

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: P860037

Luminaire Tested: **SPHB-24SE-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: P860037
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-24SE-W-L835-CD
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

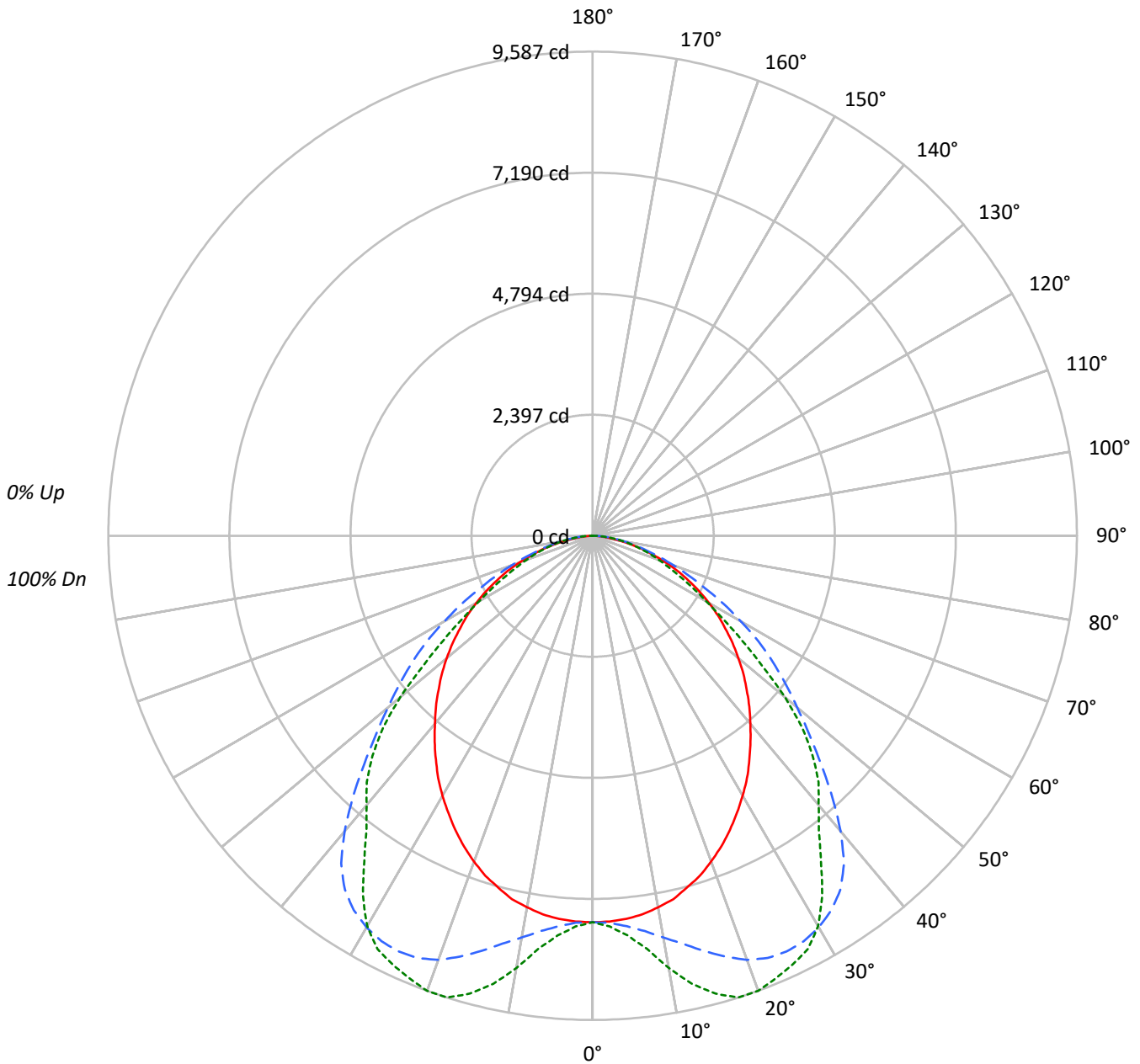
Lumens per Lamp: N/A
Luminaire Lumens: 24079.0 lumens
Efficiency: N/A
Efficacy: 151.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 158.6
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									
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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	59691	59691	59691
5°	59626	60751	62191
10°	59154	63957	68805
15°	58230	68719	75789
20°	56970	74183	79575
25°	55325	78185	80618
30°	53524	80632	80399
35°	51516	81442	75021
40°	49440	77764	70858
45°	47570	70489	67984
50°	45716	64093	60269
55°	43625	59217	49044
60°	41468	52795	40391
65°	38612	45365	35023
70°	35127	38733	31677
75°	30167	32505	29040
80°	23577	27881	26933
85°	15948	23662	22204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	751.4	3.1
10°-20°	2382.5	9.9
20°-30°	3899.1	16.2
30°-40°	4756.6	19.8
40°-50°	4710.9	19.6
50°-60°	3767.2	15.6
60°-70°	2350.1	9.8
70°-80°	1151.4	4.8
80°-90°	302.0	1.3
90°-100°	7.9	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°	7032.9	29.2
0°-40°	11789.5	49.0
0°-60°	20267.5	84.2
0°-90°	24071.1	100.0
90°-120°	7.9	0.0
90°-150°	7.9	0.0
90°-180°	8.0	0.0
0°-180°	24079.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7653	7653	7653	7653	7653	
5°	7615	7649	7759	7894	7943	722
15°	7211	7631	8510	9187	9386	2033
25°	6428	7517	9085	9348	9367	2958
35°	5410	7229	8553	8096	7879	3384
45°	4312	6700	6390	6176	6163	3331
55°	3208	5144	4355	3934	3606	2874
65°	2092	2886	2458	2038	1898	2074
75°	1001	1226	1079	988	964	1063
85°	178	253	264	251	248	221
90°	1	26	47	59	61	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°	7652.7	7652.7	7652.7	7652.7	7652.7
2.5°	7645.0	7642.1	7669.9	7720.7	7743.7
5°	7615.3	7648.8	7759.0	7894.1	7942.9
7.5°	7561.7	7651.7	7895.0	8143.1	8248.5
10°	7468.7	7653.6	8075.1	8512.9	8687.2
12.5°	7373.0	7646.9	8275.3	8895.1	9085.7
15°	7211.1	7630.6	8510.0	9187.2	9385.5
17.5°	7060.7	7611.5	8736.1	9435.3	9585.7
20°	6863.4	7583.7	8937.2	9511.0	9586.7
22.5°	6656.4	7561.7	9048.3	9460.2	9483.2
25°	6428.5	7516.6	9084.7	9348.1	9367.3
27.5°	6185.2	7476.4	9050.2	9209.3	9225.5
30°	5942.8	7403.6	8952.5	8992.8	8926.7
32.5°	5689.0	7330.8	8794.5	8613.4	8459.2
35°	5410.2	7229.3	8553.1	8096.2	7878.7
37.5°	5135.3	7131.6	8176.6	7517.6	7353.8
40°	4855.6	7010.9	7637.3	6977.3	6959.1
42.5°	4591.2	6880.6	7027.2	6556.8	6618.1
45°	4312.5	6699.6	6390.2	6175.6	6163.1
47.5°	4048.1	6449.5	5810.6	5754.1	5626.7
50°	3767.4	6104.7	5281.9	5228.2	4966.7
52.5°	3492.5	5665.0	4809.6	4608.5	4227.2
55°	3208.0	5143.9	4354.6	3934.1	3606.5
57.5°	2943.6	4571.1	3891.9	3346.9	3052.8
60°	2658.2	3990.6	3384.3	2831.6	2589.2
62.5°	2378.5	3418.7	2924.5	2392.8	2231.9
65°	2092.1	2886.2	2458.0	2038.4	1897.6
67.5°	1818.1	2425.4	2054.7	1718.5	1624.6
70°	1540.3	1967.5	1698.4	1443.6	1389.0
72.5°	1253.9	1571.9	1373.6	1218.4	1177.3
75°	1001.0	1226.1	1078.6	987.6	963.6
77.5°	745.2	911.9	843.0	789.3	782.6
80°	524.9	658.1	620.7	610.2	599.6
82.5°	335.3	430.1	441.6	434.9	427.2
85°	178.2	252.9	264.4	251.0	248.1
87.5°	71.8	110.2	118.8	131.2	135.1
90°	1.0	25.9	46.9	59.4	61.3
92.5°	1.0	5.7	6.7	6.7	5.7
95°	1.0	3.8	3.8	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)