

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: P860200

Luminaire Tested: **SPHB-48SE-W-L840-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: P860200
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-L840-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens
and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

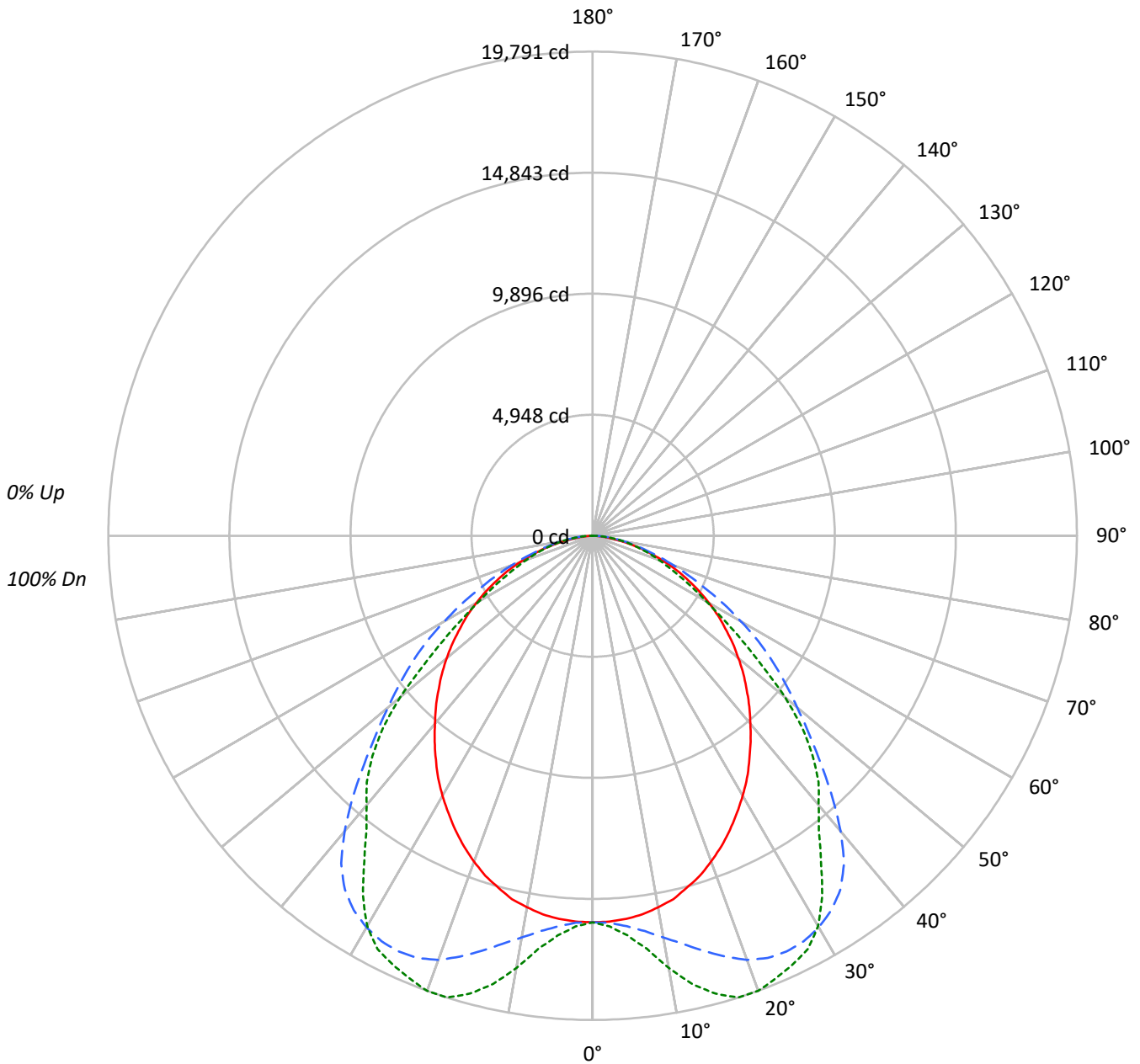
Lumens per Lamp: N/A
Luminaire Lumens: 49710.0 lumens
Efficiency: N/A
Efficacy: 163.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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									
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	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°	50312	50312	50312
5°	50258	51206	52420
10°	49860	53908	57994
15°	49081	57922	63881
20°	48019	62528	67072
25°	46633	65901	67951
30°	45115	67963	67767
35°	43422	68646	63234
40°	41672	65546	59725
45°	40096	59414	57303
50°	38533	54023	50800
55°	36771	49913	41338
60°	34952	44500	34045
65°	32545	38238	29520
70°	29608	32647	26699
75°	25427	27398	24478
80°	19874	23500	22702
85°	13439	19943	18715



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1551.1	3.1
10°-20°	4918.5	9.9
20°-30°	8049.5	16.2
30°-40°	9819.7	19.8
40°-50°	9725.4	19.6
50°-60°	7777.1	15.6
60°-70°	4851.7	9.8
70°-80°	2377.1	4.8
80°-90°	623.4	1.3
90°-100°	16.4	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°	14519.1	29.2
0°-40°	24338.9	49.0
0°-60°	41841.4	84.2
0°-90°	49693.6	100.0
90°-120°	16.4	0.0
90°-150°	16.4	0.0
90°-180°	16.0	0.0
0°-180°	49710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15799	15799	15799	15799	15799	
5°	15722	15791	16018	16297	16398	###
15°	14887	15753	17568	18967	19376	4197
25°	13271	15518	18755	19299	19338	6107
35°	11169	14924	17658	16714	16265	6986
45°	8903	13831	13192	12749	12724	6876
55°	6623	10619	8990	8122	7445	5934
65°	4319	5958	5074	4208	3918	4283
75°	2066	2531	2227	2039	1989	2194
85°	368	522	546	518	512	456
90°	2	53	97	123	127	21
95°	2	8	8	6	4	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°	15798.6	15798.6	15798.6	15798.6	15798.6
2.5°	15782.8	15776.8	15834.2	15939.0	15986.4
5°	15721.5	15790.7	16018.1	16296.9	16397.8
7.5°	15610.7	15796.6	16298.9	16811.1	17028.6
10°	15418.9	15800.6	16670.7	17574.4	17934.3
12.5°	15221.1	15786.7	17084.0	18363.5	18757.0
15°	14886.9	15753.1	17568.5	18966.6	19376.0
17.5°	14576.5	15713.5	18035.2	19478.8	19789.3
20°	14169.1	15656.2	18450.5	19635.0	19791.2
22.5°	13741.9	15610.7	18679.9	19530.2	19577.7
25°	13271.3	15517.8	18755.0	19298.8	19338.4
27.5°	12769.0	15434.7	18683.8	19012.1	19045.7
30°	12268.7	15284.4	18482.1	18565.2	18428.7
32.5°	11744.6	15134.1	18155.8	17782.1	17463.7
35°	11169.2	14924.5	17657.5	16714.2	16265.3
37.5°	10601.6	14722.8	16880.3	15519.7	15181.6
40°	10024.2	14473.6	15766.9	14404.4	14366.8
42.5°	9478.4	14204.7	14507.2	13536.3	13662.8
45°	8902.9	13830.9	13192.2	12749.2	12723.5
47.5°	8357.1	13314.8	11995.8	11879.1	11616.1
50°	7777.7	12602.9	10904.2	10793.4	10253.6
52.5°	7210.1	11695.2	9929.2	9514.0	8726.9
55°	6622.8	10619.4	8989.9	8121.8	7445.4
57.5°	6077.0	9436.8	8034.8	6909.5	6302.4
60°	5487.7	8238.4	6986.7	5845.6	5345.3
62.5°	4910.2	7057.8	6037.4	4939.9	4607.7
65°	4319.0	5958.3	5074.4	4208.2	3917.5
67.5°	3753.4	5007.1	4241.8	3547.7	3353.9
70°	3179.9	4061.9	3506.2	2980.2	2867.4
72.5°	2588.6	3245.1	2835.8	2515.4	2430.4
75°	2066.5	2531.3	2226.7	2038.8	1989.4
77.5°	1538.5	1882.6	1740.2	1629.5	1615.7
80°	1083.7	1358.6	1281.4	1259.7	1237.9
82.5°	692.1	887.9	911.6	897.8	882.0
85°	367.8	522.1	545.8	518.1	512.2
87.5°	148.3	227.4	245.2	270.9	278.8
90°	2.0	53.4	96.9	122.6	126.6
92.5°	2.0	11.9	13.8	13.8	11.9
95°	2.0	7.9	7.9	5.9	4.0
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)