



RE880L

LED Precision
Approach Path
Indicator lighting
solution

Compliant to Latest International Standards*

- ▶ ICAO Annex 14. Vol 1
- ▶ ICAO Aerodrome Design Manual Part 4 – Visual Aids
- ▶ FAA Engineering Brief No.67
- ▶ CASA Part 139 (Aerodromes) Manual of Standards 2019

Applications

Precision Approach Path Indicator (PAPI)

* As applicable to the application, compliance with other civil aviation and military regulations confirmed on request

† Electrical/Mechanical/Environmental characteristics only

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LED Precision Approach Path Indicator PAPI



Electrical Performance

Main Beam Aperture		Colour	Typical Power Consumption - Watts (VA) @ 6.6A				
Horiz(°)	Vert(°)		Per Beam Watts nominal	Watts (VA)	Fitting* PF	Tx Primary** Watts (VA)	PF
0° to +10°	-4° to +4°	White/Red	56W	56 (56)	0.99	56 (56)	0.98

Transition: Better than 3 minutes of arc on beam axis

Fixture Operational Current Range: 2.8 to 6.7A RMS

* as measured at the input leads of the fixture.

** as measured across the primary winding of an appropriately sized isolation transformer with a total fixture and transformer secondary length not exceeding ~ 1.85m (72").

*** electrical characteristics measured with 45 watt transformer, fitting can operate from transformers up to 210 watts.

Note: Isolating transformer shall be suitably sized to accommodate specific secondary and other applicable losses.

Photometry

Specification

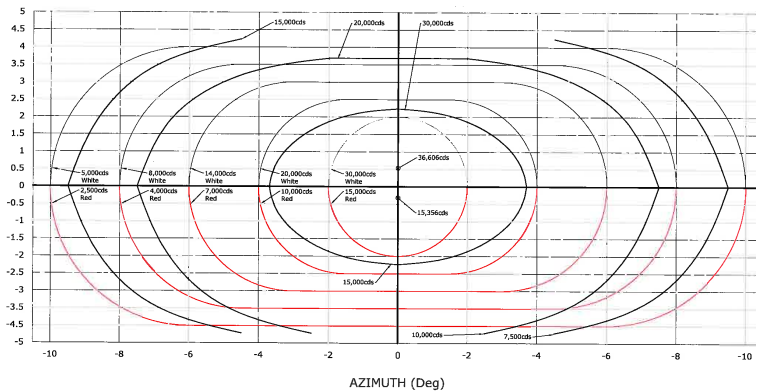
Precision Approach Path Indicator Fig A2-23 Annex 14

Colour	Red
Main lower circle minimum intensity	15,000 cds
Colour	White
Main upper circle intensity range	30,000 to 97,000 cds

Typical Measured Values

Colour	Red
Main lower circle minimum intensity	15,649 cds
Colour	White
Main upper circle intensity range	34,507 cds

Intensity Chart - :LED Precision Approach Path Indicator



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Features

The distinguishing feature of the PAPI unit is the modular design which facilitates maintenance by simple replacement of pre-aligned projectors and enables two or three units to be offered, using the same basic projector on different bases.

Pre-alignment of the optical components of a projector is facilitated by the use of an optical alignment bench. Routine checking of the elevation angles and levelling is by means of a precision clinometer provided with the equipment.

Low energy consumption compared with the tungsten halogen equivalent.

Greatly reduced maintenance: calculated MTBF of 75,000 hours at 6.6A.

Operates on the full range of 2.8A to 6.6A on either 3 or 5 step IGBT, ferroresonant or thyristor CCRs that are designed in compliance with IEC or FAA requirements.

Routine checking of the elevation angles and levelling is by means of a precision clinometer provided with the equipment.

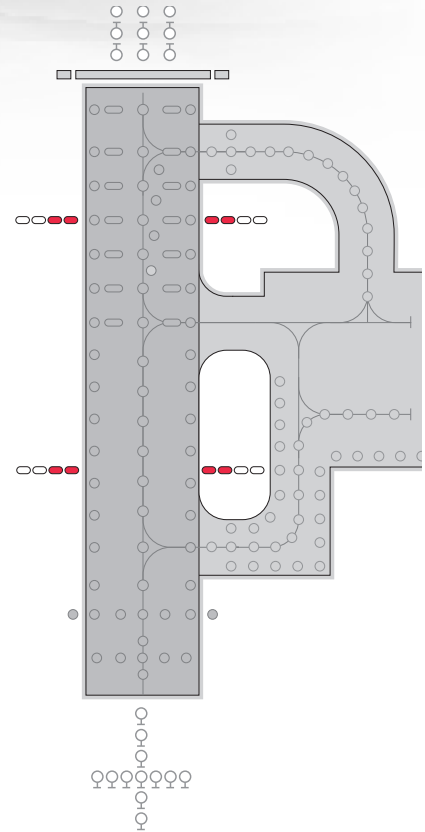
Full compatibility with existing airfield lighting series circuits. Installation on same mounting device as most conventional lights, for a straightforward replacement.

Monitoring function of the individual light arrays for open circuit, short circuit, and over temperature. The LED light automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.

Low operating temperature, ensuring longer component life.

L-823 connectors

Integral surge protection



Environmental Conditions

- ▶ Ambient Temperature -55 °C to +55°C (-67 °F to +131°F)
- ▶ Storage Temperature -55°C to +70°C (-67 °F to +158°F)
- ▶ Atmospheric Altitude up to 10,000 feet (3000m)
- ▶ Relative Humidity 0-100% (sealed unit)

Standards	
EMC protection	Immunity IEC 61000-4 Emission IEC 61000-2
Ingress protection class dust/liquids	IP65
Vibration resistance	IEC60068-2-6

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PAPI



Ordering Codes:



Application

Precision Approach Path Indicator

Beam Type

1 = 3 Channel Unit
2 = 2 Channel Unit

Specification

2 = ICAO
3 = MOS 139

Beam Options



RE880 three channel PAPI



RE880 two channel PAPI



RE880 single channel unit

Tungsten Halogen to LED upgrade

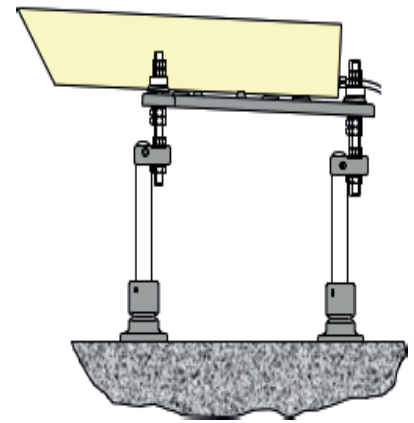
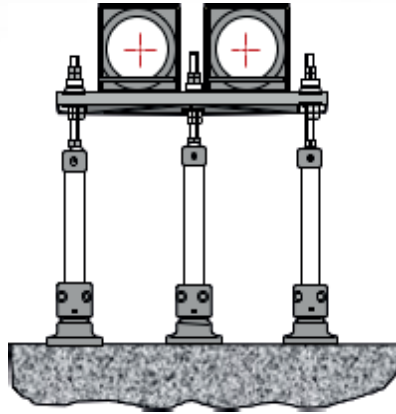
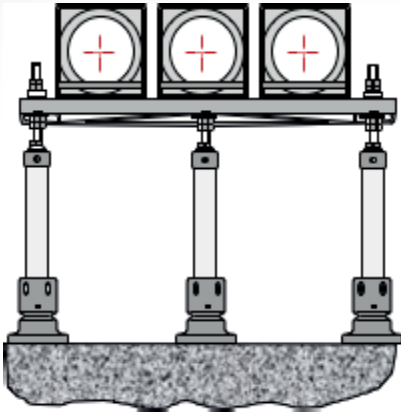
Single channel LED light projectors are interchangeable with the tungsten halogen light channels, and can be mounted on the same base frame. Subsequently existing units that are already installed can be upgraded to LED with ease and with a significantly reduced cost.

Contact atg airports for additional information

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PAPI

Dimensions



3 projector unit

640 x 770 x 165mm (approx, excluding pillars) - Weight 32kg

2 projector unit

450 x 770 x 165mm (approx, excluding pillars) - Weight 24kg

Packaging

► Dependant on requirement - contact atg airports for additional information



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