

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: P860173

Luminaire Tested: **SPHB-48HE-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: P860173
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-48HE-W-L840-CD
Description: 48000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

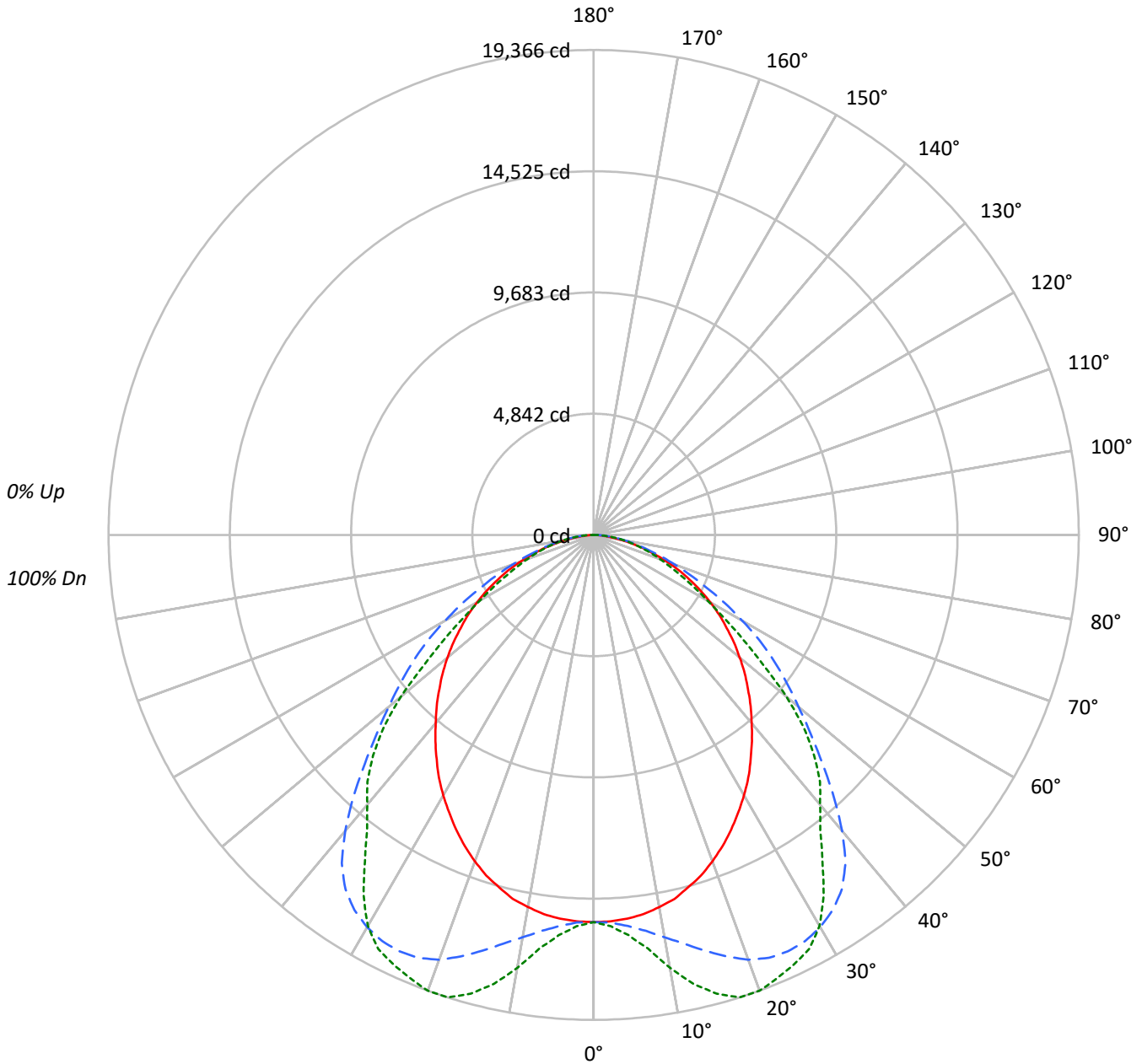
Lumens per Lamp: N/A
Luminaire Lumens: 48643.0 lumens
Efficiency: N/A
Efficacy: 168.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49232	49232	49232
5°	49179	50107	51294
10°	48790	52751	56750
15°	48028	56679	62510
20°	46988	61186	65632
25°	45632	64487	66493
30°	44146	66505	66312
35°	42490	67173	61877
40°	40778	64139	58444
45°	39235	58138	56073
50°	37706	52863	49709
55°	35981	48842	40451
60°	34202	43544	33315
65°	31846	37417	28886
70°	28972	31946	26126
75°	24882	26810	23953
80°	19447	22996	22216
85°	13150	19516	18313



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1517.8	3.1
10°-20°	4813.0	9.9
20°-30°	7876.7	16.2
30°-40°	9609.0	19.8
40°-50°	9516.7	19.6
50°-60°	7610.2	15.6
60°-70°	4747.5	9.8
70°-80°	2326.0	4.8
80°-90°	610.1	1.3
90°-100°	16.0	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°	14207.5	29.2
0°-40°	23816.4	49.0
0°-60°	40943.3	84.2
0°-90°	48626.9	100.0
90°-120°	16.0	0.0
90°-150°	16.0	0.0
90°-180°	16.0	0.0
0°-180°	48643.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15460	15460	15460	15460	15460	
5°	15384	15452	15674	15947	16046	###
15°	14567	15415	17191	18560	18960	4107
25°	12986	15185	18352	18885	18923	5976
35°	10929	14604	17278	16355	15916	6836
45°	8712	13534	12909	12476	12450	6729
55°	6481	10392	8797	7947	7286	5806
65°	4226	5830	4966	4118	3833	4191
75°	2022	2477	2179	1995	1947	2147
85°	360	511	534	507	501	446
90°	2	52	95	120	124	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°	15459.5	15459.5	15459.5	15459.5	15459.5
2.5°	15444.0	15438.2	15494.3	15596.9	15643.3
5°	15384.0	15451.7	15674.3	15947.1	16045.8
7.5°	15275.6	15457.5	15949.0	16450.2	16663.1
10°	15087.9	15461.4	16312.8	17197.2	17549.4
12.5°	14894.4	15447.9	16717.3	17969.3	18354.4
15°	14567.4	15415.0	17191.4	18559.5	18960.1
17.5°	14263.6	15376.3	17648.1	19060.7	19364.5
20°	13865.0	15320.1	18054.4	19213.6	19366.4
22.5°	13447.0	15275.6	18278.9	19111.0	19157.4
25°	12986.4	15184.7	18352.4	18884.6	18923.3
27.5°	12494.9	15103.4	18282.8	18604.0	18636.9
30°	12005.3	14956.3	18085.4	18166.7	18033.1
32.5°	11492.5	14809.3	17766.1	17400.4	17088.8
35°	10929.4	14604.2	17278.5	16355.4	15916.2
37.5°	10374.0	14406.8	16518.0	15186.6	14855.7
40°	9809.0	14163.0	15428.5	14095.2	14058.5
42.5°	9274.9	13899.8	14195.9	13245.7	13369.6
45°	8711.8	13534.1	12909.0	12475.6	12450.4
47.5°	8177.7	13029.0	11738.3	11624.1	11366.7
50°	7610.7	12332.4	10670.1	10561.7	10033.5
52.5°	7055.4	11444.1	9716.1	9309.7	8539.6
55°	6480.6	10391.5	8796.9	7947.4	7285.6
57.5°	5946.5	9234.3	7862.3	6761.2	6167.1
60°	5369.9	8061.6	6836.7	5720.1	5230.6
62.5°	4804.8	6906.4	5907.8	4833.9	4508.8
65°	4226.2	5830.4	4965.5	4117.9	3833.4
67.5°	3672.8	4899.7	4150.8	3471.6	3281.9
70°	3111.6	3974.7	3430.9	2916.2	2805.9
72.5°	2533.0	3175.5	2774.9	2461.4	2378.2
75°	2022.2	2476.9	2178.9	1995.1	1946.7
77.5°	1505.5	1842.2	1702.9	1594.5	1581.0
80°	1060.4	1329.4	1253.9	1232.7	1211.4
82.5°	677.3	868.9	892.1	878.5	863.1
85°	359.9	510.9	534.1	507.0	501.2
87.5°	145.1	222.5	240.0	265.1	272.8
90°	1.9	52.2	94.8	120.0	123.8
92.5°	1.9	11.6	13.5	13.5	11.6
95°	1.9	7.7	7.7	5.8	3.9
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



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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)