

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: P860300

Luminaire Tested: **SPHB-9SE-N-L850-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: P860300
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-L850-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

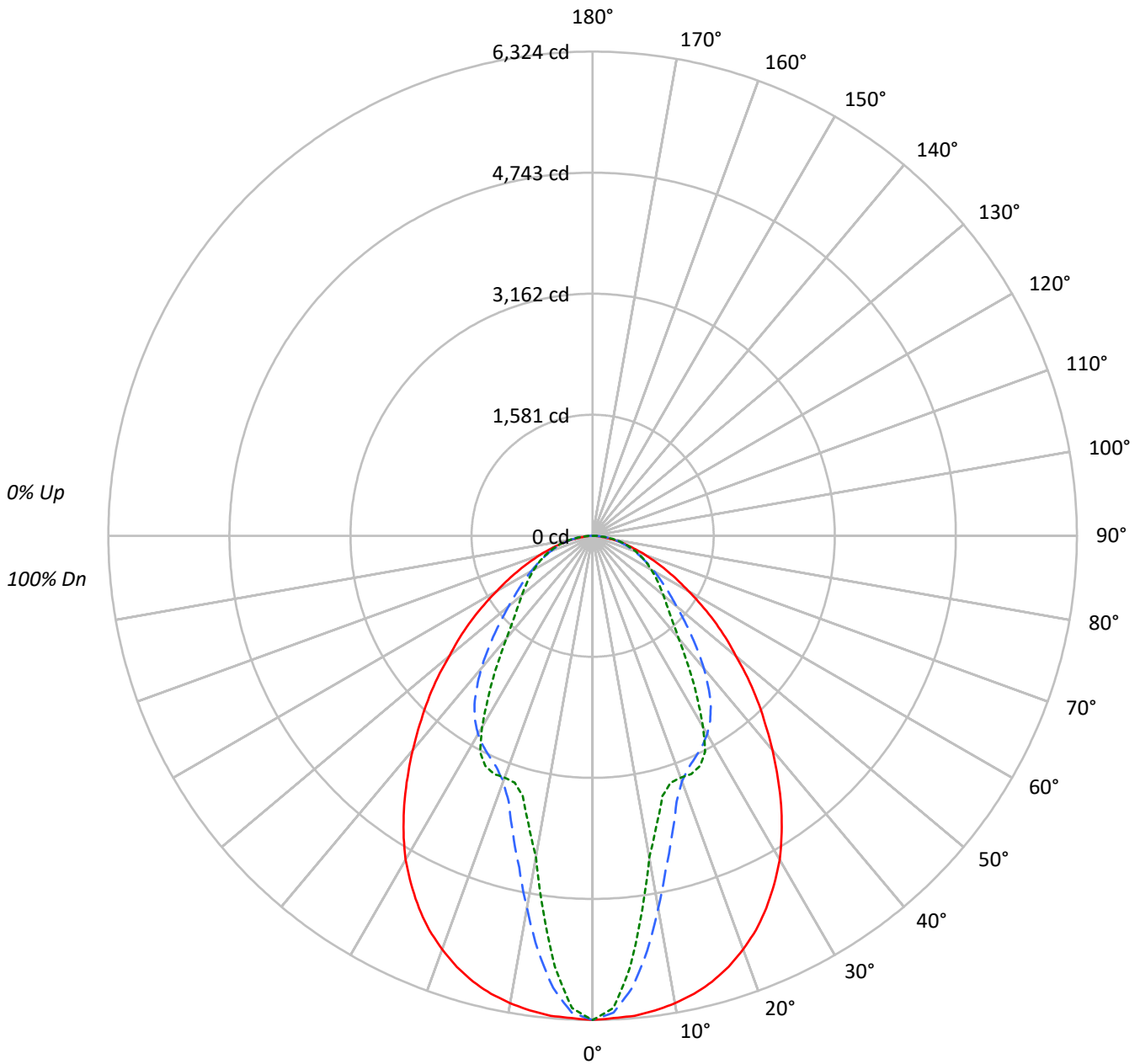
Lumens per Lamp: N/A
Luminaire Lumens: 9269.0 lumens
Efficiency: N/A
Efficacy: 169.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 54.8
Input Voltage (V): NR
Input Current (A_{in}): 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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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	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°	49330	49330	49330
5°	49273	46415	44218
10°	49104	39124	33728
15°	48696	32477	28422
20°	47715	28310	27901
25°	46181	27391	28555
30°	43998	26952	25987
35°	40852	25612	21534
40°	37200	22992	17781
45°	33580	19950	15610
50°	29634	17348	14617
55°	26296	15645	14071
60°	22536	14469	13784
65°	19506	13599	13715
70°	16691	13081	13697
75°	14014	12703	13577
80°	10690	12276	13296
85°	6998	10891	10238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.2	5.8
10°-20°	1238.1	13.4
20°-30°	1673.2	18.1
30°-40°	1761.0	19.0
40°-50°	1494.3	16.1
50°-60°	1157.5	12.5
60°-70°	806.2	8.7
70°-80°	461.6	5.0
80°-90°	134.3	1.4
90°-100°	3.6	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°	3450.5	37.2
0°-40°	5211.5	56.2
0°-60°	7863.3	84.8
0°-90°	9265.4	100.0
90°-120°	3.6	0.0
90°-150°	3.6	0.0
90°-180°	4.0	0.0
0°-180°	9269.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6324	6324	6324	6324	6324	
5°	6293	6178	5928	5701	5648	598
15°	6030	5118	4022	3620	3520	1697
25°	5366	3791	3183	3275	3318	2463
35°	4290	2915	2690	2430	2262	2674
45°	3044	2189	1809	1486	1415	2345
55°	1934	1474	1150	1046	1035	1729
65°	1057	865	737	737	743	1056
75°	465	413	422	448	450	496
85°	78	101	122	114	114	99
90°	0	9	18	23	24	4
95°	0	1	3	3	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	



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CATALOG NUMBER: SPHB-9SE-N-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6324.4	6324.4	6324.4	6324.4	6324.4
2.5°	6306.1	6285.3	6234.6	6201.8	6176.2
5°	6293.0	6177.6	5928.0	5700.6	5647.5
7.5°	6253.9	6000.4	5466.9	5046.4	4940.2
10°	6199.8	5746.0	4939.7	4412.9	4258.4
12.5°	6127.9	5474.2	4434.7	3938.3	3862.5
15°	6030.4	5118.3	4021.9	3620.1	3519.7
17.5°	5903.9	4750.4	3640.9	3408.7	3380.7
20°	5748.4	4412.9	3410.6	3331.4	3361.4
22.5°	5573.6	4085.1	3276.9	3310.2	3366.2
25°	5366.0	3790.6	3182.7	3274.9	3317.9
27.5°	5132.8	3524.6	3096.3	3180.8	3180.8
30°	4885.1	3302.9	2992.5	2984.8	2885.3
32.5°	4595.9	3114.6	2856.8	2703.8	2556.0
35°	4290.3	2915.2	2689.8	2429.5	2261.5
37.5°	3969.7	2729.8	2478.3	2135.0	1978.6
40°	3653.5	2546.9	2258.1	1870.4	1746.3
42.5°	3338.7	2360.5	2028.8	1656.1	1558.0
45°	3044.2	2189.1	1808.6	1486.1	1415.1
47.5°	2744.8	2007.1	1605.4	1349.5	1300.2
50°	2442.1	1822.6	1429.6	1240.8	1204.6
52.5°	2187.2	1650.7	1280.4	1138.0	1116.3
55°	1933.7	1474.5	1150.5	1045.8	1034.7
57.5°	1682.1	1310.4	1031.8	961.3	958.9
60°	1444.6	1156.8	927.5	888.9	883.6
62.5°	1242.3	1004.3	828.5	810.2	812.6
65°	1056.9	865.2	736.8	736.8	743.1
67.5°	885.0	737.3	652.8	663.9	672.6
70°	731.9	621.4	573.6	592.9	600.6
72.5°	587.1	513.7	497.8	519.0	525.3
75°	465.0	413.3	421.5	448.1	450.5
77.5°	344.7	325.4	346.7	375.6	380.9
80°	238.0	240.0	273.3	293.6	296.0
82.5°	153.5	167.5	204.7	215.3	211.5
85°	78.2	101.4	121.7	114.4	114.4
87.5°	29.9	43.9	51.7	60.8	64.2
90°	0.5	9.2	17.9	22.7	23.7
92.5°	0.5	2.4	3.9	4.3	3.9
95°	0.5	1.4	2.9	2.9	2.4
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)