

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: P859855

Luminaire Tested: **SPHB-12SE-M-L740-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: P859855
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-12SE-M-L740-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

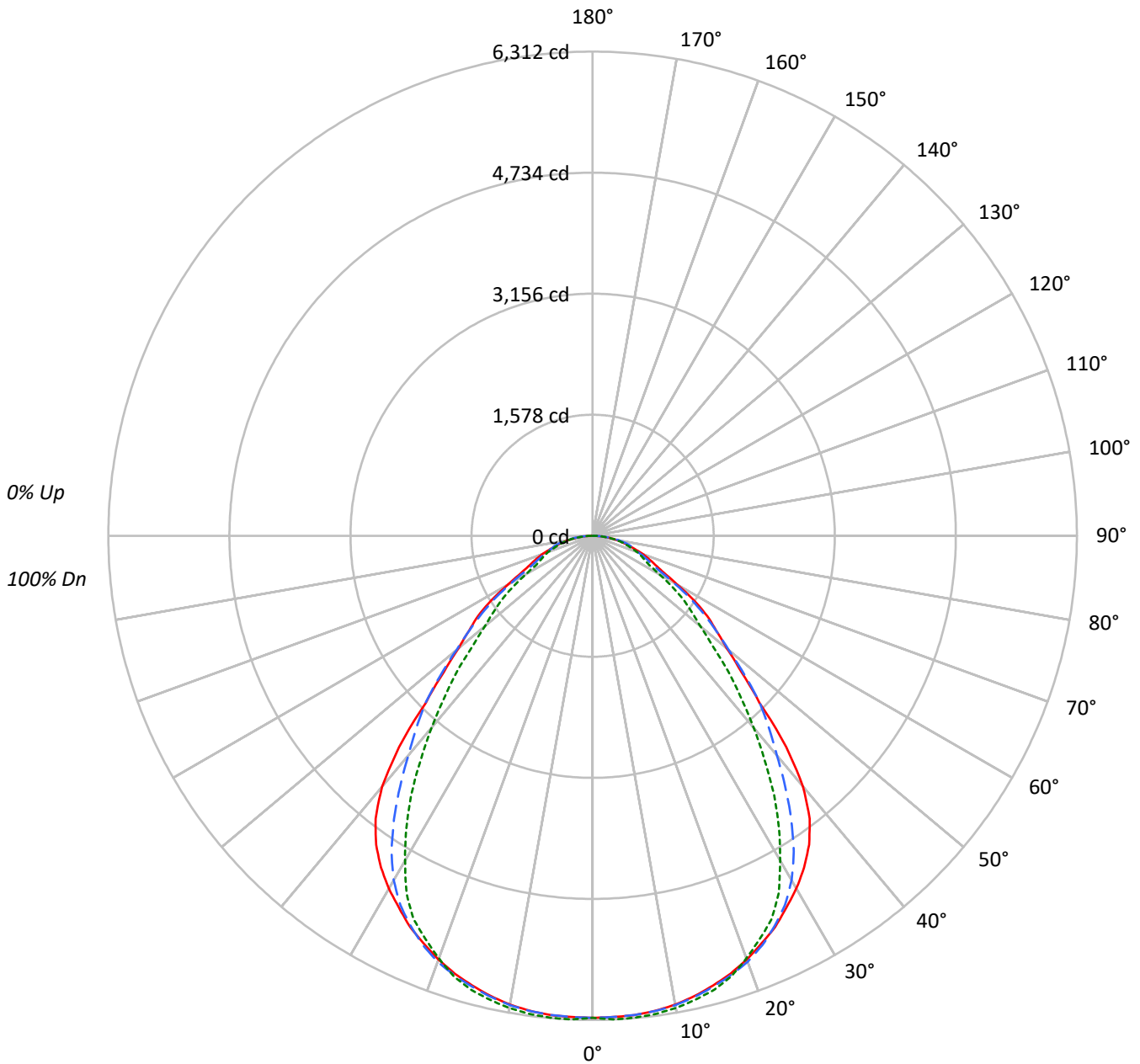
Lumens per Lamp: N/A
Luminaire Lumens: 13043.0 lumens
Efficiency: N/A
Efficacy: 170.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 76.3
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				
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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87			87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75			75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58			58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51			51
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	49014	49014	49014
5°	49110	49097	49376
10°	49153	49205	49507
15°	49009	49137	49478
20°	48795	49043	48651
25°	48439	48304	47483
30°	47825	46698	44033
35°	46821	42962	39246
40°	43451	38025	33240
45°	33899	33990	27509
50°	27687	28079	22216
55°	24807	23871	19521
60°	19859	18799	15619
65°	16642	15236	13813
70°	15802	14516	14062
75°	14336	15412	13561
80°	14405	15748	14297
85°	12538	14686	11939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.5	4.6
10°-20°	1718.4	13.2
20°-30°	2565.2	19.7
30°-40°	2799.1	21.5
40°-50°	2289.8	17.6
50°-60°	1505.5	11.5
60°-70°	863.8	6.6
70°-80°	523.4	4.0
80°-90°	175.8	1.3
90°-100°	4.6	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°	4881.1	37.4
0°-40°	7680.2	58.9
0°-60°	11475.5	88.0
0°-90°	13038.4	100.0
90°-120°	4.6	0.0
90°-150°	4.6	0.0
90°-180°	5.0	0.0
0°-180°	13043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6284	6284	6284	6284	6284	
5°	6272	6262	6271	6296	6306	597
15°	6069	6068	6085	6124	6127	1713
25°	5628	5642	5613	5545	5517	2589
35°	4917	4806	4512	4204	4122	3048
45°	3073	3303	3081	2720	2494	2439
55°	1824	1774	1755	1508	1436	1607
65°	902	888	826	803	748	922
75°	476	515	511	491	450	515
85°	140	159	164	143	133	152
90°	1	12	23	27	29	7
95°	1	2	2	2	2	0
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°	6283.9	6283.9	6283.9	6283.9	6283.9
2.5°	6279.7	6270.6	6278.9	6304.6	6312.0
5°	6272.3	6262.3	6270.6	6296.3	6306.2
7.5°	6246.6	6240.8	6249.1	6274.8	6287.2
10°	6206.0	6199.3	6212.6	6235.0	6250.7
12.5°	6145.5	6143.0	6155.4	6187.7	6194.4
15°	6069.2	6068.4	6085.0	6123.9	6127.2
17.5°	5983.0	5982.2	6002.9	6028.6	6019.5
20°	5878.6	5884.4	5908.4	5884.4	5861.2
22.5°	5753.4	5771.7	5777.5	5702.1	5690.5
25°	5628.3	5641.6	5612.6	5544.6	5517.2
27.5°	5466.7	5482.4	5428.6	5331.6	5253.7
30°	5310.0	5295.1	5184.9	4997.6	4889.0
32.5°	5130.2	5077.2	4879.1	4620.5	4521.9
35°	4917.2	4806.1	4511.9	4204.4	4121.6
37.5°	4647.8	4444.8	4123.2	3802.5	3677.3
40°	4267.4	4032.9	3734.5	3403.0	3264.6
42.5°	3734.5	3647.5	3400.5	3027.6	2862.6
45°	3073.1	3302.7	3081.4	2720.1	2493.8
47.5°	2630.6	2949.7	2683.6	2422.5	2110.9
50°	2281.7	2501.3	2314.0	2078.6	1830.8
52.5°	2029.7	2096.0	2020.6	1762.0	1621.1
55°	1824.2	1774.4	1755.4	1508.4	1435.5
57.5°	1568.9	1541.5	1492.6	1315.3	1219.1
60°	1273.0	1331.0	1205.1	1154.5	1001.2
62.5°	1045.9	1103.1	968.0	964.7	837.1
65°	901.7	888.5	825.5	803.1	748.4
67.5°	798.1	756.7	735.1	706.1	687.1
70°	692.9	675.5	636.5	642.3	616.6
72.5°	577.7	600.0	561.1	571.9	525.5
75°	475.7	514.7	511.4	490.6	450.0
77.5°	392.0	433.5	440.9	421.9	388.7
80°	320.7	348.9	350.6	339.0	318.3
82.5°	235.4	252.0	264.4	244.5	231.2
85°	140.1	159.1	164.1	143.4	133.4
87.5°	45.6	63.8	71.3	73.8	74.6
90°	0.8	11.6	23.2	27.4	29.0
92.5°	0.8	3.3	5.0	7.5	8.3
95°	0.8	1.7	2.5	2.5	1.7
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)