

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: P859856

Luminaire Tested: **SPHB-12SE-M-L750-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: P859856  
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-L750-CD  
Description: 12000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens  
and, 5000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

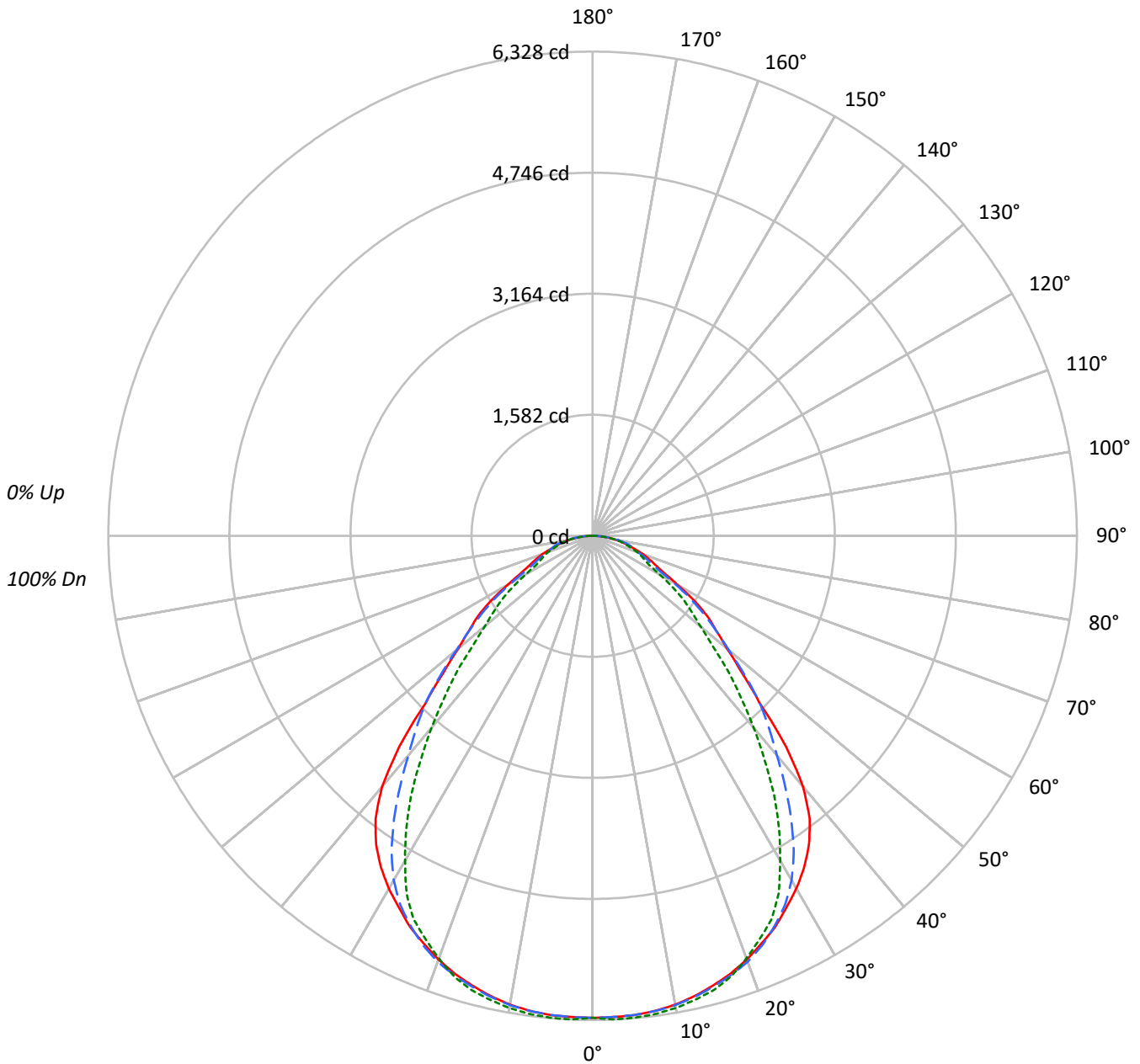
Lumens per Lamp: N/A  
Luminaire Lumens: 13076.0 lumens  
Efficiency: N/A  
Efficacy: 171.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P859856

CATALOG NUMBER: SPHB-12SE-M-L750-CD

### 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°	49138	49138	49138
5°	49234	49222	49501
10°	49278	49330	49632
15°	49134	49261	49603
20°	48919	49167	48774
25°	48561	48426	47603
30°	47947	46816	44145
35°	46939	43071	39345
40°	43561	38122	33325
45°	33985	34076	27578
50°	27757	28150	22272
55°	24869	23931	19570
60°	19909	18846	15658
65°	16684	15274	13848
70°	15841	14552	14098
75°	14372	15451	13598
80°	14446	15789	14333
85°	12565	14722	11974



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	599.0	4.6
10°-20°	1722.7	13.2
20°-30°	2571.7	19.7
30°-40°	2806.2	21.5
40°-50°	2295.6	17.6
50°-60°	1509.3	11.5
60°-70°	865.9	6.6
70°-80°	524.7	4.0
80°-90°	176.2	1.3
90°-100°	4.6	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°	4893.4	37.4
0°-40°	7699.6	58.9
0°-60°	11504.5	88.0
0°-90°	13071.4	100.0
90°-120°	4.6	0.0
90°-150°	4.6	0.0
90°-180°	5.0	0.0
0°-180°	13076.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6300	6300	6300	6300	6300	
5°	6288	6278	6286	6312	6322	598
15°	6085	6084	6100	6139	6143	1717
25°	5642	5656	5627	5559	5531	2596
35°	4930	4818	4523	4215	4132	3055
45°	3081	3311	3089	2727	2500	2446
55°	1829	1779	1760	1512	1439	1611
65°	904	891	828	805	750	924
75°	477	516	513	492	451	516
85°	140	160	164	144	134	152
90°	1	12	23	27	29	7
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



TEST NUMBER: P859856

CATALOG NUMBER: SPHB-12SE-M-L750-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6299.8	6299.8	6299.8	6299.8	6299.8
2.5°	6295.6	6286.5	6294.8	6320.5	6328.0
5°	6288.1	6278.2	6286.5	6312.2	6322.2
7.5°	6262.4	6256.6	6264.9	6290.6	6303.1
10°	6221.7	6215.0	6228.3	6250.7	6266.5
12.5°	6161.0	6158.5	6171.0	6203.4	6210.0
15°	6084.6	6083.7	6100.4	6139.4	6142.7
17.5°	5998.2	5997.3	6018.1	6043.9	6034.7
20°	5893.5	5899.3	5923.4	5899.3	5876.0
22.5°	5768.0	5786.3	5792.1	5716.5	5704.9
25°	5642.5	5655.8	5626.8	5558.6	5531.2
27.5°	5480.5	5496.3	5442.3	5345.1	5267.0
30°	5323.5	5308.5	5198.0	5010.2	4901.4
32.5°	5143.2	5090.0	4891.4	4632.2	4533.3
35°	4929.6	4818.3	4523.3	4215.1	4132.0
37.5°	4659.6	4456.0	4133.7	3812.1	3686.6
40°	4278.2	4043.1	3744.0	3411.6	3272.9
42.5°	3744.0	3656.7	3409.1	3035.2	2869.9
45°	3080.9	3311.1	3089.2	2727.0	2500.1
47.5°	2637.2	2957.1	2690.4	2428.7	2116.3
50°	2287.4	2507.6	2319.8	2083.9	1835.4
52.5°	2034.8	2101.3	2025.7	1766.5	1625.2
55°	1828.8	1778.9	1759.8	1512.2	1439.1
57.5°	1572.9	1545.4	1496.4	1318.6	1222.2
60°	1276.2	1334.4	1208.1	1157.4	1003.7
62.5°	1048.6	1105.9	970.5	967.1	839.2
65°	904.0	890.7	827.6	805.1	750.3
67.5°	800.1	758.6	737.0	707.9	688.8
70°	694.6	677.2	638.1	643.9	618.2
72.5°	579.1	601.6	562.5	573.3	526.8
75°	476.9	516.0	512.7	491.9	451.2
77.5°	393.0	434.6	442.0	422.9	389.7
80°	321.6	349.8	351.5	339.8	319.1
82.5°	236.0	252.6	265.1	245.1	231.8
85°	140.4	159.5	164.5	143.7	133.8
87.5°	45.7	64.0	71.5	73.9	74.8
90°	0.8	11.6	23.3	27.4	29.1
92.5°	0.8	3.3	5.0	7.5	8.3
95°	0.8	1.7	2.5	2.5	1.7
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



TEST NUMBER: P859856

CATALOG NUMBER: SPHB-12SE-M-L750-CD

**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)