

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: P859860

Luminaire Tested: **SPHB-12SE-M-L935-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: P859860  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-12SE-M-L935-CD  
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

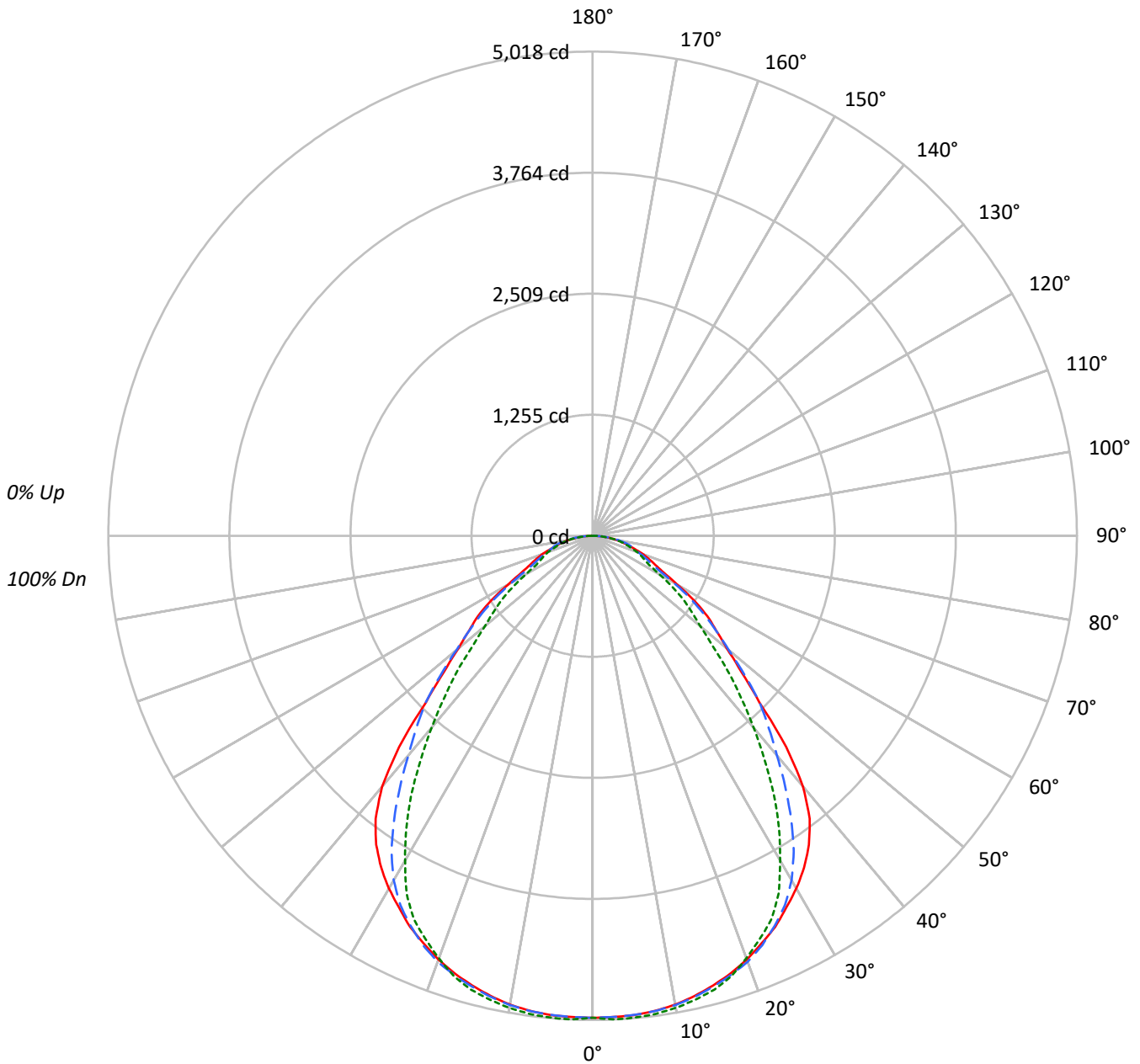
Lumens per Lamp: N/A  
Luminaire Lumens: 10368.0 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 76.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87			87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75			75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58			58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51			51
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31			31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	38961	38961	38961
5°	39038	39028	39250
10°	39072	39113	39354
15°	38958	39059	39331
20°	38788	38985	38673
25°	38504	38397	37745
30°	38017	37121	35002
35°	37219	34151	31197
40°	34540	30227	26424
45°	26947	27020	21867
50°	22008	22320	17659
55°	19718	18976	15518
60°	15786	14943	12414
65°	13229	12111	10980
70°	12561	11540	11179
75°	11398	12251	10780
80°	11454	12519	11364
85°	9961	11670	9495



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	474.9	4.6
10°-20°	1365.9	13.2
20°-30°	2039.1	19.7
30°-40°	2225.0	21.5
40°-50°	1820.2	17.6
50°-60°	1196.8	11.5
60°-70°	686.6	6.6
70°-80°	416.1	4.0
80°-90°	139.7	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°	3880.0	37.4
0°-40°	6105.0	58.9
0°-60°	9122.0	88.0
0°-90°	10364.4	100.0
90°-120°	3.6	0.0
90°-150°	3.6	0.0
90°-180°	4.0	0.0
0°-180°	10368.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4995	4995	4995	4995	4995	
5°	4986	4978	4985	5005	5013	474
15°	4824	4824	4837	4868	4871	1362
25°	4474	4484	4462	4407	4386	2058
35°	3909	3820	3587	3342	3276	2423
45°	2443	2625	2450	2162	1982	1939
55°	1450	1410	1395	1199	1141	1277
65°	717	706	656	638	595	733
75°	378	409	406	390	358	409
85°	111	126	130	114	106	121
90°	1	9	18	22	23	5
95°	1	1	2	2	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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CATALOG NUMBER: SPHB-12SE-M-L935-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4995.1	4995.1	4995.1	4995.1	4995.1
2.5°	4991.8	4984.6	4991.2	5011.6	5017.5
5°	4985.9	4978.0	4984.6	5005.0	5012.9
7.5°	4965.5	4960.8	4967.4	4987.9	4997.7
10°	4933.2	4927.9	4938.4	4956.2	4968.8
12.5°	4885.1	4883.1	4893.0	4918.7	4924.0
15°	4824.5	4823.8	4837.0	4868.0	4870.6
17.5°	4756.0	4755.3	4771.8	4792.2	4784.9
20°	4672.9	4677.6	4696.7	4677.6	4659.1
22.5°	4573.5	4588.0	4592.6	4532.6	4523.4
25°	4474.0	4484.5	4461.5	4407.4	4385.7
27.5°	4345.5	4358.0	4315.2	4238.1	4176.2
30°	4221.0	4209.1	4121.5	3972.6	3886.3
32.5°	4078.0	4035.9	3878.4	3672.9	3594.5
35°	3908.7	3820.4	3586.6	3342.1	3276.3
37.5°	3694.6	3533.2	3277.6	3022.6	2923.1
40°	3392.2	3205.8	2968.6	2705.1	2595.1
42.5°	2968.6	2899.4	2703.1	2406.6	2275.5
45°	2442.9	2625.4	2449.5	2162.2	1982.4
47.5°	2091.1	2344.7	2133.2	1925.7	1678.0
50°	1813.7	1988.3	1839.4	1652.3	1455.3
52.5°	1613.4	1666.1	1606.2	1400.6	1288.6
55°	1450.0	1410.5	1395.4	1199.0	1141.1
57.5°	1247.1	1225.4	1186.5	1045.5	969.1
60°	1011.9	1058.1	957.9	917.7	795.8
62.5°	831.4	876.9	769.5	766.9	665.4
65°	716.8	706.2	656.2	638.4	594.9
67.5°	634.4	601.5	584.4	561.3	546.2
70°	550.8	536.9	506.0	510.6	490.2
72.5°	459.2	477.0	446.0	454.6	417.7
75°	378.2	409.1	406.5	390.0	357.7
77.5°	311.6	344.6	350.5	335.3	309.0
80°	255.0	277.4	278.7	269.5	253.0
82.5°	187.1	200.3	210.2	194.3	183.8
85°	111.3	126.5	130.4	114.0	106.1
87.5°	36.2	50.7	56.7	58.6	59.3
90°	0.7	9.2	18.4	21.7	23.1
92.5°	0.7	2.6	4.0	5.9	6.6
95°	0.7	1.3	2.0	2.0	1.3
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)