

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: P860109

Luminaire Tested: **SPHB-36HE-N-L835-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: P860109
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-L835-CD
Description: 36000 Lumen High Efficacy Select Pro High Bay with Narrow Lens and, 3500K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

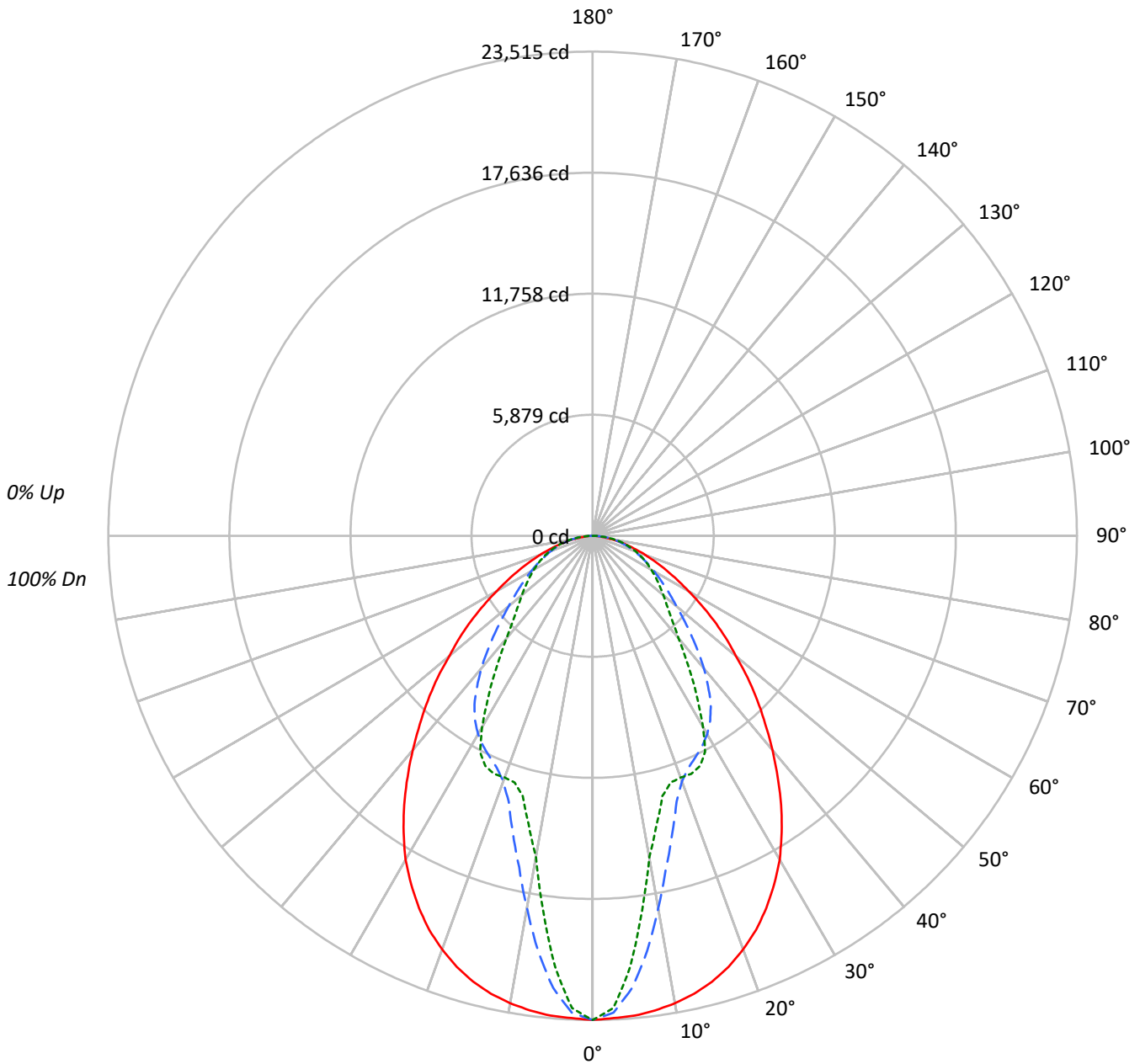
Lumens per Lamp: N/A
Luminaire Lumens: 34463.0 lumens
Efficiency: N/A
Efficacy: 159.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

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°	124074	124074	124074
5°	123929	116741	111217
10°	123506	98403	84832
15°	122479	81685	71487
20°	120011	71205	70176
25°	116154	68894	71821
30°	110664	67790	65361
35°	102750	64418	54162
40°	93564	57830	44724
45°	84458	50179	39262
50°	74534	43632	36766
55°	66138	39352	35389
60°	56680	36392	34667
65°	49061	34202	34493
70°	41985	32900	34452
75°	35242	31950	34145
80°	26891	30875	33436
85°	17605	27388	25760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2004.8	5.8
10°-20°	4603.4	13.4
20°-30°	6221.2	18.1
30°-40°	6547.5	19.0
40°-50°	5555.8	16.1
50°-60°	4303.7	12.5
60°-70°	2997.4	8.7
70°-80°	1716.4	5.0
80°-90°	499.5	1.4
90°-100°	13.3	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°	12829.4	37.2
0°-40°	19376.9	56.2
0°-60°	29236.4	84.8
0°-90°	34449.6	100.0
90°-120°	13.3	0.0
90°-150°	13.3	0.0
90°-180°	13.0	0.0
0°-180°	34463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	23515	23515	23515	23515	23515	
5°	23398	22969	22041	21195	20998	###
15°	22422	19030	14954	13460	13087	6309
25°	19951	14094	11834	12176	12336	9159
35°	15952	10839	10001	9033	8408	9943
45°	11318	8139	6725	5526	5262	8717
55°	7190	5482	4278	3888	3847	6428
65°	3930	3217	2739	2739	2763	3925
75°	1729	1537	1567	1666	1675	1843
85°	291	377	452	426	426	370
90°	2	34	66	84	88	16
95°	2	5	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	23514.7	23514.7	23514.7	23514.7	23514.7
2.5°	23446.5	23369.3	23180.8	23058.7	22963.6
5°	23398.0	22969.0	22040.9	21195.4	20997.9
7.5°	23252.6	22310.2	20326.5	18762.9	18368.0
10°	23051.6	21364.1	18366.2	16407.7	15833.2
12.5°	22784.1	20353.4	16488.5	14643.1	14361.2
15°	22421.5	19030.4	14953.6	13460.1	13086.7
17.5°	21951.1	17662.5	13537.2	12673.8	12569.7
20°	21373.1	16407.7	12681.0	12386.6	12497.9
22.5°	20723.2	15188.8	12183.7	12307.6	12515.8
25°	19951.3	14093.7	11833.6	12176.5	12336.3
27.5°	19084.3	13104.6	11512.3	11826.5	11826.5
30°	18163.4	12280.6	11126.4	11097.6	10727.8
32.5°	17088.1	11580.5	10621.9	10052.9	9503.5
35°	15951.7	10839.1	10000.8	9033.2	8408.5
37.5°	14759.7	10149.8	9214.5	7938.2	7356.5
40°	13583.9	9469.4	8395.9	6954.4	6493.1
42.5°	12413.5	8776.5	7543.2	6157.4	5793.0
45°	11318.4	8139.2	6724.6	5525.5	5261.6
47.5°	10205.4	7462.4	5968.9	5017.5	4834.3
50°	9079.9	6776.7	5315.4	4613.5	4478.9
52.5°	8132.0	6137.6	4760.7	4231.2	4150.4
55°	7189.6	5482.4	4277.8	3888.3	3847.0
57.5°	6254.3	4872.0	3836.2	3574.1	3565.2
60°	5371.1	4301.2	3448.5	3304.9	3285.1
62.5°	4618.9	3733.9	3080.5	3012.3	3021.2
65°	3929.6	3216.9	2739.4	2739.4	2762.7
67.5°	3290.5	2741.2	2427.0	2468.3	2500.6
70°	2721.5	2310.4	2132.6	2204.4	2233.2
72.5°	2182.9	1910.0	1850.8	1929.8	1953.1
75°	1728.7	1536.7	1567.2	1665.9	1674.9
77.5°	1281.7	1209.9	1288.9	1396.6	1416.4
80°	885.0	892.2	1016.1	1091.5	1100.4
82.5°	570.9	622.9	761.1	800.6	786.3
85°	290.8	377.0	452.4	425.5	425.5
87.5°	111.3	163.4	192.1	226.2	238.8
90°	1.8	34.1	66.4	84.4	88.0
92.5°	1.8	9.0	14.4	16.2	14.4
95°	1.8	5.4	10.8	10.8	9.0
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)