

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: P860138

Luminaire Tested: **SPHB-36SE-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: P860138
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-36SE-N-L850-CD
Description: 36000 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

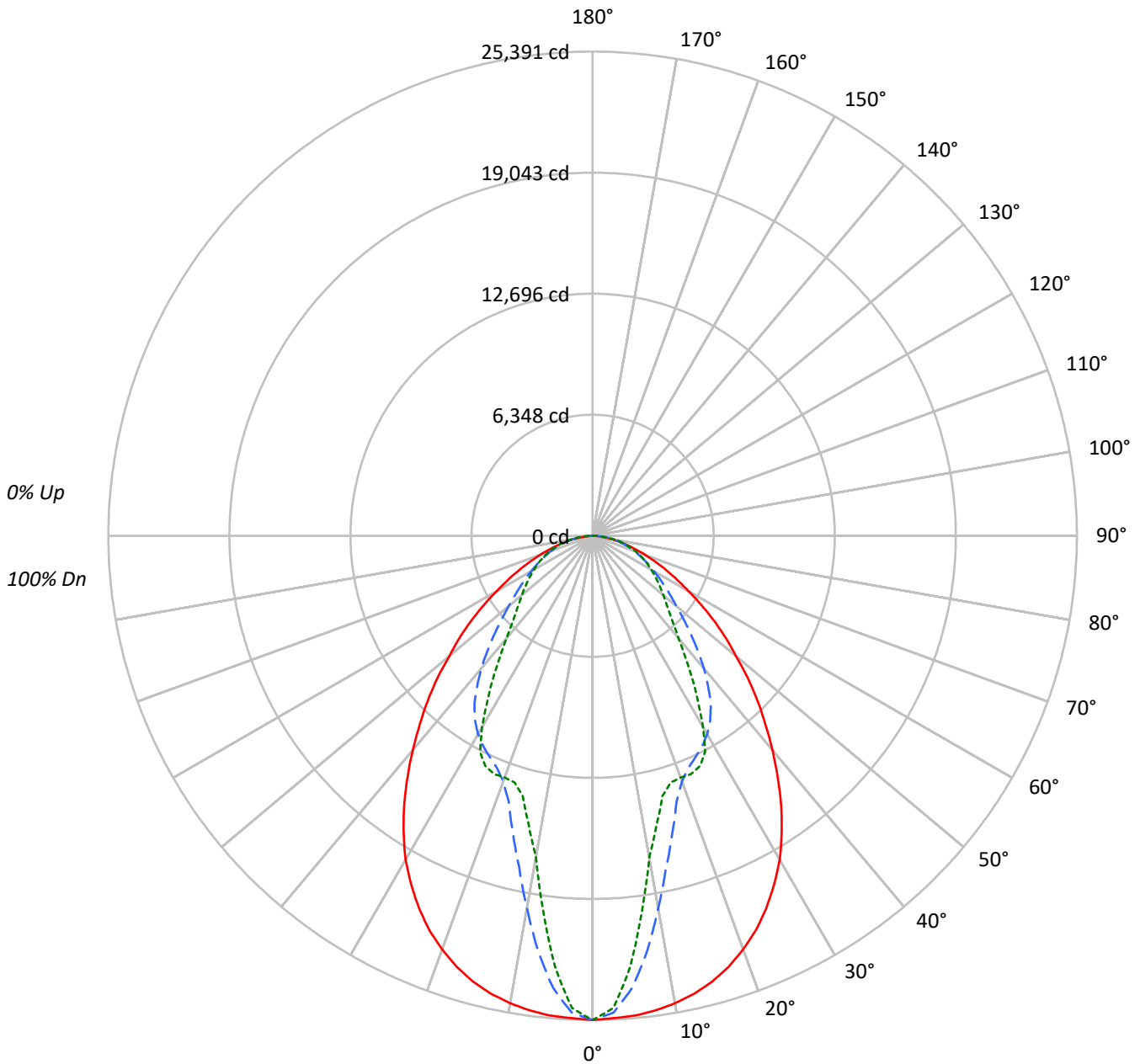
Lumens per Lamp: N/A
Luminaire Lumens: 37213.0 lumens
Efficiency: N/A
Efficacy: 154.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 240.8
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									
RC	80									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°	133974	133974	133974
5°	133819	126057	120092
10°	133362	106255	91601
15°	132252	88203	77191
20°	129588	76886	75776
25°	125423	74392	77552
30°	119494	73199	70577
35°	110949	69559	58484
40°	101031	62445	48292
45°	91198	54183	42395
50°	80481	47114	39700
55°	71416	42493	38213
60°	61203	39296	37434
65°	52977	36931	37246
70°	45335	35526	37201
75°	38056	34498	36869
80°	29037	33336	36104
85°	19010	29574	27812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2164.8	5.8
10°-20°	4970.7	13.4
20°-30°	6717.6	18.1
30°-40°	7069.9	19.0
40°-50°	5999.1	16.1
50°-60°	4647.2	12.5
60°-70°	3236.6	8.7
70°-80°	1853.3	5.0
80°-90°	539.3	1.4
90°-100°	14.4	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°	13853.1	37.2
0°-40°	20923.1	56.2
0°-60°	31569.3	84.8
0°-90°	37198.6	100.0
90°-120°	14.4	0.0
90°-150°	14.4	0.0
90°-180°	14.0	0.0
0°-180°	37213.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	25391	25391	25391	25391	25391	
5°	25265	24802	23800	22887	22673	###
15°	24211	20549	16147	14534	14131	6813
25°	21543	15218	12778	13148	13321	9890
35°	17225	11704	10799	9754	9080	10737
45°	12222	8789	7261	5966	5681	9413
55°	7763	5920	4619	4199	4154	6941
65°	4243	3474	2958	2958	2983	4238
75°	1867	1659	1692	1799	1808	1990
85°	314	407	488	459	459	399
90°	2	37	72	91	95	17
95°	2	6	12	12	10	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	25391.1	25391.1	25391.1	25391.1	25391.1
2.5°	25317.4	25234.1	25030.5	24898.7	24796.0
5°	25265.1	24801.8	23799.6	22886.7	22673.4
7.5°	25108.1	24090.4	21948.5	20260.1	19833.7
10°	24891.0	23068.9	19831.7	17717.0	17096.7
12.5°	24602.1	21977.6	17804.2	15811.5	15507.2
15°	24210.6	20549.0	16146.9	14534.1	14130.9
17.5°	23702.7	19071.9	14617.5	13685.1	13572.7
20°	23078.6	17717.0	13692.8	13374.9	13495.1
22.5°	22376.9	16400.8	13155.9	13289.7	13514.5
25°	21543.4	15218.4	12777.9	13148.2	13320.7
27.5°	20607.1	14150.3	12430.9	12770.2	12770.2
30°	19612.7	13260.6	12014.2	11983.2	11583.9
32.5°	18451.6	12504.6	11469.5	10855.0	10261.9
35°	17224.6	11704.0	10798.8	9754.0	9079.5
37.5°	15937.5	10959.7	9949.8	8571.6	7943.6
40°	14667.9	10225.0	9065.9	7509.4	7011.2
42.5°	13404.0	9476.8	8145.1	6648.7	6255.2
45°	12221.6	8788.7	7261.2	5966.4	5681.4
47.5°	11019.8	8057.9	6445.2	5417.8	5220.1
50°	9804.4	7317.5	5739.6	4981.7	4836.3
52.5°	8780.9	6627.4	5140.6	4568.8	4481.6
55°	7763.3	5919.9	4619.2	4198.6	4154.0
57.5°	6753.4	5260.8	4142.4	3859.4	3849.7
60°	5799.7	4644.4	3723.7	3568.6	3547.3
62.5°	4987.5	4031.9	3326.3	3252.6	3262.3
65°	4243.2	3473.6	2958.0	2958.0	2983.2
67.5°	3553.1	2959.9	2620.7	2665.3	2700.2
70°	2938.6	2494.7	2302.8	2380.4	2411.4
72.5°	2357.1	2062.5	1998.5	2083.8	2109.0
75°	1866.7	1659.3	1692.2	1798.8	1808.5
77.5°	1384.0	1306.5	1391.8	1508.1	1529.4
80°	955.6	963.4	1097.1	1178.5	1188.2
82.5°	616.4	672.6	821.9	864.5	849.0
85°	314.0	407.1	488.5	459.4	459.4
87.5°	120.2	176.4	207.4	244.2	257.8
90°	1.9	36.8	71.7	91.1	95.0
92.5°	1.9	9.7	15.5	17.4	15.5
95°	1.9	5.8	11.6	11.6	9.7
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



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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)