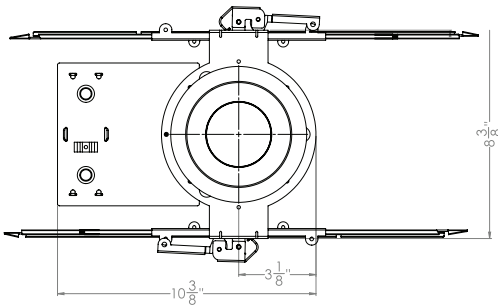
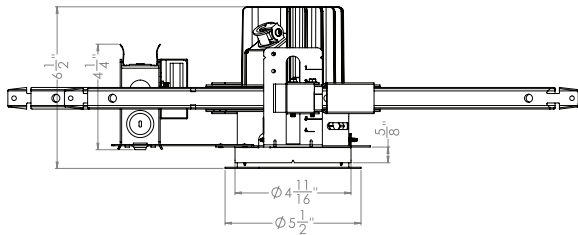




REFLECTOR/
FLANGED COLORS



NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
5000	4893	56W
4000	4095	46W
3000	3314	35W
2000	2113	27W
1000	1031	12W

Based on 4000K, 90+CRI with semi-specular chrome reflector.
Actual wattage may vary +/-5%

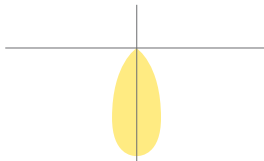
FEATURES

HL4 is a 4" aperture high-lumen architectural LED downlight delivering up to 5,000 lumens. A deeply regressed light source and a spun reflector provide uniform, glare-free illumination. Available in a range of finishes, distributions, and lumen packages, HL4 is ideal for offices, hospitality, healthcare, commercial, academic, houses of worship, and retail applications.

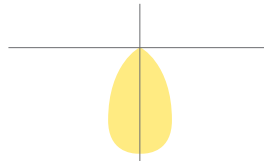
LUMENS	1000L, 2000L, 3000L, 4000L, 5000L (Custom lumen packages available)
CCT & DYNAMIC PLATFORMS	22K, 27K, 30K, 35K, 40K, 50K*, Tunable White, Dims to Warm
CRI	90+ Standard, 98+ Optional
COLOR QUALITY	2 Step MacAdam Ellipse
DISTRIBUTION	WD (Wide Distribution), MD (Medium Distribution) ND (Narrow Distribution)
TRIM OPTIONS	Downlight
REFLECTOR COLORS	CL (Semi-Specular Chrome), SHZ (Low Iridescent Satin Haze), WH (White), MB (Black)
FLANGE COLORS	Self-Flanged WH (White), SCH (Semi-Specular Chrome), SHZ (Low Iridescent Satin Haze)
DIMMING	0-10V Flicker Free 1% Dimming Standard (DIM10), LUTH, ELDO10.1, ELDODMX.1, ELDODALI.1, DIMTR, BLE
EMERGENCY	10W - Up to 1000L Output 20W - Up to 2000L Output INTG-EMG-LED-10W INTG-EMG-LED-20W
LIFETIME	L70 at 102,000 Hours
PHOTOMETRIC TESTS	In Accordance with IES LM-79-08, LM-80 and TM-30, TM-21

* Available on 85+ CRI only

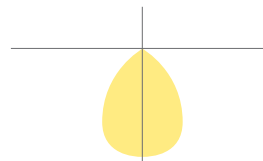
ND: Narrow
Candlepower Distribution (Candelas)



MD: Medium
Candlepower Distribution (Candelas)



WD: Wide
Candlepower Distribution (Candelas)



THERMAL MANAGEMENT SYSTEM

A passive cooling die-cast aluminum heat sink, LED light engine, and driver are replaceable, upgradeable, and can be accessed from below the ceiling. A unique locking mechanism aligns the reflector with the light engine, delivering consistently distributed light from fixture to fixture.

MOUNTING FRAME & BRACKET

16-gauge steel construction with C-channel mounting brackets standard. The mounting bracket adjusts up to 28" horizontally and 2-3/4" vertically. After achieving required length, integral locking screws lock brackets securely into place. Die-formed construction of the mounting frame provides maximum heat dissipation and rust protection.

REFLECTOR AND FLANGE

Reflector has a 45° visual cutoff. It is spun from 0.05" thick aluminum with a 1-step anodized finish. Available in different colors or custom RAL finishes. Reflector flange options include self-flanged and white-painted flange. Multiple distributions are available.

OPTICAL PERFORMANCE

A compact light source combined with a Solite lens in a smooth frosted finish delivers glare-free, uniform distribution with excellent beam control. Lumen output will not decrease by more than 30% over a minimum life of 102,000 hours (L70 > 102,000 hours).

DRIVER ELECTRICAL INFORMATION

The LED driver is rated for 50 to 60Hz at 120V/277V, or 347V input, produces less than 20% THD, has a power factor between 90% and 100%, and is thermally protected for additional safety. Junction box and driver can be accessed from above and below the ceiling. Junction Box is listed for through branch circuit wiring.


WARRANTY


Five-year carefree warranty for parts and components. (Labor not included)

LISTINGS

UL Certified for US and Canada
Refer to ENERGY STAR® Certified Products List
Use to comply with California Title 24 requirements

LED DYNAMIC PLATFORM OPTIONS

 Tunable White with Smart White Technology utilizing the Lumenetix Platform allows you to color tune the luminaire via various controls. Create the perfect environment for the desired use of the space, while maintaining a CRI of 90+ across the tunable range of 8000 to 1650K.

 Dims to Warm with Smart Dimming Technology. At 100% full brightness the luminaire is at 3000K. When dimmed to 1%, the light transitions to 1800K, creating a warm ambiance within the space.

DIMMING & DRIVER INFORMATION

DIM10 - 0-10V dimming on either MVOLT 120, 277 or 347V. Dimmable down to 1% of initial lumens, standard.

DIMTR - Triac & Electronic low voltage dimming. Available in 120V, and up to 4000 lumens only.

LUTH - Lutron LDE1 Hi-Lume Eco System. 1% dimming with Soft in Fade to Black dimming technology.

ELDO10.1 - EldoLED SoloDrive 0-10V. Dimming down to 0.1%.

ELDODALI - DALI DT6, DT8 dimming down to 1%.

ELDOMX - EldoLED PowerDrive dimming down to 0.1%.

Please see EldoLED website for wiring diagrams and a list of compatible DMX and DALI control systems.

BLE - Luminaires may be controlled, grouped, scheduled or placed in scenes and or zones Via Cassambi Bluetooth 4.0 App.

Example: HL4-LED-2000L-DIM10-MVOLT-MD-40K-90-HL4-4501-CL-WH

SERIES	LUMENS	DRIVER	VOLTAGE	CCT	EMERGENCY	TRIM TYPE	REFLECTOR/FLANGE COLORS
HL4-LED	<input type="checkbox"/> 1000L	<input type="checkbox"/> DIM10	<input type="checkbox"/> 120	<input type="checkbox"/> 22K	<input type="checkbox"/> EMG-LED-10W	<input type="checkbox"/> HL4-4501 Trim Downlight	<input type="checkbox"/> CL-WH
	<input type="checkbox"/> 2000L	<input type="checkbox"/> DIMTR ¹	<input type="checkbox"/> 277	<input type="checkbox"/> 27K	<input type="checkbox"/> EMG-LED-20W		<input type="checkbox"/> CL-SCH
	<input type="checkbox"/> 3000L	<input type="checkbox"/> LUTH ²	<input type="checkbox"/> MVOLT	<input type="checkbox"/> 30K	<input type="checkbox"/> INTG-EMG-LED-10W		<input type="checkbox"/> SHZ-WH
	<input type="checkbox"/> 4000L ¹	<input type="checkbox"/> ELDO10-.1 ²	<input type="checkbox"/> 347 (DIM10 only)	<input type="checkbox"/> 35K	<input type="checkbox"/> INTG-EMG-LED-20W		<input type="checkbox"/> SHZ-SHZ
	<input type="checkbox"/> 5000L ¹	<input type="checkbox"/> ELDODALI-.1 ²		<input type="checkbox"/> 40K	Typical lumen output of the luminaire is up to 1000L with EMG-LED-10W option & 2000L with EMG-LED-20W option in emergency mode. Contact the factory for details. Remote mounted installation		<input type="checkbox"/> W-WH
		<input type="checkbox"/> ELDODMX-.1		<input type="checkbox"/> 50K ³			<input type="checkbox"/> MB-WH
		<input type="checkbox"/> BLE					
			OPTICS	CRI			
			<input type="checkbox"/> ND	<input type="checkbox"/> 90+			
			<input type="checkbox"/> MD	<input type="checkbox"/> 98+ ⁴			
		<input type="checkbox"/> WD	<input type="checkbox"/> 85+(50K only)				

¹ DIMTR available in 120V only (not available for 4000L, 5000L)

² LUTH, ELDO10-.1, ELDODALI-.1, and ELDODMX-.1 are available in 120V and 277V

³ 50K series are available with 85+ CRI only ⁴ 98+ CRI is available in 27K, 30K and 40K only

-Reference last page for Control Options

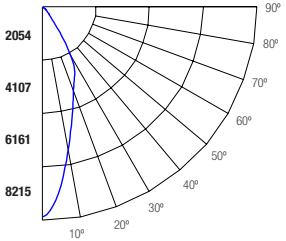
HL4-LED-5000L-DIM10-MVOLT-MD-40K-90-HL-4501-CL-WH

TEST NO.: **EL05082054**

INPUT WATTS: **56.4** LUMENS: **4893** CRI: **90** EFFICACY: **87** CCT: **4000K**

SPACING CRITERIA: **0.76**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	2040.88	41.7	41.7
0-30	3526.18	72.1	72.1
0-40	4519.73	92.4	92.4
0-60	4869.06	99.5	99.5
0-80	4889.07	99.9	99.9
0-90	4890.12	99.9	99.9

Luminaire (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	3251	3549	4270
55	1404	1560	1961
65	187	211	282
75	115	136	192
85	26	52	123

Lumens Per Zone

Zone	Lumens
0-10	676
10-20	1364.87
20-30	1485.31
30-40	993.55
40-50	250.47
50-60	98.86
60-70	15.31
70-80	4.7
80-90	1.05

Candela Tabulation

0		0	
0	8155.69	0	8155.69
5	7245.66	5	7245.66
15	4520.16	15	4520.16
25	3015.47	25	3015.47
35	1183.19	35	1183.19
45	241.73	45	241.73
55	84.69	55	84.69
65	8.33	65	8.33
75	3.14	75	3.14
85	0.24	85	0.24
90	0.04	90	0.04

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

Cone of Light			
2	2039 fc	1.4 ft	1.4 ft
4	510 fc	2.8 ft	2.7 ft
6	227 fc	4.2 ft	4.1 ft
8	127 fc	5.5 ft	5.5 ft
10	81.6 fc	6.9 ft	6.8 ft
12	56.6 fc	8.3 ft	8.2 ft

ROOM CAVITY RATIO	RC	80%				70%				50%			30%			10%			0%
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94	
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81	
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76	
5	93	85	79	75	91	84	79	75	82	77	74	80	76	73	79	75	73	71	
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67	
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63	
8	80	71	65	61	79	71	65	61	69	64	61	68	64	61	67	63	60	59	
9	77	67	62	58	76	67	61	58	66	61	57	65	60	57	64	60	57	56	
10	73	64	58	55	72	64	58	54	63	58	54	62	57	54	61	57	54	53	

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

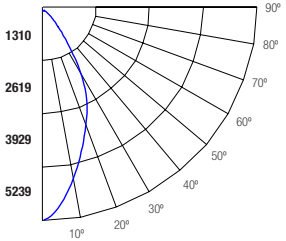
HL4-LED-5000L-DIM10-MVOLT-WD-40K-90-HL-4501-CL-WH

TEST NO.: **EL05082054**

INPUT WATTS: **56.2** LUMENS: **4175** CRI: **90** EFFICACY: **74** CCT: **4000K**

SPACING CRITERIA: **0.86**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1529.45	36.6	36.6
0-30	2778.89	66.6	66.6
0-40	3679.18	88.1	88.1
0-60	4153.78	99.5	99.5
0-80	4171.96	99.9	99.9
0-90	4172.89	99.9	99.9

Luminaire (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	4529	5107	6421
55	1260	1587	2335
65	184	188	216
75	109	113	137
85	28	41	76

Lumens Per Zone

Zone	Lumens
0-10	458.23
10-20	1071.22
20-30	1249.44
30-40	900.29
40-50	359.3
50-60	115.3
60-70	13.99
70-80	4.19
80-90	0.93

Candela Tabulation

0		0	
0	5202.21	0	5202.21
5	4832.34	5	4832.34
15	3610.54	15	3610.54
25	2553.67	25	2553.67
35	1155.54	35	1155.54
45	336.84	45	336.84
55	75.98	55	75.98
65	8.18	65	8.18
75	2.96	75	2.96
85	0.26	85	0.26
90	0.05	90	0.05

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

Cone of Light			
2	1301 fc	2.0 ft	2.0 ft
4	325 fc	4.0 ft	3.9 ft
6	145 fc	6.0 ft	5.9 ft
8	81.3 fc	8.0 ft	7.8 ft
10	52.0 fc	9.9 ft	9.8 ft
12	36.1 fc	11.9 ft	11.7 ft

ROOM CAVITY RATIO	RC	80%				70%				50%			30%			10%			0%
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	113	110	108	106	111	108	106	104	104	102	101	101	99	98	97	96	95	93	
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86	
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	86	84	81	80	
4	96	89	83	79	95	87	82	78	85	81	77	83	79	76	81	78	75	74	
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	69	
6	87	77	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64	
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	59	
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56	
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52	
10	71	61	55	51	70	60	55	51	59	54	51	59	54	51	58	54	50	49	

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

- 1- Luminaire will be shipped with Powerpacks pre-installed, ready to be integrated to designated control systems
 2- Luminaire will be shipped with Sensors installed on the luminaire, allowing for individual luminaire control. Luminaires will be ready to be integrated with designated control systems
 3- Luminaire will be shipped with Sensors to be remotely installed on the ceiling. Luminaires will be ready to be integrated with designated control systems

BRAND	EASYFIT <small>by EnOcean</small>	LUTRON	enlighted	LEVITON	OSRAM	PHILIPS <small>EasySense</small>	legrand®
CONTROL UNIT	<input type="checkbox"/> LEDRU LED Relay Zone Controller 0-10V ¹ <input type="checkbox"/> LEDDU LED Zone Controller 0-10V ¹	<input type="checkbox"/> FCJS-010 Lutron Vive 0-10V Individual Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴ <input type="checkbox"/> FCJS-ECO Lutron Vive Eco-system Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴	<input type="checkbox"/> CU-4E-FMH Fixture Mount Control Unit ¹⁵	<input type="checkbox"/> ZL027 -NOW Intellect Power Control Module ¹⁶ <input type="checkbox"/> ZL027 -NOW Intellect Power Control Module ¹⁶	<input type="checkbox"/> EN-WCM2-ZB-DR Wireless Control Module ¹⁷ <input type="checkbox"/> EN-ALC-ZB-BK-DR Wireless Area Lighting Control Module ¹⁷ <input type="checkbox"/> ZBHA-CLM-DIM-ENC Connected Lighting Module DIM ¹⁷	<input type="checkbox"/> SBR-BS Titanium SR Bridge ¹⁸	<input type="checkbox"/> LMFC-011 ON/OFF/0-10V dimming fixture controller ¹⁹
INTEGRATED SENSOR	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*WIRELESS OCCUPANCY SENSOR	<input type="checkbox"/> EOSCU-W-E0 Occupancy Sensor - Ceiling Mounted (Must be specified with LEDRU or LEDDU control unit) ³	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMDC-100 Dual technology PIR Ceiling Mount Occupancy Sensor ³
*WIRELESS DAYLIGHT SENSOR	<input type="checkbox"/> ELLSU-W-E0 Light Level Sensor - Ceiling Mounted (Must be specified with LEDRU or LEDDU control unit) ³	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMLS-400 Single zone switching and dimming digital photosensor ³
*WIRELESS OCCUPANCY & DAYLIGHT SENSOR	N/A	N/A	<input type="checkbox"/> SU-5E-IoT IoT Node Micro Sensor ³ <input type="checkbox"/> SU-5E-CL Connected Lighting Micro Sensor ³ <input type="checkbox"/> SU-5E-IL Independent Lighting / Enlighted One Micro Sensor ³ <input type="checkbox"/> SU-5S-H-(IoT/CL/IL) Surface Mount Sensor ³ (Must be specified with CU-4E-FMH Control Unit)	<input type="checkbox"/> ZL00J -T0W Intellect Intelligent Fixture Control System ³ (Must be specified with ZL027 -NOW Control Unit)	<input type="checkbox"/> EN-CLM-PIR-DD-ZB SensiLUM™ Wireless Integrated Sensor <input type="checkbox"/> EN-SCPPH-1500-ZB Wireless Passive Infrared Occupancy and Photo Sensors ³ (Must be specified with EN-WCM2-ZB-DR or EN-ALC-ZB-BK-DR Control Unit)	<input type="checkbox"/> SNS200-CMP SNS200 for grouping ³	N/A
ACCESSORIES	N/A	N/A	<input type="checkbox"/> TMC-SU-5E Tile Mount Carrier <input type="checkbox"/> CBL-5E-CU4-30N 30 inch Sensor Cable for CU-4 and IoT Ready™ drivers <input type="checkbox"/> CBL-5E-CU4-7F 7 foot Sensor Cable for CU-4 and IoT Ready™ drivers	N/A	N/A	N/A	N/A
NOTES	N/A	4- Luminaire will be compatible with Lutron LRF2-OCR2B-P-WH Ceiling mount 360° occupancy/vacancy sensor & LRF2-DCRB-WH Ceiling-mount daylight sensor. Sensors must be ordered through Lutron.	5- Luminaire will be compatible with ENLIGHTED SU-5E-IoT, SU-5E-CL, SU-5E-IL, SU-5S-H, Sensors.	6- Luminaire will be compatible with Leviton Intellect App & Keypad Room Controller	7- Luminaire will be compatible with EN-SCPPH-1500-ZB Wireless Passive Infrared Occupancy and Photo Sensors	8- Luminaire will be compatible with Philips field and wireless switch.	9- Luminaire will be compatible with DLM Room control system LMPB-100. DLM control system must be ordered through Legrand.