

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: P859848

Luminaire Tested: **SPHB-12HE-W-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: P859848
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-L835-CD
Description: 12000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

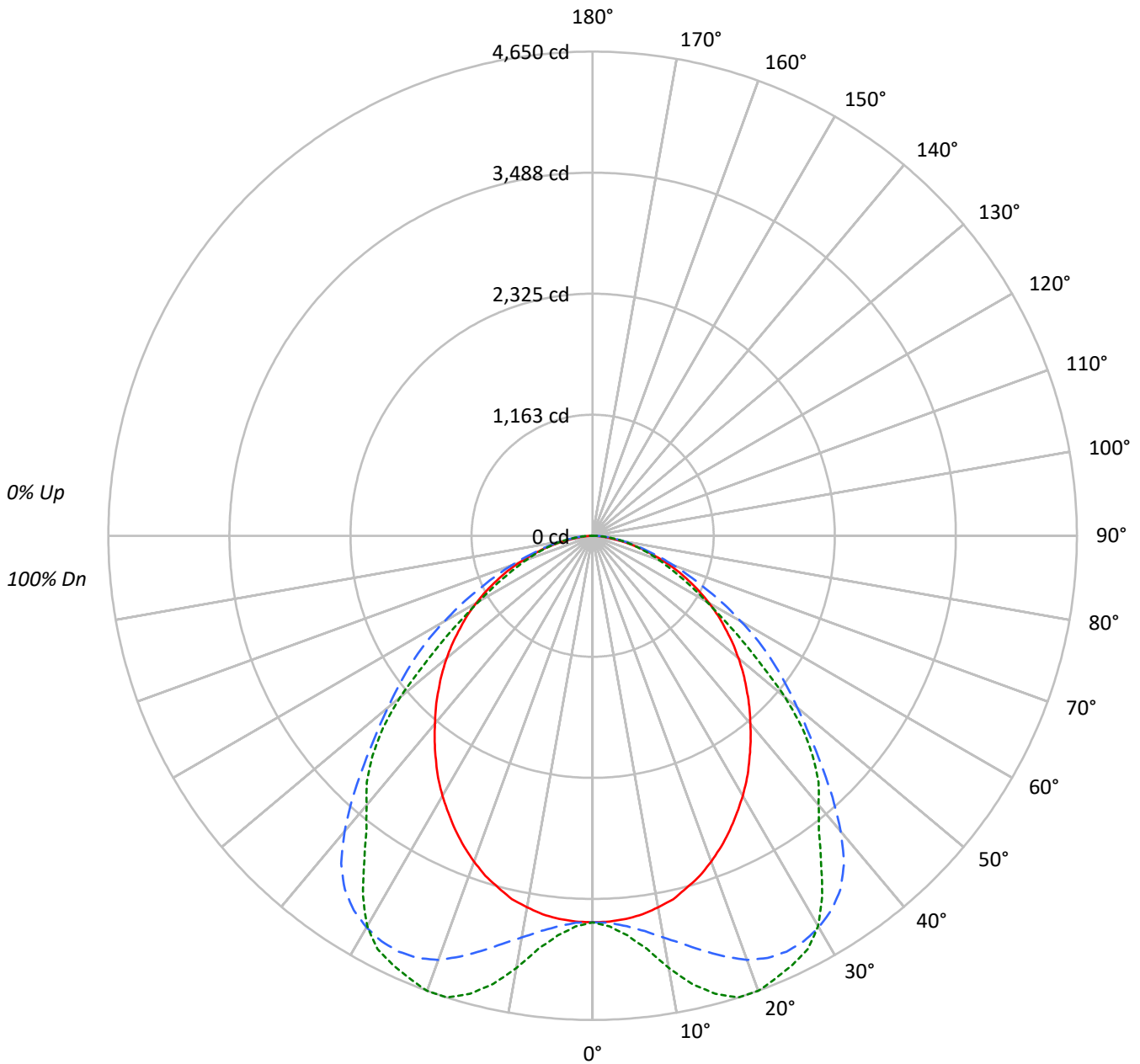
Lumens per Lamp: N/A
Luminaire Lumens: 11680.0 lumens
Efficiency: N/A
Efficacy: 164.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 71.1
Input Voltage (V): NR
Input Current (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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28954	28954	28954
5°	28923	29469	30167
10°	28694	31024	33375
15°	28246	33333	36763
20°	27634	35984	38599
25°	26837	37925	39105
30°	25963	39112	38999
35°	24988	39505	36390
40°	23982	37721	34372
45°	23074	34192	32977
50°	22176	31090	29235
55°	21161	28725	23790
60°	20114	25609	19592
65°	18729	22005	16989
70°	17040	18787	15364
75°	14634	15767	14086
80°	11436	13525	13067
85°	7732	11473	10766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.5	3.1
10°-20°	1155.7	9.9
20°-30°	1891.3	16.2
30°-40°	2307.3	19.8
40°-50°	2285.1	19.6
50°-60°	1827.3	15.6
60°-70°	1140.0	9.8
70°-80°	558.5	4.8
80°-90°	146.5	1.3
90°-100°	3.9	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°	3411.4	29.2
0°-40°	5718.7	49.0
0°-60°	9831.2	84.2
0°-90°	11676.1	100.0
90°-120°	3.9	0.0
90°-150°	3.9	0.0
90°-180°	4.0	0.0
0°-180°	11680.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3712	3712	3712	3712	3712	
5°	3694	3710	3764	3829	3853	350
15°	3498	3701	4128	4456	4553	986
25°	3118	3646	4407	4534	4544	1435
35°	2624	3507	4149	3927	3822	1642
45°	2092	3250	3100	2996	2990	1616
55°	1556	2495	2112	1908	1749	1394
65°	1015	1400	1192	989	920	1006
75°	486	595	523	479	467	515
85°	86	123	128	122	120	107
90°	0	12	23	29	30	5
95°	0	2	2	1	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°	3712.1	3712.1	3712.1	3712.1	3712.1
2.5°	3708.4	3707.0	3720.4	3745.1	3756.2
5°	3694.0	3710.2	3763.7	3829.2	3852.9
7.5°	3667.9	3711.6	3829.6	3950.0	4001.1
10°	3622.9	3712.5	3917.0	4129.3	4213.9
12.5°	3576.4	3709.3	4014.1	4314.7	4407.2
15°	3497.9	3701.4	4127.9	4456.4	4552.6
17.5°	3424.9	3692.1	4237.6	4576.8	4649.7
20°	3329.2	3678.6	4335.2	4613.5	4650.2
22.5°	3228.8	3667.9	4389.1	4588.9	4600.0
25°	3118.3	3646.1	4406.7	4534.5	4543.8
27.5°	3000.2	3626.6	4390.0	4467.1	4475.0
30°	2882.7	3591.3	4342.6	4362.1	4330.1
32.5°	2759.5	3556.0	4265.9	4178.1	4103.3
35°	2624.3	3506.7	4148.8	3927.2	3821.7
37.5°	2491.0	3459.3	3966.2	3646.6	3567.1
40°	2355.3	3400.8	3704.6	3384.5	3375.7
42.5°	2227.1	3337.6	3408.7	3180.5	3210.3
45°	2091.8	3249.8	3099.7	2995.6	2989.5
47.5°	1963.6	3128.5	2818.6	2791.1	2729.3
50°	1827.5	2961.2	2562.1	2536.1	2409.2
52.5°	1694.1	2747.9	2333.0	2235.4	2050.5
55°	1556.1	2495.2	2112.3	1908.3	1749.4
57.5°	1427.9	2217.3	1887.9	1623.5	1480.8
60°	1289.4	1935.7	1641.6	1373.5	1255.9
62.5°	1153.7	1658.3	1418.6	1160.7	1082.6
65°	1014.8	1400.0	1192.3	988.8	920.5
67.5°	881.9	1176.5	996.7	833.6	788.0
70°	747.2	954.4	823.8	700.2	673.7
72.5°	608.2	762.5	666.3	591.0	571.1
75°	485.6	594.8	523.2	479.1	467.4
77.5°	361.5	442.3	408.9	382.9	379.6
80°	254.6	319.2	301.1	296.0	290.9
82.5°	162.6	208.6	214.2	211.0	207.2
85°	86.4	122.7	128.2	121.7	120.3
87.5°	34.8	53.4	57.6	63.7	65.5
90°	0.5	12.5	22.8	28.8	29.7
92.5°	0.5	2.8	3.3	3.3	2.8
95°	0.5	1.9	1.9	1.4	0.9
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)