

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: P860193

Luminaire Tested: **SPHB-48SE-N-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: P860193
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-L935-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

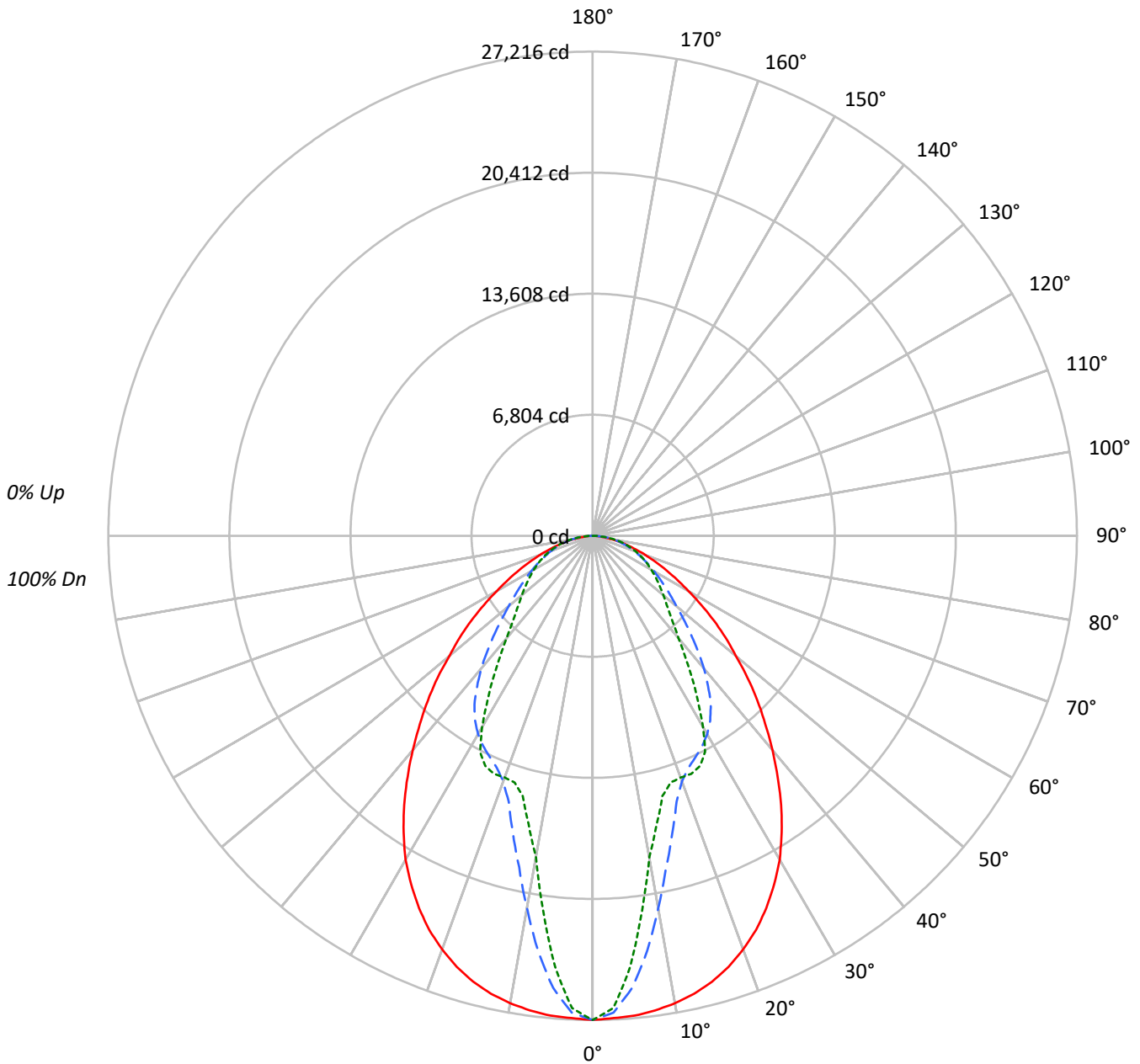
Lumens per Lamp: N/A
Luminaire Lumens: 39887.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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				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°	86671	86671	86671
5°	86570	81549	77690
10°	86274	68738	59259
15°	85556	57060	49936
20°	83833	49739	49021
25°	81139	48125	50169
30°	77303	47354	45657
35°	71775	44999	37834
40°	65358	40397	31241
45°	58997	35052	27426
50°	52065	30479	25682
55°	46200	27489	24721
60°	39593	25421	24217
65°	34272	23891	24095
70°	29328	22983	24066
75°	24618	22318	23852
80°	18785	21567	23357
85°	12299	19132	17992



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2320.4	5.8
10°-20°	5327.9	13.4
20°-30°	7200.3	18.1
30°-40°	7578.0	19.0
40°-50°	6430.2	16.1
50°-60°	4981.1	12.5
60°-70°	3469.2	8.7
70°-80°	1986.5	5.0
80°-90°	578.1	1.4
90°-100°	15.4	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°	14848.6	37.2
0°-40°	22426.5	56.2
0°-60°	33837.8	84.8
0°-90°	39871.5	100.0
90°-120°	15.4	0.0
90°-150°	15.4	0.0
90°-180°	15.0	0.0
0°-180°	39887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	27216	27216	27216	27216	27216	
5°	27080	26584	25510	24531	24303	###
15°	25950	22026	17307	15578	15146	7302
25°	23091	16312	13696	14093	14278	10600
35°	18462	12545	11575	10455	9732	11508
45°	13100	9420	7783	6395	6090	10089
55°	8321	6345	4951	4500	4452	7440
65°	4548	3723	3170	3170	3198	4543
75°	2001	1778	1814	1928	1938	2134
85°	337	436	524	492	492	428
90°	2	40	77	98	102	19
95°	2	6	12	12	10	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°	27215.6	27215.6	27215.6	27215.6	27215.6
2.5°	27136.6	27047.3	26829.1	26687.9	26577.7
5°	27080.5	26584.0	25509.8	24531.2	24302.7
7.5°	26912.2	25821.5	23525.6	21716.0	21258.9
10°	26679.5	24726.5	21256.8	18990.0	18325.2
12.5°	26370.0	23556.8	19083.5	16947.7	16621.5
15°	25950.3	22025.5	17307.1	15578.5	15146.3
17.5°	25405.9	20442.3	15667.8	14668.5	14547.9
20°	24736.9	18990.0	14676.8	14336.0	14464.8
22.5°	23984.8	17579.3	14101.2	14244.6	14485.6
25°	23091.4	16311.9	13696.1	14092.9	14277.8
27.5°	22087.9	15167.1	13324.2	13687.8	13687.8
30°	21022.0	14213.4	12877.5	12844.2	12416.2
32.5°	19777.5	13403.1	12293.7	11635.0	10999.3
35°	18462.3	12545.1	11574.8	10454.9	9731.9
37.5°	17082.7	11747.2	10664.8	9187.5	8514.4
40°	15721.8	10959.8	9717.3	8048.9	7515.0
42.5°	14367.2	10157.8	8730.4	7126.5	6704.7
45°	13099.8	9420.2	7783.0	6395.1	6089.7
47.5°	11811.6	8636.9	6908.3	5807.1	5595.2
50°	10508.9	7843.3	6152.0	5339.6	5183.8
52.5°	9411.9	7103.6	5510.0	4897.1	4803.6
55°	8321.1	6345.2	4951.1	4500.3	4452.5
57.5°	7238.7	5638.8	4440.0	4136.7	4126.3
60°	6216.4	4978.1	3991.2	3825.0	3802.2
62.5°	5345.9	4321.6	3565.3	3486.4	3496.7
65°	4548.1	3723.2	3170.5	3170.5	3197.6
67.5°	3808.4	3172.6	2809.0	2856.8	2894.2
70°	3149.8	2674.0	2468.3	2551.4	2584.6
72.5°	2526.5	2210.7	2142.1	2233.5	2260.5
75°	2000.8	1778.5	1813.8	1928.1	1938.5
77.5°	1483.5	1400.4	1491.8	1616.4	1639.3
80°	1024.3	1032.6	1176.0	1263.2	1273.6
82.5°	660.7	721.0	880.9	926.6	910.0
85°	336.6	436.3	523.6	492.4	492.4
87.5°	128.8	189.1	222.3	261.8	276.3
90°	2.1	39.5	76.9	97.7	101.8
92.5°	2.1	10.4	16.6	18.7	16.6
95°	2.1	6.2	12.5	12.5	10.4
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)