

# Day-Brite

## CFI

by Signify

### Recessed

HP90 LED 2x4

3000, 3700, or 4100 lumens



Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

The Day-Brite / CFI HP90 LED recessed family is one of our popular soft light collection of luminaires. This is the first introduction of LED with a direct/indirect appearance utilizing highly reflective paint on the soft contoured reflectors and high light transmission linear prismatic lens to enclose the LEDs.

#### Ordering guide

Example: **HLS24GLR30L40ULAG**

| Family                                  | Air Function    | Fixture Size    | Ceiling Type                                                                                | Diffuser                        | Lumen Package                                                                                                                                        | Color Temp.                                                                                                                                                      | Voltage                                                  | Driver Type                                                                                          | Options                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------|-----------------|-----------------|---------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HL</b>                               | <b>S</b>        | <b>24</b>       | <b>G</b>                                                                                    | <b>LR</b>                       |                                                                                                                                                      |                                                                                                                                                                  |                                                          | —                                                                                                    |                                                                                                                                                                                                                                                                                                                                                               |
| <b>HL</b> HP90 direct-indirect recessed | <b>S</b> Static | <b>24</b> 2'x4' | <b>G</b> Fits both standard and slot grid<br><br>Consult factory for other ceiling systems. | <b>LR</b> Linear prismatic lens | <b>30L</b> 3000 lumens<br><b>37L</b> 3700 lumens<br><b>41L</b> 4100 lumens<br><br>4000K represented (Approximate delivered values. Consult IES file) | <b>35</b> 3500K<br><b>40</b> 4000K<br><b>50</b> 5000K<br><br>Consult representative for other color temperature options. (Approximate values. Consult IES file.) | <b>U</b> Universal voltage 120-277V<br><br><b>3</b> 347V | <b>LAG</b> Standard driver<br><b>DZT</b> 0-10V dimming<br><b>SZT</b> Step dimming to 40% input power | <b>F1</b> 3/8" flex, 3 wire 18 gauge 6'<br><b>F2</b> 3/8" flex, 4 wire 18 gauge 6'<br><b>F1/D</b> 3/8" twin flex, 3 wire 18 gauge 6' for dimmable luminaires<br><b>F2/5W</b> 3/8" single flex, 5 wire 18 gauge 6' for dimmable luminaires<br><b>GLR</b> Fusing, fast blow<br><b>EMLED</b> Integral emergency battery pack<br><b>CHIC</b> Chicago Plenum rated |

#### Accessories (order separately)

- **FMA24** – 2'x4' "F" mounting frame for NEMA "F" installations

# HLS HP90 LED recessed 2x4

3000, 3700, or 4100 lumens

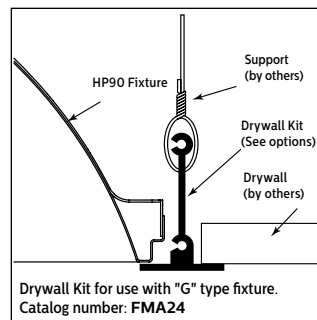
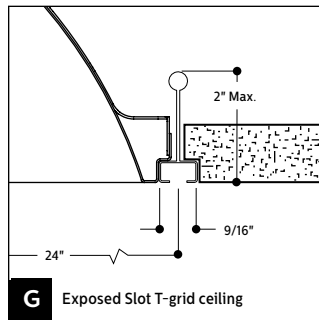
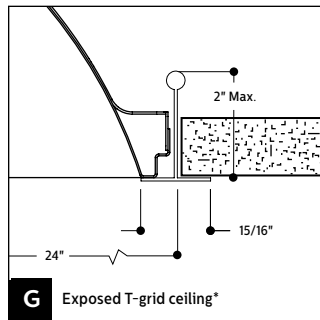
## Features

- Direct/indirect appearance with soft contoured interior.
- Translucent DR acrylic high light transmission linear prismatic lens.
- Field replaceable LED array and driver accessible from below.
- Predicted L70 lifetime is based on LED manufacturer's supplied LM-80 data and in-situ laboratory testing.
- Integrated thermal management system conducts heat away from LEDs and transfers it to the surrounding environment.
- High efficiency LEDs have 50,000 hour rated life at L70.
- Lens encloses light source compartment.
- Lamp shield opens from either side.
- Tension screws secure ends to body.
- Same fixture fits both G and Slot T ceiling types.
- Fits flush to face of slot grid (T) ceiling types.
- Suitable for continuous row mounting.
- Five-year warranty on luminaire, LED boards and driver.
- DLC Listed. Please check the DLC Qualified Products List to confirm ([www.designlights.org/QPL](http://www.designlights.org/QPL)).
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lamp holders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

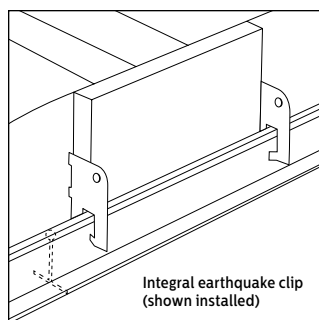
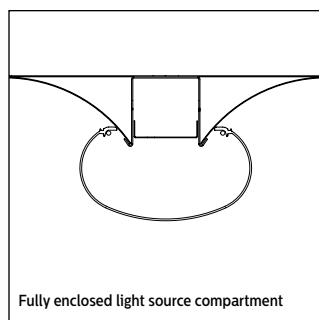
## Specifications

- **Materials:** Chassis parts—Die-formed code gauge cold rolled steel.
- **Finish:** Chassis exterior—White baked polyester enamel. Cavity—White baked polyester enamel. Rust preventative undercoating.
- **Lens:** LR—Linear prismatic translucent DR acrylic lens.
- **Electrical:** LED boards and drivers are RoHS (Restriction of Hazardous Substances) compliant.
- **Labels:** cULus listed for damp locations.

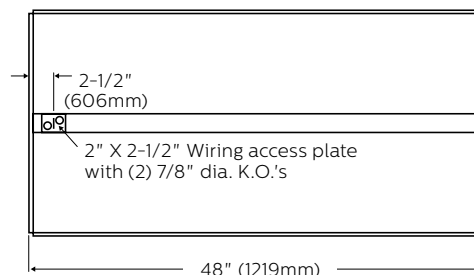
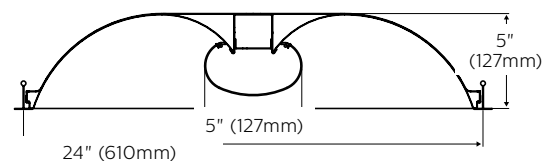
## Mounting methods



\* For flush mounting when using 9/16" Exposed T-Grid ceiling system consult factory



## Dimensions



# HLS HP90 LED recessed 2x4

3000, 3700, or 4100 lumens

## Additional ordering information

| Catalog Number    | Delivered Lumens | Input Watts | Lumens per Watt | Average initial 8'X8' footcandles | 8'X8' Watts per sq. foot | Average initial 8'X10' footcandles | 8'X10' Watts per sq. foot |
|-------------------|------------------|-------------|-----------------|-----------------------------------|--------------------------|------------------------------------|---------------------------|
| HLS24GLR30L40ULAG | 2961             | 30.8        | 96.1            | 46                                | 0.48                     | 37                                 | 0.38                      |
| HLS24GLR37L40ULAG | 3665             | 40.0        | 91.6            | 57                                | 0.62                     | 46                                 | 0.50                      |
| HLS24GLR41L40ULAG | 4090             | 46.0        | 88.9            | 64                                | 0.72                     | 51                                 | 0.58                      |
| HLS24GLR30L35ULAG | 2980             | 31.2        | 95.5            | 47                                | 0.49                     | 37                                 | 0.38                      |
| HLS24GLR37L35ULAG | 3679             | 40.4        | 91.1            | 57                                | 0.63                     | 46                                 | 0.50                      |
| HLS24GLR41L35ULAG | 4118             | 46.6        | 88.4            | 64                                | 0.73                     | 51                                 | 0.57                      |

## Photometry – 4000K CCT

|                              |                                                                     |
|------------------------------|---------------------------------------------------------------------|
| Report number <sup>1</sup> : | G2012101                                                            |
| Catalog number:              | HLS24GLR41L40ULAG                                                   |
| Delivered lumens:            | 4090                                                                |
| Color <sup>2</sup> :         | 3979K                                                               |
| Input watts:                 | 45.0                                                                |
| Efficacy:                    | 87.0 lm/w                                                           |
| CRI:                         | 88.9                                                                |
| Lamp:                        | LED                                                                 |
| Luminaire:                   | HP90 recessed LED<br>2' x 4' fixture with<br>linear prismatic lens. |
| CIE Type:                    | Direct                                                              |
| Plane:                       | 0-Deg. 90-Deg.                                                      |
| Spacing criteria:            | 1.2 1.3                                                             |
| Plane:                       | 0-Deg. 90-Deg.                                                      |
| Luminous length:             | 47.040 23.040                                                       |

## Candela distribution

| Vertical Angle | Horizontal Angle 0° | 45°  | 90°  | Zonal Lumens |
|----------------|---------------------|------|------|--------------|
| 0              | 1377                | 1377 | 1377 |              |
| 5              | 1360                | 1371 | 1378 | 130          |
| 15             | 1296                | 1319 | 1336 | 373          |
| 25             | 1177                | 1221 | 1258 | 563          |
| 35             | 1014                | 1083 | 1143 | 678          |
| 45             | 823                 | 919  | 1002 | 708          |
| 55             | 620                 | 737  | 841  | 657          |
| 65             | 416                 | 549  | 664  | 540          |
| 75             | 216                 | 355  | 436  | 356          |
| 85             | 49                  | 72   | 43   | 84           |
| 90             | 6                   | 6    | 6    |              |

<sup>1</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

<sup>2</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

## Coefficients of utilization

| Ceiling | 80% | 50% | 30% |
|---------|-----|-----|-----|
| Wall    | 70  | 50  | 30  |
| RC      | 50  | 30  | 10  |
| RW      | 50  | 30  | 10  |
| 1       | 108 | 103 | 99  |
| 2       | 98  | 89  | 82  |
| 3       | 89  | 78  | 70  |
| 4       | 81  | 69  | 60  |
| 5       | 75  | 62  | 52  |
| 6       | 69  | 55  | 46  |
| 7       | 64  | 50  | 41  |
| 8       | 59  | 46  | 37  |
| 9       | 56  | 42  | 34  |
| 10      | 52  | 39  | 31  |

## Zonal lumen summary\*

| Zone | Lumens | % Lamp | % Fixt. |
|------|--------|--------|---------|
| 0-30 | 1066   | 26.1   | 26.1    |
| 0-40 | 1744   | 42.6   | 42.6    |
| 0-60 | 3109   | 76     | 76      |
| 0-90 | 4090   | 100.0  | 100.0   |

\*Total Efficiency

## Avg. Luminance (cd/m²)

| Vertical Angle | Horizontal Angle 0° | 45°   | 90°   |
|----------------|---------------------|-------|-------|
| 45             | 1664.               | 1858. | 2026. |
| 55             | 1545.               | 1837. | 2096. |
| 65             | 1407.               | 1857. | 2246. |
| 75             | 1193.               | 1961. | 2408. |
| 85             | 804.                | 1181. | 705.  |

## Photometry – 3500K CCT

|                              |                                                                     |
|------------------------------|---------------------------------------------------------------------|
| Report number <sup>1</sup> : | G2012104                                                            |
| Catalog number:              | HLS24GLR41L35ULAG                                                   |
| Delivered lumens:            | 4118                                                                |
| Color <sup>2</sup> :         | 3437K                                                               |
| Input watts:                 | 45.0                                                                |
| Efficacy:                    | 88.4 lm/w                                                           |
| CRI:                         | 83.8                                                                |
| Lamp:                        | LED                                                                 |
| Luminaire:                   | HP90 recessed LED<br>2' x 4' fixture with<br>linear prismatic lens. |
| CIE Type:                    | Direct                                                              |
| Plane:                       | 0-Deg. 90-Deg.                                                      |
| Spacing criteria:            | 1.2 1.3                                                             |
| Plane:                       | 0-Deg. 90-Deg.                                                      |
| Luminous length:             | 47.040 47.040                                                       |

## Candela distribution

| Vertical Angle | Horizontal Angle 0° | 45°  | 90°  | Zonal Lumens |
|----------------|---------------------|------|------|--------------|
| 0              | 1377                | 1377 | 1377 |              |
| 5              | 1361                | 1371 | 1377 | 130          |
| 15             | 1296                | 1319 | 1336 | 373          |
| 25             | 1176                | 1220 | 1258 | 563          |
| 35             | 1011                | 1083 | 1147 | 678          |
| 45             | 820                 | 919  | 1009 | 708          |
| 55             | 616                 | 739  | 847  | 659          |
| 65             | 412                 | 553  | 673  | 544          |
| 75             | 215                 | 365  | 457  | 368          |
| 85             | 49                  | 94   | 68   | 96           |
| 90             | 6                   | 6    | 6    |              |

<sup>1</sup> Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

<sup>2</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

## Coefficients of utilization

| Ceiling | 80% | 50% | 30% |
|---------|-----|-----|-----|
| Wall    | 70  | 50  | 30  |
| RC      | 50  | 30  | 10  |
| RW      | 50  | 30  | 10  |
| 1       | 108 | 103 | 98  |
| 2       | 98  | 89  | 82  |
| 3       | 89  | 78  | 69  |
| 4       | 81  | 69  | 60  |
| 5       | 75  | 61  | 52  |
| 6       | 69  | 55  | 46  |
| 7       | 64  | 50  | 41  |
| 8       | 59  | 46  | 37  |
| 9       | 55  | 42  | 33  |
| 10      | 52  | 39  | 30  |

## Zonal lumen summary\*

| Zone | Lumens | % Lamp | % Fixt. |
|------|--------|--------|---------|
| 0-30 | 1065   | 25.9   | 25.9    |
| 0-40 | 1743   | 42.3   | 42.3    |
| 0-60 | 3111   | 75.5   | 75.5    |
| 0-90 | 4118   | 100.0  | 100.0   |

\*Total Efficiency

## Avg. Luminance (cd/m²)

| Vertical Angle | Horizontal Angle 0° | 45°   | 90°   |
|----------------|---------------------|-------|-------|
| 45             | 1658.               | 1858. | 2040. |
| 55             | 1535.               | 1842. | 2111. |
| 65             | 1394.               | 1871. | 2277. |
| 75             | 1188.               | 2016. | 2524. |
| 85             | 804.                | 1542. | 1115. |

