

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: P860048

Luminaire Tested: **SPHB-30HE-M-L850-CD**

Issue Date: 7/11/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P860048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-30HE-M-L850-CD
Description: 30000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

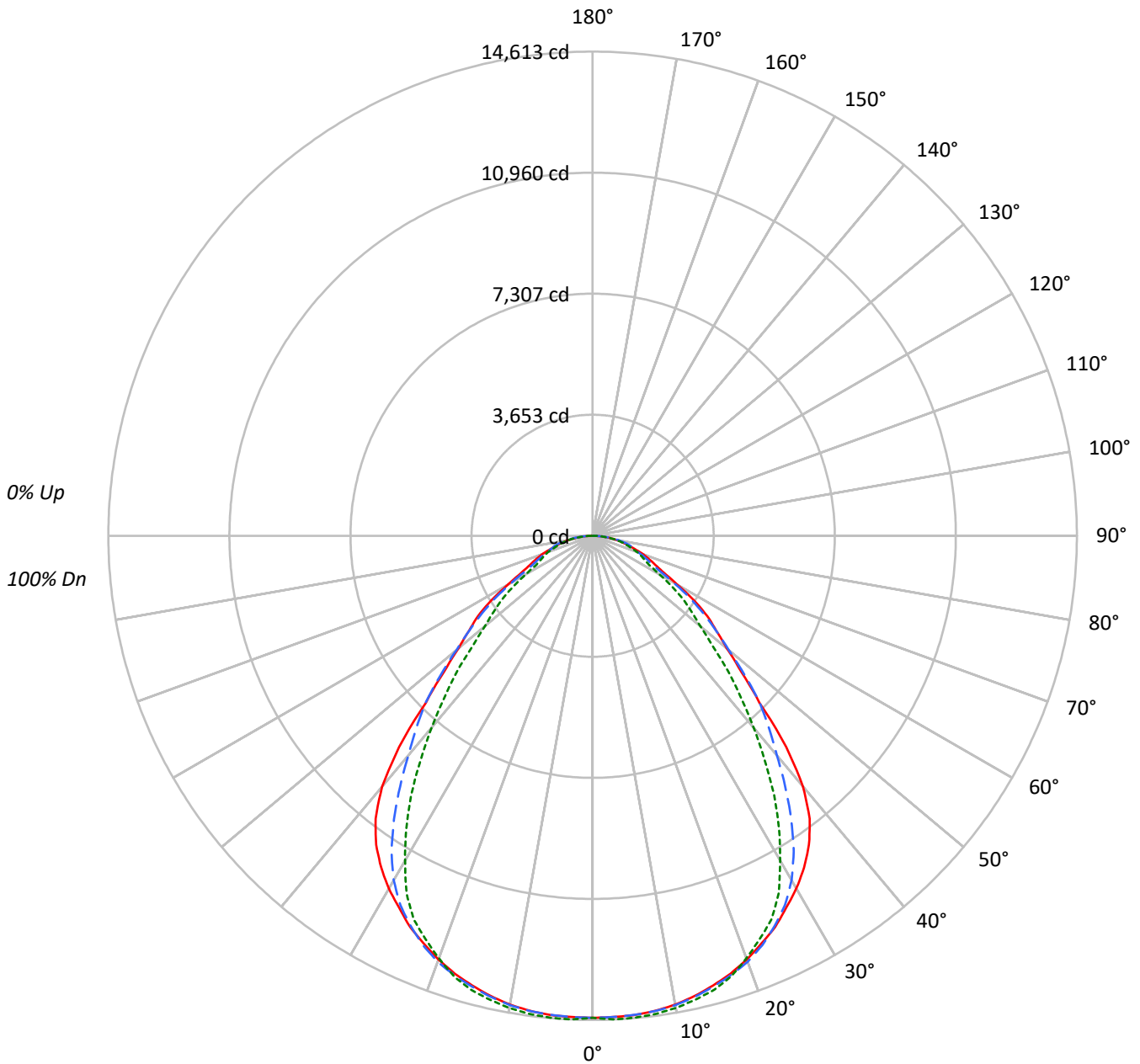
Lumens per Lamp: N/A
Luminaire Lumens: 30195.0 lumens
Efficiency: N/A
Efficacy: 170.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 177.6
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P860048

CATALOG NUMBER: SPHB-30HE-M-L850-CD

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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46								
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41								
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	76758	76758	76758
5°	76909	76889	77326
10°	76976	77058	77531
15°	76751	76951	77485
20°	76416	76804	76190
25°	75858	75646	74361
30°	74897	73132	68959
35°	73325	67282	61461
40°	68047	59549	52057
45°	53088	53231	43080
50°	43359	43973	34791
55°	38848	37383	30570
60°	31100	29440	24459
65°	26063	23859	21632
70°	24745	22732	22022
75°	22452	24134	21239
80°	22561	24661	22388
85°	19633	22999	18701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1383.2	4.6
10°-20°	3978.1	13.2
20°-30°	5938.6	19.7
30°-40°	6480.0	21.5
40°-50°	5300.9	17.6
50°-60°	3485.4	11.5
60°-70°	1999.6	6.6
70°-80°	1211.7	4.0
80°-90°	406.9	1.3
90°-100°	10.6	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°	11299.8	37.4
0°-40°	17779.9	58.9
0°-60°	26566.2	88.0
0°-90°	30184.4	100.0
90°-120°	10.6	0.0
90°-150°	10.6	0.0
90°-180°	11.0	0.0
0°-180°	30195.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14547	14547	14547	14547	14547	
5°	14520	14498	14517	14576	14599	###
15°	14050	14048	14087	14177	14185	3966
25°	13030	13060	12993	12836	12773	5994
35°	11384	11126	10445	9733	9542	7055
45°	7114	7646	7134	6297	5773	5647
55°	4223	4108	4064	3492	3323	3719
65°	2088	2057	1911	1859	1733	2134
75°	1101	1192	1184	1136	1042	1192
85°	324	368	380	332	309	352
90°	2	27	54	63	67	15
95°	2	4	6	6	4	1
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	0



TEST NUMBER: P860048

CATALOG NUMBER: SPHB-30HE-M-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14547.4	14547.4	14547.4	14547.4	14547.4
2.5°	14537.8	14516.7	14535.9	14595.3	14612.6
5°	14520.5	14497.5	14516.7	14576.2	14599.2
7.5°	14461.0	14447.6	14466.8	14526.3	14555.1
10°	14367.0	14351.7	14382.4	14434.2	14470.6
12.5°	14227.0	14221.2	14250.0	14324.8	14340.2
15°	14050.4	14048.5	14086.9	14177.1	14184.7
17.5°	13850.9	13849.0	13896.9	13956.4	13935.3
20°	13609.1	13622.6	13678.2	13622.6	13568.9
22.5°	13319.4	13361.6	13375.1	13200.5	13173.6
25°	13029.7	13060.4	12993.3	12835.9	12772.6
27.5°	12655.6	12692.0	12567.3	12342.8	12162.5
30°	12292.9	12258.4	12003.2	11569.6	11318.3
32.5°	11876.6	11753.8	11295.2	10696.6	10468.3
35°	11383.5	11126.4	10445.3	9733.4	9541.6
37.5°	10759.9	10289.8	9545.4	8802.9	8513.2
40°	9879.2	9336.3	8645.5	7878.1	7557.7
42.5°	8645.5	8444.1	7872.3	7008.9	6627.1
45°	7114.4	7645.9	7133.6	6297.1	5773.3
47.5°	6089.9	6828.6	6212.7	5608.3	4886.9
50°	5282.1	5790.6	5356.9	4812.0	4238.3
52.5°	4698.8	4852.3	4677.7	4079.1	3752.9
55°	4223.0	4107.9	4063.7	3492.0	3323.1
57.5°	3632.0	3568.7	3455.5	3044.9	2822.4
60°	2947.1	3081.4	2789.8	2672.7	2317.8
62.5°	2421.4	2553.8	2241.0	2233.3	1937.9
65°	2087.5	2056.8	1911.0	1859.2	1732.6
67.5°	1847.7	1751.7	1701.9	1634.7	1590.6
70°	1604.0	1563.7	1473.5	1487.0	1427.5
72.5°	1337.3	1389.1	1298.9	1323.9	1216.4
75°	1101.3	1191.5	1183.8	1135.9	1041.8
77.5°	907.5	1003.5	1020.7	976.6	899.9
80°	742.5	807.8	811.6	784.7	736.8
82.5°	544.9	583.3	612.1	566.0	535.3
85°	324.3	368.4	379.9	331.9	308.9
87.5°	105.5	147.7	165.0	170.8	172.7
90°	1.9	26.9	53.7	63.3	67.2
92.5°	1.9	7.7	11.5	17.3	19.2
95°	1.9	3.8	5.8	5.8	3.8
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



TEST NUMBER: P860048

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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-50001EG





— 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)