

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: P859922

Luminaire Tested: **SPHB-15SE-N-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: P859922
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-15SE-N-L850-CD
Description: 15000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

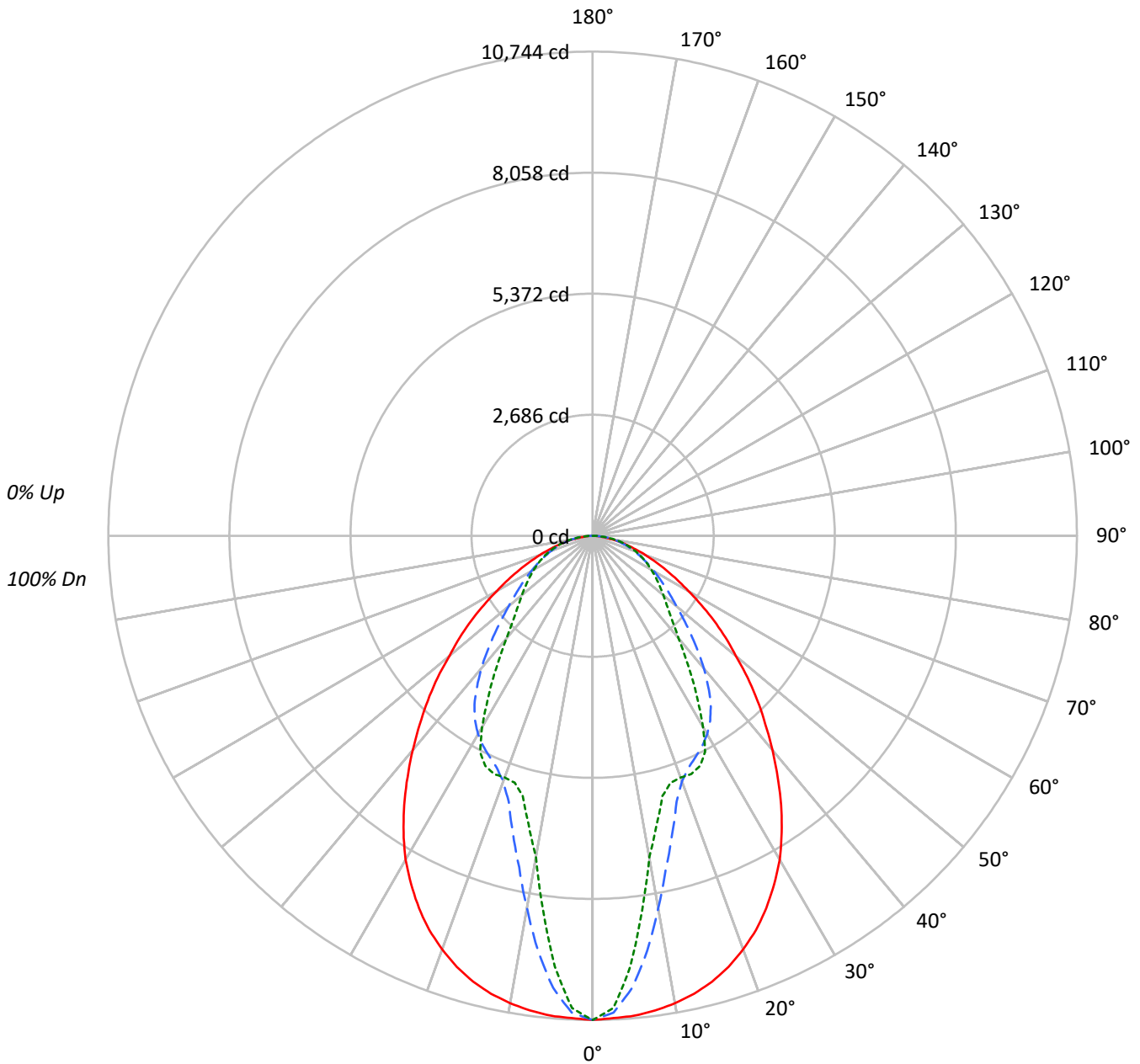
Lumens per Lamp: N/A
Luminaire Lumens: 15747.0 lumens
Efficiency: N/A
Efficacy: 164.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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			100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74			74
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64			64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50			50
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45			45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40			40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34			34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	83806	83806	83806
5°	83708	78853	75122
10°	83423	66467	57300
15°	82728	55175	48286
20°	81062	48095	47401
25°	78457	46535	48512
30°	74748	45789	44149
35°	69403	43512	36583
40°	63198	39062	30208
45°	57048	33894	26520
50°	50344	29472	24833
55°	44673	26582	23904
60°	38285	24581	23417
65°	33138	23102	23299
70°	28359	22224	23271
75°	23805	21581	23064
80°	18165	20855	22585
85°	11894	18498	17398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	916.1	5.8
10°-20°	2103.4	13.4
20°-30°	2842.6	18.1
30°-40°	2991.7	19.0
40°-50°	2538.6	16.1
50°-60°	1966.5	12.5
60°-70°	1369.6	8.7
70°-80°	784.3	5.0
80°-90°	228.2	1.4
90°-100°	6.1	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°	5862.1	37.2
0°-40°	8853.8	56.2
0°-60°	13358.8	84.8
0°-90°	15740.9	100.0
90°-120°	6.1	0.0
90°-150°	6.1	0.0
90°-180°	6.0	0.0
0°-180°	15747.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10744	10744	10744	10744	10744	
5°	10691	10495	10071	9685	9594	###
15°	10245	8696	6833	6150	5980	2883
25°	9116	6440	5407	5564	5637	4185
35°	7289	4953	4570	4128	3842	4543
45°	5172	3719	3073	2525	2404	3983
55°	3285	2505	1955	1777	1758	2937
65°	1796	1470	1252	1252	1262	1794
75°	790	702	716	761	765	842
85°	133	172	207	194	194	169
90°	1	16	30	39	40	7
95°	1	2	5	5	4	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°	10744.5	10744.5	10744.5	10744.5	10744.5
2.5°	10713.3	10678.0	10591.9	10536.1	10492.6
5°	10691.1	10495.1	10071.0	9684.7	9594.5
7.5°	10624.7	10194.1	9287.7	8573.2	8392.8
10°	10532.8	9761.8	8392.0	7497.1	7234.6
12.5°	10410.6	9300.0	7534.0	6690.8	6562.0
15°	10244.9	8695.5	6832.7	6150.2	5979.6
17.5°	10030.0	8070.4	6185.5	5791.0	5743.4
20°	9765.9	7497.1	5794.2	5659.7	5710.6
22.5°	9469.0	6940.1	5567.0	5623.6	5718.8
25°	9116.3	6439.8	5407.1	5563.8	5636.8
27.5°	8720.1	5987.8	5260.3	5403.8	5403.8
30°	8299.3	5611.3	5083.9	5070.8	4901.8
32.5°	7808.0	5291.4	4853.4	4593.4	4342.4
35°	7288.7	4952.7	4569.6	4127.5	3842.0
37.5°	6744.1	4637.7	4210.3	3627.1	3361.4
40°	6206.8	4326.8	3836.3	3177.6	2966.8
42.5°	5672.0	4010.2	3446.7	2813.5	2646.9
45°	5171.7	3719.0	3072.7	2524.7	2404.2
47.5°	4663.1	3409.8	2727.3	2292.6	2208.9
50°	4148.8	3096.4	2428.8	2108.0	2046.5
52.5°	3715.7	2804.4	2175.3	1933.3	1896.4
55°	3285.1	2505.0	1954.7	1776.7	1757.8
57.5°	2857.7	2226.2	1752.9	1633.1	1629.0
60°	2454.2	1965.3	1575.7	1510.1	1501.1
62.5°	2110.5	1706.1	1407.5	1376.4	1380.5
65°	1795.5	1469.9	1251.7	1251.7	1262.4
67.5°	1503.5	1252.5	1109.0	1127.8	1142.6
70°	1243.5	1055.7	974.5	1007.3	1020.4
72.5°	997.4	872.7	845.7	881.8	892.4
75°	789.9	702.1	716.1	761.2	765.3
77.5°	585.7	552.8	588.9	638.2	647.2
80°	404.4	407.7	464.3	498.7	502.8
82.5°	260.8	284.6	347.8	365.8	359.3
85°	132.9	172.3	206.7	194.4	194.4
87.5°	50.9	74.6	87.8	103.4	109.1
90°	0.8	15.6	30.3	38.6	40.2
92.5°	0.8	4.1	6.6	7.4	6.6
95°	0.8	2.5	4.9	4.9	4.1
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)