

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: P860180

Luminaire Tested: **SPHB-48SE-M-L750-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: P860180
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-48SE-M-L750-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 5000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

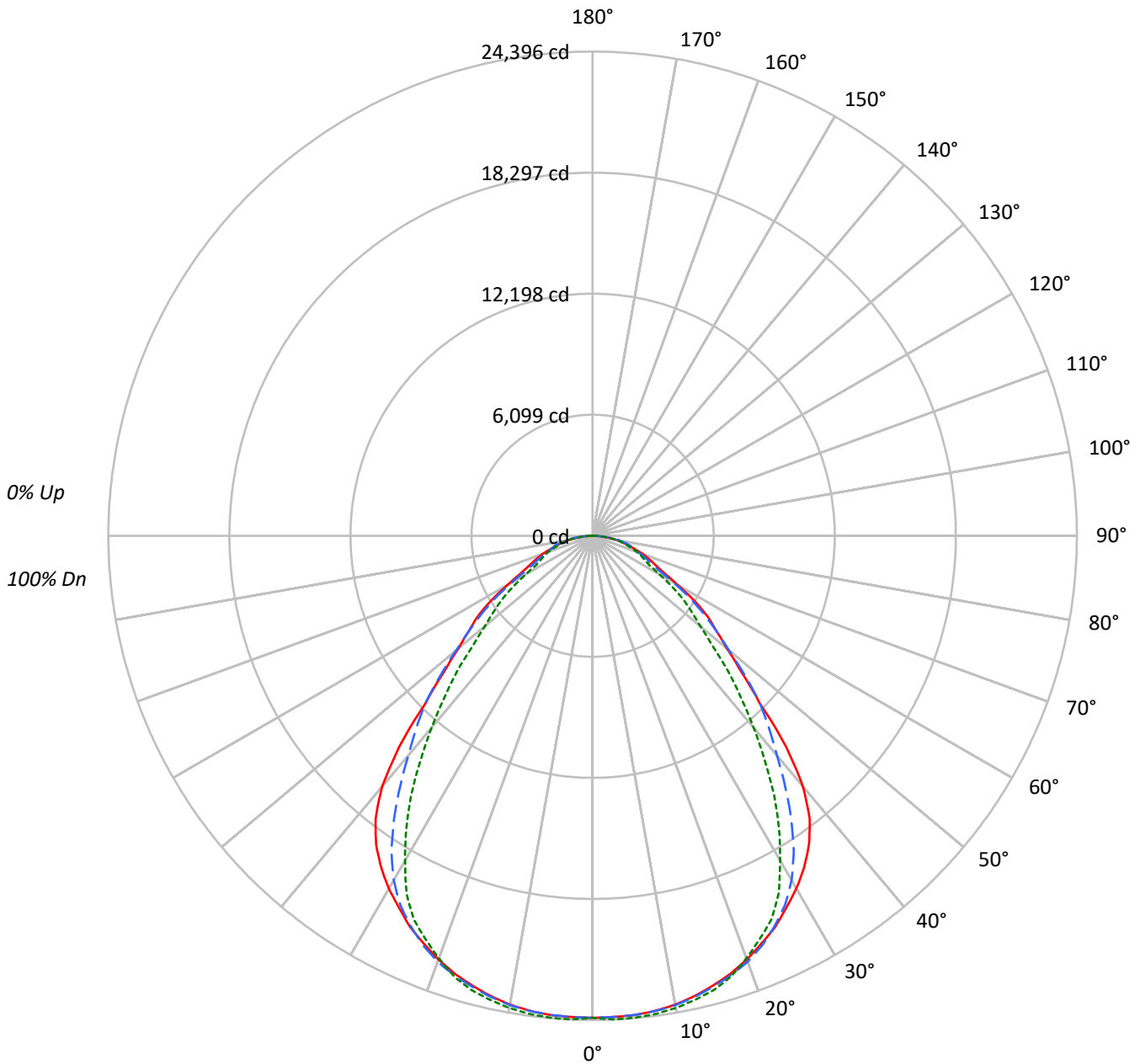
Lumens per Lamp: N/A
Luminaire Lumens: 50410.0 lumens
Efficiency: N/A
Efficacy: 165.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	77343	77343	77343
5°	77495	77474	77915
10°	77562	77645	78122
15°	77336	77537	78075
20°	76998	77389	76770
25°	76435	76221	74927
30°	75467	73689	69484
35°	73883	67794	61929
40°	68565	60003	52453
45°	53492	53637	43408
50°	43689	44308	35056
55°	39144	37668	30803
60°	31337	29664	24646
65°	26262	24041	21796
70°	24934	22905	22190
75°	22623	24318	21401
80°	22733	24848	22557
85°	19779	23173	18843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2309.2	4.6
10°-20°	6641.3	13.2
20°-30°	9914.4	19.7
30°-40°	10818.3	21.5
40°-50°	8849.8	17.6
50°-60°	5818.7	11.5
60°-70°	3338.4	6.6
70°-80°	2023.0	4.0
80°-90°	679.3	1.3
90°-100°	17.6	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°	18864.9	37.4
0°-40°	29683.2	58.9
0°-60°	44351.7	88.0
0°-90°	50392.3	100.0
90°-120°	17.6	0.0
90°-150°	17.6	0.0
90°-180°	18.0	0.0
0°-180°	50410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	24287	24287	24287	24287	24287	
5°	24242	24203	24235	24335	24373	###
15°	23457	23454	23518	23668	23681	6621
25°	21753	21804	21692	21429	21324	10007
35°	19004	18575	17438	16250	15930	11779
45°	11877	12765	11910	10513	9638	9428
55°	7050	6858	6784	5830	5548	6209
65°	3485	3434	3190	3104	2892	3563
75°	1839	1989	1976	1896	1739	1990
85°	541	615	634	554	516	587
90°	3	45	90	106	112	25
95°	3	6	10	10	6	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°	24286.6	24286.6	24286.6	24286.6	24286.6
2.5°	24270.6	24235.3	24267.4	24366.7	24395.5
5°	24241.7	24203.3	24235.3	24334.6	24373.1
7.5°	24142.4	24120.0	24152.0	24251.3	24299.4
10°	23985.5	23959.9	24011.1	24097.6	24158.5
12.5°	23751.7	23742.0	23790.1	23915.0	23940.6
15°	23457.0	23453.8	23517.8	23668.4	23681.2
17.5°	23123.8	23120.6	23200.7	23300.0	23264.8
20°	22720.2	22742.6	22835.5	22742.6	22653.0
22.5°	22236.5	22307.0	22329.4	22037.9	21993.1
25°	21752.9	21804.1	21692.0	21429.3	21323.6
27.5°	21128.2	21189.1	20980.9	20606.1	20305.0
30°	20522.8	20465.2	20039.2	19315.2	18895.6
32.5°	19827.7	19622.7	18857.2	17857.8	17476.6
35°	19004.5	18575.3	17438.2	16249.8	15929.5
37.5°	17963.5	17178.7	15935.9	14696.2	14212.6
40°	16493.2	15586.7	14433.6	13152.3	12617.4
42.5°	14433.6	14097.2	13142.7	11701.3	11063.8
45°	11877.4	12764.7	11909.5	10512.9	9638.4
47.5°	10166.9	11400.2	10371.9	9362.9	8158.5
50°	8818.4	9667.2	8943.3	8033.6	7075.8
52.5°	7844.6	8100.9	7809.4	6810.0	6265.4
55°	7050.2	6858.0	6784.4	5829.8	5547.9
57.5°	6063.6	5957.9	5768.9	5083.5	4711.9
60°	4920.1	5144.3	4657.4	4462.0	3869.5
62.5°	4042.4	4263.4	3741.3	3728.5	3235.2
65°	3485.1	3433.8	3190.4	3103.9	2892.5
67.5°	3084.7	2924.5	2841.2	2729.1	2655.4
70°	2677.9	2610.6	2460.0	2482.5	2383.2
72.5°	2232.6	2319.1	2168.6	2210.2	2030.8
75°	1838.6	1989.2	1976.4	1896.3	1739.3
77.5°	1515.1	1675.3	1704.1	1630.4	1502.3
80°	1239.6	1348.5	1354.9	1310.1	1230.0
82.5°	909.7	973.8	1021.8	944.9	893.7
85°	541.3	615.0	634.2	554.2	515.7
87.5°	176.2	246.6	275.5	285.1	288.3
90°	3.2	44.8	89.7	105.7	112.1
92.5°	3.2	12.8	19.2	28.8	32.0
95°	3.2	6.4	9.6	9.6	6.4
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)