TKH AIRPORT SOLUTIONS

Datasheet

Threshold and Runway End (L-850D and L-850E)

LED AGL
Airfield Ground Lighting

03-71019
V1.0

General

TKH Airport Solutions inset lights are efficient and high-performing LED lights, providing at least 50,000 hours of service life at full 6.6A operation. The LED light fixtures have a simplified modular construction, consisting of five main components:

- Aluminum forging cover plate, with mechanical load capabilities exceeding FAA requirements
- Interchangeable LED light module
- Electronic driver board with housing
- Borosilicate glass prism with optional sapphire glass
- Secondary cable in accordance with FAA or ICAO requirements

This means easy maintenance of the lights because of the reduction of the amount of spare parts.

All of our inset lights are also available in CEDD technology. Please note that the specifications of CEDD lights are different from this datasheet. Contact our team for more details.

Key features

- 12" outer diameter
- 6.35 mm height above surface
- Depth below flange: 50 mm
- Light outlet size 40 mm x 6 mm
- Dust and water tightness: IP68, IP69
- Overall lifetime* > 20 years
- Useful lamp life (LED) up to 50,000 h
- Chromaticity coordinates according to ICAO Annex 14, Vol. 1 or FAA AC 150/5345-46E
- Nominal current: 6.6 A (0 – 100 %)
- Nominal AC frequency: 40-70 Hz
- Power consumption (@6.6 A - fixture only, not including cable losses, transformer efficiency, etc): L-850D Green: 18W, Red: 25W; L-850E Green: 32W
- Power factor > 95 % at nominal current
- Ambient temperature: -40 °C (-40 °F) / + 75 °C (+167 °F)
- Internal serial interface for diagnostics and parameterization
- Fail/open function (optional)
- De-icing kit/Heater (optional) - additional max. 27W while in operation
- Sapphire coated prism (optional)

*) Apart from wear parts

Standards

This fixture has been developed according to the following standards:

- ICAO Annex 14, Vol. 1 and Vol. 2
- FAA AC 150/5345-46E
- Engineering Brief No. 67D
- IEC TS 61827

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Colors / Variants

L-850D (L):

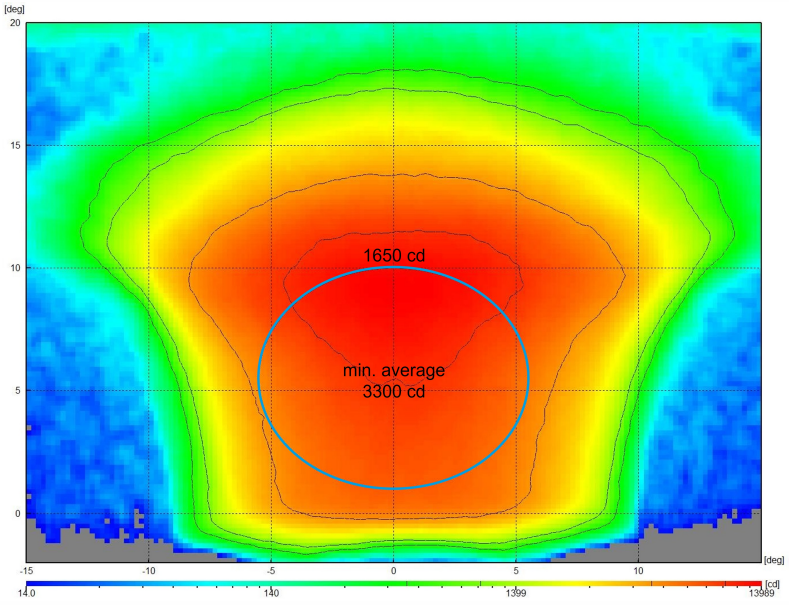
- Unidirectional Green
- Unidirectional Red
- Bidirectional Green/Red
- Bidirectional Red/Red

L-850E (L):

- Unidirectional Green

Light distributions

L-850D

Green	min. (cd)
	FAA: TKH (measured):

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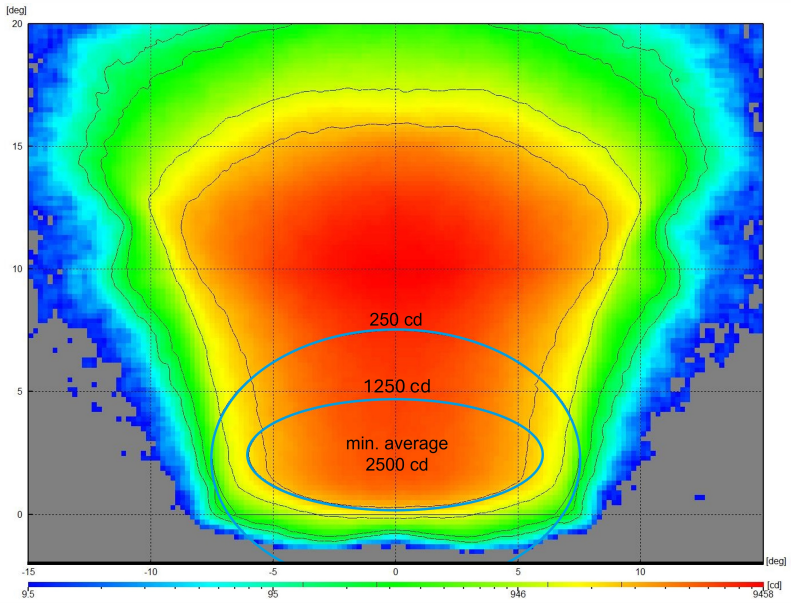
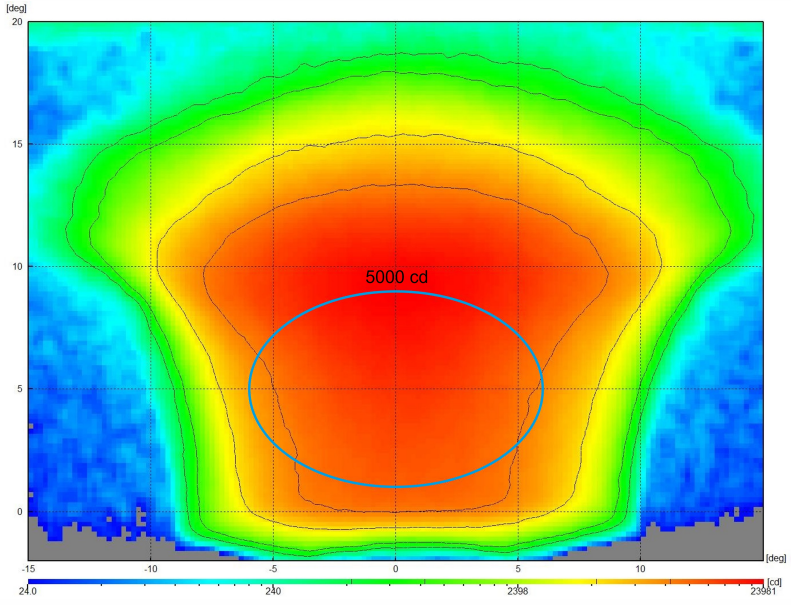
Red	min. (cd)
	FAA: TKH (measured):

L-850E

Green	min. (cd)
	FAA: TKH (measured):

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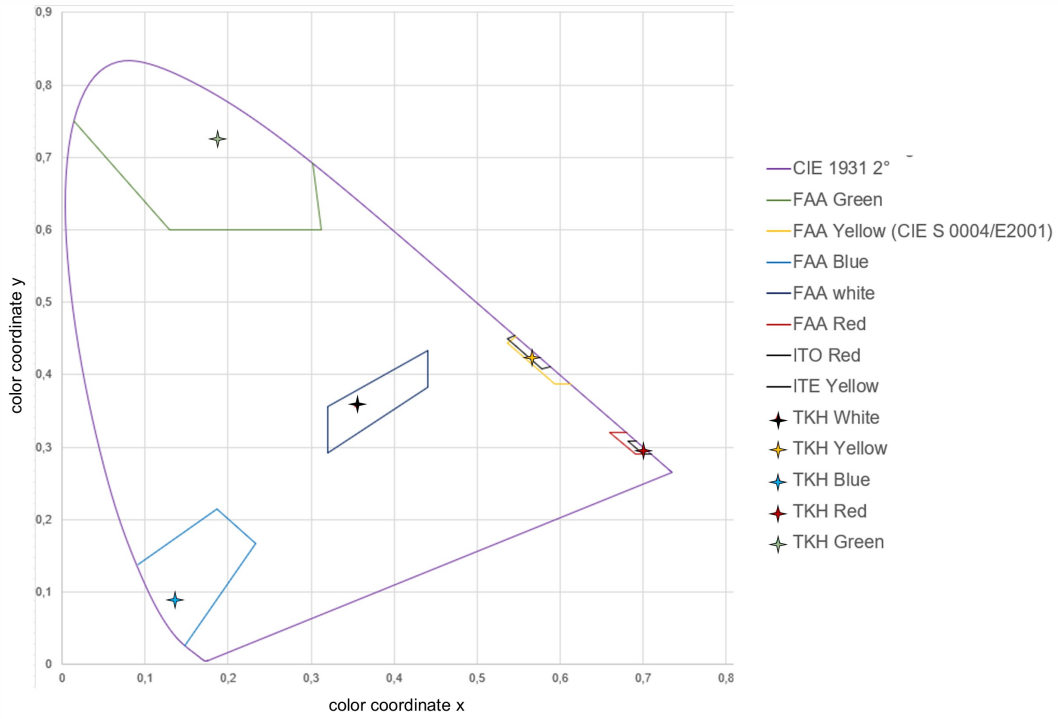
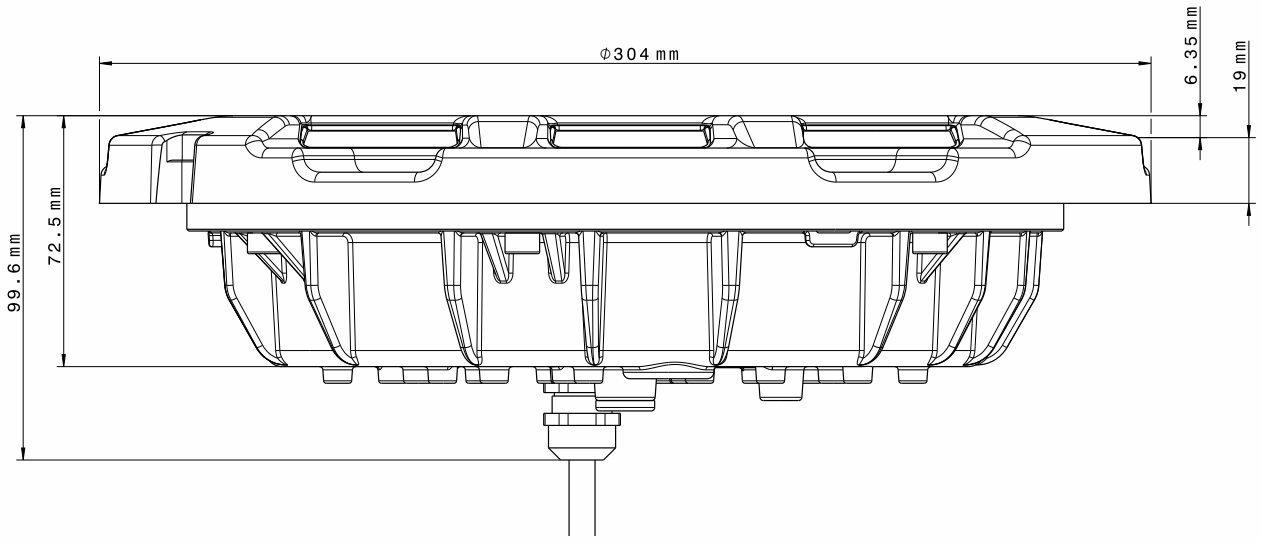
FAA Chromaticities



Dimensions



Note: drawing is indicative only

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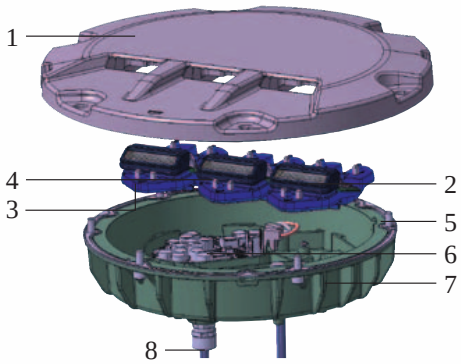
Components

Uni-directional straight variant

1. Cover (drop forged AL, anodized)
2. High power LED module 1, 2 and 3
3. Prism (borosilicate glass)
4. Sealing - aperture (Fluor silicate)
5. Sealing - housing (Fluor silicate)
6. Electronics
7. Housing (Aluminum, die-cast)
8. FAA L-823 plug



Accessories

- Transformer
- Shallow base
- Installation tools

Please contact sales@tkh-airportsolutions.com to discuss which accessories are required for your application.

Packing data

Variant	Dimensions (L x W x H) in mm	Gross weight in kg	Net. weight in kg
12" Fixture	325 x 325 x 155	6.8	5.8
12" Shallow Base	320 x 320 x 150	7.55	7.1

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Document Information

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For the latest version of this document see *https://www.tkh-airportsolutions.com/airfield-products/* or scan

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Ordering code L-850D & L-850E

THR - S - I - 3 2 - G 00 0 00 - 1 - 1O - 1 0 0 0

Option	Key	Description
Function		
	850D	L-850D(L)
	850E	L-850E(L)
Direction		
	S	Straight
	L	Left Direction
	R	Right Direction
Regulation		
	F	FAA
Light Intensity		
	4	FAA
Cover/Size		
	2	12 Inch Cover
Color A		
	G	Green
	R	Red
Toe-in A		
	35	3,5° Toe-In
	00	No Toe-In
Color B		
	G	Green
	R	Red
	0	Blank
Toe-in B		
	35	3,5° Toe-In
	00	No Toe-In
Prism		
	1	Borosilicate Prism
	2	Sapphire Prism
Cable		
	1O	250mm One Plug
	1T	250mm Two Plugs
	2O	457mm One Plug
	2T	457mm Two Plugs
	3O	300mm One Plug (combined with 3-pole plug)
	3T	300mm Two Plugs (combined with 3-pole plug)
Plug type		
	1	Standard FAA 2-Pole-Plug
	2	Special 3-Pole-Plug
Fail-open		
	0	Without Fail-Open
	1	With Fail-Open Hardware Relais
	2	With Fail-Open Signal Interface
Heater		
	0	No Heater
	1	With Heater
Special options		
	0	No Special Options
	1	Overheat Protection

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TKH AIRPORT SOLUTIONS

Company profile:

TKH Airport Solutions offers a complete range of LED-based airfield ground lighting products that are designed to be easy to install, operate, and maintain, and are compliant with international aviation standards.Our products meet the needs of our customers and contribute to a better future for the aviation industry. Being part of the TKH Group, our company can build on a history of more than 90 years in smart connectivity, energy distribution and AGL.

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