

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: P859854

Luminaire Tested: **SPHB-12SE-M-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: P859854  
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-L735-CD  
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 3500K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

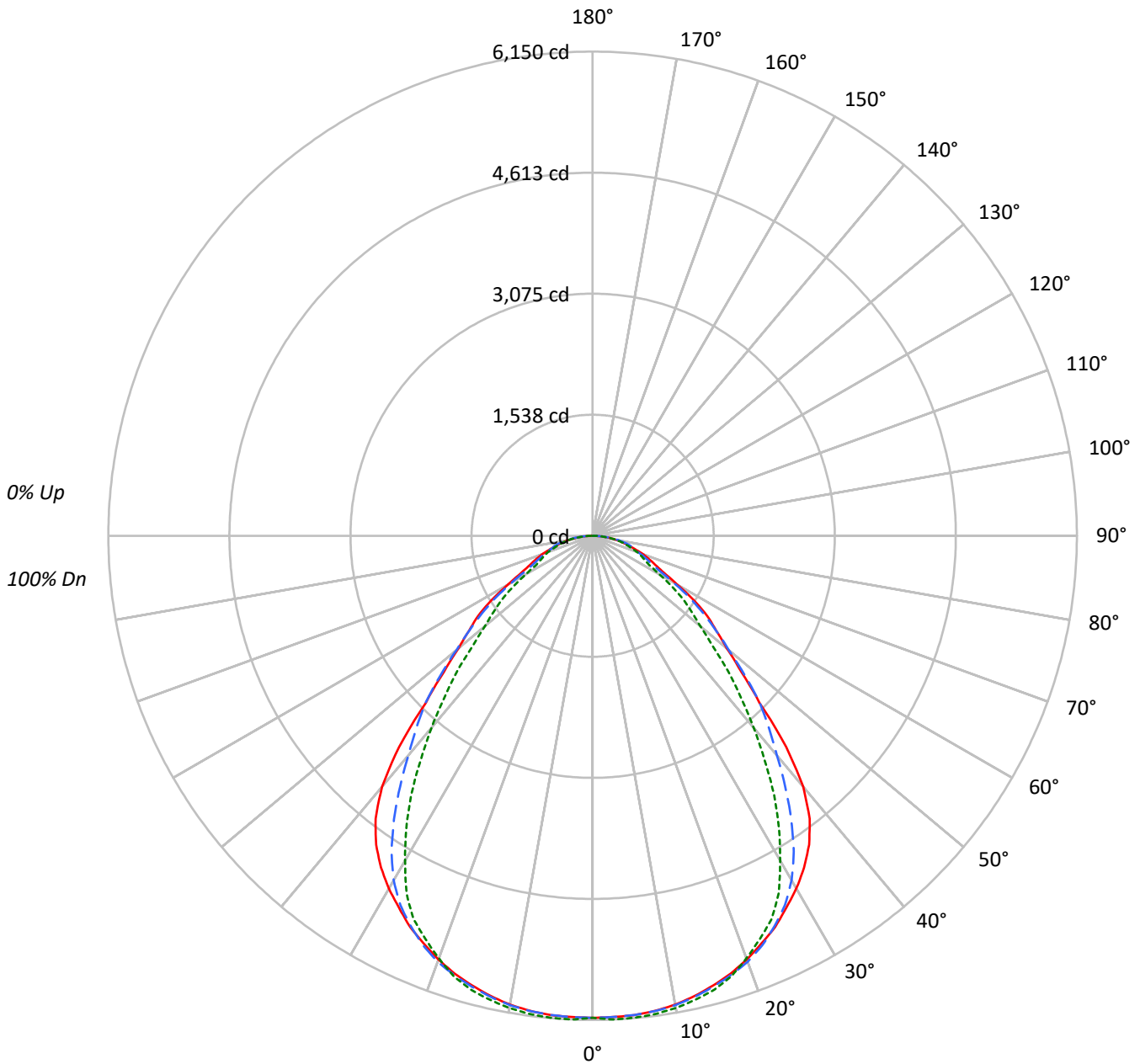
Lumens per Lamp: N/A  
Luminaire Lumens: 12709.0 lumens  
Efficiency: N/A  
Efficacy: 166.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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

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

	0°	45°	90°
0°	47759	47759	47759
5°	47852	47840	48112
10°	47894	47945	48240
15°	47754	47878	48211
20°	47546	47787	47405
25°	47199	47066	46267
30°	46601	45502	42906
35°	45623	41862	38240
40°	42339	37052	32389
45°	33031	33120	26805
50°	26978	27360	21647
55°	24170	23259	19021
60°	19350	18317	15218
65°	16216	14844	13458
70°	15396	14144	13702
75°	13968	15017	13215
80°	14037	15344	13929
85°	12216	14310	11634



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	582.2	4.6
10°-20°	1674.4	13.2
20°-30°	2499.5	19.7
30°-40°	2727.4	21.5
40°-50°	2231.1	17.6
50°-60°	1467.0	11.5
60°-70°	841.6	6.6
70°-80°	510.0	4.0
80°-90°	171.3	1.3
90°-100°	4.4	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°	4756.1	37.4
0°-40°	7483.5	58.9
0°-60°	11181.6	88.0
0°-90°	12704.5	100.0
90°-120°	4.4	0.0
90°-150°	4.4	0.0
90°-180°	4.0	0.0
0°-180°	12709.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6123	6123	6123	6123	6123	
5°	6112	6102	6110	6135	6145	581
15°	5914	5913	5929	5967	5970	1669
25°	5484	5497	5469	5403	5376	2523
35°	4791	4683	4396	4097	4016	2970
45°	2994	3218	3002	2650	2430	2377
55°	1777	1729	1710	1470	1399	1565
65°	879	866	804	782	729	898
75°	464	502	498	478	438	502
85°	136	155	160	140	130	148
90°	1	11	23	27	28	6
95°	1	2	2	2	2	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°	6123.0	6123.0	6123.0	6123.0	6123.0
2.5°	6118.9	6110.0	6118.1	6143.1	6150.4
5°	6111.6	6102.0	6110.0	6135.1	6144.8
7.5°	6086.6	6081.0	6089.0	6114.1	6126.2
10°	6047.0	6040.6	6053.5	6075.3	6090.7
12.5°	5988.1	5985.7	5997.8	6029.3	6035.7
15°	5913.8	5913.0	5929.1	5967.1	5970.3
17.5°	5829.8	5829.0	5849.2	5874.2	5865.3
20°	5728.1	5733.7	5757.1	5733.7	5711.1
22.5°	5606.1	5623.9	5629.5	5556.0	5544.7
25°	5484.2	5497.1	5468.8	5402.6	5376.0
27.5°	5326.7	5342.0	5289.5	5195.1	5119.2
30°	5174.1	5159.5	5052.1	4869.6	4763.8
32.5°	4998.8	4947.1	4754.1	4502.2	4406.1
35°	4791.3	4683.1	4396.4	4096.8	4016.0
37.5°	4528.8	4331.0	4017.6	3705.1	3583.2
40°	4158.2	3929.6	3638.9	3315.9	3181.0
42.5°	3638.9	3554.1	3313.4	2950.0	2789.3
45°	2994.4	3218.1	3002.5	2650.4	2430.0
47.5°	2563.2	2874.1	2614.9	2360.5	2056.9
50°	2223.2	2437.2	2254.7	2025.4	1783.9
52.5°	1977.7	2042.3	1968.8	1716.9	1579.6
55°	1777.4	1729.0	1710.4	1469.8	1398.7
57.5°	1528.7	1502.1	1454.4	1281.6	1187.9
60°	1240.4	1296.9	1174.2	1124.9	975.5
62.5°	1019.1	1074.9	943.2	940.0	815.6
65°	878.6	865.7	804.3	782.5	729.2
67.5°	777.7	737.3	716.3	688.0	669.5
70°	675.1	658.2	620.2	625.9	600.8
72.5°	562.9	584.7	546.7	557.2	512.0
75°	463.5	501.5	498.3	478.1	438.5
77.5°	382.0	422.4	429.6	411.1	378.7
80°	312.5	340.0	341.6	330.3	310.1
82.5°	229.3	245.5	257.6	238.2	225.3
85°	136.5	155.1	159.9	139.7	130.0
87.5°	44.4	62.2	69.5	71.9	72.7
90°	0.8	11.3	22.6	26.6	28.3
92.5°	0.8	3.2	4.8	7.3	8.1
95°	0.8	1.6	2.4	2.4	1.6
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)