

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P731190

Luminaire Tested: **HBLED-LD5-60SE-W-FLI-UNV-L840**

Issue Date: 11/13/2023

Test Information

Test Method: LM-79-08
Report Number: P731190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26703)
Test Lab: INNOVATION CENTER
Issue Date: 11/13/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBLED-LD5-60SE-W-FLI-UNV-L840
Description: 60000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND FROSTED LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52783.0 lumens
Efficiency: N/A
Efficacy: 143.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.31
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')
CIE Type: Direct

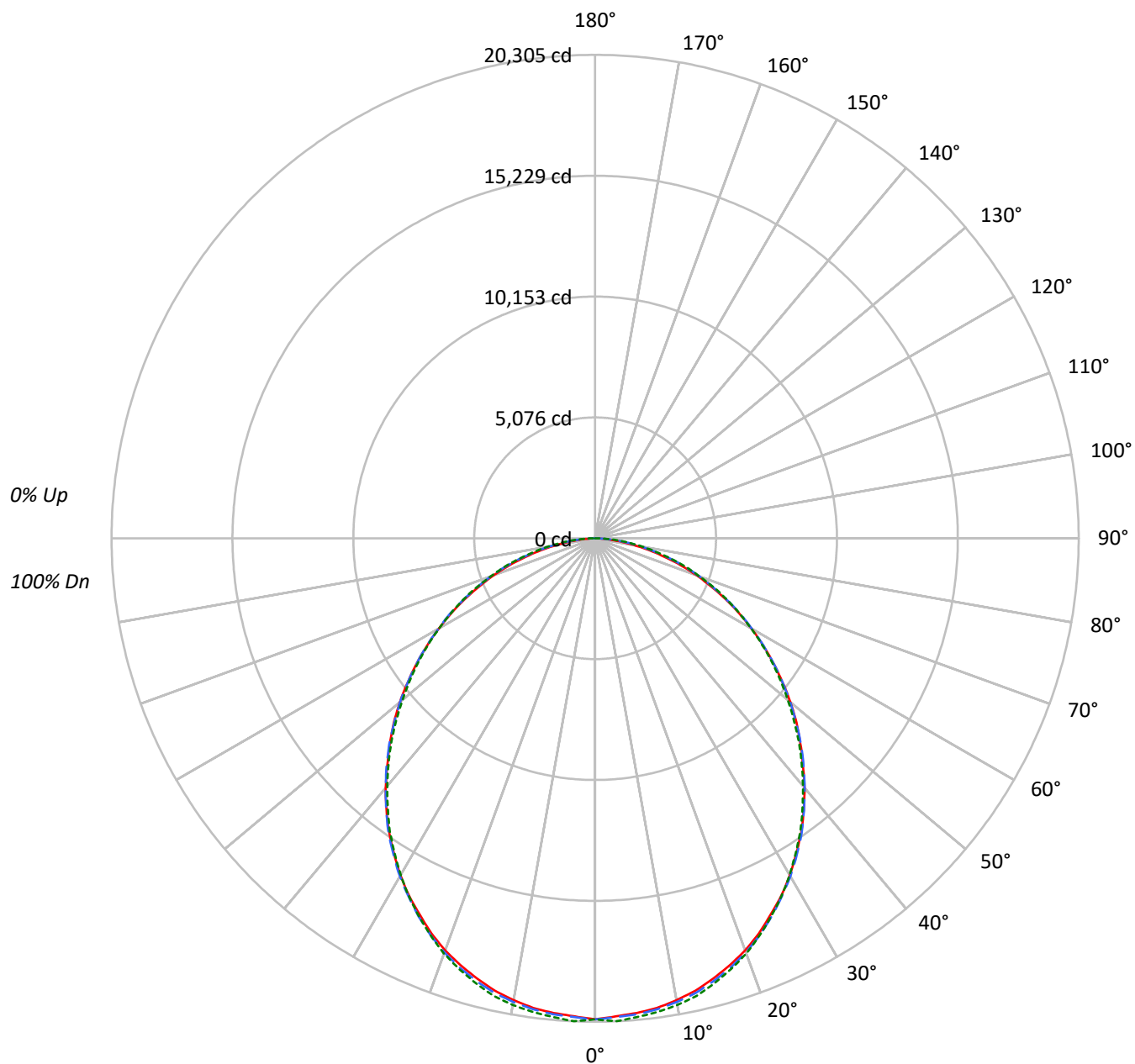
Input Watts (W): 367
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71		
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60		
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51		
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	42	69	57	48	42	55	47	42	53	47	42	52	46	41	39		
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31		
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28		
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32626	32626	32626
5°	32440	32531	32717
10°	32292	32423	32634
15°	32009	32183	32340
20°	31646	31799	31891
25°	31060	31237	31191
30°	30488	30570	30445
35°	29733	29809	29619
40°	28839	28839	28617
45°	27831	27907	27622
50°	26874	26829	26494
55°	25711	25715	25483
60°	24466	24495	24400
65°	23059	23290	23348
70°	21298	21881	21905
75°	18822	20041	20353
80°	15438	17551	18544
85°	10713	14737	16664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1911.1	3.6
10°-20°	5436.6	10.3
20°-30°	8079.1	15.3
30°-40°	9446.6	17.9
40°-50°	9418.5	17.8
50°-60°	8171.7	15.5
60°-70°	6035.8	11.4
70°-80°	3379.4	6.4
80°-90°	901.7	1.7
90°-100°	2.7	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	15426.7	29.2
0°-40°	24873.3	47.1
0°-60°	42463.5	80.4
0°-90°	52780.3	100.0
90°-120°	2.7	0.0
90°-150°	2.7	0.0
90°-180°	3.0	0.0
0°-180°	52783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	20207	20207	20207	20207	20207	
5°	20015	20141	20072	20160	20186	###
15°	19149	19283	19253	19346	19347	5401
25°	17435	17575	17534	17572	17508	8038
35°	15085	15217	15123	15121	15027	9423
45°	12188	12318	12222	12172	12097	9409
55°	9134	9197	9135	9120	9053	8168
65°	6036	6095	6096	6127	6111	5969
75°	3017	3107	3213	3236	3263	3213
85°	578	699	796	866	900	702
90°	0	13	15	35	32	23
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	20206.8	20206.8	20206.8	20206.8	20206.8
2.5°	20096.4	20216.0	20132.3	20212.0	20304.6
5°	20015.4	20141.4	20071.8	20160.5	20186.3
7.5°	19897.2	20019.3	19952.5	20041.1	20068.1
10°	19696.6	19829.1	19776.4	19876.7	19904.9
12.5°	19462.9	19587.4	19552.8	19669.6	19689.0
15°	19149.3	19283.1	19253.3	19346.0	19347.2
17.5°	18802.4	18928.2	18906.4	18978.4	18975.7
20°	18418.2	18553.0	18506.9	18585.2	18560.6
22.5°	17963.3	18107.2	18049.2	18114.9	18053.2
25°	17435.0	17575.2	17534.1	17572.5	17508.3
27.5°	16923.6	17052.2	16967.2	17013.5	16945.4
30°	16353.0	16462.2	16396.9	16412.2	16330.0
32.5°	15711.8	15841.6	15761.9	15759.4	15672.0
35°	15084.8	15217.0	15123.4	15120.7	15027.1
37.5°	14390.8	14514.2	14403.7	14410.2	14300.9
40°	13682.8	13789.5	13682.8	13677.6	13577.5
42.5°	12914.3	13055.7	12958.1	12969.5	12836.1
45°	12188.4	12318.2	12221.9	12171.6	12097.0
47.5°	11465.0	11521.5	11441.7	11428.9	11323.6
50°	10699.0	10741.4	10680.9	10665.6	10547.5
52.5°	9907.5	9980.8	9903.5	9883.0	9804.7
55°	9133.8	9196.7	9135.1	9119.7	9052.8
57.5°	8355.2	8437.4	8374.5	8358.9	8305.2
60°	7576.6	7600.8	7585.5	7608.5	7556.0
62.5°	6802.9	6859.4	6877.4	6871.0	6829.9
65°	6035.6	6094.8	6096.1	6127.0	6111.4
67.5°	5250.6	5327.6	5349.6	5381.6	5395.7
70°	4511.6	4570.8	4635.1	4654.2	4640.1
72.5°	3767.6	3862.7	3934.8	3951.4	4011.8
75°	3017.2	3107.1	3212.6	3235.6	3262.6
77.5°	2320.8	2440.2	2535.3	2566.2	2599.7
80°	1660.3	1792.5	1887.6	1930.0	1994.4
82.5°	1089.7	1224.7	1321.0	1363.4	1441.9
85°	578.3	699.1	795.5	866.1	899.5
87.5°	170.9	273.7	328.9	349.4	379.2
90°	0.0	12.9	15.4	34.7	32.2
92.5°	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - 90°-270°







107.5°	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)