

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: P860111

Luminaire Tested: **SPHB-36HE-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: P860111
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-36HE-N-L850-CD
Description: 36000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 5000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

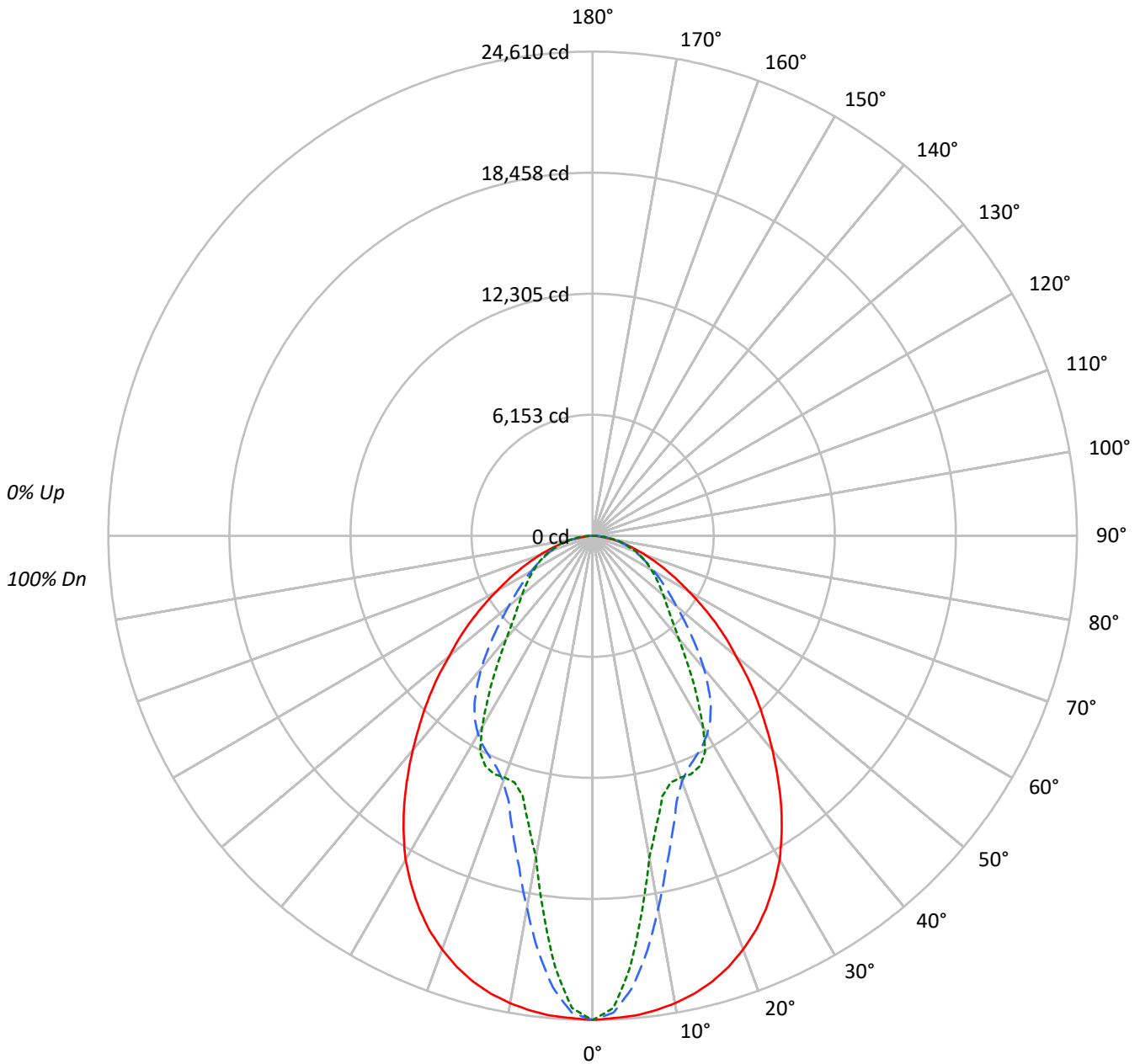
Lumens per Lamp: N/A
Luminaire Lumens: 36068.0 lumens
Efficiency: N/A
Efficacy: 167.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 216
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°	129852	129852	129852
5°	129701	122178	116397
10°	129258	102985	88782
15°	128183	85489	74816
20°	125600	74520	73444
25°	121564	72103	75165
30°	115817	70946	68405
35°	107535	67418	56684
40°	97922	60523	46807
45°	88392	52516	41090
50°	78004	45665	38478
55°	69218	41186	37038
60°	59320	38086	36282
65°	51346	35795	36099
70°	43940	34434	36057
75°	36883	33438	35736
80°	28143	32312	34995
85°	18428	28660	26959



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2098.2	5.8
10°-20°	4817.7	13.4
20°-30°	6510.9	18.1
30°-40°	6852.4	19.0
40°-50°	5814.5	16.1
50°-60°	4504.2	12.5
60°-70°	3137.0	8.7
70°-80°	1796.3	5.0
80°-90°	522.7	1.4
90°-100°	14.0	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°	13426.9	37.2
0°-40°	20279.3	56.2
0°-60°	30598.0	84.8
0°-90°	36054.0	100.0
90°-120°	14.0	0.0
90°-150°	14.0	0.0
90°-180°	14.0	0.0
0°-180°	36068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	24610	24610	24610	24610	24610	
5°	24488	24039	23067	22182	21976	###
15°	23466	19917	15650	14087	13696	6603
25°	20880	14750	12385	12744	12911	9585
35°	16695	11344	10466	9454	8800	10407
45°	11846	8518	7038	5783	5507	9123
55°	7524	5738	4477	4069	4026	6727
65°	4113	3367	2867	2867	2891	4108
75°	1809	1608	1640	1744	1753	1929
85°	304	394	473	445	445	387
90°	2	36	70	88	92	17
95°	2	6	11	11	9	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: P860111

CATALOG NUMBER: SPHB-36HE-N-L850-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	24609.8	24609.8	24609.8	24609.8	24609.8
2.5°	24538.4	24457.6	24260.4	24132.6	24033.0
5°	24487.7	24038.7	23067.4	22182.5	21975.8
7.5°	24335.5	23349.2	21273.2	19636.8	19223.4
10°	24125.1	22359.1	19221.5	17171.8	16570.6
12.5°	23845.2	21301.3	17256.4	15325.0	15030.0
15°	23465.7	19916.7	15650.0	14086.9	13696.1
17.5°	22973.4	18485.1	14167.7	13264.0	13155.0
20°	22368.5	17171.8	13271.5	12963.4	13079.9
22.5°	21688.4	15896.2	12751.1	12880.7	13098.7
25°	20880.5	14750.1	12384.8	12743.6	12910.8
27.5°	19973.1	13714.9	12048.5	12377.2	12377.2
30°	19009.2	12852.6	11644.5	11614.5	11227.4
32.5°	17883.9	12119.9	11116.6	10521.0	9946.1
35°	16694.6	11343.9	10466.5	9453.9	8800.1
37.5°	15447.1	10622.5	9643.7	8307.9	7699.1
40°	14216.5	9910.4	8786.9	7278.3	6795.5
42.5°	12991.6	9185.2	7894.5	6444.1	6062.7
45°	11845.6	8518.3	7037.8	5782.8	5506.6
47.5°	10680.7	7810.0	6246.9	5251.1	5059.5
50°	9502.7	7092.3	5563.0	4828.4	4687.5
52.5°	8510.8	6423.5	4982.5	4428.2	4343.7
55°	7524.4	5737.7	4477.1	4069.4	4026.2
57.5°	6545.6	5098.9	4014.9	3740.6	3731.2
60°	5621.2	4501.5	3609.1	3458.8	3438.1
62.5°	4834.0	3907.8	3223.9	3152.6	3161.9
65°	4112.6	3366.7	2867.0	2867.0	2891.4
67.5°	3443.8	2868.9	2540.1	2583.3	2617.1
70°	2848.2	2418.0	2232.0	2307.1	2337.2
72.5°	2284.6	1999.0	1937.0	2019.7	2044.1
75°	1809.2	1608.2	1640.2	1743.5	1752.9
77.5°	1341.4	1266.3	1348.9	1461.7	1482.3
80°	926.2	933.7	1063.4	1142.3	1151.7
82.5°	597.4	651.9	796.6	837.9	822.9
85°	304.4	394.5	473.4	445.3	445.3
87.5°	116.5	171.0	201.0	236.7	249.9
90°	1.9	35.7	69.5	88.3	92.1
92.5°	1.9	9.4	15.0	16.9	15.0
95°	1.9	5.6	11.3	11.3	9.4
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)