



## FEC HELIPORTS & HELIPORT EQUIPMENT

Designed, Manufactured and Installed...we do it all.

# 120v to 277v NVG Compatible Ground Mounted Perimeter Light

This newly redesigned Ground perimeter light is the latest addition to the FEC Heliports line of high quality LED lights. Perimeter and Obstruction lights are one of the most important safety features on your heliport. They are used to mark and illuminate the FATO, TLOF, and Obstructions as well as to help the pilot locate the pad and safely land during night operations and inclement weather conditions.

### Technical Details

**Operating voltage:** 120V to 277V, 50/60Hz

**Maximum Power Consumption:** 6 watts, .2 amps @ 120V  
6 watts, .1 amps @ 277V  
350mA constant current supply

**Operating temperature:** - 13F to 122F  
- 25C to +50C

**Operating LED Lifespan:** Rated at 50,000+ hours

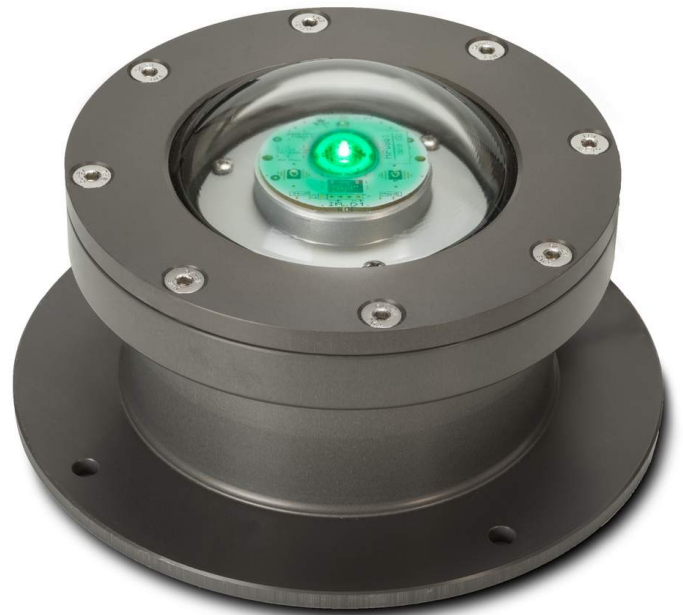
**Light Source:** Omni-directional LED Lamp  
1x Osram OSOLON SSL 150 LED w/ Custom Optic  
3 IR LEDs (IR LEDs 850nm)  
2"(50mm) diameter aluminum circuit  
RoHS and 94VO compliant

### Standard Part Numbers:

HP1790G True Green (528nm)  
HP1705G Blue (470nm)  
HP1704G White 6000K  
HP1707G Yellow/Amber (590nm)  
HP1782G Red

### Key Features:

- Mil-spec anodized cast aluminum body suitable for the harshest environments
- Pre-wired for quick and easy installations
- Standard color in Anodized Grey
- Blue, Red, and Gold are special order





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## Physical Characteristics

### Light Fixture:

#### Dimensions:

**Height** 4-1/4 inches(107.95mm)

**Lid Diameter** 6-1/2 inches(165.1mm)

#### Materials:

**Lens** Tempered Glass

**Casting** 356 T6 Aluminum Alloy

**Notes:** All machining on the Aluminum casting is done in house by FEC Heliports

### Mounting Flange:

#### Dimensions:

**Height** 1/4 inch(6.35mm)

**Outside Diameter** 8 inches(203.2mm)

**Bolt Hole Diameter** 7-1/16 inches(177.8mm)

#### Materials:

**Casting** 356 T6 Aluminum Alloy

**Notes:** All machining on the Aluminum casting is done in house by FEC Heliports

**Light:** 6lbs.

## Standards & Certification:

### INTERTEK:

- Test Verification of Conformity U.S. Department of Transportation, Federal Aviation Administration, Memorandum, Heliport Perimeter Light for Visual Meteorological Conditions. Engineering Brief No. 87.

- International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 2, Fourth Edition, dated July 2013

- International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 1, Seventh Edition, dated July 2016

CAP 437 design criteria



## Photometric:

### Standards

U.S. Department of Transportation, Federal Aviation Administration, Memorandum, Heliport Perimeter Light for Visual Meteorological Conditions. Engineering Brief No. 87

Parameter	Requirement	Measured	Result
Min. Peak Intensity	5 cd from 16° - 90°	12.6 cd	Pass
Min. Peak Intensity	10 cd from 0° - 15°	23.3 cd	Pass
Min. Avg Intensity	15 cd from 0° - 15°	46.7 cd	Pass

cd = Candela

### Standards

International Civil Aviation Organization (ICAO):  
Aerodromes, Annex 14, Volume 2, Fourth Edition, dated July 2013  
Aerodromes, Annex 14, Volume 1, Seventh Edition, dated July 2016

Parameter	Requirement	Measured	Result
Min. Peak Intensity	3 cd from 21° - 90°	12.6 cd	Pass
Min. Peak Intensity	8 cd from 13° - 20°	36.1 cd	Pass
Min. Peak Intensity	15 cd from 11° - 13°	51.5 cd	Pass
Min. Peak Intensity	30 cd from 6° - 10°	41.7 cd	Pass
Min. Peak Intensity	15 cd from 2° - 5°	30.9 cd	Pass

Test Purpose - Performance Testing (Photometry and Chromaticity)

Test Dates - December 11, 2018



## FEC HELIPORTS & HELIPORT EQUIPMENT

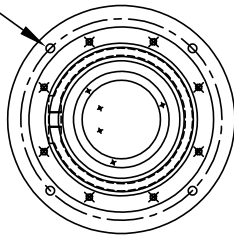
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### General Mounting Detail

#### NOTES:

- 1) (3) 16 GAUGE WIRES  
(1) BLACK – PHASE  
(1) WHITE – NEUTRAL  
(1) GREEN – GROUND
- 2) PASS THROUGH CONNECTOR, 1/2" NPT LOCATED ON SIDE OF GROUND STYLE

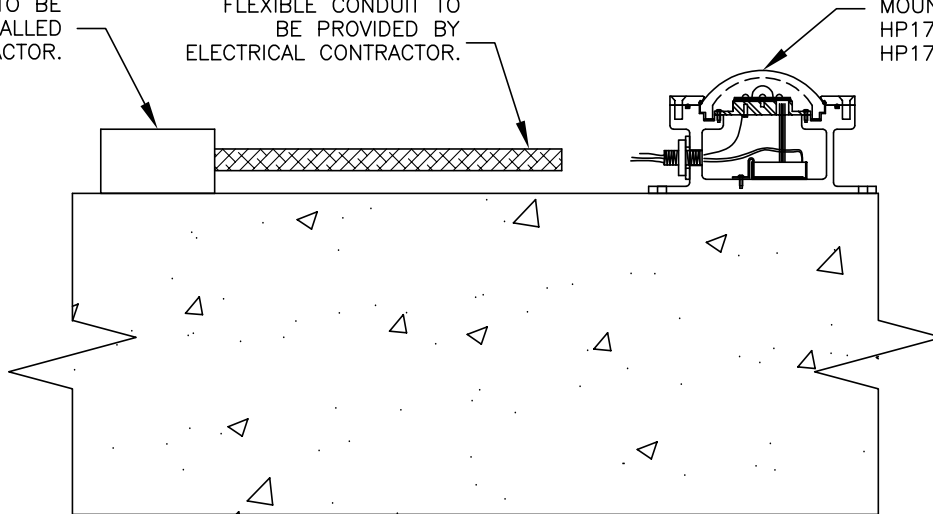
5/16" (7.9375mm) DIA. HOLE  
ON A 7/16" (179.3875mm) B.C.,  
(4) PLACES AS SHOWN



JUNCTION BOX TO BE  
PROVIDED AND INSTALLED  
BY ELECTRICAL CONTRACTOR.

FLEXIBLE CONDUIT TO  
BE PROVIDED BY  
ELECTRICAL CONTRACTOR.

TYPICAL LIGHT SURFACE  
MOUNTED, HP1704G, HP1705G,  
HP1707G, HP1782G, AND  
HP1790G



MOUNTING SURFACE CAN  
BE STEEL, CONCRETE,  
CONCRETE PAVER BLOCK,  
SAFETY NETTING OR  
OTHERS



# FEC HELIPORTS & HELIPORT EQUIPMENT

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## Ground Mount LED Replacement Kit

This replacement kit consists of the LED light board mounted on a heat sink and prewired to the LED driver.

- HP1760G replaces HP1790G (Green)
- HP1761G replaces HP1704G (White)
- HP1762G replaces HP1782G (Red)
- HP1763G replaces HP1705G (Blue)
- HP1764G replaces HP1707G (Amber)

Heat Sink Dimensions:

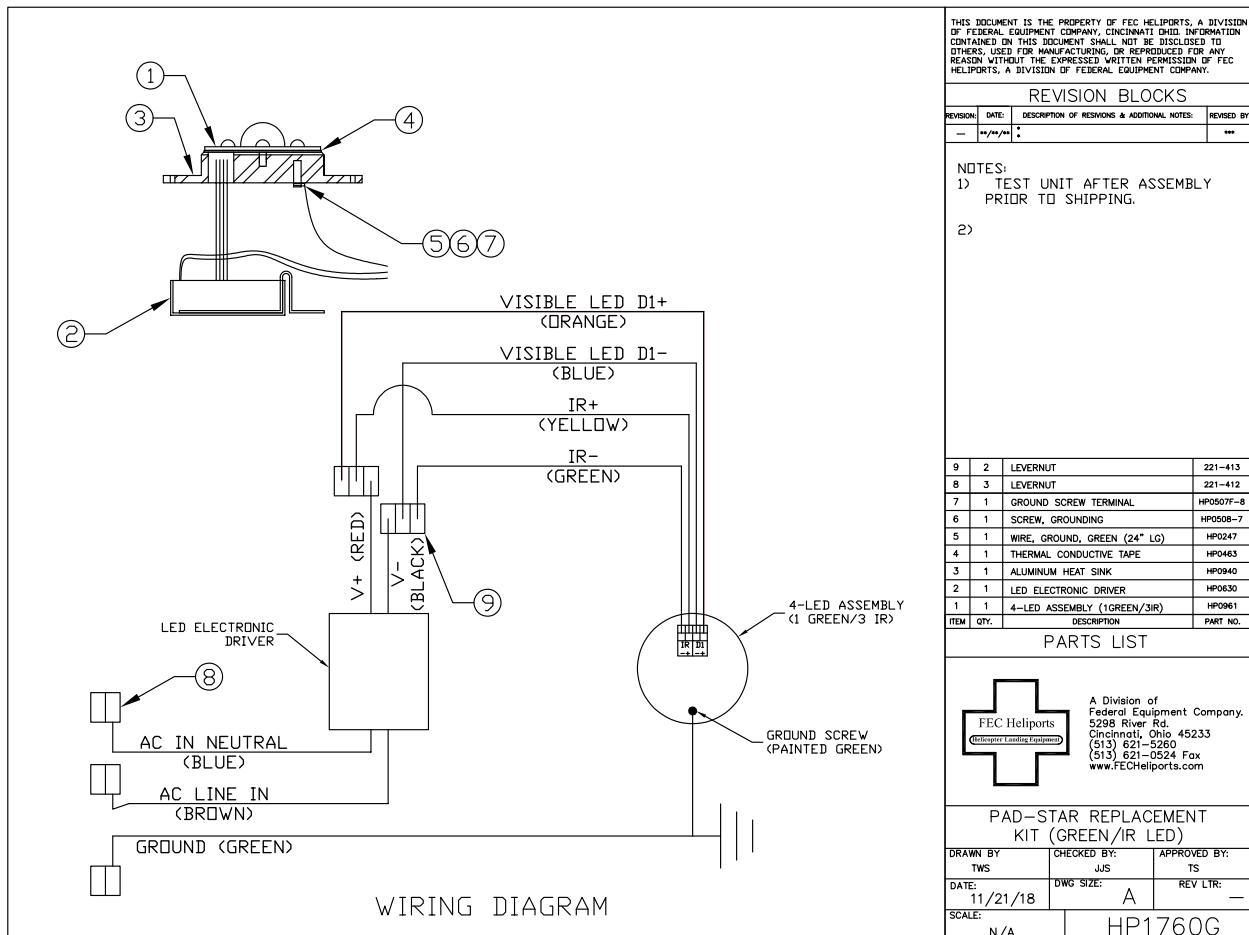
Height .519" [13.18mm]  
O.D. 3.375" [85.73mm]

Materials:

LED Board  
Alum. Heat Sink  
LED Driver

Part #

HP0961, HP0962, HP0963, HP0964, HP0965  
HP0940  
HP0630



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### REVISION BLOCKS

REVISION	DATE	DESCRIPTION OF REVISIONS & ADDITIONAL NOTES	REVISED BY
—	—	—	—

- NOTES:  
1) TEST UNIT AFTER ASSEMBLY PRIOR TO SHIPPING.  
2)

ITEM	QTY.	DESCRIPTION	PART NO.
9	2	LEVERNUT	221-413
8	3	LEVERNUT	221-412
7	1	GROUND SCREW TERMINAL	HP0507F-8
6	1	SCREW, GROUNDING	HP0508-7
5	1	WIRE, GROUND, GREEN (24" LG)	HP0247
4	1	THERMAL CONDUCTIVE TAPE	HP0463
3	1	ALUMINUM HEAT SINK	HP0940
2	1	LED ELECTRONIC DRIVER	HP0630
1	1	4-LED ASSEMBLY (1GREEN/3IR)	HP0961

### PARTS LIST



A Division of  
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### PAD-STAR REPLACEMENT KIT (GREEN/IR LED)

DRAWN BY: TWS	CHECKED BY: JJS	APPROVED BY: TS
DATE: 11/21/18	DWG SIZE: A	REV LTR: —
SCALE: N/A	HP1760G	

Diagram above is an example of the HP1760G Replacement Kit