

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: P859931

Luminaire Tested: **SPHB-15SE-W-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: P859931  
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-15SE-W-L850-CD  
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

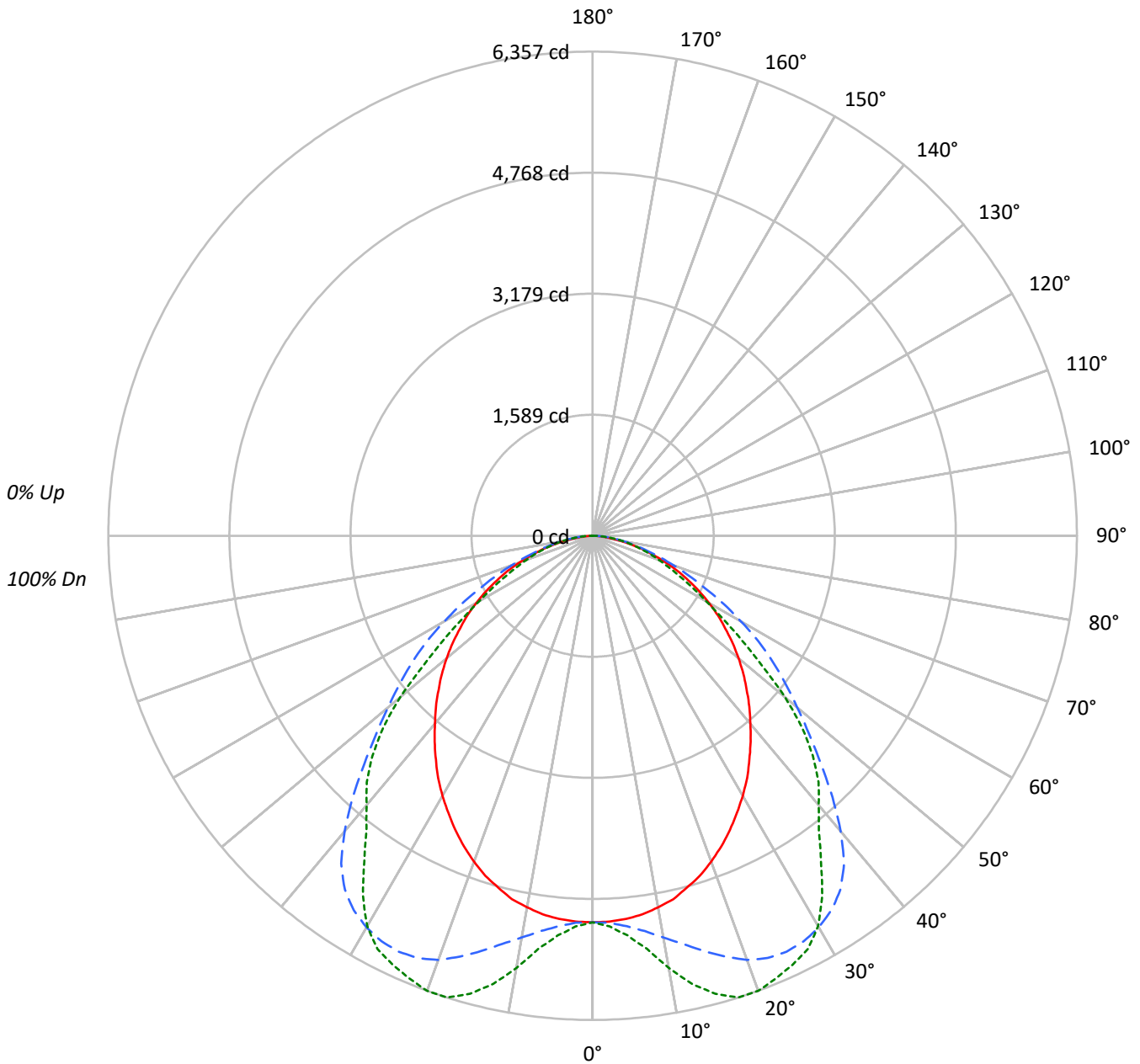
Lumens per Lamp: N/A  
Luminaire Lumens: 15968.0 lumens  
Efficiency: N/A  
Efficacy: 166.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	39584	39584	39584
5°	39541	40287	41242
10°	39228	42413	45628
15°	38615	45571	50259
20°	37779	49195	52770
25°	36689	51849	53461
30°	35495	53471	53316
35°	34163	54009	49750
40°	32786	51569	46990
45°	31546	46744	45084
50°	30317	42504	39968
55°	28930	39271	32523
60°	27499	35011	26785
65°	25604	30084	23225
70°	23296	25686	21006
75°	20005	21557	19257
80°	15636	18488	17864
85°	10578	15688	14722



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	498.3	3.1
10°-20°	1579.9	9.9
20°-30°	2585.7	16.2
30°-40°	3154.3	19.8
40°-50°	3124.0	19.6
50°-60°	2498.2	15.6
60°-70°	1558.5	9.8
70°-80°	763.6	4.8
80°-90°	200.3	1.3
90°-100°	5.3	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°	4663.9	29.2
0°-40°	7818.2	49.0
0°-60°	13440.4	84.2
0°-90°	15962.7	100.0
90°-120°	5.3	0.0
90°-150°	5.3	0.0
90°-180°	5.0	0.0
0°-180°	15968.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5075	5075	5075	5075	5075	
5°	5050	5072	5145	5235	5267	479
15°	4782	5060	5643	6092	6224	1348
25°	4263	4985	6024	6199	6212	1962
35°	3588	4794	5672	5369	5225	2244
45°	2860	4443	4238	4095	4087	2209
55°	2127	3411	2888	2609	2392	1906
65°	1387	1914	1630	1352	1258	1376
75°	664	813	715	655	639	705
85°	118	168	175	166	164	146
90°	1	17	31	39	41	7
95°	1	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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CATALOG NUMBER: SPHB-15SE-W-L850-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5074.9	5074.9	5074.9	5074.9	5074.9
2.5°	5069.8	5067.9	5086.3	5120.0	5135.2
5°	5050.1	5072.3	5145.4	5234.9	5267.3
7.5°	5014.5	5074.2	5235.6	5400.1	5470.0
10°	4952.9	5075.5	5355.0	5645.3	5760.9
12.5°	4889.4	5071.1	5487.8	5898.8	6025.2
15°	4782.0	5060.3	5643.4	6092.5	6224.0
17.5°	4682.3	5047.6	5793.3	6257.0	6356.8
20°	4551.4	5029.1	5926.7	6307.2	6357.4
22.5°	4414.2	5014.5	6000.4	6273.6	6288.8
25°	4263.0	4984.7	6024.5	6199.2	6211.9
27.5°	4101.7	4958.0	6001.7	6107.1	6117.9
30°	3941.0	4909.7	5936.9	5963.6	5919.7
32.5°	3772.6	4861.4	5832.1	5712.0	5609.7
35°	3587.8	4794.1	5672.0	5369.0	5224.8
37.5°	3405.5	4729.3	5422.3	4985.3	4876.7
40°	3220.0	4649.3	5064.7	4627.0	4615.0
42.5°	3044.7	4562.9	4660.1	4348.2	4388.8
45°	2859.8	4442.8	4237.6	4095.3	4087.1
47.5°	2684.5	4277.0	3853.3	3815.8	3731.4
50°	2498.4	4048.3	3502.7	3467.1	3293.7
52.5°	2316.1	3756.8	3189.5	3056.1	2803.3
55°	2127.4	3411.2	2887.8	2608.9	2391.6
57.5°	1952.1	3031.3	2580.9	2219.5	2024.5
60°	1762.8	2646.4	2244.3	1877.7	1717.0
62.5°	1577.3	2267.1	1939.4	1586.8	1480.1
65°	1387.3	1914.0	1630.0	1351.8	1258.4
67.5°	1205.7	1608.4	1362.6	1139.6	1077.4
70°	1021.5	1304.8	1126.3	957.3	921.1
72.5°	831.5	1042.4	910.9	808.0	780.7
75°	663.8	813.1	715.3	654.9	639.0
77.5°	494.2	604.7	559.0	523.4	519.0
80°	348.1	436.4	411.6	404.6	397.7
82.5°	222.3	285.2	292.8	288.4	283.3
85°	118.2	167.7	175.3	166.4	164.5
87.5°	47.6	73.1	78.8	87.0	89.6
90°	0.6	17.2	31.1	39.4	40.7
92.5°	0.6	3.8	4.4	4.4	3.8
95°	0.6	2.5	2.5	1.9	1.3
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)