

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: P860102

Luminaire Tested: **SPHB-36HE-M-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: P860102  
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-L850-CD  
Description: 36000 Lumen High Efficacy Select Pro High Bay with Medium Lens and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

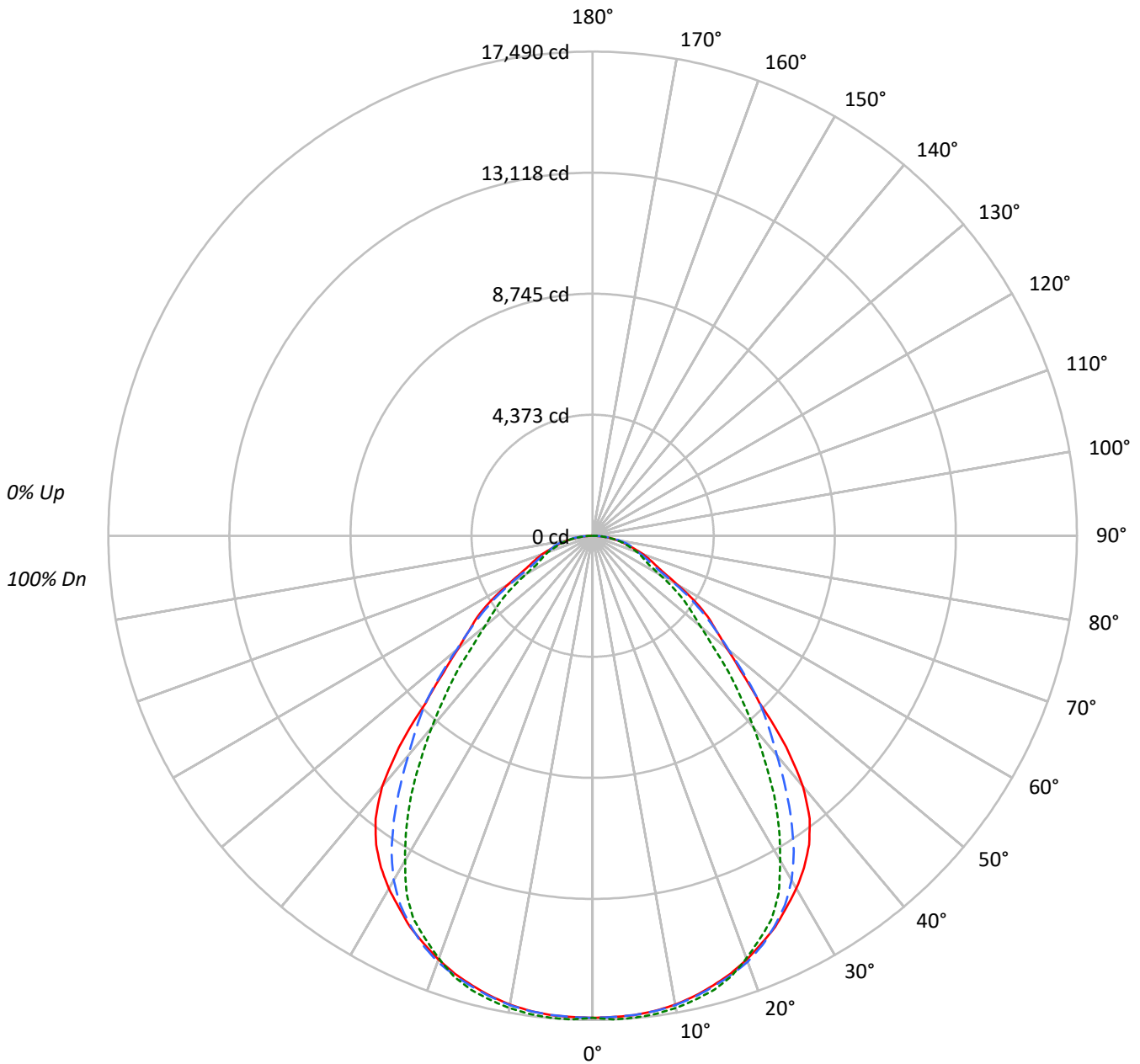
Lumens per Lamp: N/A  
Luminaire Lumens: 36141.0 lumens  
Efficiency: N/A  
Efficacy: 167.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

Input Watts (W): 216  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46					46			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41					41			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31					31			

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

	0°	45°	90°
0°	91873	91873	91873
5°	92054	92030	92553
10°	92134	92233	92799
15°	91866	92104	92743
20°	91464	91928	91193
25°	90795	90542	89004
30°	89646	87533	82538
35°	87764	80530	73563
40°	81447	71276	62307
45°	63542	63714	51564
50°	51898	52632	41643
55°	46498	44745	36590
60°	37224	35237	29276
65°	31195	28557	25890
70°	29619	27209	26359
75°	26874	28886	25422
80°	27004	29517	26797
85°	23496	27528	22382



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1655.6	4.6
10°-20°	4761.4	13.2
20°-30°	7108.0	19.7
30°-40°	7756.1	21.5
40°-50°	6344.8	17.6
50°-60°	4171.7	11.5
60°-70°	2393.4	6.6
70°-80°	1450.3	4.0
80°-90°	487.0	1.3
90°-100°	12.7	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°	13525.0	37.4
0°-40°	21281.1	58.9
0°-60°	31797.6	88.0
0°-90°	36128.3	100.0
90°-120°	12.7	0.0
90°-150°	12.7	0.0
90°-180°	13.0	0.0
0°-180°	36141.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	17412	17412	17412	17412	17412	
5°	17380	17352	17375	17446	17474	###
15°	16817	16815	16861	16969	16978	4747
25°	15596	15632	15552	15364	15288	7175
35°	13625	13317	12502	11650	11420	8445
45°	8515	9152	8538	7537	6910	6759
55°	5055	4917	4864	4180	3978	4452
65°	2499	2462	2287	2225	2074	2554
75°	1318	1426	1417	1360	1247	1427
85°	388	441	455	397	370	421
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



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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	17412.0	17412.0	17412.0	17412.0	17412.0
2.5°	17400.6	17375.3	17398.3	17469.5	17490.1
5°	17379.9	17352.3	17375.3	17446.5	17474.1
7.5°	17308.7	17292.6	17315.6	17386.8	17421.2
10°	17196.2	17177.8	17214.6	17276.6	17320.2
12.5°	17028.5	17021.6	17056.1	17145.7	17164.0
15°	16817.3	16815.0	16860.9	16968.8	16978.0
17.5°	16578.4	16576.1	16633.5	16704.7	16679.5
20°	16289.1	16305.1	16371.7	16305.1	16240.8
22.5°	15942.3	15992.8	16008.9	15799.9	15767.8
25°	15595.5	15632.3	15551.9	15363.6	15287.8
27.5°	15147.7	15191.3	15042.1	14773.4	14557.5
30°	14713.7	14672.3	14366.9	13847.9	13547.0
32.5°	14215.3	14068.3	13519.5	12803.0	12529.7
35°	13625.1	13317.4	12502.1	11650.1	11420.5
37.5°	12878.8	12316.1	11425.1	10536.3	10189.6
40°	11824.7	11174.8	10348.0	9429.4	9045.9
42.5°	10348.0	10106.9	9422.5	8389.1	7932.1
45°	8515.4	9151.5	8538.4	7537.1	6910.2
47.5°	7289.1	8173.2	7436.1	6712.7	5849.2
50°	6322.3	6930.8	6411.8	5759.6	5073.0
52.5°	5624.1	5807.8	5598.9	4882.4	4492.0
55°	5054.6	4916.8	4864.0	4179.6	3977.5
57.5°	4347.3	4271.5	4136.0	3644.5	3378.1
60°	3527.4	3688.2	3339.1	3199.0	2774.2
62.5°	2898.2	3056.6	2682.3	2673.1	2319.5
65°	2498.6	2461.8	2287.3	2225.3	2073.7
67.5°	2211.5	2096.7	2037.0	1956.6	1903.8
70°	1919.9	1871.6	1763.7	1779.8	1708.6
72.5°	1600.7	1662.7	1554.7	1584.6	1456.0
75°	1318.2	1426.1	1416.9	1359.5	1247.0
77.5°	1086.2	1201.1	1221.7	1168.9	1077.1
80°	888.7	966.8	971.4	939.3	881.9
82.5°	652.2	698.1	732.6	677.5	640.7
85°	388.1	440.9	454.7	397.3	369.7
87.5°	126.3	176.8	197.5	204.4	206.7
90°	2.3	32.2	64.3	75.8	80.4
92.5°	2.3	9.2	13.8	20.7	23.0
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



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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)