

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: P860188

Luminaire Tested: **SPHB-48SE-N-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: P860188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-343-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SPHB-48SE-N-L740-CD
Description: 48000 Lumen Standard Efficacy Select Pro High Bay with Narrow Lens
and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

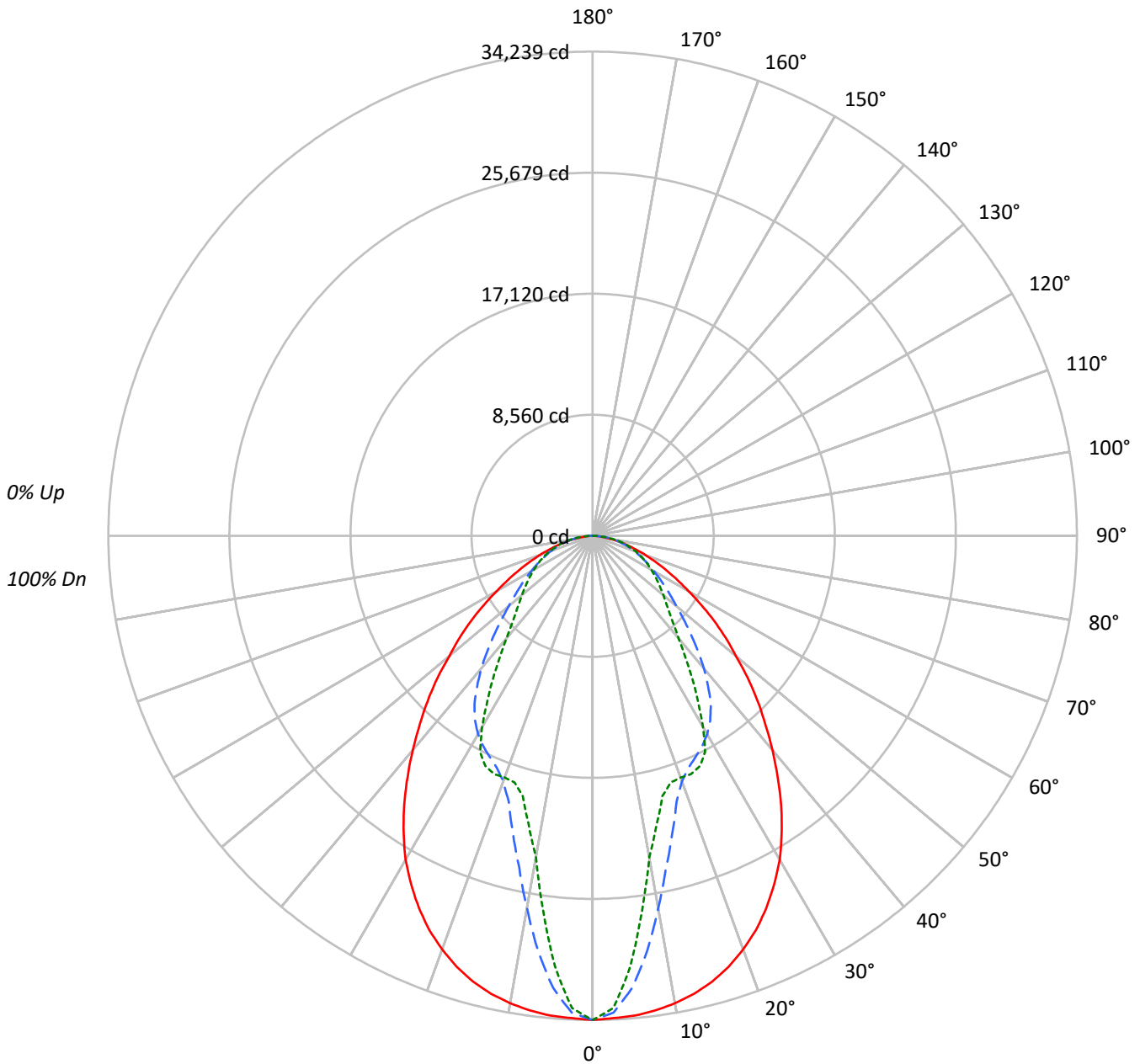
Lumens per Lamp: N/A
Luminaire Lumens: 50181.0 lumens
Efficiency: N/A
Efficacy: 164.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.54 / 0.94
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 304.9
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: P860188

CATALOG NUMBER: SPHB-48SE-N-L740-CD

Luminous Intensity Polar Plot





TEST NUMBER: P860188

CATALOG NUMBER: SPHB-48SE-N-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	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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74			74
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64			64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50			50
6	74	62	54	48	73	61	54	48	60	53	47	58	52	47	56	51	47	45			45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	46	42	40			40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34			34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	109038	109038	109038
5°	108912	102595	97740
10°	108540	86478	74552
15°	107637	71786	62824
20°	105468	62576	61672
25°	102079	60546	63117
30°	97254	59575	57441
35°	90299	56612	47599
40°	82226	50822	39304
45°	74224	44098	34504
50°	65502	38345	32311
55°	58123	34584	31101
60°	49812	31982	30466
65°	43116	30057	30313
70°	36897	28914	30277
75°	30972	28077	30008
80°	23632	27133	29385
85°	15474	24068	22636



TEST NUMBER: P860188

CATALOG NUMBER: SPHB-48SE-N-L740-CD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2919.2	5.8
10°-20°	6702.9	13.4
20°-30°	9058.6	18.1
30°-40°	9533.7	19.0
40°-50°	8089.7	16.1
50°-60°	6266.6	12.5
60°-70°	4364.5	8.7
70°-80°	2499.2	5.0
80°-90°	727.3	1.4
90°-100°	19.4	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°	18680.7	37.2
0°-40°	28214.3	56.2
0°-60°	42570.6	84.8
0°-90°	50161.6	100.0
90°-120°	19.4	0.0
90°-150°	19.4	0.0
90°-180°	19.0	0.0
0°-180°	50181.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	34239	34239	34239	34239	34239	
5°	34070	33445	32093	30862	30575	###
15°	32648	27710	21774	19599	19055	9187
25°	29051	20522	17231	17730	17963	13336
35°	23227	15783	14562	13153	12244	14478
45°	16481	11851	9792	8046	7661	12693
55°	10469	7983	6229	5662	5602	9360
65°	5722	4684	3989	3989	4023	5715
75°	2517	2238	2282	2426	2439	2684
85°	424	549	659	620	620	538
90°	3	50	97	123	128	23
95°	3	8	16	16	13	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: P860188

CATALOG NUMBER: SPHB-48SE-N-L740-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	34239.4	34239.4	34239.4	34239.4	34239.4
2.5°	34140.0	34027.6	33753.2	33575.4	33436.9
5°	34069.5	33444.7	32093.4	30862.2	30574.7
7.5°	33857.7	32485.4	29597.1	27320.4	26745.3
10°	33565.0	31107.9	26742.7	23891.0	23054.5
12.5°	33175.5	29636.3	24008.6	21321.5	20911.1
15°	32647.5	27709.9	21773.7	19599.0	19055.3
17.5°	31962.7	25718.1	19711.4	18454.1	18302.5
20°	31121.0	23891.0	18464.5	18035.9	18197.9
22.5°	30174.8	22116.1	17740.5	17920.8	18224.1
25°	29050.8	20521.7	17230.8	17730.0	17962.7
27.5°	27788.3	19081.4	16762.9	17220.3	17220.3
30°	26447.4	17881.6	16200.9	16159.1	15620.6
32.5°	24881.6	16862.2	15466.4	14637.8	13837.9
35°	23227.0	15782.7	14562.0	13153.1	12243.5
37.5°	21491.4	14778.9	13417.1	11558.6	10711.7
40°	19779.3	13788.3	12225.2	10126.2	9454.4
42.5°	18075.1	12779.3	10983.6	8965.6	8435.0
45°	16480.6	11851.4	9791.6	8045.6	7661.3
47.5°	14860.0	10865.9	8691.2	7305.8	7039.2
50°	13221.1	9867.4	7739.7	6717.7	6521.7
52.5°	11840.9	8936.9	6932.0	6160.9	6043.3
55°	10468.6	7982.8	6228.9	5661.7	5601.6
57.5°	9106.8	7094.1	5585.9	5204.3	5191.2
60°	7820.8	6262.9	5021.3	4812.2	4783.4
62.5°	6725.5	5436.9	4485.4	4386.1	4399.2
65°	5721.8	4684.1	3988.8	3988.8	4022.8
67.5°	4791.3	3991.4	3534.0	3594.1	3641.2
70°	3962.7	3364.1	3105.3	3209.9	3251.7
72.5°	3178.5	2781.2	2694.9	2809.9	2843.9
75°	2517.2	2237.5	2281.9	2425.7	2438.8
77.5°	1866.3	1761.8	1876.8	2033.6	2062.4
80°	1288.6	1299.1	1479.5	1589.2	1602.3
82.5°	831.2	907.0	1108.3	1165.8	1144.9
85°	423.5	548.9	658.7	619.5	619.5
87.5°	162.1	237.9	279.7	329.4	347.6
90°	2.6	49.7	96.7	122.9	128.1
92.5°	2.6	13.1	20.9	23.5	20.9
95°	2.6	7.8	15.7	15.7	13.1
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: P860188

CATALOG NUMBER: SPHB-48SE-N-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)