

## Petrolux® LED

Hazardous Locations



### Description

For hazardous locations where dust, dirt and moisture are a concern.

### Optics

- Prismatic borosilicate glass directs light where needed and reduces harsh glare.
- Polycarbonate lens available for those applications requiring non-glass options.
- Three distributions (Type 5 low angle, Type 5 high angle, and Type 1 long and narrow) available to maximize versatility.
- Highly engineered LED system ensures superior uniformity and maximizes spacing.
- Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. [Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.](#)

### Electrical

- Luminaire Surge Protection Level: Designed to withstand up to 10kV/5kA per ANSI C82.77-5-2015.
- 0-10V dimming driver is standard. Dims to 10%.
- 70CRI (nominal) is standard.
- 4000 K or 5000 K CCT available.
- Fault-tolerant LED light engine continues to provide light even in the failure of one LED.

### Mechanical

- Robust cast aluminum housing with low copper content (0.6% CU content) withstands harsh or hostile environments.
- Universal mount (UNM) for ceiling/pendant or Universal mount (UNST) for wall/stanchion mountings available.
- Precise number of fins dissipate maximum amount of heat

### Listings

- UL Listed to US and Canadian Standards
- Suitable for use in hazardous locations (UL844)  
Class I, Division 2, Groups A, B, C, D  
Class II, Division 1, Groups E, F, and G  
Class III  
Simultaneous presence (Class I Division 2, Class II Division 1)
- Zone Equivalency Markings (See chart on page 5)
- -40°F (-40°C) to 131°F (55°C) (see chart on page 4)
- IP66 rated
- NEMA 4X rated

### Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

### Typical Applications

- Petroleum refineries
- Ethanol facilities
- Chemical plants
- Power plants
- Textile mills
- Water and wastewater treatment facilities
- Parking garages
- Tunnels

### Dimensions: Inches (millimeters) unless otherwise noted.

Diameter: 14.76 (375)  
Depth: 13.57 (345)  
Weight: 38-45 lbs. (17-20 kg)  
EPA: 1.21 sq.ft. 45lbs.

## ORDERING INFORMATION

**Example:** HPLED 70LED LNDP MVOLT 40K UNM 700MA 45C DGXD

| Series | Number of LEDs | Distribution                  | Voltage                                | Color temperature                              |
|--------|----------------|-------------------------------|----------------------------------------|------------------------------------------------|
| HPLED  | 42LED 42 LEDs  | LND Long and Narrow, Glass ‡  | LNDP Long and Narrow, Polycarbonate    | 40K 4000K CCT +/- 250<br>50K 5000K CCT +/- 250 |
|        | 56LED 56 LEDs  | L5 Type 5, low angle, Glass   | L5P Type 5, low angle, Polycarbonate   |                                                |
|        | 70LED 70 LEDs  | L5H Type 5, high angle, Glass | L5HP Type 5, high angle, Polycarbonate |                                                |
|        | 84LED 84 LEDs  |                               |                                        |                                                |
|        |                |                               | MVOLT Auto Sensing (120-277V, 50/60Hz) |                                                |
|        |                |                               | 120 120V, 50/60Hz                      |                                                |
|        |                |                               | 208 208V, 50/60Hz                      |                                                |
|        |                |                               | 240 240V, 50/60Hz                      |                                                |
|        |                |                               | 277 277V, 50/60Hz                      |                                                |
|        |                |                               | HVOLT Auto Sensing (347-480V, 50/60Hz) |                                                |
|        |                |                               | 347 347V, 50/60Hz                      |                                                |
|        |                |                               | 480 480V, 50/60Hz                      |                                                |

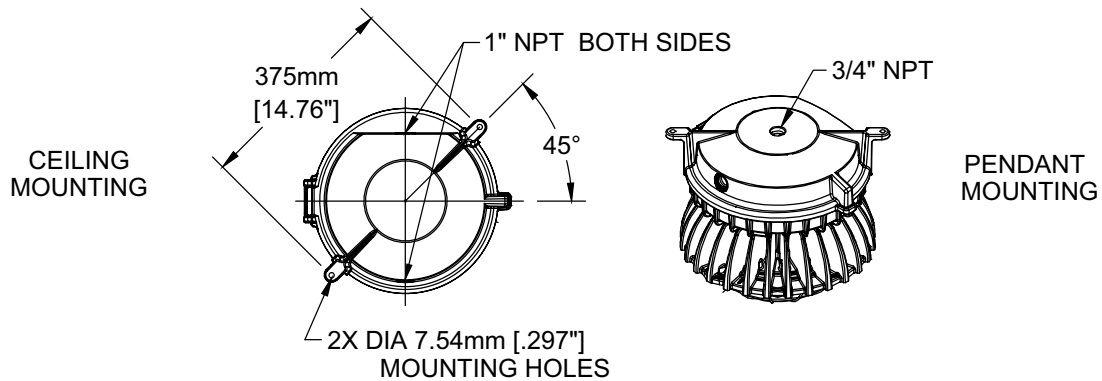
| Mounting                              | Drive Current        | Maximum ambient ‡                             | Options                                | Finish    |
|---------------------------------------|----------------------|-----------------------------------------------|----------------------------------------|-----------|
| UNM Universal (Ceiling and Pendant) ‡ | 350MA 350mA driver ‡ | 35C Maximum 35C operating ambient temperature | EMD Ingress/Egress Marker Decal        | DGXD Gray |
| UNST Universal (Wall and Stanchion) ‡ | 530MA 530mA driver ‡ | 40C Maximum 40C operating ambient temperature | SF Single Fusing ‡                     |           |
|                                       | 700MA 700mA driver   | 45C Maximum 45C operating ambient temperature | DF Double Fusing ‡                     |           |
|                                       |                      | 55C Maximum 55C operating ambient temperature | WGX Factory Installed Wire Guard       |           |
|                                       |                      |                                               | UPS Factory Installed Uplight Shield ‡ |           |

NOTE: ‡ indicates option chosen has ordering restrictions. Please reference ordering restrictions chart. Options are sorted alphanumerically.

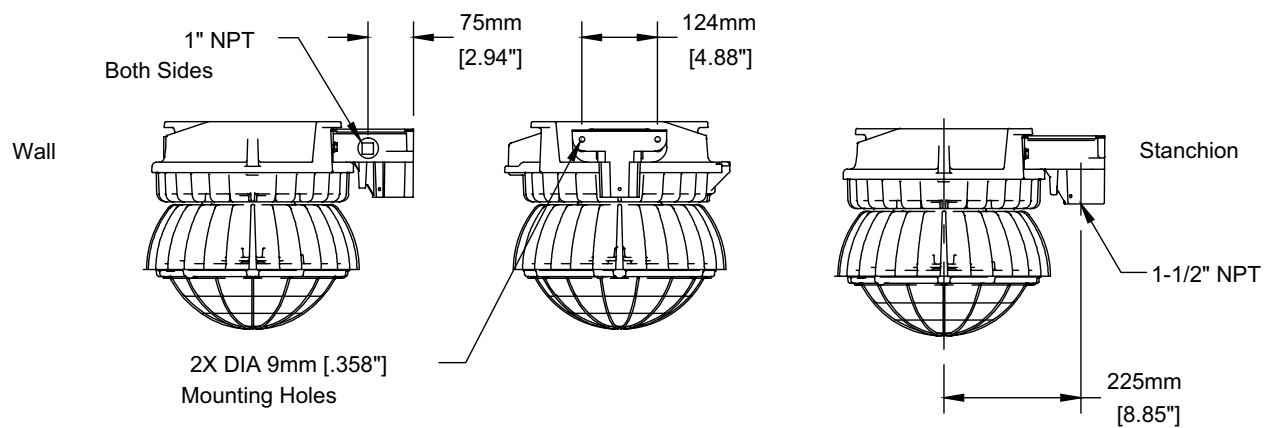
| Accessories: Order as separate catalog number. |                                                       |
|------------------------------------------------|-------------------------------------------------------|
| HSCCKX                                         | X Inch Safety Chain Kit ‡                             |
| PLEDGD                                         | Wire Guard                                            |
| PLEDUPS DGXD                                   | Uplight Shield Gray Finish ‡                          |
| MI3688 THREAD SEAL                             | Thread lubricant (1 tube is enough for 20 luminaires) |

| ‡ Option Value Ordering Restrictions & Notes |                                                                                                                          |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Option value                                 | Restriction                                                                                                              |
| 350MA, 530MA                                 | Available with 42LED option only.                                                                                        |
| DF                                           | Must specify voltage. 208, 240 or 480 only.                                                                              |
| HSCCKX                                       | X denotes length. Available in multiple sizes. Replace X with size in inches. Example: HSCCK120 = 120 inches or 10 feet. |
| LND                                          | Available with 42LED, 56LED and 70LED options only.                                                                      |
| Maximum Ambient                              | See chart on page 4.                                                                                                     |
| SF                                           | Must specify voltage. 120, 277, or 347 only.                                                                             |
| UNM                                          | P3US arm is not certified for field installation with UNM mounting. Ceiling or pendant mounting only.                    |
| UNST                                         | P3US arm is factory installed. Wall or stanchion mounting only.                                                          |
| UPS, PLEDUPS DGXD                            | Available with L5 or L5P distribution only.                                                                              |

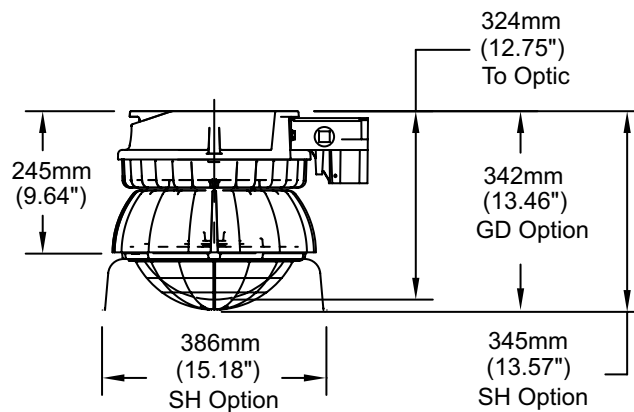
**DIMENSIONAL DATA**



**UNM Universal (ceiling & pendant)**



**UNST Universal (wall & stanchion)**  
(includes P3US arm, cannot be field installed)



**Uplight Shield (UPS) & Optic Guard (WGX) Options**

**OPERATIONAL DATA**
**Operating Characteristics**

| Package           | Ambient Rating<br>(120V - 277V)   | Ambient Rating<br>(347V / 480V)   | Distribution | Delivered Lumens<br>5000K CCT @ 25°C <sup>1</sup> | Delivered Lumens<br>4000K CCT @ 25°C <sup>1</sup> | Wattage | LPW @<br>5000K |
|-------------------|-----------------------------------|-----------------------------------|--------------|---------------------------------------------------|---------------------------------------------------|---------|----------------|
| HPLED 42LED 350MA | -40°F to 131°F<br>(-40°C to 55°C) | -40°F to 104°F<br>(-40°C to 40°C) | L5           | 6,189                                             | 6,150                                             | 50      | 124            |
|                   |                                   |                                   | L5H          | 5,234                                             | 5,201                                             | 50      | 105            |
|                   |                                   |                                   | LDN          | 5,066                                             | 5,035                                             | 50      | 101            |
|                   |                                   |                                   | L5P          | 4,493                                             | 4,493                                             | 50      | 90             |
|                   |                                   |                                   | L5HP         | 3,852                                             | 3,852                                             | 50      | 77             |
|                   |                                   |                                   | LNDP         | 3,772                                             | 3,772                                             | 50      | 75             |
| HPLED 42LED 530MA | -40°F to 131°F<br>(-40°C to 55°C) | -40°F to 104°F<br>(-40°C to 40°C) | L5           | 8,927                                             | 8,872                                             | 74      | 121            |
|                   |                                   |                                   | L5H          | 7,550                                             | 7,503                                             | 74      | 102            |
|                   |                                   |                                   | LDN          | 7,308                                             | 7,263                                             | 74      | 99             |
|                   |                                   |                                   | L5P          | 6,522                                             | 6,481                                             | 74      | 88             |
|                   |                                   |                                   | L5HP         | 5,592                                             | 5,557                                             | 74      | 75             |
|                   |                                   |                                   | LNDP         | 5,476                                             | 5,442                                             | 74      | 74             |
| HPLED 42LED 700MA | -40°F to 131°F<br>(-40°C to 55°C) | -40°F to 104°F<br>(-40°C to 40°C) | L5           | 11,315                                            | 11,245                                            | 98      | 115            |
|                   |                                   |                                   | L5H          | 9,569                                             | 9,510                                             | 98      | 97             |
|                   |                                   |                                   | LDN          | 9,263                                             | 9,205                                             | 98      | 94             |
|                   |                                   |                                   | L5P          | 8,266                                             | N/A                                               | 98      | 84             |
|                   |                                   |                                   | L5HP         | 7,087                                             | N/A                                               | 98      | 72             |
|                   |                                   |                                   | LNDP         | 6,940                                             | N/A                                               | 98      | 71             |
| HPLED 56LED 700MA | -40°F to 122°F<br>(-40°C to 45°C) | -40°F to 95°F<br>(-40°C to 35°C)  | L5           | 14,822                                            | 14,790                                            | 129     | 115            |
|                   |                                   |                                   | L5H          | 12,586                                            | 12,508                                            | 129     | 97             |
|                   |                                   |                                   | LDN          | 12,183                                            | 12,107                                            | 129     | 94             |
|                   |                                   |                                   | L5P          | 10,872                                            | 10,804                                            | 129     | 84             |
|                   |                                   |                                   | L5HP         | 9,321                                             | 9,263                                             | 129     | 72             |
|                   |                                   |                                   | LNDP         | 9,128                                             | 9,071                                             | 129     | 71             |
| HPLED 70LED 700MA | -40°F to 113°F<br>(-40°C to 45°C) | -40°F to 95°F<br>(-40°C to 35°C)  | L5           | 18,309                                            | 18,195                                            | 165     | 111            |
|                   |                                   |                                   | L5H          | 15,484                                            | 15,837                                            | 165     | 94             |
|                   |                                   |                                   | LDN          | 14,988                                            | 14,895                                            | 165     | 91             |
|                   |                                   |                                   | L5P          | 13,375                                            | 13,292                                            | 165     | 81             |
|                   |                                   |                                   | L5HP         | 11,468                                            | 11,396                                            | 165     | 69             |
|                   |                                   |                                   | LNDP         | 11,230                                            | 11,160                                            | 165     | 68             |
| HPLED 84LED 700MA | -40°F to 104°F<br>(-40°C to 40°C) | -40°F to 86°F<br>(-40°C to 35°C)  | L5           | 21,575                                            | 21,441                                            | 195     | 110            |
|                   |                                   |                                   | L5H          | 18,246                                            | 18,133                                            | 195     | 93             |
|                   |                                   |                                   | L5P          | 13,375                                            | 15,663                                            | 195     | 68             |
|                   |                                   |                                   | L5HP         | 11,468                                            | 13,429                                            | 195     | 69             |

**Projected Lumen Maintenance (TM-21)<sup>2</sup>**

| Package <sup>3</sup> | 0 Hours | 15,000<br>Hours | 30,000<br>Hours | 45,000<br>Hours | 60,000<br>Hours | 100,000<br>Hours |
|----------------------|---------|-----------------|-----------------|-----------------|-----------------|------------------|
| HPLED 42LED 350MA    | 1.0     | 0.96            | 0.94            | 0.93            | 0.91            | 0.88             |
| HPLED 42LED 530MA    | 1.0     | 0.96            | 0.94            | 0.93            | 0.91            | 0.88             |
| HPLED 42LED 700MA    | 1.0     | 0.96            | 0.94            | 0.93            | 0.91            | 0.88             |
| HPLED 56LED 700MA    | 1.0     | 0.95            | 0.93            | 0.91            | 0.90            | 0.85             |
| HPLED 70LED 700MA    | 1.0     | 0.95            | 0.93            | 0.91            | 0.90            | 0.85             |
| HPLED 84LED 700MA    | 1.0     | 0.95            | 0.93            | 0.91            | 0.90            | 0.85             |

**Notes**

- 1 Absolute photometry calculated in accordance with IESNA LM-79-08
- 2 Calculated using data collected according to LM-80 and represents lumen maintenance of the LED package.
- 3 Project lumen maintenance factors at max. ambient temperature per lumen package.

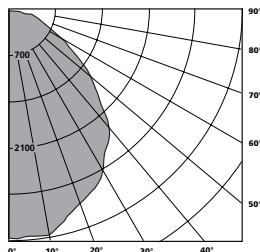
## Operating Temperature Codes for Hazardous Locations:

| Package           | Voltage Range      | Max Ambient Rating | Class I<br>Division 2,<br>Groups A, B, C, D | Class II,<br>Division 1,<br>Groups E, F, G | Class III | Simultaneous Presence:<br>Class I Division 2 &<br>Class II Division I |
|-------------------|--------------------|--------------------|---------------------------------------------|--------------------------------------------|-----------|-----------------------------------------------------------------------|
| HPLED 42LED 350MA | 120-277<br>347-480 | 55°C<br>40°C       | T4<br>T4A                                   | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |
| HPLED 42LED 530MA | 120-277<br>347-480 | 55°C<br>40°C       | T4<br>T4A                                   | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |
| HPLED 42LED 700MA | 120-277<br>347-480 | 55°C<br>40°C       | T4<br>T4A                                   | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |
| HPLED 56LED 700MA | 120-277<br>347-480 | 45°C<br>35°C       | T4<br>T4                                    | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |
| HPLED 70LED 700MA | 120-277<br>347-480 | 45°C<br>35°C       | T4<br>T4                                    | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |
| HPLED 84LED 700MA | 120-277<br>347-480 | 40°C<br>35°C       | T4<br>T4                                    | T5<br>T5                                   | T5<br>T5  | T3C<br>T3C                                                            |

## DISTRIBUTION DATA

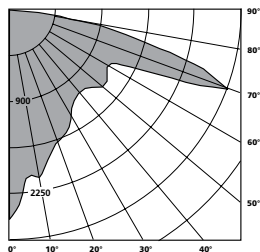
### L5/L5P

Petrolux LED Type 5 Low Angle



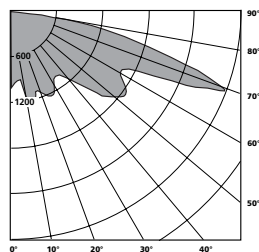
### L5H/L5HP

Petrolux LED Type 5 High Angle



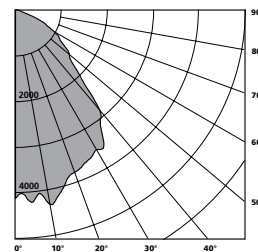
### LND/LNDP

Petrolux LED Type 1



### UPS

Petrolux LED Type 5-0% Uplight



## Zone Equivalency Markings

| NEC Protections                        |                                     |                                                   |                                         |
|----------------------------------------|-------------------------------------|---------------------------------------------------|-----------------------------------------|
| Area                                   | Protection Techniques               | Zone Equivalency Markings                         |                                         |
| Class I                                |                                     |                                                   |                                         |
| Division 2                             | Hermetically-sealed                 | CLASS I, DIV 2, GROUP D                           | CLASS I, ZONE 2 GROUP IIA               |
|                                        | Nonincendive                        | CLASS I, DIV 2, GROUP C                           | CLASS I, ZONE 2 GROUP IIB               |
|                                        | Non-sparking                        | CLASS I, DIV 2, GROUP B                           | CLASS I, ZONE 1 GROUP IIB PLUS HYDROGEN |
|                                        | Purged/Pressurized (Type Z)         | CLASS I, DIV 2, GROUP A & CLASS I, DIV 2, GROUP B | CLASS I, ZONE 2 GROUP IIC               |
|                                        | Any Class I, Division 1 technique   |                                                   |                                         |
| Any Class I, Zone 0, 1, or 2 technique |                                     |                                                   |                                         |
| Class II                               |                                     |                                                   |                                         |
| Division 1                             | Intrinsic Safety                    | CLASS II, DIV. 1, GROUP E, F, OR G                | CLASS II ZONE 20 AND ZONE 21            |
|                                        | Dust-ignitionproof                  |                                                   |                                         |
|                                        | Pressurized                         |                                                   |                                         |
| Class III                              |                                     |                                                   |                                         |
| Division 1                             | Intrinsic Safety                    | N/A                                               | N/A                                     |
|                                        | Dusttight                           |                                                   |                                         |
|                                        | Hermetically-sealed                 |                                                   |                                         |
| Division 2                             | Nonincendive                        | N/A                                               | N/A                                     |
|                                        | Any Class III, Division 1 technique |                                                   |                                         |

## Number of LED Boards and Drivers Used

| Lumen Package | Number of LED boards per fixture | Number of drivers per fixture |
|---------------|----------------------------------|-------------------------------|
| 42LED         | 2                                | 1                             |
| 56LED         | 2                                | 1                             |
| 70LED         | 2                                | 2                             |
| 84LED         | 2                                | 2                             |