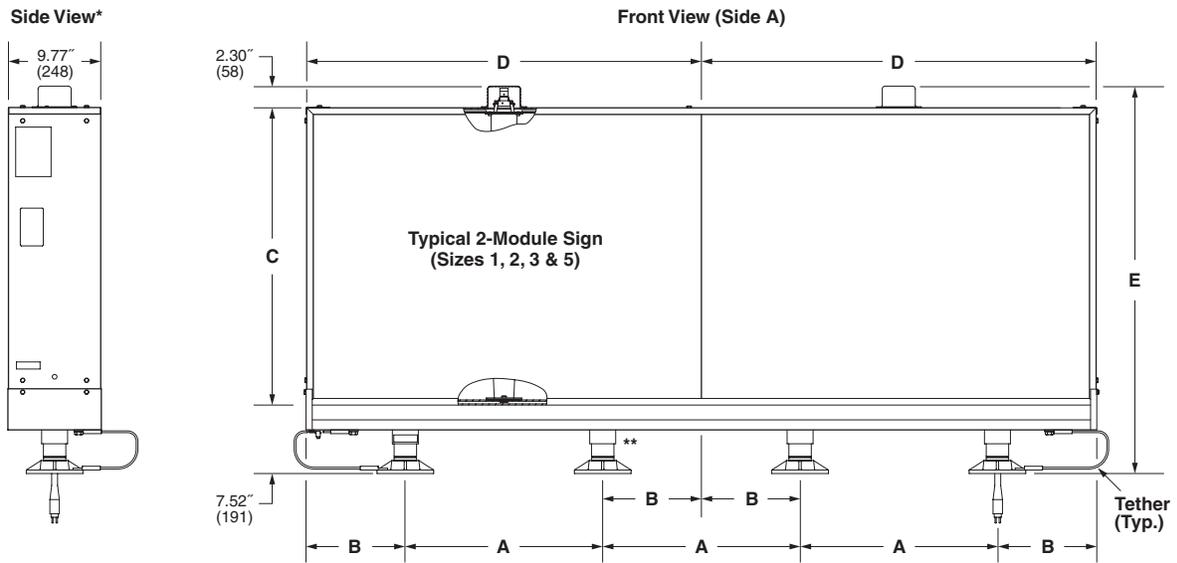


Dimensions: inches (mm)

Shipping Weights and Volumes

| | | Modules | | | | | | | |
|------|-------|---------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|
| | | 1 | | 2 | | 3 | | 4 | |
| | | lbs. (kg.) | cu.ft. (cu.m.) | lbs. (kg.) | cu.ft. (cu.m.) | lbs. (kg.) | cu.ft. (cu.m.) | lbs. (kg.) | cu.ft. (cu.m.) |
| Size | 1 | 65 (29.5) | 5.7 (0.16) | 130 (59.0) | 11.4 (0.32) | 195 (88.5) | 17.1 (0.48) | 260 (118) | 22.8 (0.65) |
| | 2 | 90 (40.8) | 8.5 (0.24) | 180 (81.6) | 17.0 (0.48) | 270 (122.5) | 25.5 (0.72) | 360 (163.3) | 34.0 (0.96) |
| | 3 & 5 | 115 (52.2) | 11.3 (0.32) | 230 (104.3) | 22.6 (0.64) | 345 (156.5) | 34.0 (0.96) | 460 (208.7) | 45.3 (1.28) |
| | 4 | 145 (65.8) | 26.5 (0.75) | — | — | — | — | — | — |





Sign Power Leg Orientation
 When facing side A, the power entry is on the right. Orders should always specify the message orientation.

- * Typical for all signs.
- ** The sign includes floor flanges for all legs. Installation may vary: See the manual.

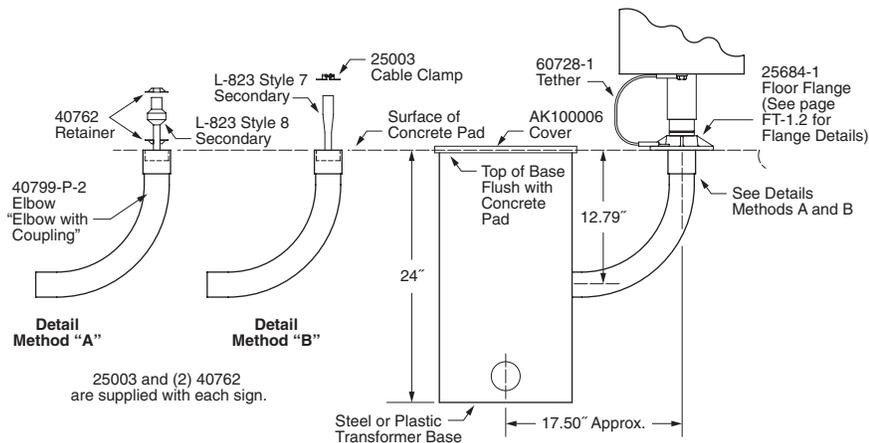
| | | |
|----------------------------|--------|------------------------|
| Dimensions: | inches | |
| | (mm) | |
| Instruction Manual: | 9211 | Size 1,2,3,5 |
| | 9213 | 4 |

| | | Dimensions | | | | | |
|------|-------|----------------|---------------|----------------|-----------------|-----------------|-----------------|
| | | A | A1 | B | C | D | E |
| Size | 1 | 14.60 (371) | — | 7.30 (185) | 19.50 (495) | 29.20 (742) | 29.05 (738) |
| | 2** | 18.20 (462) | — | 9.10 (231) | 25.50 (648) | 36.40 (925) | 35.05 (891) |
| | 3 & 5 | 20.90 (531) | — | 10.45 (265) | 31.50 (800) | 41.80 (1062) | 41.05 (1043) |
| | 4 | 26.00 (660) | 7.00 (178) | 4.00 (102) | 48.00 (1219) | 48.00 (1219) | 57.55 (1462) |

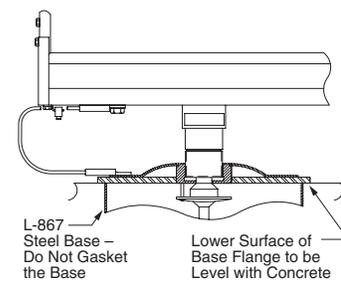
** 4 module size 2 exceeds specifications by 0.6 inches.

Installation Details

Elbow Mounting Detail



Steel Base Mounting Detail Sizes 1, 2, 3, & 5



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|-----------------|--|-----------------|------|-----------------|-------|
| | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 33004 | Isolation Transformer 100 watts, 6.6/6.6A | 12.0 | 5.4 | 0.4 | 0.011 |
| 33101 | Isolation Transformer 100 watts, Style 5 (fixed brightness) 5.5/6.2A | 12.0 | 5.4 | 0.4 | 0.011 |
| 33006 | Isolation Transformer 200 watts, 6.6/6.6A | 16.0 | 7.3 | 0.4 | 0.011 |
| 33102 | Isolation Transformer 200 watts, Style 5 (fixed brightness) 5.5/6.2A | 16.0 | 7.3 | 0.4 | 0.011 |
| 33103 | Isolation Transformer 300 watts, (fixed brightness) 5.5/6.2A | 16.0 | 7.3 | 0.4 | 0.011 |
| 33010 | Isolation Transformer 300 watts, 6.6/6.6A | 23.0 | 10.4 | 0.6 | 0.017 |
| AP1932* | Baseplate, 2 inch Hub | 8.0 | 3.6 | 0.14 | 0.004 |
| AC21242HX00301* | Base L-867, Class 1, 24 inches deep | 52.0 | 23.6 | 2.6 | 0.074 |
| AK100006 | Coverplate, 0.375 inches thick | 5.0 | 2.3 | 0.13 | 0.004 |
| 900152* | Base L-867, Class II (PLASTIC), 24 inches deep | 16.0 | 7.3 | 2.6 | 0.074 |
| 10530287 | Gasket for Coverplate | | | | |
| 823KP-D4-D4 | Primary L-823 Connector Kit | | | | |
| 26811-27 | Consolidating Harness | | | | |
| CAS1M-PR-B-2 | Secondary Cable Assembly, 2 meters** | | | | |

* If the power leg is baseplate mounted directly on a base, only the AC21242HX00301 may be used with no gasket for the baseplate AP1932 to insure equal breakaway with the other legs. The base must be installed per the instruction manual, approximately 3/8 inch high with the lower edge of the base top flange level with the concrete. If the sign power leg is elbow mounted, base 900152 has conduit entries in the required positions.

** Other lengths available. The sign includes cable clamp 25003 and two 40762 retainers.

Renewal Parts

| Part Number | Description | Part Number | Description |
|--------------|-------------------------------|-------------|-----------------------|
| 20590 | Lamp 62 watts, 6.6A | 61143 | Internal Transformer |
| 25684-1 | Floor Flange | 60638 | Lamp Cover Cap |
| 62245-1 | Frangible Coupling: Size 1 | 60685-X** | Light Tube Assembly |
| 62245-2 | Frangible Coupling: Size 2 | 61107 | Lamp Socket |
| 62245-3 | Frangible Coupling: Size 3 | 61107 | Lamp Socket |
| 62245-5 | Frangible Coupling: Size 5 | 61107 | Lamp Socket |
| 62245-4 | Frangible Coupling: Size 4 | 60639 | Lamp Cover Cap Gasket |
| CAS1M-P-B-86 | Lead Assembly | 60728-1 | Tether |
| 61153-1*** | Circuit Board: 3-step, 5-step | | |
| 60667* | Sign Face, Retroreflective | | |
| 60668* | Blank Panel | | |

* Dash number required for size and number of modules (contact factory). Add description of color and legend.

** Insert dash number 1 or 2 or 3 for sign size 1 or 2 or 3 accordingly.

*** Only compatible with 61143 internal transformer.





Airside™ Guidance Sign Fiberglass



AGSF

Compliances: FAA AC 150/5345-44: L-858
Unified Facilities Criteria UFC 3-535-01

Applications

AGSF Signs are designed for use on airport runways to mark taxi routes and taxiways/runways intersections. Colors may be black on yellow, yellow on black, or white on red depending on the application as defined by the governing standards such as FAA AC 150/5340-18.

Features

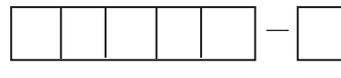


- ETL Certified
- FAA Approved as Size 3, Class 1 sign
- Sign meets FAA style 5 requirements
- Stainless steel tethers
- Power factor greater than 85% across all brightness steps
- Uses fluorescent long life lamp
- Internally illuminated
- Lamps commercially available
- Externally mounted Ballast Assembly for easy maintenance
- External power disconnect switch allows safe maintenance by isolating sign from series circuit
- Lamp bypass circuit for Ballast protection
- Reinforced fiberglass housing
- Hinged sign face for easy relamping
- No tools needed to replace Lamps
- Electrical connection fits baseplate with 2" hub

Ordering Information

How to Order: List the basic catalog number for single or double faced sign and add suffixes for sign length. Order isolation transformer, transformer housing, coverplate and gasket or baseplate separately.

The colors of the sign faces and the legends must be specified for each sign. Multiple messages and colors may appear on a single seamless sign face.



Basic Catalog Number:
60915 (Single Face)
62055 (Double Face)

Sign Length:
4 = 4 Feet, FAA Size 3 (42" high) sign.
6 = 6 Feet, FAA Size 3 (42" high) sign.
8 = 8 Feet, FAA Size 3 (42" high) sign.
10 = 10 Feet, FAA Size 3 (42" high) sign.
12 = 12 Feet, FAA Size 3 (42" high) sign.
D = 4 Foot, FAA Size 5 (42" high) Distance Marker (25" high numerals).

Technical Data

Instruction Manual: 9424

Airside™ Guidance Signs - Fiberglass (AGSF)

Measured Load (VA) & Power Factor (PF)

| Sign Catalog Number | Isolation Transformer | VA | PF |
|---------------------|-----------------------|-----|-----|
| 60915-4 | 100 Watts | 54 | .85 |
| 60915-6 | 100 Watts | 66 | .87 |
| 60915-8 | 200 Watts | 130 | .85 |
| 60915-10 | 200 Watts | 130 | .85 |
| 60915-12 | 200 Watts | 163 | .88 |
| 62055-4 | 100 Watts | 79 | .87 |
| 62055-6 | 200 Watts | 163 | .88 |
| 62055-8 | 200 Watts | 163 | .88 |
| 62055-10 | 200 Watts | 163 | .88 |
| 62055-12 | 300 Watts | 221 | .85 |

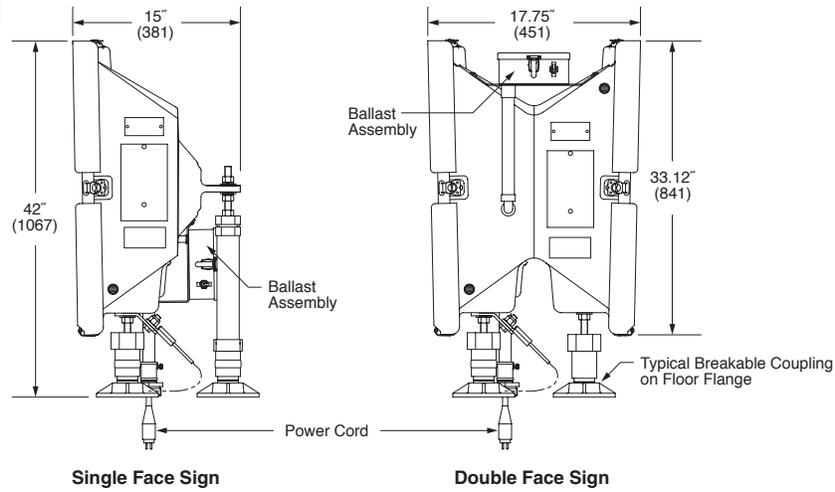
Lamp Cross-Reference Table

| Reference Sign Catalog Number | Number of Lamps Per Sign | Crouse-Hinds Lamp Part Number | Standard Fluorescent Lamp | Lamp Wattage |
|-------------------------------|--------------------------|-------------------------------|---------------------------|--------------|
| 60915-4 | 1 | 10047-2523 | F24T12/D/HO | 35 Watts |
| 60915-6 | 1 | 10047-2524 | F36T12/SGN/HO | 45 Watts |
| 60915-8 | 2 | 10047-2523 | F24T12/D/HO | 35 Watts |
| 60915-10 | 2 | 10047-2524 | F36T12/SGN/HO | 45 Watts |
| 60915-12 | 2 | 10047-2524 | F36T12/SGN/HO | 45 Watts |
| 62055-4 | 1 | 10047-1573 | F36T12/CW/HO | 45 Watts |
| 62055-6 | 2 | 10047-2524 | F36T12/SGN/HO | 45 Watts |
| 62055-8 | 2 | 10047-1573 | F36T12/CW/HO | 45 Watts |
| 62055-10 | 2 | 10047-1573 | F36T12/CW/HO | 45 Watts |
| 62055-12 | 3 | 10047-1573 | F36T12/CW/HO | 45 Watts |

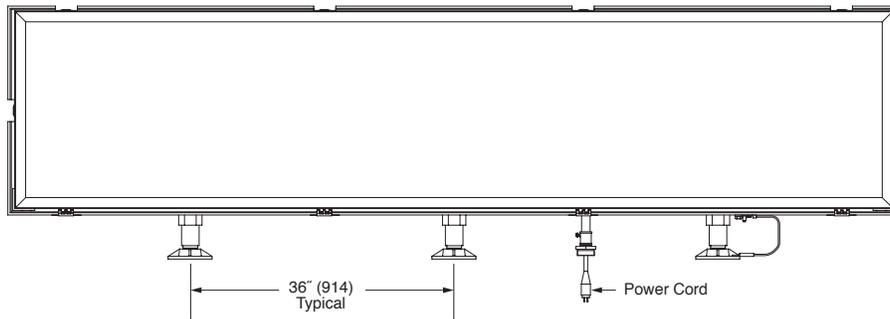


Dimensional Information

Dimensions: inches (mm)

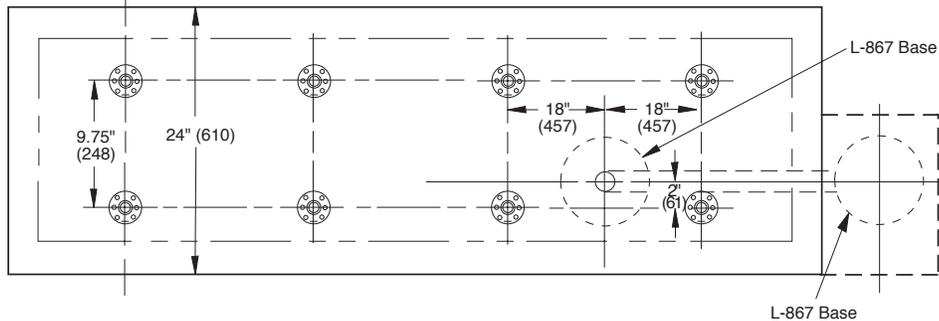


Typical Side View Outlines for 4, 6, 8, 10 and 12 Feet Signs



Front View Outline

Shown with 8 legs on 12 feet sign

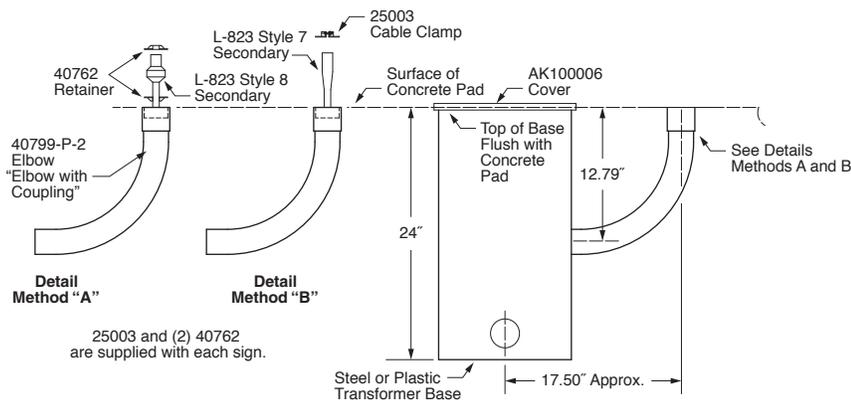


Foot Print Information

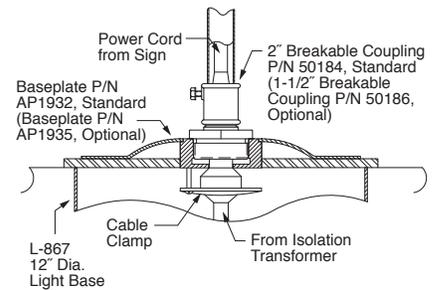
- 4 Legs Layout (from right to left) for 4 and 6 feet signs.
- 6 Legs Layout (from right to left) for 8 and 10 feet signs.
- 8 Legs Layout (from right to left) for 12 feet signs.

Installation Details

Elbow Mounting Detail



Base Mounting Power Feed Detail



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 33004 | Isolation Transformer 100 watts, 6.6/6.6A | 12.0 | 5.4 | 0.4 | 0.011 |
| 33006 | Isolation Transformer 200 watts, 6.6/6.6A | 16.0 | 7.3 | 0.4 | 0.011 |
| 33010 | Isolation Transformer 300 watts, 6.6/6.6A | 23.0 | 10.4 | 0.6 | 0.017 |
| AP1932 | Baseplate, 2 inch Hub | 8.0 | 3.6 | 0.14 | 0.004 |
| AC21242H200301 | Base L-867, Class 1, 24 inches deep | 52.0 | 23.6 | 2.6 | 0.074 |
| AK100006 | Blank Coverplate, 0.375 inches thick | 5.0 | 2.3 | 0.13 | 0.004 |
| 10530287 | Gasket for Coverplate | | | | |
| 823KP-D4-D4 | Primary L-823 Connector Kit | | | | |
| CAS1M-PR-B-2 | Secondary Cable Assembly, 2 meters* | | | | |

* Other lengths available.

Renewal Parts

| Part Number | Description |
|-------------|--|
| 25684-1 | Floor Flange |
| 61062 | Frangible Coupling: For Single Face Signs |
| 61066 | Frangible Coupling: For Double Face Signs |
| 50184 | Frangible Coupling: For Power Feed |
| 50186 | Frangible Coupling: For Power Feed, Optional |
| 61106 | Ballast (One Per Lamp) |
| 10047-2523 | Fluorescent Lamp, 24"* |
| 10047-2524 | Fluorescent Lamp, 36"* |
| 10047-1573 | Fluorescent Lamp, 36"* |
| 60984 | Tether |
| 60992-X-L | Sign Face & Frame Assembly** |
| 61093-X | Sign Face Assembly** |

* Refer to Lamp cross-reference table on page 5.11.

** Insert 4, 6, 8, 10, or 12 in place of "X" to indicate sign length (feet).

Shipping Weights and Volumes

| Sign Cat. Number | Shipping Weight | | Shipping Volume | |
|------------------|-----------------|-----|-----------------|--------|
| | Lbs. | Kg. | Cu. Ft. | Cu. M. |
| 60915-4 or D | 115 | 52 | 20 | 0.57 |
| 60915-6 | 140 | 64 | 30 | 0.85 |
| 60915-8 | 210 | 95 | 45 | 1.27 |
| 60915-10 | 235 | 107 | 55 | 1.56 |
| 60915-12 | 310 | 141 | 65 | 1.84 |
| 62055-4 or D | 155 | 70 | 25 | 0.71 |
| 62055-6 | 205 | 93 | 35 | 0.99 |
| 62055-8 | 290 | 132 | 50 | 1.42 |
| 62055-10 | 370 | 168 | 60 | 1.70 |
| 62055-12 | 440 | 200 | 75 | 2.12 |





Airside™ Guidance Sign ICAO



AGSI

Compliances: ICAO Annex 14

Applications

ICAO Airside™ signs Model AGSI are designed for use on airport taxiways and runways to mark taxi routes and intersections. Colors may be black on yellow, yellow on black, or white on red depending on the application as defined by ICAO, Annex 14.

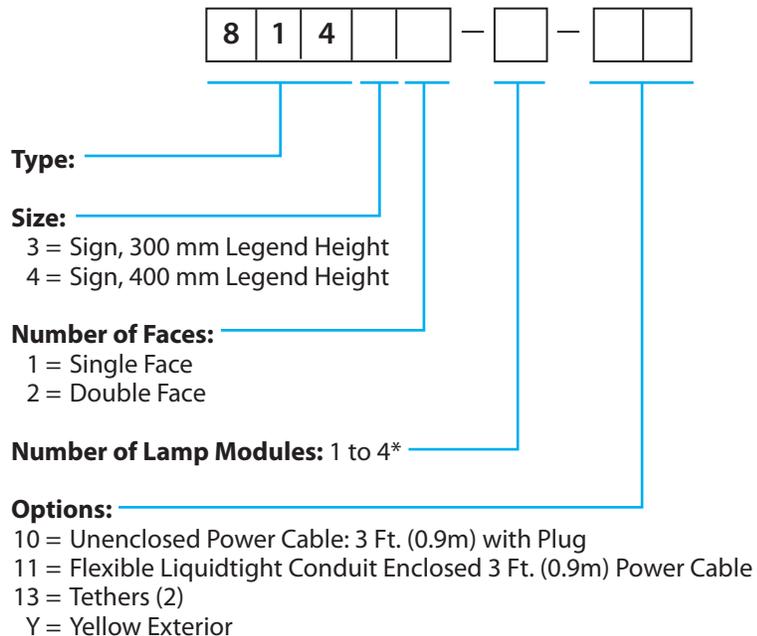
Features

- The extruded aluminum sign is designed in accordance with U.S. FAA Standards for structural integrity
- White exterior standard
- Metric hardware
- ETL certified ICAO illumination levels
- Long life fluorescent lamps
- Modular design with uniform leg spacing
- Two lamps per module
- Slip-in sign faces with translucent messages
- Frangible couplings may be pre-installed on pad and sign lowered onto them for easy installation
- Enclosed power entry through sign leg or
- Enclosed power entry through flexible liquidtight conduit (Option 11)
- External power disconnect switch breaks all electrical connections to the sign for safe maintenance
- Operates from a 3 or 5 step series lighting circuit (2.8 to 6.6 Amperes)
- Operating temperature: -20C to +55C

Ordering Information

How to Order: To determine the exact number of modules to fit your message, contact Crouse-Hinds. To construct the catalog number, insert appropriate numerical code for sign size, number of faces and number of lamp modules, as shown below. Add option numbers as required.

Order isolation transformer, transformer housing, coverplate and gasket or baseplate, and connector kit separately. The colors of the sign faces and the legends must be specified for each sign. Multiple messages and colors may appear on a sign face.



* Maximum of (4) Modules for sign. If more modules are required, two signs may be co-located.

Technical Data

Instruction Manual: 2508

ICAO Airside™ Guidance Signs (AGSI) Measured Load (VA) & Power Factor (PF)

| Lamp Modules | Isolation Transformer (Wattages) | *Small CCR (Series Type) | | *Large CCR (Shunt Type) | |
|--------------|----------------------------------|--------------------------|-----|-------------------------|-----|
| | | VA | PF | VA | PF |
| 1 | 150w | 150 | .68 | 140 | .87 |
| 2 | 300w | 335 | .71 | 295 | .87 |
| 3 | 400w** | 460 | .72 | 426 | .87 |
| 4 | 2 x 300w | 600 | .78 | 575 | .87 |

* Select appropriate data depending whether on a circuit is powered by CROUSE-HINDS small CCR (4, 7.5 & 10KW) or large CCR (10KW shunt type & larger).

** Use 400w transformer (33154) or two 200w transformers (33006) with consolidating harness (26811-27)

Average Sign Illuminance* at Full Brightness

| Size | Color | | |
|-------|------------|-----------|-------------|
| | Red | Yellow | White |
| 300mm | 111(32.4) | 582 (170) | 931 (272.3) |
| 400mm | 106 (30.8) | 465 (135) | 668 (195.6) |

* CD/M2 (FOOT-LAMBERTS)

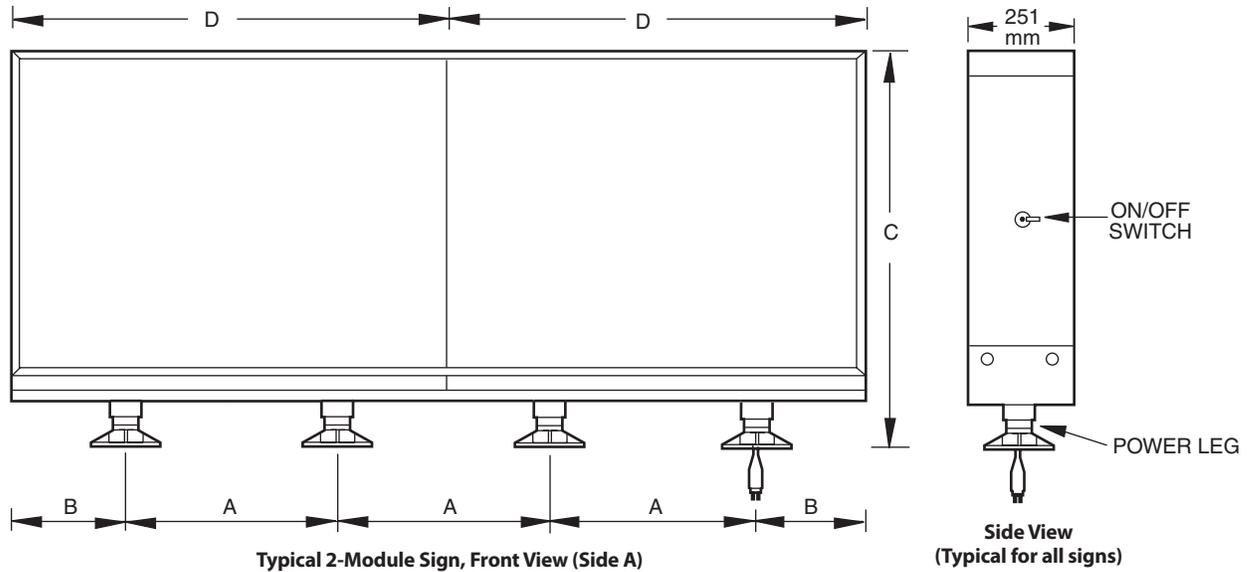
Average Sign Illuminance at Various Intensity Steps

- 6.6 Amperes = 100% (Full Brightness—CCR Top Step)
- 5.5 Amperes = 84%
- 5.2 Amperes = 80%
- 4.8 Amperes = 75%
- 4.1 Amperes = 62%
- 3.4 Amperes = 48%
- 2.8 Amperes = 35%

Note: The above data may vary depending on the type and manufacturer of constant current regulator (CCR) and circuit loading.



Dimensional Information



Sign Power Leg Orientation

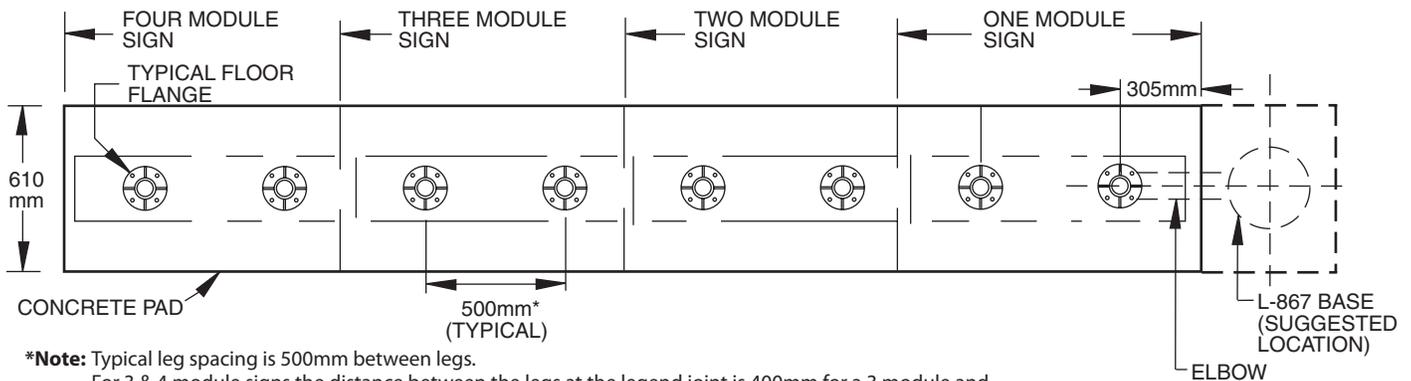
When facing side A, the power entry is on the right. Orders should always specify the message orientation.

| Legend Size | A | B 1 Mod | B 2 Mod | C | D |
|-------------|-------|------------|------------|--------|-------|
| 300mm | 500mm | 217mm | 183mm | 827mm | 933mm |
| 400mm | 500mm | 217mm | 183mm | 1025mm | 933mm |

Dimensions: Millimeters, **Instruction Manual:** 2508. For signs manufactured prior to 2005, refer to manual 9604 for replacement parts and sign housing footing drawings.

Foot Print Information

2 Legs per module.



***Note:** Typical leg spacing is 500mm between legs.

For 3 & 4 module signs the distance between the legs at the legend joint is 400mm for a 3 module and 366mm for a 4 module sign. Consult the sign legend layout on 3 & 4 module signs for joint location.

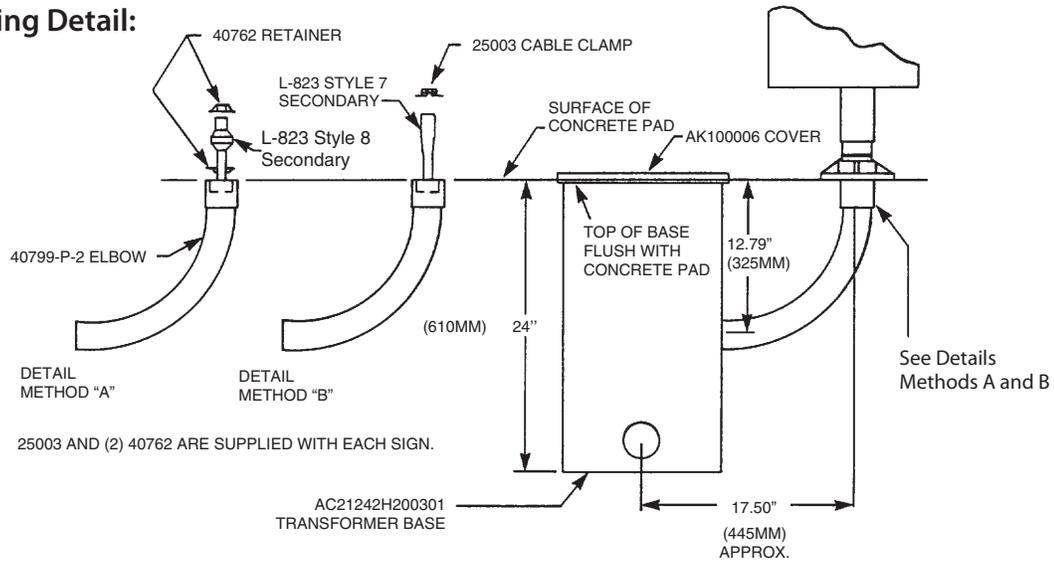
Shipping Weights and Volumes:

| | | Modules | | | | | | | |
|------------------------------|-----|---------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|
| | | 1 | | 2 | | 3 | | 4 | |
| | | lbs. (kg.) | cu.ft. (cu.m) | lbs. (kg.) | cu.ft. (cu.m) | lbs. (kg.) | cu.ft. (cu.m) | lbs. (kg.) | cu.ft. (cu.m) |
| Sign Size (Legend Height) | 300 | 90 (40.8) | 8.5 (0.24) | 180 (81.6) | 17.0 (0.48) | 270 (122.5) | 25.5 (0.72) | 360 (163.3) | 34.0 (0.96) |
| | 400 | 115 (52.2) | 11.3 (0.32) | 230 (104.3) | 22.6 (0.64) | 345 (156.5) | 34.0 (0.96) | 460 (208.7) | 45.3 (1.28) |

NOTE: For estimating sign length, use two characters per module. Do not count a dot, dash, or 1 as a character except when the message contains an M or W.

Installation Details

Elbow Mounting Detail:



Accessories

| Part Number | Description | Shipping Weight | | Shipping Volume | |
|----------------|---|-----------------|------|-----------------|-------|
| | | Lbs. | Kg. | Cu.Ft. | Cu.M. |
| 33150 | Isolation Transformer 150 watts, 6.6/6.6A | 16 | 7.3 | 0.4 | 0.011 |
| 33006 | Isolation Transformer 200 watts, 6.6/6.6A | 16 | 7.3 | 0.4 | 0.011 |
| 33010 | Isolation Transformer 300 watts, 6.6/6.6A | 23.0 | 10.4 | 0.6 | 0.017 |
| 33154 | Isolation Transformer 400 watts, 6.6/6.6A | 23.0 | 10.4 | 0.6 | 0.017 |
| AK100006 | Coverplate, 0.375 inches thick | 5.0 | 2.3 | 0.13 | 0.004 |
| AC21242H200301 | L-867B Transformer Base, 24 inches deep | 16.0 | 7.3 | 2.5 | 0.074 |
| 10530287 | Gasket for Coverplate | | | | |
| 823KP-D4-D4 | Primary L-823 Connector Kit | | | | |
| 26811-27 | Consolidating Harness | | | | |
| CAS1M-PR-B-2 | Secondary Cable Assembly, 2 meters* | | | | |
| 60728-1 | Tether | | | | |

* Other lengths available.

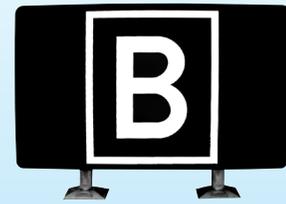
Renewal Parts

| Part Number | Description |
|-------------|---|
| 62245-3 | Frangible Coupling for sign with 400 mm length height |
| 60683-8 | Frangible Coupling for sign with 300 mm length height |
| 10047-2391 | Socket, Plunger End |
| 10047-2392 | Socket, Stationary End |
| 10047-1573 | Fluorescent Lamp, 36" |
| 61164 | Ballast Assembly |
| 61065-4 | Lamp Bypass P.C. Board |
| 62217-1 | Sign Panel, 400mm, Single Module |
| 62217-2 | Sign Panel, 300mm, Single Module |
| 62217-3 | Sign Panel, 400mm, Double Module |
| 62217-4 | Sign Panel, 300mm, Double Module |





Airside™ Guidance Sign- Unlighted



AGSU

Compliances: FAA AC 150/5345-44: L-858

Applications

AGSU Signs are designed for use on airport runways to mark taxi routes and taxiways/runways intersections. Colors may be black on yellow, yellow on black, or white on red depending on the application as defined by the governing standards such as FAA AC 150/5340-18.

Features



- ETL Certified as Style 4, Class 2, Mode 2 Sign (200 mph wind loads).
- High strength aluminum sign panel.
- Durable, highly reflective sheeting.
- Stainless steel tether and hardware.

Ordering Information

8 5 8 F 4 - [] - [] - []

Basic Catalog Number:

Size:

- 1 = 18" High Panel with 12" Legend
- 2 = 24" High Panel with 15" Legend
- 3 = 30" High Panel with 18" Legend

Number of Sides:

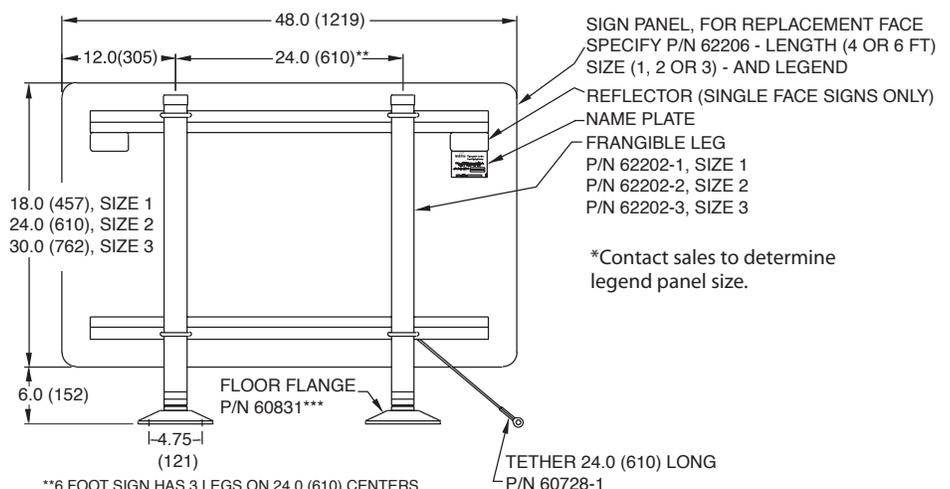
- S = Single
- D = Double

Length (Double Sided Signs Will Be Of Equal Length On Both Sides):

- 4 = 4 Foot Long Panel*
- 6 = 6 Foot Long Panel*

Outline Drawing

| | |
|---|----------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2118 |
| Shipping Weight: (6 foot signs) | 67 lbs. 30 kg |
| Shipping Weight: (4 foot signs) | 50 lbs. 23 kg. |
| Shipping Volume: (6 foot signs) | 15 cu. ft. .92 m ³ |
| Shipping Volume: (4 foot signs) | 10 cu. ft. .28 m ³ |



**6 FOOT SIGN HAS 3 LEGS ON 24.0 (610) CENTERS.
***FURNISHED WITH TWO MOUNTING SLOTS FOR 1/2 INCH ANCHOR BOLTS.

BACK VIEW OF SIGN (4 FOOT SIZE 3 SHOWN)



Distance Marker Sign



Compliances: FAA AC 150/5345-44: L-858 (Size 4)
Unified Facilities Criteria UFC 3-535-01

Applications

The DMS is an internally lighted double-faced sign with White Retroreflective numerals on Black Background indicating to the pilot the runway distance remaining in 1000 ft. increments. Distance Marker Signs may be installed on one or both sides of the runway. Contact Crouse-Hinds for actual VA load on the series circuit.

Features



- ETL Certified (Size 4)
- Internally illuminated
- Sign meets FAA style 5 requirements
- Uses fluorescent lamp
- Fiberglass Housing
- Electrical connection fits baseplate with 2 inch hub
- Operates on 100 watt transformer
- Includes floor flanges and frangible couplings
- Disconnect Switch on housing
- Hinged Sign Face
- Stainless steel tethers

Ordering Information*



Basic Catalog Number:

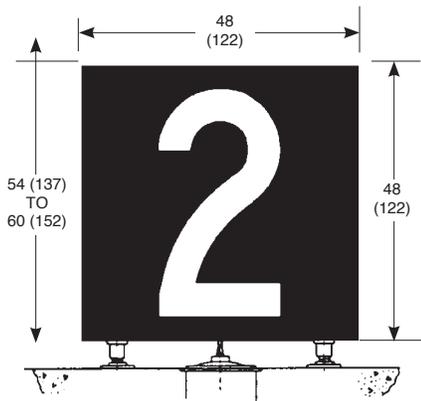
Options:
C/C = Arresting Cable Marker: 39 inch Yellow Circles

* Order numerals for each DMS by description

Renewal Parts

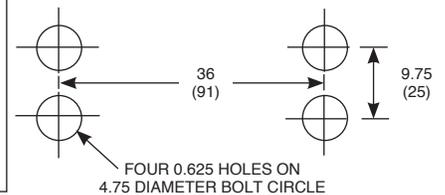
| Part Number | Description |
|-------------|--|
| 61066-1 | Frangible Coupling |
| 25684-1 | Floor Flange |
| 61093-D | Sign Face Only (specify legend) |
| 10047-1573 | Fluorescent Lamp (-3, -5 versions) |
| 10047-2391 | Fluorescent Lamp Socket (-3, -5 versions) |
| 10047-2392 | Fluorescent Lamp Socket (-3, -5 versions) – Stationary End |
| 61106 | Ballast (-3 and -5 versions) |
| 60984 | Stainless Steel Tether |

Outline Drawing



| | |
|----------------------------|---------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 9423 |
| Shipping Weight: | 180 lbs. 82 kg. |
| Shipping Volume: | 38 cu.ft. 1.4 cu.m. |

Mounting Leg Layout



SECTION 6

Tools & Markers



TOOLS

Tools and Accessories

TOOLS

Ammeters for Constant Current Series Circuits

Constant current regulators (CCRs) produce non-sinusoidal waveforms. Traditional ammeters reading the average current will produce inaccurately low values on airfield lighting circuits. Calibrating equipment based upon these incorrect readings may dramatically reduce the lamp life for airfield lighting and adversely affect equipment performance.

For constant current airfield lighting circuits, only a **true-rms** meter with current clamp accessory must be used to accurately indicate the current present. Such meters include selected models manufactured by:

Beckman Industrial Fluke Simpson B&K Precision Circuitmate

Special Tools for Crouse-Hinds Airport Lighting Products

| Catalog Number | Description | Purpose |
|----------------|------------------------|--|
| 10036-39 | Impact Driver | Loosens tight screws, when struck with a hammer. Useful for taxiway centerline lights. |
| 10036-36 | Cable Penciller | Prepares the ends of FAA L-824 Type C cable for connector kits. |
| 20047 | Contact Straightener | Straightens the female contacts of TCL optical cartridges. |
| 19583 | Setting Jig | For setting base type ALB L-868, Class I, Size B, for 12" diameter fixtures. |
| 20628 | Setting Jig | For setting base type GSB L-868, Class II, Size B, for 12" diameter fixtures. |
| 19999 | Lifting Handle | For easy lifting of 12" diameter inset lights. |
| 19388 | Lifting Handle | For easy lifting of inset lights: HAL, HTL (FAA-E-2491). |
| 20476 | Lifting Handle | For easy lifting of inset lights: TOL (10.24 Inch Bolt Circle only). |
| 40664 | Lamp Extractor | Provides an easy means to remove quartz lamps from edge lights. |
| 25220 | PAPI Clinometer | Aiming Set for PAPI-2688X systems. |
| 25057 | PAPI Tilt Level | Tilt Level for PAPI-2688X systems. |
| 50420 | Lamp Extractor | Unlocks and removes Quartz lamps from HRLQ-5 edge lights. |
| 50359 | Leveling Tool HRLQ-5 | Levels HRLQ-5 edge lights. |
| 21162 | Installation Fixture | For setting 8" shallow base part number 21136. |
| 40999 | Leveling Tool HRLQ/ERL | Levels and aligns part number Series 40938, 40939, 40943 and HRLQ-4 fixtures. |

Tools

10036-39 Impact Driver



20047 Contact Straightener



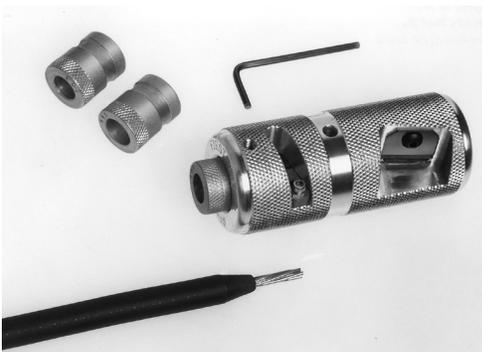
50029 Leveling Tool-ERL



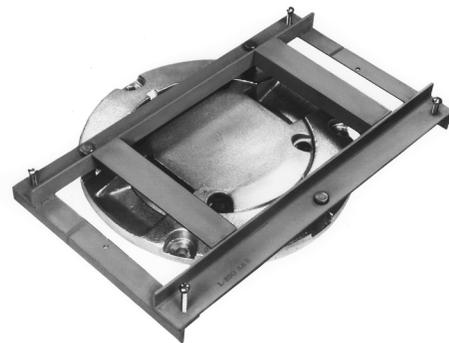
40664 Lamp Extractor



10036-36 Cable Penciller



19583 Setting Jig



TEK-TOOLS

Crimping Tools



TEK-TOOLS

Applications

TEK-Tools are used for primary and secondary connector kits (Crouse-Hinds connector kits only).

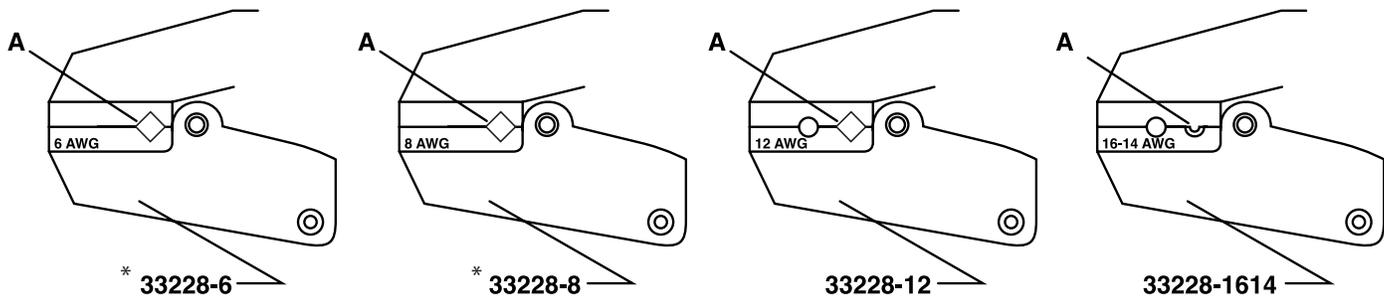
Features

- Ratchet action prevents release until proper pressure has been applied to terminal, ensuring proper connection of terminal to wire or cable.
- Easy to operate emergency jaw release.
- Designed to perform 5000 cycles prior to requiring check of crimp pressure or calibration.
- Embossed die nests with gauge marking to identify terminals crimped with TEK-Tools.

Tool Catalog Number Selection Table

| Catalog Number* | DIE AWG | GAUGE A (± 0.05) | PRELOAD ($\pm 15N$) | HANDLE COLOR | DIE NEST MARK |
|-----------------|---------|------------------------|-----------------------|--------------|---------------|
| 33228-6 | 6 | 6.2 | 150 | Green | CH6 |
| 33228-8 | 8 | 5.6 | 170 | Red | CH8 |
| 33228-12 | 12 | 4.0 | 200 | Yellow | CH |
| 33228-1614 | 16-14 | 3.33 | 140 | Blue | C |

* Refer to outline drawings for details (below).



* Instruction Sheet: 2709

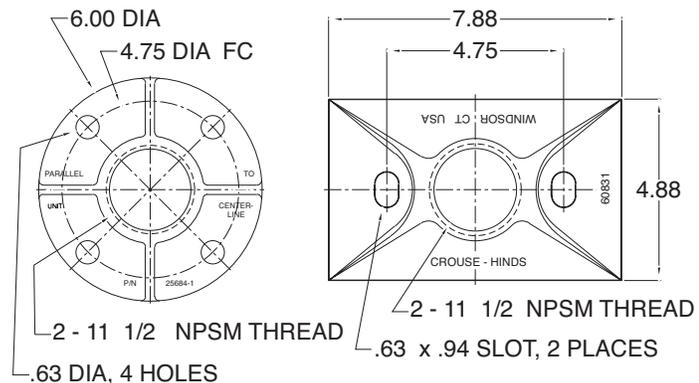
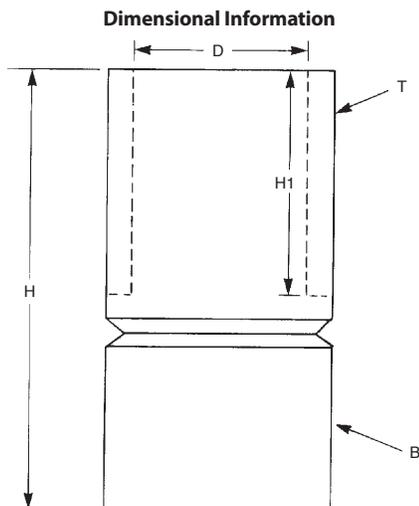
Frangible Couplings

FC

| | THREADING | | | | DIMENSION (INCHES) | | | FINISH | APPLICATION |
|----------|-----------|------------|---|------------|--------------------|-------|-------|------------------|---------------------|
| | TYPE | T-INSIDE | T-OUTSIDE | B-OUTSIDE | H | H1* | D | | |
| 60647-1 | Straight | None | None | 2-11½ NPSM | 5.803 | H | 1.939 | Natural Aluminum | Sign (AGS-1) |
| 60647-2 | Straight | None | None | 2-11½ NPSM | 5.803 | H | 1.939 | Natural Aluminum | Sign (AGS-1) |
| 60647-3 | Straight | None | None | 2-11½ NPSM | 5.803 | H | 1.939 | Natural Aluminum | Sign (AGS-1) |
| 60647-4 | Straight | None | None | 2-11½ NPSM | 5.803 | H | 1.939 | Natural Aluminum | Sign (AGS-1) |
| 60683-E | Straight | None | None | 2-11½ NPSM | 3.330 | 1.49 | 1.200 | Painted Yellow | ERL, HRLQ |
| 60683-4 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| 60683-5 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | PAPI |
| 60683-6 | Straight | 5/8-18 UNF | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (Fiberglass) |
| 60683-7 | Straight | 5/8-18 UNF | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | PAPI |
| 60683-8 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (ICAO) |
| 60683-9 | Straight | 1-11½ NPT | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | PAPI |
| 60683-10 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | RGL |
| 60285-1 | Tapered | None | 2-11½ NPT | 2-11½ NPT | 4.000 | H | 1.939 | Natural Aluminum | Sign (AGS-Canada) |
| 60285-2 | Tapered | None | 2-11½ NPT | 2-11½ NPT | 4.000 | H | 1.939 | Natural Aluminum | Sign (AGS-Canada) |
| 60285-3 | Tapered | None | 2-11½ NPT | 2-11½ NPT | 4.000 | H | 1.939 | Natural Aluminum | Sign (AGS-Canada) |
| 60287 | Tapered | None | None | 2-11½ NPT | 3.875 | 1.960 | 2.000 | Natural Aluminum | Sign |
| 62245-1 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| 62245-2 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| 62245-3 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| 62245-4 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| 62245-5 | Straight | None | None | 2-11½ NPSM | 5.770 | — | — | Natural Aluminum | Sign (AGS-2) |
| P1206 | Tapered | None | None | 2-11½ NPT | 5.250 | 3.563 | 2.100 | Natural Aluminum | Canada |
| P1211 | Tapered | None | None | 2-11½ NPT | 7.625 | H | 2.100 | Painted Orange | Canada |
| P1215 | *** | 1.25-16 | None | 2-11½ NPT | 3.875 | 1.813 | 1.500 | Natural Aluminum | Canada |
| FL949A | Tapered | None | None | 2-11½ NPT | 4.750 | 3.000 | 1.813 | Painted Yellow | ELM, HRL (Military) |
| FL971 | Tapered | None | 2-11½ NPT | 2-11½ NPT | 4.750 | 3.000 | 1.813 | Painted Yellow | PAPI |
| 50306 | Straight | None | None | 2-11½ NPT | 6.380 | — | — | Painted Yellow | Elev. Stop Bar |
| 40818 | Tapered | None | None | 2-11½ NPT | 3.719 | H | 1.750 | Natural Aluminum | Canada |
| 61062-1 | Straight | None | 2 ¹³ / ₃₂ -16 UNF | 2-11½ NPT | 5.062 | 2.125 | 2.187 | Natural Aluminum | Sign (Fiberglass) |
| 50186 | Straight | None | None | 1½ -12 UNF | 3.070 | 1.500 | 1.190 | Painted Yellow | ERL, HRLQ |
| 50049 | Straight | None | None | 1½ -12 UNF | 2.690 | 1.500 | 1.174 | Yellow Plastic | ERL, HRLQ |
| 50184 | Straight | None | None | 2-11½ NPSM | 3.250 | 1.475 | 1.190 | Painted Yellow | ERL, HRLQ |
| ML4913 | Tapered | None | None | 2-11½ NPT | 4.750 | 3.000 | 1.813 | Natural Aluminum | Wind Cone |
| 62202 | Straight | None | None | 2-11½ NPSM | 22.500 | — | — | Natural Aluminum | Unlighted Sign |

* H indicates a full length straight through interior
 ** Static Load Test Data Not Available. Contact Crouse-Hinds.
 *** Tapered at bottom; straight inside.

The use of these couplings in non-approved applications should be checked with Crouse-Hinds Engineering department. Couplings intended for use in application listed. Use of couplings in applications not listed at risk of user and may result in premature or catastrophic failure.



FLOOR FLANGE 25684 - 1 FLOOR FLANGE 60831
 NOTE: FOR 1-1/2 UNF COUPLING, ADD REDUCER 5925



**25684-1
Floor Flange**



60285



62245



FL971



**60287
60288**



**FL2788A
FL949A**



60647



**61062-1
(10037-108)***



50186



50049



50184

Note: Not To Scale.

*** Superseded part number.**



TRM

Taxiway Reflective Marker

Compliances: FAA AC 150/5345-39: L-853
NASAO Guidelines



TRM

Applications

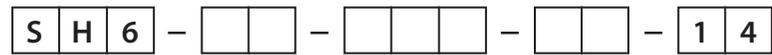
TRM tubular retroreflective markers are used to mark the edges of taxiways and ramps at airports and heliports. They are particularly useful for taxiways with centerline lights that do not have edge lights. For all airports, TRM markers provide daytime delineation of the operational areas. Therefore, they are often used to supplement edge lighting systems. All TRM markers feature a white tubular post and a 14" reflective material height.

Features

- FAA approved* 
- Inexpensive
Low initial cost, easy to install, no wiring, requires no power and practically maintenance free.
- Durable
Both the post and the reflectors remain flexible at temperature extremes.
- Highly Visible
Brilliant post colors provide 360 degree daytime visibility, high intensity reflectors provide 360 degree nighttime visibility.
- Safe
No damage to aircraft or vehicles if struck.

Ordering Information

How to Order: Reflective material on post is based on the intended airport location as indicated below. Select post height and mounting style as required.



Fixture Type:*

Post Height:
18, 24, or 30 inches

Mounting Style:

- SMA = Surface Mount, Pin Lock Base
- SMT = Surface Mount, Twist Lock Base
- GP1 = Concrete Open End Anchor - 8 inches
- GP3 = Soil Closed End Anchor - 18 inches
- GP4 = Soil Open End Anchor - 18 inches

Post/Reflector Colors:

- WB = Taxiway Edge Marker
White Post/Blue Reflective
- WS = Runway Edge Marker
White Post/Silver(White) Reflective
- WR = Runway End Marker
White Post/Red Reflective
- WG = Runway Threshold Marker
White Post/Green Reflective

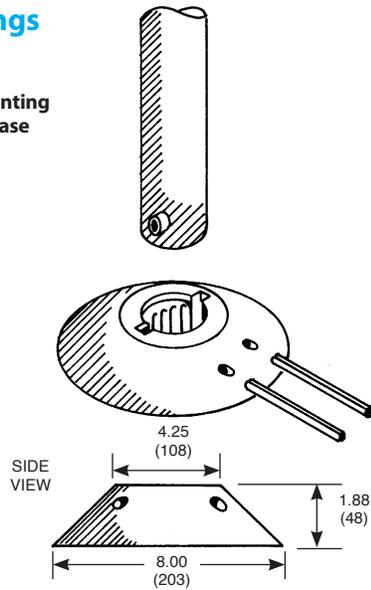
Reflective Material Height:

14 = 14" descending from top of post

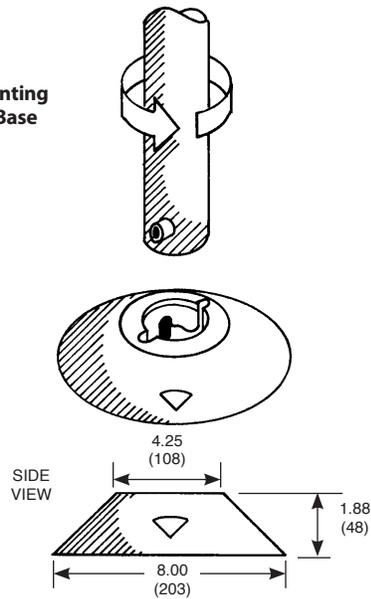
* TRM Markers are FAA approved by manufacturer Safe-Hit Corporation.

Installation Drawings

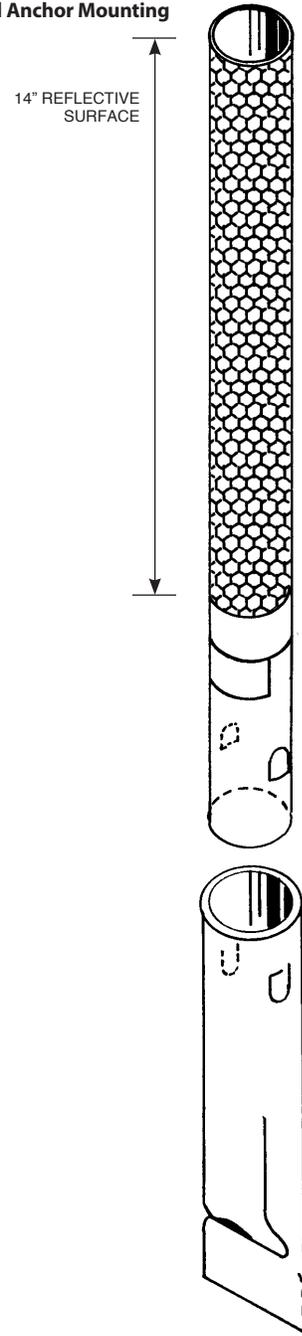
**Surface Mounting
Pin Lock Base**



**Surface Mounting
Twist Lock Base**



Soil Anchor Mounting



Renewal Parts

| Part Number | Description |
|--------------|-----------------------------------|
| SHA1-08OE-GL | Concrete Open End Anchor 8 inches |
| SHA3-018C-GL | Soil Closed End Anchor 18 inches |
| SHA4-018E-GL | Soil Open End Anchor 18 inches |
| SHSMA-1-BL | Surface Mount Pin Lock Base |
| SHSMT-1-BL | Surface Mount Twist Lock Base |

Note: For replacement tube only, order complete catalog number from GT-5.4 and add -T at the end.

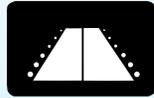
| | |
|-------------------------|--------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 3.0 lbs. 1.4 kg. |
| Shipping Volume: | 0.2 cu.ft. .006 cu.m. |



SECTION 7

Airport Light Bases





Airport Light Bases



ALB

Compliances: FAA AC 150/5345-42: L-867 & L-868, Class I
UFC 3-535-01
NAVAIR 51-50AAA-2

Applications

There are a variety of bases to which airport lights may be mounted. Usually, the base will not only support the light but also houses the isolation transformer. These bases also are used as underground junction boxes.

FAA TYPE

- L-867 A base not subjected to heavy aircraft or vehicle loading under normal conditions.
- L-868 A base subjected to heavy aircraft or vehicle loading.
- L-869 Junction box.

FAA CLASS

- Class I—Steel Bases
- Class II—Non-Steel Bases

FAA SIZE

- A—10 inch L-868 only
- B—12 inch L-867 or L-868
- C—15 inch L-868 only
- D—16 inch L-867 only

In addition to the bases there are also base plates, cover plates, extensions, junction boxes and various rings for the bases.

The products listed on this sheet are common items. Other versions are available. This page has only a partial listing.

Note: Some lights have been designed to work in load bearing locations with L-867 bases. Contact Crouse-Hinds for technical information.

Ordering Information

| Catalog Number | Specification Reference | FAA | MIL | USAF | Description | Shipping Weight | | Shipping Volume | |
|---------------------------|-------------------------|--------------------|------|------|---|-----------------|------|-----------------|-------|
| | | | | | | lb. | kg. | cu.ft. | cu.m. |
| Base Plates | | | | | | | | | |
| AP 1402 | .... | B8954 (MS24345) | 752 | | Base plate assembly, flat with cable clamp, 2" (51mm) straight | 29 | 13.2 | .14 | .004 |
| AP 2932 | .... | .... | .... |  | Side D base plate 16" (406mm) dia. 2" (51mm) N.P.S. tap with gasket | 14 | 6.3 | .15 | .004 |
| AP 2935 | .... | .... | .... |  | Size D base plate 16" (406mm) dia. 1 1/2" (38mm)-12 tap with gasket | 15 | 6.3 | .15 | .004 |
| AP 1935 | .... | .... | .... |  | Size B base plate 12" (305mm) dia. 1 1/2" (38mm)-12 tap with neoprene gasket | 8 | 3.6 | .14 | .004 |
| AP 1932 | .... | .... | .... |  | Size B base plate 12" (305mm) dia. 2" (51mm) N.P.S. tap with neoprene gasket | 8 | 3.6 | .14 | .004 |
| Blank Cover Plates | | | | | | | | | |
| AK 1000-X | L-867 | .... | .... |  | Blank cover plate 13 3/8" (340mm) dia. 1/8" (3mm) to 1 1/4" (32mm) thick in 1/8" (3mm) increments for L-867 Size B 12" (305mm) base | * | .* | .13 | .004 |
| AK 2000-X | L-867 | .... | .... |  | Blank cover plate 17 3/8" (441mm) dia. 1/8" (3mm) to 1 1/4" (32mm) thick in 1/8" (3mm) increments for L-867 Size D 16" (406mm) base | * | .* | .20 | .006 |
| AK 3000-12 | L-868 | .... | .... |  | Blank cover plate for 10" (254mm) light base 3/4" (19mm) thick | 18 | 8.1 | .04 | .001 |
| AK 4000-12 | L-868 | .... | .... |  | Blank cover plate for 12" (305mm) light base 3/4" (19mm) thick | 24 | 10.9 | .06 | .002 |
| AK 5000-20 | L-868 | .... | .... |  | Blank cover plate for 15" (381mm) light base 1 1/4" (32mm) thick | 38 | 17.2 | .10 | .003 |

* Varies by thickness

| Catalog Number | Specification Reference | | | Description | Shipping Weight | | Shipping Volume | |
|------------------------------|-------------------------|---------------------------|------|---|-----------------|------|-----------------|-------|
| | FAA | MIL | USAF | | lb. | kg. | cu.ft. | cu.m. |
| Flange Rings | | | | | | | | |
| AF 5102-12* | L-868 | .... | .... | Flange Ring with O-Ring gasket and bolts 10" (254mm) dia. x 3/4" (19mm) thick | 6 | 2.7 | .04 | .001 |
| AF 5402-12* | L-868 | .... | .... | Flange Ring with O-Ring gasket and bolts 1 1/2" (305mm) dia. x 3/4" (19mm) thick | 7.25 | 3.3 | .06 | .002 |
| AF 5502-12* | L-868 | .... | .... | Flange Ring with O-Ring gasket and bolts 1 5/8" (381mm) dia. x 3/4" (19mm) thick | 9 | 4.1 | .10 | .003 |
| * Add "Y" for retaining ring | | | | | | | | |
| Light Bases | | | | | | | | |
| AC 1524 | L-868 | .... | .... | Size A 10" (254mm) x 24" (610mm) steel inset light base with plywood cover | 42 | 19.0 | 1.22 | .034 |
| AC 2120 | L-867 | B-8954 (MS24526-1) | | Size B 12" (305mm) x 20" (508mm) steel light base with plywood cover and bolts | 40 | 18.2 | 1.8 | .050 |
| AC 2124 | L-867 | | | Size B 12" (305mm) x 24" (610mm) steel light base with plywood cover and bolts | 52 | 23.6 | 2.6 | .070 |
| AC 2320 | | B-8954 (MS4526-4 760C) | | Size B 12" (305mm) x 20" (508mm) steel light base with plywood cover and bolts | 47 | 21.4 | 2.2 | .060 |
| AC 2424 | L-868 | .... | .... | Size B 12" (305mm) x 24" (610mm) steel inset light base with plywood cover | 63 | 28.6 | 2.5 | .070 |
| AC 3524 | L-868 | .... | .... | Size C 15" (381mm) x 24" (610mm) steel inset light base with plywood cover | 76 | 34.5 | 2.7 | .076 |
| AC 6320 | L-867 | .... | .... | Size D 16" (406mm) x 20" (508mm) steel light base with plywood cover and bolts | 60 | 27.3 | 3.6 | .100 |
| AC 6324 | L-867 | .... | .... | Size D 16" (406mm) x 24" (610mm) steel light base with plywood cover and bolts | 67 | 30.3 | 4.3 | .120 |
| 20045-4 | | | | L-850 inset 12" dia. x 3.5 deep | 18 | 8.1 | .07 | .020 |
| 20452-S234 | | | | L-850 tapered inset 12" dia. x 4.5 deep | 23 | 11.3 | 0.8 | .022 |
| Spacer Rings | | | | | | | | |
| AR 5121 | L-868 | .... | .... | Spacer Ring for height adjustment for 10" (254mm) Size A base from 1/16" (1.6mm) to 2" (51mm) thick | * | * | .12 | .003 |
| AR 5421 | L-868 | .... | .... | Spacer Ring for height adjustment for 12" (305mm) Size B base from 1/16" (1.6mm) to 2" (51mm) thick | * | * | .16 | .005 |
| AR 5521 | L-868 | .... | .... | Spacer Ring for height adjustment for 15" (381mm) Size C base from 1/16" (1.6mm) to 2" (51mm) thick | * | * | .26 | .007 |
| * Varies by thickness | | | | | | | | |
| Stakes | | | | | | | | |
| AW 2205 | .... | .... | .... | Steel stake 30" (762mm) long (4.8mm) with 1 1/2" (3.8mm)-12 tap | 12 | 5.4 | .08 | .002 |
| AW 2202 | .... | C-5130 | .... | Steel stake 30" (762mm) long with 2" (51mm) tap | 12 | 5.4 | .08 | .002 |
| Gaskets | | | | | | | | |
| 10530287 | L-867 | .... | .... | 12" (305mm) dia. neoprene gasket 1/8" (3mm) thick | 0.4 | 0.2 | — | — |
| 10530286 | .... | B-8954 (MSL6577) | 757 | 12" (305mm) Max. dia. polychlorprene gasket, .135" (3.4mm) thick, ribbed | 0.5 | 0.2 | — | — |
| 10530281 | .... | .... | .... | 16" (406mm) Nom. dia. neoprene gasket 1/8" (3mm) thick | 0.5 | 0.2 | — | — |



2424
L-868, Class I, Size B
Light Base



5402
L-868 Flange Ring with
O-Ring



5421
L-868 Spacer Ring

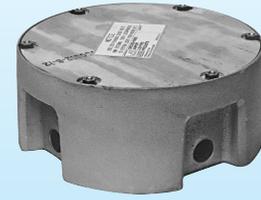


2124
L-867, Class I, Size B
Light Base



SIB-D12

Shallow Inset Light Base - 12" Ductile Iron



SIB

Applications

The SIB (Shallow Inset Base) is a load-bearing base designed to mount a 12" diameter inset fixture (11.25 DBC) into a taxiway or runway pavement location.

Features

- Ductile Iron Material*
- Tapered sides to resist heaving from the pavement
- Open bottom casting cavities which fill with the setting epoxy to eliminate torquing in the pavement
- Outer retaining ring prevents epoxy flowing into the base. Easy light fixture removal.
- Feed-thru entry version with watertight seals
- Secondary plug(s) inside the base for ease of maintenance

Ordering Information

2 0 4 5 3 - [] [] [] / [] [] [] [] - [] [] [] []

Fixture Type:

Entry Type:

- 1 = One Feed-thru Entry (2 Conductors), 90° (Side B) Standard Entry Location
- 2 = Two Feed-thru Entry (4 Conductors), 90° (Side B) Standard Entry Location
- F1 = Flexible Rubber Grommets for 1 Inch Conduit, 0° and 180° (Sides A and C) Standard Entry Locations
- H50 = Threaded Hole 1/2-14 NPT, 0° and 180° (Sides A and C) Standard Entry Locations
- H75 = Threaded Hole 3/4-14 NPT, 0° and 180° (Sides A and C) Standard Entry Locations
- H1 = Threaded Hole 1-11 1/2 NPT, 0° and 180° (Sides A and C) Standard Entry Locations
- B2 = Center Bottom Entry Via Flexible Rubber Grommet for 2 Inch Conduit

Entry Locations:

No Symbol means Standard Locations as noted under "Entry Type"

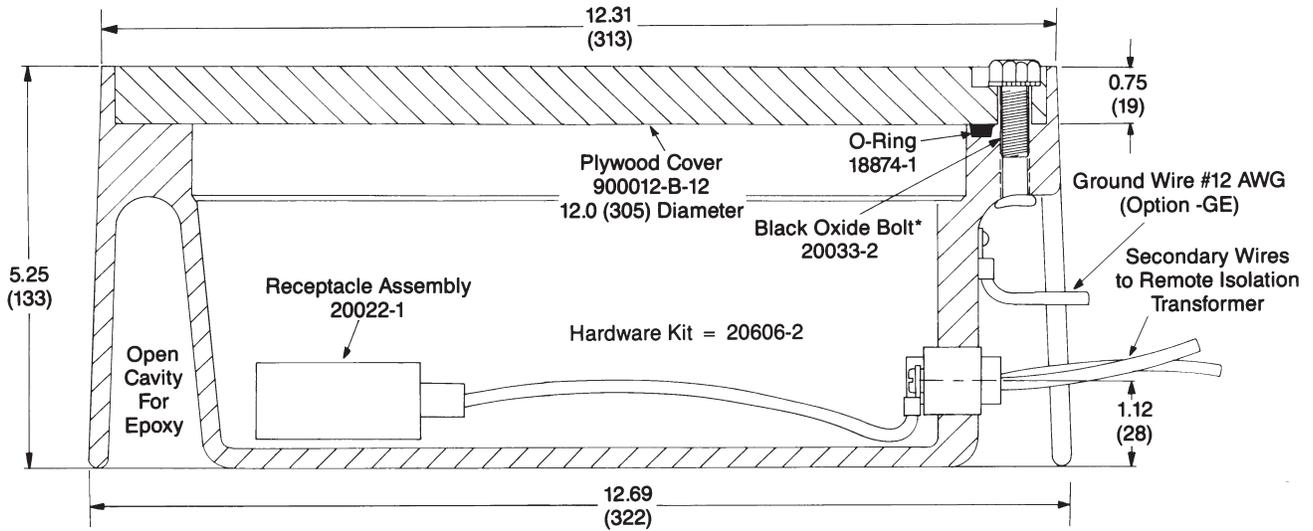
- A = Side A: 0°
- B = Side B: 90°
- C = Side C: 180°
- D = Side D: 270°

Options:

- CR = Corrosion Resistant Coating
- GE = Ground Wire, External
- GI = Ground Wire, Internal
- S312 = Modified for 15 inch Diameter FAA Size C Light

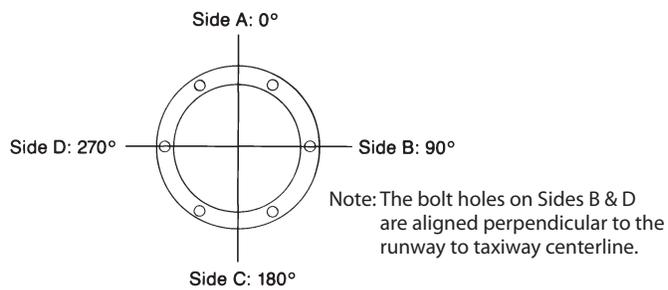
* Recommended for use with Ductile iron fixtures

Dimensional Information



* Typical for 6 bolts equally spaced on 11.25 (286) diameter bolt circle

Bolt and Entry Alignment Diagram



| | |
|-------------------------|----------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 39.0 lbs. 17.7 kg. |
| Shipping Volume: | 1.0 cu. ft. .028 cu. m. |



SIB-A12

Shallow Inset Light Base - 12" Aluminum



SIB

Applications

The SIB (Shallow Inset Base) is a load-bearing base designed to mount a 12" diameter inset fixture (11.25 DBC) into a taxiway or runway pavement location.

Features

- **Anodized cast aluminum** - C-H recommends use with like-metals
- Vertical casting recesses prevent rotation in pavement when set into epoxy
- Horizontal casting flange prevents base from lifting out of pavement when set into epoxy
- Secondary plug(s) inside the base for ease of maintenance and light fixture removal
- Mechanical feed-thru with watertight seal

Accessory

P/N 19583 Installation Fixture

Ordering Information



Fixture Type:

Connection Type:

- 1 = One feed-thru (2 conductors) entry at location "1" in Base side
- 2 = Two feed-thru (4 conductors) entry at location "1" & "2" in Base side
- 3 = Bottom entry thru flexible grommet for 2 inch (2.375 O.D.) pipe

Entry Location: (Type 1 & 2 Connection)

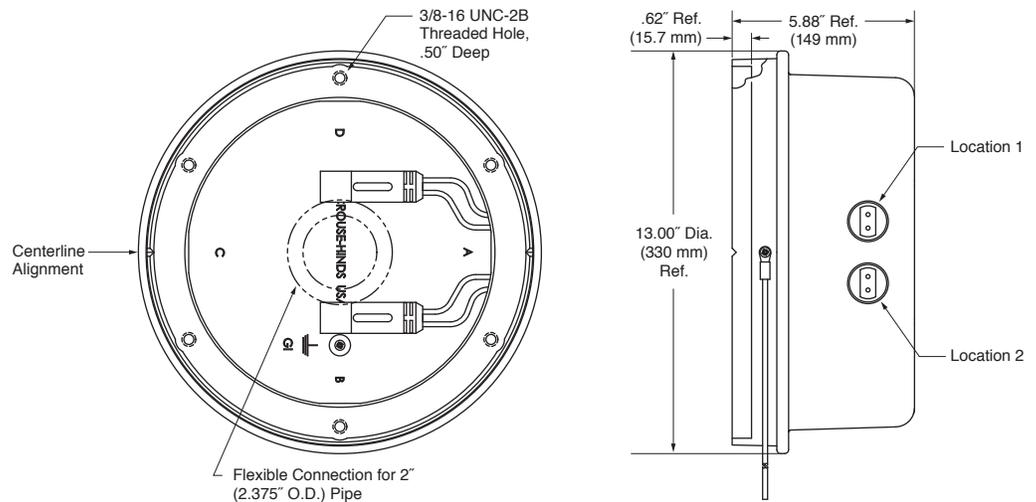
- A = 0° (Parallel to alignment notch)
- B = 90° (Perpendicular to alignment notch)

Option:

GE = Ground, External

Outline Drawing

| | |
|----------------------------|-------------------------------------|
| Dimensions: | inches (mm) |
| Instruction Manual: | 2408 |
| Shipping Weight: | 21238 18.0lbs. 8.2 kg |
| Shipping Volume: | 1.0 cu. ft. 0.028 m ³ |



SIB-8

Shallow Inset Light Base - 8" Aluminum - ICAO



SIB

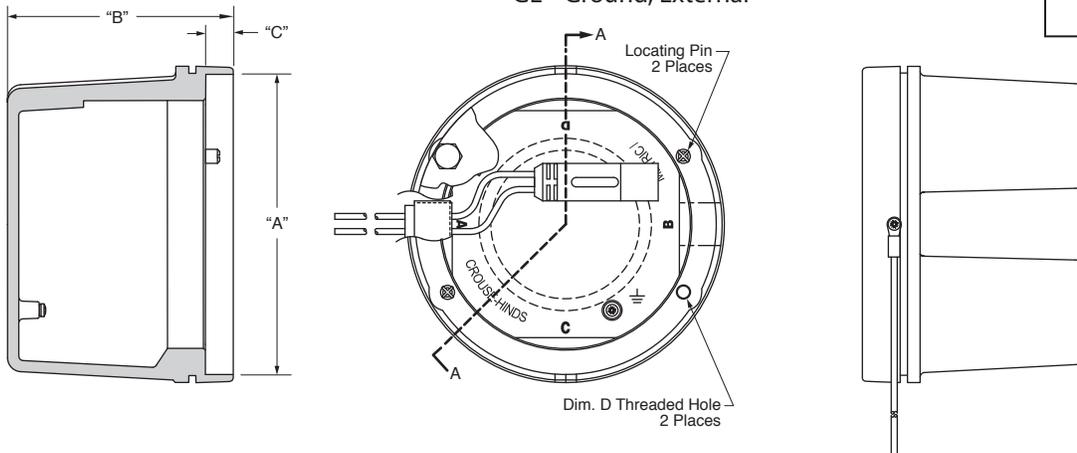
Applications

The SIB is a load-bearing light base designed in compliance with requirements of FAA Advisory Circular AC 150/5345-42 and IEC TS 61827 for direct mounting of 203mm (8") inset light fixtures.

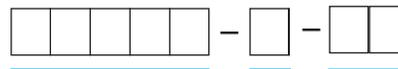
Features

- Anodized cast aluminum construction
- Vertical casting recesses prevent rotation in pavement when set into epoxy.
- Secondary plug(s) inside the base for ease of maintenance and light fixture removal
- Mechanical feed-thru with watertight seal

Outline Drawing



Ordering Information



Fixture Type:

- 21378
- 21388
- 21390
- 21431

Connection Type:

- 1 = One feed-thru (2 conductors) entry at location "A" in Base side
- 2 = Two feed-thru (4 conductors) entry at location "A" & "B" in Base side
- 3 = Bottom entry thru 3.94 DIA (100mm) in casting center
- 4 = Bottom entry thru 4.57 DIA (116mm) in casting center, no internal

Option:

GE = Ground, External

Accessory

P/N 87106-1 Installation Fixture

| | |
|-------------------------|-----------------------------------|
| Dimensions: | inches (mm) |
| Shipping Weight: | 9.0 lbs 4.1 kg |
| Shipping Volume: | 1.0 cu ft 0.028 m ³ |

| Basic Catalog Number | Instruction Manual | Dim. A | Dim. B | Dim. C | Dim. D | Fixture Reference |
|----------------------|--------------------|--------------|--------------|-------------|------------|-------------------|
| 21378 | 2633 | 8.03 (203.9) | 5.91 (150.0) | 0.63 (16.0) | M10 | TCLI/TOL-008 |
| 21388 | 2712 | 8.03 (203.9) | 5.94 (150.9) | 0.53 (13.5) | M10 | RCLI/TDZI |
| 21390 | 2713 | 8.03 (203.9) | 6.00 (152.5) | 0.74 (18.7) | M10 | TCLI/TOL-008 |
| 21431 | 2730 | 8.03 (203.9) | 5.91 (150.0) | 0.63 (16.0) | 3/8-16 UNC | TOL-008 |



Part Number Index

| | | | | | | | |
|-----------|------|----------|------|------------|------|-------------|------|
| 1003636 | 6.2 | 33522 | 4.3 | 82860D07 | 4.14 | 850B3CNSR | 1.2 |
| 1003639 | 6.2 | 40664 | 6.2 | 82860D10 | 4.14 | 850B3CR | 1.4 |
| 100471425 | 4.34 | 40818 | 6.6 | 82860D11 | 4.16 | 850B3CR12F | 1.2 |
| 100472154 | 4.34 | 40938 | 2.2 | 82860D15 | 4.16 | 850B3CR8 | 1.6 |
| 10530281 | 7.2 | 40939 | 2.2 | 82860F | 4.2 | 850B3CRNSR | 1.2 |
| 10530286 | 7.2 | 40943 | 2.2 | 82860F1 | 4.4 | 850B3CX | 1.4 |
| 10530287 | 7.2 | 40999 | 6.2 | 82860F2 | 4.6 | 850B3CX8 | 1.6 |
| 18749C | 1.42 | 44481 | 3.32 | 82860W | 4.12 | 850B3GG8 | 1.6 |
| 18749R | 1.42 | 44482 | 3.32 | 828SGS | 4.8 | 850B3GX8 | 1.6 |
| 19388 | 6.2 | 44483 | 3.32 | 828SYS | 4.1 | 850B3RX | 1.4 |
| 19583 | 6.2 | 44484 | 3.32 | 82950D04 | 4.14 | 850B3RX8 | 1.6 |
| 19999 | 6.2 | 48310 | 3.32 | 82950D07 | 4.14 | 850C2C185G | 1.16 |
| 200454 | 7.2 | 48311 | 3.32 | 82950D10 | 4.14 | 850C2C185R | 1.16 |
| 20047 | 6.2 | 48312 | 3.32 | 82950D11 | 4.16 | 850C3CC | 1.8 |
| 20324C | 1.42 | 48313 | 3.32 | 82950D15 | 4.16 | 850C3CR | 1.8 |
| 20324R | 1.42 | 50049 | 6.6 | 82950W | 4.12 | 850C3CX | 1.8 |
| 20381C | 1.42 | 50184 | 6.6 | 82960D04 | 4.14 | 850C3CY | 1.8 |
| 20381R | 1.42 | 50186 | 6.6 | 82960D07 | 4.14 | 850C3RC | 1.8 |
| 20382C | 1.42 | 50306 | 6.6 | 82960D10 | 4.14 | 850C3RX | 1.8 |
| 20382R | 1.42 | 50359 | 6.2 | 82960D11 | 4.16 | 850C3XC | 1.8 |
| 20452S234 | 7.2 | 50420 | 6.2 | 82960D15 | 4.16 | 850C3XR | 1.8 |
| 20453 | 7.4 | 602851 | 6.6 | 82960W | 4.12 | 850C3XY | 1.8 |
| 20476 | 6.2 | 602853 | 6.6 | 84700 | 4.24 | 850C3YC | 1.8 |
| 20510 | 1.46 | 60287 | 6.6 | 8506AC52 | 3.24 | 850C3YX | 1.8 |
| 20628 | 6.2 | 606471 | 6.6 | 8506AC68 | 3.24 | 850D1B185G | 1.16 |
| 21078 | 1.46 | 606472 | 6.6 | 8506ACC | 1.1 | 850D1B185R | 1.16 |
| 21162 | 6.2 | 606473 | 6.6 | 8506ACS | 3.2 | 850D3GR | 1.14 |
| 21238 | 7.6 | 606474 | 6.6 | 8506ACY | 1.1 | 850D3GX | 1.14 |
| 21378 | 7.7 | 6068310 | 6.6 | 8506AG2L | 3.2 | 850D3RG | 1.14 |
| 21388 | 7.7 | 606834 | 6.6 | 8506AG2R | 3.2 | 850D3RX | 1.14 |
| 21390 | 7.7 | 606835 | 6.6 | 8506AG3L | 3.2 | 850D3XG | 1.14 |
| 21431 | 7.7 | 606836 | 6.6 | 8506AG3R | 3.2 | 850E1B | 1.2 |
| 25057 | 6.2 | 606837 | 6.6 | 8506AG52 | 3.24 | 850E1C | 1.2 |
| 25220 | 6.2 | 606838 | 6.6 | 8506AG68 | 3.24 | 850E3G | 1.18 |
| 30775 | 4.27 | 606839 | 6.6 | 8506AGR | 3.2 | 850EAB | 3.28 |
| 33001 | 4.3 | 60683E | 6.6 | 8506AGS | 3.2 | 850F3 | 1.22 |
| 330012 | 4.3 | 60915 | 5.9 | 8506AR2L | 3.2 | 852A3GG | 1.32 |
| 33001GRS | 4.3 | 610621 | 6.6 | 8506AR2R | 3.2 | 852A3GG12F | 1.24 |
| 33002 | 4.3 | 62055 | 5.9 | 8506AR52 | 3.24 | 852A3GGNSR | 1.24 |
| 33003 | 4.3 | 62202 | 6.6 | 8506ARG | 3.2 | 852A3GX | 1.32 |
| 33004 | 4.3 | 622451 | 6.6 | 8506ARS | 3.2 | 852A3GX12F | 1.24 |
| 33004GRS | 4.3 | 622452 | 6.6 | 8506AYC | 1.1 | 852A3GXNSR | 1.24 |
| 33005 | 4.3 | 622453 | 6.6 | 850A3C | 1.4 | 852A3GY | 1.32 |
| 33006 | 4.3 | 622454 | 6.6 | 850A3C12F | 1.2 | 852A3YX | 1.32 |
| 33006GRS | 4.3 | 622455 | 6.6 | 850A3C8 | 1.6 | 852A3YX12F | 1.24 |
| 33007 | 4.3 | 71043 | 3.32 | 850A3CC | 1.4 | 852A3YXNSR | 1.24 |
| 33008 | 4.3 | 71044 | 3.32 | 850A3CC12F | 1.2 | 852A3YY | 1.32 |
| 33009 | 4.3 | 801A | 3.1 | 850A3CC8 | 1.6 | 852AD3GX12F | 1.24 |
| 33010 | 4.3 | 801H | 3.1 | 850A3CCNSR | 1.2 | 852AD3GX12R | 1.24 |
| 33011 | 4.3 | 801S | 3.1 | 850A3CNSR | 1.2 | 852B3GG | 1.32 |
| 33101 | 4.3 | 802A | 3.1 | 850A3CR | 1.4 | 852B3GG12F | 1.24 |
| 33102 | 4.3 | 802H | 3.1 | 850A3CR12F | 1.2 | 852B3GGNSR | 1.24 |
| 33103 | 4.3 | 802S | 3.1 | 850A3CR8 | 1.6 | 852B3GX | 1.32 |
| 33125 | 4.3 | 804E2066 | 2.12 | 850A3CRNSR | 1.2 | 852B3GX12F | 1.24 |
| 33150 | 4.3 | 81431 | 5.14 | 850A3CX | 1.4 | 852B3GXNSR | 1.24 |
| 33151 | 4.3 | 81432 | 5.14 | 850A3CX8 | 1.6 | 852B3GY | 1.32 |
| 33154 | 4.3 | 81441 | 5.14 | 850A3GG8 | 1.6 | 852B3YX | 1.32 |
| 33200 | 4.3 | 81442 | 5.14 | 850A3GX8 | 1.6 | 852B3YX12F | 1.24 |
| 33215 | 4.3 | 823KP | 4.32 | 850A3RX | 1.4 | 852B3YXNSR | 1.24 |
| 33226 | 4.3 | 823KS | 4.33 | 850A3RX8 | 1.6 | 852B3YY | 1.32 |
| 3322812 | 6.4 | 82850D04 | 4.14 | 850B3C | 1.4 | 852C21GG | 1.32 |
| 332281614 | 6.4 | 82850D07 | 4.14 | 850B3C12F | 1.2 | 852C21GX | 1.32 |
| 332286 | 6.4 | 82850D10 | 4.14 | 850B3C8 | 1.6 | 852C21GY | 1.32 |
| 332288 | 6.4 | 82850D11 | 4.16 | 850B3CC | 1.4 | 852C21RX | 1.32 |
| 33266 | 4.3 | 82850D15 | 4.16 | 850B3CC12F | 1.2 | 852C21XG | 1.32 |
| 333223 | 4.3 | 82850W | 4.12 | 850B3CC8 | 1.6 | 852C21XR | 1.32 |
| 333661 | 4.3 | 82860D04 | 4.14 | 850B3CCNSR | 1.2 | 852C21XY | 1.32 |

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| 852C21YX | 1.32 | 852D4YY | 1.28 | 852W31YG | 1.34 | 8625 | 2.8 |
| 852C21YY | 1.32 | 852D6 | 1.26 | 852W31YX | 1.34 | 862S | 2.1 |
| 852C2GG | 1.34 | 852E3008 | 1.44 | 852W31YY | 1.34 | 880A2A | 3.2 |
| 852C2GX | 1.34 | 852E312A | 1.44 | 852W3GG | 1.34 | 880A3A | 3.2 |
| 852C2GY | 1.34 | 852E312B | 1.44 | 852W3GX | 1.34 | 880A3B | 3.2 |
| 852C2RX | 1.34 | 852G3R12F | 1.38 | 852W3GY | 1.34 | 880A3B | 3.2 |
| 852C2XG | 1.34 | 852G3RNSR | 1.38 | 852W3RX | 1.34 | 884A | 4.2 |
| 852C2XR | 1.34 | 852G3RX12F | 1.38 | 852W3XG | 1.34 | 98240 | 3.12 |
| 852C2XY | 1.34 | 852G3RXNSR | 1.38 | 852W3XR | 1.34 | 98250 | 3.16 |
| 852C2YG | 1.34 | 852G3Y12F | 1.38 | 852W3XY | 1.34 | AC1524 | 7.2 |
| 852C2YX | 1.34 | 852G3YNSR | 1.38 | 852W3YG | 1.34 | AC2120 | 7.2 |
| 852C2YY | 1.34 | 852G3YX12F | 1.38 | 852W3YX | 1.34 | AC2124 | 7.2 |
| 852C31GG | 1.32 | 852G3YXNSR | 1.38 | 852W3YY | 1.34 | AC2320 | 7.2 |
| 852C31GX | 1.32 | 852GS3XR | 1.4 | 858111 | 5.2 | AC2424 | 7.2 |
| 852C31GY | 1.32 | 852GS3YR | 1.4 | 858113 | 5.2 | AC3524 | 7.2 |
| 852C31RX | 1.32 | 852GS3YX | 1.4 | 858113B | 5.2 | AC6320 | 7.2 |
| 852C31XG | 1.32 | 852N31GG | 1.34 | 858115 | 5.2 | AC6324 | 7.2 |
| 852C31XR | 1.32 | 852N31GX | 1.34 | 858115B | 5.2 | AF510212 | 7.2 |
| 852C31XY | 1.32 | 852N31GY | 1.34 | 858121 | 5.2 | AF540212 | 7.2 |
| 852C31YG | 1.32 | 852N31RX | 1.34 | 858123 | 5.2 | AF550212 | 7.2 |
| 852C31YX | 1.32 | 852N31XG | 1.34 | 858123B | 5.2 | AK1000X | 7.2 |
| 852C31YY | 1.32 | 852N31XR | 1.34 | 858125 | 5.2 | AK2000X | 7.2 |
| 852C3GG | 1.32 | 852N31XY | 1.34 | 858125B | 5.2 | AK300012 | 7.2 |
| 852C3GG | 1.34 | 852N31YG | 1.34 | 858211 | 5.2 | AK400012 | 7.2 |
| 852C3GG12F | 1.24 | 852N31YX | 1.34 | 858213 | 5.2 | AK500020 | 7.2 |
| 852C3GG12R | 1.24 | 852N31YY | 1.34 | 858213B | 5.2 | AP1402 | 7.2 |
| 852C3GX | 1.32 | 852N3GG | 1.34 | 858215 | 5.2 | AP1932 | 7.2 |
| 852C3GX | 1.34 | 852N3GX | 1.34 | 858215B | 5.2 | AP1935 | 7.2 |
| 852C3GX12F | 1.24 | 852N3GY | 1.34 | 858221 | 5.2 | AP2932 | 7.2 |
| 852C3GX12R | 1.24 | 852N3RX | 1.34 | 858223 | 5.2 | AP2935 | 7.2 |
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| 852C3XR | 1.34 | 852N3YX | 1.34 | 858313 | 5.2 | AW2205 | 7.2 |
| 852C3XY | 1.34 | 852N3YY | 1.34 | 858313B | 5.2 | CAP1M | 4.35 |
| 852C3YG | 1.34 | 852S3R12F | 1.38 | 858315 | 5.2 | CAP3M | 4.35 |
| 852C3YX | 1.32 | 852S3RNSR | 1.38 | 858315B | 5.2 | CAP4M | 4.35 |
| 852C3YX | 1.34 | 852S3RX12F | 1.38 | 858321 | 5.2 | CAS1M | 4.35 |
| 852C3YX12F | 1.24 | 852S3RXNSR | 1.38 | 858323 | 5.2 | CAS3M | 4.35 |
| 852C3YX12R | 1.24 | 852S3Y12F | 1.38 | 858323B | 5.2 | CAS4M | 4.35 |
| 852C3YY | 1.32 | 852S3YNSR | 1.38 | 858325 | 5.2 | DIGITRAC | 4.28 |
| 852C3YY | 1.34 | 852S3YX12F | 1.38 | 858325B | 5.2 | FL949A | 6.6 |
| 852C42GG12F | 1.26 | 852S3YXNSR | 1.38 | 858411 | 5.2 | FL971 | 6.6 |
| 852C42GGNSR | 1.26 | 852T3008 | 1.44 | 858413 | 5.2 | FTS412 | 3.6 |
| 852C42GX12F | 1.26 | 852T312A | 1.44 | 858413B | 5.2 | FTS432 | 3.6 |
| 852C42GXNSR | 1.26 | 852T312B | 1.44 | 858415 | 5.2 | FTS81 | 3.8 |
| 852C42GY12F | 1.26 | 852T4008 | 1.44 | 858415B | 5.2 | FTS812 | 3.6 |
| 852C42GYNSR | 1.26 | 852T412A | 1.44 | 858421 | 5.2 | FTS83 | 3.8 |
| 852C42YX12F | 1.26 | 852T412B | 1.44 | 858423 | 5.2 | FTS832 | 3.6 |
| 852C42YXNSR | 1.26 | 852W21GG | 1.34 | 858423B | 5.2 | ML4913 | 6.6 |
| 852C42YY12F | 1.26 | 852W21GX | 1.34 | 858425 | 5.2 | P1206 | 6.6 |
| 852C42YYNSR | 1.26 | 852W21GY | 1.34 | 858425B | 5.2 | P1211 | 6.6 |
| 852C4GG | 1.28 | 852W21RX | 1.34 | 858511 | 5.2 | P1215 | 6.6 |
| 852C4GX | 1.28 | 852W21XG | 1.34 | 858513 | 5.2 | RC1T5A | 4.26 |
| 852C4GY | 1.28 | 852W21XR | 1.34 | 858513B | 5.2 | RIU1200 | 4.26 |
| 852C4YX | 1.28 | 852W21XY | 1.34 | 858515 | 5.2 | SH6 | 6.8 |
| 852C4YY | 1.28 | 852W21YG | 1.34 | 858515B | 5.2 | | |
| 852D3GG | 1.32 | 852W21YX | 1.34 | 858521 | 5.2 | | |
| 852D3GX | 1.32 | 852W21YY | 1.34 | 858523 | 5.2 | | |
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| 852D42GXNSR | 1.26 | 852W2XY | 1.34 | 8615SGX | 2.14 | | |
| 852D42GY12F | 1.26 | 852W2YG | 1.34 | 8615SRR | 2.14 | | |
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| 852D42YX12F | 1.26 | 852W2YY | 1.34 | 86211E | 2.6 | | |
| 852D42YXNSR | 1.26 | 852W31GG | 1.34 | 86211T | 2.6 | | |
| 852D42YY12F | 1.26 | 852W31GX | 1.34 | 86212E | 2.6 | | |
| 852D42YYNSR | 1.26 | 852W31GY | 1.34 | 86212T | 2.6 | | |
| 852D4GG | 1.28 | 852W31RX | 1.34 | 86241E | 2.4 | | |
| 852D4GX | 1.28 | 852W31XG | 1.34 | 86241T | 2.4 | | |
| 852D4GY | 1.28 | 852W31XR | 1.34 | 86242E | 2.4 | | |

