

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: P860042

Luminaire Tested: **SPHB-24SE-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: P860042  
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-24SE-W-L950-CD  
Description: 24000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 5000K 90CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

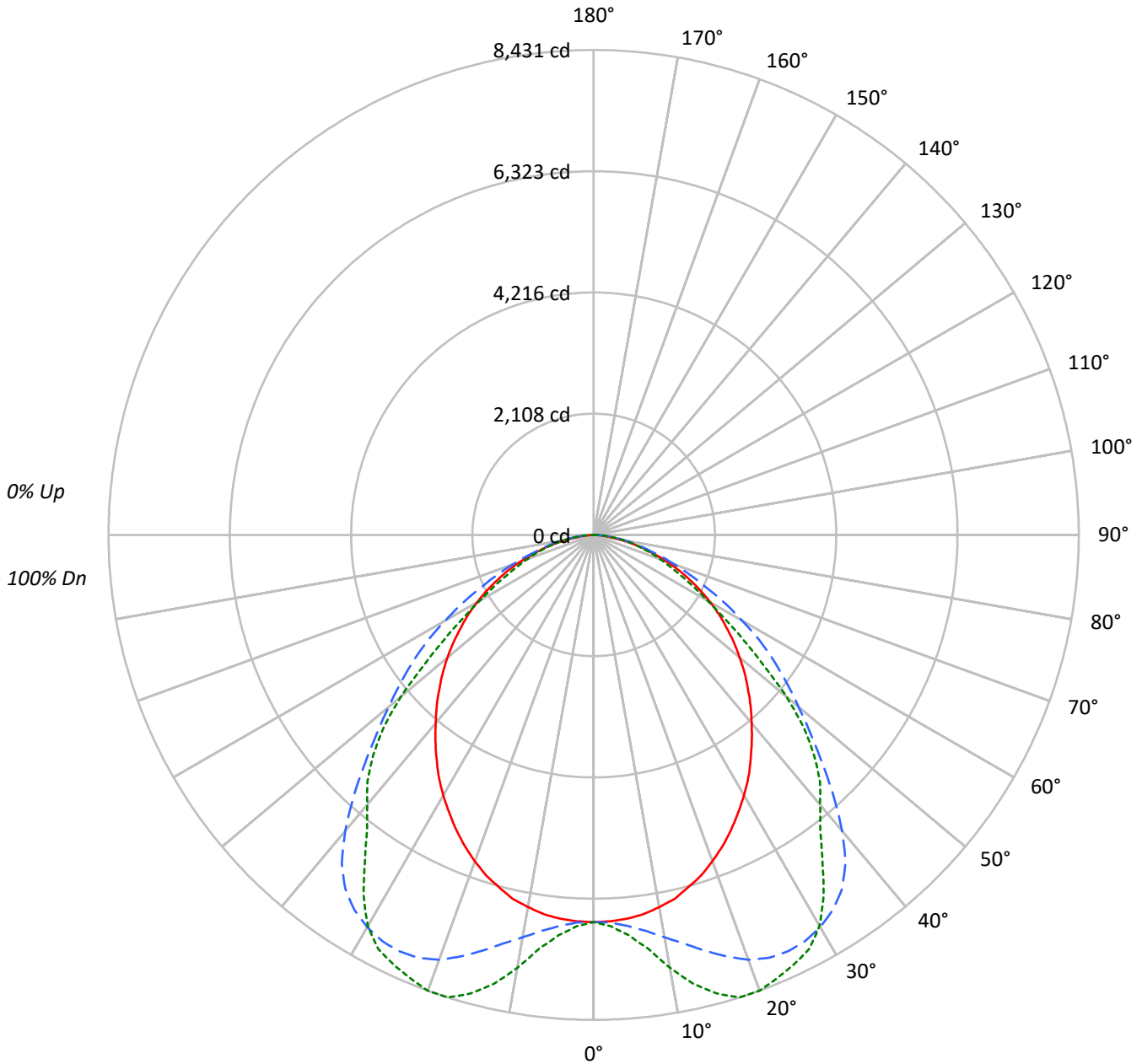
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21176.0 lumens  
Efficiency: N/A  
Efficacy: 133.5 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 158.6  
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: P860042  
CATALOG NUMBER: SPHB-24SE-W-L950-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			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°	52494	52494	52494
5°	52437	53427	54693
10°	52023	56247	60510
15°	51210	60434	66652
20°	50101	65240	69981
25°	48655	68760	70899
30°	47071	70911	70706
35°	45306	71623	65977
40°	43480	68389	62315
45°	41834	61990	59788
50°	40204	56366	53003
55°	38365	52078	43131
60°	36468	46428	35521
65°	33956	39895	30800
70°	30892	34062	27857
75°	26529	28588	25541
80°	20734	24521	23690
85°	14024	20807	19528



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	660.8	3.1
10°-20°	2095.2	9.9
20°-30°	3429.0	16.2
30°-40°	4183.1	19.8
40°-50°	4142.9	19.6
50°-60°	3313.0	15.6
60°-70°	2066.8	9.8
70°-80°	1012.6	4.8
80°-90°	265.6	1.3
90°-100°	7.0	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°	6185.0	29.2
0°-40°	10368.1	49.0
0°-60°	17824.0	84.2
0°-90°	21169.0	100.0
90°-120°	7.0	0.0
90°-150°	7.0	0.0
90°-180°	7.0	0.0
0°-180°	21176.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6730	6730	6730	6730	6730	
5°	6697	6727	6824	6942	6985	635
15°	6342	6711	7484	8080	8254	1788
25°	5653	6610	7990	8221	8238	2602
35°	4758	6358	7522	7120	6929	2976
45°	3792	5892	5620	5431	5420	2929
55°	2821	4524	3830	3460	3172	2528
65°	1840	2538	2162	1793	1669	1824
75°	880	1078	949	868	848	935
85°	157	222	232	221	218	194
90°	1	23	41	52	54	9
95°	1	3	3	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



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CATALOG NUMBER: SPHB-24SE-W-L950-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6730.0	6730.0	6730.0	6730.0	6730.0
2.5°	6723.3	6720.8	6745.2	6789.9	6810.1
5°	6697.2	6726.7	6823.6	6942.3	6985.3
7.5°	6650.0	6729.2	6943.2	7161.4	7254.0
10°	6568.3	6730.9	7101.6	7486.5	7639.9
12.5°	6484.1	6725.0	7277.6	7822.7	7990.3
15°	6341.7	6710.7	7484.0	8079.6	8254.0
17.5°	6209.4	6693.8	7682.8	8297.8	8430.0
20°	6035.9	6669.4	7859.7	8364.3	8430.9
22.5°	5853.9	6650.0	7957.4	8319.7	8339.9
25°	5653.4	6610.4	7989.5	8221.1	8238.0
27.5°	5439.5	6575.0	7959.1	8099.0	8113.3
30°	5226.3	6511.0	7873.2	7908.6	7850.5
32.5°	5003.1	6447.0	7734.2	7575.0	7439.4
35°	4758.0	6357.7	7521.9	7120.1	6928.9
37.5°	4516.2	6271.8	7190.8	6611.3	6467.2
40°	4270.2	6165.6	6716.6	6136.1	6120.1
42.5°	4037.7	6051.1	6180.0	5766.3	5820.2
45°	3792.5	5891.8	5619.7	5431.0	5420.1
47.5°	3560.0	5672.0	5110.1	5060.4	4948.3
50°	3313.2	5368.7	4645.1	4597.9	4367.9
52.5°	3071.4	4982.0	4229.8	4052.9	3717.6
55°	2821.2	4523.8	3829.6	3459.8	3171.7
57.5°	2588.7	4020.0	3422.7	2943.4	2684.8
60°	2337.7	3509.5	2976.2	2490.2	2277.0
62.5°	2091.7	3006.6	2571.9	2104.4	1962.8
65°	1839.8	2538.2	2161.6	1792.7	1668.8
67.5°	1598.9	2133.0	1807.0	1511.3	1428.7
70°	1354.6	1730.3	1493.6	1269.5	1221.5
72.5°	1102.7	1382.4	1208.0	1071.6	1035.3
75°	880.3	1078.3	948.6	868.5	847.5
77.5°	655.4	802.0	741.3	694.1	688.3
80°	461.6	578.7	545.9	536.6	527.4
82.5°	294.8	378.2	388.4	382.5	375.7
85°	156.7	222.4	232.5	220.7	218.2
87.5°	63.2	96.9	104.5	115.4	118.8
90°	0.8	22.7	41.3	52.2	53.9
92.5°	0.8	5.1	5.9	5.9	5.1
95°	0.8	3.4	3.4	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: P860042

CATALOG NUMBER: SPHB-24SE-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)