

# LED PAPI PRECISION APPROACH PATH INDICATOR L-880 (L), L-881 (L)

**LED TYPE**

**CCR POWERED**



**POWERED BY**



**CONSTANT CURRENT  
REGULATOR (CCR)**

					<p><b>Compliance:</b> ICAO Annex 14 Vol. I (8th. Edition, July 2018) EASA CS-ADR-DSN FAA 150/5345-28H TP312 (5th Edition, 2015) CASA Part 139 (Aerodromes) Manual of Standards 2019</p>
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## FEATURES

- NVG Compatible
- Replaceable Optic Elements
- Automatic Tilt Switch
- Frame Detachable PAPI Projector
- Visibility Range: more than 10 km

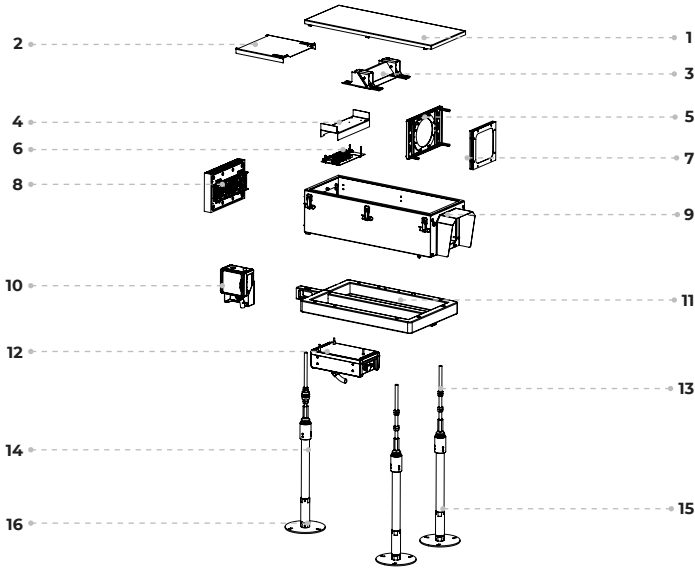
## APPLICATION

Precision Approach Path Indicator (PAPI) or  
Abbreviated Precision Approach Path Indicator (A-PAPI).

## TECHNICAL SPECIFICATIONS

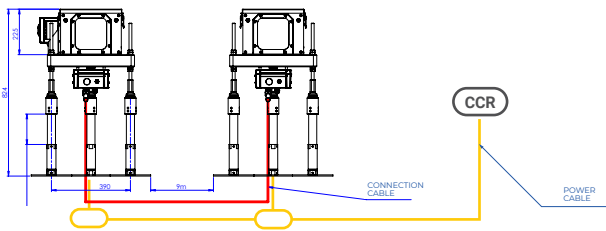
<p><b>Optics</b></p> <ul style="list-style-type: none"> <li>• One-projector PAPI unit (optional: double projector)</li> <li>• LED Type</li> <li>• NVG capable (optional)</li> <li>• Vertical adjustment 0-10</li> <li>• Transition: Better than 3 minutes of arc on beam axis</li> <li>• Maximum power consumption: 80W per unit</li> <li>• Adjustable intensity level in five steps</li> <li>• LED lifespan: 50.000 hrs</li> <li>• Azimuth range: +/- 8 (ICAO) or +/- 10 (FAA)</li> <li>• LED module replacement does not require re-alignment</li> <li>• PAPI projector is removable from the mounting frame</li> </ul>	<p><b>Monitoring</b></p> <ul style="list-style-type: none"> <li>• Proper operation of the system</li> <li>• Basic Fault Detection (via power line)</li> <li>• Advanced Fault detection (via separate communication cable, ie Modbus)</li> </ul>								
<p><b>Power Supply</b></p> <ul style="list-style-type: none"> <li>• Constant current (2.8 - 6.6 A)</li> </ul>	<p><b>Casing &amp; Components</b></p> <ul style="list-style-type: none"> <li>• Cabinet and body material: stainless steel</li> <li>• Base frame: stainless steel, breakable coupling: aluminum</li> <li>• Set of 3 anchor bolts for PAPI: stainless steel</li> <li>• Lens heater (optional)</li> <li>• PCU included</li> <li>• Dimensions (LxW): 1055 x 980 mm</li> <li>• Height: 680 - 1000 mm (adjustable)</li> <li>• Weight: 47 kg</li> </ul>								
<p><b>Power Control Unit</b></p> <ul style="list-style-type: none"> <li>• Single Power Supply (Single Circuit)</li> <li>• Double Power Supply (Dual Circuit) (optional)</li> </ul>	<p><b>Compliance</b></p> <table border="1"> <tr> <td data-bbox="805 1480 1054 1697"> <p>Photometric</p> </td> <td data-bbox="1054 1480 1509 1697"> <p>ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, Figure A2-23 EASA CS ADR-DSN, Figure U-26 FAA AC 150/5345-28H, Figure 3-1 TP312, 5th Edition dated 2015, clause 5.2.16.12, Figure B-19 CASA Part 139 (Aerodromes) Manual of Standards 2019</p> </td> </tr> <tr> <td data-bbox="805 1697 1054 1877"> <p>Chromaticity</p> </td> <td data-bbox="1054 1697 1509 1877"> <p>ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.5.30, Figure A1-1b EASA CS ADR-DSN.M.645.c.2.i, Figure U-1B FAA AC 150/5345-28H, clauses 3.2.1 &amp; 4.9.1 TP312, 5th Edition dated 2015, clause 5.3.16.13</p> </td> </tr> <tr> <td data-bbox="805 1877 1054 1910"> <p>Multi-lamp PAPI projector</p> </td> <td data-bbox="1054 1877 1509 1910"> <p>EASA CS ADR-DSN.M.645</p> </td> </tr> <tr> <td data-bbox="805 1910 1054 2018"> <p>Infrared</p> </td> <td data-bbox="1054 1910 1509 2018"> <p>FAA «Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (NVGs)» Engineering Brief No. 98, dated December 2017, clause 8.3</p> </td> </tr> </table>	<p>Photometric</p>	<p>ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, Figure A2-23 EASA CS ADR-DSN, Figure U-26 FAA AC 150/5345-28H, Figure 3-1 TP312, 5th Edition dated 2015, clause 5.2.16.12, Figure B-19 CASA Part 139 (Aerodromes) Manual of Standards 2019</p>	<p>Chromaticity</p>	<p>ICAO, Annex 14th, Volume I, 8th Edition dated July 2018, clause 5.3.5.30, Figure A1-1b EASA CS ADR-DSN.M.645.c.2.i, Figure U-1B FAA AC 150/5345-28H, clauses 3.2.1 &amp; 4.9.1 TP312, 5th Edition dated 2015, clause 5.3.16.13</p>	<p>Multi-lamp PAPI projector</p>	<p>EASA CS ADR-DSN.M.645</p>	<p>Infrared</p>	<p>FAA «Infrared Specifications for Aviation Obstruction Light Compatibility with Night Vision Goggles (NVGs)» Engineering Brief No. 98, dated December 2017, clause 8.3</p>
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<p><b>Manual Control (Via Board Control Box)</b></p> <ul style="list-style-type: none"> <li>• Switch to visible or infrared operation</li> <li>• Tilt sensor activation and deactivation</li> <li>• Lens heater activation and deactivation</li> </ul>	<p><b>Accredited Laboratory Testing</b></p> <table border="1"> <tr> <td data-bbox="805 2018 1054 2087"> <p>Photometric &amp; Chromaticity</p> </td> <td data-bbox="1054 2018 1509 2087"> <p>TÜV Rheinland</p> </td> </tr> </table>	<p>Photometric &amp; Chromaticity</p>	<p>TÜV Rheinland</p>						
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<p><b>Environmental Conditions</b></p> <ul style="list-style-type: none"> <li>• Temperature range: -35 to 55°C (-31 to 131 °F)</li> <li>• Optional: -55 to 55°C (-67 to 131 °F)</li> <li>• Ingress protection: IP-65</li> <li>• Resistant to accumulation of rain and snow on lens surface</li> <li>• Internal temperature, external temperature and humidity sensors</li> </ul>									
<p><b>Safety &amp; Reliability</b></p> <ul style="list-style-type: none"> <li>• Critical fault = Open Circuit Condition - «Burn Bulb»</li> <li>• 4x types of critical fault detection</li> <li>• 16x types of fault detection</li> <li>• Tilt-fail detection</li> <li>• Individual PCU per PAPI unit (optionally equipped with double power supply)</li> </ul>									

**PARTS DESCRIPTION**



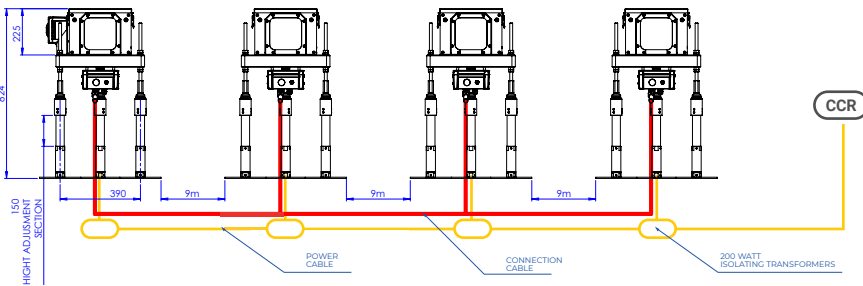
1.	Top cover
2.	Divider metal sheet
3.	Metal holder for divider glass
4.	Circuit board cover
5.	Glass lens
6.	Circuit board
7.	Front glass
8.	LED panel with radiator
9.	Projector body
10.	Control panel
11.	Base frame
12.	Power Supply Unit
13.	Stainless steel mandrel
14.	Aluminium leg
15.	Frangible coupling
16.	Round Baseplate

**A-PAPI SYSTEM CONFIGURATION**



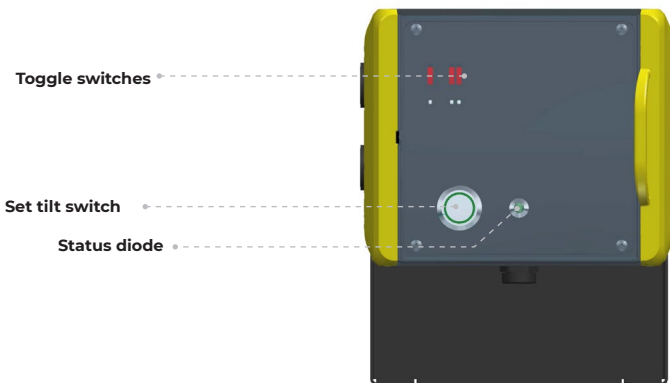
Items included in A-PAPI System	
•	2x LED PAPI projectors
•	1x Manual control box
•	2x Power Control Units (PCU)
•	1x Signal cable
•	2x Mounting frames
•	6x Adjustable mounting legs
•	6x Frangible connectors
•	6x Mounting bases

**PAPI SYSTEM CONFIGURATION**



Items included in PAPI System	
•	4x LED PAPI projectors
•	1x Manual control box
•	4x Power Control Units (PCU)
•	3x Signal Cables
•	4x Mounting frames
•	12x Adjustable mounting legs
•	12x frangible connectors
•	12x Mounting bases

**MANUAL CONTROL BOX DESCRIPTION**



**Night Vision Mode**

Light is visible only through NVG (Night Vision Goggles)



**Tilt Sensor**

TILT mode alerts the user about the tilt angle of the PAPI unit changes and deactivates the system in case of excessive tilt change



**Lens Heater**

Lens heater prevents PAPI projector from condensation and accumulation of ice and snow

ORDERING CODES

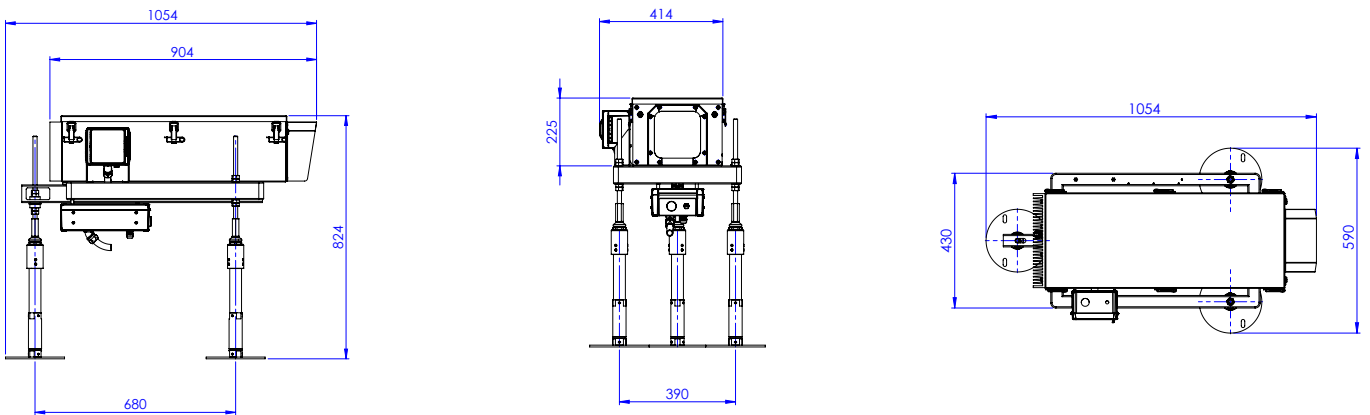
S4GA PAPI 6.6A X - X - X - X - XXX

Projector	1 - One projector (default) 2 - Double projector
Photometrical Compliance	2 - L-881(L) / Abbreviated PAPI (2x Lighthouse Assemblies) 4 - L-880(L) / PAPI (4x Lighthouse Assemblies)
Power Supply	1 - Single Power Supply (default) 2 - Dual Power Supply
Color	1 - ICAO Yellow (default) 2 - FAA Orange 3 - Desert Sand 4 - NATO Green

ADDITIONAL FUNCTIONS

Heated Lens	0 - No (default) 1 - Yes
Infrared	0 - No (default) 1 - Yes
Tilt Switch	0 - No (default) 1 - Yes
Fault Detection	0 - No (default) 1 - Yes

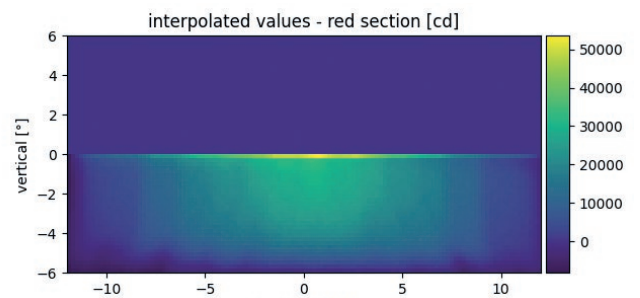
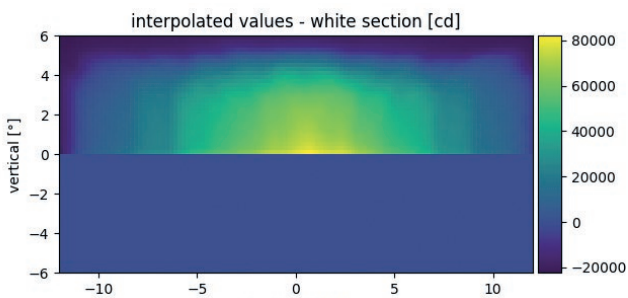
TECHNICAL DRAWING



PHOTOMETRIC PERFORMANCE

Measured values - white section

Measured values - red section



SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
LED PAPI (1x LHA)	1070 mm x 980 mm x 500 mm	58 kg