

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: P859863

Luminaire Tested: **SPHB-12SE-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: P859863
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-L735-CD
Description: 12000 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

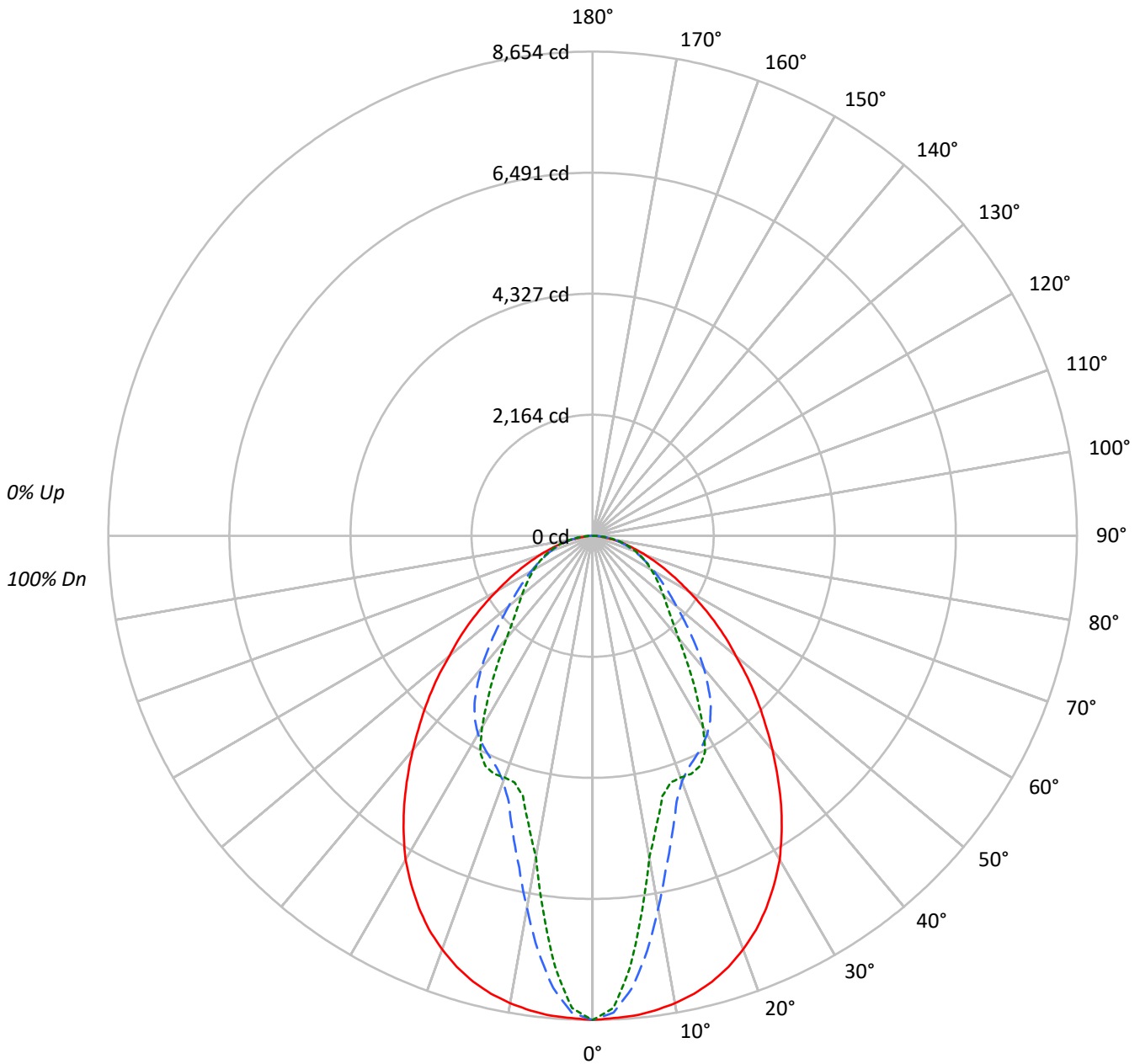
Lumens per Lamp: N/A
Luminaire Lumens: 12683.0 lumens
Efficiency: N/A
Efficacy: 166.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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°	67499	67499	67499
5°	67421	63510	60505
10°	67191	53534	46151
15°	66632	44439	38890
20°	65289	38737	38177
25°	63191	37480	39073
30°	60204	36879	35558
35°	55899	35046	29466
40°	50901	31462	24331
45°	45948	27299	21360
50°	40549	23738	20001
55°	35981	21409	19253
60°	30836	19798	18860
65°	26691	18606	18764
70°	22840	17900	18742
75°	19173	17380	18576
80°	14630	16795	18192
85°	9576	14901	14015



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	737.8	5.8
10°-20°	1694.1	13.4
20°-30°	2289.5	18.1
30°-40°	2409.6	19.0
40°-50°	2044.6	16.1
50°-60°	1583.9	12.5
60°-70°	1103.1	8.7
70°-80°	631.7	5.0
80°-90°	183.8	1.4
90°-100°	4.9	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°	4721.4	37.2
0°-40°	7131.0	56.2
0°-60°	10759.5	84.8
0°-90°	12678.1	100.0
90°-120°	4.9	0.0
90°-150°	4.9	0.0
90°-180°	5.0	0.0
0°-180°	12683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8654	8654	8654	8654	8654	
5°	8611	8453	8111	7800	7728	818
15°	8252	7004	5503	4954	4816	2322
25°	7342	5187	4355	4481	4540	3371
35°	5870	3989	3680	3324	3094	3659
45°	4165	2995	2475	2034	1936	3208
55°	2646	2018	1574	1431	1416	2366
65°	1446	1184	1008	1008	1017	1445
75°	636	566	577	613	616	678
85°	107	139	166	157	157	136
90°	1	13	24	31	32	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8653.8	8653.8	8653.8	8653.8	8653.8
2.5°	8628.7	8600.3	8530.9	8486.0	8451.0
5°	8610.9	8453.0	8111.4	7800.3	7727.6
7.5°	8557.4	8210.5	7480.5	6905.1	6759.8
10°	8483.4	7862.4	6759.1	6038.3	5826.9
12.5°	8384.9	7490.4	6068.1	5388.9	5285.2
15°	8251.5	7003.5	5503.2	4953.5	4816.1
17.5°	8078.4	6500.1	4981.9	4664.2	4625.9
20°	7865.7	6038.3	4666.8	4558.5	4599.4
22.5°	7626.5	5589.7	4483.8	4529.4	4606.0
25°	7342.4	5186.7	4355.0	4481.2	4540.0
27.5°	7023.4	4822.7	4236.7	4352.4	4352.4
30°	6684.4	4519.5	4094.7	4084.1	3948.0
32.5°	6288.7	4261.8	3909.1	3699.6	3497.5
35°	5870.5	3989.0	3680.5	3324.4	3094.5
37.5°	5431.8	3735.3	3391.1	2921.4	2707.3
40°	4999.1	3484.9	3089.9	2559.4	2389.6
42.5°	4568.4	3229.9	2776.0	2266.0	2131.9
45°	4165.4	2995.4	2474.8	2033.5	1936.4
47.5°	3755.8	2746.3	2196.7	1846.5	1779.1
50°	3341.6	2493.9	1956.2	1697.9	1648.3
52.5°	2992.7	2258.8	1752.0	1557.1	1527.4
55°	2645.9	2017.6	1574.3	1431.0	1415.8
57.5°	2301.7	1793.0	1411.8	1315.4	1312.0
60°	1976.7	1582.9	1269.1	1216.3	1209.0
62.5°	1699.8	1374.1	1133.7	1108.6	1111.9
65°	1446.2	1183.9	1008.1	1008.1	1016.7
67.5°	1211.0	1008.8	893.2	908.4	920.3
70°	1001.5	850.3	784.9	811.3	821.8
72.5°	803.3	702.9	681.1	710.2	718.8
75°	636.2	565.5	576.7	613.1	616.4
77.5°	471.7	445.3	474.3	514.0	521.3
80°	325.7	328.3	373.9	401.7	405.0
82.5°	210.1	229.2	280.1	294.6	289.4
85°	107.0	138.7	166.5	156.6	156.6
87.5°	41.0	60.1	70.7	83.2	87.9
90°	0.7	12.6	24.4	31.1	32.4
92.5°	0.7	3.3	5.3	5.9	5.3
95°	0.7	2.0	4.0	4.0	3.3
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)