

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: P860187

Luminaire Tested: **SPHB-48SE-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: P860187  
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-48SE-N-L735-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 3500K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

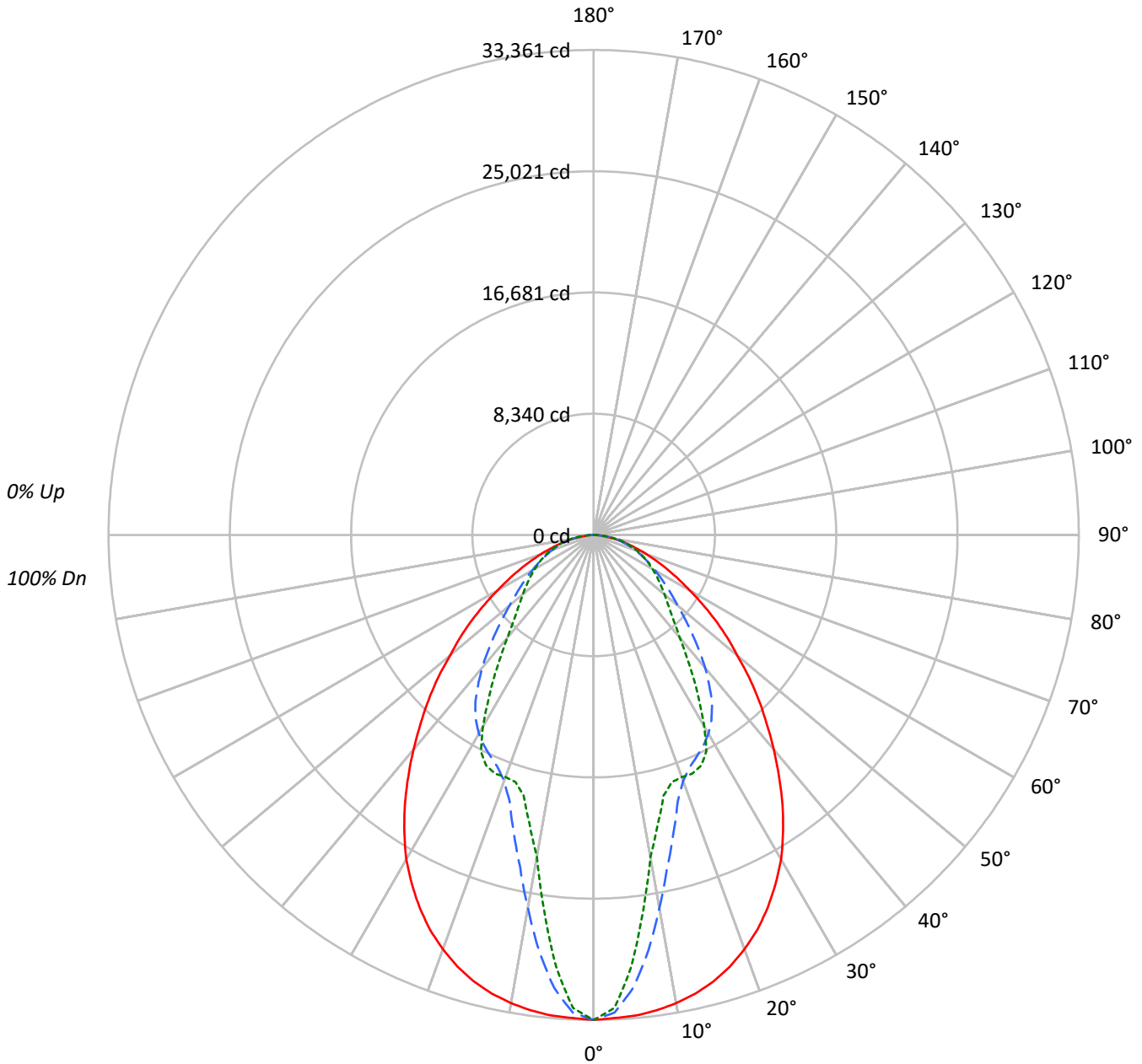
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 48894.0 lumens  
Efficiency: N/A  
Efficacy: 160.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 304.9  
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	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°	106242	106242	106242
5°	106119	99963	95233
10°	105756	84260	72640
15°	104876	69945	61213
20°	102763	60971	60091
25°	99461	58993	61499
30°	94759	58047	55968
35°	87983	55160	46378
40°	80117	49519	38296
45°	72320	42967	33619
50°	63822	37362	31482
55°	56633	33697	30303
60°	48534	31161	29685
65°	42011	29286	29536
70°	35950	28173	29500
75°	30178	27357	29238
80°	23027	26436	28631
85°	15076	23451	22055



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2844.3	5.8
10°-20°	6531.0	13.4
20°-30°	8826.3	18.1
30°-40°	9289.2	19.0
40°-50°	7882.2	16.1
50°-60°	6105.9	12.5
60°-70°	4252.6	8.7
70°-80°	2435.1	5.0
80°-90°	708.6	1.4
90°-100°	18.9	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°	18201.6	37.2
0°-40°	27490.7	56.2
0°-60°	41478.8	84.8
0°-90°	48875.1	100.0
90°-120°	18.9	0.0
90°-150°	18.9	0.0
90°-180°	19.0	0.0
0°-180°	48894.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	33361	33361	33361	33361	33361	
5°	33196	32587	31270	30071	29790	###
15°	31810	26999	21215	19096	18567	8951
25°	28306	19995	16789	17275	17502	12994
35°	22631	15378	14188	12816	11930	14107
45°	16058	11547	9540	7839	7465	12368
55°	10200	7778	6069	5516	5458	9120
65°	5575	4564	3886	3886	3920	5569
75°	2453	2180	2223	2364	2376	2615
85°	413	535	642	604	604	524
90°	2	48	94	120	125	23
95°	2	8	15	15	13	1
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: P860187

CATALOG NUMBER: SPHB-48SE-N-L735-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	33361.2	33361.2	33361.2	33361.2	33361.2
2.5°	33264.4	33154.9	32887.5	32714.3	32579.3
5°	33195.7	32587.0	31270.3	30070.7	29790.5
7.5°	32989.4	31652.3	28838.0	26619.7	26059.4
10°	32704.1	30310.1	26056.8	23278.2	22463.2
12.5°	32324.7	28876.2	23392.8	20774.7	20374.8
15°	31810.2	26999.2	21215.3	19096.3	18566.6
17.5°	31142.9	25058.5	19205.8	17980.8	17833.1
20°	30322.8	23278.2	17991.0	17573.3	17731.2
22.5°	29400.9	21548.9	17285.5	17461.2	17756.7
25°	28305.7	19995.3	16788.9	17275.3	17502.0
27.5°	27075.6	18592.0	16333.0	16778.7	16778.7
30°	25769.1	17423.0	15785.4	15744.6	15220.0
32.5°	24243.5	16429.7	15069.7	14262.4	13483.0
35°	22631.3	15377.9	14188.5	12815.8	11929.5
37.5°	20940.2	14399.9	13073.0	11262.2	10437.0
40°	19272.0	13434.6	11911.6	9866.5	9212.0
42.5°	17611.5	12451.6	10701.9	8735.7	8218.7
45°	16057.9	11547.4	9540.5	7839.2	7464.8
47.5°	14478.9	10587.3	8468.3	7118.5	6858.7
50°	12882.0	9614.4	7541.2	6545.4	6354.4
52.5°	11537.2	8707.7	6754.3	6002.9	5888.3
55°	10200.1	7778.1	6069.1	5516.5	5457.9
57.5°	8873.2	6912.2	5442.6	5070.8	5058.0
60°	7620.2	6102.3	4892.5	4688.8	4660.7
62.5°	6553.1	5297.5	4370.4	4273.6	4286.4
65°	5575.1	4564.0	3886.5	3886.5	3919.6
67.5°	4668.4	3889.0	3443.3	3501.9	3547.8
70°	3861.0	3277.8	3025.7	3127.5	3168.3
72.5°	3097.0	2709.9	2625.8	2737.9	2771.0
75°	2452.6	2180.1	2223.4	2363.5	2376.2
77.5°	1818.5	1716.6	1828.6	1981.5	2009.5
80°	1255.6	1265.8	1441.5	1548.5	1561.2
82.5°	809.9	883.8	1079.9	1135.9	1115.5
85°	412.6	534.8	641.8	603.6	603.6
87.5°	157.9	231.8	272.5	320.9	338.7
90°	2.5	48.4	94.2	119.7	124.8
92.5°	2.5	12.7	20.4	22.9	20.4
95°	2.5	7.6	15.3	15.3	12.7
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



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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)