

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: P860233

Luminaire Tested: **SPHB-60SE-M-L740-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: P860233
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-60SE-M-L740-CD
Description: 60000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

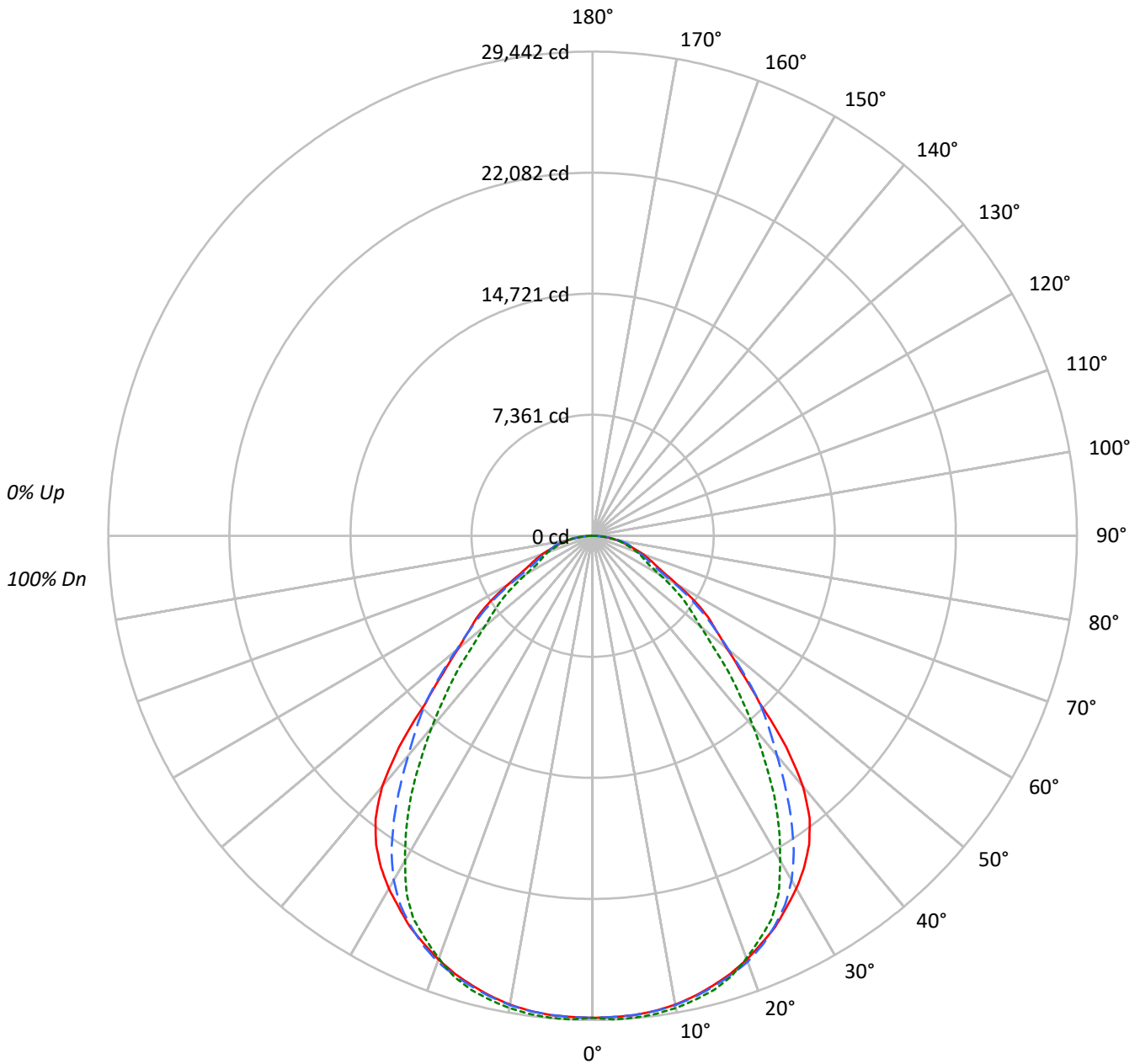
Lumens per Lamp: N/A
Luminaire Lumens: 60839.0 lumens
Efficiency: N/A
Efficacy: 161.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

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: P860233

CATALOG NUMBER: SPHB-60SE-M-L740-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860233

CATALOG NUMBER: SPHB-60SE-M-L740-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	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°	93344	93344	93344
5°	93527	93503	94034
10°	93609	93709	94284
15°	93335	93578	94228
20°	92928	93399	92653
25°	92249	91990	90428
30°	91081	88934	83859
35°	89168	81819	74740
40°	82750	72417	63304
45°	64559	64733	52389
50°	52728	53475	42309
55°	47242	45461	37176
60°	37820	35801	29744
65°	31695	29014	26305
70°	30093	27645	26781
75°	27303	29348	25829
80°	27437	29990	27225
85°	23871	27967	22742



TEST NUMBER: P860233

CATALOG NUMBER: SPHB-60SE-M-L740-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2787.0	4.6
10°-20°	8015.3	13.2
20°-30°	11965.5	19.7
30°-40°	13056.4	21.5
40°-50°	10680.7	17.6
50°-60°	7022.5	11.5
60°-70°	4029.0	6.6
70°-80°	2441.5	4.0
80°-90°	819.8	1.3
90°-100°	21.3	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°	22767.7	37.4
0°-40°	35824.1	58.9
0°-60°	53527.4	88.0
0°-90°	60817.7	100.0
90°-120°	21.3	0.0
90°-150°	21.3	0.0
90°-180°	21.0	0.0
0°-180°	60839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	29311	29311	29311	29311	29311	
5°	29257	29211	29249	29369	29416	###
15°	28310	28306	28383	28565	28580	7991
25°	26253	26315	26180	25863	25735	12078
35°	22936	22418	21046	19612	19225	14215
45°	14335	15406	14373	12688	11632	11378
55°	8509	8277	8188	7036	6696	7494
65°	4206	4144	3850	3746	3491	4300
75°	2219	2401	2385	2289	2099	2402
85°	653	742	765	669	622	708
90°	4	54	108	128	135	31
95°	4	8	12	12	8	2
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: P860233

CATALOG NUMBER: SPHB-60SE-M-L740-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	29311.1	29311.1	29311.1	29311.1	29311.1
2.5°	29291.7	29249.2	29287.9	29407.7	29442.5
5°	29257.0	29210.6	29249.2	29369.1	29415.5
7.5°	29137.1	29110.1	29148.7	29268.6	29326.5
10°	28947.7	28916.8	28978.6	29083.0	29156.4
12.5°	28665.5	28653.9	28711.9	28862.6	28893.6
15°	28309.8	28305.9	28383.3	28565.0	28580.4
17.5°	27907.8	27903.9	28000.5	28120.4	28077.9
20°	27420.7	27447.7	27559.8	27447.7	27339.5
22.5°	26836.9	26922.0	26949.0	26597.2	26543.1
25°	26253.2	26315.0	26179.7	25862.7	25735.1
27.5°	25499.3	25572.8	25321.5	24869.2	24505.8
30°	24768.7	24699.1	24184.9	23311.2	22804.8
32.5°	23929.8	23682.4	22758.4	21552.3	21092.2
35°	22936.2	22418.2	21045.8	19611.6	19225.0
37.5°	21679.8	20732.7	19232.7	17736.6	17152.9
40°	19905.4	18811.4	17419.6	15873.3	15227.7
42.5°	17419.6	17013.7	15861.7	14122.0	13352.7
45°	14334.7	15405.5	14373.3	12687.8	11632.4
47.5°	12270.3	13758.7	12517.7	11300.0	9846.4
50°	10642.8	11667.2	10793.5	9695.6	8539.7
52.5°	9467.5	9776.8	9425.0	8218.9	7561.7
55°	8508.8	8276.8	8187.9	7035.9	6695.7
57.5°	7318.1	7190.5	6962.4	6135.1	5686.7
60°	5938.0	6208.6	5621.0	5385.2	4670.0
62.5°	4878.7	5145.5	4515.3	4499.9	3904.5
65°	4206.1	4144.2	3850.4	3746.0	3490.9
67.5°	3722.8	3529.5	3429.0	3293.7	3204.8
70°	3231.9	3150.7	2969.0	2996.1	2876.2
72.5°	2694.5	2798.9	2617.2	2667.5	2451.0
75°	2219.0	2400.7	2385.2	2288.6	2099.2
77.5°	1828.6	2021.9	2056.6	1967.7	1813.1
80°	1496.1	1627.5	1635.3	1581.1	1484.5
82.5°	1097.9	1175.2	1233.2	1140.4	1078.6
85°	653.3	742.2	765.4	668.8	622.4
87.5°	212.6	297.7	332.5	344.1	347.9
90°	3.9	54.1	108.2	127.6	135.3
92.5°	3.9	15.5	23.2	34.8	38.7
95°	3.9	7.7	11.6	11.6	7.7
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: P860233

CATALOG NUMBER: SPHB-60SE-M-L740-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)