

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: P859912

Luminaire Tested: **SPHB-15SE-M-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: P859912  
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-L840-CD  
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

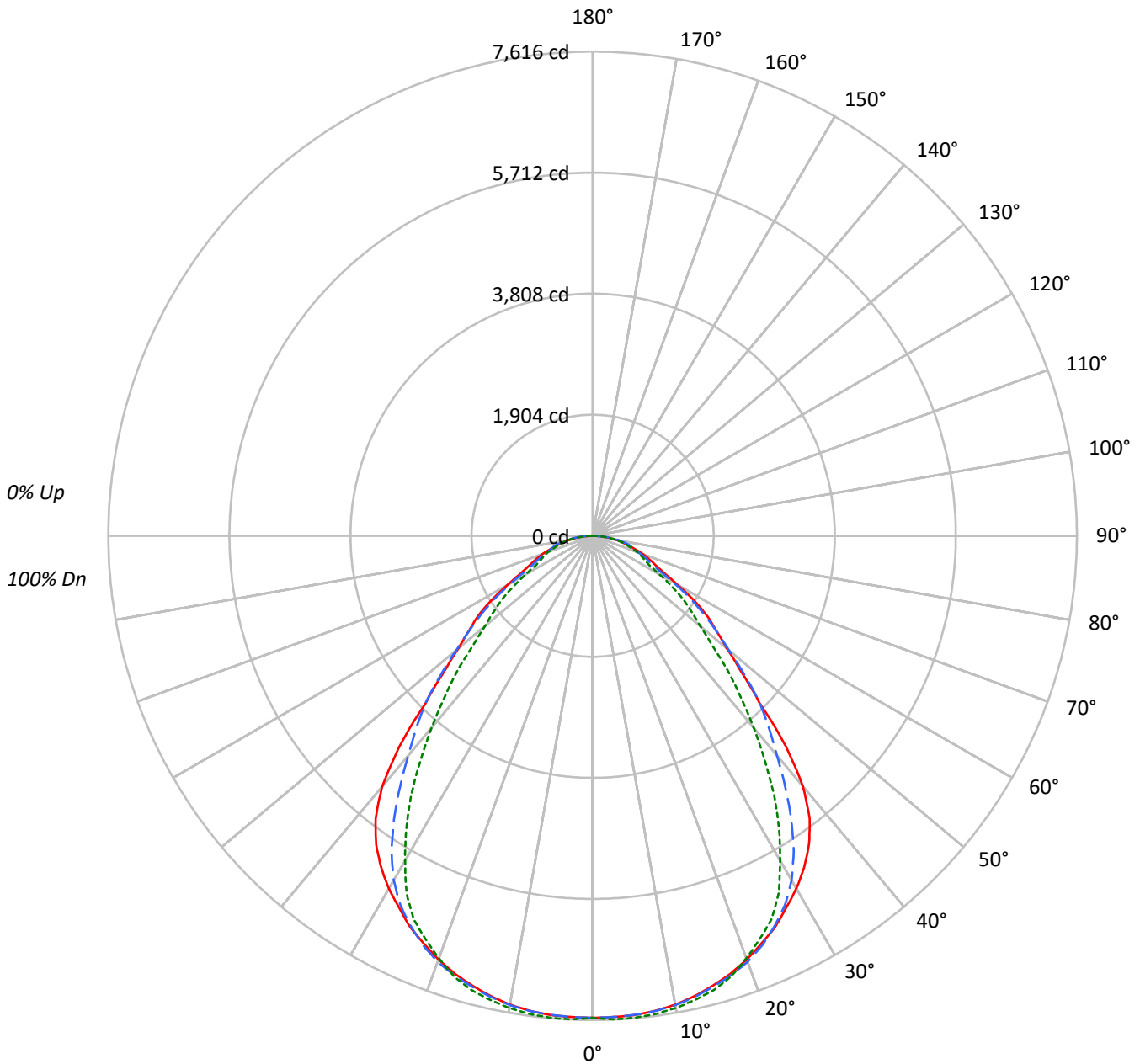
Lumens per Lamp: N/A  
Luminaire Lumens: 15737.0 lumens  
Efficiency: N/A  
Efficacy: 164.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 95.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87			87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75			75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58			58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51			51
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31			31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	59138	59138	59138
5°	59254	59238	59575
10°	59305	59369	59733
15°	59132	59286	59698
20°	58874	59173	58700
25°	58444	58280	57290
30°	57703	56343	53128
35°	56492	51836	47352
40°	52427	45880	40106
45°	40901	41011	33191
50°	33405	33878	26804
55°	29930	28801	23553
60°	23961	22682	18845
65°	20080	18382	16666
70°	19065	17515	16967
75°	17298	18594	16364
80°	17383	19000	17249
85°	15125	17720	14409



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	720.9	4.6
10°-20°	2073.3	13.2
20°-30°	3095.1	19.7
30°-40°	3377.2	21.5
40°-50°	2762.7	17.6
50°-60°	1816.5	11.5
60°-70°	1042.2	6.6
70°-80°	631.5	4.0
80°-90°	212.1	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°	5889.2	37.4
0°-40°	9266.5	58.9
0°-60°	13845.7	88.0
0°-90°	15731.5	100.0
90°-120°	5.5	0.0
90°-150°	5.5	0.0
90°-180°	6.0	0.0
0°-180°	15737.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7582	7582	7582	7582	7582	
5°	7568	7556	7566	7597	7609	720
15°	7323	7322	7342	7389	7393	2067
25°	6791	6807	6772	6690	6657	3124
35°	5933	5799	5444	5073	4973	3677
45°	3708	3985	3718	3282	3009	2943
55°	2201	2141	2118	1820	1732	1938
65°	1088	1072	996	969	903	1112
75°	574	621	617	592	543	621
85°	169	192	198	173	161	183
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°	7581.8	7581.8	7581.8	7581.8	7581.8
2.5°	7576.8	7565.8	7575.8	7606.8	7615.8
5°	7567.8	7555.8	7565.8	7596.8	7608.8
7.5°	7536.8	7529.8	7539.8	7570.8	7585.8
10°	7487.8	7479.8	7495.8	7522.8	7541.8
12.5°	7414.8	7411.8	7426.8	7465.8	7473.8
15°	7322.8	7321.8	7341.8	7388.8	7392.8
17.5°	7218.8	7217.8	7242.8	7273.8	7262.8
20°	7092.8	7099.8	7128.8	7099.8	7071.8
22.5°	6941.8	6963.8	6970.8	6879.8	6865.8
25°	6790.8	6806.8	6771.8	6689.8	6656.8
27.5°	6595.8	6614.8	6549.8	6432.8	6338.8
30°	6406.8	6388.8	6255.8	6029.8	5898.8
32.5°	6189.8	6125.8	5886.8	5574.8	5455.8
35°	5932.8	5798.8	5443.8	5072.9	4972.9
37.5°	5607.8	5362.9	4974.9	4587.9	4436.9
40°	5148.9	4865.9	4505.9	4105.9	3938.9
42.5°	4505.9	4400.9	4102.9	3652.9	3453.9
45°	3707.9	3984.9	3717.9	3281.9	3008.9
47.5°	3173.9	3558.9	3237.9	2922.9	2546.9
50°	2752.9	3017.9	2791.9	2507.9	2208.9
52.5°	2448.9	2528.9	2437.9	2125.9	1955.9
55°	2200.9	2140.9	2117.9	1819.9	1732.0
57.5°	1892.9	1859.9	1800.9	1587.0	1471.0
60°	1536.0	1606.0	1454.0	1393.0	1208.0
62.5°	1262.0	1331.0	1168.0	1164.0	1010.0
65°	1088.0	1072.0	996.0	969.0	903.0
67.5°	963.0	913.0	887.0	852.0	829.0
70°	836.0	815.0	768.0	775.0	744.0
72.5°	697.0	724.0	677.0	690.0	634.0
75°	574.0	621.0	617.0	592.0	543.0
77.5°	473.0	523.0	532.0	509.0	469.0
80°	387.0	421.0	423.0	409.0	384.0
82.5°	284.0	304.0	319.0	295.0	279.0
85°	169.0	192.0	198.0	173.0	161.0
87.5°	55.0	77.0	86.0	89.0	90.0
90°	1.0	14.0	28.0	33.0	35.0
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)