

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: P859850

Luminaire Tested: **SPHB-12HE-W-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: P859850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-12HE-W-L850-CD
Description: 12000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

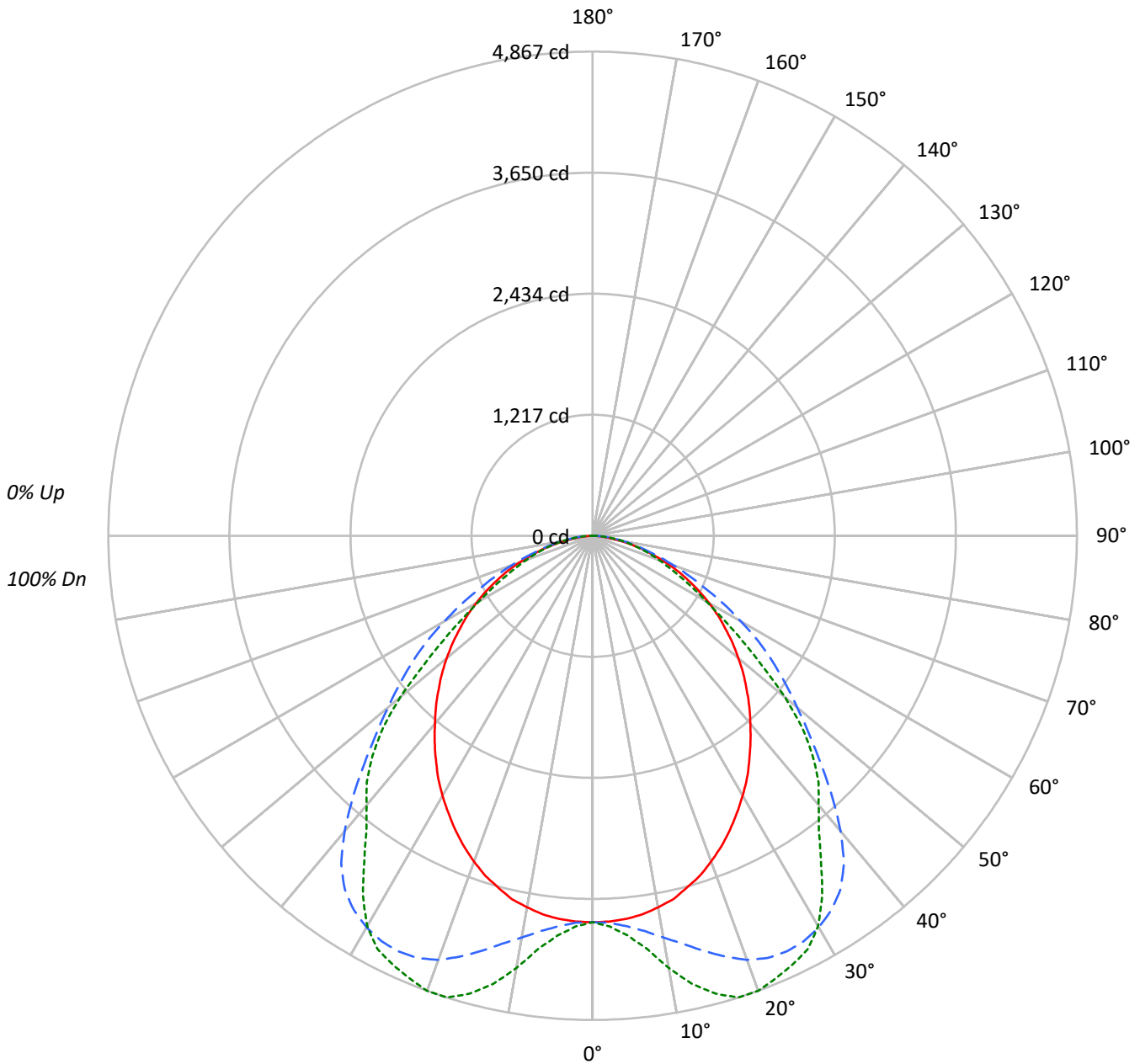
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12224.0 lumens
Efficiency: N/A
Efficacy: 171.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
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 (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					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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85								
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72								
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62								
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53								
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46								
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40								
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36								
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32								
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29								
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30303	30303	30303
5°	30270	30841	31572
10°	30030	32468	34930
15°	29561	34886	38475
20°	28922	37660	40397
25°	28087	39692	40926
30°	27172	40934	40815
35°	26153	41345	38085
40°	25099	39478	35972
45°	24150	35784	34513
50°	23209	32538	30596
55°	22147	30063	24898
60°	21052	26802	20504
65°	19602	23030	17779
70°	17834	19663	16080
75°	15315	16503	14743
80°	11971	14154	13673
85°	8090	12010	11267



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.4	3.1
10°-20°	1209.5	9.9
20°-30°	1979.4	16.2
30°-40°	2414.7	19.8
40°-50°	2391.5	19.6
50°-60°	1912.5	15.6
60°-70°	1193.1	9.8
70°-80°	584.5	4.8
80°-90°	153.3	1.3
90°-100°	4.0	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°	3570.4	29.2
0°-40°	5985.1	49.0
0°-60°	10289.1	84.2
0°-90°	12220.0	100.0
90°-120°	4.0	0.0
90°-150°	4.0	0.0
90°-180°	4.0	0.0
0°-180°	12224.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3885	3885	3885	3885	3885	
5°	3866	3883	3939	4008	4032	367
15°	3661	3874	4320	4664	4765	1032
25°	3264	3816	4612	4746	4755	1502
35°	2747	3670	4342	4110	4000	1718
45°	2189	3401	3244	3135	3129	1691
55°	1629	2611	2211	1997	1831	1459
65°	1062	1465	1248	1035	963	1053
75°	508	622	548	501	489	539
85°	90	128	134	127	126	112
90°	0	13	24	30	31	5
95°	0	2	2	2	1	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-W-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3885.0	3885.0	3885.0	3885.0	<i>3885.0</i>
2.5°	3881.1	3879.6	3893.7	3919.5	<i>3931.2</i>
5°	3866.0	3883.0	3938.9	4007.5	<i>4032.3</i>
7.5°	3838.8	3884.5	4008.0	4133.9	<i>4187.4</i>
10°	3791.6	3885.5	4099.4	4321.7	<i>4410.2</i>
12.5°	3743.0	3882.1	4201.1	4515.7	<i>4612.5</i>
15°	3660.8	3873.8	4320.2	4664.0	<i>4764.7</i>
17.5°	3584.4	3864.1	4435.0	4790.0	<i>4866.3</i>
20°	<i>3484.3</i>	<i>3850.0</i>	<i>4537.1</i>	<i>4828.4</i>	<i>4866.8</i>
22.5°	3379.2	3838.8	4593.5	4802.6	<i>4814.3</i>
25°	3263.5	3815.9	4612.0	4745.7	<i>4755.4</i>
27.5°	3140.0	3795.5	4594.5	4675.2	<i>4683.5</i>
30°	3016.9	3758.5	4544.9	4565.3	<i>4531.7</i>
32.5°	2888.1	3721.6	4464.6	4372.7	<i>4294.4</i>
35°	2746.6	3670.0	4342.1	4110.1	<i>3999.7</i>
37.5°	2607.0	3620.4	4151.0	3816.4	<i>3733.2</i>
40°	2465.0	3559.2	3877.2	3542.1	<i>3532.9</i>
42.5°	2330.8	3493.0	3567.4	3328.7	<i>3359.8</i>
45°	2189.3	3401.1	3244.0	3135.1	<i>3128.8</i>
47.5°	2055.1	3274.2	2949.8	2921.1	<i>2856.5</i>
50°	1912.6	3099.1	2681.4	2654.2	<i>2521.4</i>
52.5°	1773.0	2875.9	2441.7	2339.5	<i>2146.0</i>
55°	1628.6	2611.4	2210.7	1997.2	<i>1830.9</i>
57.5°	1494.4	2320.6	1975.8	1699.1	<i>1549.8</i>
60°	1349.5	2025.9	1718.1	1437.5	<i>1314.4</i>
62.5°	1207.5	1735.6	1484.6	1214.8	<i>1133.1</i>
65°	1062.1	1465.2	1247.8	1034.8	<i>963.3</i>
67.5°	923.0	1231.3	1043.1	872.4	<i>824.7</i>
70°	782.0	998.8	862.2	732.8	<i>705.1</i>
72.5°	636.6	798.0	697.3	618.6	<i>597.7</i>
75°	508.2	622.5	547.6	501.4	<i>489.2</i>
77.5°	378.3	462.9	427.9	400.7	<i>397.3</i>
80°	266.5	334.1	315.1	309.8	<i>304.4</i>
82.5°	170.2	218.3	224.2	220.8	<i>216.9</i>
85°	90.4	128.4	134.2	127.4	<i>125.9</i>
87.5°	36.5	55.9	60.3	66.6	<i>68.6</i>
90°	0.5	13.1	23.8	30.1	<i>31.1</i>
92.5°	0.5	2.9	3.4	3.4	<i>2.9</i>
95°	0.5	1.9	1.9	1.5	<i>1.0</i>
97.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
100°	0.0	0.0	0.0	0.0	<i>0.0</i>
102.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
105°	0.0	0.0	0.0	0.0	<i>0.0</i>



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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)