

## PROCESS TECHNOLOGY

## HYL 80 SERIES LED PROCESS LIGHTING SYSTEMS



### HOW IT WORKS

The HYL 80 LED lights are designed to illuminate pressurized, irradiated or isolated areas. The HYL lighting package provides a compact, cost effective lighting system. Our patented design allows for an intense beam of light to cross the pressure/process boundary. Once across, the beam is diffused to provide a conical light output of bright, even illumination. The HYL light can mate with a variety of couplings, including flanged, sanitary and NPT connections.

### FEATURES

- Pressure rating from full vacuum to 10,000 PSI available. Consult factory.
- NEMA 4, IP 66 ratings available.
- Brighter than former 80W Halogen lights
- Low power consumption, 16-20W
- Explosion proof Class I, Div. 1, Groups B, C and D, Class II, Div. 1, Groups E, F and G, and NEMA 4 models.
- Flame proof Ex II 2 GD, Eex d IIC T6 and IP 66 models.
- Maintenance-free, high output LED.
- All wiring and maintenance external.

### APPLICATIONS

- Process Vessels and Equipment
- Pressure Vessels
- Sterilizers
- Diving Decompression Chambers
- Altitude and Environmental Chambers
- Many, many more

### SPECIFICATIONS

- Light Pipe  
Pressure: Full Vacuum to 10,000 PSI available. Consult factory.  
Mounting: 1" NPT, flanged and sanitary models available
- Light Source  
Rating: WP, IP 66, EXP and FP available  
Power Req: 16-20W
- Typ. Max Tank Specification  
80W: 25 ft [7.6m] dia. X 70 ft [21.3m] dp.
- Power Supply  
Options: 24V - 230V input options available.

### UNIQUE DESIGN

Our patented design consists of three main components: light source, light pipe and driver. A high output, long-life LED array delivers the maximum amount of light into the vessel. Light is guided fiber-optically through the light pipe into the process or pressure area. All Canty light pipes feature our high pressure, high temperature fused glass seal for maximum safety. A variety of couplings are available.

## Typical Dimensions



For fiber optic flexible bundle models reference datasheet P/N TA10607-2

**HOW TO ORDER: Select the appropriate symbols and build a part number as shown:**

**EXAMPLE:**

# H7UD85S0-LED

### Light Source Selection

#### 120V / 230V Options:

**H7 - 120V AC input direct to light. EXP rating, .25A**  
 E7 - 230V AC input direct to light. ATEX FP rating, .25A

EH - 120V AC input direct to light. WP rating, .25A  
 E1 - 230V AC input direct to light. IP rating, .25A

#### 24V DC Options:

H6 - 24V DC, EXP rated light, 1A  
 E6 - 24V DC, ATEX FP rated light, 1A

H8 - 24V DC, WP rated light, 1A  
 E9 - 24V DC, IP rated light, 1A

### Switches

#### Weather Proof Light Options

##### (EH/E1) 120V / 230V Models:

U - Customer supplies ON/OFF switch.  
 C - NEMA 4X / IP66 enclosure with switch. 120V AC input.  
 R - NEMA 4X / IP66 enclosure with switch. 230V AC input.

##### (H8/E9) 24V DC Models:

U - Customer supplies ON/OFF switch.

#### Explosion Proof / Flame Proof Light Options

##### (H7/E7) 120V / 230V Models:

**U - Customer supplies ON/OFF switch.**  
 P - Explosion proof switch, 120V AC (H7) / or ATEX FP Switch, 230V AC (E7), See note 5.

##### (H6/E6) 24V DC Models:

U - Customer supplies ON/OFF switch

### Insertion Length\*

**0 - None** 5 - 5" INS B - 11" INS  
 1 - 2" INS 6 - 7" INS C - 12" INS  
 2 - 6" INS 7 - 8" INS D - 13" INS  
 3 - 3" INS 8 - 9" INS E - 14" INS  
 4 - 4" INS A - 10" INS

\* Insertions Are Not Available on Glass Wetted Models

### Non Wetted Material (Carbon Steel, Stainless Steel)

C - CS, 150# ANSI D - CS, 300# ANSI  
**S - SS, 150# ANSI** E - SS, 300# ANSI  
 A - CS, 10 BAR Z - CS, 16 BAR  
 B - SS, 10 BAR Y - SS, 16 BAR  
 0 - No Retaining Flange Required/Applicable. Select for Tri-Clamp® and NPT Connections.

### Mounting Connection

1 - 1" NPT  
 9 - 1.5" Flanged, 150# /DN40 PN10  
 3 - 2" Flanged, 150# /DN50 PN10  
 4 - 3" Flanged, 150# /DN80 PN10  
**5 - 4" Flanged, 150# /DN100 PN10**  
 6 - 6" Flanged, 150# /DN150 PN10 (Insertion only)  
 Z - 1.5" Flanged, 300# /DN40 PN16  
 A - 2" Flanged, 300# /DN50 PN16  
 B - 3" Flanged, 300# /DN80 PN16  
 C - 4" Flanged, 300# /DN100 PN16  
 D - 6" Flanged, 300# /DN150 PN16 (Insertion only)  
 E - 1" or 1.5" Tri-Clamp®  
 F - 2" Tri-Clamp®  
 Y - 2.5" Tri-Clamp®  
 G - 3" Tri-Clamp®  
 H - 4" Tri-Clamp®  
 J - 2" 150# / DN50 PN10 Glass Wetted Flange  
 K - 3" 150# / DN80 PN10 Glass Wetted Flange  
 L - 4" 150# / DN100 PN10 Glass Wetted Flange  
 M - 6" 150# / DN150 PN10 Glass Wetted Flange  
 Many Additional Sizes Available. Consult Factory.

### Beam Output Options

**8 - Normal Beam High Temp**

### Wetted Materials

**S - 316L SS\***  
 D - Hastelloy® C276 or equal  
 E - Hastelloy® C-22® or equal  
 F - Boroplus (Glass Wetted)\*\*  
 \* Canty Reserves the right to upgrade to Hastelloy® C-family of alloys or equal at their own cost.  
 \*\* Not available on all models

### Notes :

- Some options are not available on all models.
- Vessel lighting diameter, depth specifications provided are a general guideline for stainless steel tanks. For blue glass lined reactors, which will absorb visible wavelengths of light, a derating factor of 0.7 is recommended.
- All Explosion Proof lights are rated for use in Class I, Div. 1, Groups B, C and D, Class II, Div. 1, Groups E, F & G as well as NEMA 4 locations. Power supply rating vary with model.
- All ATEX Flame Proof lights are approved for use in EExd II C T6 and IP 66 locations.
- Explosion proof power supply enclosures are rated use in Class I, Div. 1, Groups C and D, Class II, Div. 1, Groups E, F & G locations. ATEX Flame proof switch is EExd IIC T6.

All registered trademarks are the property of their respective owners.

WP = Weather Proof  
 EXP = Explosion Proof  
 FP = Flame Proof  
 IP = Ingress Protection

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