

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: P860025

Luminaire Tested: **SPHB-24SE-N-L735-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: P860025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-24SE-N-L735-CD
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

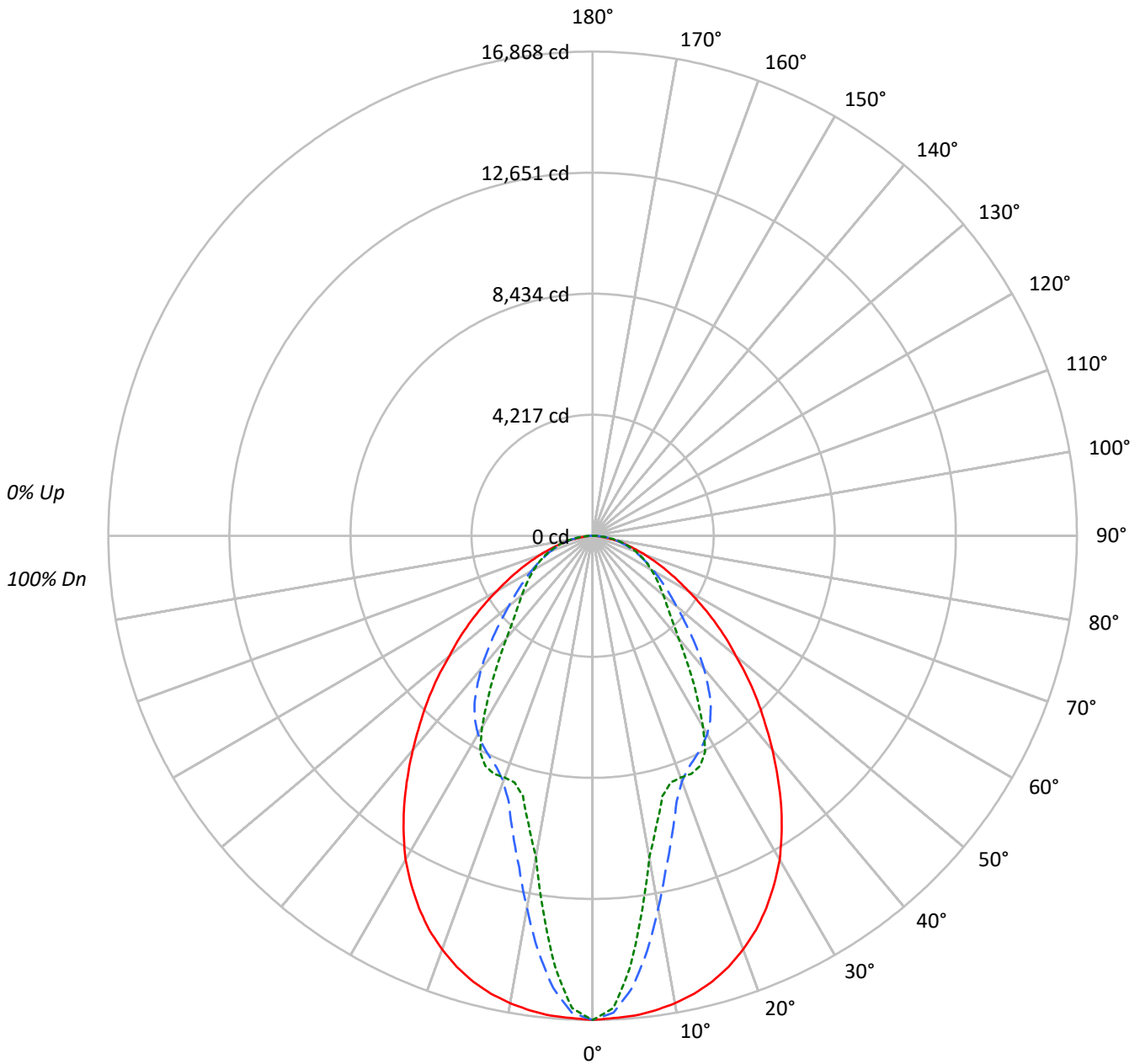
Lumens per Lamp: N/A
Luminaire Lumens: 24721.0 lumens
Efficiency: N/A
Efficacy: 155.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74																			
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																			
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45																			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40																			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	131566	131566	131566
5°	131413	123791	117933
10°	130964	104345	89954
15°	129875	86617	75803
20°	127258	75504	74414
25°	123169	73054	76158
30°	117346	71883	69308
35°	108955	68309	57433
40°	99214	61323	47424
45°	89558	53209	41632
50°	79035	46268	38986
55°	70132	41729	37526
60°	60103	38589	36761
65°	52024	36266	36577
70°	44521	34888	36532
75°	37372	33880	36206
80°	28514	32736	35458
85°	18669	29041	27314



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1438.1	5.8
10°-20°	3302.1	13.4
20°-30°	4462.6	18.1
30°-40°	4696.6	19.0
40°-50°	3985.3	16.1
50°-60°	3087.2	12.5
60°-70°	2150.1	8.7
70°-80°	1231.2	5.0
80°-90°	358.3	1.4
90°-100°	9.6	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°	9202.8	37.2
0°-40°	13899.4	56.2
0°-60°	20971.9	84.8
0°-90°	24711.5	100.0
90°-120°	9.6	0.0
90°-150°	9.6	0.0
90°-180°	10.0	0.0
0°-180°	24721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16868	16868	16868	16868	16868	
5°	16784	16476	15810	15204	15062	###
15°	16083	13651	10726	9655	9387	4526
25°	14312	10110	8488	8734	8849	6570
35°	11442	7775	7174	6480	6032	7133
45°	8119	5838	4824	3964	3774	6253
55°	5157	3933	3069	2789	2760	4611
65°	2819	2308	1965	1965	1982	2816
75°	1240	1102	1124	1195	1201	1322
85°	209	270	324	305	305	265
90°	1	24	48	60	63	11
95°	1	4	8	8	6	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°	16867.6	16867.6	16867.6	16867.6	16867.6
2.5°	16818.6	16763.3	16628.1	16540.5	16472.2
5°	16783.9	16476.1	15810.4	15203.9	15062.2
7.5°	16679.6	16003.5	14580.6	13459.0	13175.7
10°	16535.3	15324.9	13174.4	11769.6	11357.5
12.5°	16343.5	14599.9	11827.5	10503.8	10301.6
15°	16083.4	13650.9	10726.5	9655.2	9387.3
17.5°	15746.0	12669.7	9710.5	9091.2	9016.5
20°	15331.3	11769.6	9096.3	8885.1	8965.0
22.5°	14865.2	10895.2	8739.6	8828.5	8977.8
25°	14311.5	10109.7	8488.5	8734.5	8849.1
27.5°	13689.5	9400.2	8258.0	8483.4	8483.4
30°	13028.9	8809.1	7981.2	7960.6	7695.3
32.5°	12257.6	8306.9	7619.3	7211.1	6817.1
35°	11442.5	7775.1	7173.8	6479.7	6031.6
37.5°	10587.5	7280.6	6609.8	5694.2	5277.0
40°	9744.0	6792.6	6022.6	4988.5	4657.6
42.5°	8904.4	6295.6	5410.9	4416.8	4155.4
45°	8118.9	5838.4	4823.7	3963.5	3774.2
47.5°	7320.6	5353.0	4281.6	3599.1	3467.8
50°	6513.2	4861.1	3812.9	3309.4	3212.8
52.5°	5833.3	4402.6	3415.0	3035.1	2977.2
55°	5157.2	3932.6	3068.6	2789.2	2759.5
57.5°	4486.3	3494.8	2751.8	2563.8	2557.4
60°	3852.8	3085.3	2473.7	2370.7	2356.5
62.5°	3313.2	2678.4	2209.7	2160.8	2167.2
65°	2818.8	2307.6	1965.0	1965.0	1981.8
67.5°	2360.4	1966.3	1741.0	1770.6	1793.8
70°	1952.2	1657.3	1529.8	1581.3	1601.9
72.5°	1565.8	1370.1	1327.6	1384.3	1401.0
75°	1240.1	1102.3	1124.2	1195.0	1201.4
77.5°	919.4	867.9	924.6	1001.8	1016.0
80°	634.8	640.0	728.8	782.9	789.4
82.5°	409.5	446.8	546.0	574.3	564.0
85°	208.6	270.4	324.5	305.2	305.2
87.5°	79.8	117.2	137.8	162.3	171.3
90°	1.3	24.5	47.6	60.5	63.1
92.5°	1.3	6.4	10.3	11.6	10.3
95°	1.3	3.9	7.7	7.7	6.4
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)