

# APPROACH LIGHTING

## UEL

### Steady-Burning and Flashing Elevated Approach Light (US and Canada)



#### Compliance with Standards

- FAA:** AC 150/5345-46 (Current Edition) and FAA-E-982 for mechanical and environmental properties.
- ICAO:** Annex 14, Volume I, para. 5.3.4, 5.3.4.17, 5.3.7, 5.3.8, 5.3.10, 5.3.11, and 5.3.19.4.
- IEC:** IEC 61827
- NATO:** STANAG 3316
- T/C:** Transport Canada TP 312

#### Uses

- Precision approach lighting Cat. I, II and III, white and red
- Threshold and threshold wing bar lighting Cat. I, II and III
- Runway end lighting Cat. I, II and III
- Supplementary ICAO stop bar lights Cat. I, II and III
- Flashing light head, in conjunction with a FCU cabinet

#### Features

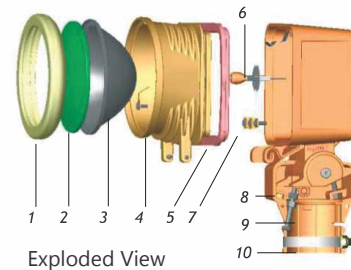
- Low weight (3.75 lb/1.7 kg, including lamp) construction due to the use of synthetic material for rear housing that is resistant to UV and high temperatures.
- Fixture is also available with an aluminum rear housing.
- Reduced dimensions for improved frangibility characteristics and resistance against jet blast and wind load.
- Easy lamp changing without tools due to a hinged, 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 ICAO stop bar.
- Cable mechanically protected inside the fixture; built-in stress relief.
- Front glasses, clear or colored, optimized for the different functions. No separate color filters.
- Mounts straight onto standard 2" EMT (60 mm O.D.), breakable coupling or frangible mast head.
- Stable elevation adjustment 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, bubble level version.
- Maintenance-free construction and design.
- Also available with an additional medium intensity – low intensity omnidirectional approach light on top

#### Operating Conditions

- Temperature: -67 °F to +131 °F (-55 °C to +55 °C)
- Humidity: 0 to 100%
- Altitude: 0 to 10,000 ft (3,000 m)
- Wind: Velocities up to 302 knots (560 km/hr)

#### Construction



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
9. Elevation adjustment screws
10. Bracing clamp with screw

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### Ordering Code<sup>2</sup>

#### Lamp Power

- 2 = 45 W (ICAO stop bar)
- 4 = 100 W (runway end)
- 5 = 150 W (other applications)<sup>1</sup>
- 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 lock for optical cart

#### Special requirements

- 00 = None

#### Version

- 1

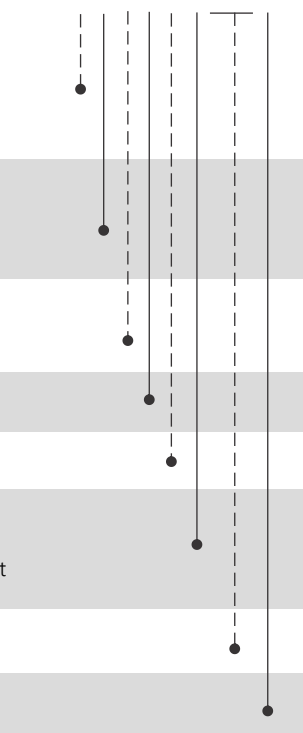
#### Accessories

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

#### Note

- <sup>1</sup> Extension cables, conduits, connector kits, breakable couplings, frangible masts, (needs to be ordered separately). For assistance, please contact ADB Safegate sales.
- <sup>2</sup> Complete, delete or modify as necessary.

1UE XXXXXX1



### Aluminum UEL

Used in Canadian and other harsh environments.

### Ordering Code

#### Direction

- 1 = Elevated Incandescent

#### Lamp Power

- 100 = 100W (Runway End)
- 150 = 150W (Approach centerline & crossbar, side row, threshold & threshold wing bar)
- XXX = No lamp
- WS = MOD for WS Tower only

#### Color

- C = White
- G = Green
- R = Red

#### Special Option

- LL = Extra long cord 0.75M (29.5")

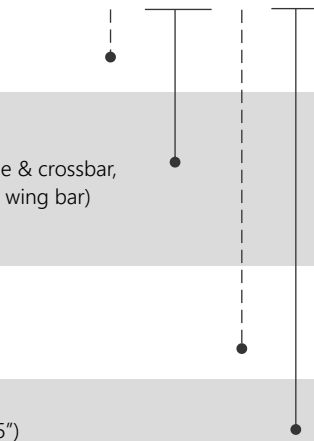
#### Accessories

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

#### Note

- Extension cables, conduits, connector kits, breakable couplings, and frangible masts, need to be ordered separately. For assistance, please contact ADB SAFEGATE.
- To order a Standard Digital Aiming Device for use on readily accessible fixture mounting heights, use Part No. 080604.
- 1 Other applications include approach, threshold, and threshold wing bar.

UELC - 1 - XXX - X - XX



### Elevated Flasher Aiming Device

This aiming device is used to adjust the vertical elevation of the elevated flash head. For elevated flashing fixture, the aiming device is available either as an electronic or as a simple mechanical (bubble level) based unit. Both aiming devices are accurate to within  $\pm 0.5^\circ$ .

### Aiming Device Ordering Code

Remote Digital Aiming Device <sup>1</sup>	1570.05.400
Bubble Level Aiming Device <sup>2</sup>	1570.05.410

#### Notes

- <sup>1</sup> For inaccessible fixture mounting heights up to 33 ft (10 m).
- <sup>2</sup> For fixture mounting heights accessible from the ground, a ladder or a bucket truck.

### Electrical Supply

From a 2.8 to 6.6 A series circuit, through a suitably rated isolation transformer. Use a 2-core 2.5 mm<sup>2</sup> (AWG 12) silicon rubber insulated cable between the transformer and the light. For flashing system, see catalog sheet 2091.

### Finish

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

## Characteristics

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

## Installation

- At ground level on 2.36 in (60 mm) O.D. breakable coupling (See Fig. 1)



**Fig. 1**

- On a 2.36 in (60 mm) O.D. aluminum conduit up to 6.56 feet (2 m) high with breakable coupling 44B0180 (See Fig. 2 and/or catalog sheet 2093)



**Fig. 2**

- On top of any safety approach mast having a 2.36 in (60 mm) O.D. mounting interface (See Fig. 2)



**Fig. 3**

- On top of fiberglass LIR mast, use 2.36 in (60 mm) to FAA LIR lamp support adapter Part No. 4762. (See Fig. 3).

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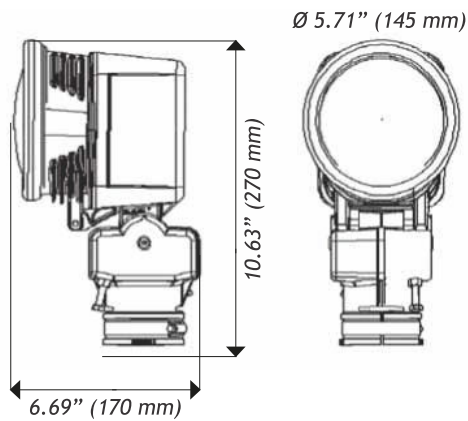
### UEL-1-150 Packing Data

Net weight*	3.75 lb (1.7 kg)
In cardboard box	11.81 × 8.27 × 8.66 in (30 × 21 × 22 cm)
Gross weight	4.41 lb (2.0 kg)

#### Notes

\* Complete with glassware, without lamp, cable or breakable coupling

### Dimensions



### Photometric Data

Lamp specification: prefocus halogen - PK 30d - 6.6 A - 1000 hours rated life at full intensity. Max. power rating: 150 W

Lamp (W)	Color	Curve	Avg. Int. (cd)	Beam Spread	
				Horz.	Vert.
150	White	Fig. 4	>22,108	-10 to +10	2 to 13
>150	Red	Fig. 5	>6,921	-5 to +9	3 to 13
>150	Green	Fig. 6	>19,075	-2 to +9	2 to 11
>150	Green	Fig. 7	>17,929	-5 to +9	2 to 13
>100	Red	Fig. 8	>5,322	-6 to +6	0.2 to 4.5
>45	Red	Fig. 9	>309	-10 to +10 (rectangle)	1 to 8 (rectangle)

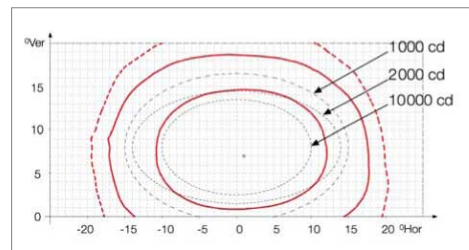


Fig. 4 - Approach Centerline

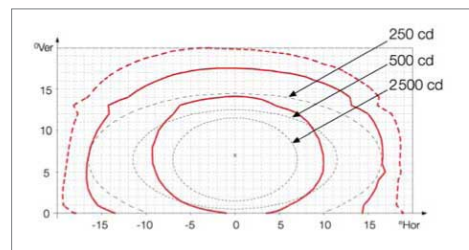


Fig. 5 - Approach Side Row

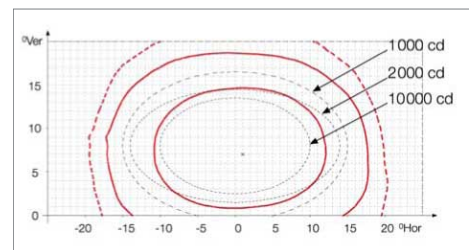


Fig. 6 - Threshold

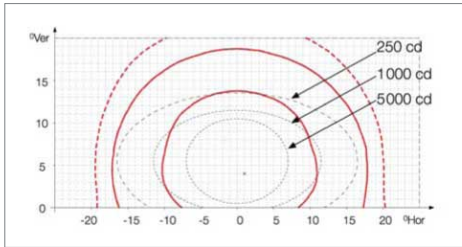


Fig. 7 - Threshold Wing Bar

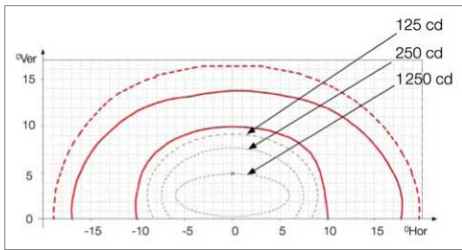


Fig. 8 - Runway End

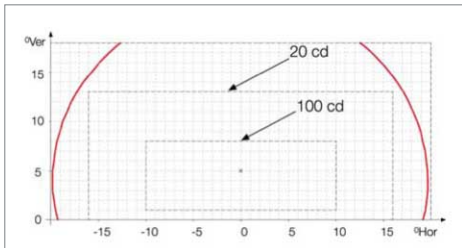


Fig. 9 - Supplementary Stop Bar