

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: P860203

Luminaire Tested: **SPHB-48SE-W-L940-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: P860203
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-L940-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

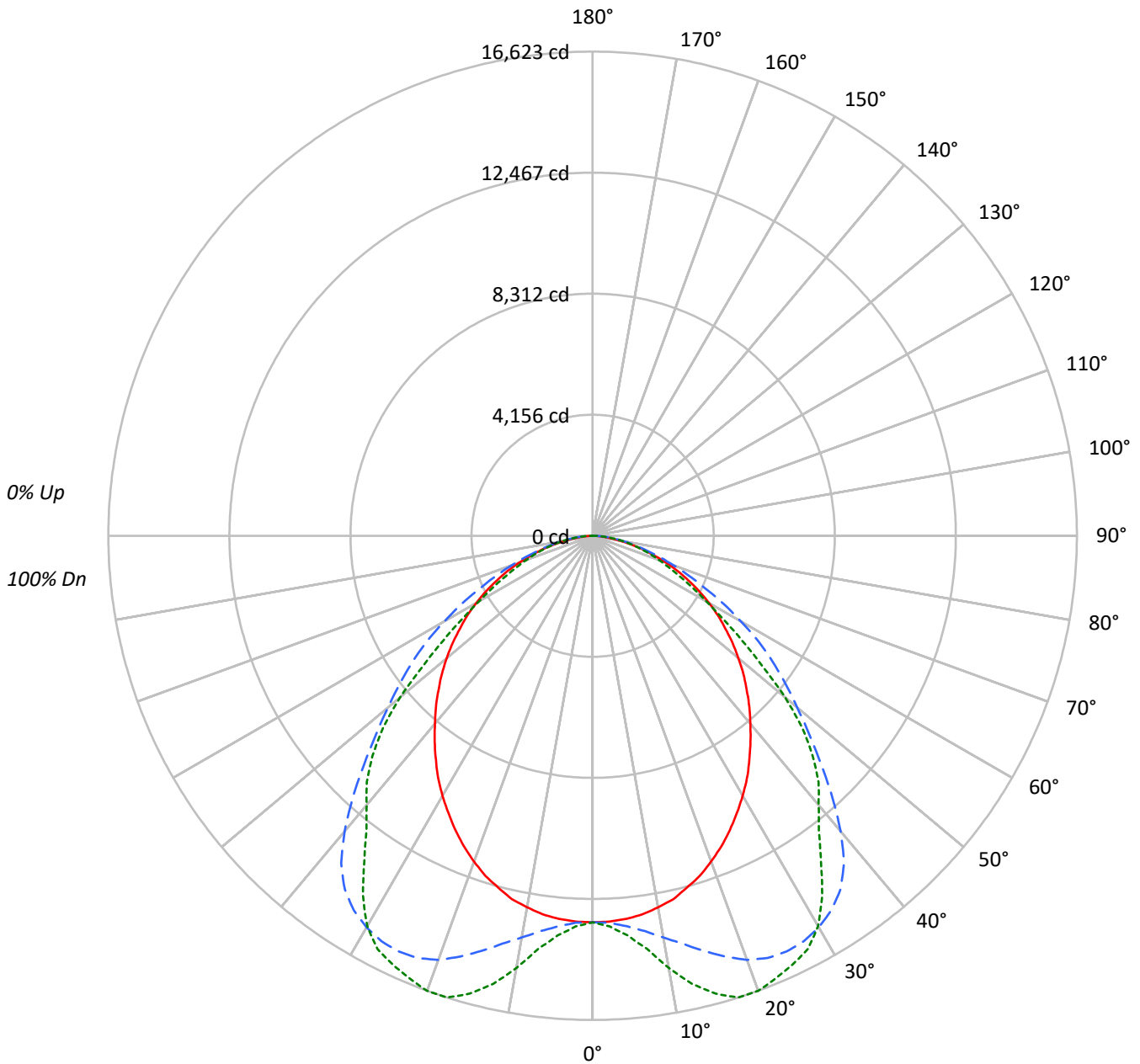
Lumens per Lamp: N/A
Luminaire Lumens: 41752.0 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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								
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85								
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72								
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62								
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53								
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46								
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40								
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36								
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32								
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29								
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42258	42258	42258
5°	42212	43009	44028
10°	41878	45278	48710
15°	41224	48650	53655
20°	40331	52518	56335
25°	39167	55351	57073
30°	37893	57083	56918
35°	36471	57657	53111
40°	35001	55053	50164
45°	33677	49902	48129
50°	32365	45374	42667
55°	30884	41923	34720
60°	29357	37376	28595
65°	27335	32116	24794
70°	24868	27420	22425
75°	21357	23012	20559
80°	16692	19739	19069
85°	11287	16750	15719



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1302.8	3.1
10°-20°	4131.1	9.9
20°-30°	6760.8	16.2
30°-40°	8247.7	19.8
40°-50°	8168.5	19.6
50°-60°	6532.1	15.6
60°-70°	4075.0	9.8
70°-80°	1996.5	4.8
80°-90°	523.6	1.3
90°-100°	13.8	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°	12194.8	29.2
0°-40°	20442.5	49.0
0°-60°	35143.1	84.2
0°-90°	41738.2	100.0
90°-120°	13.8	0.0
90°-150°	13.8	0.0
90°-180°	14.0	0.0
0°-180°	41752.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13269	13269	13269	13269	13269	
5°	13205	13263	13454	13688	13773	###
15°	12504	13231	14756	15930	16274	3525
25°	11147	13034	15752	16209	16242	5129
35°	9381	12535	14831	14038	13661	5868
45°	7478	11617	11080	10708	10687	5776
55°	5563	8919	7551	6822	6254	4984
65°	3628	5004	4262	3534	3290	3597
75°	1736	2126	1870	1712	1671	1843
85°	309	438	458	435	430	383
90°	2	45	81	103	106	18
95°	2	7	7	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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CATALOG NUMBER: SPHB-48SE-W-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13269.4	13269.4	13269.4	13269.4	13269.4
2.5°	13256.1	13251.1	13299.3	13387.3	13427.2
5°	13204.6	13262.8	13453.8	13688.0	13772.7
7.5°	13111.6	13267.7	13689.6	14119.8	14302.5
10°	12950.5	13271.1	14001.9	14760.9	15063.2
12.5°	12784.4	13259.4	14349.0	15423.7	15754.2
15°	12503.7	13231.2	14756.0	15930.3	16274.1
17.5°	12242.9	13198.0	15148.0	16360.5	16621.2
20°	11900.8	13149.8	15496.8	16491.7	16622.9
22.5°	11542.0	13111.6	15689.4	16403.6	16443.5
25°	11146.7	13033.6	15752.5	16209.3	16242.5
27.5°	10724.8	12963.8	15692.7	15968.5	15996.7
30°	10304.6	12837.6	15523.3	15593.1	15478.5
32.5°	9864.4	12711.3	15249.3	14935.4	14667.9
35°	9381.1	12535.3	14830.7	14038.4	13661.4
37.5°	8904.4	12365.8	14178.0	13035.2	12751.2
40°	8419.4	12156.6	13242.8	12098.4	12066.9
42.5°	7961.0	11930.7	12184.8	11369.3	11475.6
45°	7477.6	11616.8	11080.3	10708.2	10686.6
47.5°	7019.2	11183.2	10075.4	9977.4	9756.5
50°	6532.6	10585.3	9158.5	9065.5	8612.1
52.5°	6055.9	9822.9	8339.7	7990.9	7329.8
55°	5562.6	8919.4	7550.7	6821.6	6253.5
57.5°	5104.1	7926.1	6748.5	5803.4	5293.5
60°	4609.2	6919.6	5868.2	4909.8	4489.6
62.5°	4124.2	5928.0	5070.9	4149.1	3870.0
65°	3627.5	5004.5	4262.0	3534.5	3290.4
67.5°	3152.5	4205.6	3562.8	2979.8	2817.0
70°	2670.8	3411.6	2944.9	2503.1	2408.4
72.5°	2174.2	2725.6	2381.8	2112.7	2041.3
75°	1735.7	2126.0	1870.2	1712.4	1670.9
77.5°	1292.2	1581.2	1461.6	1368.6	1357.0
80°	910.2	1141.1	1076.3	1058.0	1039.8
82.5°	581.3	745.8	765.7	754.1	740.8
85°	308.9	438.5	458.4	435.2	430.2
87.5°	124.6	191.0	206.0	227.6	234.2
90°	1.7	44.8	81.4	103.0	106.3
92.5°	1.7	10.0	11.6	11.6	10.0
95°	1.7	6.6	6.6	5.0	3.3
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)