

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: P730788

Luminaire Tested: **HBLED-LD5-24SE-W-FLI-UNV-L840**

Issue Date: 11/13/2023

Test Information

Test Method: LM-79-08
Report Number: P730788
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-LD5-24SE-W-FLI-UNV-L840
Description: 24000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND FROSTED LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21692.0 lumens
Efficiency: N/A
Efficacy: 144.6 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

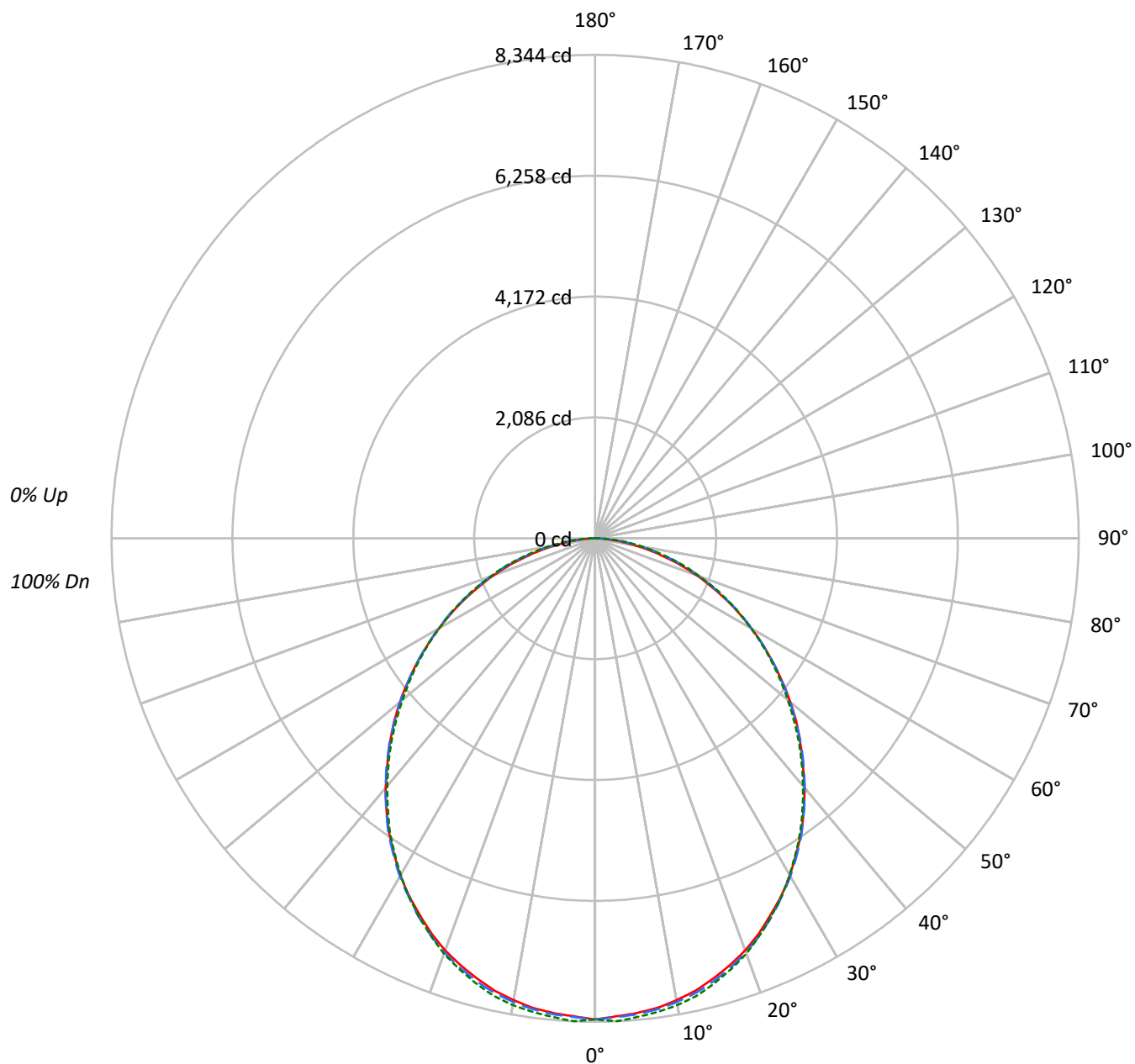
Input Watts (W): 150
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	13408	13408	13408
5°	13332	13369	13446
10°	13271	13325	13411
15°	13155	13226	13290
20°	13006	13068	13106
25°	12765	12837	12818
30°	12529	12563	12512
35°	12219	12250	12172
40°	11852	11852	11761
45°	11437	11469	11352
50°	11044	11026	10888
55°	10566	10568	10473
60°	10055	10067	10028
65°	9476	9571	9595
70°	8753	8993	9002
75°	7735	8236	8364
80°	6344	7213	7621
85°	4403	6056	6849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	785.4	3.6
10°-20°	2234.2	10.3
20°-30°	3320.2	15.3
30°-40°	3882.2	17.9
40°-50°	3870.7	17.8
50°-60°	3358.3	15.5
60°-70°	2480.5	11.4
70°-80°	1388.8	6.4
80°-90°	370.6	1.7
90°-100°	1.1	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°	6339.8	29.2
0°-40°	10222.1	47.1
0°-60°	17451.0	80.4
0°-90°	21690.9	100.0
90°-120°	1.1	0.0
90°-150°	1.1	0.0
90°-180°	1.0	0.0
0°-180°	21692.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8304	8304	8304	8304	8304	
5°	8226	8277	8249	8285	8296	781
15°	7870	7925	7912	7950	7951	2219
25°	7165	7223	7206	7222	7195	3303
35°	6199	6254	6215	6214	6176	3872
45°	5009	5062	5023	5002	4972	3867
55°	3754	3780	3754	3748	3720	3357
65°	2480	2505	2505	2518	2512	2453
75°	1240	1277	1320	1330	1341	1321
85°	238	287	327	356	370	289
90°	0	5	6	14	13	10
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°	8304.3	8304.3	8304.3	8304.3	8304.3
2.5°	8258.9	8308.1	8273.7	8306.4	8344.5
5°	8225.6	8277.4	8248.8	8285.3	8295.9
7.5°	8177.1	8227.3	8199.8	8236.2	8247.3
10°	8094.6	8149.1	8127.4	8168.6	8180.2
12.5°	7998.6	8049.8	8035.5	8083.5	8091.5
15°	7869.7	7924.7	7912.5	7950.5	7951.0
17.5°	7727.1	7778.8	7769.9	7799.5	7798.4
20°	7569.3	7624.6	7605.7	7637.9	7627.8
22.5°	7382.3	7441.4	7417.6	7444.6	7419.2
25°	7165.2	7222.8	7205.9	7221.7	7195.3
27.5°	6955.0	7007.9	6972.9	6992.0	6964.0
30°	6720.5	6765.4	6738.5	6744.9	6711.1
32.5°	6457.0	6510.4	6477.6	6476.6	6440.6
35°	6199.3	6253.7	6215.2	6214.1	6175.6
37.5°	5914.1	5964.8	5919.4	5922.1	5877.2
40°	5623.2	5667.0	5623.2	5621.0	5579.9
42.5°	5307.3	5365.5	5325.4	5330.0	5275.2
45°	5009.0	5062.4	5022.8	5002.1	4971.5
47.5°	4711.7	4734.9	4702.2	4696.9	4653.6
50°	4396.9	4414.3	4389.5	4383.2	4334.6
52.5°	4071.6	4101.8	4070.0	4061.6	4029.4
55°	3753.7	3779.5	3754.2	3747.9	3720.4
57.5°	3433.7	3467.5	3441.6	3435.2	3413.1
60°	3113.7	3123.7	3117.4	3126.8	3105.3
62.5°	2795.8	2819.0	2826.4	2823.7	2806.8
65°	2480.4	2504.8	2505.3	2518.0	2511.6
67.5°	2157.8	2189.5	2198.5	2211.6	2217.4
70°	1854.1	1878.4	1904.9	1912.7	1906.9
72.5°	1548.4	1587.4	1617.1	1623.9	1648.7
75°	1240.0	1276.9	1320.3	1329.7	1340.8
77.5°	953.8	1002.8	1041.9	1054.6	1068.4
80°	682.3	736.7	775.8	793.2	819.6
82.5°	447.8	503.3	542.9	560.3	592.6
85°	237.7	287.3	326.9	355.9	369.7
87.5°	70.2	112.5	135.2	143.6	155.8
90°	0.0	5.3	6.3	14.2	13.2
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)