

**Job Name:**

WEBSTER UNIVERSITY INTERDISCIPLINARY
SCIENCE BUILDING - FIXTURE QUOTE
Engineer: WILLIAM TAO AND ASSOCIATES
(SAINT LOUIS)

Catalog Number:

HP-4-R-20'-S-3000K-F-277V-SC-DIM-
NL(4X6)-SF

Notes: DRYWALL CEILING

Type:

RR4X6-DRYWALL

LAI16-104794

IC - RATED

LED



BUY AMERICAN ACT OF 2009 COMPLIANT

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

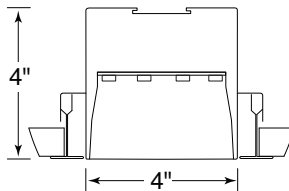
Comments



20FT LINEAR LENGTH
4FT X 6FT RECTANGLE

DESCRIPTION

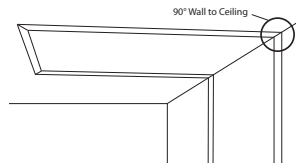
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy.



Flush Diffuser
(Standard)

DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-power LEDs and a precise diffuser to eliminate pixilation.

**MITERED ANGLES**

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

Tailored Lighting 10 working days

TAILORED LIGHTING

Any length greater than 2 feet, in increments down to 1/16th-inch ($\pm 1/32'$) and 90-degree mitered corners in a single plane.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S - 8 - 35 - F - 120V - SC - C1 - OBO

NL = NIGHT LIGHT CIRCUIT

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th" ($\pm 1/32'$), standard)

Light Output **S - Standard Output** B - Boosted Standard Output,

H - High Output, V - Very High Output

LED CRI **8 - 80 CRI Min (standard)** 9 - 90 CRI Min (optional)

LED Color Temperature **30 - 3000K** 35 - 3500K, 40 - 4000K

Downlight Diffuser Option **F - Flush (standard)**

Voltage (120V, **277V**)

Circuiting **SC - Single Circuit**

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, **C3F - Flush Screw Slot**, VF - Visible Flange,

C2T - 9/16" Tegular, C1T - 1" Tegular, **SF - Spackle Flange** TZ6 (C1, C2, C2T, C3, C3T) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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PHOTOMETRY

Very High Output - 4' Luminaire

Efficacy: 101 lumens per watt

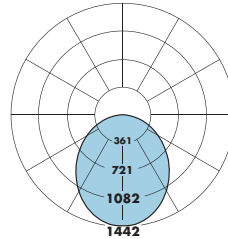
Total luminaire output: 3726 Lumens (932 lumens/foot)

37 Watts (9.3 watts/foot)

Peak Candela Value: 1442 @ 0°

CCT: 3500K

ITL LM79 Report 85128



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	1442	1442	1442	1442	1442	
5	1434	1434	1433	1433	1434	136
15	1369	1360	1365	1364	1359	384
25	1241	1226	1232	1225	1219	566
35	1064	1053	1055	1043	1037	657
45	864	853	851	840	834	655
55	650	644	640	631	626	571
65	441	436	433	428	425	428
75	238	237	238	237	236	252
85	70	69	70	72	71	78
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens) - 4' Luminaire

S*	B*	H*	V**
1525	1917	2898	3726

Light Output, 3500K, 80 CRI (Lumens Per Foot)

S*	B*	H*	V**
381	479	725	932

Power (Watts Per Foot)

S*	B*	H*	V**
3.6	4.6	7.1	9.3

Efficacy, 3500K, 80 CRI (Lumens Per Watt)

S*	B*	H*	V**
105	104	102	101

* Family Correlation based on 4' luminaire 3500K Very High Output (V) test - 120V.

** Correlation based on ITL report: 85128

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

Lumen Adjustment Factors - 80 CRI

3000K	0.985
3500K	1.000
4000K	1.032

Lumen Adjustment Factors - 90 CRI

3000K	0.746
3500K	0.760
4000K	0.789

Apply a lumen adjustment factor to calculate lumens for the desired CCT and CRI.

**SAMPLE LUMEN
ADJUSTMENT CALCULATION**

Recessed (H), 4000K, 90 CRI

Lumen Adjustment Factor = 0.789

*Total Light Output =
2898 lm x 0.789 = 2287 lm*

*Total Light Output per Foot =
725 lm/ft x 0.789 = 572 lm/ft*

watts/foot = 7.1 W/ft

$$\text{Efficacy} = \frac{572 \frac{\text{lm}}{\text{ft}}}{7.1 \frac{\text{W}}{\text{ft}}} = 80 \text{ lm/W}$$

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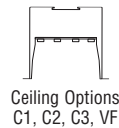


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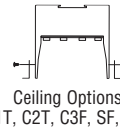
FINELITE

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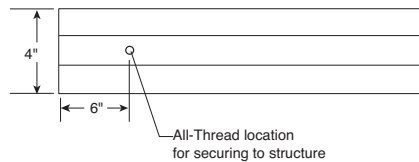
HOUSING



Housing With
Extruded Flange (V1)



Housing Without
Extruded Flange (V2)
Ceiling Hardware Attached



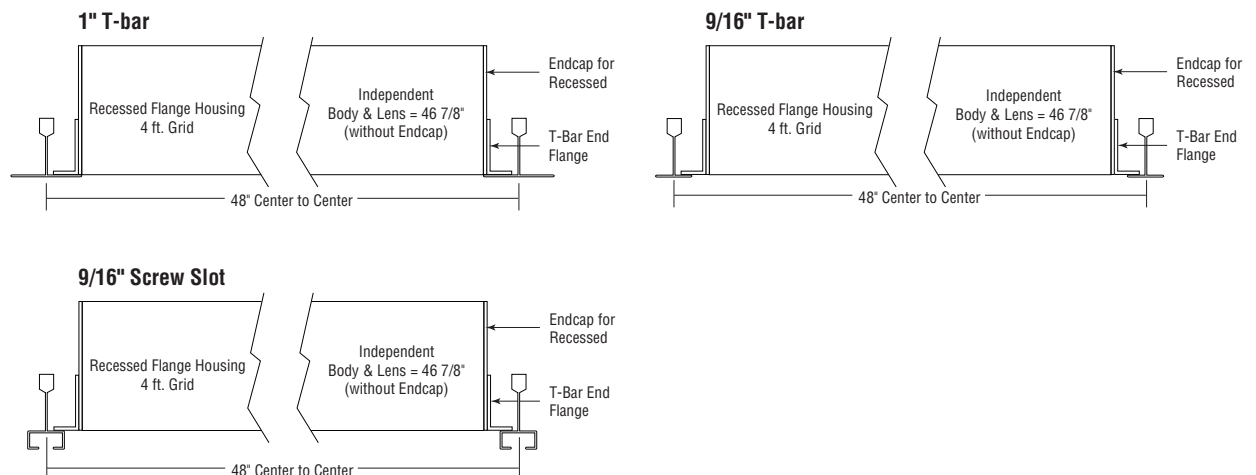
SHEET ROCK INSTALLATION:

Flex conduit is secured to top of luminaire. Support to structure using All-Thread. All-Thread support holes are located on each end of the luminaire.

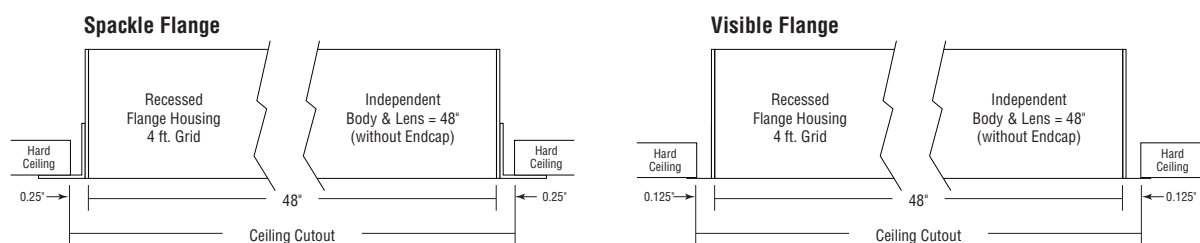
T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the luminaire to T-Bar and provide support to structure location. All starter/independent luminaires are 1 1/8" shorter than nominal. All joiner/ender luminaire are normal length.

GRID LENGTH DETAIL - 4 ft. example



HARD CEILING LENGTH DETAIL - 4 ft. example



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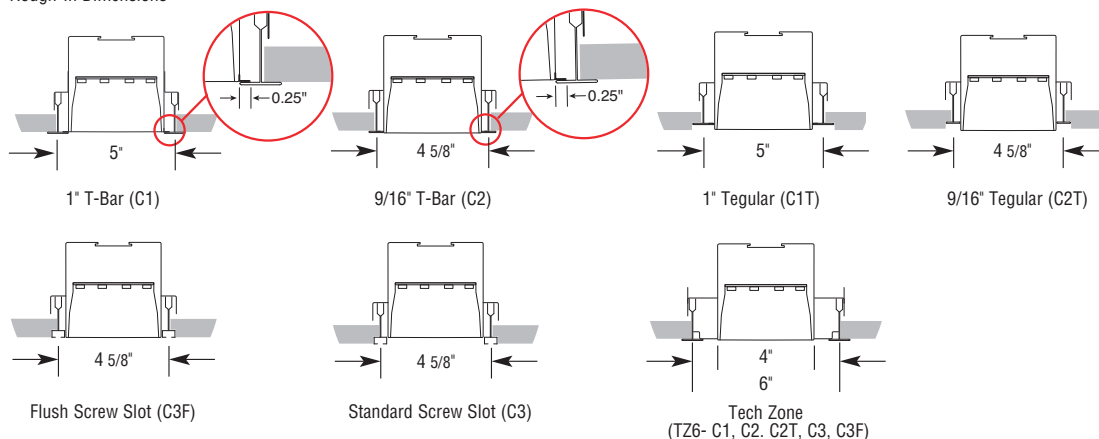
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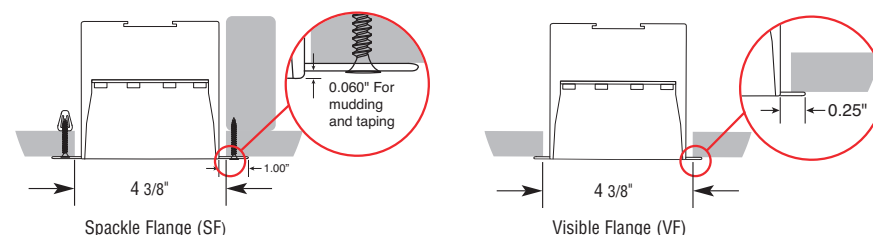
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MOUNTING TYPES: T-BAR

Rough-In Dimensions



MOUNTING TYPES: CUTOUT DIMENSIONS



SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane, with Flush downlight diffuser, standard. Custom angles are available (90° minimum on inside corners), contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DOWNLIGHT DIFFUSER: 12" maximum diffuser length. Flush frost white snap-in diffuser standard, 73% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Frost white snap-in diffuser option, 73% transmissive, 99% diffusion.

LIGHT OUTPUT: Four lumen packages available, Standard Output (S), Boosted Standard Output (B), High Output (H), and Very High Output (V). A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

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

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: 0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Chicago Plenum option. Factory-choice low-profile backup battery available. 8' minimum luminaire length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum luminaire length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available with Flush downlight diffusers. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more info.

MOUNTING: 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 luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when luminaire current exceeds 5 amps. Optional 6' flex conduit whips available.

LENGTHS: Any length, 2-foot minimum, in increments down to 1/16th-inch (± 1/32"). 12-foot maximum section length.

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 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location. IC-Rated. 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 2002/95/EC.

WEIGHT: 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.

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