

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: P860195

Luminaire Tested: **SPHB-48SE-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: P860195
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-48SE-N-L950-CD
Description: 48000 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

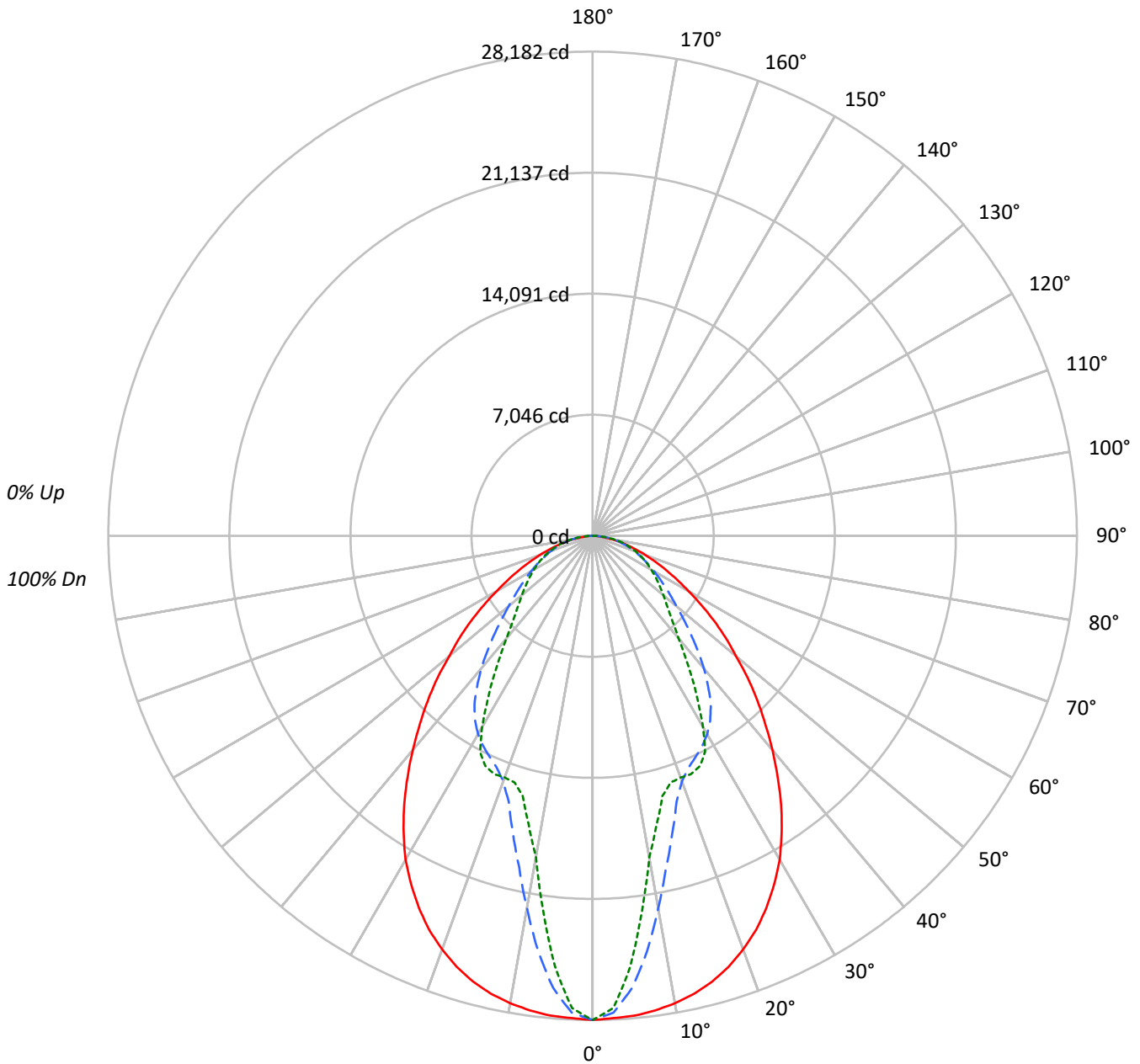
Lumens per Lamp: N/A
Luminaire Lumens: 41303.0 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 304.9
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									
RC	80									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°	89747	89747	89747
5°	89643	84444	80448
10°	89337	71179	61362
15°	88593	59086	51709
20°	86809	51505	50761
25°	84019	49834	51951
30°	80047	49035	47278
35°	74323	46596	39178
40°	67679	41831	32350
45°	61092	36297	28400
50°	53913	31561	26594
55°	47840	28465	25598
60°	40999	26323	25076
65°	35488	24739	24950
70°	30369	23798	24920
75°	25492	23110	24698
80°	19453	22332	24186
85°	12734	19811	18631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2402.7	5.8
10°-20°	5517.0	13.4
20°-30°	7456.0	18.1
30°-40°	7847.0	19.0
40°-50°	6658.5	16.1
50°-60°	5157.9	12.5
60°-70°	3592.3	8.7
70°-80°	2057.0	5.0
80°-90°	598.6	1.4
90°-100°	16.0	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°	15375.7	37.2
0°-40°	23222.7	56.2
0°-60°	35039.0	84.8
0°-90°	41287.0	100.0
90°-120°	16.0	0.0
90°-150°	16.0	0.0
90°-180°	16.0	0.0
0°-180°	41303.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	28182	28182	28182	28182	28182	
5°	28042	27528	26415	25402	25165	###
15°	26872	22807	17922	16132	15684	7561
25°	23911	16891	14182	14593	14785	10977
35°	19118	12990	11986	10826	10077	11917
45°	13565	9755	8059	6622	6306	10448
55°	8616	6570	5127	4660	4610	7704
65°	4710	3855	3283	3283	3311	4704
75°	2072	1842	1878	1996	2007	2209
85°	348	452	542	510	510	443
90°	2	41	80	101	105	19
95°	2	6	13	13	11	1
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°	28181.8	28181.8	28181.8	28181.8	28181.8
2.5°	28100.0	28007.5	27781.6	27635.3	27521.3
5°	28041.9	27527.7	26415.4	25402.1	25165.4
7.5°	27867.6	26738.1	24360.8	22486.9	22013.6
10°	27626.7	25604.3	22011.4	19664.2	18975.7
12.5°	27306.1	24393.1	19761.0	17549.3	17211.5
15°	26871.5	22807.4	17921.5	16131.5	15684.0
17.5°	26307.8	21168.0	16224.0	15189.2	15064.4
20°	25615.1	19664.2	15197.8	14845.0	14978.3
22.5°	24836.3	18203.4	14601.8	14750.3	14999.9
25°	23911.1	16891.0	14182.3	14593.2	14784.7
27.5°	22872.0	15705.5	13797.2	14173.7	14173.7
30°	21768.3	14718.0	13334.6	13300.2	12857.0
32.5°	20479.6	13879.0	12730.1	12048.1	11389.7
35°	19117.7	12990.4	11985.7	10826.1	10077.4
37.5°	17689.2	12164.3	11043.4	9513.7	8816.6
40°	16280.0	11348.9	10062.3	8334.7	7781.8
42.5°	14877.2	10518.4	9040.4	7379.4	6942.7
45°	13564.8	9754.6	8059.3	6622.1	6305.9
47.5°	12231.0	8943.5	7153.5	6013.3	5793.8
50°	10882.0	8121.7	6370.4	5529.2	5367.9
52.5°	9746.0	7355.8	5705.6	5071.0	4974.1
55°	8616.5	6570.5	5126.9	4660.0	4610.5
57.5°	7495.6	5839.0	4597.6	4283.5	4272.8
60°	6437.1	5154.9	4132.9	3960.8	3937.1
62.5°	5535.7	4475.0	3691.9	3610.1	3620.9
65°	4709.5	3855.4	3283.1	3283.1	3311.1
67.5°	3943.6	3285.3	2908.8	2958.2	2997.0
70°	3261.6	2768.9	2555.9	2642.0	2676.4
72.5°	2616.2	2289.1	2218.1	2312.8	2340.8
75°	2071.8	1841.6	1878.2	1996.5	2007.3
77.5°	1536.1	1450.1	1544.7	1673.8	1697.5
80°	1060.7	1069.3	1217.7	1308.1	1318.8
82.5°	684.2	746.6	912.2	959.5	942.3
85°	348.5	451.8	542.2	509.9	509.9
87.5°	133.4	195.8	230.2	271.1	286.1
90°	2.2	40.9	79.6	101.1	105.4
92.5°	2.2	10.8	17.2	19.4	17.2
95°	2.2	6.5	12.9	12.9	10.8
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)