

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: P859866

Luminaire Tested: **SPHB-12SE-N-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: P859866
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-12SE-N-L835-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

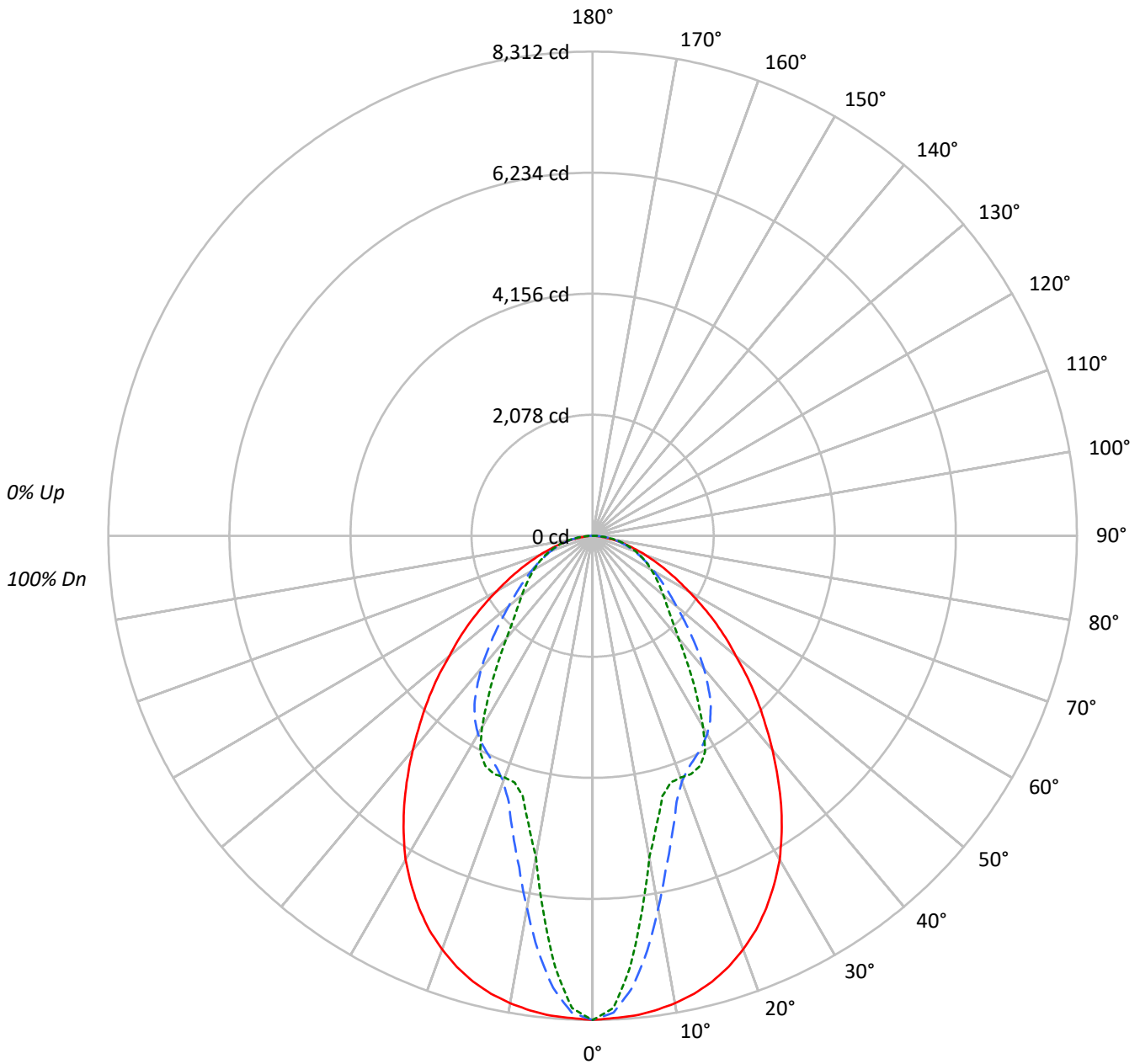
Lumens per Lamp: N/A
Luminaire Lumens: 12182.0 lumens
Efficiency: N/A
Efficacy: 159.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 76.3
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°	64833	64833	64833
5°	64757	61001	58115
10°	64537	51419	44327
15°	63999	42683	37355
20°	62710	37207	36669
25°	60695	36000	37529
30°	57826	35422	34154
35°	53691	33661	28301
40°	48891	30218	23370
45°	44132	26220	20516
50°	38947	22800	19211
55°	34560	20563	18492
60°	29618	19016	18115
65°	25636	17871	18024
70°	21939	17191	18003
75°	18417	16696	17841
80°	14050	16135	17473
85°	9200	14310	13460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	708.7	5.8
10°-20°	1627.2	13.4
20°-30°	2199.1	18.1
30°-40°	2314.4	19.0
40°-50°	1963.9	16.1
50°-60°	1521.3	12.5
60°-70°	1059.5	8.7
70°-80°	606.7	5.0
80°-90°	176.6	1.4
90°-100°	4.7	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°	4534.9	37.2
0°-40°	6849.4	56.2
0°-60°	10334.5	84.8
0°-90°	12177.3	100.0
90°-120°	4.7	0.0
90°-150°	4.7	0.0
90°-180°	5.0	0.0
0°-180°	12182.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8312	8312	8312	8312	8312	
5°	8271	8119	7791	7492	7422	785
15°	7926	6727	5286	4758	4626	2230
25°	7052	4982	4183	4304	4361	3237
35°	5639	3831	3535	3193	2972	3515
45°	4001	2877	2377	1953	1860	3081
55°	2541	1938	1512	1374	1360	2272
65°	1389	1137	968	968	977	1387
75°	611	543	554	589	592	652
85°	103	133	160	150	150	131
90°	1	12	24	30	31	6
95°	1	2	4	4	3	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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CATALOG NUMBER: SPHB-12SE-N-L835-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8312.0	8312.0	8312.0	8312.0	8312.0
2.5°	8287.9	8260.6	8194.0	8150.8	8117.2
5°	8270.7	8119.1	7791.0	7492.1	7422.3
7.5°	8219.3	7886.2	7185.0	6632.3	6492.7
10°	8148.3	7551.8	6492.1	5799.8	5596.7
12.5°	8053.7	7194.5	5828.4	5176.0	5076.4
15°	7925.5	6726.9	5285.8	4757.9	4625.9
17.5°	7759.3	6243.4	4785.2	4479.9	4443.1
20°	7555.0	5799.8	4482.5	4378.4	4417.7
22.5°	7325.3	5368.9	4306.7	4350.5	4424.1
25°	7052.4	4981.9	4183.0	4304.2	4360.6
27.5°	6745.9	4632.2	4069.4	4180.4	4180.4
30°	6420.4	4341.0	3932.9	3922.8	3792.1
32.5°	6040.3	4093.5	3754.6	3553.5	3359.3
35°	5638.6	3831.4	3535.1	3193.1	2972.2
37.5°	5217.3	3587.8	3257.2	2806.0	2600.4
40°	4801.7	3347.3	2967.8	2458.3	2295.2
42.5°	4387.9	3102.3	2666.4	2176.5	2047.7
45°	4000.8	2877.1	2377.0	1953.1	1859.9
47.5°	3607.4	2637.8	2109.9	1773.6	1708.8
50°	3209.6	2395.4	1878.9	1630.8	1583.2
52.5°	2874.5	2169.5	1682.8	1495.6	1467.1
55°	2541.4	1937.9	1512.1	1374.4	1359.8
57.5°	2210.8	1722.2	1356.0	1263.4	1260.2
60°	1898.6	1520.4	1219.0	1168.2	1161.2
62.5°	1632.7	1319.9	1088.9	1064.8	1068.0
65°	1389.0	1137.1	968.3	968.3	976.6
67.5°	1163.1	969.0	857.9	872.5	883.9
70°	962.0	816.7	753.8	779.2	789.4
72.5°	771.6	675.2	654.2	682.1	690.4
75°	611.1	543.2	554.0	588.9	592.0
77.5°	453.1	427.7	455.6	493.7	500.7
80°	312.8	315.4	359.2	385.8	389.0
82.5°	201.8	220.2	269.0	283.0	277.9
85°	102.8	133.3	159.9	150.4	150.4
87.5°	39.3	57.7	67.9	80.0	84.4
90°	0.6	12.1	23.5	29.8	31.1
92.5°	0.6	3.2	5.1	5.7	5.1
95°	0.6	1.9	3.8	3.8	3.2
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)