

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: P859879

Luminaire Tested: **SPHB-12SE-W-L940-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: P859879
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-12SE-W-L940-CD
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens
and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

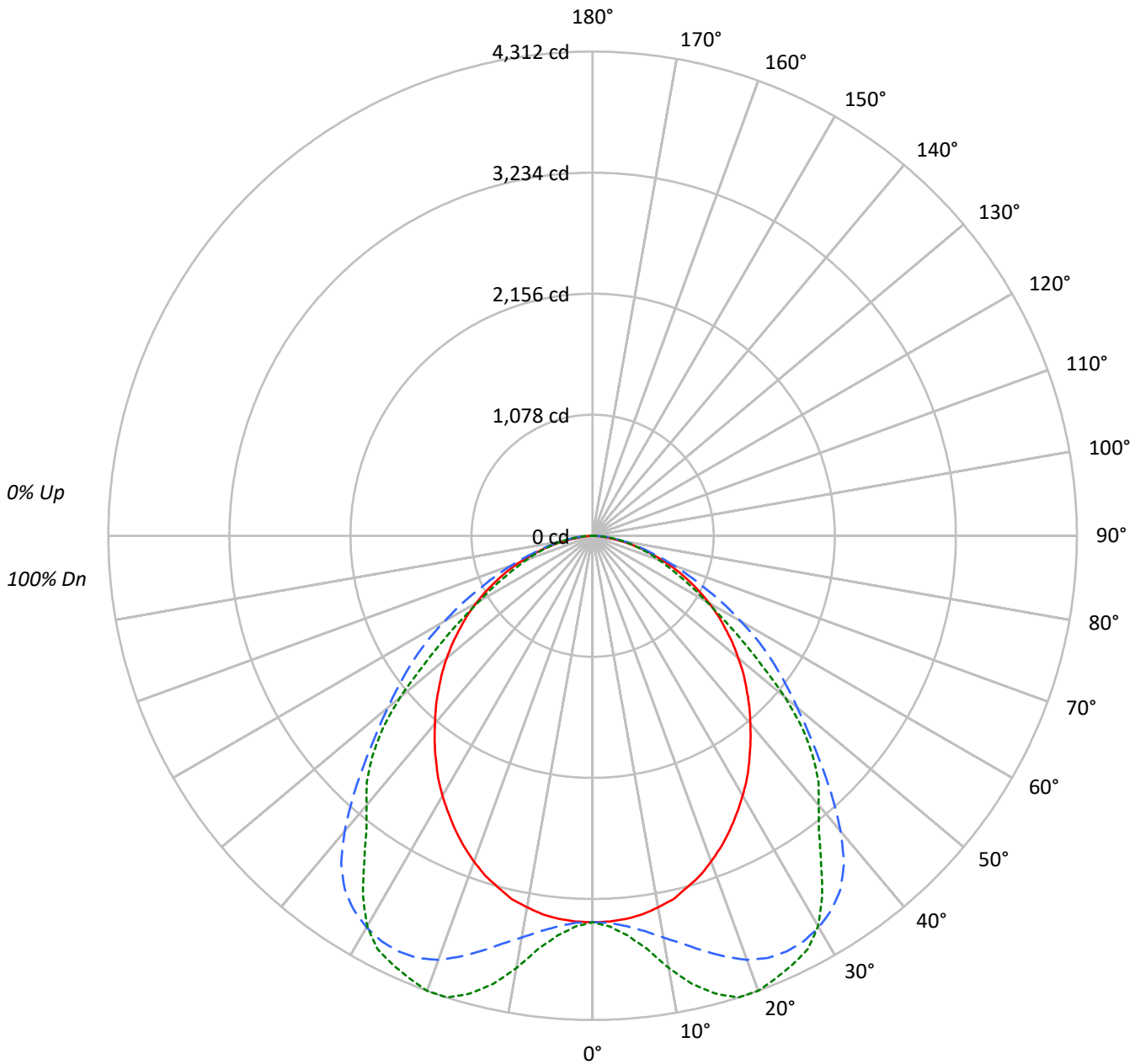
Lumens per Lamp: N/A
Luminaire Lumens: 10830.0 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26847	26847	26847
5°	26818	27324	27972
10°	26606	28766	30946
15°	26190	30907	34087
20°	25623	33366	35790
25°	24883	35165	36259
30°	24074	36266	36161
35°	23171	36630	33742
40°	22237	34976	31870
45°	21395	31704	30577
50°	20562	28827	27107
55°	19622	26635	22059
60°	18651	23745	18166
65°	17365	20403	15752
70°	15800	17421	14247
75°	13568	14619	13061
80°	10605	12541	12114
85°	7168	10641	9988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.9	3.1
10°-20°	1071.6	9.9
20°-30°	1753.7	16.2
30°-40°	2139.4	19.8
40°-50°	2118.8	19.6
50°-60°	1694.4	15.6
60°-70°	1057.0	9.8
70°-80°	517.9	4.8
80°-90°	135.8	1.3
90°-100°	3.6	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°	3163.2	29.2
0°-40°	5302.6	49.0
0°-60°	9115.7	84.2
0°-90°	10826.4	100.0
90°-120°	3.6	0.0
90°-150°	3.6	0.0
90°-180°	4.0	0.0
0°-180°	10830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3442	3442	3442	3442	3442	
5°	3425	3440	3490	3550	3572	325
15°	3243	3432	3828	4132	4221	914
25°	2891	3381	4086	4204	4213	1331
35°	2433	3252	3847	3641	3544	1522
45°	1940	3013	2874	2778	2772	1498
55°	1443	2314	1959	1769	1622	1293
65°	941	1298	1106	917	854	933
75°	450	552	485	444	433	478
85°	80	114	119	113	112	99
90°	0	12	21	27	28	5
95°	0	2	2	1	1	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°	3441.9	3441.9	3441.9	3441.9	3441.9
2.5°	3438.5	3437.2	3449.7	3472.5	3482.9
5°	3425.1	3440.2	3489.8	3550.5	3572.5
7.5°	3401.0	3441.5	3550.9	3662.5	3709.9
10°	3359.2	3442.4	3631.9	3828.8	3907.2
12.5°	3316.1	3439.4	3722.0	4000.7	4086.5
15°	3243.3	3432.0	3827.5	4132.1	4221.3
17.5°	3175.7	3423.4	3929.2	4243.7	4311.4
20°	3086.9	3410.9	4019.7	4277.8	4311.8
22.5°	2993.9	3401.0	4069.7	4254.9	4265.3
25°	2891.3	3380.8	4086.0	4204.5	4213.1
27.5°	2781.9	3362.7	4070.5	4142.0	4149.4
30°	2672.9	3329.9	4026.6	4044.7	4014.9
32.5°	2558.7	3297.2	3955.5	3874.1	3804.7
35°	2433.4	3251.5	3846.9	3641.4	3543.6
37.5°	2309.7	3207.6	3677.6	3381.2	3307.5
40°	2183.9	3153.3	3435.0	3138.2	3130.0
42.5°	2065.0	3094.7	3160.6	2949.1	2976.6
45°	1939.6	3013.3	2874.1	2777.6	2772.0
47.5°	1820.7	2900.8	2613.4	2588.0	2530.7
50°	1694.5	2745.7	2375.6	2351.5	2233.9
52.5°	1570.8	2548.0	2163.2	2072.7	1901.3
55°	1442.9	2313.6	1958.6	1769.4	1622.1
57.5°	1324.0	2055.9	1750.5	1505.3	1373.1
60°	1195.6	1794.9	1522.1	1273.5	1164.5
62.5°	1069.8	1537.6	1315.3	1076.2	1003.8
65°	940.9	1298.1	1105.5	916.8	853.5
67.5°	817.7	1090.9	924.1	772.9	730.7
70°	692.8	884.9	763.9	649.3	624.7
72.5°	564.0	707.0	617.8	548.0	529.5
75°	450.2	551.5	485.1	444.2	433.4
77.5°	335.2	410.2	379.1	355.0	352.0
80°	236.1	296.0	279.2	274.4	269.7
82.5°	150.8	193.4	198.6	195.6	192.2
85°	80.1	113.7	118.9	112.9	111.6
87.5°	32.3	49.5	53.4	59.0	60.7
90°	0.4	11.6	21.1	26.7	27.6
92.5°	0.4	2.6	3.0	3.0	2.6
95°	0.4	1.7	1.7	1.3	0.9
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)