

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: P860147

Luminaire Tested: **SPHB-36SE-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: P860147  
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-L850-CD  
Description: 36000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens  
and, 5000K 80CRI LEDs  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

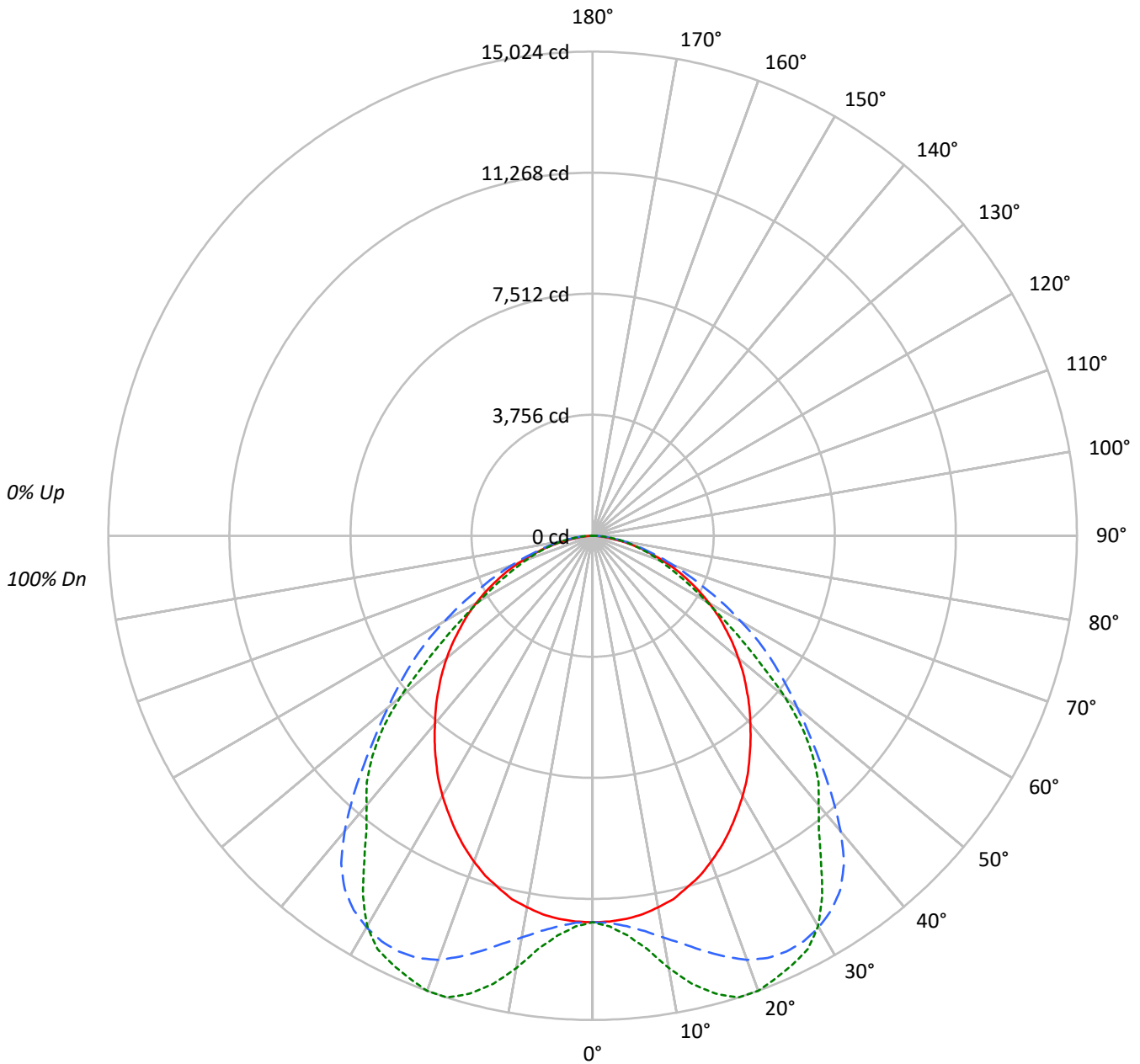
Lumens per Lamp: N/A  
Luminaire Lumens: 37735.0 lumens  
Efficiency: N/A  
Efficacy: 156.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51  
Luminous Opening: Rectangular (W 1' x L: 2.04' x H: 0')  
CIE Type: Direct

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									
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	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°	63279	63279	63279
5°	63210	64403	65930
10°	62711	67802	72941
15°	61731	72850	80345
20°	60394	78643	84358
25°	58652	82886	85464
30°	56742	85479	85233
35°	54613	86338	79531
40°	52413	82439	75119
45°	50430	74726	72071
50°	48465	67946	63892
55°	46248	62778	51993
60°	43960	55968	42819
65°	40932	48093	37128
70°	37240	41061	33580
75°	31980	34459	30788
80°	24995	29556	28553
85°	16903	25082	23538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1177.5	3.1
10°-20°	3733.7	9.9
20°-30°	6110.4	16.2
30°-40°	7454.2	19.8
40°-50°	7382.6	19.6
50°-60°	5903.6	15.6
60°-70°	3682.9	9.8
70°-80°	1804.4	4.8
80°-90°	473.2	1.3
90°-100°	12.5	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°	11021.5	29.2
0°-40°	18475.7	49.0
0°-60°	31761.9	84.2
0°-90°	37722.5	100.0
90°-120°	12.5	0.0
90°-150°	12.5	0.0
90°-180°	12.0	0.0
0°-180°	37735.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11993	11993	11993	11993	11993	
5°	11934	11987	12159	12371	12448	###
15°	11301	11958	13336	14398	14708	3186
25°	10074	11780	14237	14650	14680	4636
35°	8478	11329	13404	12688	12347	5303
45°	6758	10499	10014	9678	9658	5220
55°	5027	8061	6824	6165	5652	4504
65°	3278	4523	3852	3194	2974	3251
75°	1569	1922	1690	1548	1510	1665
85°	279	396	414	393	389	346
90°	2	40	74	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



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11992.7	11992.7	11992.7	11992.7	11992.7
2.5°	11980.7	11976.2	12019.8	12099.3	12135.4
5°	11934.2	11986.7	12159.4	12371.0	12447.6
7.5°	11850.1	11991.2	12372.5	12761.3	12926.5
10°	11704.5	11994.2	12654.8	13340.8	13614.0
12.5°	11554.4	11983.7	12968.5	13939.7	14238.5
15°	11300.7	11958.2	13336.3	14397.6	14708.3
17.5°	11065.0	11928.2	13690.6	14786.4	15022.1
20°	10755.8	11884.7	14005.8	14905.0	15023.6
22.5°	10431.5	11850.1	14179.9	14825.4	14861.5
25°	10074.3	11779.6	14237.0	14649.8	14679.8
27.5°	9693.0	11716.5	14182.9	14432.1	14457.6
30°	9313.2	11602.4	14029.8	14092.9	13989.3
32.5°	8915.4	11488.4	13782.1	13498.4	13256.7
35°	8478.5	11329.2	13403.8	12687.8	12347.0
37.5°	8047.7	11176.1	12813.9	11781.1	11524.4
40°	7609.4	10987.0	11968.7	10934.4	10905.9
42.5°	7195.0	10782.8	11012.5	10275.4	10371.5
45°	6758.2	10499.1	10014.2	9678.0	9658.4
47.5°	6343.9	10107.3	9106.0	9017.5	8817.8
50°	5904.1	9566.9	8277.4	8193.3	7783.5
52.5°	5473.2	8877.8	7537.3	7222.1	6624.6
55°	5027.4	8061.2	6824.3	6165.3	5651.9
57.5°	4613.1	7163.5	6099.2	5245.0	4784.2
60°	4165.7	6253.8	5303.6	4437.4	4057.6
62.5°	3727.4	5357.6	4583.0	3749.9	3497.7
65°	3278.5	4523.0	3852.0	3194.5	2973.8
67.5°	2849.2	3800.9	3220.0	2693.1	2546.0
70°	2413.9	3083.4	2661.6	2262.2	2176.7
72.5°	1965.0	2463.4	2152.7	1909.5	1844.9
75°	1568.7	1921.5	1690.3	1547.7	1510.2
77.5°	1167.9	1429.1	1321.0	1237.0	1226.4
80°	822.6	1031.3	972.7	956.2	939.7
82.5°	525.4	674.0	692.0	681.5	669.5
85°	279.2	396.3	414.3	393.3	388.8
87.5°	112.6	172.6	186.1	205.7	211.7
90°	1.5	40.5	73.6	93.1	96.1
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)