

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: P860026

Luminaire Tested: **SPHB-24SE-N-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: P860026
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-L740-CD
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

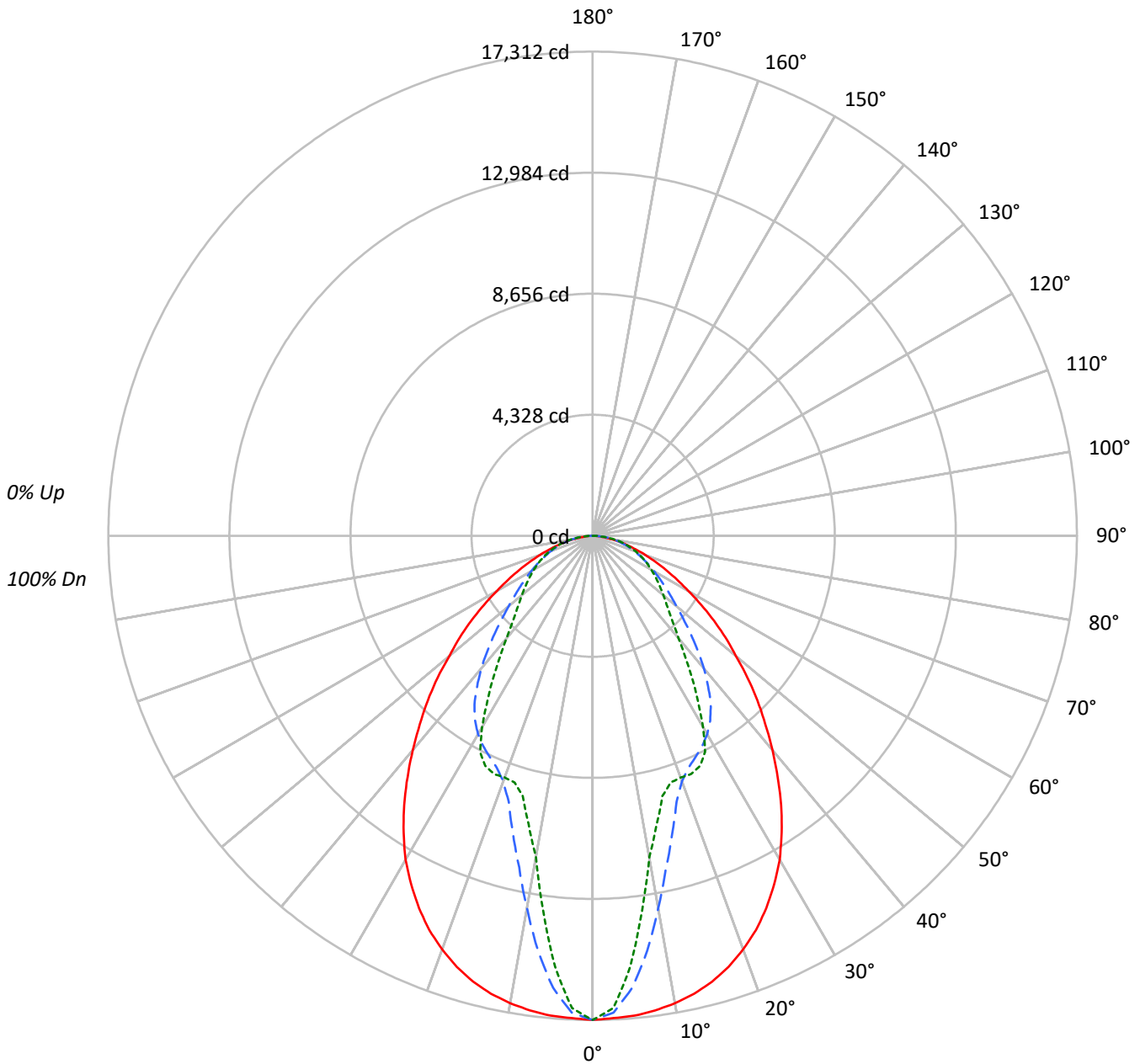
Lumens per Lamp: N/A
Luminaire Lumens: 25372.0 lumens
Efficiency: N/A
Efficacy: 160.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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				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			
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°	135031	135031	135031
5°	134873	127051	121039
10°	134413	107093	92323
15°	133295	88899	77799
20°	130610	77492	76373
25°	126412	74978	78163
30°	120436	73776	71133
35°	111824	70107	58945
40°	101827	62938	48673
45°	91916	54610	42729
50°	81116	47486	40012
55°	71978	42828	38514
60°	61687	39605	37728
65°	53394	37223	37540
70°	45693	35807	37495
75°	38355	34772	37162
80°	29269	33599	36388
85°	19161	29802	28030



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1476.0	5.8
10°-20°	3389.0	13.4
20°-30°	4580.1	18.1
30°-40°	4820.3	19.0
40°-50°	4090.2	16.1
50°-60°	3168.4	12.5
60°-70°	2206.7	8.7
70°-80°	1263.6	5.0
80°-90°	367.7	1.4
90°-100°	9.8	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°	9445.1	37.2
0°-40°	14265.5	56.2
0°-60°	21524.1	84.8
0°-90°	25362.2	100.0
90°-120°	9.8	0.0
90°-150°	9.8	0.0
90°-180°	10.0	0.0
0°-180°	25372.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17312	17312	17312	17312	17312	
5°	17226	16910	16227	15604	15459	###
15°	16507	14010	11009	9909	9634	4645
25°	14688	10376	8712	8964	9082	6743
35°	11744	7980	7363	6650	6190	7320
45°	8333	5992	4951	4068	3874	6418
55°	5293	4036	3149	2863	2832	4732
65°	2893	2368	2017	2017	2034	2890
75°	1273	1131	1154	1226	1233	1357
85°	214	278	333	313	313	272
90°	1	25	49	62	65	12
95°	1	4	8	8	7	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°	17311.8	17311.8	17311.8	17311.8	17311.8
2.5°	17261.5	17204.7	17065.9	16976.1	16906.0
5°	17225.8	16910.0	16226.7	15604.2	15458.9
7.5°	17118.8	16425.0	14964.6	13813.5	13522.7
10°	16970.8	15728.5	13521.4	12079.5	11656.6
12.5°	16773.9	14984.4	12139.0	10780.4	10572.9
15°	16506.9	14010.4	11009.0	9909.4	9634.5
17.5°	16160.6	13003.3	9966.3	9330.6	9253.9
20°	15735.1	12079.5	9335.8	9119.1	9201.0
22.5°	15256.7	11182.1	8969.8	9061.0	9214.3
25°	14688.4	10376.0	8712.0	8964.5	9082.1
27.5°	14050.0	9647.7	8475.5	8706.8	8706.8
30°	13372.0	9041.1	8191.3	8170.2	7897.9
32.5°	12580.4	8525.7	7820.0	7401.0	6996.6
35°	11743.8	7979.9	7362.7	6650.3	6190.4
37.5°	10866.3	7472.4	6783.8	5844.2	5416.0
40°	10000.6	6971.5	6181.2	5119.9	4780.3
42.5°	9138.9	6461.3	5553.4	4533.1	4264.8
45°	8332.7	5992.2	4950.7	4067.9	3873.6
47.5°	7513.3	5493.9	4394.3	3693.9	3559.1
50°	6684.7	4989.1	3913.3	3396.5	3297.4
52.5°	5986.9	4518.6	3504.9	3115.0	3055.6
55°	5293.0	4036.2	3149.4	2862.6	2832.2
57.5°	4604.5	3586.8	2824.3	2631.3	2624.7
60°	3954.3	3166.6	2538.8	2433.1	2418.5
62.5°	3400.5	2748.9	2267.9	2217.7	2224.3
65°	2893.0	2368.3	2016.8	2016.8	2034.0
67.5°	2422.5	2018.1	1786.8	1817.2	1841.0
70°	2003.6	1700.9	1570.1	1622.9	1644.1
72.5°	1607.1	1406.2	1362.6	1420.7	1437.9
75°	1272.7	1131.3	1153.8	1226.5	1233.1
77.5°	943.6	890.8	948.9	1028.2	1042.7
80°	651.6	656.8	748.0	803.5	810.1
82.5°	420.3	458.6	560.4	589.4	578.9
85°	214.1	277.5	333.0	313.2	313.2
87.5°	81.9	120.3	141.4	166.5	175.8
90°	1.3	25.1	48.9	62.1	64.8
92.5°	1.3	6.6	10.6	11.9	10.6
95°	1.3	4.0	7.9	7.9	6.6
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)