

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: P859982

Luminaire Tested: **SPHB-18SE-W-L750-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: P859982
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-L750-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 5000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

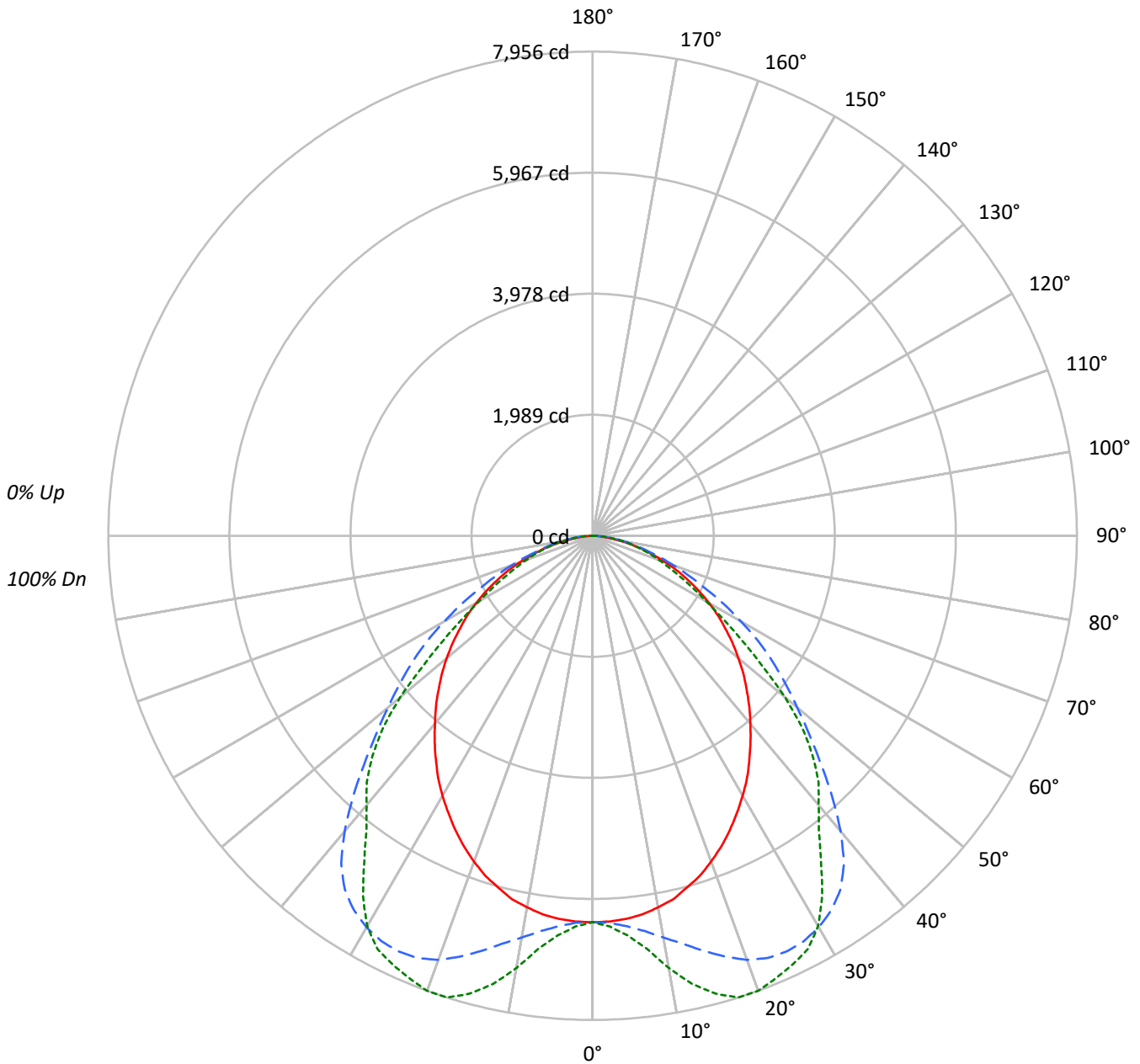
Lumens per Lamp: N/A
Luminaire Lumens: 19982.1 lumens
Efficiency: N/A
Efficacy: 170.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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

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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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49534	49534	49534
5°	49481	50414	51609
10°	49090	53074	57098
15°	48322	57026	62894
20°	47276	61562	66035
25°	45912	64883	66901
30°	44418	66913	66719
35°	42751	67585	62257
40°	41028	64533	58803
45°	39476	58495	56417
50°	37937	53188	50014
55°	36203	49142	40700
60°	34412	43811	33519
65°	32042	37647	29063
70°	29150	32142	26286
75°	25035	26975	24100
80°	19566	23137	22351
85°	13236	19635	18427



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	623.5	3.1
10°-20°	1977.1	9.9
20°-30°	3235.7	16.2
30°-40°	3947.3	19.8
40°-50°	3909.3	19.6
50°-60°	3126.2	15.6
60°-70°	1950.2	9.8
70°-80°	955.5	4.8
80°-90°	250.6	1.3
90°-100°	6.6	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°	5836.3	29.2
0°-40°	9783.5	49.0
0°-60°	16819.1	84.2
0°-90°	19975.4	100.0
90°-120°	6.6	0.0
90°-150°	6.6	0.0
90°-180°	7.0	0.0
0°-180°	19982.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6351	6351	6351	6351	6351	
5°	6320	6347	6439	6551	6591	600
15°	5984	6332	7062	7624	7789	1687
25°	5335	6238	7539	7758	7774	2455
35°	4490	5999	7098	6719	6538	2808
45°	3579	5560	5303	5125	5114	2764
55°	2662	4269	3614	3265	2993	2385
65°	1736	2395	2040	1692	1575	1721
75°	831	1018	895	820	800	882
85°	148	210	219	208	206	183
90°	1	22	39	49	51	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6350.6	6350.6	6350.6	6350.6	6350.6
2.5°	6344.2	6341.8	6364.9	6407.0	6426.1
5°	6319.6	6347.4	6438.8	6550.9	6591.4
7.5°	6275.1	6349.8	6551.7	6757.6	6845.0
10°	6198.0	6351.4	6701.1	7064.4	7209.1
12.5°	6118.5	6345.8	6867.3	7381.6	7539.8
15°	5984.1	6332.3	7062.0	7624.0	7788.6
17.5°	5859.3	6316.4	7249.6	7829.9	7954.7
20°	5695.6	6293.3	7416.6	7892.7	7955.5
22.5°	5523.9	6275.1	7508.8	7850.6	7869.7
25°	5334.7	6237.7	7539.0	7757.6	7773.5
27.5°	5132.8	6204.3	7510.4	7642.3	7655.8
30°	4931.7	6143.9	7429.3	7462.7	7407.8
32.5°	4721.0	6083.5	7298.1	7147.9	7019.9
35°	4489.7	5999.2	7097.8	6718.6	6538.2
37.5°	4261.5	5918.1	6785.4	6238.5	6102.6
40°	4029.4	5818.0	6337.9	5790.2	5775.1
42.5°	3810.0	5709.9	5831.5	5441.2	5492.1
45°	3578.7	5559.6	5302.9	5124.8	5114.5
47.5°	3359.3	5352.2	4822.0	4775.1	4669.3
50°	3126.4	5066.0	4383.2	4338.6	4121.6
52.5°	2898.3	4701.1	3991.3	3824.3	3508.0
55°	2662.2	4268.7	3613.7	3264.7	2992.9
57.5°	2442.8	3793.3	3229.7	2777.4	2533.4
60°	2205.9	3311.6	2808.4	2349.8	2148.7
62.5°	1973.8	2837.1	2426.9	1985.7	1852.2
65°	1736.1	2395.1	2039.8	1691.6	1574.7
67.5°	1508.7	2012.7	1705.1	1426.1	1348.2
70°	1278.2	1632.8	1409.4	1197.9	1152.6
72.5°	1040.5	1304.5	1139.9	1011.1	977.0
75°	830.7	1017.5	895.1	819.6	799.7
77.5°	618.4	756.8	699.5	655.0	649.4
80°	435.6	546.1	515.1	506.4	497.6
82.5°	278.2	356.9	366.5	360.9	354.5
85°	147.9	209.9	219.4	208.3	205.9
87.5°	59.6	91.4	98.6	108.9	112.1
90°	0.8	21.5	39.0	49.3	50.9
92.5°	0.8	4.8	5.6	5.6	4.8
95°	0.8	3.2	3.2	2.4	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



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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)