

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: P859876

Luminaire Tested: **SPHB-12SE-W-L840-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: P859876
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-12SE-W-L840-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens
and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

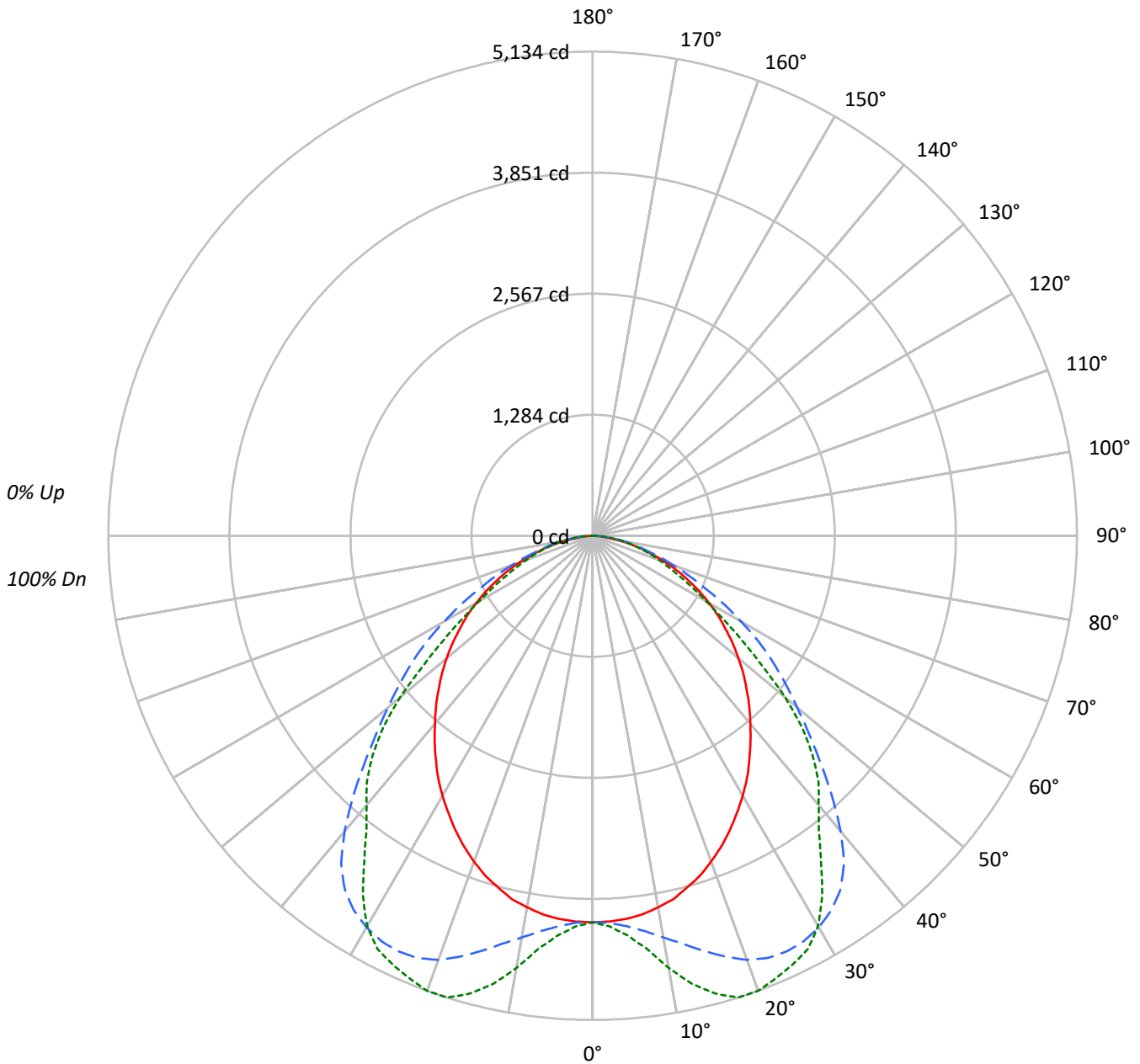
Lumens per Lamp: N/A
Luminaire Lumens: 12895.0 lumens
Efficiency: N/A
Efficacy: 169.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 76.3
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									
RC	80									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°	31966	31966	31966
5°	31931	32534	33305
10°	31679	34250	36847
15°	31184	36801	40587
20°	30509	39727	42614
25°	29628	41870	43173
30°	28663	43180	43056
35°	27588	43614	40176
40°	26477	41645	37947
45°	25476	37748	36407
50°	24483	34324	32275
55°	23363	31712	26265
60°	22206	28273	21631
65°	20678	24294	18755
70°	18812	20742	16963
75°	16156	17407	15554
80°	12626	14931	14423
85°	8538	12672	11894



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	402.4	3.1
10°-20°	1275.9	9.9
20°-30°	2088.1	16.2
30°-40°	2547.3	19.8
40°-50°	2522.8	19.6
50°-60°	2017.4	15.6
60°-70°	1258.5	9.8
70°-80°	616.6	4.8
80°-90°	161.7	1.3
90°-100°	4.3	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°	3766.3	29.2
0°-40°	6313.6	49.0
0°-60°	10853.8	84.2
0°-90°	12890.7	100.0
90°-120°	4.3	0.0
90°-150°	4.3	0.0
90°-180°	4.0	0.0
0°-180°	12895.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4098	4098	4098	4098	4098	
5°	4078	4096	4155	4228	4254	387
15°	3862	4086	4557	4920	5026	1089
25°	3443	4025	4865	5006	5016	1584
35°	2897	3872	4580	4336	4219	1812
45°	2310	3588	3422	3307	3300	1784
55°	1718	2755	2332	2107	1931	1539
65°	1120	1546	1316	1092	1016	1111
75°	536	657	578	529	516	569
85°	95	135	142	134	133	118
90°	0	14	25	32	33	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4098.2	4098.2	4098.2	4098.2	4098.2
2.5°	4094.1	4092.6	4107.5	4134.6	4147.0
5°	4078.2	4096.2	4155.2	4227.5	4253.7
7.5°	4049.5	4097.7	4228.0	4360.9	4417.3
10°	3999.7	4098.7	4324.4	4558.9	4652.2
12.5°	3948.4	4095.1	4431.7	4763.6	4865.6
15°	3861.7	4086.4	4557.3	4920.0	5026.2
17.5°	3781.2	4076.2	4678.4	5052.9	5133.4
20°	3675.5	4061.3	4786.1	5093.4	5133.9
22.5°	3564.7	4049.5	4845.6	5066.2	5078.5
25°	3442.6	4025.4	4865.1	5006.2	5016.5
27.5°	3312.3	4003.8	4846.7	4931.8	4940.5
30°	3182.5	3964.8	4794.3	4815.9	4780.5
32.5°	3046.6	3925.9	4709.7	4612.7	4530.2
35°	2897.3	3871.5	4580.4	4335.7	4219.3
37.5°	2750.1	3819.2	4378.8	4025.9	3938.2
40°	2600.3	3754.5	4090.0	3736.6	3726.8
42.5°	2458.7	3684.8	3763.2	3511.4	3544.2
45°	2309.5	3587.8	3422.1	3307.2	3300.5
47.5°	2167.9	3453.9	3111.8	3081.5	3013.3
50°	2017.6	3269.2	2828.6	2799.9	2659.8
52.5°	1870.3	3033.8	2575.7	2468.0	2263.8
55°	1718.0	2754.7	2332.0	2106.8	1931.4
57.5°	1576.4	2448.0	2084.3	1792.4	1634.9
60°	1423.5	2137.1	1812.4	1516.4	1386.6
62.5°	1273.7	1830.8	1566.1	1281.4	1195.3
65°	1120.4	1545.6	1316.3	1091.6	1016.2
67.5°	973.6	1298.9	1100.3	920.3	870.0
70°	824.9	1053.7	909.5	773.1	743.8
72.5°	671.5	841.8	735.6	652.5	630.5
75°	536.1	656.6	577.6	528.9	516.1
77.5°	399.1	488.4	451.4	422.7	419.1
80°	281.1	352.4	332.4	326.8	321.1
82.5°	179.5	230.3	236.5	232.9	228.8
85°	95.4	135.4	141.6	134.4	132.9
87.5°	38.5	59.0	63.6	70.3	72.3
90°	0.5	13.9	25.1	31.8	32.8
92.5°	0.5	3.1	3.6	3.6	3.1
95°	0.5	2.1	2.1	1.5	1.0
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)