

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: P860254

Luminaire Tested: **SPHB-60SE-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: P860254
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-60SE-W-L840-CD
Description: 60000 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

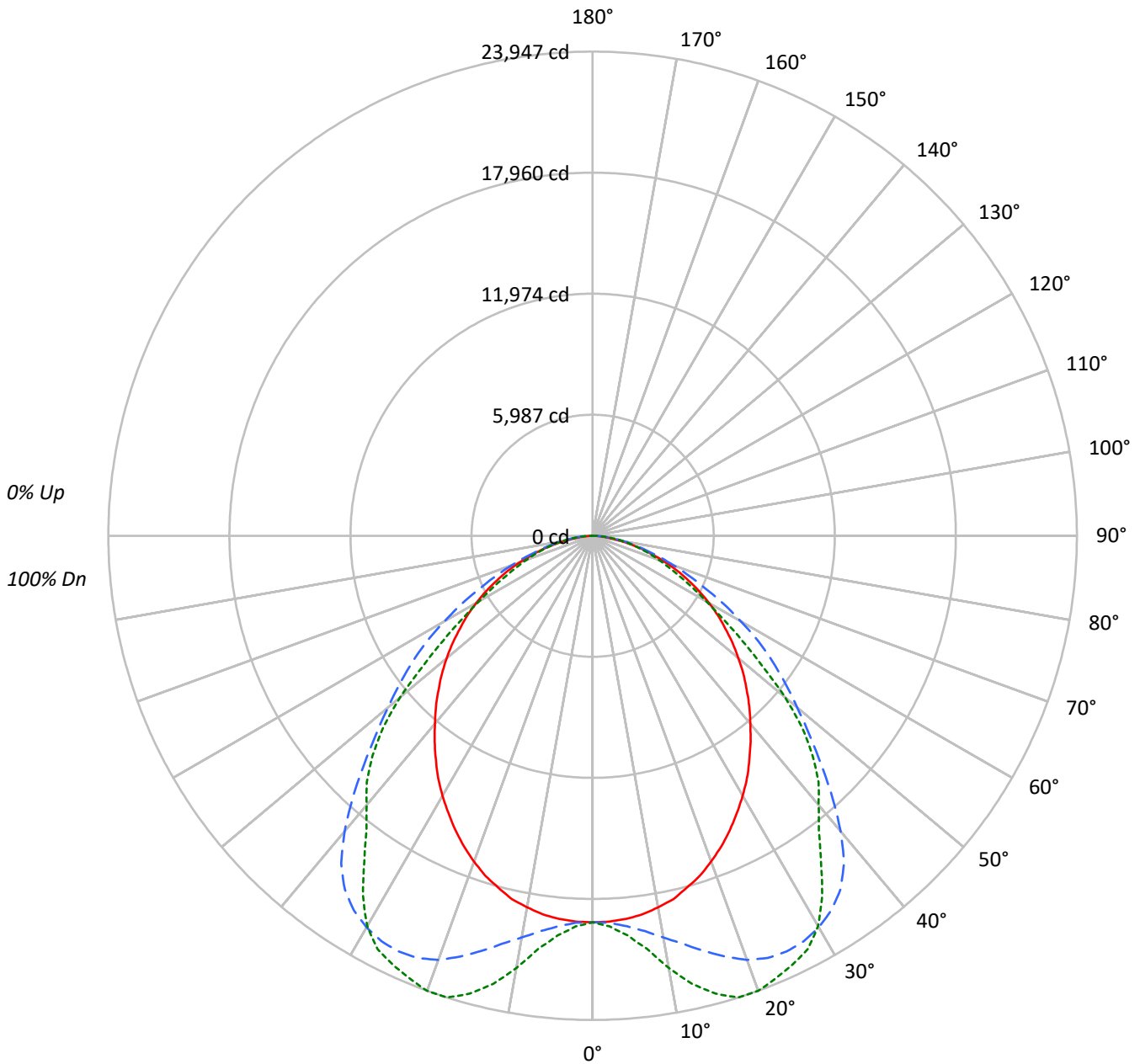
Lumens per Lamp: N/A
Luminaire Lumens: 60148.0 lumens
Efficiency: N/A
Efficacy: 160.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 376
Input Voltage (V): NR
Input Current (A_{in}): 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: P860254

CATALOG NUMBER: SPHB-60SE-W-L840-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860254

CATALOG NUMBER: SPHB-60SE-W-L840-CD

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			100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72			72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62			62
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53			53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46			46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40			40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32			32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29			29
10	54	41	33	28	53	40	33	28	39	33	28	39	32	28	38	32	28	26			26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	60876	60876	60876
5°	60811	61958	63426
10°	60330	65228	70172
15°	59387	70084	77295
20°	58102	75658	81156
25°	56425	79739	82220
30°	54588	82234	81996
35°	52539	83060	76512
40°	50423	79309	72267
45°	48515	71889	69335
50°	46624	65367	61467
55°	44492	60394	50018
60°	42291	53843	41194
65°	39378	46266	35718
70°	35825	39501	32305
75°	30767	33152	29618
80°	24047	28435	27470
85°	16264	24130	22643



TEST NUMBER: P860254

CATALOG NUMBER: SPHB-60SE-W-L840-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1876.8	3.1
10°-20°	5951.3	9.9
20°-30°	9739.7	16.2
30°-40°	11881.7	19.8
40°-50°	11767.5	19.6
50°-60°	9410.2	15.6
60°-70°	5870.4	9.8
70°-80°	2876.2	4.8
80°-90°	754.4	1.3
90°-100°	19.9	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°	17567.8	29.2
0°-40°	29449.5	49.0
0°-60°	50627.2	84.2
0°-90°	60128.1	100.0
90°-120°	19.9	0.0
90°-150°	19.9	0.0
90°-180°	20.0	0.0
0°-180°	60148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	19116	19116	19116	19116	19116	
5°	19023	19106	19382	19719	19841	###
15°	18013	19061	21258	22949	23444	5078
25°	16058	18776	22693	23351	23399	7389
35°	13514	18058	21365	20224	19681	8453
45°	10772	16735	15962	15426	15395	8320
55°	8013	12849	10878	9827	9009	7180
65°	5226	7210	6140	5092	4740	5182
75°	2500	3063	2694	2467	2407	2654
85°	445	632	660	627	620	551
90°	2	65	117	148	153	26
95°	2	10	10	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: P860254

CATALOG NUMBER: SPHB-60SE-W-L840-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	19115.9	19115.9	19115.9	19115.9	19115.9
2.5°	19096.8	19089.6	19159.0	19285.8	19343.2
5°	19022.6	19106.4	19381.5	19718.9	19840.9
7.5°	18888.6	19113.5	19721.3	20341.0	20604.2
10°	18656.5	19118.3	20171.1	21264.6	21700.1
12.5°	18417.2	19101.6	20671.2	22219.4	22695.5
15°	18012.9	19060.9	21257.5	22949.2	23444.5
17.5°	17637.2	19013.0	21822.2	23568.9	23944.6
20°	17144.3	18943.7	22324.7	23757.9	23947.0
22.5°	16627.4	18888.6	22602.2	23631.1	23688.5
25°	16058.0	18776.2	22693.1	23351.2	23399.0
27.5°	15450.2	18675.7	22607.0	23004.2	23044.9
30°	14844.8	18493.8	22362.9	22463.4	22298.3
32.5°	14210.7	18312.0	21968.1	21515.9	21130.7
35°	13514.4	18058.3	21365.1	20223.8	19680.6
37.5°	12827.7	17814.3	20424.8	18778.5	18369.4
40°	12129.0	17512.8	19077.6	17429.0	17383.6
42.5°	11468.6	17187.3	17553.4	16378.6	16531.7
45°	10772.3	16735.1	15962.2	15426.3	15395.2
47.5°	10111.9	16110.6	14514.6	14373.4	14055.2
50°	9410.8	15249.2	13193.8	13059.8	12406.6
52.5°	8724.1	14150.9	12014.2	11511.7	10559.3
55°	8013.4	12849.2	10877.6	9827.2	9008.8
57.5°	7353.0	11418.4	9721.9	8360.4	7625.8
60°	6640.0	9968.3	8453.7	7073.1	6467.7
62.5°	5941.3	8539.8	7305.2	5977.2	5575.2
65°	5225.8	7209.5	6139.9	5091.8	4740.1
67.5°	4541.5	6058.5	5132.5	4292.6	4058.2
70°	3847.6	4914.8	4242.4	3605.9	3469.5
72.5°	3132.2	3926.6	3431.2	3043.6	2940.7
75°	2500.5	3062.8	2694.3	2467.0	2407.1
77.5°	1861.6	2277.9	2105.6	1971.7	1954.9
80°	1311.2	1643.8	1550.5	1524.2	1497.9
82.5°	837.5	1074.4	1103.1	1086.3	1067.2
85°	445.1	631.7	660.4	626.9	619.7
87.5°	179.5	275.2	296.7	327.8	337.4
90°	2.4	64.6	117.2	148.4	153.1
92.5°	2.4	14.4	16.7	16.7	14.4
95°	2.4	9.6	9.6	7.2	4.8
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: P860254

CATALOG NUMBER: SPHB-60SE-W-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)