

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: P859895

Luminaire Tested: **SPHB-15HE-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: P859895
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-15HE-N-L850-CD
Description: 15000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

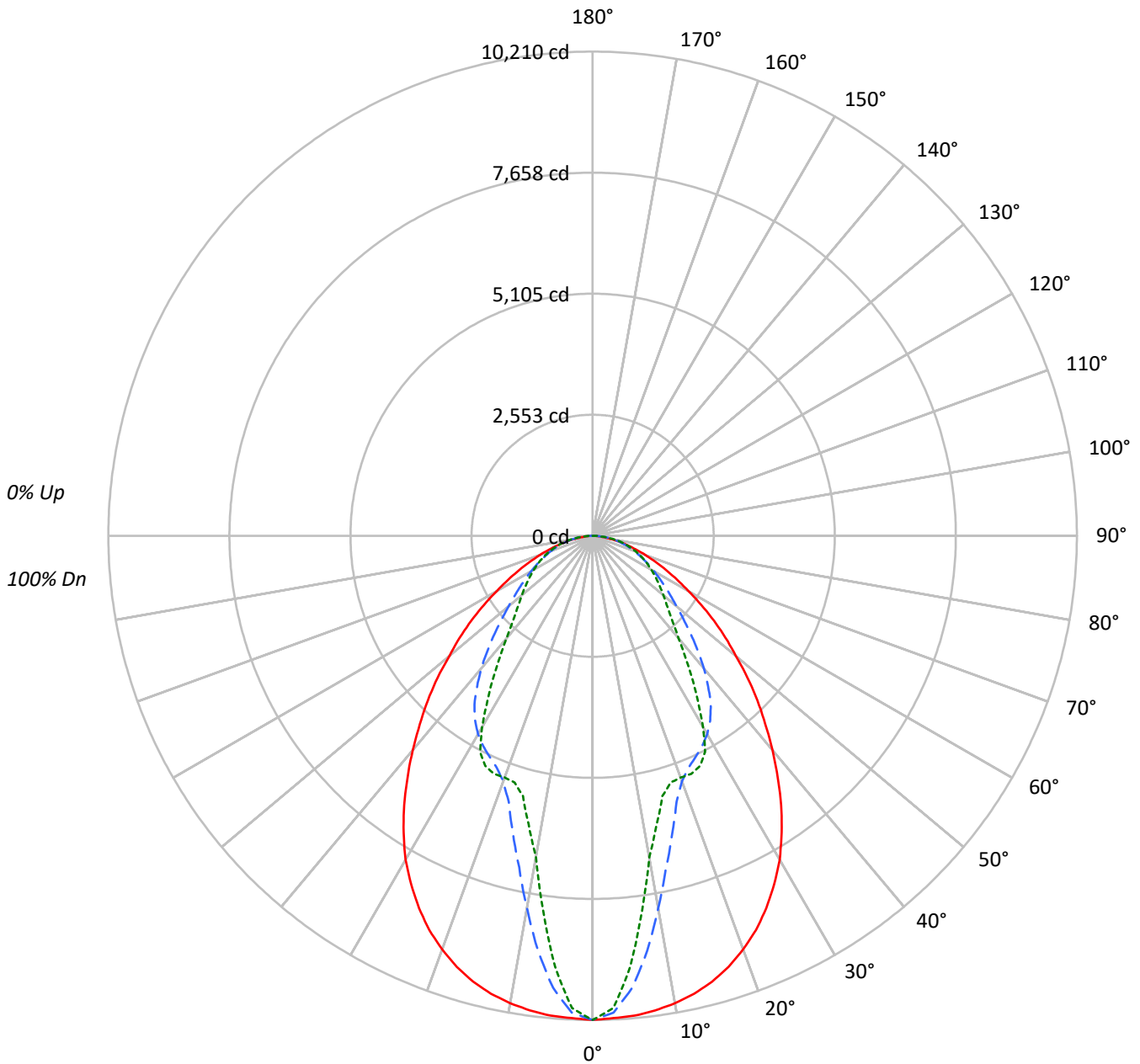
Lumens per Lamp: N/A
Luminaire Lumens: 14963.0 lumens
Efficiency: N/A
Efficacy: 169.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 88.3
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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	79633	79633	79633
5°	79541	74927	71382
10°	79269	63158	54447
15°	78610	52428	45882
20°	77026	45701	45041
25°	74551	44218	46096
30°	71027	43509	41951
35°	65948	41345	34763
40°	60052	37117	28704
45°	54207	32207	25200
50°	47838	28004	23597
55°	42449	25257	22714
60°	36379	23356	22250
65°	31488	21952	22138
70°	26947	21116	22112
75°	22621	20505	21915
80°	17258	19813	21462
85°	11303	17577	16530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	870.4	5.8
10°-20°	1998.7	13.4
20°-30°	2701.1	18.1
30°-40°	2842.8	19.0
40°-50°	2412.2	16.1
50°-60°	1868.6	12.5
60°-70°	1301.4	8.7
70°-80°	745.2	5.0
80°-90°	216.9	1.4
90°-100°	5.8	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°	5570.2	37.2
0°-40°	8413.0	56.2
0°-60°	12693.7	84.8
0°-90°	14957.2	100.0
90°-120°	5.8	0.0
90°-150°	5.8	0.0
90°-180°	6.0	0.0
0°-180°	14963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10210	10210	10210	10210	10210	
5°	10159	9973	9570	9202	9117	965
15°	9735	8262	6492	5844	5682	2739
25°	8662	6119	5138	5287	5356	3977
35°	6926	4706	4342	3922	3651	4317
45°	4914	3534	2920	2399	2284	3785
55°	3122	2380	1857	1688	1670	2791
65°	1706	1397	1189	1189	1200	1704
75°	751	667	680	723	727	800
85°	126	164	196	185	185	160
90°	1	15	29	37	38	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°	10209.5	10209.5	10209.5	10209.5	10209.5
2.5°	10179.9	10146.4	10064.5	10011.5	9970.2
5°	10158.9	9972.6	9569.6	9202.5	9116.8
7.5°	10095.7	9686.5	8825.3	8146.4	7974.9
10°	10008.4	9275.8	7974.2	7123.8	6874.4
12.5°	9892.3	8837.0	7158.9	6357.7	6235.3
15°	9734.9	8262.5	6492.5	5844.0	5681.9
17.5°	9530.6	7668.6	5877.5	5502.6	5457.4
20°	9279.7	7123.8	5505.8	5377.9	5426.3
22.5°	8997.5	6594.6	5289.9	5343.6	5434.1
25°	8662.4	6119.2	5137.9	5286.7	5356.1
27.5°	8285.9	5689.7	4998.4	5134.8	5134.8
30°	7886.1	5332.0	4830.8	4818.3	4657.8
32.5°	7419.2	5028.0	4611.8	4364.7	4126.2
35°	6925.9	4706.1	4342.1	3922.0	3650.8
37.5°	6408.3	4406.8	4000.7	3446.6	3194.0
40°	5897.8	4111.4	3645.3	3019.4	2819.1
42.5°	5389.6	3810.5	3275.1	2673.4	2515.2
45°	4914.2	3533.9	2919.7	2399.0	2284.5
47.5°	4431.0	3240.0	2591.5	2178.5	2099.0
50°	3942.3	2942.3	2307.8	2003.1	1944.6
52.5°	3530.7	2664.8	2067.0	1837.1	1802.0
55°	3121.5	2380.3	1857.3	1688.2	1670.3
57.5°	2715.5	2115.3	1665.6	1551.8	1547.9
60°	2332.0	1867.5	1497.2	1434.9	1426.3
62.5°	2005.4	1621.2	1337.5	1307.9	1311.7
65°	1706.1	1396.7	1189.4	1189.4	1199.5
67.5°	1428.7	1190.2	1053.8	1071.7	1085.7
70°	1181.6	1003.1	925.9	957.1	969.6
72.5°	947.8	829.3	803.6	837.9	848.0
75°	750.6	667.2	680.4	723.3	727.2
77.5°	556.5	525.3	559.6	606.4	615.0
80°	384.2	387.4	441.1	473.9	477.8
82.5°	247.9	270.5	330.5	347.6	341.4
85°	126.3	163.7	196.4	184.7	184.7
87.5°	48.3	70.9	83.4	98.2	103.7
90°	0.8	14.8	28.8	36.6	38.2
92.5°	0.8	3.9	6.2	7.0	6.2
95°	0.8	2.3	4.7	4.7	3.9
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)