

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: P860012

Luminaire Tested: **SPHB-24HE-W-L850-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: P860012
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-24HE-W-L850-CD
Description: 24000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

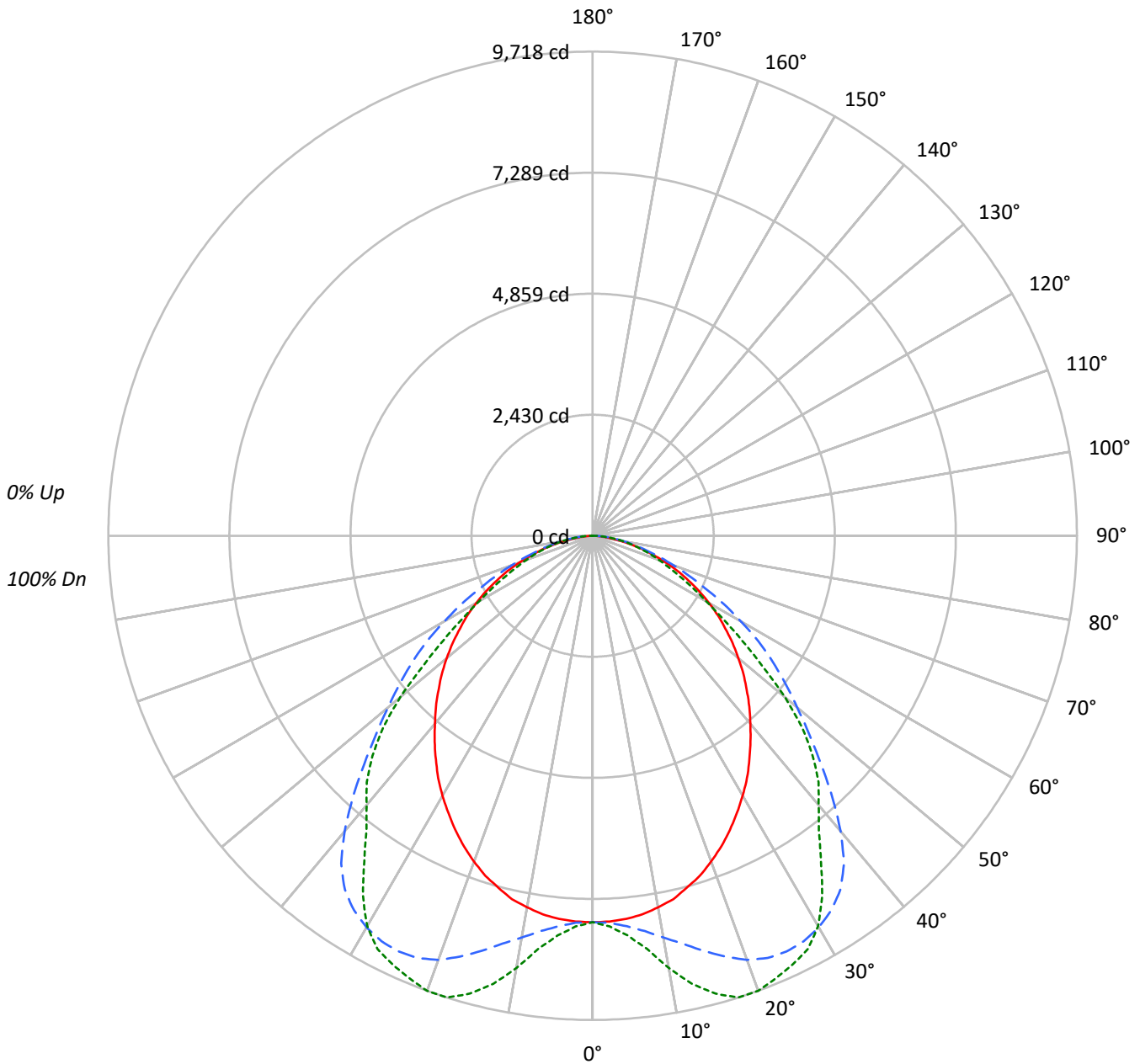
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24408.0 lumens
Efficiency: N/A
Efficacy: 167.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 146
Input Voltage (V): NR
Input Current (Ain): 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	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°	60506	60506	60506
5°	60441	61581	63040
10°	59963	64831	69745
15°	59026	69658	76824
20°	57748	75197	80662
25°	56081	79254	81719
30°	54256	81734	81497
35°	52219	82555	76046
40°	50115	78827	71827
45°	48220	71452	68913
50°	46341	64968	61093
55°	44221	60026	49714
60°	42034	53515	40943
65°	39138	45986	35501
70°	35606	39262	32108
75°	30580	32948	29437
80°	23901	28262	27301
85°	16163	23984	22508



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	761.6	3.1
10°-20°	2415.0	9.9
20°-30°	3952.3	16.2
30°-40°	4821.6	19.8
40°-50°	4775.3	19.6
50°-60°	3818.6	15.6
60°-70°	2382.2	9.8
70°-80°	1167.2	4.8
80°-90°	306.1	1.3
90°-100°	8.1	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°	7129.0	29.2
0°-40°	11950.6	49.0
0°-60°	20544.4	84.2
0°-90°	24399.9	100.0
90°-120°	8.1	0.0
90°-150°	8.1	0.0
90°-180°	8.0	0.0
0°-180°	24408.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7757	7757	7757	7757	7757	
5°	7719	7753	7865	8002	8051	732
15°	7310	7735	8626	9313	9514	2061
25°	6516	7619	9209	9476	9495	2999
35°	5484	7328	8670	8207	7986	3430
45°	4371	6791	6478	6260	6247	3376
55°	3252	5214	4414	3988	3656	2913
65°	2121	2926	2492	2066	1924	2103
75°	1015	1243	1093	1001	977	1077
85°	181	256	268	254	252	224
90°	1	26	48	60	62	10
95°	1	4	4	3	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°	7757.2	7757.2	7757.2	7757.2	7757.2
2.5°	7749.5	7746.5	7774.7	7826.2	7849.5
5°	7719.4	7753.3	7865.0	8001.9	8051.4
7.5°	7665.0	7756.3	8002.9	8254.4	8361.2
10°	7570.8	7758.2	8185.4	8629.2	8805.9
12.5°	7473.7	7751.4	8388.4	9016.6	9209.8
15°	7309.6	7734.9	8626.3	9312.7	9513.7
17.5°	7157.2	7715.5	8855.4	9564.2	9716.7
20°	6957.1	7687.3	9059.3	9640.9	9717.7
22.5°	6747.4	7665.0	9172.0	9589.5	9612.8
25°	6516.3	7619.3	9208.9	9475.9	9495.3
27.5°	6269.7	7578.6	9173.9	9335.1	9351.6
30°	6024.0	7504.8	9074.9	9115.6	9048.6
32.5°	5766.7	7431.0	8914.6	8731.1	8574.8
35°	5484.1	7328.0	8670.0	8206.8	7986.4
37.5°	5205.5	7229.0	8288.4	7620.3	7454.3
40°	4921.9	7106.7	7741.7	7072.7	7054.2
42.5°	4653.9	6974.6	7123.2	6646.4	6708.6
45°	4371.4	6791.1	6477.5	6260.0	6247.3
47.5°	4103.4	6537.7	5890.0	5832.7	5703.6
50°	3818.9	6188.1	5354.0	5299.7	5034.6
52.5°	3540.2	5742.4	4875.3	4671.4	4285.0
55°	3251.8	5214.2	4414.1	3987.8	3655.8
57.5°	2983.8	4633.6	3945.1	3392.6	3094.5
60°	2694.5	4045.1	3430.5	2870.2	2624.6
62.5°	2411.0	3465.5	2964.4	2425.5	2262.4
65°	2120.6	2925.6	2491.6	2066.3	1923.5
67.5°	1842.9	2458.5	2082.8	1742.0	1646.8
70°	1561.3	1994.4	1721.6	1463.3	1407.9
72.5°	1271.0	1593.4	1392.4	1235.1	1193.3
75°	1014.7	1242.9	1093.3	1001.1	976.8
77.5°	755.4	924.4	854.5	800.1	793.3
80°	532.1	667.1	629.2	618.5	607.8
82.5°	339.8	436.0	447.6	440.8	433.1
85°	180.6	256.3	268.0	254.4	251.5
87.5°	72.8	111.7	120.4	133.0	136.9
90°	1.0	26.2	47.6	60.2	62.1
92.5°	1.0	5.8	6.8	6.8	5.8
95°	1.0	3.9	3.9	2.9	1.9
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)