

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: P860101

Luminaire Tested: **SPHB-36HE-M-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: P860101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-36HE-M-L840-CD
Description: 36000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 4000K 80CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

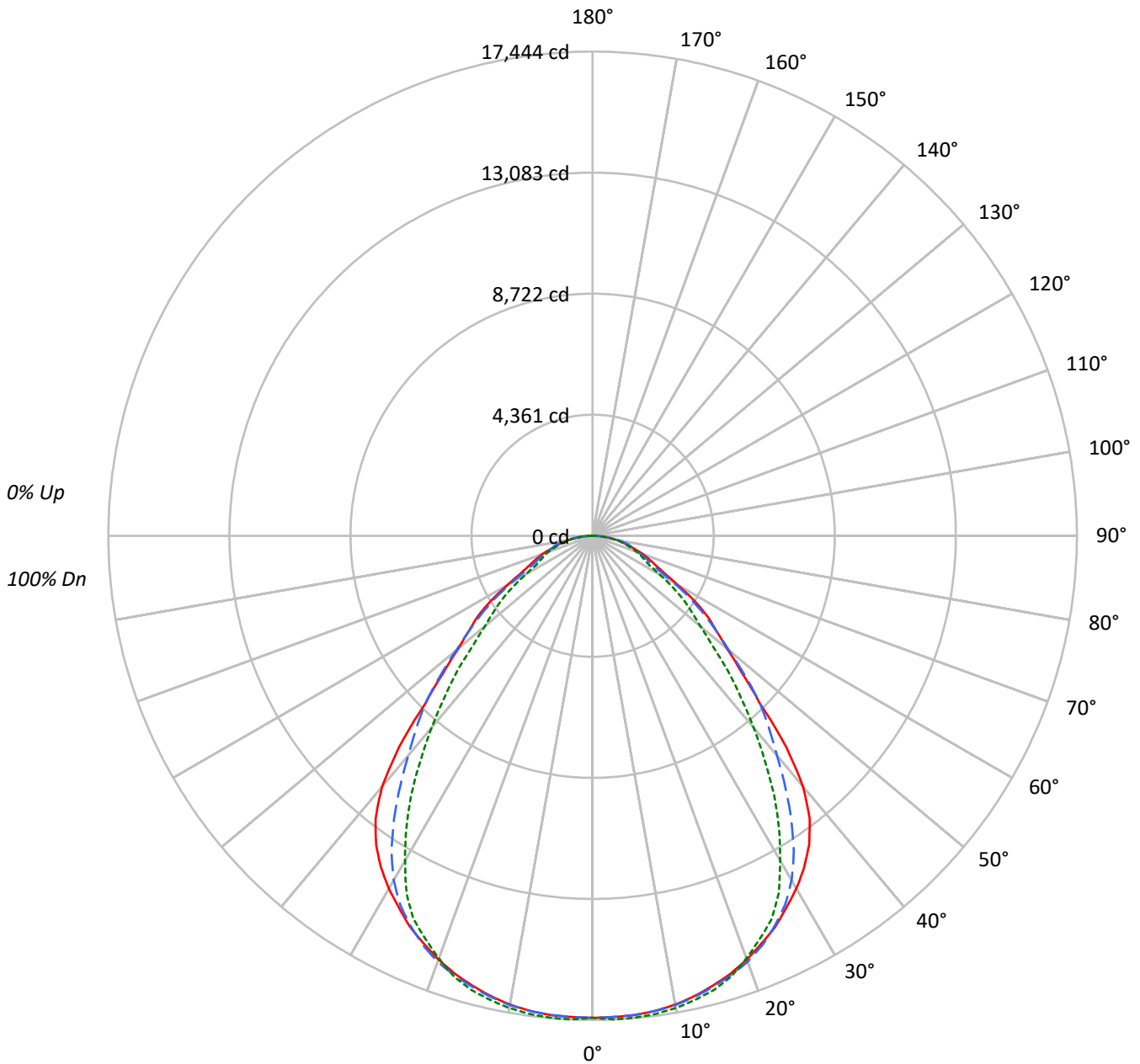
Lumens per Lamp: N/A
Luminaire Lumens: 36046.0 lumens
Efficiency: N/A
Efficacy: 166.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 216
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P860101

CATALOG NUMBER: SPHB-36HE-M-L840-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860101

CATALOG NUMBER: SPHB-36HE-M-L840-CD

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	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	91632	91632	91632
5°	91812	91788	92309
10°	91892	91990	92555
15°	91624	91862	92500
20°	91223	91687	90953
25°	90557	90303	88770
30°	89410	87303	82321
35°	87533	80319	73370
40°	81233	71089	62143
45°	63375	63546	51428
50°	51761	52494	41533
55°	46376	44627	36494
60°	37126	35144	29199
65°	31113	28482	25823
70°	29540	27138	26290
75°	26802	28810	25355
80°	26934	29441	26724
85°	23435	27455	22327



TEST NUMBER: P860101

CATALOG NUMBER: SPHB-36HE-M-L840-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1651.2	4.6
10°-20°	4748.9	13.2
20°-30°	7089.3	19.7
30°-40°	7735.7	21.5
40°-50°	6328.1	17.6
50°-60°	4160.7	11.5
60°-70°	2387.1	6.6
70°-80°	1446.5	4.0
80°-90°	485.7	1.3
90°-100°	12.6	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°	13489.5	37.4
0°-40°	21225.1	58.9
0°-60°	31714.0	88.0
0°-90°	36033.4	100.0
90°-120°	12.6	0.0
90°-150°	12.6	0.0
90°-180°	13.0	0.0
0°-180°	36046.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17366	17366	17366	17366	17366	
5°	17334	17307	17330	17401	17428	###
15°	16773	16771	16817	16924	16933	4734
25°	15554	15591	15511	15323	15248	7156
35°	13589	13282	12469	11620	11390	8422
45°	8493	9128	8516	7517	6892	6742
55°	5041	4904	4851	4169	3967	4440
65°	2492	2455	2281	2220	2068	2548
75°	1315	1422	1413	1356	1244	1423
85°	387	440	454	396	369	420
90°	2	32	64	76	80	18
95°	2	5	7	7	5	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: P860101

CATALOG NUMBER: SPHB-36HE-M-L840-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	17366.3	17366.3	17366.3	17366.3	17366.3
2.5°	17354.8	17329.6	17352.5	17423.5	17444.2
5°	17334.2	17306.7	17329.6	17400.6	17428.1
7.5°	17263.2	17247.2	17270.1	17341.1	17375.4
10°	17151.0	17132.7	17169.3	17231.1	17274.7
12.5°	16983.8	16976.9	17011.3	17100.6	17118.9
15°	16773.1	16770.8	16816.6	16924.2	16933.4
17.5°	16534.8	16532.6	16589.8	16660.8	16635.6
20°	16246.2	16262.3	16328.7	16262.3	16198.1
22.5°	15900.4	15950.8	15966.8	15758.4	15726.3
25°	15554.5	15591.2	15511.0	15323.2	15247.6
27.5°	15107.9	15151.4	15002.5	14734.5	14519.2
30°	14675.0	14633.8	14329.1	13811.5	13511.4
32.5°	14178.0	14031.4	13483.9	12769.3	12496.8
35°	13589.3	13282.4	12469.3	11619.5	11390.5
37.5°	12844.9	12283.7	11395.0	10508.6	10162.8
40°	11793.6	11145.4	10320.8	9404.6	9022.1
42.5°	10320.8	10080.3	9397.8	8367.1	7911.3
45°	8493.0	9127.5	8515.9	7517.3	6892.0
47.5°	7269.9	8151.8	7416.5	6695.0	5833.8
50°	6305.6	6912.6	6395.0	5744.5	5059.6
52.5°	5609.3	5792.6	5584.1	4869.5	4480.1
55°	5041.3	4903.9	4851.2	4168.6	3967.1
57.5°	4335.8	4260.3	4125.1	3635.0	3369.3
60°	3518.1	3678.5	3330.3	3190.6	2766.9
62.5°	2890.6	3048.6	2675.3	2666.1	2313.4
65°	2492.0	2455.4	2281.3	2219.5	2068.3
67.5°	2205.7	2091.2	2031.6	1951.5	1898.8
70°	1914.8	1866.7	1759.1	1775.1	1704.1
72.5°	1596.5	1658.3	1550.6	1580.4	1452.2
75°	1314.7	1422.4	1413.2	1356.0	1243.7
77.5°	1083.4	1197.9	1218.5	1165.8	1074.2
80°	886.4	964.3	968.9	936.8	879.5
82.5°	650.5	696.3	730.7	675.7	639.0
85°	387.1	439.8	453.5	396.2	368.8
87.5°	126.0	176.4	197.0	203.9	206.1
90°	2.3	32.1	64.1	75.6	80.2
92.5°	2.3	9.2	13.7	20.6	22.9
95°	2.3	4.6	6.9	6.9	4.6
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



TEST NUMBER: P860101

CATALOG NUMBER: SPHB-36HE-M-L840-CD

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)