

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: P860010

Luminaire Tested: **SPHB-24HE-W-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: P860010
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-L835-CD
Description: 24000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

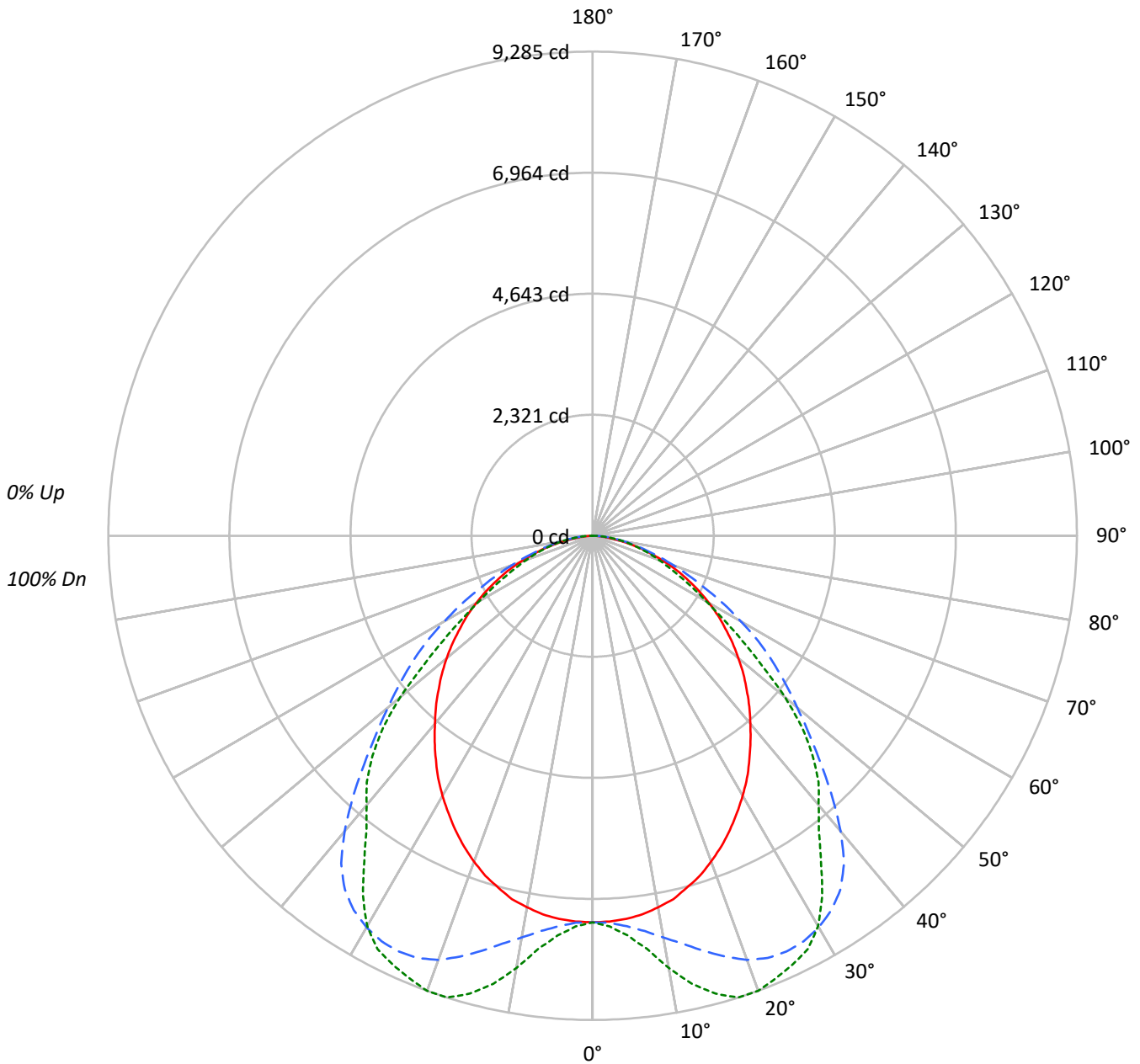
Lumens per Lamp: N/A
Luminaire Lumens: 23321.0 lumens
Efficiency: N/A
Efficacy: 159.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 146
Input Voltage (V): NR
Input Current (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	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°	57812	57812	57812
5°	57749	58838	60233
10°	57292	61944	66639
15°	56397	66556	73403
20°	55176	71848	77070
25°	53584	75724	78080
30°	51839	78093	77868
35°	49894	78878	72659
40°	47883	75316	68628
45°	46072	68269	65844
50°	44277	62076	58372
55°	42251	57353	47501
60°	40162	51132	39120
65°	37396	43937	33921
70°	34021	37513	30678
75°	29217	31481	28127
80°	22836	27005	26088
85°	15447	22919	21505



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	727.7	3.1
10°-20°	2307.5	9.9
20°-30°	3776.3	16.2
30°-40°	4606.8	19.8
40°-50°	4562.6	19.6
50°-60°	3648.6	15.6
60°-70°	2276.1	9.8
70°-80°	1115.2	4.8
80°-90°	292.5	1.3
90°-100°	7.7	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°	6811.5	29.2
0°-40°	11418.3	49.0
0°-60°	19629.5	84.2
0°-90°	23313.3	100.0
90°-120°	7.7	0.0
90°-150°	7.7	0.0
90°-180°	8.0	0.0
0°-180°	23321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7412	7412	7412	7412	7412	
5°	7376	7408	7515	7646	7693	700
15°	6984	7390	8242	8898	9090	1969
25°	6226	7280	8799	9054	9072	2865
35°	5240	7002	8284	7841	7631	3278
45°	4177	6489	6189	5981	5969	3226
55°	3107	4982	4218	3810	3493	2784
65°	2026	2795	2381	1974	1838	2009
75°	970	1188	1045	956	933	1029
85°	173	245	256	243	240	214
90°	1	25	46	58	59	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°	7411.8	7411.8	7411.8	7411.8	7411.8
2.5°	7404.3	7401.6	7428.5	7477.6	7499.9
5°	7375.6	7408.1	7514.7	7645.6	7692.9
7.5°	7323.6	7410.8	7646.5	7886.8	7988.8
10°	7233.6	7412.7	7820.9	8244.9	8413.7
12.5°	7140.9	7406.2	8014.8	8615.0	8799.7
15°	6984.1	7390.4	8242.1	8898.0	9090.1
17.5°	6838.4	7371.9	8461.0	9138.3	9284.0
20°	6647.3	7345.0	8655.9	9211.6	9284.9
22.5°	6446.9	7323.6	8763.5	9162.4	9184.7
25°	6226.1	7280.0	8798.7	9053.9	9072.4
27.5°	5990.5	7241.1	8765.3	8919.3	8935.1
30°	5755.7	7170.5	8670.7	8709.7	8645.7
32.5°	5509.9	7100.0	8517.6	8342.3	8192.9
35°	5239.9	7001.7	8283.8	7841.3	7630.7
37.5°	4973.6	6907.1	7919.2	7280.9	7122.3
40°	4702.7	6790.2	7396.9	6757.7	6740.1
42.5°	4446.7	6664.0	6805.9	6350.4	6409.8
45°	4176.7	6488.7	6189.0	5981.2	5969.1
47.5°	3920.7	6246.5	5627.7	5573.0	5449.6
50°	3648.8	5912.5	5115.6	5063.6	4810.4
52.5°	3382.6	5486.7	4658.2	4463.4	4094.1
55°	3107.0	4982.0	4217.5	3810.3	3493.0
57.5°	2851.0	4427.2	3769.4	3241.5	2956.7
60°	2574.5	3865.0	3277.7	2742.4	2507.7
62.5°	2303.6	3311.1	2832.4	2317.5	2161.6
65°	2026.2	2795.3	2380.6	1974.2	1837.9
67.5°	1760.9	2349.1	1990.0	1664.4	1573.5
70°	1491.8	1905.6	1644.9	1398.1	1345.2
72.5°	1214.4	1522.4	1330.4	1180.1	1140.2
75°	969.5	1187.5	1044.6	956.5	933.3
77.5°	721.8	883.2	816.4	764.5	758.0
80°	508.4	637.4	601.2	591.0	580.8
82.5°	324.7	416.6	427.7	421.2	413.8
85°	172.6	244.9	256.1	243.1	240.3
87.5°	69.6	106.7	115.0	127.1	130.8
90°	0.9	25.0	45.5	57.5	59.4
92.5°	0.9	5.6	6.5	6.5	5.6
95°	0.9	3.7	3.7	2.8	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)