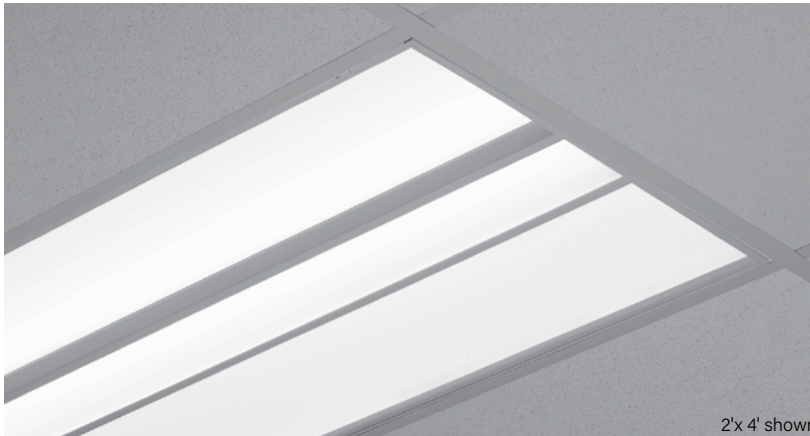


Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

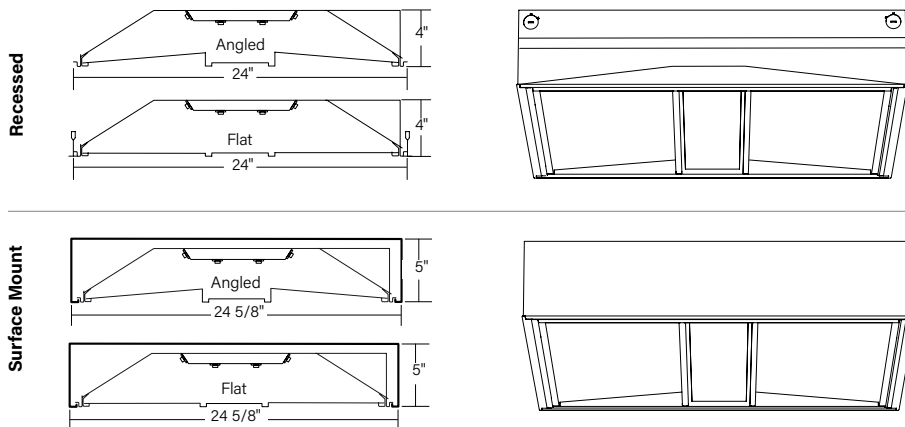


2'x 4' shown

HPR LED-EP is a recessed luminaire delivering excellent visual comfort and outstanding performance. This luminaire features very uniform illumination of the diffusers, eliminating shadows common to other LED products while offering options such as the Surface Mount to fit your specific aesthetic needs. The Air Return option effectively removes air from the space with little change to luminaire aesthetic. Advanced optical design make HPR LED-EP a powerful solution for low-ceiling applications. 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.

96 Low Gloss is standard finish

CROSS SECTIONS



LUMEN OUTPUT PACKAGES



¹ 2x2 EP only available with Boosted Standard and Very High.

² 2x2 EP Tunable White only available with Boosted Standard.

SERVICEABLE FROM BELOW



The replaceable light engine and driver are easy to access from below the ceiling.



Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

Ordering Guide Example: HPR LED EP - A - 2x4 - H - 835 - DCO - 120 - SC - FC-10% - C1 - 96LG - EM/GN - OBO - CP

BODY TYPE			OUTPUT and LED TYPE	
Platform Series Name	Door Style - LED	Size	Light Output (page 8 & 9)	LED CRI/CCT
HPR LED EP - High Performance Recessed	A - Angled	2x2 ¹	S - Standard	830 - 80 CRI min, 3000K
	ANR - Angled Narrow Rail	2x4	B - Boosted	835 - 80 CRI min, 3500K
	F - Flat		H - High	840 - 80 CRI min, 4000K
	DD - Double Diffuse		V - Very High	930 - 90 CRI min, 3000K
	WAV - Wave		TL - Tailored: _____ lm/ft*	935 - 90 CRI min, 3500K
				940 - 90 CRI min, 4000K
				8TW - 80 CRI min, Tunable White
				9TW - 90 CRI min, Tunable White See page 8 for lumen adjustment calculation

Center Optic
DCO - Diffuse Center

Only available with Angled (A), Angled Narrow Rail (ANR) and Flat (F) door style.

ELECTRICAL FEATURES			MOUNTING TYPE	OTHER OPTIONS	
Voltage	Driver Selection ³		Ceiling Type	Finish	
120 - 120 Voltage	0-10V Driver Options FC-10% - 0-10V 10% (standard) FC-1% - 0-10V 1% OTi-10% - EldoLED OTi, 0-10V 10% ⁴ OTi-1% - EldoLED OTi, 0-10V 1% ⁴ ELD-10V-0% - EldoLED SOLOdrive, 0-10V 0.1% 10V-TW-10% - EldoLED OTi, 0-10V 10% (Tunable White) ⁴ DALI Driver Options FC-DALI-1% - DALI 1% DXL-DALI-1% - EldoLED Dexal, 1% ELD-DALI-0% - EldoLED SOLOdrive, 0.1% ELD-DALI-TW - EldoLED DUALdrive LightShape, 0.1% (Tunable White)	Lutron Driver Options LUT-ES1 - Lutron, Ecosystem 1% LUT-TW - Lutron T-Series, EcoSystem 0.1% (Tunable White)	C1 - 15/16" T-Bar C2 - 9/16" T-Bar C3 - Screw Slot DW - Drywall Kit SM - Surface Mount	96LG - 96 Low Gloss White	
277 - 277 Voltage					
347 - 347 Voltage					
Circuiting²					
SC - Single Circuit				Contact factory optional Anti-microbial paint	

OTHER OPTIONS			
Emergency Style (Optional) <small>See page 4 Backup Battery table</small>	Integrated Sensor ⁵ (Optional)	Special Options (Optional)	Air Return
LGD18W - Legrand 18W Brand Battery Back-up LGD10W - Legrand 10W Brand Battery Back-up BSL722 - Bodine Battery Back up BSL310LP - Bodine Battery Back up Low Profile EM/GEN - Emergency to Generator NL - Night Light GTD - Generator Transfer Device ALCR - Automatic Load Control Relay <small>See Backup Battery table on page 3 for fitment limitations</small>	OBO - Occupancy OBD - Daylight W601 - Wattstopper Sensor ⁶ OBE - Enlighted Sensor ⁷ REE - Remote Enlighted CLM-99 - Encelium RF SLM-99 - Encelium Sensor	AOCC-W - Lutron Athena Sensor ⁸ (Device Color White) AOCC-B - Lutron Athena Sensor ⁸ (Device Color Black) ARF-W - Lutron Athena RF ⁹ (Device Color White) ARF-B - Lutron Athena RF ⁹ (Device Color Black) VOCC - Lutron Vive Sensor ⁹ VRF - Lutron Vive RF ⁹	CP - Chicago Plenum RLA - Red List Approved RLD - Red List Declared AR - Air Return

¹ 2x2 Very High Output (V) come with 5-year performance-based warranty with all standard components

² Contact Factory for switching options

³ Contact factory for compatible driver options not listed above

⁴ Add DTO to gain "Dim to Off" functionality (FC-10% - DTO, FC-1% - DTO)

⁵ Not a standard option for Double Diffuse (DD) and Air Return (AR).

⁶ LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connected.

⁷ LMFS-601 w/ DALI driver, only 1 driver can be connected.

⁷ Enlighted components installed by Finelite, provided by others

⁸ 0-10V Drivers - AOCC up to 10 drivers may be connected; ARF up to 40 driver may be connected

DALI Drivers - AOCC & ARF up to 4 drivers can be connected

⁹ Lutron Vive Integrated Sensors require a DALI driver

Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

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)
10V-TW-10%	EldoLED OTi, 0-10V 10% Dimming, Tunable White (Linear)
10V-TW-10%-DTO	EldoLED OTi, 0-10V 10% Dimming, Dim-to-Off, Tunable White (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)
ELD-DALI-TW	EldoLED DUALdrive Light Shape, DALI 0.1% Dimming, Tunable White (Logarithmic Dimming, Linear CCT Control)

Lutron Driver Options

LUT-ES1	Lutron, Ecosystem 1% Dimming
LUT-TW	Lutron T-Series, EcoSystem 0.1% Dimming, Tunable White

Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

SPECIFICATIONS

BODY TYPE

CONSTRUCTION: Die-formed cold-rolled steel housing. All components are hard-tooled to tolerances of +/- 0.010". UV stabilized weather-strip pile gasket with polypropylene backing. Hinged door frame assembly provides easy access to light arrays and driver compartment for servicing from below. Seismic brackets are integrated into the luminaire assembly. Additional wire entrances are positioned on the ends of the housing to allow easy wiring access for the installer.

AIR RETURN: Available with Angled (**A**) and Flat (**F**) luminaire style only. Refer to page 5 for Air Return information.

ARRAY TYPE

LIGHT OUTPUT: Four lumen packages available, Standard (**S**), Boosted Standard (**B**), High (**H**) and Very High (**V**)¹. A separate chart summarizes lumen distribution and wattage. Light engines are replaceable.

MECHANICAL FEATURES

OPTICAL SYSTEM: Components include diffuser panels and a central optic element held in place with a frame constructed from die-formed cold-rolled steel. The diffusers are UV-stabilized and impact-resistant frosted virgin acrylic, approximately 1/8" thick. They are either angled toward the central optic or parallel to the ceiling plane. The standard center rails are approximately 9/16" wide. Optional narrow rails are approximately 5/16" wide.

CENTER OPTIC OPTIONS: Only available with Angled (**A**), Angled Narrow Rail (**ANR**)², and Flat (**F**) door styles.

*Diffuse Center Optic (DCO)*⁴: UV-stabilized and impact-resistant frosted virgin acrylic.

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

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

ELECTRICAL FEATURES

STATIC FEED: Optional whips (with flex connectors) supplied in a maximum of 11' lengths. Lead Wires.

TUNABLE WHITE FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps.

LUTRON DRIVER OPTIONS: LUT-ES1 (LED1) (Hi-lume 1% EcoSystem with Soft-On, Fade to Black dimming (LDE1 series)); Contact factory for availability of discontinued Lutron drivers, L3DA-3-wire and L3DA EcoSystem.

TUNABLE WHITE DRIVER: Replaceable LED driver. Driver is accessible from below the ceiling. 120V/277V.

Power Factor: ≥ 0.9

Total Harmonic Distortion (THD): <20%

Dimming Range: 100 - 1%

Expected driver lifetime: 100,000 hours

LUTRON TUNABLE WHITE DRIVER OPTION: LUT-TW (0.1% T-Series 2-Channel Digital Tunable White (PSQ Series)).

MOUNTING TYPE

SURFACE MOUNT: Luminaire is compatible with recessed junction boxes. Electrical connections can be made directly to wiring access plat. Junction boxes can also be placed between mounting bars. Maximum center of feed location from luminaire center is 8 3/4" along the dimension parallel to the mounting bars, and 14" along dimension perpendicular to the mounting bars.

RECESSED: Standard flange design works with most lay-in ceiling types. Integral pry-out tabs secure the luminaire to the ceiling grid from above. Tie-in locations for tie-wire on all corners. Consult local code for appropriate tie-wire recommendations. Drywall Kit available.

EMERGENCY STYLE: Factory-choice low-profile backup battery available. Backup batteries deliver 1600 lumens. One half of the 2'x2', and a quarter of 2'x4' will be illuminated in emergency mode.

Backup Battery		
	Legrand 18W	Legrand 10W/ Bodine BSL310LP
HPR EP 2x2		
Angle / Flat	1957	1165
Angled Narrow Rail	1932	1150
HPR EP 2x4		
Angle / Flat	2148	1279
Angled Narrow Rail	2250	1339

* Minimum fixture housing size 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 7.

TUNABLE WHITE EMERGENCY STYLE:

- Emergency Option **DALI:** Battery backup, emergency-to-generator/inverter wiring.

- Emergency Option **LUTRON:** Battery backup, emergency-to-generator/inverter wiring.

¹ 2x2 Very High (V) come with 5-year performance-based warranty with all standard components

² Angled Narrow Rail and Curved Slotted not available with Air Return

³ Curved Slotted not available with Center Optic options

⁴ Available with Angled (A), Angled Narrow Rail (ANR), and Flat (F) door options

Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

SPECIFICATIONS

INTEGRATED SENSORS: Integrated PIR (Passive Infrared) Occupancy (**OBO**) or Daylight Sensors (**OBD**) available with Flush and Bottom Glow downlight diffusers. 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. Sensors not available for Air Return.

FINISHES: Housing and door assembly painted with 96 LG high reflectance matte white powder coat paint. Post paint. Optional adder: Anti-microbial paint. Contact factory.

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. EPA Est. No. 99530-CA-2. These fixtures are rated for Damp Location. IC-rated and Chicago Plenum options available. 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:
2'x2': 16 lbs maximum.
2'x4': 33 lbs maximum.

WARRANTY: 10-year performance-based warranty on Standard (**S**), Boosted Standard (**B**), High Output (**H**), and Very High (**V**) with all standard components. Exception: HPR 2'x2' Very High Output (**V**) will carry a 5-year performance based warranty.

Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties are covered by their individual manufacturer warranties.

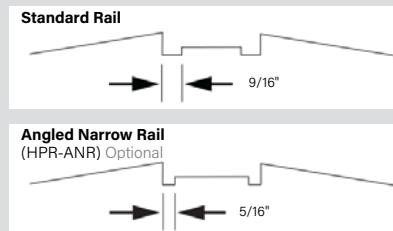
Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

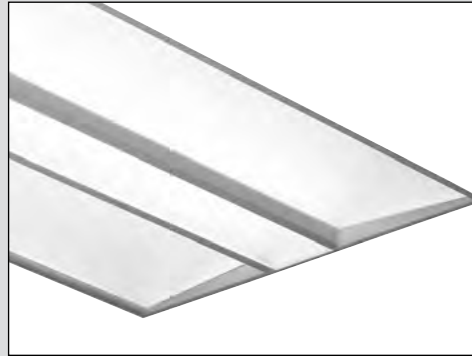
OPTIONS

NARROW RAIL OPTIONS

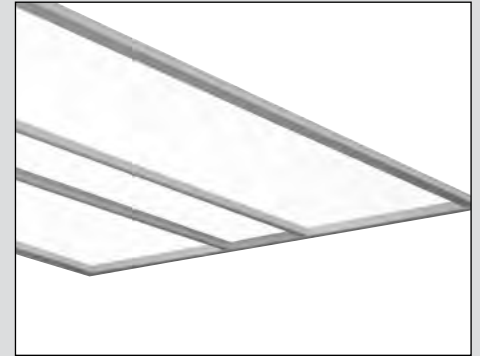
The available angled door style with the same center optic choices. The optional narrow rails are approximately 5/16" wide. The standard center rails are approximately 9/16" wide.



DOOR STYLES



Angled (A) / Angled Narrow Rail (ANR)



Flat (F)

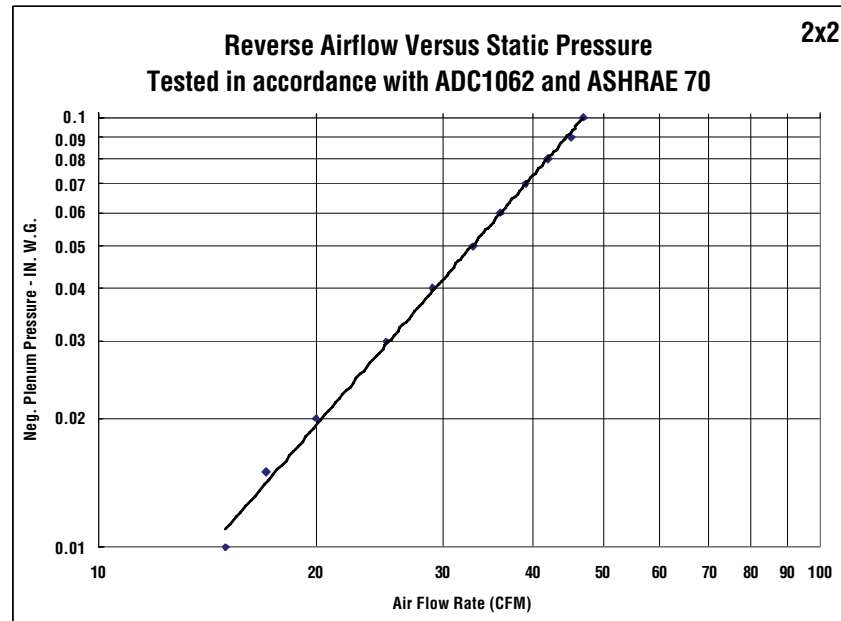
CENTER OPTICS



Diffuse Center (DCO)

AIR RETURN ONLY

AIR HANDLING INFORMATION



Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance Recessed HPR LED-EP

PHOTOMETRY

HPR-LED-EP-A-2x4-DCO-V-835

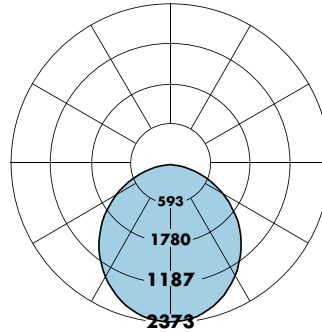
Efficacy: 117 lm/W

Total luminaire output: 6444 lumens
5.1 watts

Peak Candela Value: 2373 @ 0°

CRI: 80 / CCT: 3500K

ITL LM79 Report 85146



CANDLEPOWER SUMMARY

	0.0	22.5	45	67.5	ACROSS	Flux
0	2373	2373	2373	2373	2373	
5	2362	2362	2361	2361	2361	224
10	2323	2325	2324	2324	2326	
15	2261	2261	2263	2263	2262	638
20	2177	2178	2178	2178	2178	
25	2073	2073	2073	2074	2073	955
30	1951	1950	1950	1952	1950	
35	1814	1814	1816	1815	1815	1135
40	1666	1667	1666	1666	1669	
45	1507	1506	1504	1504	1506	1160
50	1336	1335	1333	1332	1337	
55	1160	1158	1155	1150	1146	1031
60	975	972	968	962	958	
65	792	788	777	770	771	770
70	600	596	585	577	575	
75	413	408	397	391	390	424
80	239	234	227	223	222	
85	92	90	87	85	84	105
90	0	0	0	0	0	

Total Light Output, 3500K, 80 CRI (Lumens)

		2x2 ³				2x4 ⁴			
		S	B	H	V	S	B	H	V
A/F ¹	R	3099	3984	4508	5871	3483	4379	5001	6444
	SM	3099	3984	4508	5871	3483	4379	5001	6444
	AR	3099	3984	4508	5871	3483	4379	5001	6444
ANR ²	R	3059	3933	4451	5796	3648	4586	5238	6749
	SM	3059	3933	4451	5796	3648	4586	5238	6749

Power, 3500K (Total Watts)

		2x2 ³				2x4 ⁴			
		S	B	H	V	S	B	H	V
A/F ¹	R	28.5	37.1	42.8	58.1	27.0	35.2	40.6	55.1
	SM	28.5	37.1	42.8	58.1	27.0	35.2	40.6	55.1
	AR	28.6	37.2	47.2	58.1	27.0	35.2	40.6	55.1
ANR ²	R	28.6	37.2	42.9	58.3	27.0	35.2	40.7	55.2
	SM	28.6	37.2	42.9	58.3	27.0	35.2	40.7	55.2

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

		2x2 ³				2x4 ⁴			
		S	B	H	V	S	B	H	V
A/F ¹	R	108	107	105	101	129	124	123	117
	SM	108	107	105	101	129	124	123	117
	AR	108	107	105	101	129	124	123	117
ANR ²	R	107	106	104	99	135	130	129	122
	SM	107	106	104	99	135	130	129	122

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

S - Standard Output, B - Boosted Standard Output, H - High Output, V - Very High Output, A/F - Angled & Flat, ANR - Angled Narrow Rail, R - Recessed, SM - Surface Mount, AR - Air Return

¹ Family Correlation based on 2x2 & 2x4 F 3500K Very High Output (V) test - 120V.

³ 2x2 Based on ITL report: 85144 (F), 85150 (ANR)

² Family Correlation based on 2x2 & 2x4 ANR 3500K Very High Output (V) test - 120V.

⁴ 2x4 Based on ITL report: 85146 (F), 85152 (ANR)

Sample Lumen Adjustment Calculation

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

High Output (H), A/F, 2'x4', 4000K, 90 CRI

Lumen Adjustment Factor: 0.789

Total Light Output: 5001 lm x 0.789 = 3946 lm

watts/foot: 40.6 W.

$$\text{Efficacy} = \frac{3946 \frac{\text{lm}}{\text{ft.}}}{40.6 \frac{\text{W}}{\text{ft.}}} = 97 \text{ W}$$

Submitted by:		Date:
Type:	Project:	
Ordering Info:		

0-10V Tunable White

Finelite's award-winning, contractor friendly Tunable White luminaires are available with low cost, powerful, and simple 0-10V tuning and intensity controls.

TUNABLE WHITE FEATURES

- CCT range: 2700K - 6500K
- Dimming Range: 100% to 10%
- CRI Options: 80 CRI or 90 CRI

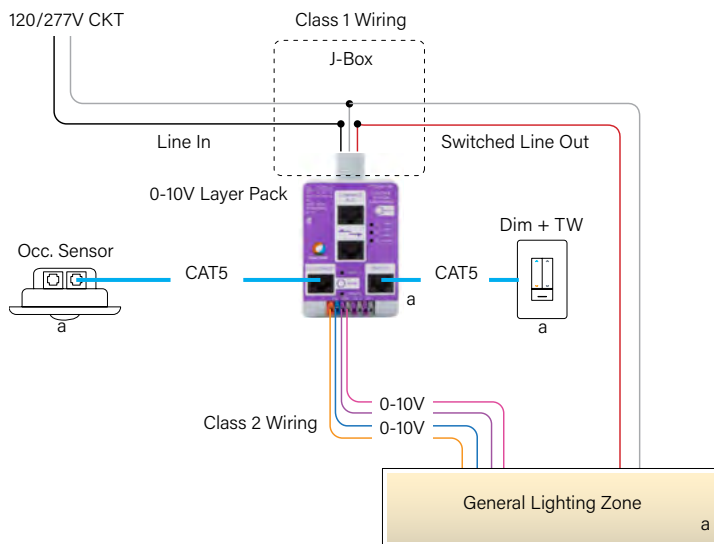
PHOTOMETRY

Apply a power adjustment factor to calculate wattage usage

POWER	CONVERSION FACTOR
	1.1X

(Example: a 50 watt luminaire in static white would draw 55 watts using 0-10V Tunable White)

WIRING DIAGRAM - DIMMABLE TO 10%

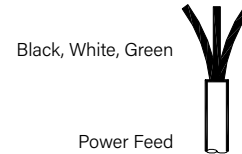


Luminaire Wiring

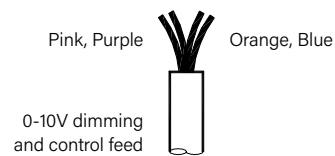
- **Purple (+) / Pink (-)** control wires are for intensity control
- **Orange (+) / Blue (-)** control wires are for Tunable White control

Note:
Switched Load or Dim to Off options available.

DUAL FEED DETAIL



WIRING LEGEND		
Black	Hot	Line Voltage
White	Neutral	Line Voltage
Green	Ground	



WIRING LEGEND		
Pink	Dimming	0-10V DC
Purple	Dimming	0-10V DC
Orange	TW	0-10V DC
Blue	TW	0-10V DC

