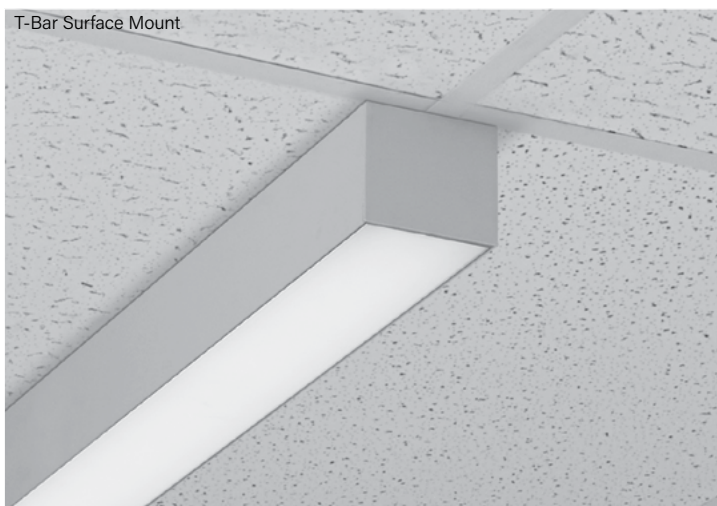


Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance 4" Aperture (HP-4) Surface Mount



Indigo-Clean Technology is a Continuous Environmental Disinfection System that emits a narrow spectrum light that kills bacteria, Influenza-A¹, and SARS-CoV-2 – the virus that causes COVID-19¹ – and is proven effective by recently conducted independent lab testing. Unlike UV disinfection, Indigo-Clean Technology is designed to safely and continuously disinfect a space while it is fully occupied.

Single-Mode Indigo-Clean Technology utilizes a combination of blended white LEDs and 405nm LEDs on a single circuit board design. When the luminaires are on, the disinfection is active.

Dual-Mode Indigo-Clean Technology utilizes a mid-power of blended white LEDs and 405nm LEDs on a two circuit board design and full 405nm indigo light using automated controls to disinfect the space. When the space is unoccupied, it utilizes just the 405nm LEDs with increased output to increase disinfection efficacy.

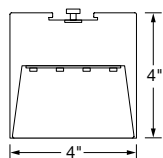
These products are enrolled in the International Living Future Institute (ILFI). Declare 2.0 Program and is third-party verified with options achieving **Red List Approved** and **Red List Declared** status.

Signal White is standard finish

Note: see page 6 for all aesthetic options

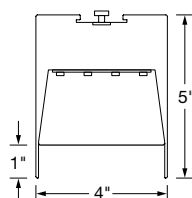
CROSS SECTIONS

Surface Mount



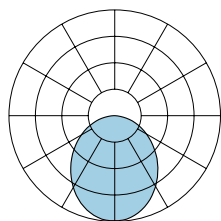
Flush Downlight Diffuser
(standard)

Surface Mount Regressed

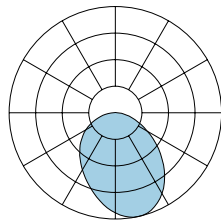


Flat Diffuser with
1" Regressed (RG)

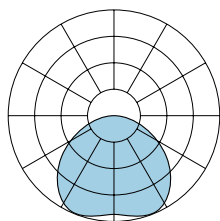
OPTIC OPTIONS



Standard Downlight Optic
(F)

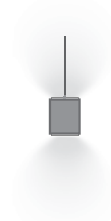


Downlight Asymmetric Optic
(DAO)



Downlight Spread Optic
(DSO)

ALSO AVAILABLE IN



Pendant
(D, ID, I)



Wall Mount
(WM)



Surface Mount
(SM)



Declare.



Indigo-Clean is a registered trademark of
Kenall Manufacturing Co., a Legrand Company

¹ [Indigo-Clean Research Reports](#)

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

High Performance 4" Aperture (HP-4) Surface Mount

Ordering Guide Example: HP - 4 - SM - D - 36' - H - 837 - F - 96LG - 120 - SC - FC-10% - C1 - FE - SW - LGD18W - OBO - CP

BODY TYPE				OUTPUT AND LED TYPE	
Platform	Series Name	Luminaire Type	Luminaire Distribution	Total Length of Run	Downlight Output (Flush)
HP - High Performance	4	SM - Surface Mount SM RG - Direct Regressed ^{1,2}	D - Direct	<div>Minimum 2' section length. Increments accurate to 1/16" (±1/32"), standard. 12' maximum section length.</div>	H - High (670 lm/ft) V - Very High (862 lm/ft) TL - Tailored: _____ lm/ft* <small>* Specify lm/ft of outputs between High (H) and Very High (V). Consult factory for tailored lumen output outside of this range.</small>

OUTPUT AND LED TYPE	MECHANICAL/OPTICAL OPTIONS	
LED CRI/CCT	Downlight	Reflector System
832-SMIC - 80 CRI, 3200K Single Mode Indigo-Clean 837-SMIC - 80 CRI, 3700K Single Mode Indigo-Clean 843-SMIC - 80 CRI, 4300K Single Mode Indigo-Clean 832-DMIC - 80 CRI, 3200K Dual Mode Indigo-Clean 837-DMIC - 80 CRI, 3700K Dual Mode Indigo-Clean 843-DMIC - 80 CRI, 4300K Dual Mode Indigo-Clean	F - Flush (standard) BG - Bottom Glow DL - 1" Drop Down Lens RG-D - Flat Diffuser with 1" Regress ² RG-WCB - White Cross Blade Baffle ² RG-LHE - Hollowed Ellipse Louver ² RG-LHC - Hex Louver ² DAO-L - Downlight Asymmetric Optic Left ³ DAO-R - Downlight Asymmetric Optic Right ³ DSO - Downlight Spread Optic ³	96LG - 96 Low Gloss White

ELECTRICAL OPTIONS			MOUNTING OPTIONS
Voltage	Circuiting ⁴	Driver Selection ⁵	Ceiling Hardware Type
120 - 120 Voltage 277 - 277 Voltage 347 - 347 Voltage (OTi only)	SC - Single Circuit* <		

OTHER OPTIONS			
Endcap Style	Emergency Style (Optional) <small>See page 5 Backup Battery table</small>	Integrated Sensor (Optional) ¹⁰	Special Options (Optional)
FE - Flat Endcap (standard) DE - 1" Drop Endcap ⁷ OE - Open Endcap ⁸ Finish SW - Signal White (standard) FB - Finelite Black SA - Satin Aluminum #### - RAL Color Code ⁹	LGD18W - Legrand 18W Brand Battery Back-up LGD10W - Legrand 10W Brand Battery Back-up EM/GN - Emergency to Generator NL - Night Light BSL722 - Bodine Battery Back up BSL310LP - Bodine Battery Back up Low Profile BSL10T3 - Bodine Battery Back up Low Profile Compact GTD - Generator Transfer Device ALCR - Automatic Load Control Relay	OBO - Occupancy OBD - Daylight W601 - Wattstopper Sensor ¹¹ OBE - Enlighted Sensor ¹² REE - Remote Enlighted ¹³ CLM - Encelium RF SLM - Encelium Sensor AOCC-W - Lutron Athena Sensor ¹⁴ (Device Color White) AOCC-B - Lutron Athena Sensor ¹⁴ (Device Color Black) ARF-W - Lutron Athena RF ¹⁴ (Device Color White) ARF-B - Lutron Athena RF ¹⁴ (Device Color Black) VOCC - Lutron Vive Sensor ¹⁵ VRF - Lutron Vive RF ¹⁵	CP - Chicago Plenum ¹⁶ RLA - Red List Approved RLD - Red List Declared

¹ Consult factory for tailored lumen output

² Regressed only

³ Not available with Regressed

⁴ Contact factory for switching options

⁵ See page 3 for more details

⁶ Add DTO to gain "Dim to Off" functionality (FC-10% - DTO, FC-1% - DTO).

⁷ 1" Drop Down Lens downlight only

⁸ Available with Hollowed Ellipse Louver (LHE) only

⁹ 20 business days lead time for color

¹⁰ Integrated Sensor not available for Dual-Mode

¹¹ LMFS-601 w/ 0-10V driver(s) and LMFI-111, up to 6 drivers may be connect-

ed. LMFS-601 w/ Dali driver, only 1 driver can be connected.

¹² Enlighted components installed by Finelite, provided by others

¹³ Enlighted Control Unit & Sensor Cable installed for Remote mounting sensor

¹⁴ 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

¹⁵ Lutron Vive Ingrated Sensors require a DALI driver

¹⁶ Only available with C1, C2, and C3 mounting hardware with Finelite Gridbox

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

High Performance 4" Aperture (HP-4) Surface Mount

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)
ODXL-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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Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance 4" Aperture (HP-4) Surface Mount

SPECIFICATIONS

BODY TYPE

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

LENGTHS: Any length, 2' minimum, in increments down to 1/16" ($\pm 1/32"$). 12' maximum section length. Hollowed Ellipse Louver (**LHE**), Hex Louver (**LHC**), and White Cross Blade Baffle (**WCB**) are available in 1' increments.

MITERED CORNERS: Illuminated corners of greater than 60° and less than 180° in a single plane, available with Flush Diffuser, Bottom Glow Diffuser, 1" Drop Down Lens, Regressed Diffuser, White Cross Blade Baffle¹, Hollowed Ellipse Louver (**LHE**) or Hex Louver (**LHC**). Consult factory for tailored lighting options.

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.

INDIGO-CLEAN TECHNOLOGY: Indigo-Clean Technology utilizes a combination of blended white LEDs, and safe 405nm LEDs to continually disinfect a space and kill bacteria, Influenza-A², and SARS-CoV-2 – the virus that causes COVID-19². Unlike UV disinfection, Indigo-Clean Technology is designed to safely and continuously disinfect a space while it is fully occupied. When the Indigo-Clean Technology light is on, disinfection is active. For optimum performance, continuously provide an average of 50-60 footcandles on the work plane and high touch surfaces (24/7). Dimming generally reduces effectiveness and increases the variation in the disinfecting light's visual appearance.

Single-Mode Indigo-Clean Technology: Continuous environmental disinfection system that uses a blended white LEDs and 405nm Indigo-Clean LEDs. The narrow spectrum light provides a safe visible light that disinfects the space. When the light is on, disinfection is active.

Dual-Mode Indigo-Clean Technology: Utilizes a two circuit board design. When the space is occupied it utilizes a combination of blended white LEDs and 405nm LEDs. When the space is unoccupied, it utilizes just the 405nm LEDs with increased output to increase disinfection efficacy.

Dual-Mode Indigo-Clean Technology Controller: It is a low-voltage internal device that determines the operational mode based on the input received from the external automated controls. An Off manual push will not turn the lights off, but rather turn the lights to Blue Mode. Please refer to Dual-Mode Application Guide for wiring diagram. Dim to Off not available.

MECHANICAL/OPTICAL OPTIONS

DOWNLIGHT OPTION: 12' maximum diffuser length. Flush frost white snap-in diffuser standard, 77% transmissive, 99% diffusion. Internal secondary diffusers at corners ensure visually seamless, uniform, continuous illumination. Available with Flush (**F**), Bottom Glow (**BG**), 1" Drop Down Lens (**DL**), White Cross Blade Baffle (**WCB**)³, Ellipse Louver (**LHE**)³, Hex Louver (**LHC**)³, Downlight Asymmetric Optic (**DAO**)⁴, Downlight Spread Optic (**DSO**)⁴, and Regressed downlight diffusers (**RG**). 1" Drop Down Lens made of acrylic. Available with a solid endcap or an endcap with a diffuse filler to continue the luminous aesthetic. Downlight Spread Optic is an extruded lens with a subtle ribbed appearance providing a batwing distribution for improved optical performance. Consult factory for more tailored lumen outputs.

LUMEN MAINTENANCE: White LEDs: 90% of initial light output (L90) at 100,000+ hours; 70% of initial light output (L70) at 200,000+ hours. 405nm LEDs: 70% of initial output at L70 @ 60,000 hours.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors finished in 96LG High Reflectance white powder coat paint.

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-dimming. 0-10V dimming controls with a range of 10%- 100% 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%
- **Expected driver lifetime:** 100,000 hours

LUTRON DRIVER OPTIONS:

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

MOUNTING OPTIONS

HANGING HARDWARE: Lay-in ceiling types: caddy clip with 1/4" - 20 stud and nut. Drywall or concrete surfaces (walls or ceilings): 1/4" - 20 stud and nut (provided by others).

¹ White Cross Blade (WCB) baffles not available with custom angles. Available in 90 degrees only

² Indigo-Clean Research Reports

³ Regressed only

⁴ Not available with Regressed

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

High Performance 4" Aperture (HP-4) Surface Mount

Specifications

OTHER FEATURES

ENDCAPS: Flat diecast aluminum endcaps (**FE**) add 1/4" to each end of luminaire. 1" Drop Down Lens Endcap (**DE**) includes diffuse element to continue luminance of drop lens. Open Endcap (**OE**) is for use with the Hollowed Ellipse Louver (**LHE**)⁵; following the curve of the louver.

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 BSL310LP
HP4-SM-D		
Min. Housing Length	8'	4'
EM Lumen Output	1724	1026
EM Section Illum.	2'	2' or 4'

Based on 3700K and 80 CRI.

* 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 7.

Bodine GTD and Legrand ALCR Min. Length

Configuration	Min Length
Generator	2'
Generator + OCC	2'
Day	2'
Generator + Day	2'

INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy or daylight sensors available with Flush and Bottom Glow downlight diffusers. Refer to Occupancy Sensor, Daylight Sensor, and Enlighted Sensor tech sheets for more info. Integrated Sensor not available for Dual-Mode. The default location for the Connected Lighting Module (**CLM**) will be on the topside of the fixture for all

mounting types except for Surface Mount (**SM**). In SM fixtures the CLM will be located on the direct side of fixture housed in a bracket that is flush with the direct lens.

PATENT: Indigo-Clean products and technology covered by U.S. Patent No.US 9,039,966 and US 8,398,264. Product may also be covered by patents found at www.kenall.com/patents.

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 colors⁶ 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. EPA Est.No. 99530-CA-2. These fixtures are rated for Damp Location. Chicago Plenum options available for C1, C2, or C3 suspension using our GridBox. 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 – **RDL** (Red List Declared) to your part number.

WEIGHT⁷: SM - 2.8 lb/ft; WW - 2.9 lb/ft

DLC QUALIFIED: Contact factory

WARRANTY: 5-year performance-based warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

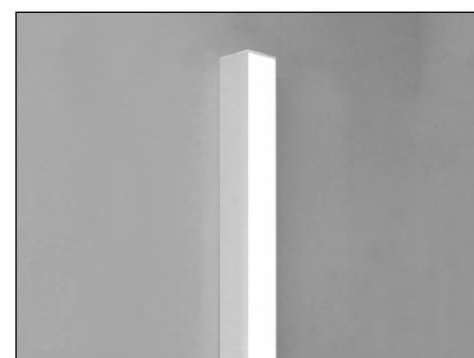
SURFACE MOUNT OPTIONS



Ceiling Surface Mount



Horizontal Surface Mount



Vertical Surface Mount

⁵ Regressed only

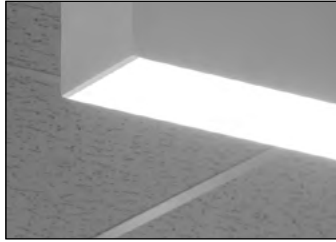
⁶ 20 business days lead time for color

⁷ Excludes Battery Backup and Generator Transfer Device weight

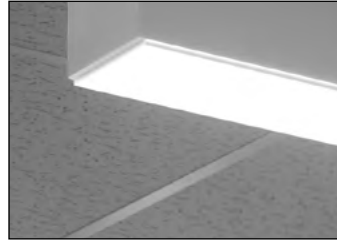
Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance 4" Aperture (HP-4) Surface Mount

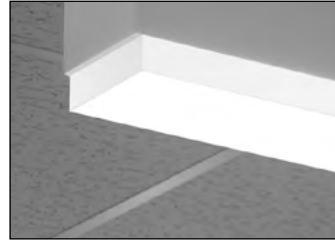
AESTHETIC OPTIONS



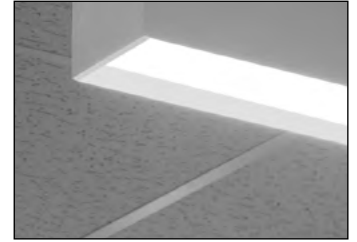
Flush Diffuser (**F**)



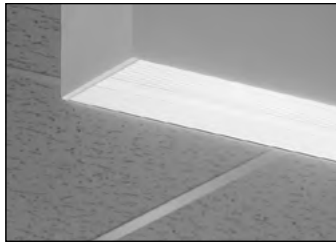
Bottom Glow Diffuser (**BG**)



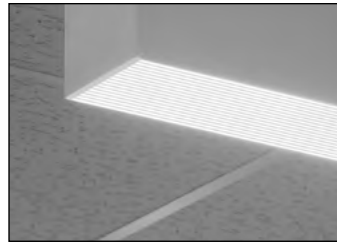
1" Drop Down Lens (**DL**)



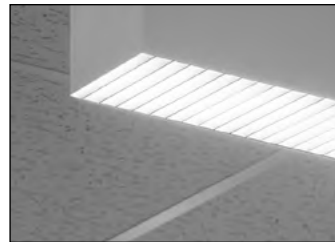
Flat Diffuser with 1" Regressed (**RG-D**)



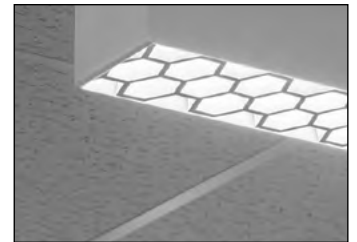
Downlight Asymmetric Optic (**DAO**) ¹
Externally flush



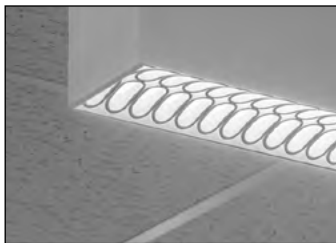
Downlight Spread Optic (**DSO**) ¹
Externally flush



White Cross Blade Baffle ¹ (**RG-WCB**)



Hex Louver ¹ (**RG-LHC**)



Hollowed Ellipse Louver ² (**RG-LHE**)

¹ With a subtle ribbed appearance providing an asymmetric or batwing distribution

² Not available with Wall Wash

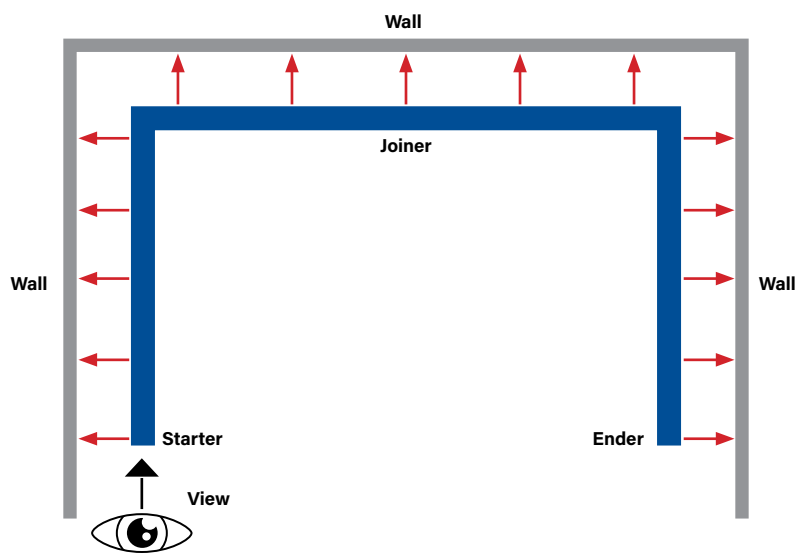
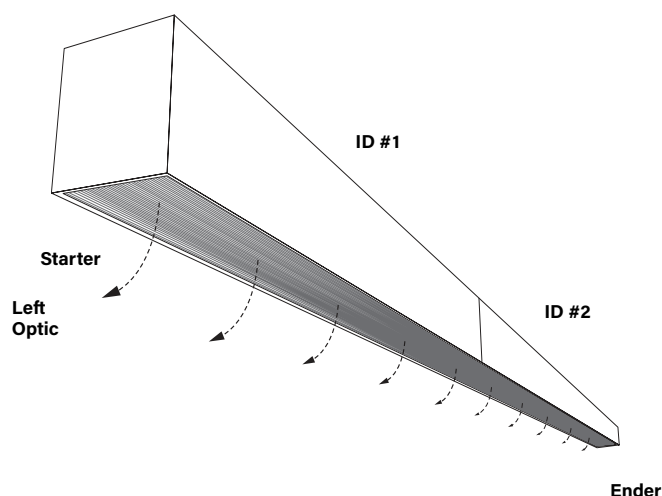
Submitted by:		Date:
Type:	Project:	
Ordering Info:		

High Performance 4" Aperture (HP-4) Surface Mount

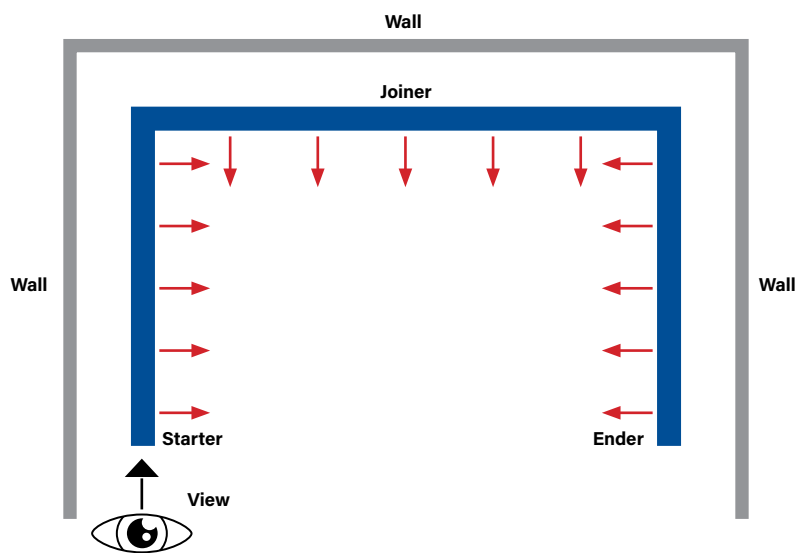
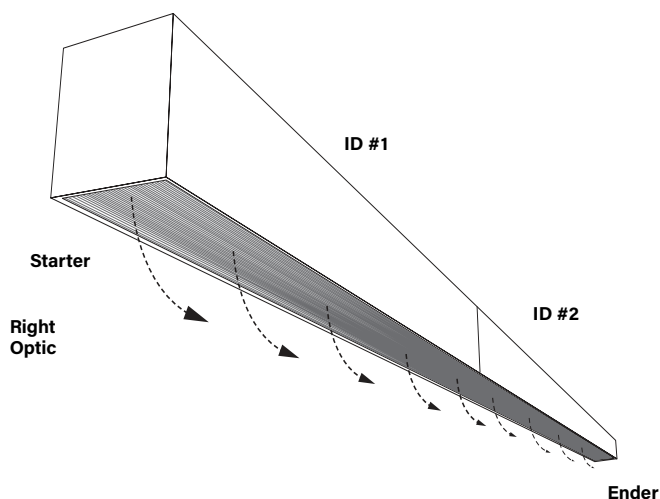
DOWNLIGHT ASYMMETRIC OPTIONS

The diagrams below show a linear run from power feed to ender. Specifying DAO-L distributes light to the left or DAO-R distributes light to the right. For proper orientation: view luminaire from starter end when specifying the direction of the Downlight Asymmetric optic.

Downlight Asymmetric Optic Left (DAO-L)



Downlight Asymmetric Optic Right (DAO-R)



PREINSTALLED LABEL



For DAO, Preinstalled label on diffuser shows direction of light. Remove after installation.

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

High Performance 4" Aperture (HP-4) Surface Mount

Direct Photometry - 4' Luminaire 3700K

HP4-P-D-4'-V-837-DSO

Downlight: Downlight Spread Optic

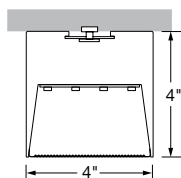
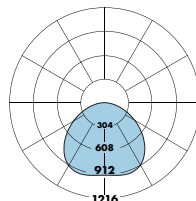
Efficacy: 99 lm/W

Total luminaire output: 3500 lumens (875 lm/ft)
35.2 watts (8.8 W/ft)

Peak Candela Value: 972 @ 25°

CRI: 80 / CCT: 3700K

ITL LM79 Report 92993 (Family Correlated)



CANDELA DISTRIBUTION						
	0.0	22.5	45.0	67.5	90.0	FLUX
0	935	935	935	935	935	935
5	928	929	934	939	940	111
15	888	901	929	963	971	326
25	788	816	895	955	972	508
35	664	711	820	892	901	622
45	529	583	696	750	759	641
55	395	442	536	572	575	566
65	266	298	361	380	379	420
75	147	162	192	198	197	239
85	43	46	51	49	49	68
90	0	0	0	0	0	0

Direct Photometry - 4' Luminaire 3700K

HP4-P-D-V-837-F

Downlight: Flush Diffuser

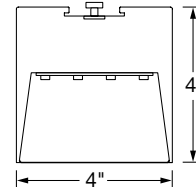
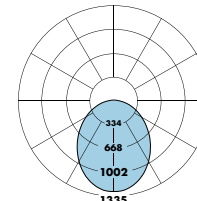
Efficacy: 98 lm/W

Total luminaire output: 3446 lumens (862 lm/ft)
35.2 watts (8.8 W/ft)

Peak Candela Value: 1242 @ 0°

CRI: 80 / CCT: 3700K

TL LM79 Report 85124 (Family Correlated)



CANDELA DISTRIBUTION						
	0.0	22.5	45.0	67.5	90.0	FLUX
0	1242	1242	1242	1242	1242	126
5	1235	1235	1234	1234	1234	126
15	1179	1170	1175	1174	1168	355
25	1069	1056	1060	1054	1048	523
35	917	906	906	897	891	607
45	743	734	733	723	719	606
55	560	553	551	543	539	529
65	375	374	373	368	367	395
75	204	204	205	203	204	233
85	58	59	60	61	60	71
90	0	0	0	0	0	0

Information in chart below is for reference and based on ITL LM79 report 94139 (Family Correlated)

Total Light Output, 3700K, 80 CRI (Lumens) - 4' Luminaire					
H ¹			V		
2722			3500		
Light Output, 3700K, 80 CRI (Lumens Per Foot)					
H ¹			V		
681			875		
Single Mode Power, 3700K (Watts Per Foot)					
H ¹			V		
6.8			8.8		
Dual Mode Power, 3700K (Watts Per Foot)					
H ¹			V		
Occupied	LPD	Unoccupied	Occupied	LPD	Unoccupied
6.9	5.4	4.1	9.0	7.0	5.2
Efficacy, 3700K, 80 CRI (Lumens Per Watt)					
H ¹			V		
101			99		

¹ Family Correlation based on 4' luminaire 3700K Very High Output (V) test - 120V.
H - High Output, V - Very High Output

Information in chart below is for reference and based on ITL LM79 report 94139 (Family Correlated)

Total Light Output, 3700K, 80 CRI (Lumens) - 4' Luminaire					
H ¹			V		
2680			3446		
Light Output, 3700K, 80 CRI (Lumens Per Foot)					
H ¹			V		
670			862		
Single Mode Power, 3700K (Watts Per Foot)					
H ¹			V		
6.8			8.8		
Dual Mode Power, 3700K (Watts Per Foot)					
H ¹			V		
Occupied	LPD	Unoccupied	Occupied	LPD	Unoccupied
6.9	5.4	4.1	9.0	7.0	5.2
Efficacy, 3700K, 80 CRI (Lumens Per Watt)					
H ¹			V		
99			98		

¹ Family Correlation based on 4' luminaire 3700K Very High Output (V) test - 120V.
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.

- Use **Occupied Power** for total electrical load calculations. Use this value to estimate branch circuit lighting loads.
- Use **LPD Power** for lighting power density calculations. Only the power attributed to white light is required per NEMA LSD EB 84-202X. Power used toward germicidal disinfection has been removed for this calculation.
- Use **Unoccupied** and **Occupied Power** for energy calculations to determine the power consumed over time based on the use of the space.

Sample Lumen Adjustment Calculation

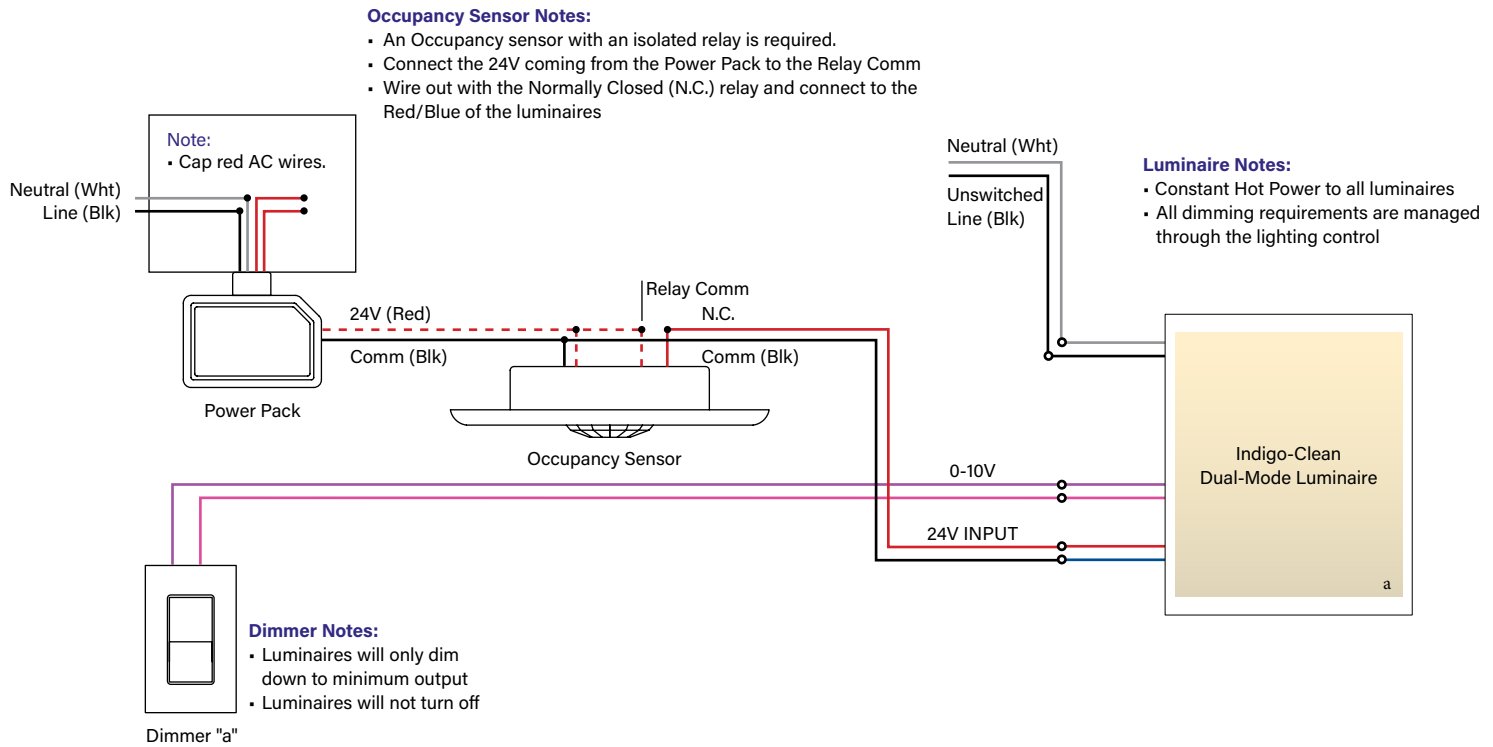
Lumen Adjustment Factors 80 CRI	
Indigo-Clean	
3200K	0.98
3700K	1.00
4300K	1.03

FLUSH: Very High Output (V), 3200K, 80 CRI
Lumen Adjustment Factor: 0.98
Total Light Output: 3446 lm x 0.98 = 3377 lm
Total Light Output per Foot: 862 lm/ft x 0.98 = 845 lm/ft.
watts/foot: 8.8 W/ft.
Efficacy = $\frac{845 \frac{\text{lm}}{\text{ft}}}{8.8 \frac{\text{W}}{\text{ft}}} = 96 \text{ lm/W}$

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

Indigo Clean Dual Mode - Basic Wiring Diagram

WIRING DIAGRAM



DUAL FEED DETAIL

