

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: P860303

Luminaire Tested: **SPHB-9SE-N-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: P860303
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-9SE-N-L950-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

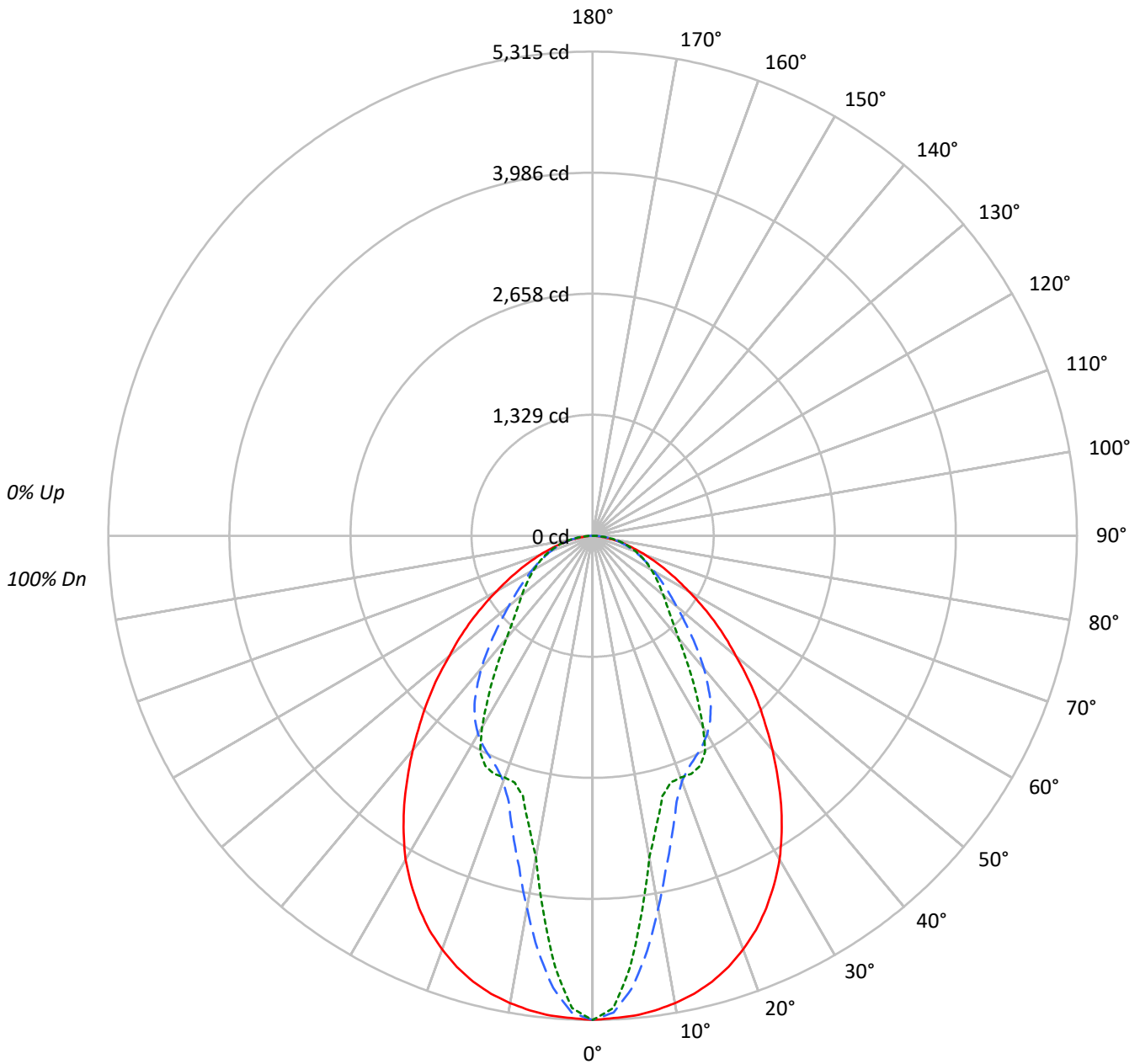
Lumens per Lamp: N/A
Luminaire Lumens: 7789.0 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 54.8
Input Voltage (V): NR
Input Current (Ain): 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: P860303

CATALOG NUMBER: SPHB-9SE-N-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								
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°	41454	41454	41454
5°	41405	39004	37158
10°	41264	32877	28343
15°	40921	27291	23884
20°	40096	23789	23446
25°	38807	23017	23995
30°	36973	22649	21837
35°	34330	21523	18096
40°	31260	19322	14942
45°	28218	16765	13118
50°	24901	14577	12284
55°	22097	13147	11824
60°	18937	12159	11583
65°	16391	11426	11524
70°	14028	10992	11510
75°	11774	10674	11407
80°	8984	10313	11171
85°	5880	9146	8609



TEST NUMBER: P860303

CATALOG NUMBER: SPHB-9SE-N-L950-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.1	5.8
10°-20°	1040.4	13.4
20°-30°	1406.1	18.1
30°-40°	1479.8	19.0
40°-50°	1255.7	16.1
50°-60°	972.7	12.5
60°-70°	677.4	8.7
70°-80°	387.9	5.0
80°-90°	112.9	1.4
90°-100°	3.0	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°	2899.6	37.2
0°-40°	4379.4	56.2
0°-60°	6607.7	84.8
0°-90°	7786.0	100.0
90°-120°	3.0	0.0
90°-150°	3.0	0.0
90°-180°	3.0	0.0
0°-180°	7789.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5315	5315	5315	5315	5315	
5°	5288	5191	4982	4790	4746	502
15°	5068	4301	3380	3042	2958	1426
25°	4509	3185	2674	2752	2788	2070
35°	3605	2450	2260	2042	1900	2247
45°	2558	1840	1520	1249	1189	1970
55°	1625	1239	967	879	870	1453
65°	888	727	619	619	624	887
75°	391	347	354	376	378	417
85°	66	85	102	96	96	84
90°	0	8	15	19	20	4
95°	0	1	2	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



TEST NUMBER: P860303

CATALOG NUMBER: SPHB-9SE-N-L950-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5314.6	5314.6	5314.6	5314.6	5314.6
2.5°	5299.2	5281.7	5239.1	5211.5	5190.0
5°	5288.2	5191.2	4981.5	4790.4	4745.7
7.5°	5255.3	5042.3	4594.0	4240.6	4151.4
10°	5209.9	4828.5	4151.0	3708.3	3578.5
12.5°	5149.4	4600.1	3726.6	3309.5	3245.8
15°	5067.5	4301.1	3379.7	3042.1	2957.7
17.5°	4961.2	3991.9	3059.6	2864.4	2840.9
20°	4830.5	3708.3	2866.0	2799.5	2824.6
22.5°	4683.7	3432.8	2753.6	2781.6	2828.7
25°	4509.2	3185.3	2674.5	2752.0	2788.1
27.5°	4313.2	2961.8	2601.9	2672.9	2672.9
30°	4105.1	2775.6	2514.7	2508.2	2424.6
32.5°	3862.1	2617.3	2400.7	2272.1	2147.9
35°	3605.3	2449.8	2260.3	2041.6	1900.4
37.5°	3335.9	2294.0	2082.6	1794.1	1662.7
40°	3070.1	2140.2	1897.6	1571.8	1467.5
42.5°	2805.6	1983.6	1704.8	1391.6	1309.3
45°	2558.1	1839.5	1519.8	1248.8	1189.2
47.5°	2306.5	1686.6	1349.0	1134.0	1092.6
50°	2052.1	1531.6	1201.3	1042.7	1012.3
52.5°	1837.9	1387.2	1076.0	956.3	938.0
55°	1624.9	1239.1	966.8	878.8	869.5
57.5°	1413.5	1101.1	867.0	807.8	805.8
60°	1213.9	972.1	779.4	746.9	742.5
62.5°	1043.9	843.9	696.2	680.8	682.8
65°	888.1	727.1	619.1	619.1	624.4
67.5°	743.7	619.5	548.5	557.9	565.2
70°	615.1	522.2	482.0	498.2	504.7
72.5°	493.4	431.7	418.3	436.2	441.4
75°	390.7	347.3	354.2	376.5	378.5
77.5°	289.7	273.5	291.3	315.7	320.1
80°	200.0	201.6	229.6	246.7	248.7
82.5°	129.0	140.8	172.0	181.0	177.7
85°	65.7	85.2	102.2	96.2	96.2
87.5°	25.2	36.9	43.4	51.1	54.0
90°	0.4	7.7	15.0	19.1	19.9
92.5°	0.4	2.0	3.2	3.7	3.2
95°	0.4	1.2	2.4	2.4	2.0
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: P860303

CATALOG NUMBER: SPHB-9SE-N-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)