

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: P859871

Luminaire Tested: **SPHB-12SE-N-L950-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: P859871
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-L950-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

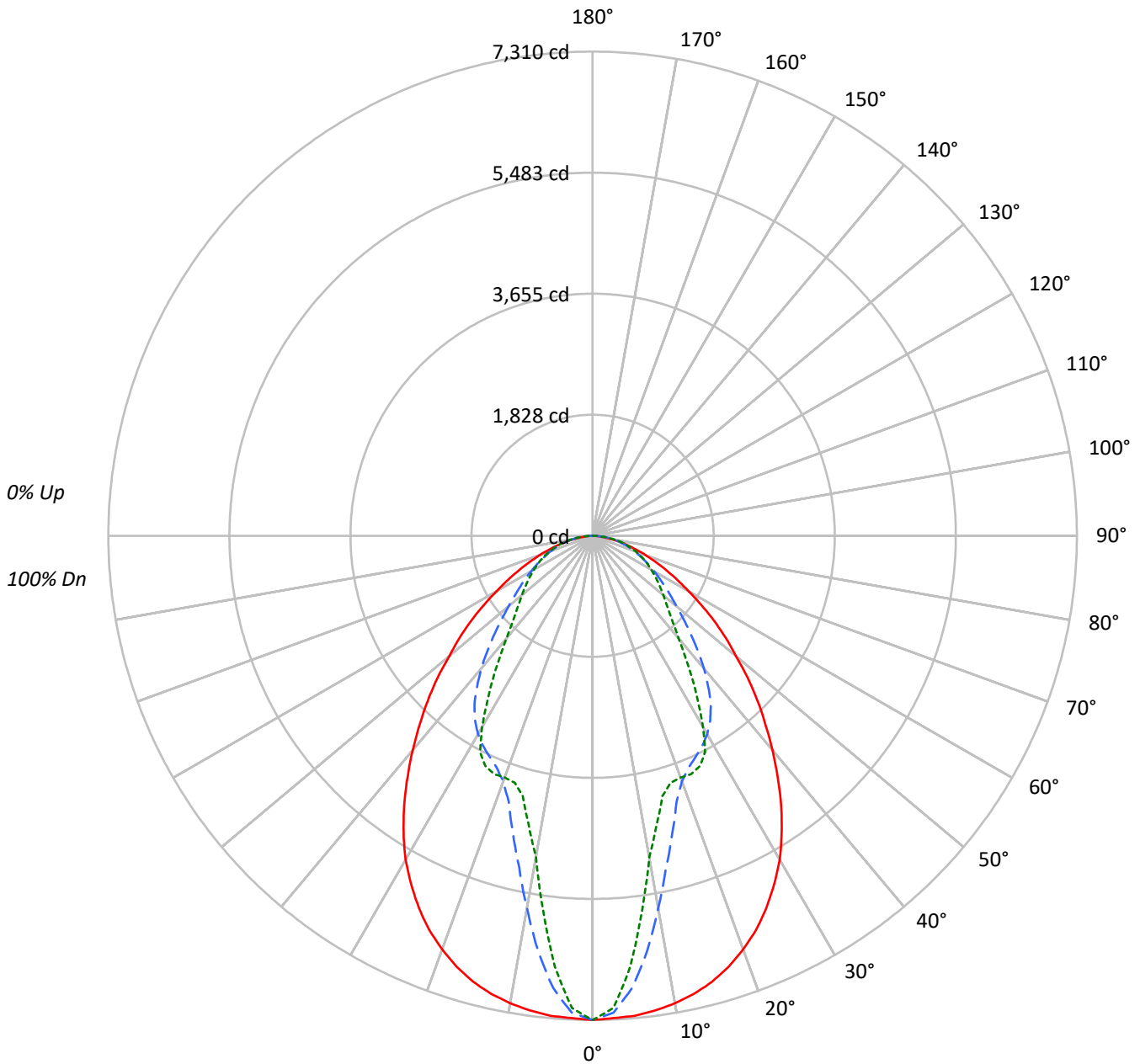
Lumens per Lamp: N/A
Luminaire Lumens: 10714.0 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	57020	57020	57020
5°	56954	53651	51112
10°	56760	45223	38986
15°	56287	37539	32853
20°	55154	32723	32251
25°	53380	31662	33007
30°	50858	31154	30038
35°	47220	29605	24891
40°	42999	26577	20554
45°	38814	23061	18043
50°	34253	20052	16896
55°	30395	18085	16264
60°	26049	16725	15932
65°	22546	15717	15852
70°	19296	15120	15834
75°	16195	14683	15692
80°	12357	14190	15366
85°	8090	12583	11840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	623.3	5.8
10°-20°	1431.1	13.4
20°-30°	1934.1	18.1
30°-40°	2035.5	19.0
40°-50°	1727.2	16.1
50°-60°	1338.0	12.5
60°-70°	931.9	8.7
70°-80°	533.6	5.0
80°-90°	155.3	1.4
90°-100°	4.1	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°	3988.5	37.2
0°-40°	6024.0	56.2
0°-60°	9089.1	84.8
0°-90°	10709.9	100.0
90°-120°	4.1	0.0
90°-150°	4.1	0.0
90°-180°	4.0	0.0
0°-180°	10714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7310	7310	7310	7310	7310	
5°	7274	7141	6852	6589	6528	691
15°	6970	5916	4649	4184	4068	1961
25°	6202	4382	3679	3786	3835	2847
35°	4959	3370	3109	2808	2614	3091
45°	3519	2530	2091	1718	1636	2710
55°	2235	1704	1330	1209	1196	1998
65°	1222	1000	852	852	859	1220
75°	537	478	487	518	521	573
85°	90	117	141	132	132	115
90°	1	11	21	26	27	5
95°	1	2	3	3	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7310.3	7310.3	7310.3	7310.3	7310.3
2.5°	7289.1	7265.1	7206.5	7168.6	7139.0
5°	7274.1	7140.7	6852.2	6589.3	6527.9
7.5°	7228.9	6935.9	6319.2	5833.1	5710.3
10°	7166.4	6641.8	5709.8	5100.9	4922.3
12.5°	7083.2	6327.6	5126.0	4552.3	4464.7
15°	6970.5	5916.3	4648.8	4184.5	4068.4
17.5°	6824.3	5491.0	4208.5	3940.1	3907.7
20°	6644.6	5100.9	3942.3	3850.8	3885.4
22.5°	6442.5	4722.0	3787.7	3826.2	3891.0
25°	6202.5	4381.5	3678.9	3785.5	3835.2
27.5°	5933.0	4074.0	3579.0	3676.7	3676.7
30°	5646.7	3817.9	3459.0	3450.1	3335.1
32.5°	5312.4	3600.2	3302.2	3125.3	2954.5
35°	4959.1	3369.7	3109.1	2808.3	2614.1
37.5°	4588.6	3155.4	2864.6	2467.8	2287.0
40°	4223.0	2943.9	2610.2	2162.0	2018.6
42.5°	3859.2	2728.5	2345.1	1914.2	1800.9
45°	3518.7	2530.4	2090.6	1717.8	1635.7
47.5°	3172.7	2320.0	1855.6	1559.8	1502.9
50°	2822.8	2106.8	1652.5	1434.3	1392.4
52.5°	2528.1	1908.1	1480.0	1315.4	1290.3
55°	2235.1	1704.4	1329.9	1208.8	1196.0
57.5°	1944.4	1514.6	1192.6	1111.1	1108.4
60°	1669.8	1337.2	1072.1	1027.4	1021.3
62.5°	1436.0	1160.8	957.7	936.5	939.3
65°	1221.6	1000.1	851.6	851.6	858.9
67.5°	1023.0	852.2	754.5	767.4	777.4
70°	846.1	718.3	663.0	685.3	694.3
72.5°	678.6	593.8	575.4	599.9	607.2
75°	537.4	477.7	487.2	517.9	520.7
77.5°	398.5	376.1	400.7	434.2	440.3
80°	275.1	277.4	315.9	339.3	342.1
82.5°	177.5	193.7	236.6	248.9	244.4
85°	90.4	117.2	140.6	132.3	132.3
87.5°	34.6	50.8	59.7	70.3	74.2
90°	0.6	10.6	20.6	26.2	27.3
92.5°	0.6	2.8	4.5	5.0	4.5
95°	0.6	1.7	3.3	3.3	2.8
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)