

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: P860190

Luminaire Tested: **SPHB-48SE-N-L835-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: P860190
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-L835-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

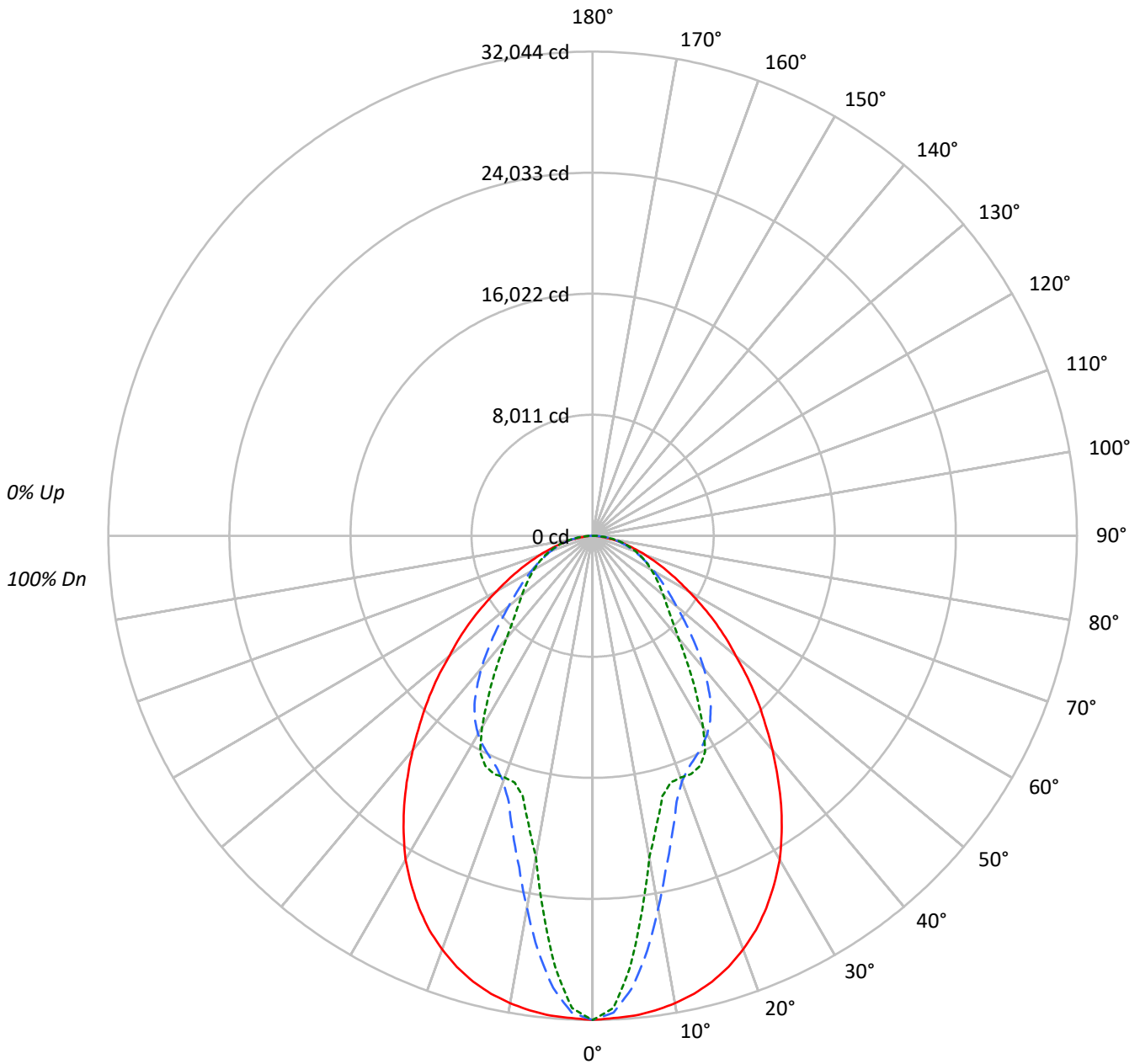
Lumens per Lamp: N/A
Luminaire Lumens: 46964.0 lumens
Efficiency: N/A
Efficacy: 154.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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				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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74				74
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64				64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50				50
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	102048	102048	102048
5°	101929	96017	91474
10°	101581	80934	69772
15°	100736	67184	58796
20°	98707	58564	57719
25°	95535	56664	59071
30°	91019	55756	53758
35°	84510	52983	44547
40°	76955	47564	36784
45°	69465	41271	32292
50°	61303	35887	30239
55°	54397	32367	29107
60°	46619	29931	28514
65°	40352	28130	28370
70°	34531	27060	28336
75°	28986	26277	28083
80°	22117	25393	27502
85°	14480	22526	21185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2732.1	5.8
10°-20°	6273.2	13.4
20°-30°	8477.9	18.1
30°-40°	8922.5	19.0
40°-50°	7571.1	16.1
50°-60°	5864.9	12.5
60°-70°	4084.7	8.7
70°-80°	2339.0	5.0
80°-90°	680.7	1.4
90°-100°	18.2	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°	17483.1	37.2
0°-40°	26405.6	56.2
0°-60°	39841.5	84.8
0°-90°	46945.8	100.0
90°-120°	18.2	0.0
90°-150°	18.2	0.0
90°-180°	18.0	0.0
0°-180°	46964.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	32044	32044	32044	32044	32044	
5°	31885	31301	30036	28884	28615	###
15°	30554	25933	20378	18342	17834	8598
25°	27188	19206	16126	16593	16811	12481
35°	21738	14771	13628	12310	11459	13550
45°	15424	11092	9164	7530	7170	11880
55°	9798	7471	5830	5299	5242	8760
65°	5355	4384	3733	3733	3765	5349
75°	2356	2094	2136	2270	2282	2512
85°	396	514	616	580	580	504
90°	2	46	90	115	120	22
95°	2	7	15	15	12	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°	32044.3	32044.3	32044.3	32044.3	32044.3
2.5°	31951.4	31846.2	31589.3	31423.0	31293.3
5°	31885.3	31300.7	30035.9	28883.7	28614.6
7.5°	31687.2	30402.9	27699.7	25568.9	25030.7
10°	31413.2	29113.7	25028.3	22359.4	21576.5
12.5°	31048.7	27736.4	22469.5	19954.6	19570.6
15°	30554.5	25933.4	20377.8	18342.5	17833.7
17.5°	29913.6	24069.3	18447.7	17271.0	17129.1
20°	29125.9	22359.4	17280.8	16879.6	17031.3
22.5°	28240.3	20698.3	16603.2	16772.0	17055.7
25°	27188.4	19206.1	16126.1	16593.4	16811.1
27.5°	26006.8	17858.1	15688.3	16116.4	16116.4
30°	24751.9	16735.3	15162.3	15123.2	14619.2
32.5°	23286.5	15781.2	14474.9	13699.4	12950.8
35°	21738.0	14770.9	13628.5	12309.9	11458.6
37.5°	20113.6	13831.5	12557.0	10817.6	10025.0
40°	18511.3	12904.3	11441.4	9477.0	8848.3
42.5°	16916.3	11960.1	10279.4	8390.9	7894.3
45°	15424.0	11091.6	9163.9	7529.8	7170.2
47.5°	13907.3	10169.4	8134.0	6837.5	6587.9
50°	12373.5	9234.9	7243.6	6287.0	6103.6
52.5°	11081.8	8364.0	6487.6	5766.0	5655.9
55°	9797.5	7471.1	5829.6	5298.7	5242.5
57.5°	8523.0	6639.3	5227.8	4870.6	4858.4
60°	7319.4	5861.4	4699.4	4503.7	4476.8
62.5°	6294.4	5088.3	4197.9	4104.9	4117.2
65°	5355.0	4383.8	3733.1	3733.1	3764.9
67.5°	4484.1	3735.5	3307.4	3363.7	3407.7
70°	3708.6	3148.4	2906.2	3004.1	3043.2
72.5°	2974.7	2602.9	2522.2	2629.8	2661.6
75°	2355.8	2094.1	2135.6	2270.2	2282.4
77.5°	1746.7	1648.8	1756.5	1903.2	1930.1
80°	1206.0	1215.8	1384.6	1487.4	1499.6
82.5°	777.9	848.9	1037.2	1091.1	1071.5
85°	396.3	513.7	616.5	579.8	579.8
87.5°	151.7	222.6	261.8	308.2	325.4
90°	2.4	46.5	90.5	115.0	119.9
92.5°	2.4	12.2	19.6	22.0	19.6
95°	2.4	7.3	14.7	14.7	12.2
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)