

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: P859839

Luminaire Tested: **SPHB-12HE-N-L835-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: P859839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-12HE-N-L835-CD
Description: 12000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

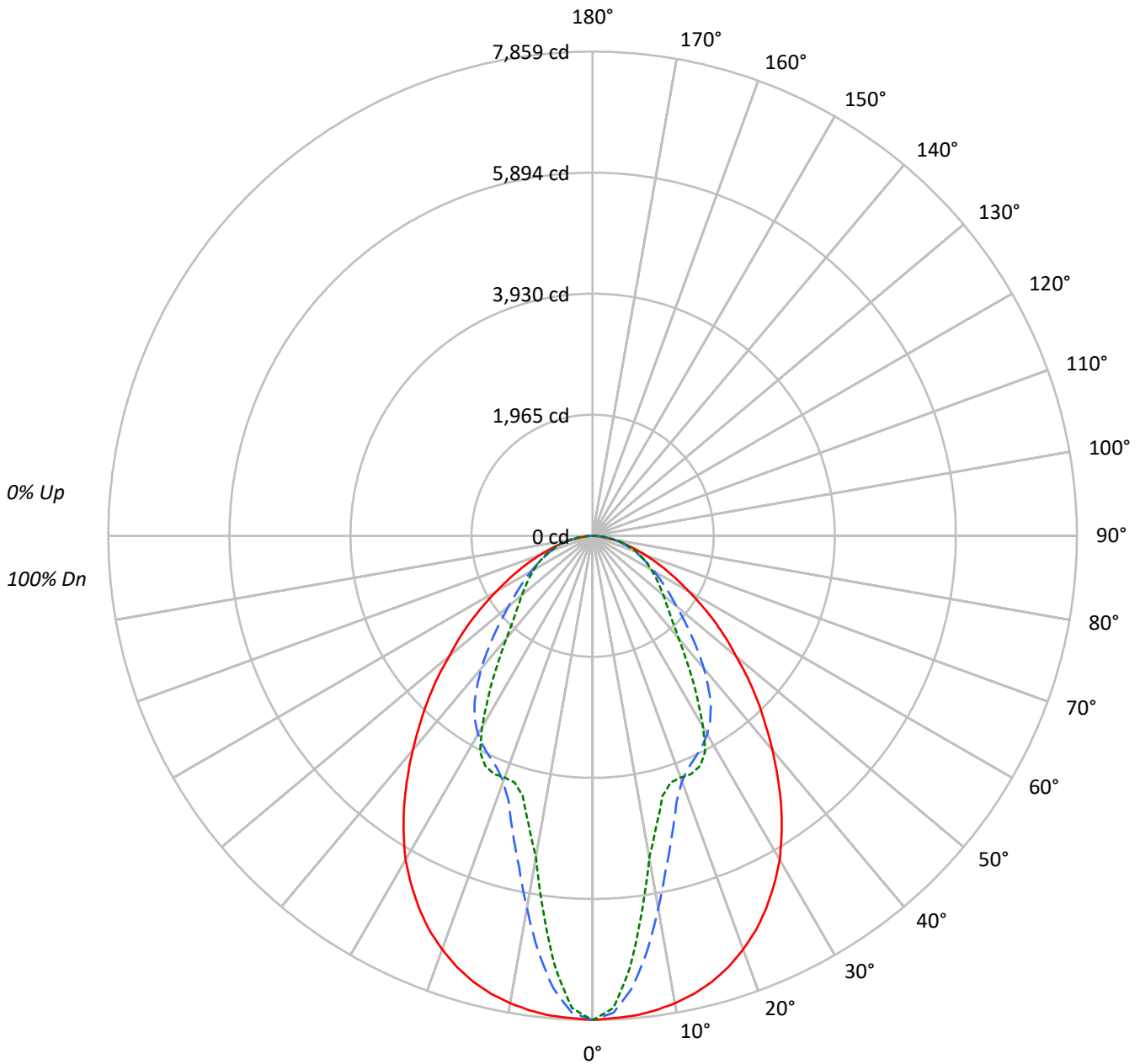
Lumens per Lamp: N/A
Luminaire Lumens: 11518.0 lumens
Efficiency: N/A
Efficacy: 162.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 71.1
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

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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					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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74								
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64								
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50								
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45								
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40								
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37								
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34								
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61299	61299	61299
5°	61228	57677	54947
10°	61019	48616	41912
15°	60511	40357	35318
20°	59292	35178	34671
25°	57387	34038	35484
30°	54674	33492	32292
35°	50764	31826	26759
40°	46226	28571	22096
45°	41727	24792	19398
50°	36824	21557	18164
55°	32677	19442	17484
60°	28003	17979	17127
65°	24239	16897	17041
70°	20742	16256	17022
75°	17413	15786	16870
80°	13287	15254	16521
85°	8699	13532	12726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	670.0	5.8
10°-20°	1538.5	13.4
20°-30°	2079.2	18.1
30°-40°	2188.3	19.0
40°-50°	1856.8	16.1
50°-60°	1438.4	12.5
60°-70°	1001.8	8.7
70°-80°	573.7	5.0
80°-90°	166.9	1.4
90°-100°	4.5	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°	4287.8	37.2
0°-40°	6476.0	56.2
0°-60°	9771.2	84.8
0°-90°	11513.6	100.0
90°-120°	4.5	0.0
90°-150°	4.5	0.0
90°-180°	4.0	0.0
0°-180°	11518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7859	7859	7859	7859	7859	
5°	7820	7676	7366	7084	7018	743
15°	7494	6360	4998	4498	4374	2109
25°	6668	4710	3955	4070	4123	3061
35°	5331	3623	3342	3019	2810	3323
45°	3783	2720	2248	1847	1758	2913
55°	2403	1832	1430	1300	1286	2148
65°	1313	1075	916	916	923	1312
75°	578	514	524	557	560	616
85°	97	126	151	142	142	124
90°	1	11	22	28	29	5
95°	1	2	4	4	3	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	0



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CATALOG NUMBER: SPHB-12HE-N-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7858.9	7858.9	7858.9	7858.9	7858.9
2.5°	7836.1	7810.3	7747.3	7706.5	7674.7
5°	7819.9	7676.5	7366.4	7083.8	7017.8
7.5°	7771.3	7456.4	6793.4	6270.8	6138.8
10°	7704.1	7140.2	6138.2	5483.7	5291.7
12.5°	7614.7	6802.4	5510.7	4893.9	4799.7
15°	7493.6	6360.2	4997.7	4498.5	4373.7
17.5°	7336.4	5903.0	4524.3	4235.7	4200.9
20°	7143.2	5483.7	4238.1	4139.8	4177.0
22.5°	6926.0	5076.3	4072.0	4113.4	4183.0
25°	6668.0	4710.3	3955.0	4069.6	4123.0
27.5°	6378.2	4379.7	3847.6	3952.6	3952.6
30°	6070.4	4104.4	3718.6	3709.0	3585.4
32.5°	5711.1	3870.4	3550.0	3359.8	3176.2
35°	5331.3	3622.6	3342.4	3019.0	2810.2
37.5°	4932.9	3392.2	3079.6	2653.0	2458.7
40°	4539.9	3164.8	2806.0	2324.3	2170.1
42.5°	4148.8	2933.2	2521.0	2057.9	1936.1
45°	3782.8	2720.2	2247.5	1846.7	1758.5
47.5°	3410.8	2494.1	1994.9	1676.9	1615.7
50°	3034.6	2264.9	1776.5	1541.9	1496.9
52.5°	2717.8	2051.3	1591.1	1414.1	1387.1
55°	2402.9	1832.3	1429.7	1299.5	1285.7
57.5°	2090.3	1628.3	1282.1	1194.5	1191.5
60°	1795.1	1437.5	1152.5	1104.5	1097.9
62.5°	1543.7	1247.9	1029.5	1006.7	1009.7
65°	1313.3	1075.1	915.5	915.5	923.3
67.5°	1099.7	916.1	811.2	825.0	835.8
70°	909.5	772.2	712.8	736.8	746.4
72.5°	729.6	638.4	618.6	645.0	652.8
75°	577.8	513.6	523.8	556.8	559.8
77.5°	428.4	404.4	430.8	466.8	473.4
80°	295.8	298.2	339.6	364.8	367.8
82.5°	190.8	208.2	254.4	267.6	262.8
85°	97.2	126.0	151.2	142.2	142.2
87.5°	37.2	54.6	64.2	75.6	79.8
90°	0.6	11.4	22.2	28.2	29.4
92.5°	0.6	3.0	4.8	5.4	4.8
95°	0.6	1.8	3.6	3.6	3.0
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-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)