

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: P860257

Luminaire Tested: **SPHB-60SE-W-L940-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: P860257
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-L940-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Wide Lens and, 4000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

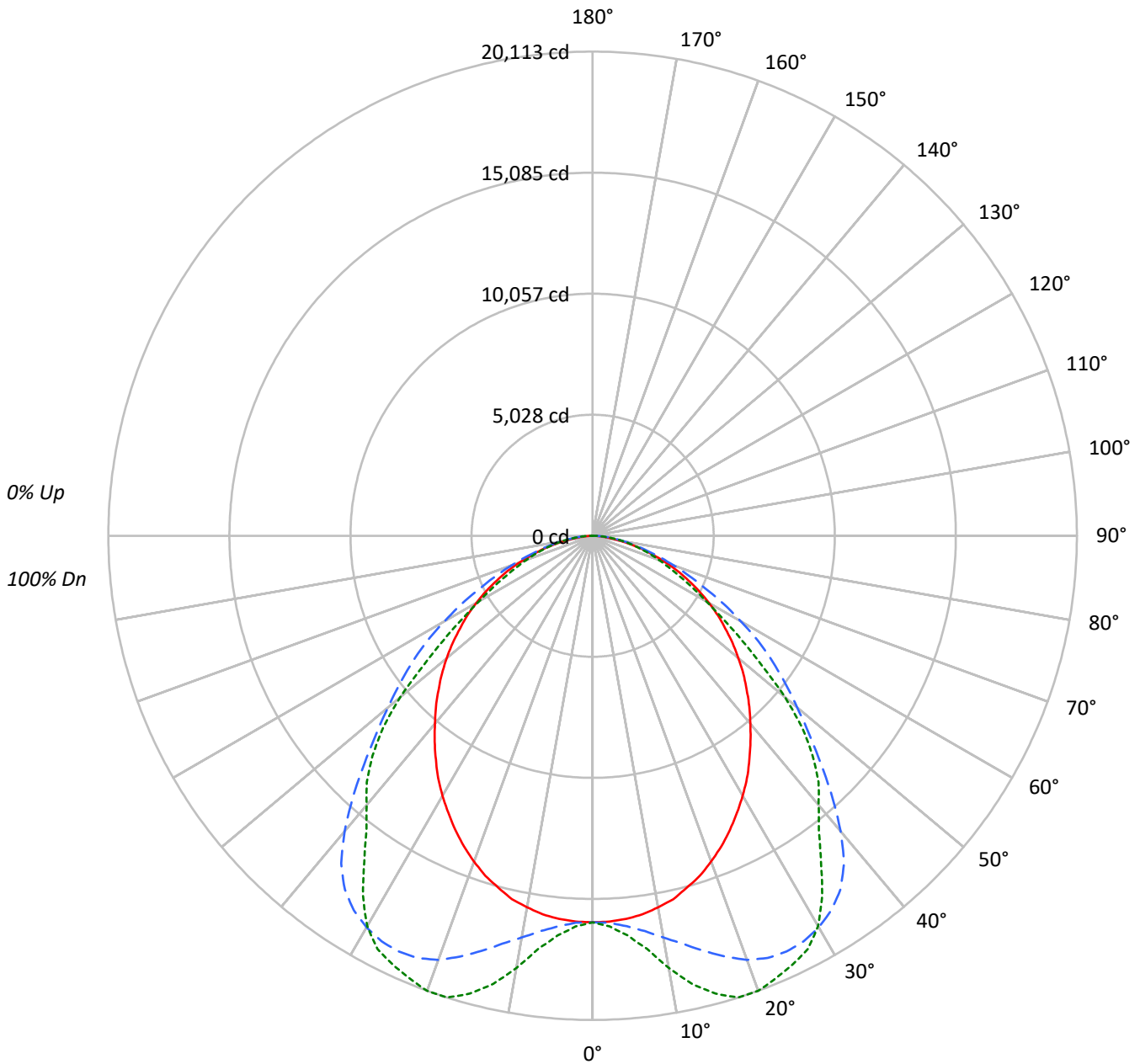
Lumens per Lamp: N/A
Luminaire Lumens: 50518.0 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.5 / 1.51
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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: P860257

CATALOG NUMBER: SPHB-60SE-W-L940-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860257

CATALOG NUMBER: SPHB-60SE-W-L940-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			
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°	51130	51130	51130
5°	51075	52038	53272
10°	50671	54784	58937
15°	49879	58863	64920
20°	48799	63545	68162
25°	47391	66973	69056
30°	45848	69068	68869
35°	44128	69762	64262
40°	42350	66611	60697
45°	40748	60379	58234
50°	39160	54901	51625
55°	37368	50725	42010
60°	35520	45222	34599
65°	33074	38859	30000
70°	30090	33177	27133
75°	25840	27843	24876
80°	20197	23883	23073
85°	13658	20268	19019



TEST NUMBER: P860257

CATALOG NUMBER: SPHB-60SE-W-L940-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1576.4	3.1
10°-20°	4998.5	9.9
20°-30°	8180.3	16.2
30°-40°	9979.4	19.8
40°-50°	9883.5	19.6
50°-60°	7903.5	15.6
60°-70°	4930.5	9.8
70°-80°	2415.7	4.8
80°-90°	633.6	1.3
90°-100°	16.7	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°	14755.1	29.2
0°-40°	24734.5	49.0
0°-60°	42521.5	84.2
0°-90°	50501.3	100.0
90°-120°	16.7	0.0
90°-150°	16.7	0.0
90°-180°	17.0	0.0
0°-180°	50518.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	16055	16055	16055	16055	16055	
5°	15977	16047	16278	16562	16664	###
15°	15129	16009	17854	19275	19691	4265
25°	13487	15770	19060	19612	19653	6206
35°	11351	15167	17944	16986	16530	7100
45°	9048	14056	13407	12956	12930	6988
55°	6730	10792	9136	8254	7566	6030
65°	4389	6055	5157	4277	3981	4352
75°	2100	2572	2263	2072	2022	2229
85°	374	531	555	526	520	463
90°	2	54	98	125	129	21
95°	2	8	8	6	4	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: P860257

CATALOG NUMBER: SPHB-60SE-W-L940-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	16055.4	16055.4	16055.4	16055.4	16055.4
2.5°	16039.3	16033.3	16091.5	16198.1	16246.3
5°	15977.0	16047.3	16278.4	16561.8	16664.3
7.5°	15864.5	16053.4	16563.8	17084.3	17305.4
10°	15669.5	16057.4	16941.6	17860.1	18225.8
12.5°	15468.5	16043.3	17361.7	18661.9	19061.9
15°	15128.9	16009.2	17854.0	19274.9	19690.9
17.5°	14813.4	15969.0	18328.3	19795.4	20110.9
20°	14399.4	15910.7	18750.4	19954.2	20112.9
22.5°	13965.3	15864.5	18983.5	19847.6	19895.9
25°	13487.0	15770.0	19059.9	19612.5	19652.7
27.5°	12976.5	15685.6	18987.5	19321.1	19355.3
30°	12468.1	15532.9	18782.5	18866.9	18728.3
32.5°	11935.5	15380.1	18450.9	18071.1	17747.5
35°	11350.7	15167.1	17944.5	16985.9	16529.7
37.5°	10773.9	14962.1	17154.7	15772.0	15428.4
40°	10187.1	14708.9	16023.2	14638.5	14600.4
42.5°	9632.4	14435.6	14743.0	13756.3	13884.9
45°	9047.6	14055.7	13406.6	12956.4	12930.3
47.5°	8492.9	13531.2	12190.7	12072.2	11804.9
50°	7904.1	12807.7	11081.4	10968.9	10420.2
52.5°	7327.3	11885.3	10090.6	9668.6	8868.7
55°	6730.4	10792.0	9136.0	8253.8	7566.5
57.5°	6175.8	9590.2	8165.4	7021.8	6404.9
60°	5576.9	8372.3	7100.2	5940.6	5432.2
62.5°	4990.0	7172.6	6135.6	5020.2	4682.6
65°	4389.2	6055.2	5156.9	4276.6	3981.2
67.5°	3814.4	5088.5	4310.8	3605.4	3408.4
70°	3231.6	4127.9	3563.2	3028.6	2914.0
72.5°	2630.7	3297.9	2881.9	2556.3	2469.9
75°	2100.1	2572.4	2262.9	2072.0	2021.7
77.5°	1563.5	1913.2	1768.5	1656.0	1641.9
80°	1101.3	1380.7	1302.3	1280.2	1258.1
82.5°	703.4	902.3	926.5	912.4	896.3
85°	373.8	530.6	554.7	526.5	520.5
87.5°	150.7	231.1	249.2	275.3	283.4
90°	2.0	54.3	98.5	124.6	128.6
92.5°	2.0	12.1	14.1	14.1	12.1
95°	2.0	8.0	8.0	6.0	4.0
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



TEST NUMBER: P860257

CATALOG NUMBER: SPHB-60SE-W-L940-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)