

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: P859915

Luminaire Tested: **SPHB-15SE-M-L940-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: P859915  
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-L940-CD  
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 4000K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

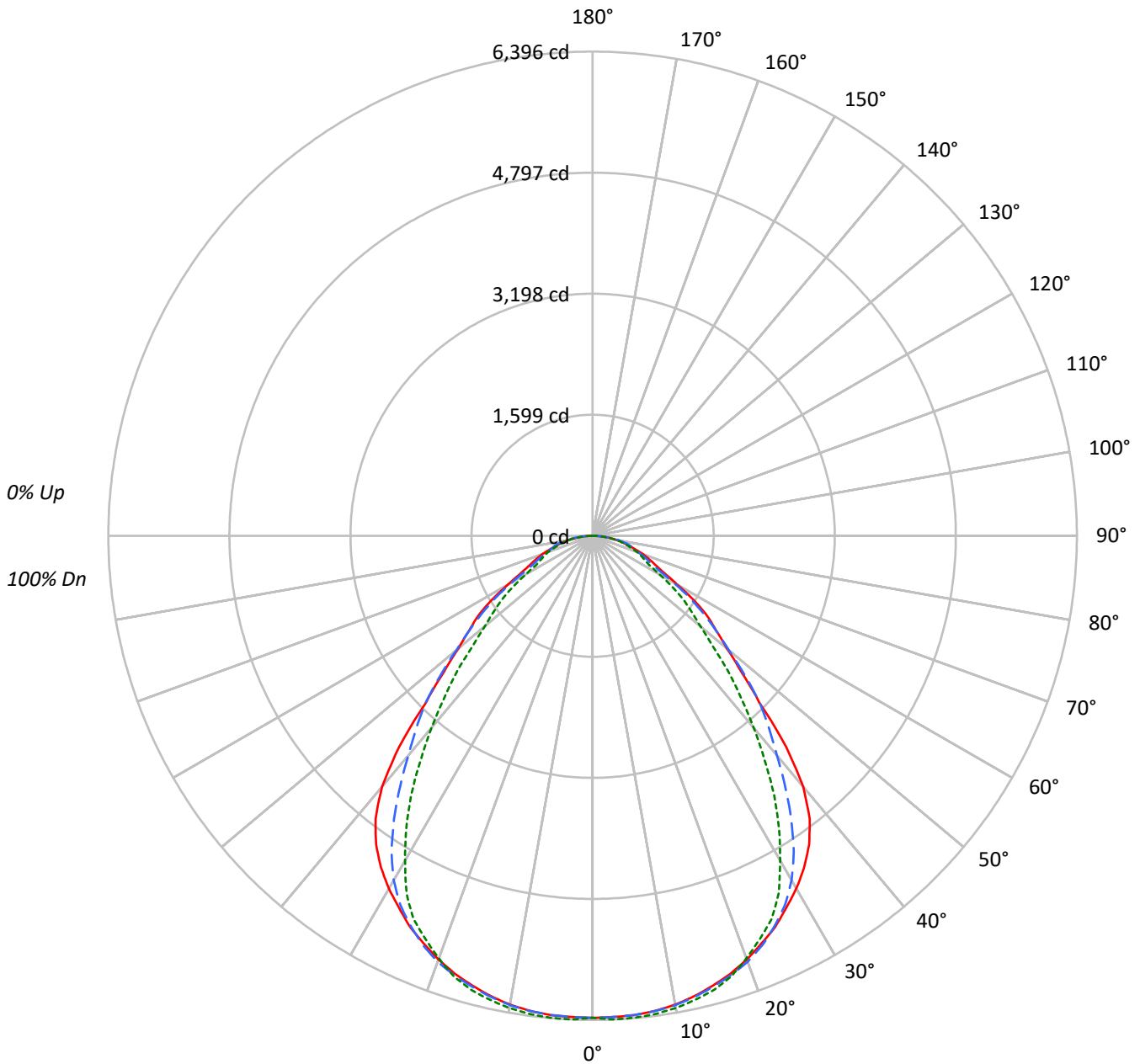
Lumens per Lamp: N/A  
Luminaire Lumens: 13217.0 lumens  
Efficiency: N/A  
Efficacy: 137.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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								
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°	49668	49668	49668
5°	49765	49752	50035
10°	49809	49862	50168
15°	49663	49792	50138
20°	49446	49698	49300
25°	49085	48947	48116
30°	48464	47322	44620
35°	47446	43535	39768
40°	44031	38532	33683
45°	34351	34444	27876
50°	28056	28453	22512
55°	25137	24190	19781
60°	20124	19049	15826
65°	16865	15439	13997
70°	16012	14710	14249
75°	14529	15617	13742
80°	14598	15959	14486
85°	12699	14883	12100



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	605.5	4.6
10°-20°	1741.3	13.2
20°-30°	2599.5	19.7
30°-40°	2836.4	21.5
40°-50°	2320.3	17.6
50°-60°	1525.6	11.5
60°-70°	875.3	6.6
70°-80°	530.4	4.0
80°-90°	178.1	1.3
90°-100°	4.6	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°	4946.2	37.4
0°-40°	7782.6	58.9
0°-60°	11628.6	88.0
0°-90°	13212.4	100.0
90°-120°	4.6	0.0
90°-150°	4.6	0.0
90°-180°	5.0	0.0
0°-180°	13217.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6368	6368	6368	6368	6368	
5°	6356	6346	6354	6380	6390	605
15°	6150	6149	6166	6206	6209	1736
25°	5703	5717	5687	5619	5591	2624
35°	4983	4870	4572	4260	4176	3088
45°	3114	3347	3122	2756	2527	2472
55°	1848	1798	1779	1528	1455	1628
65°	914	900	836	814	758	934
75°	482	522	518	497	456	522
85°	142	161	166	145	135	154
90°	1	12	24	28	29	7
95°	1	2	2	2	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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CATALOG NUMBER: SPHB-15SE-M-L940-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6367.7	6367.7	6367.7	6367.7	6367.7
2.5°	6363.5	6354.3	6362.7	6388.7	6396.3
5°	6355.9	6345.9	6354.3	6380.3	6390.4
7.5°	6329.9	6324.0	6332.4	6358.5	6371.1
10°	6288.8	6282.0	6295.5	6318.1	6334.1
12.5°	6227.4	6224.9	6237.5	6270.3	6277.0
15°	6150.2	6149.3	6166.1	6205.6	6209.0
17.5°	6062.8	6062.0	6083.0	6109.0	6099.8
20°	5957.0	5962.9	5987.3	5962.9	5939.4
22.5°	5830.2	5848.7	5854.6	5778.1	5766.4
25°	5703.4	5716.8	5687.4	5618.6	5590.8
27.5°	5539.6	5555.6	5501.0	5402.7	5323.8
30°	5380.9	5365.8	5254.1	5064.3	4954.2
32.5°	5198.6	5144.9	4944.2	4682.1	4582.2
35°	4982.8	4870.3	4572.1	4260.5	4176.5
37.5°	4709.8	4504.1	4178.2	3853.2	3726.4
40°	4324.4	4086.7	3784.3	3448.4	3308.1
42.5°	3784.3	3696.2	3445.9	3068.0	2900.8
45°	3114.1	3346.8	3122.5	2756.4	2527.1
47.5°	2665.7	2989.0	2719.4	2454.9	2139.1
50°	2312.1	2534.7	2344.8	2106.3	1855.2
52.5°	2056.8	2124.0	2047.5	1785.5	1642.7
55°	1848.5	1798.1	1778.8	1528.5	1454.6
57.5°	1589.8	1562.1	1512.6	1332.8	1235.4
60°	1290.0	1348.8	1221.1	1169.9	1014.5
62.5°	1059.9	1117.8	980.9	977.6	848.2
65°	913.8	900.3	836.5	813.8	758.4
67.5°	808.8	766.8	744.9	715.5	696.2
70°	702.1	684.5	645.0	650.9	624.8
72.5°	585.4	608.0	568.6	579.5	532.5
75°	482.1	521.5	518.2	497.2	456.0
77.5°	397.2	439.2	446.8	427.5	393.9
80°	325.0	353.6	355.3	343.5	322.5
82.5°	238.5	255.3	267.9	247.8	234.3
85°	141.9	161.3	166.3	145.3	135.2
87.5°	46.2	64.7	72.2	74.7	75.6
90°	0.8	11.8	23.5	27.7	29.4
92.5°	0.8	3.4	5.0	7.6	8.4
95°	0.8	1.7	2.5	2.5	1.7
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)