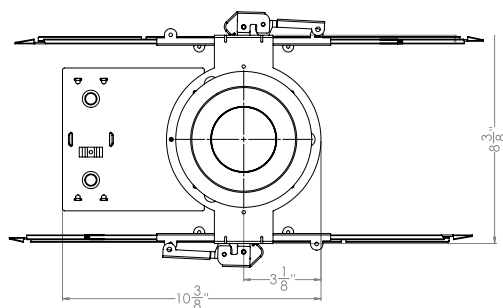
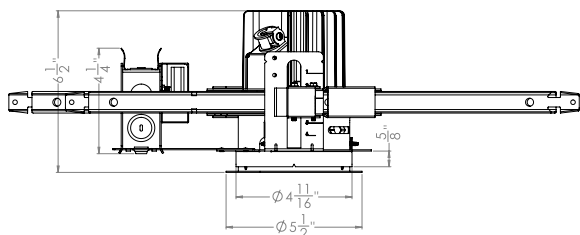


REFLECTOR/
FLANGED COLORS

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

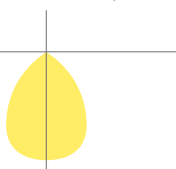
Based on 4000K, 90+CRI with semi-specular chrome reflector.
Actual wattage may vary +/-5%

FEATURES

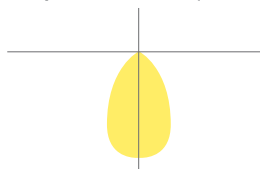
HL4 is a 4" aperture high-lumen architectural LED downlight delivering up to 5,000 lumens. A deeply regressed light source and a spun reflector provide uniform, glare-free illumination. Available in a range of finishes, distributions, and lumen packages, HL4 is ideal for offices, hospitality, healthcare,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

LUMENS	1000, 2000, 3000, 4000, 5000 (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)
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, LUT2W, ELDO10.1, ELDODMX.1, ELDODALI.1, DIMTR
EMERGENCY	10W - Up to 1000L Output 20W - Up to 2000L Output
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

WD: Wide
Candlepower Distribution (Candelas)

MD: Medium
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.

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.

LUT2W - Lutron LTEA2W Hi-Lume 1%. 2-wire LED Driver Forward Phase Control, 1% dimming in 120V only up to 40W.

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

ELD010.1 - 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.

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

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	☐ 1000L	☐ DIM10	☐ 120	☐ 22K	☐ EMG-LED-10W	☐ HL4-4501 Trim Downlight	☐ CL-WH ☐ CL-SCH ☐ SHZ-WH ☐ SHZ-SHZ ☐ W-WH ☐ MB-WH
	☐ 2000L	☐ DIMTR ¹	☐ 277	☐ 27K	☐ EMG-LED-20W		
	☐ 3000L	☐ LUTH ²	☐ MVOLT	☐ 30K	☐ INTG-EMG-LED-10W		
	☐ 4000L ¹	☐ LUT2W ¹	☐ 347	☐ 35K	☐ INTG-EMG-LED-20W		
	☐ 5000L ¹	☐ ELD010-.1 ²	(DIM10 only)	☐ 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		
		☐ ELDODALI-.1 ²		☐ 50K ³			
		☐ ELDODMX-.1 ²					
			OPTICS	CRI			
			☐ WD	☐ 90+			
			☐ MD	☐ 98+ ⁴ ☐ 85+(50K only)			

¹ DIMTR and LUT2W are available in 120V only (not available for 4000L, 5000L) ² LUTH, ELD010-.1, ELDODALI-.1, and ELDODMX-.1 are available in 120V and 277V

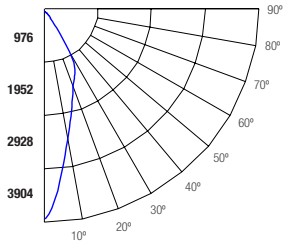
³ 50K series are available with 85+ CRI only ⁴ 98+ CRI is available in 27K, 30K and 40K only

-Reference last page for Control Options

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

INPUT WATTS: **27.8** LUMENS: **2113** CRI: **90** EFFICACY: **76** CCT: **4000K** TEST NO.: **EL05082054**
SPACING CRITERIA: **0.70**

Candle Power Distribution (Candelas)



Cone of Light			
2	962 fc	1.2 ft	1.2 ft
4	241 fc	2.4 ft	2.4 ft
6	107 fc	3.6 ft	3.6 ft
8	60.1 fc	4.7 ft	4.8 ft
10	38.5 fc	5.9 ft	6.0 ft
12	26.7 fc	7.1 ft	7.2 ft
(F.T.) Distance to Plane	(F.C.) Initial Footcandle at Nadir	(F.T.) Beam Vert. Spread	(F.T.) Beam Horiz. Spread

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	883.36	41.8	41.8
0-30	1520.44	72	72
0-40	1952.53	92.4	92.4
0-60	2102.41	99.5	99.5
0-80	2111.05	99.9	99.9
0-90	2111.5	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	562	584	734
55	89	85	97
65	54	53	64
75	13	16	34
85	2363	1334	341

Lumens Per Zone

Zone	Lumens
0-10	300.42
10-20	582.94
20-30	637.08
30-40	432.08
40-50	107.61
50-60	42.27
60-70	6.64
70-80	2
80-90	0.44

Candela Tabulation

0	
0	3848.42
5	3169.92
15	1918.81
25	1318.1
35	472.09
45	104.41
55	33.89
65	3.94
75	1.47
85	0.12
90	0.02

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

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

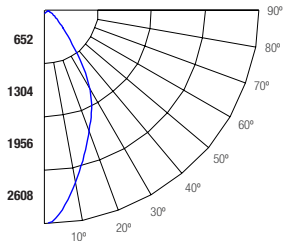
RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

HL4-LED-2000L-DIM10-MVOLT-WD-40K-90-HL-4501-CL-WH

INPUT WATTS: **27.8** LUMENS: **2042** CRI: **90** EFFICACY: **73** CCT: **4000K** TEST NO.: **EL05082054**
SPACING CRITERIA: **0.86**

Candle Power Distribution (Candelas)



Cone of Light			
2	641 fc	1.9 ft	1.9 ft
4	160 fc	3.9 ft	3.8 ft
6	71.3 fc	5.8 ft	5.7 ft
8	40.1 fc	7.8 ft	7.6 ft
10	25.7 fc	9.7 ft	9.4 ft
12	17.8 fc	11.6 ft	11.3 ft
(F.T.) Distance to Plane	(F.C.) Initial Footcandle at Nadir	(F.T.) Beam Vert. Spread	(F.T.) Beam Horiz. Spread

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	740.66	36.3	36.3
0-30	1347.36	66	66
0-40	1792.38	87.8	87.8
0-60	2031.49	99.5	99.5
0-80	2040.62	99.9	99.9
0-90	2041.07	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	2343	2372	2780
55	725	686	925
65	85	89	109
75	51	54	68
85	15	20	35

Lumens Per Zone

Zone	Lumens
0-10	223.83
10-20	516.83
20-30	606.71
30-40	445.02
40-50	180.52
50-60	58.59
60-70	7.04
70-80	2.08
80-90	0.45

Candela Tabulation

0	
0	2565.5
5	2352.96
15	1742.32
25	1246.94
35	564.76
45	174.27
55	43.74
65	3.8
75	1.38
85	0.14
90	0.2

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100
1	113	110	108	106	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	93	93	93	93	93
2	107	102	98	95	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86	86	86	86	86	86	86
3	102	95	90	86	86	100	94	89	85	91	87	84	89	85	82	86	84	81	80	80	80	80	80	80	80
4	96	89	83	78	78	95	87	82	78	85	81	77	83	79	76	81	78	75	74	74	74	74	74	74	74
5	91	83	77	72	72	90	82	76	72	80	75	71	78	74	70	77	73	70	68	68	68	68	68	68	68
6	86	77	71	67	67	85	76	71	66	75	70	66	73	69	65	72	68	65	64	64	64	64	64	64	64
7	82	72	66	62	62	81	72	66	62	70	65	61	69	65	61	68	64	61	59	59	59	59	59	59	59
8	78	68	62	58	58	77	67	62	58	66	61	57	65	61	57	64	60	57	55	55	55	55	55	55	55
9	74	64	58	54	54	73	64	58	54	63	57	54	62	57	53	61	56	53	52	52	52	52	52	52	52
10	71	61	55	51	51	69	60	54	51	59	54	50	58	54	50	58	53	50	49	49	49	49	49	49	49

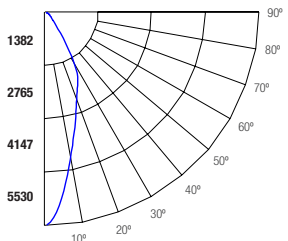
RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

HL4-LED-3000L-DIM10-MVOLT-MD-40K-90-HL-4501-CL-WH

INPUT WATTS: **44.6** LUMENS: **3314** CRI: **90** EFFICACY: **74** CCT: **4000K** TEST NO.: **EL05082054**
SPACING CRITERIA: **0.76**

Candle Power Distribution (Candelas)



Cone of Light			
2	1370 fc	1.4 ft	1.4 ft
4	343 fc	2.8 ft	2.8 ft
6	152 fc	4.1 ft	4.2 ft
8	85.6 fc	5.5 ft	5.6 ft
10	54.8 fc	6.9 ft	7.0 ft
12	38.1 fc	8.3 ft	8.4 ft
(F.T.) Distance to Plane	(F.C.) Initial Footcandle at Nadir	(F.T.) Beam Vert. Spread	(F.T.) Beam Horiz. Spread

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1384.86	41.8	41.8
0-30	2392.98	72.2	72.2
0-40	3064.19	92.5	92.5
0-60	3298.31	99.5	99.5
0-80	3311.27	99.9	99.9
0-90	3311.94	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	2282	2174	2374
55	976	912	1048
65	153	133	137
75	96	82	88
85	32	27	44

Lumens Per Zone

Zone	Lumens
0-10	456.38
10-20	928.48
20-30	1008.12
30-40	671.21
40-50	167.98
50-60	66.14
60-70	9.9
70-80	3.06
80-90	0.67

Candela Tabulation

0	
0	5481.49
5	4819.44
15	3070.32
25	2078.02
35	809.81
45	169.

HL4-LED-3000L-DIM10-MVOLT-WD-40K-90-HL-4501-CL-WH

TEST NO.: **EL05082054**

INPUT WATTS: **45**

LUMENS: **3005**

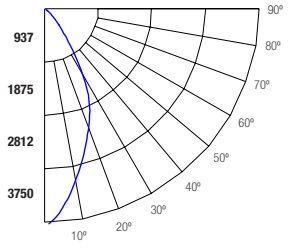
CRI: **90**

EFFICACY: **67**

CCT: **4000K**

SPACING CRITERIA: **0.86**

Candle Power Distribution (Candelas)



Cone of Light			
2	923 fc	2.0 ft	2.0 ft
4	231 fc	3.9 ft	4.0 ft
6	103 fc	5.9 ft	5.9 ft
8	57.7 fc	7.9 ft	7.9 ft
10	36.9 fc	9.8 ft	9.9 ft
12	25.6 fc	11.8 ft	11.9 ft
BEAM DIA. MEASURED AT 50% OF NADIR F.C.			

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1095.68	36.5	36.5
0-30	1989.5	66.2	66.2
0-40	2640.83	87.9	87.9
0-60	2988.25	99.4	99.4
0-80	3001.88	99.9	99.9
0-90	3002.56	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	2971	3345	4479
55	855	990	1514
65	120	132	170
75	72	80	107
85	22	32	63

Lumens Per Zone

Zone	Lumens
0-10	327.08
10-20	768.59
20-30	893.83
30-40	651.33
40-50	262.67
50-60	84.75
60-70	10.59
70-80	3.05
80-90	0.68

Candela Tabulation

0			
0	3692.81		
5	3406.34		
15	2572.22		
25	1822.07		
35	775.13		
45	220.91		
55	51.57		
65	5.33		
75	1.97		
85	0.2		
90	0.32		

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC RW	80%				70%				50%			30%			10%			0%
	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
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	100	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	82	86	84	81	80
4	96	89	83	78	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	68
6	86	77	71	67	85	76	71	66	75	70	66	74	69	66	72	68	65	64
7	82	72	66	62	81	72	66	62	70	65	61	69	65	61	68	64	61	59
8	78	68	62	58	77	68	62	58	66	61	57	65	61	57	64	60	57	55
9	74	64	58	54	73	64	58	54	63	57	54	62	57	54	61	57	53	52
10	71	61	55	51	70	60	54	51	59	54	50	59	54	50	58	53	50	49

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

HL4-LED-4000L-DIM10-MVOLT-MD-40K-90-HL-4501-CL-WH

TEST NO.: **EL05082054**

INPUT WATTS: **45.7**

LUMENS: **4095**

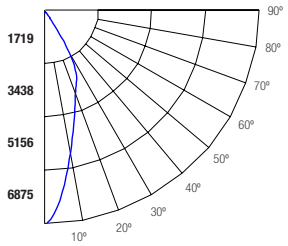
CRI: **90**

EFFICACY: **89**

CCT: **4000K**

SPACING CRITERIA: **0.76**

Candle Power Distribution (Candelas)



Cone of Light			
2	1707 fc	1.4 ft	1.4 ft
4	427 fc	2.8 ft	2.7 ft
6	190 fc	4.2 ft	4.1 ft
8	107 fc	5.5 ft	5.5 ft
10	68.3 fc	6.9 ft	6.8 ft
12	47.4 fc	8.3 ft	8.2 ft
BEAM DIA. MEASURED AT 50% OF NADIR F.C.			

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1707.32	41.7	41.7
0-30	2951.65	72.1	72.1
0-40	3782.42	92.4	92.4
0-60	4075.01	99.5	99.5
0-80	4091.76	99.9	99.9
0-90	4092.64	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	2710	2954	3535
55	1166	1298	1635
65	157	176	235
75	96	114	160
85	22	44	103

Lumens Per Zone

Zone	Lumens
0-10	565.52
10-20	1141.8
20-30	1244.33
30-40	830.77
40-50	209.89
50-60	82.69
60-70	12.82
70-80	3.94
80-90	0.88

Candela Tabulation

0			
0	6827.44		
5	6055.77		
15	3773.26		
25	2520.41		
35	973.15		
45	201.55		
55	70.33		
65	6.96		
75	2.62		
85	0.2		
90	0.04		

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC RW	80%				70%				50%			30%			10%			0%
	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
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	93
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	88	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	63	58	54	63	58	54	62	57	54	61	57	54	53

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

HL4-LED-4000L-DIM10-MVOLT-WD-40K-90-HL-4501-CL-WH

TEST NO.: **EL05082054**

INPUT WATTS: **46**

LUMENS: **3558**

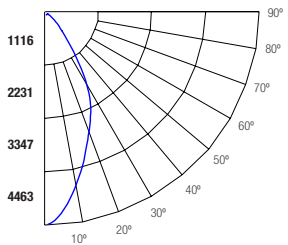
CRI: **90**

EFFICACY: **77**

CCT: **4000K**

SPACING CRITERIA: **0.86**

Candle Power Distribution (Candelas)



Cone of Light			
2	1107 fc	2.0 ft	2.0 ft
4	277 fc	4.0 ft	3.9 ft
6	123 fc	6.0 ft	5.9 ft
8	69.2 fc	8.0 ft	7.8 ft
10	44.3 fc	10.0 ft	9.8 ft
12	30.8 fc	11.9 ft	11.7 ft
BEAM DIA. MEASURED AT 50% OF NADIR F.C.			

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1303	36.6	36.6
0-30	2367.96	66.6	66.6
0-40	3134.53	88.1	88.1
0-60	3539.26	99.5	99.5
0-80	3554.87	99.9	99.9
0-90	3555.67	99.9	99.9

Luminance (Average candela/M²)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	3876	4371	5495
55	1082	1364	2001
65	157	160	185
75	93	97	118
85	25	35	65

Lumens Per Zone

Zone	Lumens
0-10	390.28
10-20	912.72
20-30	1064.96
30-40	766.57
40-50	306.38
50-60	98.35
60-70	12.03
70-80	3.58
80-90	0.8

Candela Tabulation

0			
0	4428.91		
5	4116.28		
15	3078.42		
25	2177.58		
35	979.36		
45	288.25		
55	65.27		
65	7		
75	2.54		
85	0.23		
90	0.05		

Coefficients of Utilization - Zonal Cavity Method

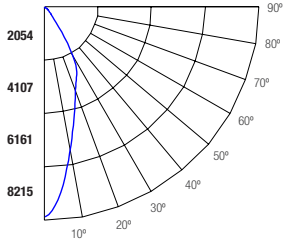
Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC RW	80%				70%				50%			30%			10%			0%
	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
	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	50	58	54	50	49	

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

INPUT WATTS: **56.4** LUMENS: **4893** CRI: **90** EFFICACY: **87** CCT: **4000K** TEST NO.: **EL05082054**

Candle Power Distribution (Candelas)



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
(FT.) Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread
BEAM DIA. MEASURED AT 50% OF NADIR F.C.			

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

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

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

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

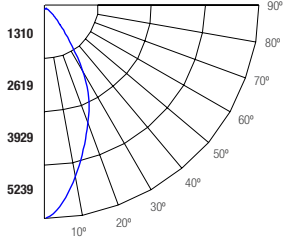
RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

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

INPUT WATTS: **56.2** LUMENS: **4175** CRI: **90** EFFICACY: **74** CCT: **4000K** TEST NO.: **EL05082054**

Candle Power Distribution (Candelas)



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
(FT.) Distance to Plane	(FC.) Initial Footcandle at Nadir	(FT.) Beam Vert. Spread	(FT.) Beam Horiz. Spread
BEAM DIA. MEASURED AT 50% OF NADIR F.C.			

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

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

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC	80%				70%				50%			30%			10%			0%
	R	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
	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 by EnOcean	LUTRON	enlighted	LEVITON	OSRAM	PHILIPS EasySense	legrand®
CONTROL UNIT	☐ LEDRU LED Relay Zone Controller 0-10V ¹	☐ FCJS-010 Lutron Vive 0-10V Individual Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴	☐ CU-4E-FMH Fixture Mount Control Unit ¹⁵	☐ ZL027 -NOW Intellect Power Control Module ¹⁶	☐ EN-WCM2-ZB-DR Wireless Control Module ¹⁷	☐ SBR -BS Xitanium SR Bridge ¹⁸	☐ LMFC-011 ON/OFF/0-10V dimming fixture controller ¹⁹
	☐ LEDDU LED Zone Controller 0-10V ¹	☐ FCJS-ECO Lutron Vive Eco-system Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴		☐ ZL027 -NOW Intellect Power Control Module ¹⁶	☐ EN-ALC-ZB-BK-DR Wireless Area Lighting Control Module ¹⁷ ☐ ZBHA-CLM-DIM-ENC Connected Lighting Module DIM ¹⁷		
INTEGRATED SENSOR	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*WIRELESS OCCUPANCY SENSOR	☐ 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	☐ LMDC-100 Dual technology PIR Ceiling Mount Occupancy Sensor ³
*WIRELESS DAYLIGHT SENSOR	☐ 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	☐ LMLS-400 Single zone switching and dimming digital photosensor ³
*WIRELESS OCCUPANCY & DAYLIGHT SENSOR	N/A	N/A	☐ SU-5E-IoT IoT Node Micro Sensor ³ ☐ SU-5E-CL Connected Lighting Micro Sensor ³ ☐ SU-5E-IL Independent Lighting / Enlighted One Micro Sensor ³ ☐ SU-5S-H-(IoT/CL/IL) Surface Mount Sensor ³ (Must be specified with CU- 4E-FMH Control Unit)	☐ ZL00J -TOW Intellect Intelligent Fixture Control System ³ (Must be specified with ZL027 -NOW Control Unit)	☐ EN-CLM-PIR-DD-ZB SensiLUM™ Wireless Integrated Sensor ☐ 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)	☐ SNS200- CMP SNS200 for grouping ³	N/A
ACCESSORIES	N/A	N/A	☐ TMC-SU-5E Tile Mount Carrier ☐ CBL-5E-CU4-30N 30 inch Sensor Cable for CU-4 and IoT Ready™ drivers ☐ 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 orderd through Legrand.