

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: P859913

Luminaire Tested: **SPHB-15SE-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: P859913
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-15SE-M-L850-CD
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

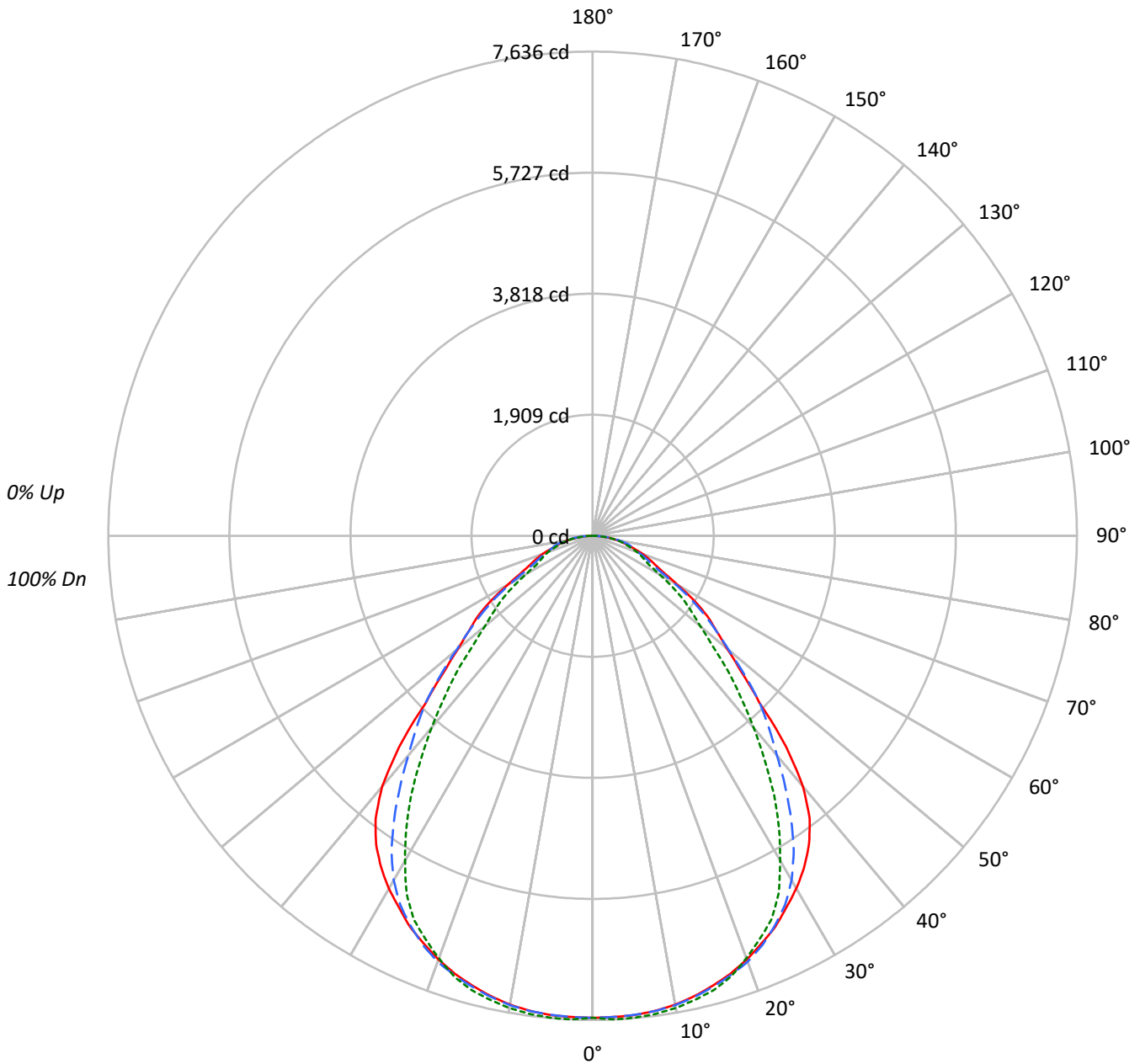
Lumens per Lamp: N/A
Luminaire Lumens: 15778.0 lumens
Efficiency: N/A
Efficacy: 164.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 95.9
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	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°	59291	59291	59291
5°	59408	59392	59730
10°	59460	59523	59888
15°	59287	59440	59853
20°	59027	59327	58852
25°	58596	58432	57440
30°	57854	56490	53267
35°	56640	51971	47475
40°	52563	45999	40211
45°	41008	41118	33278
50°	33493	33967	26874
55°	30008	28877	23614
60°	24024	22740	18893
65°	20132	18430	16708
70°	19116	17560	17011
75°	17344	18643	16406
80°	17428	19050	17293
85°	15160	17765	14444



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	722.8	4.6
10°-20°	2078.7	13.2
20°-30°	3103.1	19.7
30°-40°	3386.0	21.5
40°-50°	2769.9	17.6
50°-60°	1821.2	11.5
60°-70°	1044.9	6.6
70°-80°	633.2	4.0
80°-90°	212.6	1.3
90°-100°	5.5	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°	5904.6	37.4
0°-40°	9290.6	58.9
0°-60°	13881.8	88.0
0°-90°	15772.5	100.0
90°-120°	5.5	0.0
90°-150°	5.5	0.0
90°-180°	6.0	0.0
0°-180°	15778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7602	7602	7602	7602	7602	
5°	7588	7576	7586	7617	7629	722
15°	7342	7341	7361	7408	7412	2072
25°	6808	6824	6790	6707	6674	3132
35°	5948	5814	5458	5086	4986	3687
45°	3718	3995	3728	3290	3017	2951
55°	2207	2146	2124	1825	1736	1943
65°	1091	1075	999	972	905	1115
75°	576	623	619	594	544	623
85°	169	192	198	173	161	184
90°	1	14	28	33	35	8
95°	1	2	3	3	2	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°	7601.5	7601.5	7601.5	7601.5	7601.5
2.5°	7596.5	7585.5	7595.5	7626.6	7635.6
5°	7587.5	7575.5	7585.5	7616.6	7628.6
7.5°	7556.4	7549.4	7559.4	7590.5	7605.6
10°	7507.3	7499.3	7515.3	7542.4	7561.4
12.5°	7434.1	7431.1	7446.1	7485.2	7493.3
15°	7341.9	7340.9	7360.9	7408.0	7412.1
17.5°	7237.6	7236.6	7261.7	7292.7	7281.7
20°	7111.3	7118.3	7147.4	7118.3	7090.2
22.5°	6959.9	6981.9	6989.0	6897.7	6883.7
25°	6808.5	6824.5	6789.5	6707.2	6674.2
27.5°	6613.0	6632.0	6566.9	6449.6	6355.3
30°	6423.5	6405.5	6272.1	6045.5	5914.2
32.5°	6206.0	6141.8	5902.2	5589.4	5470.1
35°	5948.3	5813.9	5458.0	5086.1	4985.8
37.5°	5622.5	5376.8	4987.8	4599.8	4448.4
40°	5162.3	4878.5	4517.6	4116.6	3949.2
42.5°	4517.6	4412.3	4113.6	3662.4	3462.9
45°	3717.6	3995.3	3727.6	3290.5	3016.8
47.5°	3182.2	3568.2	3246.3	2930.5	2553.6
50°	2760.1	3025.8	2799.2	2514.5	2214.7
52.5°	2455.3	2535.5	2444.3	2131.5	1961.0
55°	2206.7	2146.5	2123.5	1824.7	1736.5
57.5°	1897.9	1864.8	1805.6	1591.1	1474.8
60°	1540.0	1610.1	1457.7	1396.6	1211.1
62.5°	1265.3	1334.4	1171.0	1167.0	1012.6
65°	1090.8	1074.8	998.6	971.5	905.3
67.5°	965.5	915.4	889.3	854.2	831.1
70°	838.2	817.1	770.0	777.0	745.9
72.5°	698.8	725.9	678.7	691.8	635.6
75°	575.5	622.6	618.6	593.5	544.4
77.5°	474.2	524.3	533.4	510.3	470.2
80°	388.0	422.1	424.1	410.1	385.0
82.5°	284.7	304.8	319.8	295.8	279.7
85°	169.4	192.5	198.5	173.4	161.4
87.5°	55.1	77.2	86.2	89.2	90.2
90°	1.0	14.0	28.1	33.1	35.1
92.5°	1.0	4.0	6.0	9.0	10.0
95°	1.0	2.0	3.0	3.0	2.0
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)