

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: P860202

Luminaire Tested: **SPHB-48SE-W-L935-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: P860202
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-48SE-W-L935-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

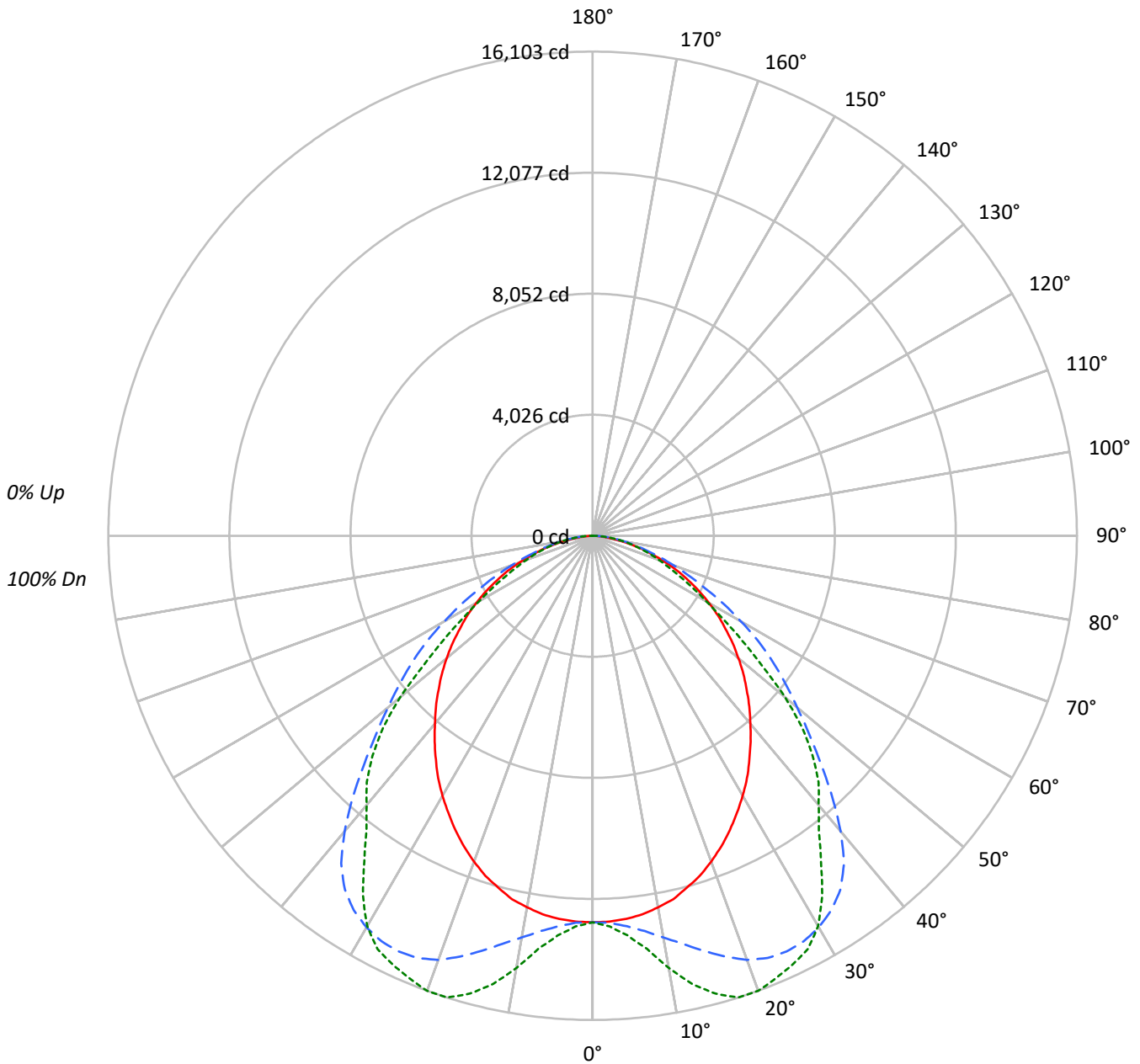
Lumens per Lamp: N/A
Luminaire Lumens: 40447.0 lumens
Efficiency: N/A
Efficacy: 132.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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				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°	40937	40937	40937
5°	40893	41664	42652
10°	40569	43863	47188
15°	39935	47129	51977
20°	39071	50877	54574
25°	37943	53621	55289
30°	36708	55299	55139
35°	35331	55855	51451
40°	33907	53332	48596
45°	32624	48342	46625
50°	31353	43956	41334
55°	29919	40612	33636
60°	28439	36208	27701
65°	26481	31112	24019
70°	24091	26563	21724
75°	20690	22293	19917
80°	16172	19122	18473
85°	10936	16227	15226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1262.1	3.1
10°-20°	4002.0	9.9
20°-30°	6549.5	16.2
30°-40°	7989.9	19.8
40°-50°	7913.2	19.6
50°-60°	6327.9	15.6
60°-70°	3947.6	9.8
70°-80°	1934.1	4.8
80°-90°	507.3	1.3
90°-100°	13.4	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°	11813.6	29.2
0°-40°	19803.5	49.0
0°-60°	34044.6	84.2
0°-90°	40433.6	100.0
90°-120°	13.4	0.0
90°-150°	13.4	0.0
90°-180°	13.0	0.0
0°-180°	40447.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12855	12855	12855	12855	12855	
5°	12792	12848	13033	13260	13342	###
15°	12113	12818	14295	15432	15765	3415
25°	10798	12626	15260	15703	15735	4969
35°	9088	12144	14367	13600	13234	5685
45°	7244	11254	10734	10374	10353	5595
55°	5389	8641	7315	6608	6058	4828
65°	3514	4848	4129	3424	3188	3485
75°	1682	2060	1812	1659	1619	1785
85°	299	425	444	422	417	371
90°	2	43	79	100	103	17
95°	2	6	6	5	3	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°	12854.7	12854.7	12854.7	12854.7	12854.7
2.5°	12841.8	12837.0	12883.6	12968.9	13007.5
5°	12791.9	12848.2	13033.3	13260.1	13342.2
7.5°	12701.8	12853.1	13261.7	13678.5	13855.5
10°	12545.7	12856.3	13564.2	14299.6	14592.4
12.5°	12384.8	12845.0	13900.5	14941.6	15261.8
15°	12112.9	12817.7	14294.8	15432.3	15765.4
17.5°	11860.3	12785.5	14674.5	15849.1	16101.7
20°	11528.8	12738.8	15012.4	15976.2	16103.3
22.5°	11181.3	12701.8	15199.0	15890.9	15929.5
25°	10798.3	12626.2	15260.2	15702.7	15734.8
27.5°	10389.6	12558.6	15202.3	15469.4	15496.7
30°	9982.5	12436.3	15038.1	15105.7	14994.7
32.5°	9556.1	12314.0	14772.6	14468.5	14209.5
35°	9087.9	12143.5	14367.2	13599.6	13234.4
37.5°	8626.1	11979.3	13734.8	12627.8	12352.6
40°	8156.2	11776.6	12828.9	11720.3	11689.7
42.5°	7712.2	11557.8	11804.0	11013.9	11116.9
45°	7243.9	11253.7	10733.9	10373.5	10352.6
47.5°	6799.8	10833.7	9760.5	9665.5	9451.5
50°	6328.4	10254.4	8872.3	8782.2	8342.9
52.5°	5866.6	9515.9	8079.0	7741.1	7100.7
55°	5388.7	8640.6	7314.7	6608.3	6058.1
57.5°	4944.6	7678.4	6537.5	5622.0	5128.0
60°	4465.1	6703.3	5684.8	4756.3	4349.2
62.5°	3995.3	5742.7	4912.4	4019.4	3749.1
65°	3514.2	4848.1	4128.8	3424.0	3187.5
67.5°	3054.0	4074.1	3451.4	2886.6	2728.9
70°	2587.3	3305.0	2852.8	2424.8	2333.1
72.5°	2106.2	2640.4	2307.4	2046.7	1977.5
75°	1681.5	2059.6	1811.8	1658.9	1618.7
77.5°	1251.8	1531.8	1416.0	1325.9	1314.6
80°	881.8	1105.4	1042.7	1025.0	1007.3
82.5°	563.2	722.5	741.8	730.5	717.6
85°	299.3	424.8	444.1	421.6	416.7
87.5°	120.7	185.0	199.5	220.4	226.9
90°	1.6	43.4	78.8	99.8	103.0
92.5°	1.6	9.7	11.3	11.3	9.7
95°	1.6	6.4	6.4	4.8	3.2
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)