

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: P860189

Luminaire Tested: **SPHB-48SE-N-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: P860189  
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-L750-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens  
and, 5000K 70CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

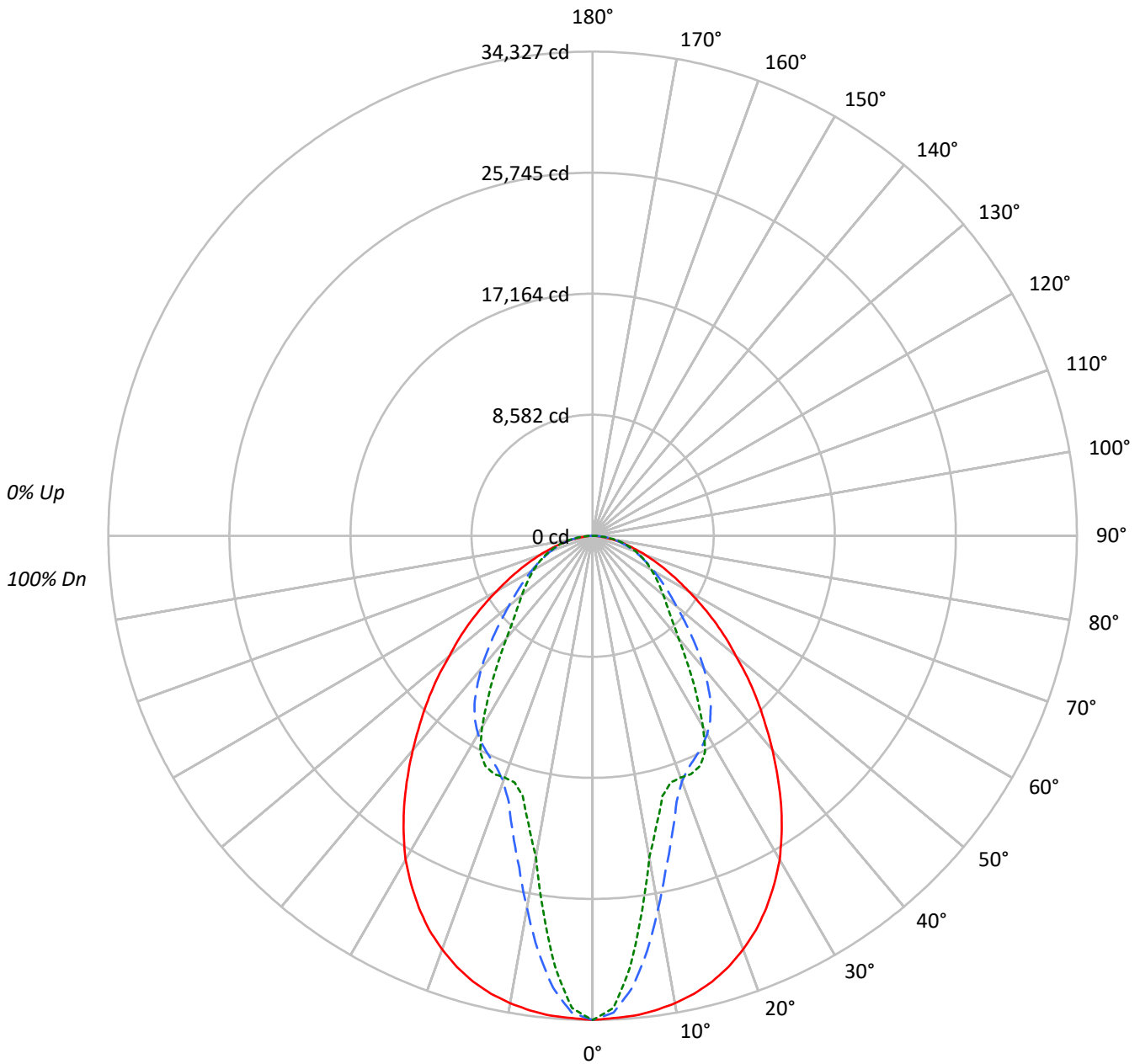
Lumens per Lamp: N/A  
Luminaire Lumens: 50309.0 lumens  
Efficiency: N/A  
Efficacy: 165.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

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

### 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								
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°	109316	109316	109316
5°	109190	102856	97989
10°	108817	86699	74742
15°	107911	71970	62984
20°	105737	62735	61829
25°	102339	60700	63278
30°	97501	59727	57588
35°	90529	56756	47720
40°	82436	50952	39404
45°	74413	44211	34592
50°	65669	38443	32393
55°	58272	34672	31180
60°	49939	32063	30544
65°	43226	30134	30390
70°	36991	28987	30354
75°	31051	28149	30084
80°	23693	27201	29460
85°	15511	24130	22694



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2926.6	5.8
10°-20°	6720.0	13.4
20°-30°	9081.7	18.1
30°-40°	9558.0	19.0
40°-50°	8110.3	16.1
50°-60°	6282.6	12.5
60°-70°	4375.6	8.7
70°-80°	2505.6	5.0
80°-90°	729.1	1.4
90°-100°	19.5	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°	18728.3	37.2
0°-40°	28286.3	56.2
0°-60°	42679.2	84.8
0°-90°	50289.5	100.0
90°-120°	19.5	0.0
90°-150°	19.5	0.0
90°-180°	19.0	0.0
0°-180°	50309.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	34327	34327	34327	34327	34327	
5°	34156	33530	32175	30941	30653	###
15°	32731	27780	21829	19649	19104	9210
25°	29125	20574	17275	17775	18008	13370
35°	23286	15823	14599	13187	12275	14515
45°	16523	11882	9817	8066	7681	12726
55°	10495	8003	6245	5676	5616	9383
65°	5736	4696	3999	3999	4033	5730
75°	2524	2243	2288	2432	2445	2691
85°	424	550	660	621	621	540
90°	3	50	97	123	128	23
95°	3	8	16	16	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



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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	34326.7	34326.7	34326.7	34326.7	34326.7
2.5°	34227.1	34114.4	33839.3	33661.1	33522.2
5°	34156.4	33530.1	32175.2	30940.9	30652.7
7.5°	33944.1	32568.3	29672.6	27390.1	26813.6
10°	33650.6	31187.3	26810.9	23951.9	23113.3
12.5°	33260.1	29711.9	24069.8	21375.9	20964.5
15°	32730.8	27780.5	21829.3	19649.0	19103.9
17.5°	32044.2	25783.7	19761.6	18501.1	18349.2
20°	31200.4	23951.9	18511.6	18081.9	18244.3
22.5°	30251.7	22172.5	17785.7	17966.6	18270.5
25°	29124.9	20574.0	17274.7	17775.3	18008.5
27.5°	27859.2	19130.1	16805.6	17264.2	17264.2
30°	26514.8	17927.2	16242.2	16200.3	15660.5
32.5°	24945.1	16905.2	15505.8	14675.1	13873.2
35°	23286.3	15822.9	14599.1	13186.7	12274.7
37.5°	21546.2	14816.6	13451.3	11588.1	10739.1
40°	19829.8	13823.4	12256.4	10152.0	9478.6
42.5°	18121.2	12811.9	11011.6	8988.5	8456.5
45°	16522.6	11881.6	9816.6	8066.1	7680.9
47.5°	14897.9	10893.7	8713.4	7324.5	7057.2
50°	13254.8	9892.6	7759.5	6734.8	6538.3
52.5°	11871.1	8959.7	6949.7	6176.7	6058.7
55°	10495.3	8003.2	6244.8	5676.1	5615.9
57.5°	9130.0	7112.2	5600.1	5217.5	5204.4
60°	7840.7	6278.9	5034.1	4824.4	4795.6
62.5°	6742.7	5450.8	4496.9	4397.3	4410.4
65°	5736.4	4696.0	3999.0	3999.0	4033.0
67.5°	4803.5	4001.6	3543.0	3603.3	3650.4
70°	3972.8	3372.7	3113.2	3218.0	3260.0
72.5°	3186.6	2788.3	2701.8	2817.1	2851.2
75°	2523.6	2243.2	2287.7	2431.9	2445.0
77.5°	1871.1	1766.3	1881.6	2038.8	2067.6
80°	1291.9	1302.4	1483.2	1593.3	1606.4
82.5°	833.3	909.3	1111.1	1168.8	1147.8
85°	424.5	550.3	660.4	621.1	621.1
87.5°	162.5	238.5	280.4	330.2	348.5
90°	2.6	49.8	97.0	123.2	128.4
92.5°	2.6	13.1	21.0	23.6	21.0
95°	2.6	7.9	15.7	15.7	13.1
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)