

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: P859979

Luminaire Tested: **SPHB-18SE-N-L950-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: P859979
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-L950-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

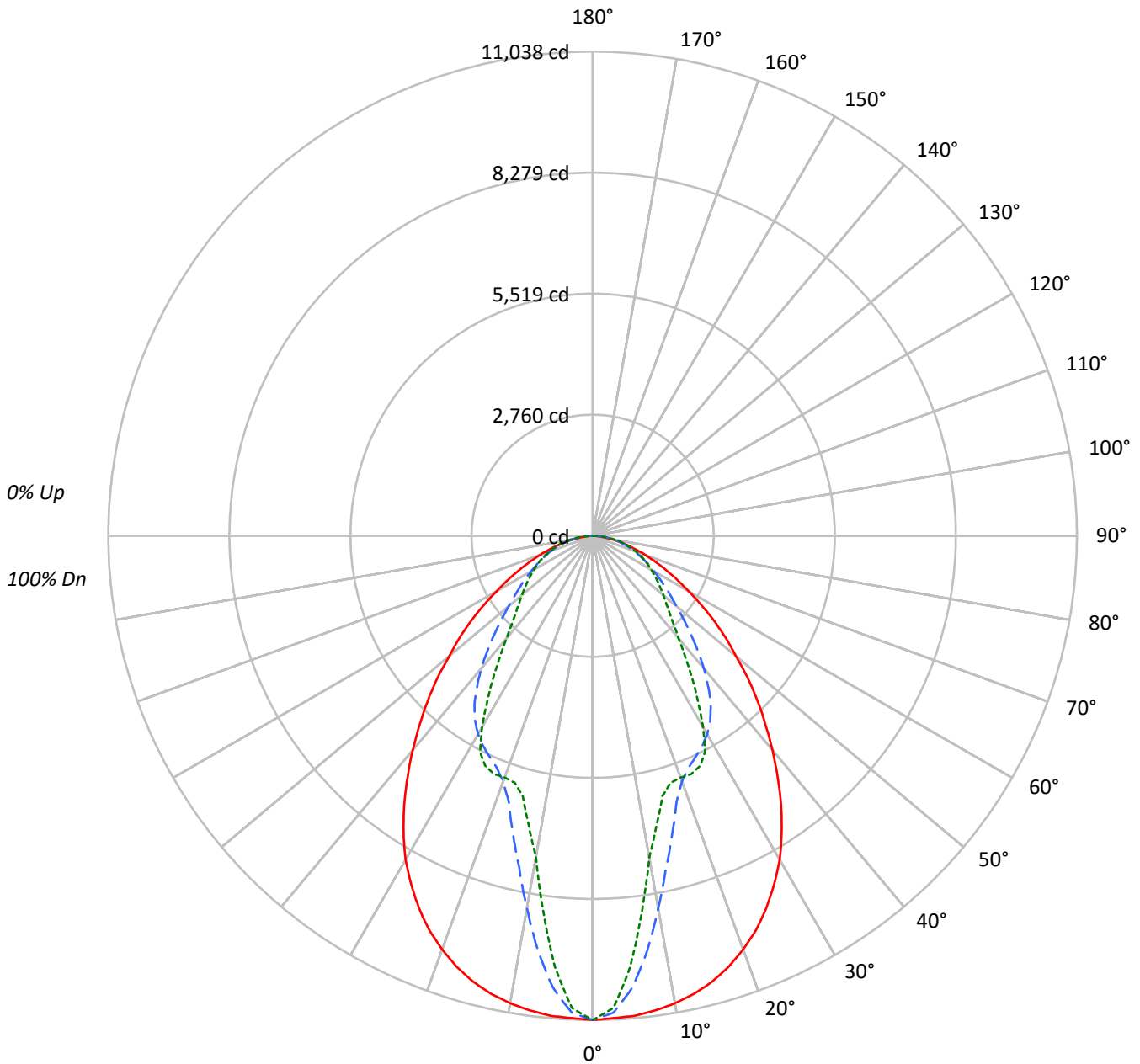
Lumens per Lamp: N/A
Luminaire Lumens: 16178.0 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
Input Voltage (V): NR
Input Current (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°	86100	86100	86100
5°	86000	81012	77178
10°	85706	68286	58868
15°	84993	56685	49608
20°	83281	49411	48698
25°	80605	47809	49839
30°	76794	47042	45357
35°	71302	44703	37585
40°	64928	40131	31035
45°	58609	34822	27246
50°	51722	30278	25513
55°	45896	27309	24558
60°	39334	25253	24057
65°	34046	23735	23936
70°	29134	22831	23907
75°	24456	22172	23693
80°	18663	21426	23205
85°	12216	19009	17872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	941.1	5.8
10°-20°	2161.0	13.4
20°-30°	2920.4	18.1
30°-40°	3073.6	19.0
40°-50°	2608.1	16.1
50°-60°	2020.3	12.5
60°-70°	1407.1	8.7
70°-80°	805.7	5.0
80°-90°	234.5	1.4
90°-100°	6.3	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°	6022.5	37.2
0°-40°	9096.1	56.2
0°-60°	13724.5	84.8
0°-90°	16171.8	100.0
90°-120°	6.3	0.0
90°-150°	6.3	0.0
90°-180°	6.0	0.0
0°-180°	16178.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11038	11038	11038	11038	11038	
5°	10984	10782	10347	9950	9857	###
15°	10525	8934	7020	6319	6143	2962
25°	9366	6616	5555	5716	5791	4299
35°	7488	5088	4695	4240	3947	4668
45°	5313	3821	3157	2594	2470	4092
55°	3375	2574	2008	1825	1806	3017
65°	1845	1510	1286	1286	1297	1843
75°	812	721	736	782	786	865
85°	136	177	212	200	200	174
90°	1	16	31	40	41	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



TEST NUMBER: P859979

CATALOG NUMBER: SPHB-18SE-N-L950-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11038.5	11038.5	11038.5	11038.5	11038.5
2.5°	11006.5	10970.3	10881.8	10824.5	10779.8
5°	10983.8	10782.3	10346.7	9949.8	9857.1
7.5°	10915.5	10473.1	9541.9	8807.9	8622.5
10°	10821.1	10029.0	8621.7	7702.3	7432.6
12.5°	10695.6	9554.5	7740.2	6873.9	6741.6
15°	10525.3	8933.5	7019.7	6318.6	6143.3
17.5°	10304.5	8291.3	6354.8	5949.5	5900.6
20°	10033.2	7702.3	5952.8	5814.6	5866.9
22.5°	9728.1	7130.1	5719.4	5777.6	5875.3
25°	9365.8	6616.0	5555.1	5716.0	5791.0
27.5°	8958.7	6151.7	5404.2	5551.7	5551.7
30°	8526.4	5764.9	5223.1	5209.6	5036.0
32.5°	8021.7	5436.3	4986.3	4719.1	4461.3
35°	7488.2	5088.2	4694.7	4240.5	3947.2
37.5°	6928.7	4764.6	4325.6	3726.4	3453.4
40°	6376.7	4445.2	3941.3	3264.6	3048.0
42.5°	5827.3	4120.0	3541.0	2890.5	2719.4
45°	5313.2	3820.8	3156.8	2593.8	2470.0
47.5°	4790.8	3503.1	2802.0	2355.3	2269.4
50°	4262.4	3181.2	2495.2	2165.7	2102.5
52.5°	3817.4	2881.2	2234.8	1986.2	1948.3
55°	3375.0	2573.6	2008.2	1825.3	1805.9
57.5°	2936.0	2287.1	1800.9	1677.8	1673.6
60°	2521.4	2019.1	1618.8	1551.4	1542.1
62.5°	2168.3	1752.8	1446.1	1414.1	1418.3
65°	1844.7	1510.1	1286.0	1286.0	1296.9
67.5°	1544.7	1286.8	1139.3	1158.7	1173.9
70°	1277.5	1084.6	1001.1	1034.8	1048.3
72.5°	1024.7	896.6	868.8	905.9	916.9
75°	811.5	721.4	735.7	782.0	786.2
77.5°	601.7	568.0	605.1	655.6	664.9
80°	415.5	418.8	477.0	512.4	516.6
82.5°	268.0	292.4	357.3	375.8	369.1
85°	136.5	177.0	212.4	199.7	199.7
87.5°	52.2	76.7	90.2	106.2	112.1
90°	0.8	16.0	31.2	39.6	41.3
92.5°	0.8	4.2	6.7	7.6	6.7
95°	0.8	2.5	5.1	5.1	4.2
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)