

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: P859973

Luminaire Tested: **SPHB-18SE-N-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: P859973
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-L750-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

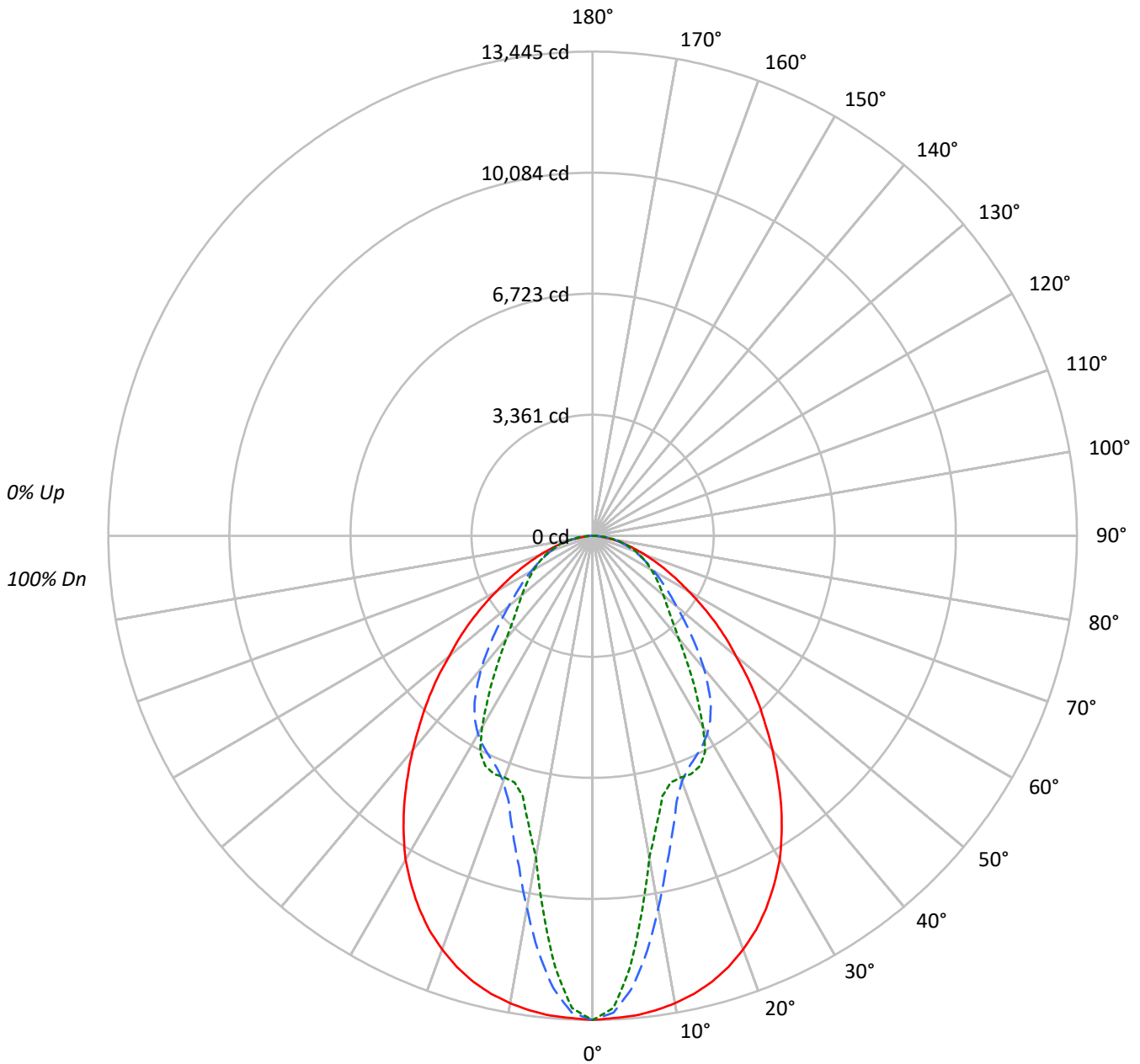
Lumens per Lamp: N/A
Luminaire Lumens: 19705.0 lumens
Efficiency: N/A
Efficacy: 167.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
Input Voltage (V): NR
Input Current (Ain): 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: P859973

CATALOG NUMBER: SPHB-18SE-N-L750-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	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°	104871	104871	104871
5°	104749	98673	94004
10°	104391	83173	71702
15°	103523	69043	60423
20°	101437	60184	59315
25°	98177	58232	60705
30°	93536	57297	55246
35°	86848	54449	45779
40°	79083	48880	37802
45°	71387	42413	33185
50°	62998	36879	31075
55°	55902	33263	29912
60°	47907	30760	29301
65°	41467	28908	29155
70°	35488	27809	29120
75°	29787	27005	28859
80°	22729	26097	28262
85°	14883	23152	21774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1146.3	5.8
10°-20°	2632.1	13.4
20°-30°	3557.1	18.1
30°-40°	3743.7	19.0
40°-50°	3176.6	16.1
50°-60°	2460.8	12.5
60°-70°	1713.8	8.7
70°-80°	981.4	5.0
80°-90°	285.6	1.4
90°-100°	7.6	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°	7335.5	37.2
0°-40°	11079.2	56.2
0°-60°	16716.6	84.8
0°-90°	19697.4	100.0
90°-120°	7.6	0.0
90°-150°	7.6	0.0
90°-180°	8.0	0.0
0°-180°	19705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13445	13445	13445	13445	13445	
5°	13378	13133	12602	12119	12006	###
15°	12820	10881	8550	7696	7483	3607
25°	11408	8058	6766	6962	7054	5237
35°	9121	6198	5718	5165	4808	5685
45°	6472	4654	3845	3159	3008	4984
55°	4111	3135	2446	2223	2200	3675
65°	2247	1839	1566	1566	1580	2244
75°	988	879	896	952	958	1054
85°	166	216	259	243	243	211
90°	1	20	38	48	50	9
95°	1	3	6	6	5	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-N-L750-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13445.1	13445.1	13445.1	13445.1	13445.1
2.5°	13406.1	13361.9	13254.1	13184.4	13130.0
5°	13378.3	13133.0	12602.4	12118.9	12006.0
7.5°	13295.2	12756.3	11622.1	10728.1	10502.3
10°	13180.2	12215.4	10501.3	9381.5	9053.0
12.5°	13027.3	11637.5	9427.7	8372.5	8211.4
15°	12820.0	10881.1	8550.1	7696.1	7482.6
17.5°	12551.1	10098.9	7740.2	7246.5	7187.0
20°	12220.5	9381.5	7250.6	7082.3	7145.9
22.5°	11849.0	8684.5	6966.3	7037.1	7156.2
25°	11407.6	8058.4	6766.2	6962.2	7053.6
27.5°	10911.9	7492.9	6582.4	6762.0	6762.0
30°	10385.3	7021.7	6361.7	6345.3	6133.9
32.5°	9770.5	6621.4	6073.3	5747.9	5433.9
35°	9120.8	6197.5	5718.2	5164.9	4807.7
37.5°	8439.2	5803.4	5268.6	4538.8	4206.3
40°	7766.9	5414.4	4800.6	3976.3	3712.6
42.5°	7097.7	5018.2	4313.0	3520.6	3312.3
45°	6471.6	4653.8	3845.0	3159.3	3008.4
47.5°	5835.2	4266.8	3412.8	2868.8	2764.1
50°	5191.6	3874.7	3039.2	2637.9	2560.9
52.5°	4649.7	3509.3	2722.1	2419.3	2373.1
55°	4110.8	3134.7	2446.0	2223.2	2199.6
57.5°	3576.0	2785.7	2193.5	2043.6	2038.5
60°	3071.0	2459.3	1971.8	1889.6	1878.3
62.5°	2641.0	2135.0	1761.3	1722.3	1727.5
65°	2246.8	1839.3	1566.3	1566.3	1579.7
67.5°	1881.4	1567.3	1387.7	1411.3	1429.8
70°	1556.1	1321.0	1219.4	1260.4	1276.9
72.5°	1248.1	1092.1	1058.2	1103.4	1116.7
75°	988.4	878.6	896.1	952.5	957.6
77.5°	732.9	691.8	737.0	798.6	809.8
80°	506.0	510.1	581.0	624.1	629.2
82.5°	326.4	356.2	435.2	457.8	449.6
85°	166.3	215.5	258.7	243.3	243.3
87.5°	63.6	93.4	109.8	129.3	136.5
90°	1.0	19.5	38.0	48.2	50.3
92.5°	1.0	5.1	8.2	9.2	8.2
95°	1.0	3.1	6.2	6.2	5.1
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



TEST NUMBER: P859973

CATALOG NUMBER: SPHB-18SE-N-L750-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)