

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: P860146

Luminaire Tested: **SPHB-36SE-W-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: P860146  
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-36SE-W-L840-CD  
Description: 36000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

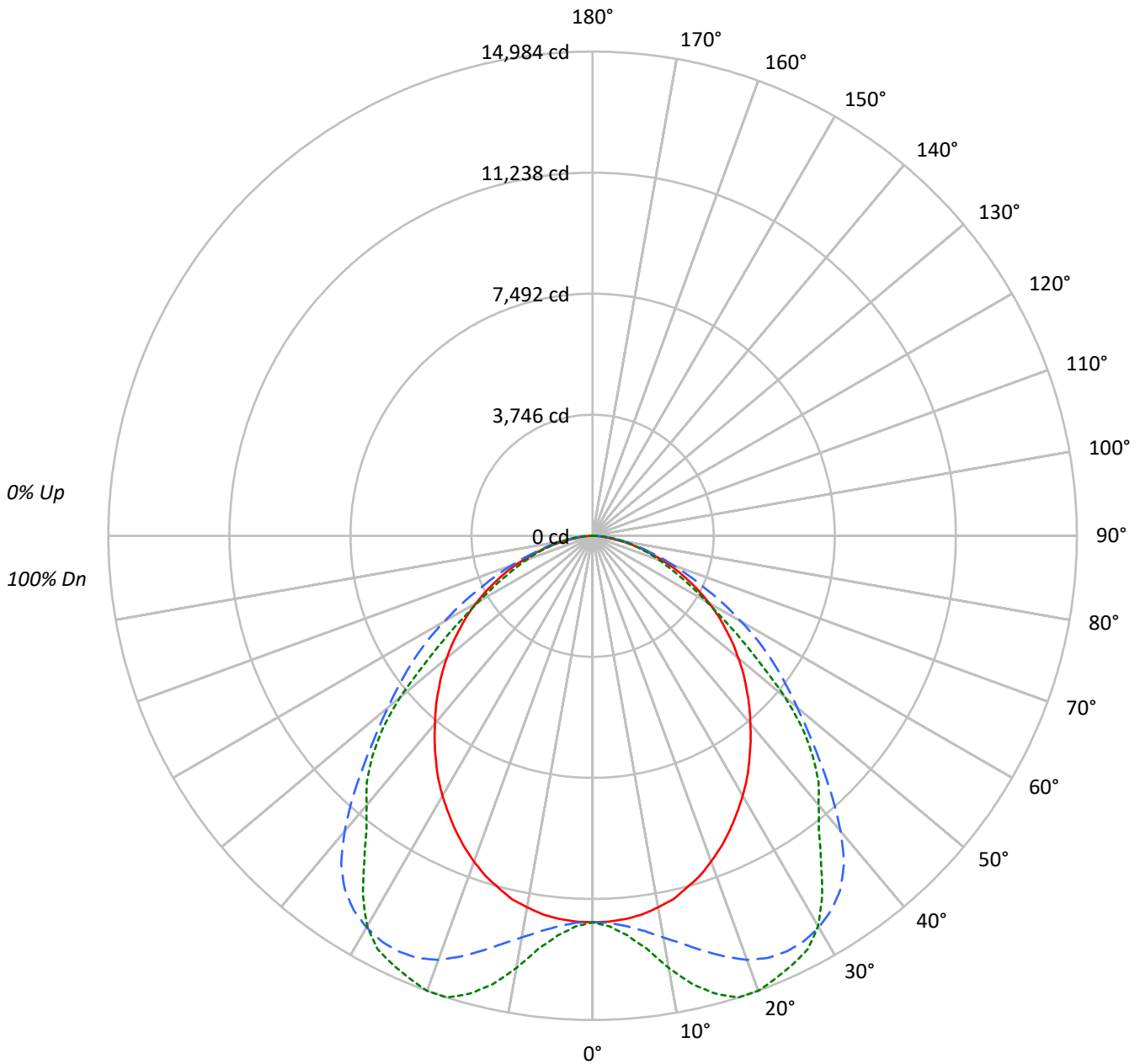
Lumens per Lamp: N/A  
Luminaire Lumens: 37636.0 lumens  
Efficiency: N/A  
Efficacy: 156.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

Input Watts (W): 240.8  
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	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°	63113	63113	63113
5°	63045	64234	65757
10°	62546	67624	72750
15°	61569	72659	80135
20°	60236	78437	84137
25°	58497	82669	85240
30°	56593	85255	85009
35°	54470	86112	79322
40°	52275	82223	74922
45°	50298	74530	71882
50°	48338	67768	63725
55°	46126	62613	51856
60°	43845	55821	42707
65°	40825	47966	37031
70°	37141	40953	33493
75°	31897	34370	30706
80°	24932	29480	28481
85°	16860	25015	23478



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1174.4	3.1
10°-20°	3723.9	9.9
20°-30°	6094.3	16.2
30°-40°	7434.6	19.8
40°-50°	7363.2	19.6
50°-60°	5888.2	15.6
60°-70°	3673.3	9.8
70°-80°	1799.7	4.8
80°-90°	472.0	1.3
90°-100°	12.4	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°	10992.6	29.2
0°-40°	18427.2	49.0
0°-60°	31678.6	84.2
0°-90°	37623.6	100.0
90°-120°	12.4	0.0
90°-150°	12.4	0.0
90°-180°	12.0	0.0
0°-180°	37636.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11961	11961	11961	11961	11961	
5°	11903	11955	12128	12339	12415	###
15°	11271	11927	13301	14360	14670	3177
25°	10048	11749	14200	14611	14641	4624
35°	8456	11300	13369	12654	12315	5290
45°	6740	10472	9988	9653	9633	5206
55°	5014	8040	6806	6149	5637	4492
65°	3270	4511	3842	3186	2966	3242
75°	1565	1916	1686	1544	1506	1661
85°	278	395	413	392	388	345
90°	2	40	73	93	96	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



TEST NUMBER: P860146

CATALOG NUMBER: SPHB-36SE-W-L840-CD

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11961.3	11961.3	11961.3	11961.3	11961.3
2.5°	11949.3	11944.8	11988.2	12067.6	12103.5
5°	11902.9	11955.3	12127.5	12338.6	12414.9
7.5°	11819.0	11959.8	12340.1	12727.9	12892.6
10°	11673.8	11962.8	12621.6	13305.8	13578.3
12.5°	11524.1	11952.3	12934.5	13903.2	14201.1
15°	11271.1	11926.8	13301.3	14359.8	14669.8
17.5°	11036.0	11896.9	13654.6	14747.6	14982.7
20°	10727.6	11853.5	13969.1	14865.9	14984.2
22.5°	10404.2	11819.0	14142.7	14786.5	14822.5
25°	10047.8	11748.7	14199.6	14611.4	14641.3
27.5°	9667.5	11685.8	14145.7	14394.3	14419.7
30°	9288.7	11572.0	13993.0	14055.9	13952.6
32.5°	8892.0	11458.2	13746.0	13463.0	13221.9
35°	8456.3	11299.5	13368.7	12654.5	12314.6
37.5°	8026.6	11146.8	12780.3	11750.2	11494.1
40°	7589.4	10958.1	11937.3	10905.7	10877.3
42.5°	7176.2	10754.5	10983.6	10248.5	10344.3
45°	6740.5	10471.5	9987.9	9652.6	9633.1
47.5°	6327.2	10080.8	9082.1	8993.8	8794.7
50°	5888.6	9541.8	8255.7	8171.8	7763.1
52.5°	5458.9	8854.6	7517.5	7203.1	6607.2
55°	5014.2	8040.1	6806.4	6149.1	5637.0
57.5°	4601.0	7144.7	6083.2	5231.3	4771.6
60°	4154.8	6237.4	5289.7	4425.8	4047.0
62.5°	3717.6	5343.6	4571.0	3740.1	3488.5
65°	3269.9	4511.1	3841.9	3186.1	2966.0
67.5°	2841.7	3791.0	3211.5	2686.0	2539.3
70°	2407.5	3075.3	2654.6	2256.3	2171.0
72.5°	1959.9	2456.9	2147.0	1904.5	1840.1
75°	1564.6	1916.4	1685.9	1543.6	1506.2
77.5°	1164.8	1425.4	1317.6	1233.7	1223.2
80°	820.5	1028.6	970.2	953.7	937.3
82.5°	524.0	672.3	690.2	679.7	667.8
85°	278.5	395.3	413.2	392.3	387.8
87.5°	112.3	172.2	185.7	205.1	211.1
90°	1.5	40.4	73.4	92.8	95.8
92.5°	1.5	9.0	10.5	10.5	9.0
95°	1.5	6.0	6.0	4.5	3.0
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)