

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: P860204

Luminaire Tested: **SPHB-48SE-W-L950-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: P860204  
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-L950-CD  
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens  
and, 5000K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

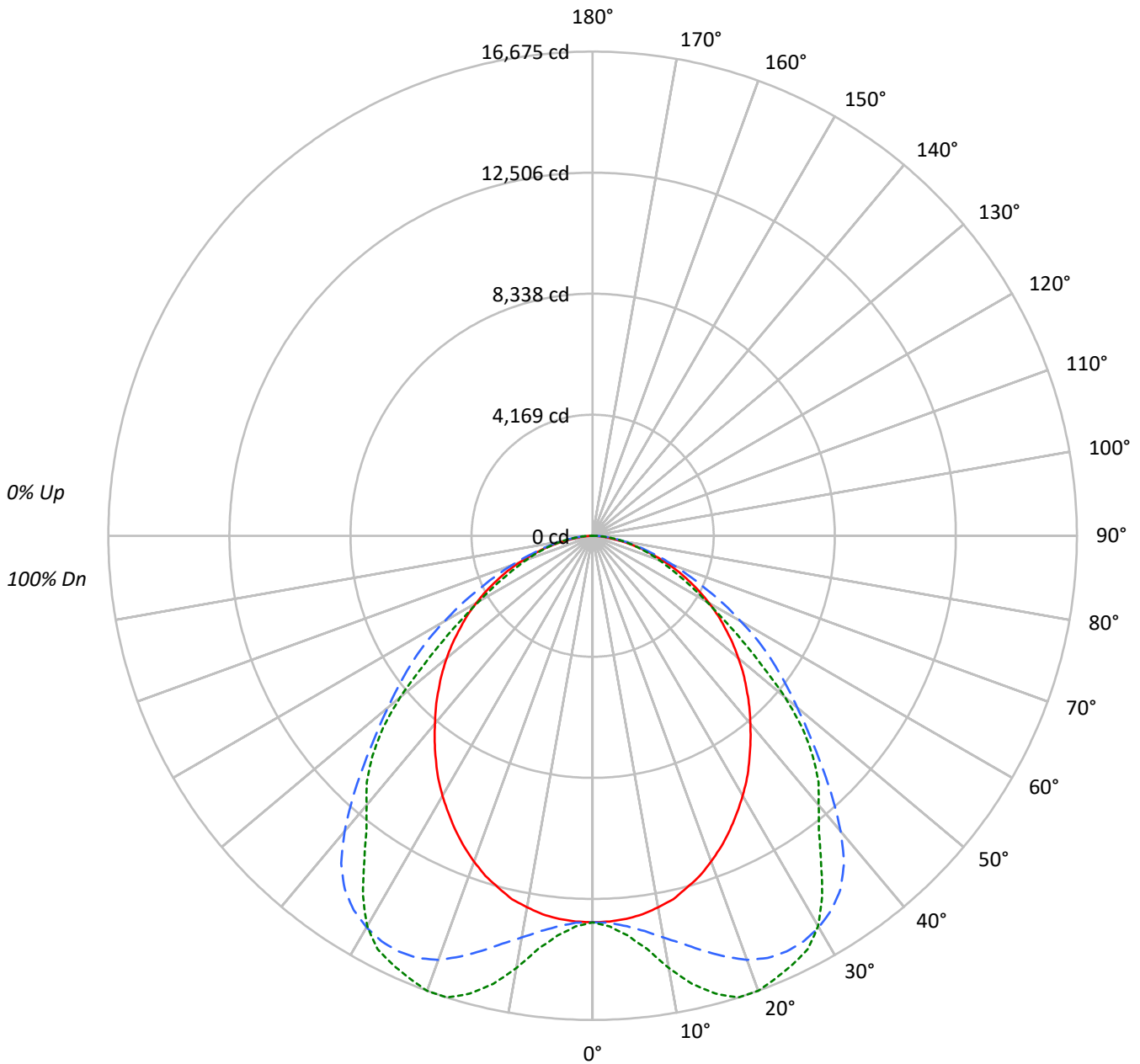
Lumens per Lamp: N/A  
Luminaire Lumens: 41882.0 lumens  
Efficiency: N/A  
Efficacy: 137.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P860204

CATALOG NUMBER: SPHB-48SE-W-L950-CD

### Luminous Intensity Polar Plot





TEST NUMBER: P860204

CATALOG NUMBER: SPHB-48SE-W-L950-CD

**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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

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

	0°	45°	90°
0°	42389	42389	42389
5°	42343	43142	44165
10°	42009	45419	48862
15°	41352	48801	53822
20°	40457	52682	56510
25°	39289	55524	57251
30°	38011	57261	57096
35°	36584	57836	53276
40°	35110	55224	50320
45°	33782	50058	48279
50°	32465	45516	42800
55°	30981	42053	34829
60°	29448	37492	28684
65°	27420	32216	24871
70°	24945	27506	22495
75°	21423	23084	20623
80°	16744	19801	19128
85°	11323	16804	15767



TEST NUMBER: P860204

CATALOG NUMBER: SPHB-48SE-W-L950-CD

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1306.9	3.1
10°-20°	4144.0	9.9
20°-30°	6781.9	16.2
30°-40°	8273.4	19.8
40°-50°	8193.9	19.6
50°-60°	6552.4	15.6
60°-70°	4087.7	9.8
70°-80°	2002.7	4.8
80°-90°	525.3	1.3
90°-100°	13.8	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°	12232.7	29.2
0°-40°	20506.1	49.0
0°-60°	35252.5	84.2
0°-90°	41868.2	100.0
90°-120°	13.8	0.0
90°-150°	13.8	0.0
90°-180°	14.0	0.0
0°-180°	41882.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13311	13311	13311	13311	13311	
5°	13246	13304	13496	13731	13816	###
15°	12543	13272	14802	15980	16325	3536
25°	11181	13074	15802	16260	16293	5145
35°	9410	12574	14877	14082	13704	5886
45°	7501	11653	11115	10742	10720	5794
55°	5580	8947	7574	6843	6273	4999
65°	3639	5020	4275	3546	3301	3608
75°	1741	2133	1876	1718	1676	1848
85°	310	440	460	436	432	384
90°	2	45	82	103	107	18
95°	2	7	7	5	3	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: P860204

CATALOG NUMBER: SPHB-48SE-W-L950-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13310.7	13310.7	13310.7	13310.7	13310.7
2.5°	13297.4	13292.4	13340.7	13429.0	13469.0
5°	13245.7	13304.1	13495.7	13730.6	13815.6
7.5°	13152.4	13309.1	13732.3	14163.8	14347.1
10°	12990.8	13312.4	14045.5	14806.9	15110.1
12.5°	12824.2	13300.7	14393.7	15471.7	15803.3
15°	12542.6	13272.4	14801.9	15979.9	16324.8
17.5°	12281.1	13239.1	15195.1	16411.4	16673.0
20°	11937.8	13190.8	15545.0	16543.0	16674.6
22.5°	11577.9	13152.4	15738.3	16454.7	16494.7
25°	11181.4	13074.1	15801.6	16259.8	16293.1
27.5°	10758.2	13004.2	15741.6	16018.2	16046.5
30°	10336.7	12877.5	15571.7	15641.6	15526.7
32.5°	9895.2	12750.9	15296.8	14981.9	14713.6
35°	9410.3	12574.3	14876.9	14082.1	13703.9
37.5°	8932.1	12404.3	14222.1	13075.8	12790.9
40°	8445.6	12194.4	13284.1	12136.1	12104.4
42.5°	7985.8	11967.8	12222.7	11404.7	11511.3
45°	7500.9	11652.9	11114.8	10741.5	10719.9
47.5°	7041.1	11218.1	10106.8	10008.5	9786.9
50°	6552.9	10618.3	9187.0	9093.7	8638.9
52.5°	6074.7	9853.5	8365.6	8015.8	7352.6
55°	5579.9	8947.1	7574.2	6842.8	6273.0
57.5°	5120.0	7950.8	6769.5	5821.5	5310.0
60°	4623.5	6941.1	5886.4	4925.1	4503.6
62.5°	4137.0	5946.4	5086.7	4162.0	3882.1
65°	3638.8	5020.1	4275.3	3545.5	3300.6
67.5°	3162.3	4218.6	3573.9	2989.0	2825.8
70°	2679.1	3422.2	2954.1	2510.9	2415.9
72.5°	2181.0	2734.1	2389.2	2119.3	2047.7
75°	1741.1	2132.6	1876.1	1717.8	1676.1
77.5°	1296.3	1586.2	1466.2	1372.9	1361.2
80°	913.0	1144.6	1079.7	1061.3	1043.0
82.5°	583.1	748.1	768.1	756.4	743.1
85°	309.9	439.9	459.9	436.5	431.5
87.5°	125.0	191.6	206.6	228.3	234.9
90°	1.7	45.0	81.6	103.3	106.6
92.5°	1.7	10.0	11.7	11.7	10.0
95°	1.7	6.7	6.7	5.0	3.3
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: P860204

CATALOG NUMBER: SPHB-48SE-W-L950-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)