

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: P730716

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

Issue Date: 11/13/2023

Test Information

Test Method: LM-79-08
Report Number: P730716
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-LD5-24HE-W-FLI-UNV-L840
Description: 24000 LUMEN, HE HBLED WITH WIDE DISTRIBUTION AND FROSTED LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21822.0 lumens
Efficiency: N/A
Efficacy: 152.6 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

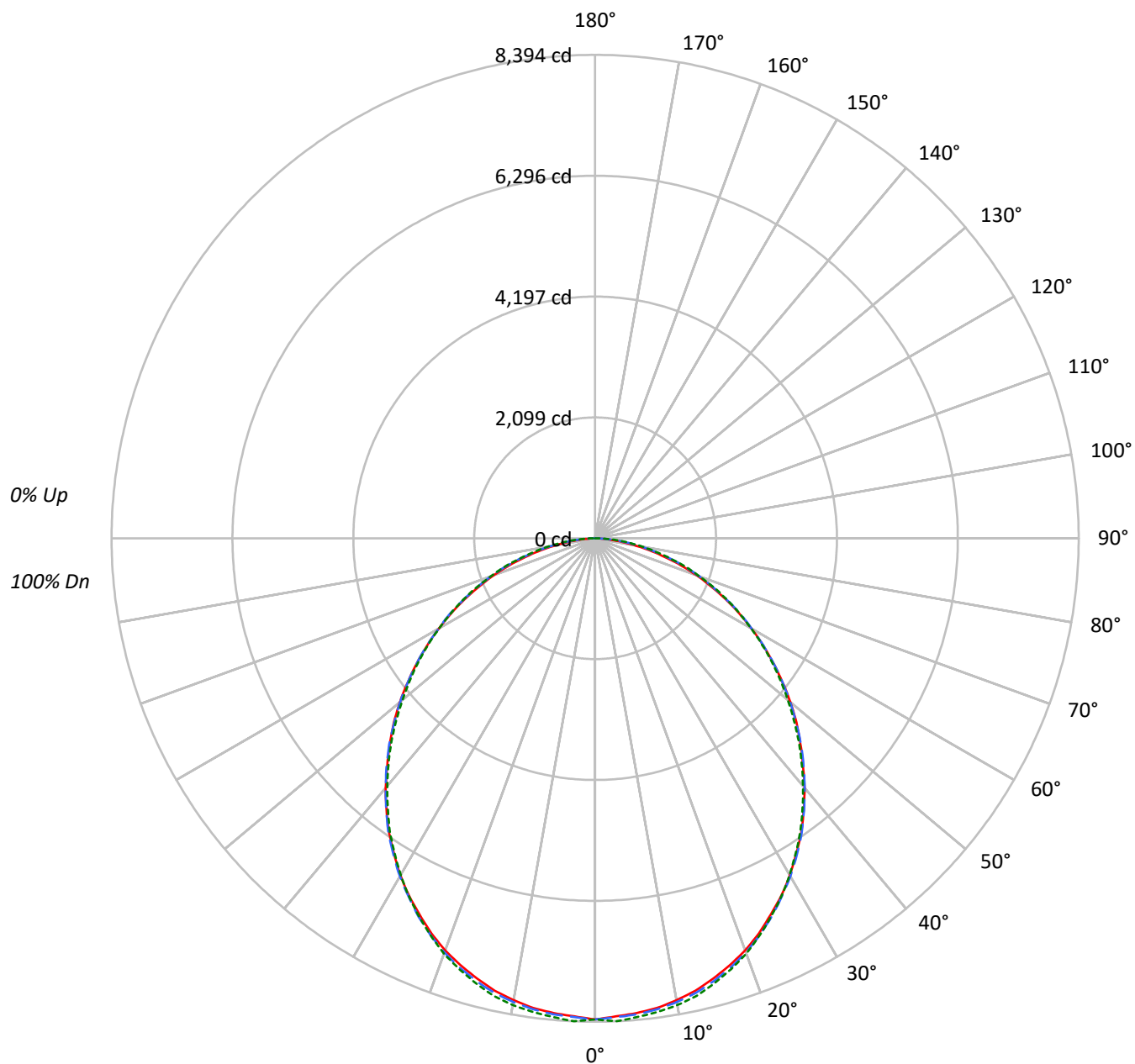
Input Watts (W): 143
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13488	13488	13488
5°	13412	13450	13526
10°	13351	13405	13492
15°	13233	13305	13370
20°	13083	13147	13185
25°	12841	12914	12895
30°	12605	12638	12587
35°	12292	12324	12245
40°	11923	11923	11831
45°	11506	11538	11420
50°	11111	11092	10953
55°	10630	10631	10536
60°	10115	10127	10088
65°	9533	9629	9653
70°	8805	9046	9056
75°	7782	8286	8415
80°	6382	7256	7666
85°	4429	6093	6890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	790.1	3.6
10°-20°	2247.6	10.3
20°-30°	3340.1	15.3
30°-40°	3905.5	17.9
40°-50°	3893.9	17.8
50°-60°	3378.4	15.5
60°-70°	2495.4	11.4
70°-80°	1397.1	6.4
80°-90°	372.8	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°	6377.8	29.2
0°-40°	10283.3	47.1
0°-60°	17555.6	80.4
0°-90°	21820.9	100.0
90°-120°	1.1	0.0
90°-150°	1.1	0.0
90°-180°	1.0	0.0
0°-180°	21822.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8354	8354	8354	8354	8354	
5°	8275	8327	8298	8335	8346	786
15°	7917	7972	7960	7998	7999	2233
25°	7208	7266	7249	7265	7238	3323
35°	6236	6291	6252	6251	6213	3896
45°	5039	5093	5053	5032	5001	3890
55°	3776	3802	3777	3770	3743	3377
65°	2495	2520	2520	2533	2527	2468
75°	1247	1285	1328	1338	1349	1328
85°	239	289	329	358	372	290
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	



TEST NUMBER: P730716

CATALOG NUMBER: HBLED-LD5-24HE-W-FLI-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8354.1	8354.1	8354.1	8354.1	8354.1
2.5°	8308.4	8357.9	8323.3	8356.2	8394.5
5°	8274.9	8327.0	8298.3	8334.9	8345.6
7.5°	8226.1	8276.6	8248.9	8285.6	8296.7
10°	8143.2	8197.9	8176.1	8217.6	8229.3
12.5°	8046.5	8098.0	8083.7	8132.0	8140.0
15°	7916.9	7972.2	7959.9	7998.2	7998.7
17.5°	7773.4	7825.4	7816.4	7846.2	7845.1
20°	7614.6	7670.3	7651.3	7683.6	7673.5
22.5°	7426.5	7486.0	7462.1	7489.2	7463.7
25°	7208.1	7266.1	7249.1	7265.0	7238.4
27.5°	6996.7	7049.9	7014.7	7033.9	7005.7
30°	6760.8	6806.0	6778.9	6785.3	6751.3
32.5°	6495.7	6549.4	6516.4	6515.4	6479.2
35°	6236.5	6291.2	6252.4	6251.3	6212.6
37.5°	5949.6	6000.6	5954.9	5957.6	5912.4
40°	5656.9	5701.0	5656.9	5654.7	5613.3
42.5°	5339.1	5397.6	5357.3	5362.0	5306.8
45°	5039.0	5092.7	5052.9	5032.1	5001.3
47.5°	4740.0	4763.3	4730.3	4725.0	4681.5
50°	4423.3	4440.8	4415.8	4409.5	4360.6
52.5°	4096.0	4126.4	4094.4	4085.9	4053.6
55°	3776.2	3802.2	3776.7	3770.4	3742.7
57.5°	3454.3	3488.3	3462.3	3455.8	3433.6
60°	3132.4	3142.4	3136.1	3145.6	3123.9
62.5°	2812.5	2835.9	2843.3	2840.7	2823.7
65°	2495.3	2519.8	2520.3	2533.1	2526.6
67.5°	2170.7	2202.6	2211.7	2224.9	2230.7
70°	1865.2	1889.7	1916.3	1924.2	1918.3
72.5°	1557.6	1597.0	1626.7	1633.6	1658.6
75°	1247.4	1284.6	1328.2	1337.7	1348.9
77.5°	959.5	1008.8	1048.1	1060.9	1074.8
80°	686.4	741.1	780.4	797.9	824.5
82.5°	450.5	506.3	546.1	563.6	596.1
85°	239.1	289.0	328.9	358.1	371.9
87.5°	70.6	113.1	136.0	144.5	156.8
90°	0.0	5.3	6.3	14.3	13.3
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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CATALOG NUMBER: HBLED-LD5-24HE-W-FLI-UNV-L840

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)