

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: P860299

Luminaire Tested: **SPHB-9SE-N-L840-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: P860299
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-L840-CD
Description: 9000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

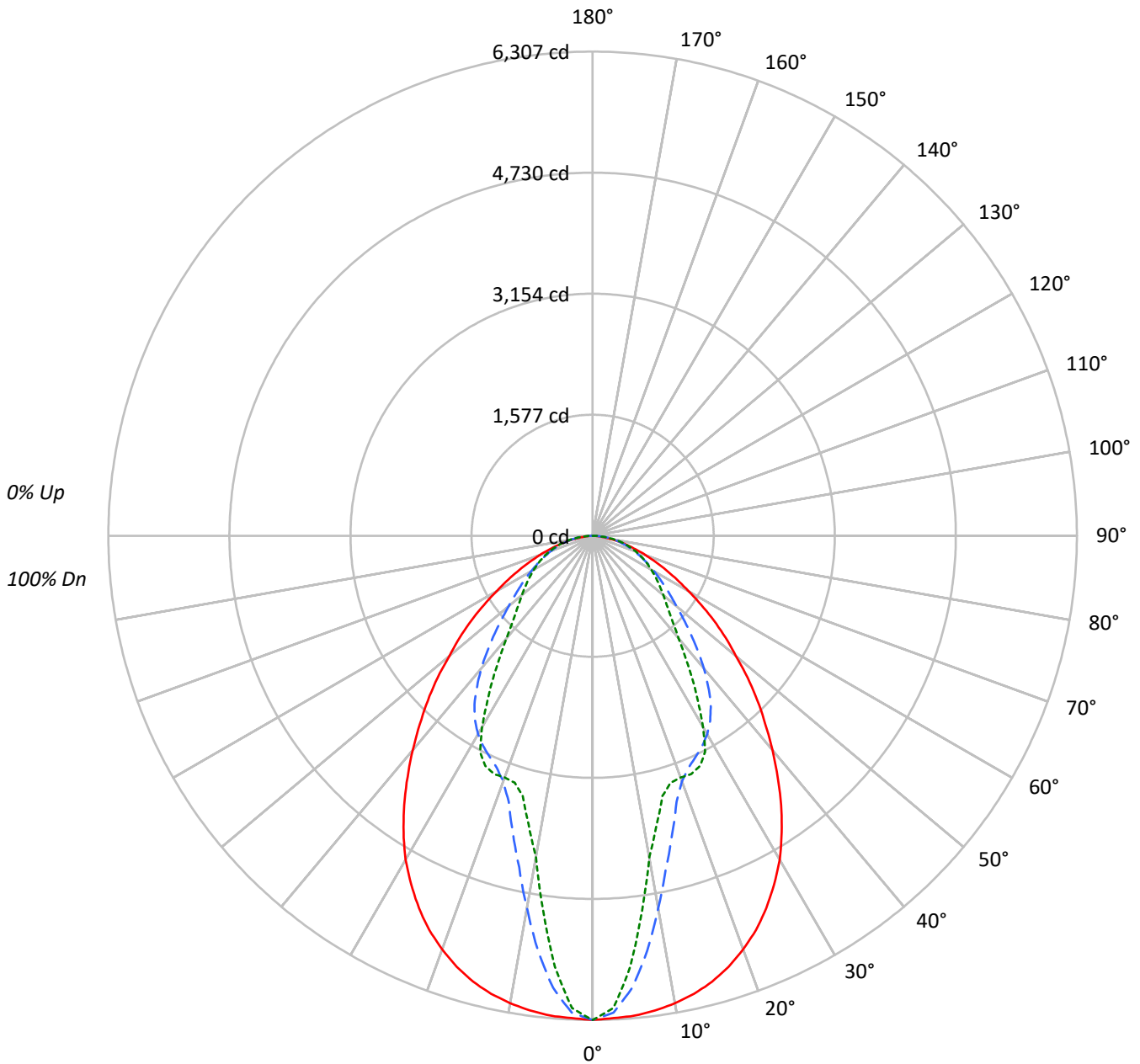
Lumens per Lamp: N/A
Luminaire Lumens: 9244.0 lumens
Efficiency: N/A
Efficacy: 168.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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								
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°	49197	49197	49197
5°	49139	46289	44099
10°	48972	39018	33637
15°	48564	32389	28345
20°	47586	28233	27826
25°	46057	27317	28478
30°	43880	26879	25916
35°	40742	25543	21476
40°	37099	22930	17733
45°	33488	19896	15568
50°	29554	17301	14578
55°	26225	15603	14033
60°	22475	14430	13747
65°	19453	13562	13676
70°	16648	13045	13660
75°	13974	12669	13540
80°	10664	12240	13260
85°	6981	10856	10211



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.8	5.8
10°-20°	1234.8	13.4
20°-30°	1668.7	18.1
30°-40°	1756.2	19.0
40°-50°	1490.2	16.1
50°-60°	1154.4	12.5
60°-70°	804.0	8.7
70°-80°	460.4	5.0
80°-90°	134.0	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°	3441.2	37.2
0°-40°	5197.4	56.2
0°-60°	7842.1	84.8
0°-90°	9240.4	100.0
90°-120°	3.6	0.0
90°-150°	3.6	0.0
90°-180°	4.0	0.0
0°-180°	9244.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6307	6307	6307	6307	6307	
5°	6276	6161	5912	5685	5632	596
15°	6014	5104	4011	3610	3510	1692
25°	5352	3780	3174	3266	3309	2457
35°	4279	2907	2682	2423	2255	2667
45°	3036	2183	1804	1482	1411	2338
55°	1928	1470	1147	1043	1032	1724
65°	1054	863	735	735	741	1053
75°	464	412	420	447	449	494
85°	78	101	121	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	0



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CATALOG NUMBER: SPHB-9SE-N-L840-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6307.3	6307.3	6307.3	6307.3	6307.3
2.5°	6289.0	6268.3	6217.8	6185.0	6159.5
5°	6276.0	6161.0	5912.0	5685.2	5632.3
7.5°	6237.0	5984.2	5452.2	5032.8	4926.8
10°	6183.1	5730.5	4926.4	4401.0	4246.9
12.5°	6111.4	5459.4	4422.7	3927.7	3852.1
15°	6014.1	5104.5	4011.0	3610.4	3510.2
17.5°	5887.9	4737.6	3631.1	3399.5	3371.6
20°	5732.9	4401.0	3401.4	3322.4	3352.3
22.5°	5558.6	4074.1	3268.0	3301.3	3357.1
25°	5351.5	3780.4	3174.1	3266.1	3309.0
27.5°	5119.0	3515.0	3087.9	3172.2	3172.2
30°	4872.0	3294.0	2984.4	2976.7	2877.5
32.5°	4583.5	3106.2	2849.1	2696.5	2549.1
35°	4278.7	2907.4	2682.5	2423.0	2255.4
37.5°	3959.0	2722.5	2471.6	2129.3	1973.2
40°	3643.6	2540.0	2252.0	1865.4	1741.6
42.5°	3329.7	2354.1	2023.3	1651.6	1553.8
45°	3035.9	2183.2	1803.7	1482.1	1411.3
47.5°	2737.4	2001.7	1601.0	1345.8	1296.7
50°	2435.5	1817.7	1425.8	1237.5	1201.4
52.5°	2181.3	1646.3	1277.0	1134.9	1113.3
55°	1928.5	1470.5	1147.4	1043.0	1031.9
57.5°	1677.6	1306.8	1029.0	958.7	956.3
60°	1440.7	1153.7	925.0	886.5	881.2
62.5°	1238.9	1001.5	826.3	808.0	810.4
65°	1054.0	862.9	734.8	734.8	741.0
67.5°	882.6	735.3	651.0	662.1	670.7
70°	730.0	619.7	572.0	591.3	599.0
72.5°	585.5	512.3	496.4	517.6	523.9
75°	463.7	412.2	420.4	446.8	449.3
77.5°	343.8	324.5	345.7	374.6	379.9
80°	237.4	239.3	272.5	292.8	295.2
82.5°	153.1	167.1	204.2	214.8	210.9
85°	78.0	101.1	121.3	114.1	114.1
87.5°	29.9	43.8	51.5	60.7	64.0
90°	0.5	9.1	17.8	22.6	23.6
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)