APPROACH LIGHTING

UEL

Approach, Threshold, Runway End High-Intensity Elevated Light

Fig. 1 UEL-1-150

Compliance with Standards

FAA: AC150/5345-46 and E982 for mechanical & environmental properties, photometry to E-2325, E-2628 and E-2698, latest edition

ICAO: Annex 14, Volume I, para. 5.3.4, 5.3.10, and 5.3.11, for use in Cat. I, II and III conditions, edition 1999

IEC: IEC 61827

NATO: STANAG 3316

Uses

1. Precision approach lighting Cat. I, II and III, white and red
2. Threshold and threshold wing bar lighting Cat. I, II and III
3. Runway end lighting Cat. I, II and III
4. Supplementary stop bar lights Cat. I, II and III
5. Other applications for unidirectional lights
6. Flashing light head, in conjunction with a FCU cabinet

Features

- Low weight (1.7 kg including lamp) construction thanks to the use of synthetic material, UV- and high temperature resistant.
- Reduced dimensions for improved frangibility characteristics and resistance against jet blast and wind load.
- Comfortable lamp changing without tools, either on site or in maintenance base, thanks to swinging and removable front cartridge.
- Low power and long life lamps: 1000 hours, 150 W only for approach, threshold and threshold wing bar, 100 W for runway end and 45 W for stop bar.
- Cable mechanically protected inside the fixture; built in stress reliever.
- Front glasses, clear or colored, optimized for the different functions. No separate color filters.
- Mounts straight onto standard 2" gas conduit (60 mm O.D.), breakable coupling or frangible mast head.
- Stable adjustment in elevation achieved by readily accessible, lockable adjustment screws.
- Easy aiming, even on top of a mast, by means of dedicated setting devices available either in an electronic or in a simplified, spirit-level version (Fig. 7).
- Maintenance-free construction and design.
- Also available with an additional medium intensity – low intensity omni directional approach light on top (see Fig. 3).

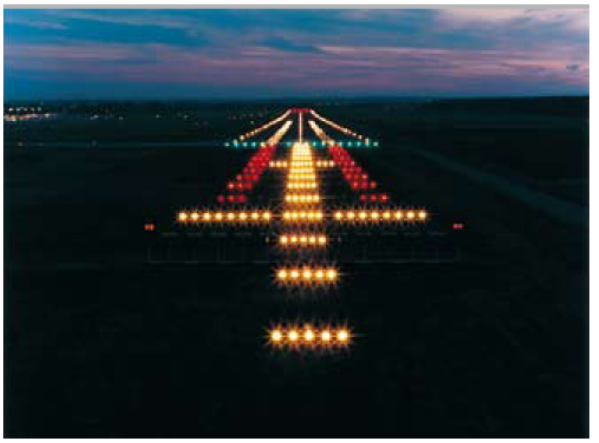

Fig. 2: Approach

Fig. 3: UEL-1-150 with top light

UEL

Construction (see Fig. 5)

1. Front glass/reflector seal
2. Front glass
3. Reflector
4. Removable front cartridge, aluminum alloy, containing the lamp and all optical components
5. Optical cartridge gasket
6. Prefocus halogen lamp
7. Cable stress reliever
8. Main (rear) housing with slip fitter, UV resistant plastic material
9. Elevation adjustment screws
10. Bracing clamp with screw

Finish

- Front cartridge: aviation yellow painted
- Main body: black, temperature and UV-resistant synthetic material
- Stainless steel hardware
- Temperature resistant wiring, gasket and front glass

Characteristics

- UV-resistance: tested in a Weather-O-Meter per ASTM 23 & 26 for more than 2000 hrs
- Degree of protection: IP 43

Electrical Supply

From a 6.6 A series circuit, through a suitably rated isolating transformer (see catalogue leaflet A.06.110). Use a 2-core 2.5 mm^2 or (AWG 12) silicon rubber insulated cable between the transformer and the light.

For flashing system: see catalogue leaflet A.02.620.

Installation

- At ground level on 60 mm O.D. breakable coupling (Fig. 6)
- On a 60 mm O.D. aluminum conduit up to 2 m high with breakable coupling MR/F2 (Fig. 7) (See catalogue leaflet A.05.110)
- On top of any safety approach mast having a 60 mm O.D. mounting interface (Fig. 7)

Packing Data

- UEL-1-150 complete with glassware, without lamp, cable nor breakable coupling, net weight: 1.7 kg.
- UEL-1-150 in cardboard box: 30 × 21 × 22 cm, gross weight: 2.0 kg.

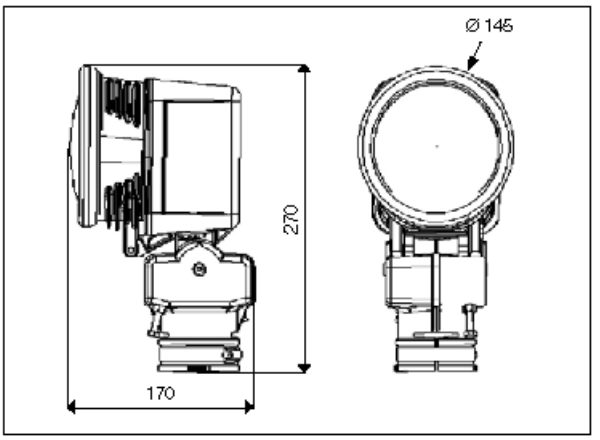

Fig. 4: Outline Dimensions

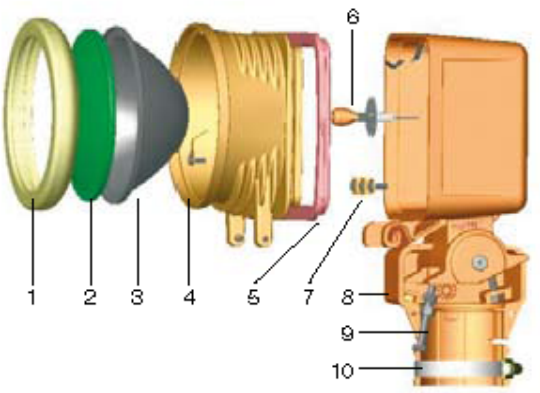

Fig. 5: Exploded view UEL

UEL

Ordering Code[2]

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Lamp Power
2 = 45 W (ICAO stop bar)
4 = 100 W (runway end)
5 = 150 W (other applications)[1]
9 = 120 W (flashing light)

Beam Color
C = White
G = Green
R = Red

For Mounting On
0 = Ground (with secondary cable)
2 = Pole or mast (no cable)

Finish (Aluminum)
Y = Aviation yellow

Low Intensity Top Light
0 = Without

Lock
0 = No lock
1 = Vandal proof lack for optical cart

Special requirements
00 = None

Version
1

Accessories

Adjustment tools (vertical and horizontal)	
With clinometer using electronic sensors	1570.05.400
With clinometer using spirit level	1570.05.410

Note

[1] Extension cables, conduits, connector kits, breakable couplings, frangible masts, (needs to be ordered separately). For assistance, please contact ADB Safegate sales.

[2] Complete, delete or modify as necessary.

Fig. 6: UEL steady burning light on base plate

Fig. 7: UEL flashing light on mounting tube

UEL

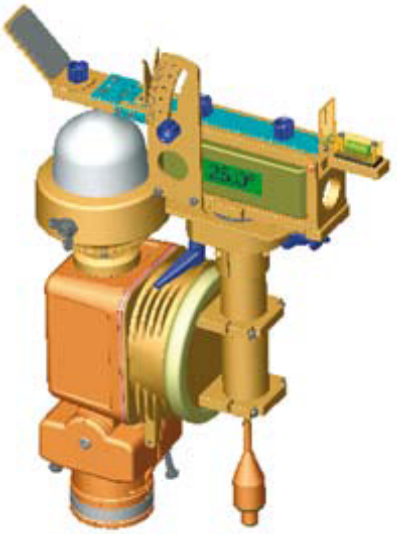

Fig. 8: UEL with top light and levelling tool

Photometric Performance (typical data)

Lamp specification: prefocus halogen - PK 30d -6.6 A - 1000 hours rated life at full intensity.

Max. power rating: 150 W

Function	Lamp (W)	Color	Curve	Avg Int. (cd)	Beam spread (Main ellipse)	
					Horizontal	Vertical
Approach Centre Line	150	White	Fig. 9	22 108	-10 to +10	2 to 13
Approach Side row	150	Red	Fig. 10	6 921	-5 to +9	3 to 13
Threshold	150	Green	Fig. 11	19 075	-2 to +9	2 to 11
Threshold Wing bar	150	Green	Fig. 12	17 929	-5 to +9	2 to 13
Runway End	100	Red	Fig. 13	5 322	-6 to +6	0.2 to 4.5
Supplem. Stop bar	45	Red	Fig. 14	309	-10 to +10 (rectangle	1 to 8 (rectangle)

Table 1: Phometric Diagrams

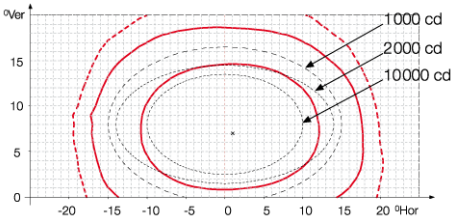

Fig. 9: Approach Centre line

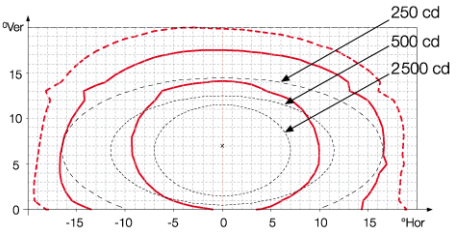

Fig. 10: Approach Side Row

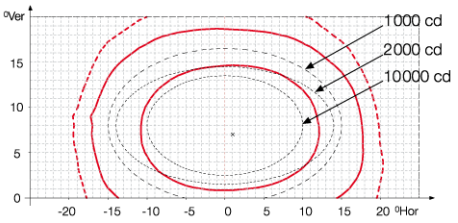

Fig. 11: Threshold

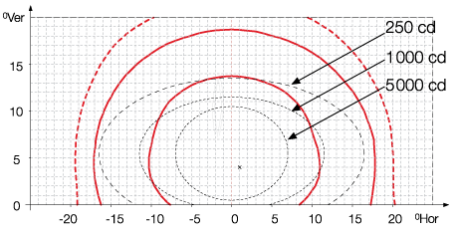

Fig. 12: Threshold Wing Bar

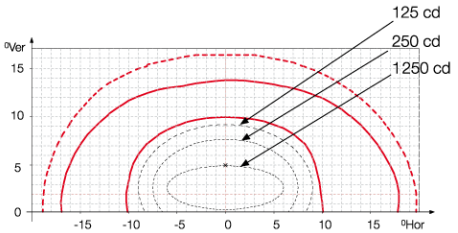

Fig. 13: Runway End

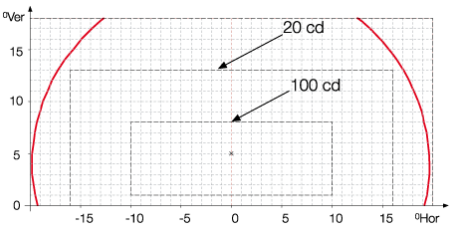

Fig. 14: Supplementary Stop Bar