

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: P859977

Luminaire Tested: **SPHB-18SE-N-L935-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: P859977
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-18SE-N-L935-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

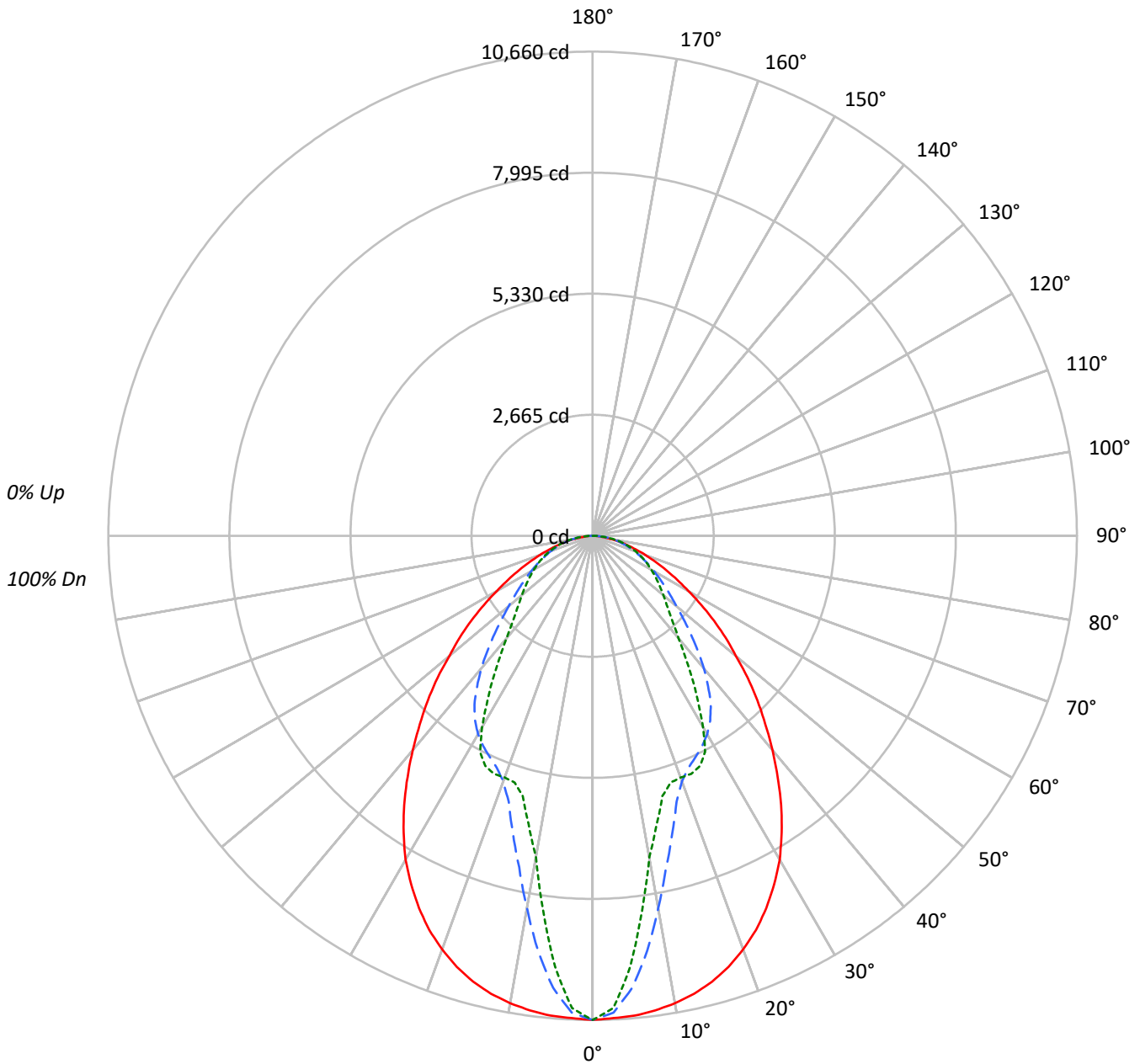
Lumens per Lamp: N/A
Luminaire Lumens: 15623.0 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
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				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°	83146	83146	83146
5°	83049	78232	74530
10°	82766	65943	56848
15°	82077	54740	47905
20°	80424	47716	47027
25°	77839	46168	48130
30°	74159	45428	43801
35°	68856	43169	36296
40°	62701	38754	29971
45°	56598	33627	26311
50°	49948	29239	24638
55°	44321	26372	23716
60°	37984	24387	23231
65°	32878	22919	23115
70°	28135	22048	23088
75°	23618	21409	22883
80°	18021	20689	22410
85°	11795	18355	17263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	908.8	5.8
10°-20°	2086.8	13.4
20°-30°	2820.2	18.1
30°-40°	2968.2	19.0
40°-50°	2518.6	16.1
50°-60°	1951.0	12.5
60°-70°	1358.8	8.7
70°-80°	778.1	5.0
80°-90°	226.4	1.4
90°-100°	6.0	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°	5815.9	37.2
0°-40°	8784.1	56.2
0°-60°	13253.6	84.8
0°-90°	15617.0	100.0
90°-120°	6.0	0.0
90°-150°	6.0	0.0
90°-180°	6.0	0.0
0°-180°	15623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10660	10660	10660	10660	10660	
5°	10607	10412	9992	9608	9519	###
15°	10164	8627	6779	6102	5932	2860
25°	9044	6389	5364	5520	5592	4152
35°	7231	4914	4534	4095	3812	4508
45°	5131	3690	3048	2505	2385	3952
55°	3259	2485	1939	1763	1744	2914
65°	1781	1458	1242	1242	1252	1779
75°	784	697	710	755	759	836
85°	132	171	205	193	193	168
90°	1	16	30	38	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°	10659.8	10659.8	10659.8	10659.8	10659.8
2.5°	10628.9	10593.9	10508.5	10453.1	10410.0
5°	10606.9	10412.5	9991.7	9608.4	9518.9
7.5°	10541.0	10113.8	9214.6	8505.7	8326.7
10°	10449.9	9684.9	8325.9	7438.0	7177.6
12.5°	10328.6	9226.8	7474.7	6638.1	6510.3
15°	10164.2	8627.0	6778.9	6101.8	5932.5
17.5°	9951.0	8006.9	6136.8	5745.4	5698.2
20°	9689.0	7438.0	5748.6	5615.2	5665.6
22.5°	9394.4	6885.5	5523.2	5579.3	5673.7
25°	9044.5	6389.1	5364.5	5519.9	5592.4
27.5°	8651.4	5940.7	5218.8	5361.3	5361.3
30°	8233.9	5567.1	5043.9	5030.9	4863.2
32.5°	7746.5	5249.8	4815.2	4557.2	4308.2
35°	7231.3	4913.7	4533.6	4095.0	3811.8
37.5°	6691.0	4601.2	4177.2	3598.6	3334.9
40°	6158.0	4292.7	3806.1	3152.6	2943.5
42.5°	5627.4	3978.6	3419.5	2791.3	2626.1
45°	5130.9	3689.7	3048.5	2504.8	2385.2
47.5°	4626.4	3382.9	2705.9	2274.5	2191.5
50°	4116.2	3072.1	2409.6	2091.4	2030.4
52.5°	3686.5	2782.4	2158.2	1918.1	1881.5
55°	3259.2	2485.3	1939.3	1762.7	1744.0
57.5°	2835.2	2208.6	1739.1	1620.3	1616.2
60°	2434.9	1949.8	1563.3	1498.2	1489.2
62.5°	2093.9	1692.7	1396.5	1365.5	1369.6
65°	1781.4	1458.3	1241.8	1241.8	1252.4
67.5°	1491.7	1242.7	1100.2	1119.0	1133.6
70°	1233.7	1047.3	966.8	999.3	1012.4
72.5°	989.6	865.9	839.0	874.8	885.4
75°	783.7	696.6	710.4	755.2	759.3
77.5°	581.0	548.5	584.3	633.1	642.1
80°	401.2	404.5	460.6	494.8	498.9
82.5°	258.8	282.4	345.0	363.0	356.4
85°	131.8	170.9	205.1	192.9	192.9
87.5°	50.5	74.1	87.1	102.5	108.2
90°	0.8	15.5	30.1	38.2	39.9
92.5°	0.8	4.1	6.5	7.3	6.5
95°	0.8	2.4	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)