Submitted by:		Date:
Туре:	Project:	
Ordering Info:		



### Recessed

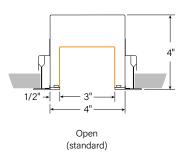


HO4 Recessed (HO4-R) luminaire delivers unparalleled performance and comfortable illumination. A state-of-the-art rectilinear reflector provides depth and seamless uniformity to recessed applications. Designed to accommodate most ceiling types and tailorable in 1-foot increments.

This product is enrolled in the International Living Future Institute (ILFI) Declare 2.0 Program and is third-party verified with options achieving **Red List Approved** and **Red List Declared** status.

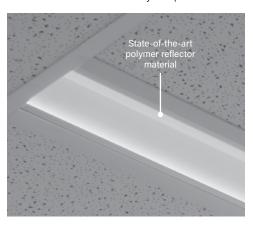
#### **CROSS SECTIONS**

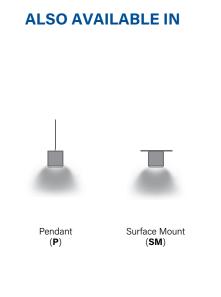
#### Recessed



#### **UNIQUE POLYMER REFLECTOR**

State-of-the-art lightweight reflector material features high reflectivity, reduced presence of seams, and is tailorable for maximum flexibility and performance.















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Ordering Guide Example: HO - 4 - R - D - RO - 36' - S - 835 - OPN - 96LG - 120 - SC - FC-10% - C1 - SE - SW - LGD18W - OBO - RLD

#### **BODY TYPE**

#### **OUTPUT and LED TYPE**

Platform	Series	Luminaire Type	Luminaire Distribution	Luminaire Style	Total Length of Run	Downlight Output (Open)
HO - High Performance Open	4	R - Recessed	D - Direct	RO - Rectilinear Open	Minimum 2' section length. 1' Increments. 12' maximum section length.	S - Standard (402 lm/ft) B - Boosted (505 lm/ft) H - High (764 lm/ft) V - Very High (982 lm/ft) TL - Tailored:lm/ft**  * Lumens provided are for ID only. For UD see page 8. * Specify lm/ft of outputs between Standard (S) and Very High (V) Consult factory for tailored lumen output outside of this range.

#### **OUTPUT and LED TYPE**

#### **MECHANICAL/OPTICAL OPTIONS**

#### **ELECTRICAL OPTIONS**

LED CRI/CCT	Downlight	Reflector System	Voltage	Circuiting <sup>1</sup>
830 - 80 CRI, 3000K 835 - 80 CRI, 3500K 840 - 80 CRI, 4000K 930 - 90 CRI, 3000K 935 - 90 CRI, 3500K 940 - 90 CRI, 4000K	OPN - Open	96LG - 96 Low Gloss White	120 - 120 Voltage 277 - 277 Voltage 347 - 347 Voltage (OTi only)	SC - Single Circuit* One single circuit in a run
				* Battery, Night Light, and Emergency to Generator circuits are in addition to the normal luminaire circuit(s)

#### **ELECTRICAL OPTIONS**

#### **MOUNTING OPTIONS**

Driv	er Selection	Ceiling Hardware Type
<b>0-10V Driver Options FC-10%</b> - 0-10V 10% (standard)	DMX Driver Options  ELD-DMX - EldoLED POWERdrive, 0.1%	C1 - 15/16" T-Bar C2 - 9/16" T-Bar
FC-1% - 0-10V 1% OTi-10% - EldoLED OTi, 0-10V 10% <sup>2</sup> OTi-1% - EldoLED OTi, 0-10V 1% <sup>2</sup>	Lutron Driver Options LUT-ES1 - Lutron, Ecosystem 1%	C2T - 9/16" Tegular C3 - Screw Slot C3F - Flush Screw Slot
ELD-10V-0% - EldoLED SOLOdrive, 0-10V 0.1%		SF - Spackle Flange VF - Visible Flange
DALI Driver Options FC-DALI-1% - DALI 1% DXL-DALI-1% - EldoLED Dexal, 1%		TZ6 - Tech Zone 6" (C1, C2, C2T, C3, C3F)
ELD-DALI-0% - EldoLED SOLOdrive, 0.1%	See Page 3 for additional driver options and details	

#### **OTHER OPTIONS**

Endcap Style	Emergency Style (Optional) See page 4 Backup Battery table	· · · · · · · · · · · · · · · · · · ·	d Sensor onal)	Special Options (Optional)
Finish  SW - Signal White (standard) FB - Finelite Black SA - Satin Aluminum #### - RAL Color Code 4	LGD18W - Legrand 18W Brand Battery Back-up LGD10W - Legrand 10W Brand Battery Back-up EM/GEN - Emergency to Generator NL - Night Light BSL310LP - Bodine Battery Back up Low Profile GTD - Generator Transfer Device ALCR - Automatic Load Control Relay	OBO - Occupancy OBD - Daylight W601 - Wattstopper Sensor <sup>5</sup> OBE - Enlighted Sensor <sup>6</sup> REE - Remote Enlighted <sup>7</sup> CLM-99 - Encelium RF SLM-99 - Encelium Sensor	AOCC-W - Lutron Athena Sensor <sup>8</sup> (Device Color White)  AOCC-B - Lutron Athena Sensor <sup>8</sup> (Device Color Black)  ARF-W - Lutron Athena RF <sup>8</sup> (Device Color White)  ARF-B - Lutron Athena RF <sup>8</sup> (Device Color Black)  VOCC - Lutron Vive Sensor <sup>9</sup> VRE - Lutron Vive RF <sup>9</sup>	CP - Chicago Plenum <sup>10</sup> RLA - Red List Approved RLD - Red List Declared

- Contact factory for switching options Add DTO to gain "Dim to Off" functionality (FC-10% DTO, FC-1% DTO) Solid Endcap (SE) required at end with sensor 20 business days lead time for color

- 20 business days lead time for color
  LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connected.
  LMFS-601 w/ Dali driver, only 1 driver can be connected
  Enlighted components installed by Finelite, provided by others
  Enlighted Control Unit & Sensor Cable installed for Remote mounting sensor.
  0-10V Drivers AOCC up to 10 drivers may be connected; ARF up to 4 driver may be connected.
  DALI Drivers AOCC & ARF up to 4 drivers can be connected
  Lutron Vive Ingrated Sensors require a DALI driver.

  Oblevacible with CL 2-2 and CS acquires before on with Finelite Gidbox.
- 10 Only available with C1, C2, and C3 mounting hardware with Finelite Gridbox

Page 2

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## SUPPLEMENTARY DRIVER PAGE

0-10V Driver Options			
FC-10%	Factory Choice, 0-10V 10% Dimming (Linear)		
FC-10%-DTO	Factory Choice, 0-10V 10% Dimming, Dim-to-Off (Linear)		
FC-1%	Factory Choice, 0-10V 1% Dimming (Linear)		
FC-1%-DTO	Factory Choice, 0-10V 1% Dimming, Dim-to-Off (Linear)		
ELD-10V-0%	EldoLED SOLOdrive, 0-10V 0.1% Dimming (Linear)		
ELD-10V-1%	EldoLED ECOdrive, 0-10V 1% Dimming (Linear)		
OTi-10%	EldoLED OTi, 0-10V 10% Dimming (Linear)		
OTi-10%-DTO	EldoLED OTi, 0-10V 10% Dimming, Dim-to-Off (Linear)		
OTi-1%	EldoLED OTi, 0-10V 1% Dimming (Linear)		
OTi-1%-DTO	EldoLED OTi, 0-10V 1% Dimming, Dim-to-Off (Linear)		

DALI Driver Options		
FC-DALI-1%	Factory Choice, DALI 1% Dimming (Logarithmic)	
DXL-DALI-1%	EldoLED Dexal, DALI 1% Dimming (Logarithmic)	
ELD-DALI-0%	EldoLED SOLOdrive, DALI 0.1% Dimming (Logarithmic)	
ELD-DALI-1%	EldoLED ECOdrive, DALI 1% Dimming (Logarithmic)	

	DMX Driver Options
ELD-DMX	EldoLED POWERdrive, DMX 0.1% Dimming (8 Bit, 1CH) (Linear)
ELD-DMX-16	EldoLED POWERdrive, DMX 0.1% Dimming (16 Bit, 2CH) (Linear)

Lutron Driver Options		
LUT-ES1	Lutron, Ecosystem 1% Dimming	

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Type:	Project:	
Ordering Info:		



# Recessed **SPECIFICATIONS**

#### **BODY TYPE**

**CONSTRUCTION:** Precision-cut 6063-T6 extruded aluminum body. Internal joiner system and plug-together wiring are standard.

**LENGTHS:** Any length, 2' minimum; in 1' increments. 12' maximum section length.

**MITERED CORNERS:** Corners are secured with joining brackets for tight connection. Square and rectangular configurations are available. Minimum 4' length for each leg of configurations. Each corner is made up of two reflector sections 2' long. **HO4-R rectangle and square configurations do not fit in a standard grid opening.** 

#### **OUTPUT and LED TYPE**

**LIGHT OUTPUT:** Four lumen packages available, Standard (**S**), Boosted Standard (**B**), High (**H**), and Very High (**V**). For lengths 3' and greater, the uplight and downlight can be specified with different lumen packages and dual controls. For Tailored Outputs outside of range from Standard (**S**) to Very High (**V**), consult factory. Light engines are replaceable.

#### MECHANICAL/OPTICAL OPTIONS

**DOWNLIGHT OPTION:** Direct distribution is totally open with unique polymer reflector material that helps define the rectilinear form.

**LUMEN MAINTENANCE:** 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours.

**REFLECTORS:** High diffuse polymer reflector with matte white finish. UV stable, abrasion resistant, and anti-static.

#### **ELECTRICAL OPTIONS**

**STATIC WHITE FEED:** Standard with one 18-gauge/5-conductor single-circuit feed controlling uplight and downlight together (power and dimming). Specify dual feeds for independent control of uplight and downlight. 14-gauge feed used when luminaire current exceeds 5 amps.

**STATIC WHITE DRIVER:** Replaceable 120V, 277V, and 347V constant current reduction dimming driver standard. Can be wired dimming or non-dim-ming. 0-10V dimming controls with a range of 100%-10% standard. Dimming to 1% available. Separate dimming for uplight and downlight available. Driver is fully accessible from below the ceiling.

- Power Factor: ≥ 0.9
- Total Harmonic Distortion (THD): <20%</li>Expected driver lifetime: 100,000 hours

#### **LUTRON STATIC DRIVER OPTIONS:**

**LUT-ES1** - Hi-lume 1% EcoSystem with Soft-On, Fade-to-Black dimming (LDE1 series).

#### **MOUNTING OPTIONS**

#### **HANGING HARDWARE:**

- Recessed T-Bar: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets connect the luminaire to the T-Bar for securing to structure. Consult local codes for tie-wire recommendations. Consult factory with 15/16" Tegular (C1T).
- Recessed Spackle Flange: Drywall surfaces (walls or ceilings):
   1/4" 20 stud and nut (provided by others). Mounted with three equidistant suspension points.

#### **OTHER OPTIONS**

**ENDCAPS:** Sculpted open endcap extends the look of the open luminaire and adds 1/4" each end of luminaire. Solid diecast aluminum endcap adds 1/4" to each end of luminaire.

**EMERGENCY STYLE:** Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery.

Backup Battery					
	Legrand 18W Legrand 10W/ Bodine BSL310LI				
HO4-R-D					
Min. Housing Length	8'	4'*			
EM Lumen Output	2030	1208			
EM Section Illuminated	2'	2' or 4'			

<sup>\*</sup> Minimum fixture housing length for battery pack approved without sensor
The lumens are based on 835. For other CCT/CRI, refer to the Lumen Adjustment Factor table on page 8

Bodine GTD and Legrand ALCR Min. Length		
Configuration Min. Length		
Generator	D-2'	
Generator + OCC	D-2'	
Daylight	D-2'	
Generator + Daylight	D-2'	

**INTEGRATED SENSORS:** Integrated PIR (Passive Infrared) Occupancy (**OBO**) or Daylight Sensors (**OBD**) available with Flush and Bottom Glow downlight diffusers. Solid Endcap (**SE**) required at end with a sensor. PIR sensors not recommended for stairwell applications. Refer to Occupancy Sensor & Daylight Sensor tech sheet and the Embedded Intelligence landing page for more information and additional sensor options.

Continued

Submitted by:		Date:
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### Recessed

#### **SPECIFICATIONS**

**FINISHES:** Finelite Signal White (**SW**) powder coat, Finelite Black (RAL 9005) with semi gloss fine texture (**FB**), and Satin Aluminum (**SA**) are standard. Optional Adder: 179 RAL colors <sup>1</sup> are available.

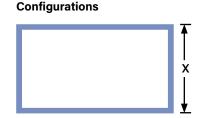
**LABELS:** Luminaire and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.130 (G), this luminaire contains an internal driver disconnect. UL 924 and UL 2108 - PoE options available on request. These fixtures are rated for Damp Location. Chicago Plenum options available for C1, C2, or C3 suspension using our GridBox. HO4 can be used to comply with 2016 Title 24, Part 6 (JA8); high efficacy LED light source requirements. Finelite products use electronic components that

are RoHS compliant, and the mechanical components of the luminaire have been verified to not knowingly contain any restricted substances listed per RoHS Directive 2015/863. Consult factory for tailored lighting options. Finelite makes the specification process easy when putting healthier products on your projects. Simply add – **RLA** (Red List Approved) or – **RLD** (Red List Declared) to your part number.

WEIGHT<sup>2</sup>: 2.8 lb/ft

**WARRANTY:** 10-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

#### LENGTH SPECIFICATIONS FOR CONFIGURATIONS



Measurements are made to the outside of the luminous area as shown above for configurations. Minimum length of any section (X) is 4'.



Measurements are made to the outside of the luminous area as shown above for single corner. Minimum length of any section (X) is 2!

Note: HO4-R rectangle and square configurations do not fit in a standard grid opening

<sup>1 20</sup> business days lead time for color

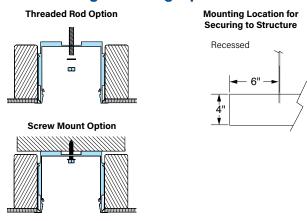
<sup>2</sup> Excludes Battery Back up and Generator Transfer Device weight

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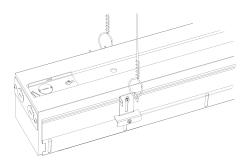
### Recessed

### **Hard Ceiling Mounting Options**



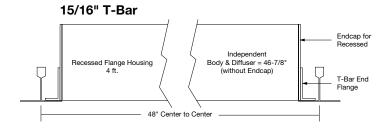
Two mounting options: threaded rod and screw mounting options. Mounting locations are located on each end of the luminaire. Mounting location is 6" away from each end of luminaire.

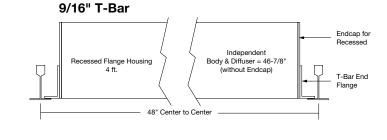
#### **T-Bar Installation**

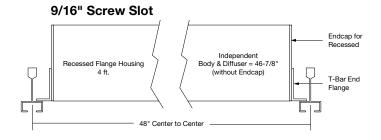


HO4-R for T-Bar installations comes standard with a conduit plate at the end, and at the top of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All even foot length (2, 4, 6, ...) luminaire runs are reduced in length by an appropriate amount to fit within typical 2x2 and 2x4 T-Bar systems. Please consult factory for uncommon T-Bar systems.

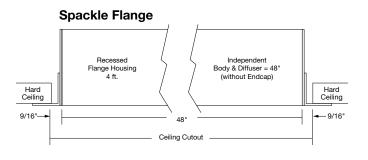
#### Grid Length Detail - 4' Example

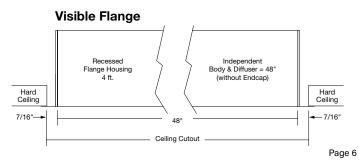






### Hard Ceiling Length Detail - 4' Example





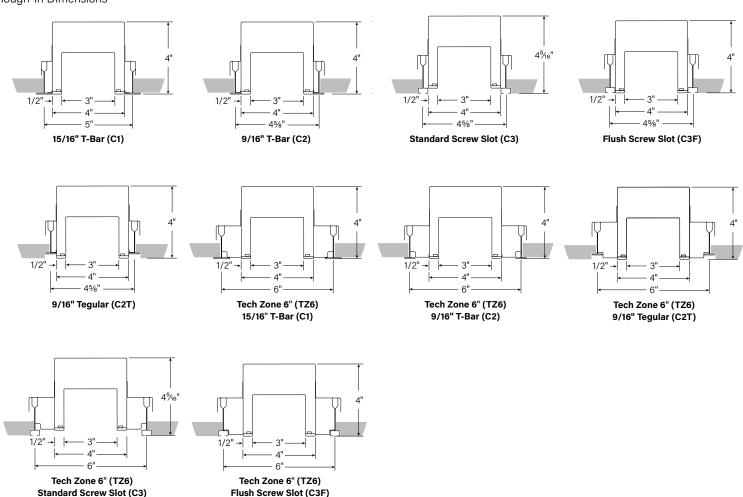
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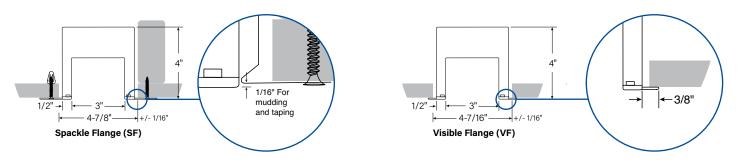
### Recessed

### **Recessed Mounting Types** - T-Bar

Rough-In Dimensions



#### **Recessed Mounting Types** - Cutout Dimensions



Note: +/- 1/16" Page 7

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### Recessed

#### Direct Photometry - 4' Luminaire 3500K

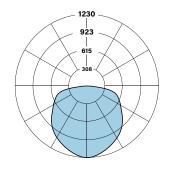
HO4-R-RO-V-835-OPN
Downlight: Open (Standard)

Efficacy: 114 lm/W

**Total luminaire output:** 3991 lumens (998 lm/ft) 35 watts (8.8 W/ft)

Peak Candela Value: 1230 @ 0°

CRI: 80 / CCT: 3500K ITL LM79 Report 89351



	CANDELA DISTRIBUTION					
0	0.0 1230	22.5 1230	45 1230	67.5 1230	90 1230	Flux
5	1227	1223	1217	1212	1212	116
15 25	1196 1126	1170 1085	1161 1078	1155 1077	1150 1073	329 501
35 45	1022	974	975	980	979	615
45 55	884 717	840 685	852 706	860 708	862 715	661 631
65 75	528 316	514 329	542 425	597 484	618 502	552 432
85	95	178	159	98	72	155
90	U	U	0	0	0	

Tota	Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire			
↓S¹ ↓B¹ ↓H¹ ↓V²				
1634	2054	3104	3991	

Light Output, 3500K, 80 CRI (Lumens Per Foot)				
↓S¹ ↓B¹ ↓H¹ ↓V²				
408	514	776	998	

Power, 3500K (Watts Per Foot)				
$\downarrow$ S <sup>1</sup> $\downarrow$ B <sup>1</sup> $\downarrow$ H <sup>1</sup> $\downarrow$ V <sup>2</sup>				
3.4	4.4	6.7	8.8	

Efficacy, 3500K, 80 CRI (Lumens Per Watt)				
↓S¹ ↓B¹ ↓H¹ ↓V²				
119	117	115	114	

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output

Wattage is Real Power. If you would like additional details to calculate Apparent Power, please contact your local Finelite representative.

#### **Sample Lumen Adjustment Calculation**

Lumen Adjustment Factors 80 CRI		
<b>3000K</b> 0.985		
3500K	1.000	
<b>4000K</b> 1.032		

Lumen Adjustment Factors 90 CRI	
3000K	0.746
3500K	0.760
4000K	0.789

 $\label{eq:high-output} \begin{array}{l} \mbox{High Output (H) , 4000K, 90 CRI} \\ \mbox{Lumen Adjustment Factor: } 0.789 \\ \mbox{Total Light Output: } 3104 \mbox{ lm} \times 0.789 = 2449 \mbox{ lm} \\ \mbox{Total Light Output per Foot: } 776 \mbox{ lm/ft} \times 0.789 = 612 \mbox{ lm/ft.} \\ \mbox{watts/foot: } 6.7 \mbox{ W/ft.} \end{array}$ 

Efficacy = 
$$\frac{612 \frac{\text{Im}}{\text{ft.}}}{6.7 \frac{\text{W}}{\text{ft.}}} = 91 \text{ Im/W}$$

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<sup>&</sup>lt;sup>1</sup> Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

<sup>&</sup>lt;sup>2</sup> Based on ITL reports: 89351