

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: P859985

Luminaire Tested: **SPHB-18SE-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: P859985
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-18SE-W-L850-CD
Description: 18000 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

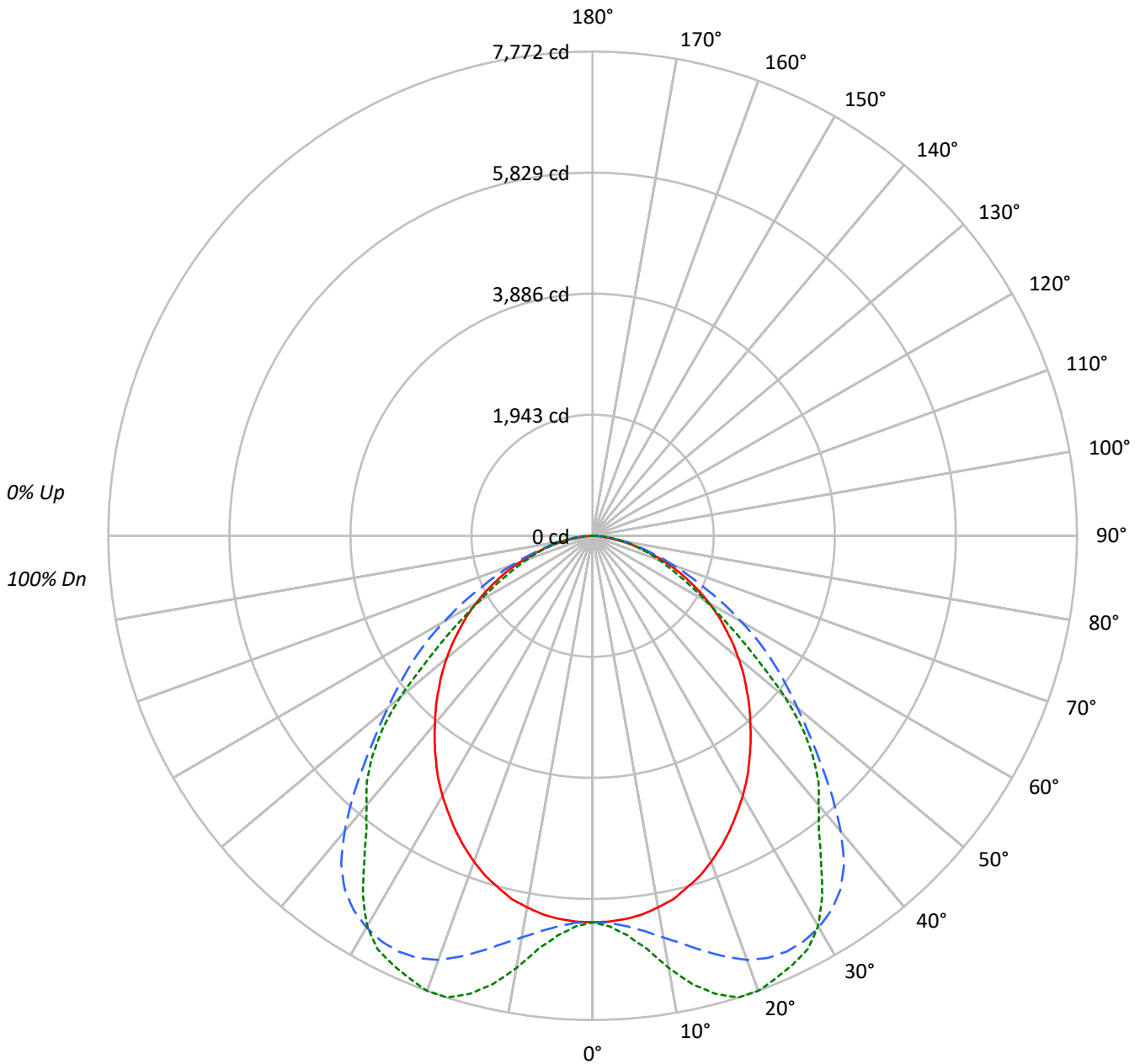
Lumens per Lamp: N/A
Luminaire Lumens: 19522.0 lumens
Efficiency: N/A
Efficacy: 166.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P859985

CATALOG NUMBER: SPHB-18SE-W-L850-CD

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°	48394	48394	48394
5°	48342	49254	50421
10°	47960	51853	55783
15°	47210	55714	61446
20°	46188	60144	64515
25°	44855	63389	65360
30°	43395	65373	65183
35°	41766	66029	60823
40°	40084	63048	57448
45°	38567	57148	55117
50°	37064	51964	48863
55°	35369	48010	39763
60°	33619	42803	32747
65°	31304	36780	28395
70°	28480	31401	25681
75°	24459	26354	23546
80°	19117	22603	21839
85°	12932	19179	17997



TEST NUMBER: P859985

CATALOG NUMBER: SPHB-18SE-W-L850-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	609.2	3.1
10°-20°	1931.6	9.9
20°-30°	3161.2	16.2
30°-40°	3856.4	19.8
40°-50°	3819.3	19.6
50°-60°	3054.2	15.6
60°-70°	1905.3	9.8
70°-80°	933.5	4.8
80°-90°	244.8	1.3
90°-100°	6.5	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°	5701.9	29.2
0°-40°	9558.3	49.0
0°-60°	16431.9	84.2
0°-90°	19515.6	100.0
90°-120°	6.5	0.0
90°-150°	6.5	0.0
90°-180°	6.0	0.0
0°-180°	19522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6204	6204	6204	6204	6204	
5°	6174	6201	6291	6400	6440	586
15°	5846	6186	6900	7448	7609	1648
25°	5212	6094	7365	7579	7594	2398
35°	4386	5861	6934	6564	6388	2744
45°	3496	5432	5181	5007	4997	2700
55°	2601	4170	3530	3190	2924	2330
65°	1696	2340	1993	1653	1538	1682
75°	812	994	874	801	781	862
85°	144	205	214	204	201	179
90°	1	21	38	48	50	8
95°	1	3	3	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-18SE-W-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6204.4	6204.4	6204.4	6204.4	6204.4
2.5°	6198.2	6195.8	6218.4	6259.5	6278.2
5°	6174.1	6201.3	6290.6	6400.1	6439.7
7.5°	6130.6	6203.6	6400.9	6602.0	6687.4
10°	6055.3	6205.2	6546.9	6901.8	7043.1
12.5°	5977.6	6199.7	6709.2	7211.7	7366.2
15°	5846.4	6186.5	6899.5	7448.5	7609.3
17.5°	5724.4	6171.0	7082.7	7649.7	7771.6
20°	5564.5	6148.5	7245.8	7711.0	7772.4
22.5°	5396.7	6130.6	7335.9	7669.9	7688.5
25°	5211.9	6094.1	7365.4	7579.0	7594.5
27.5°	5014.6	6061.5	7337.5	7466.4	7479.6
30°	4818.1	6002.5	7258.3	7290.9	7237.3
32.5°	4612.3	5943.4	7130.1	6983.3	6858.3
35°	4386.3	5861.1	6934.4	6564.0	6387.7
37.5°	4163.4	5781.9	6629.2	6094.9	5962.1
40°	3936.7	5684.1	6192.0	5656.9	5642.1
42.5°	3722.3	5578.4	5697.3	5315.9	5365.6
45°	3496.3	5431.7	5180.8	5006.8	4996.7
47.5°	3282.0	5229.0	4711.0	4665.1	4561.8
50°	3054.4	4949.4	4282.3	4238.8	4026.8
52.5°	2831.5	4592.9	3899.4	3736.3	3427.2
55°	2600.9	4170.4	3530.5	3189.6	2924.0
57.5°	2386.5	3706.0	3155.4	2713.5	2475.1
60°	2155.1	3235.4	2743.8	2295.7	2099.2
62.5°	1928.3	2771.7	2371.0	1940.0	1809.5
65°	1696.1	2339.9	1992.8	1652.6	1538.5
67.5°	1474.0	1966.4	1665.8	1393.2	1317.1
70°	1248.8	1595.2	1376.9	1170.4	1126.1
72.5°	1016.6	1274.4	1113.7	987.9	954.5
75°	811.6	994.1	874.5	800.7	781.3
77.5°	604.2	739.3	683.4	639.9	634.5
80°	425.6	533.5	503.2	494.7	486.2
82.5°	271.8	348.7	358.0	352.6	346.4
85°	144.5	205.0	214.3	203.5	201.1
87.5°	58.2	89.3	96.3	106.4	109.5
90°	0.8	21.0	38.1	48.2	49.7
92.5°	0.8	4.7	5.4	5.4	4.7
95°	0.8	3.1	3.1	2.3	1.6
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



TEST NUMBER: P859985

CATALOG NUMBER: SPHB-18SE-W-L850-CD

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)