

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: P860137

Luminaire Tested: **SPHB-36SE-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: P860137
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-L840-CD
Description: 36000 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

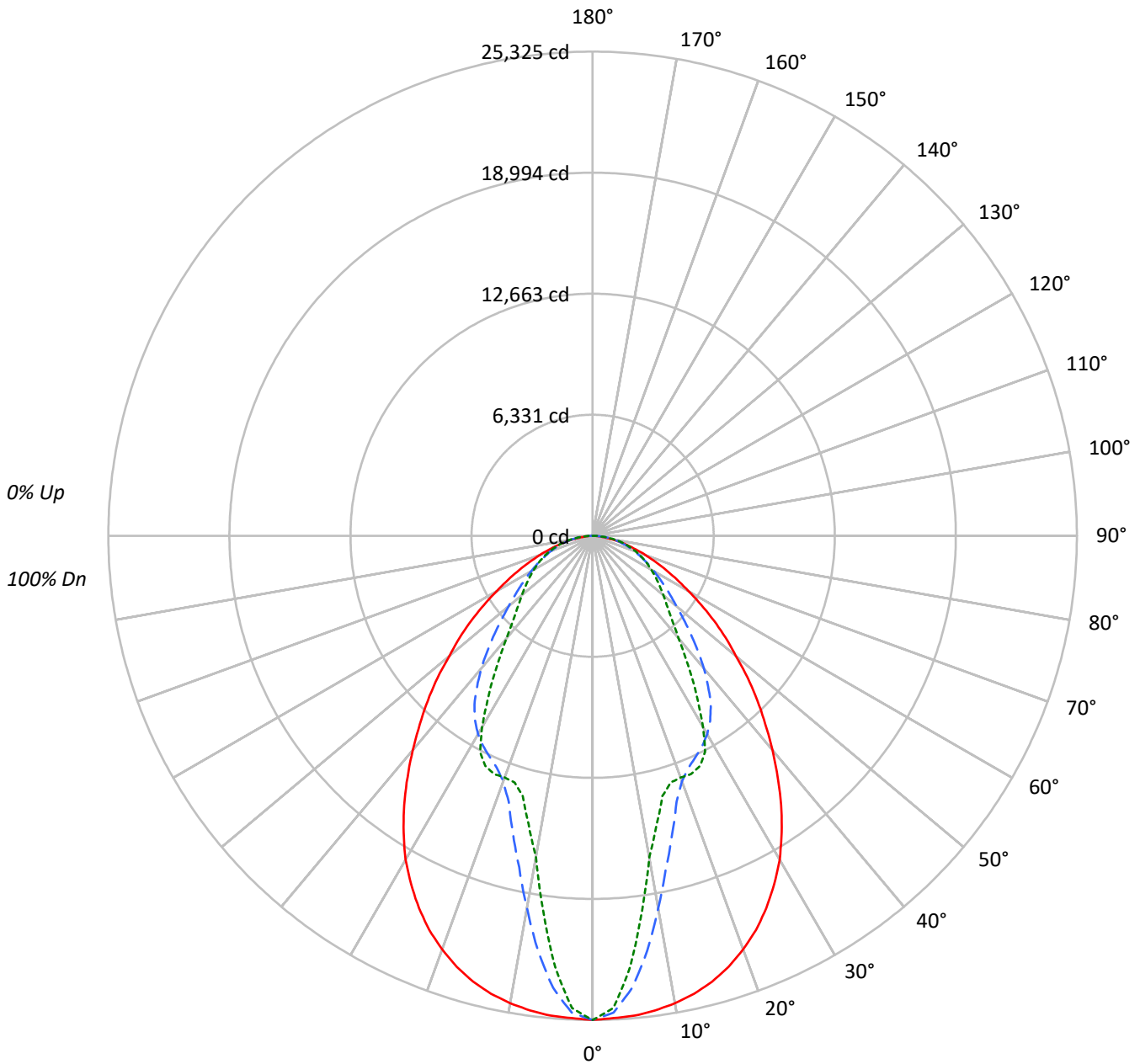
Lumens per Lamp: N/A
Luminaire Lumens: 37116.0 lumens
Efficiency: N/A
Efficacy: 154.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

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				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°	133625	133625	133625
5°	133470	125728	119779
10°	133014	105978	91362
15°	131907	87973	76990
20°	129250	76686	75578
25°	125096	74198	77349
30°	119183	73008	70393
35°	110660	69378	58331
40°	100767	62282	48166
45°	90960	54042	42284
50°	80272	46991	39596
55°	71229	42382	38114
60°	61044	39193	37336
65°	52838	36835	37148
70°	45217	35433	37104
75°	37956	34408	36773
80°	28961	33251	36010
85°	18961	29495	27740



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2159.2	5.8
10°-20°	4957.7	13.4
20°-30°	6700.1	18.1
30°-40°	7051.5	19.0
40°-50°	5983.5	16.1
50°-60°	4635.0	12.5
60°-70°	3228.2	8.7
70°-80°	1848.5	5.0
80°-90°	537.9	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°	13817.0	37.2
0°-40°	20868.5	56.2
0°-60°	31487.0	84.8
0°-90°	37101.6	100.0
90°-120°	14.4	0.0
90°-150°	14.4	0.0
90°-180°	14.0	0.0
0°-180°	37116.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	25325	25325	25325	25325	25325	
5°	25199	24737	23738	22827	22614	###
15°	24148	20495	16105	14496	14094	6795
25°	21487	15179	12745	13114	13286	9864
35°	17180	11674	10771	9729	9056	10709
45°	12190	8766	7242	5951	5667	9389
55°	7743	5904	4607	4188	4143	6923
65°	4232	3465	2950	2950	2975	4227
75°	1862	1655	1688	1794	1804	1985
85°	313	406	487	458	458	398
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



TEST NUMBER: P860137

CATALOG NUMBER: SPHB-36SE-N-L840-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	25324.9	25324.9	25324.9	25324.9	25324.9
2.5°	25251.4	25168.3	24965.3	24833.8	24731.4
5°	25199.2	24737.2	23737.6	22827.0	22614.3
7.5°	25042.6	24027.6	21891.3	20207.3	19782.0
10°	24826.1	23008.7	19780.1	17670.8	17052.1
12.5°	24538.0	21920.3	17757.8	15770.3	15466.8
15°	24147.5	20495.4	16104.8	14496.2	14094.1
17.5°	23640.9	19022.2	14579.4	13649.4	13537.3
20°	23018.4	17670.8	13657.2	13340.1	13459.9
22.5°	22318.5	16358.0	13121.6	13255.0	13479.3
25°	21487.2	15178.7	12744.6	13113.9	13285.9
27.5°	20553.4	14113.4	12398.5	12736.9	12736.9
30°	19561.6	13226.0	11982.9	11951.9	11553.7
32.5°	18403.5	12472.0	11439.6	10826.7	10235.1
35°	17179.7	11673.5	10770.7	9728.6	9055.8
37.5°	15896.0	10931.1	9923.9	8549.3	7922.8
40°	14629.6	10198.4	9042.3	7489.8	6992.9
42.5°	13369.1	9452.1	8123.9	6631.4	6238.9
45°	12189.7	8765.8	7242.3	5950.8	5666.6
47.5°	10991.1	8036.9	6428.4	5403.7	5206.5
50°	9778.9	7298.4	5724.6	4968.7	4823.7
52.5°	8758.1	6610.1	5127.2	4556.9	4469.9
55°	7743.0	5904.4	4607.2	4187.6	4143.2
57.5°	6735.8	5247.1	4131.6	3849.3	3839.6
60°	5784.6	4632.3	3714.0	3559.3	3538.0
62.5°	4974.5	4021.4	3317.6	3244.2	3253.8
65°	4232.1	3464.6	2950.3	2950.3	2975.4
67.5°	3543.8	2952.2	2613.9	2658.3	2693.1
70°	2931.0	2488.2	2296.8	2374.1	2405.1
72.5°	2350.9	2057.1	1993.3	2078.3	2103.5
75°	1861.8	1654.9	1687.8	1794.1	1803.8
77.5°	1380.4	1303.1	1388.1	1504.1	1525.4
80°	953.1	960.9	1094.3	1175.5	1185.1
82.5°	614.8	670.9	819.7	862.3	846.8
85°	313.2	406.0	487.2	458.2	458.2
87.5°	119.9	175.9	206.9	243.6	257.1
90°	1.9	36.7	71.5	90.9	94.7
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)