

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: P860198

Luminaire Tested: **SPHB-48SE-W-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: P860198  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-48SE-W-L750-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 5000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

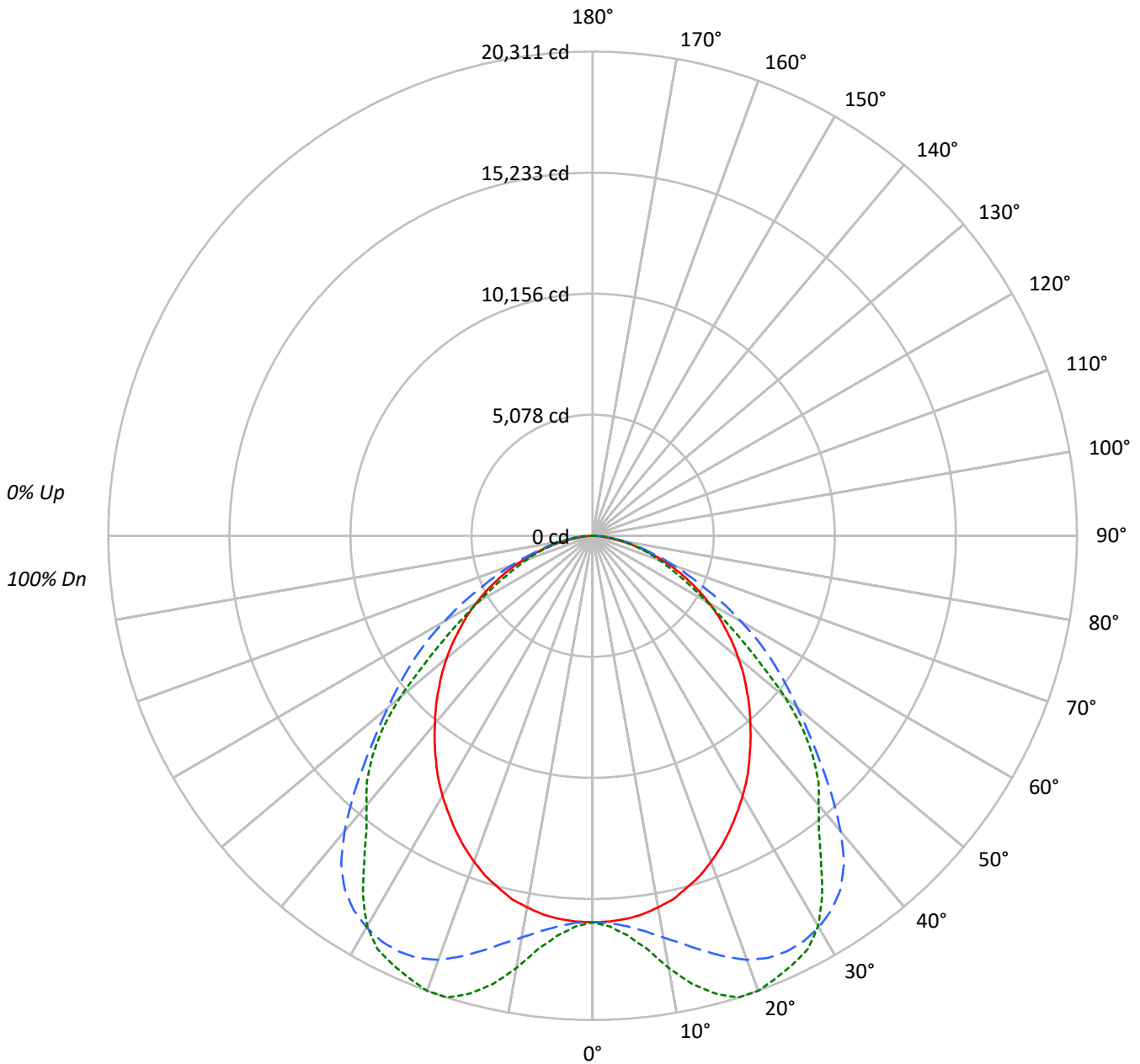
Lumens per Lamp: N/A  
Luminaire Lumens: 51015.0 lumens  
Efficiency: N/A  
Efficacy: 167.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

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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CATALOG NUMBER: SPHB-48SE-W-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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																			
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62																			
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53																			
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46																			
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40																			
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36																			
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32																			
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29																			
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26																			

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

	0°	45°	90°
0°	51633	51633	51633
5°	51577	52550	53796
10°	51169	55323	59517
15°	50370	59443	65558
20°	49279	64169	68833
25°	47857	67632	69735
30°	46299	69747	69546
35°	44562	70448	64894
40°	42766	67267	61294
45°	41148	60973	58807
50°	39545	55441	52133
55°	37736	51224	42424
60°	35869	45668	34939
65°	33399	39241	30295
70°	30386	33503	27400
75°	26095	28118	25120
80°	20395	24118	23298
85°	13794	20466	19205



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1591.9	3.1
10°-20°	5047.6	9.9
20°-30°	8260.8	16.2
30°-40°	10077.5	19.8
40°-50°	9980.7	19.6
50°-60°	7981.3	15.6
60°-70°	4979.0	9.8
70°-80°	2439.5	4.8
80°-90°	639.8	1.3
90°-100°	16.8	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°	14900.3	29.2
0°-40°	24977.8	49.0
0°-60°	42939.8	84.2
0°-90°	50998.1	100.0
90°-120°	16.8	0.0
90°-150°	16.8	0.0
90°-180°	17.0	0.0
0°-180°	51015.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	16213	16213	16213	16213	16213	
5°	16134	16205	16439	16725	16828	###
15°	15278	16167	18030	19464	19885	4307
25°	13620	15925	19247	19806	19846	6267
35°	11462	15316	18121	17153	16692	7170
45°	9137	14194	13538	13084	13058	7057
55°	6797	10898	9226	8335	7641	6089
65°	4432	6115	5208	4319	4020	4395
75°	2121	2598	2285	2092	2042	2251
85°	378	536	560	532	526	468
90°	2	55	99	126	130	22
95°	2	8	8	6	4	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: P860198

CATALOG NUMBER: SPHB-48SE-W-L750-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	16213.3	16213.3	16213.3	16213.3	16213.3
2.5°	16197.1	16191.0	16249.9	16357.4	16406.1
5°	16134.2	16205.2	16438.6	16724.8	16828.3
7.5°	16020.5	16211.3	16726.8	17252.4	17475.6
10°	15823.7	16215.4	17108.3	18035.8	18405.1
12.5°	15620.7	16201.2	17532.5	18845.5	19249.4
15°	15277.7	16166.6	18029.7	19464.5	19884.6
17.5°	14959.1	16126.1	18508.6	19990.1	20308.8
20°	14541.1	16067.2	18934.8	20150.5	20310.8
22.5°	14102.7	16020.5	19170.2	20042.9	20091.6
25°	13619.7	15925.1	19247.4	19805.5	19846.1
27.5°	13104.2	15839.9	19174.3	19511.2	19545.7
30°	12590.7	15685.7	18967.3	19052.5	18912.5
32.5°	12052.9	15531.4	18632.4	18248.9	17922.1
35°	11462.4	15316.3	18121.0	17153.0	16692.3
37.5°	10879.9	15109.3	17323.4	15927.2	15580.1
40°	10287.3	14853.6	16180.9	14782.6	14744.0
42.5°	9727.2	14577.6	14888.1	13891.6	14021.5
45°	9136.6	14194.0	13538.5	13083.9	13057.5
47.5°	8576.5	13664.3	12310.7	12190.9	11921.0
50°	7981.9	12933.7	11190.4	11076.8	10522.7
52.5°	7399.4	12002.2	10189.9	9763.7	8956.0
55°	6796.6	10898.2	9225.9	8335.0	7640.9
57.5°	6236.5	9684.6	8245.7	7090.9	6467.9
60°	5631.7	8454.7	7170.1	5999.1	5485.6
62.5°	5039.1	7243.1	6195.9	5069.6	4728.6
65°	4432.3	6114.8	5207.6	4318.7	4020.4
67.5°	3851.9	5138.6	4353.2	3640.8	3442.0
70°	3263.4	4168.5	3598.2	3058.4	2942.7
72.5°	2656.6	3330.3	2910.2	2581.5	2494.2
75°	2120.8	2597.7	2285.2	2092.4	2041.6
77.5°	1578.9	1932.0	1785.9	1672.3	1658.1
80°	1112.1	1394.2	1315.1	1292.8	1270.4
82.5°	710.3	911.2	935.6	921.4	905.1
85°	377.5	535.8	560.1	531.7	525.6
87.5°	152.2	233.4	251.7	278.0	286.2
90°	2.0	54.8	99.4	125.8	129.9
92.5°	2.0	12.2	14.2	14.2	12.2
95°	2.0	8.1	8.1	6.1	4.1
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)