

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: P860154

Luminaire Tested: **SPHB-48HE-M-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: P860154
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-48HE-M-L835-CD
Description: 48000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

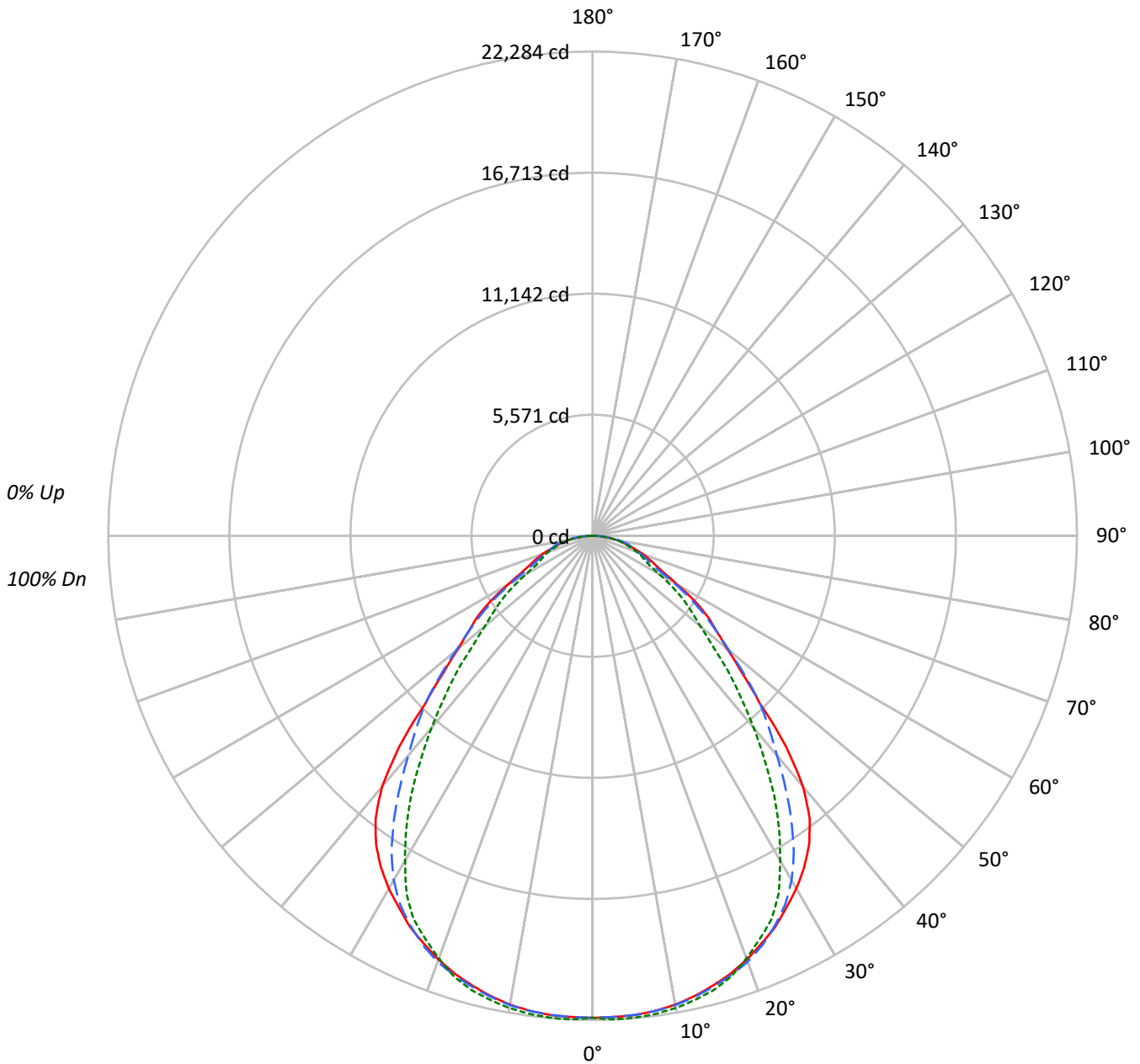
Lumens per Lamp: N/A
Luminaire Lumens: 46047.0 lumens
Efficiency: N/A
Efficacy: 159.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 288.6
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

TEST NUMBER: P860154

CATALOG NUMBER: SPHB-48HE-M-L835-CD

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°	70649	70649	70649
5°	70788	70769	71171
10°	70849	70925	71360
15°	70643	70826	71318
20°	70334	70691	70126
25°	69820	69625	68442
30°	68936	67311	63470
35°	67489	61926	56569
40°	62631	54810	47913
45°	48862	48994	39651
50°	39908	40474	32022
55°	35756	34408	28137
60°	28625	27096	22513
65°	23988	21960	19909
70°	22776	20923	20269
75°	20665	22213	19549
80°	20766	22699	20606
85°	18069	21167	17214



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2109.4	4.6
10°-20°	6066.5	13.2
20°-30°	9056.3	19.7
30°-40°	9881.9	21.5
40°-50°	8083.9	17.6
50°-60°	5315.1	11.5
60°-70°	3049.4	6.6
70°-80°	1847.9	4.0
80°-90°	620.5	1.3
90°-100°	16.1	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°	17232.1	37.4
0°-40°	27114.1	58.9
0°-60°	40513.1	88.0
0°-90°	46030.9	100.0
90°-120°	16.1	0.0
90°-150°	16.1	0.0
90°-180°	16.0	0.0
0°-180°	46047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	22185	22185	22185	22185	22185	
5°	22144	22108	22138	22228	22264	###
15°	21427	21424	21482	21620	21632	6048
25°	19870	19917	19815	19575	19478	9141
35°	17360	16968	15929	14843	14551	10759
45°	10849	11660	10879	9603	8804	8612
55°	6440	6264	6197	5325	5068	5672
65°	3183	3137	2914	2835	2642	3254
75°	1680	1817	1805	1732	1589	1818
85°	494	562	579	506	471	536
90°	3	41	82	97	102	23
95°	3	6	9	9	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



TEST NUMBER: P860154

CATALOG NUMBER: SPHB-48HE-M-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	22184.6	22184.6	22184.6	22184.6	22184.6
2.5°	22169.9	22137.8	22167.0	22257.7	22284.1
5°	22143.6	22108.5	22137.8	22228.5	22263.6
7.5°	22052.9	22032.4	22061.7	22152.4	22196.3
10°	21909.5	21886.1	21932.9	22011.9	22067.5
12.5°	21695.9	21687.2	21731.0	21845.2	21868.6
15°	21426.8	21423.8	21482.3	21619.9	21631.6
17.5°	21122.5	21119.5	21192.7	21283.4	21251.2
20°	20753.8	20774.3	20859.1	20774.3	20692.3
22.5°	20312.0	20376.3	20396.8	20130.6	20089.6
25°	19870.1	19917.0	19814.6	19574.6	19478.1
27.5°	19299.6	19355.2	19165.0	18822.7	18547.6
30°	18746.6	18693.9	18304.8	17643.5	17260.2
32.5°	18111.6	17924.4	17225.1	16312.2	15964.0
35°	17359.7	16967.6	15928.9	14843.4	14550.8
37.5°	16408.7	15691.9	14556.6	13424.3	12982.5
40°	15065.7	14237.7	13184.3	12014.0	11525.3
42.5°	13184.3	12877.1	12005.2	10688.5	10106.2
45°	10849.4	11659.9	10878.7	9603.0	8804.2
47.5°	9287.0	10413.5	9474.2	8552.6	7452.4
50°	8055.1	8830.5	8169.3	7338.3	6463.4
52.5°	7165.7	7399.7	7133.5	6220.6	5723.2
55°	6440.0	6264.5	6197.2	5325.2	5067.7
57.5°	5538.8	5442.3	5269.6	4643.5	4304.1
60°	4494.3	4699.1	4254.3	4075.9	3534.6
62.5°	3692.6	3894.4	3417.5	3405.8	2955.2
65°	3183.4	3136.6	2914.2	2835.2	2642.1
67.5°	2817.7	2671.4	2595.3	2492.9	2425.6
70°	2446.1	2384.7	2247.1	2267.6	2176.9
72.5°	2039.4	2118.4	1980.9	2018.9	1855.1
75°	1679.5	1817.0	1805.3	1732.2	1588.8
77.5°	1384.0	1530.3	1556.6	1489.3	1372.3
80°	1132.3	1231.8	1237.7	1196.7	1123.6
82.5°	831.0	889.5	933.4	863.2	816.3
85°	494.5	561.8	579.3	506.2	471.1
87.5°	160.9	225.3	251.6	260.4	263.3
90°	2.9	41.0	81.9	96.6	102.4
92.5°	2.9	11.7	17.6	26.3	29.3
95°	2.9	5.9	8.8	8.8	5.9
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



TEST NUMBER: P860154

CATALOG NUMBER: SPHB-48HE-M-L835-CD

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)