

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: P860120

Luminaire Tested: **SPHB-36HE-W-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: P860120  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SPHB-36HE-W-L850-CD  
Description: 36000 Lumen High Efficacy Select Pro High Bay with Wide Lens and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

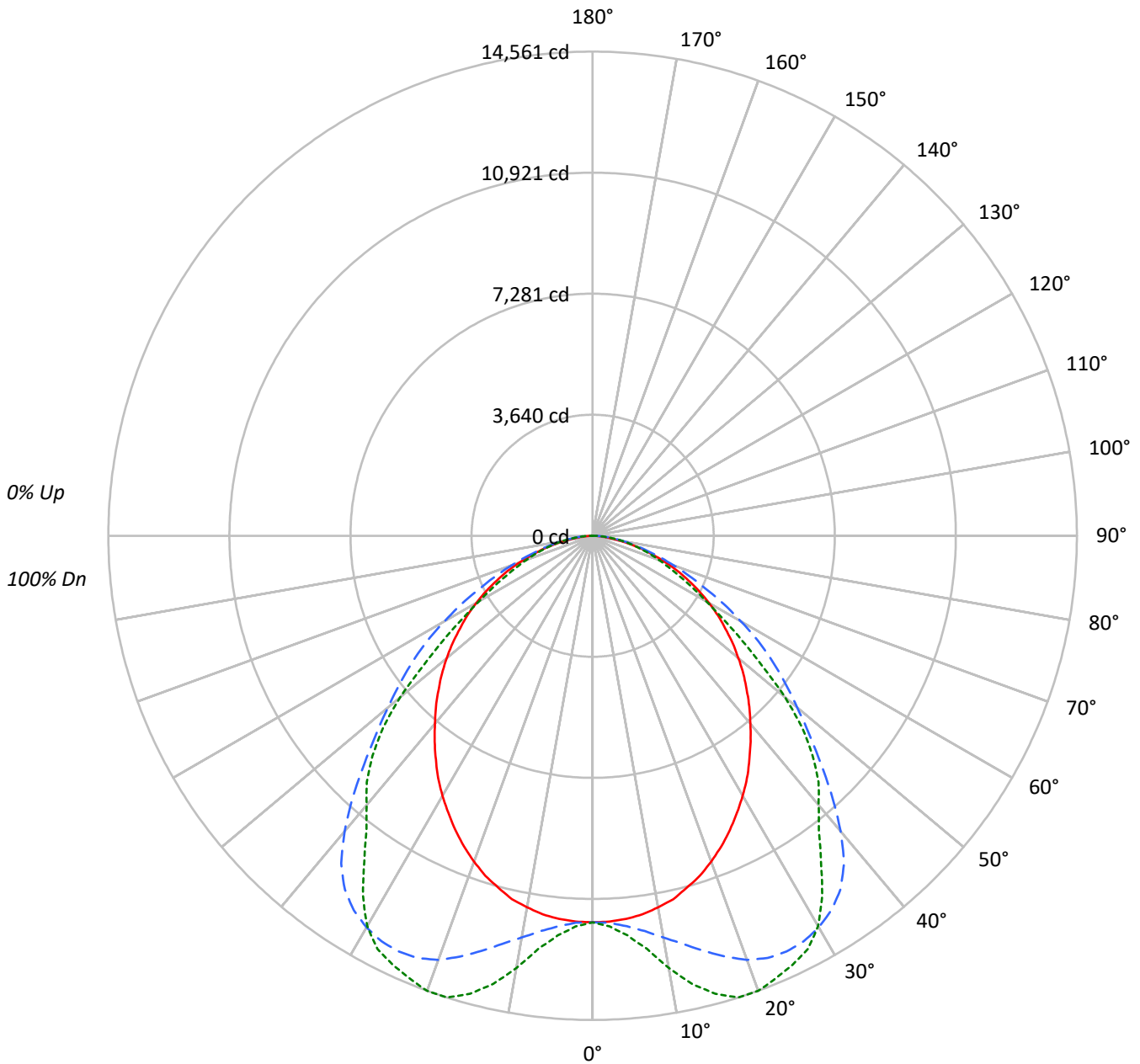
Lumens per Lamp: N/A  
Luminaire Lumens: 36574.0 lumens  
Efficiency: N/A  
Efficacy: 169.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

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

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

### 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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85								
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72								
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62								
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53								
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46								
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40								
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36								
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32								
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29								
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	61332	61332	61332
5°	61266	62422	63901
10°	60781	65716	70697
15°	59831	70609	77873
20°	58536	76224	81763
25°	56847	80336	82835
30°	54996	82850	82610
35°	52933	83682	77084
40°	50800	79903	72808
45°	48878	72427	69854
50°	46973	65856	61926
55°	44825	60846	50393
60°	42607	54246	41502
65°	39674	46613	35986
70°	36094	39798	32547
75°	30996	33399	29840
80°	24227	28648	27675
85°	16382	24313	22812



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1141.2	3.1
10°-20°	3618.8	9.9
20°-30°	5922.4	16.2
30°-40°	7224.8	19.8
40°-50°	7155.5	19.6
50°-60°	5722.0	15.6
60°-70°	3569.6	9.8
70°-80°	1748.9	4.8
80°-90°	458.7	1.3
90°-100°	12.1	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°	10682.4	29.2
0°-40°	17907.2	49.0
0°-60°	30784.7	84.2
0°-90°	36561.9	100.0
90°-120°	12.1	0.0
90°-150°	12.1	0.0
90°-180°	12.0	0.0
0°-180°	36574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11624	11624	11624	11624	11624	
5°	11567	11618	11785	11990	12065	###
15°	10953	11590	12926	13955	14256	3088
25°	9764	11417	13799	14199	14228	4493
35°	8218	10981	12991	12297	11967	5140
45°	6550	10176	9706	9380	9361	5059
55°	4873	7813	6614	5976	5478	4366
65°	3178	4384	3734	3096	2882	3151
75°	1520	1862	1638	1500	1464	1614
85°	271	384	402	381	377	335
90°	2	39	71	90	93	16
95°	2	6	6	4	3	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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CATALOG NUMBER: SPHB-36HE-W-L850-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11623.8	11623.8	11623.8	11623.8	11623.8
2.5°	11612.1	11607.8	11650.0	11727.1	11762.0
5°	11567.0	11617.9	11785.3	11990.4	12064.6
7.5°	11485.5	11622.3	11991.9	12368.7	12528.8
10°	11344.4	11625.2	12265.4	12930.3	13195.1
12.5°	11198.9	11615.0	12569.5	13510.9	13800.4
15°	10953.0	11590.3	12926.0	13954.6	14255.8
17.5°	10724.6	11561.2	13269.3	14331.5	14559.9
20°	10424.9	11519.0	13574.9	14446.4	14561.3
22.5°	10110.6	11485.5	13743.7	14369.3	14404.2
25°	9764.3	11417.2	13798.9	14199.1	14228.2
27.5°	9394.7	11356.0	13746.6	13988.1	14012.8
30°	9026.6	11245.5	13598.2	13659.3	13558.9
32.5°	8641.1	11134.9	13358.1	13083.1	12848.8
35°	8217.7	10980.7	12991.4	12297.4	11967.1
37.5°	7800.1	10832.3	12419.6	11418.6	11169.8
40°	7375.2	10648.9	11600.5	10598.0	10570.4
42.5°	6973.7	10451.1	10673.7	9959.3	10052.4
45°	6550.3	10176.1	9706.1	9380.2	9361.3
47.5°	6148.7	9796.3	8825.9	8740.0	8546.5
50°	5722.4	9272.5	8022.7	7941.2	7544.0
52.5°	5304.8	8604.7	7305.4	6999.9	6420.8
55°	4872.7	7813.2	6614.3	5975.6	5478.0
57.5°	4471.1	6943.1	5911.5	5083.7	4637.0
60°	4037.5	6061.4	5140.4	4300.9	3932.8
62.5°	3612.7	5192.8	4442.0	3634.5	3390.1
65°	3177.7	4383.8	3733.5	3096.2	2882.3
67.5°	2761.5	3684.0	3120.9	2610.2	2467.6
70°	2339.6	2988.5	2579.7	2192.6	2109.7
72.5°	1904.6	2387.6	2086.4	1850.7	1788.2
75°	1520.4	1862.4	1638.3	1500.1	1463.7
77.5°	1132.0	1385.1	1280.4	1198.9	1188.7
80°	797.3	999.6	942.8	926.8	910.8
82.5°	509.2	653.3	670.7	660.6	648.9
85°	270.6	384.1	401.6	381.2	376.8
87.5°	109.1	167.3	180.4	199.3	205.2
90°	1.5	39.3	71.3	90.2	93.1
92.5°	1.5	8.7	10.2	10.2	8.7
95°	1.5	5.8	5.8	4.4	2.9
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)