

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: P860179

Luminaire Tested: **SPHB-48SE-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: P860179
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-48SE-M-L740-CD
Description: 48000 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

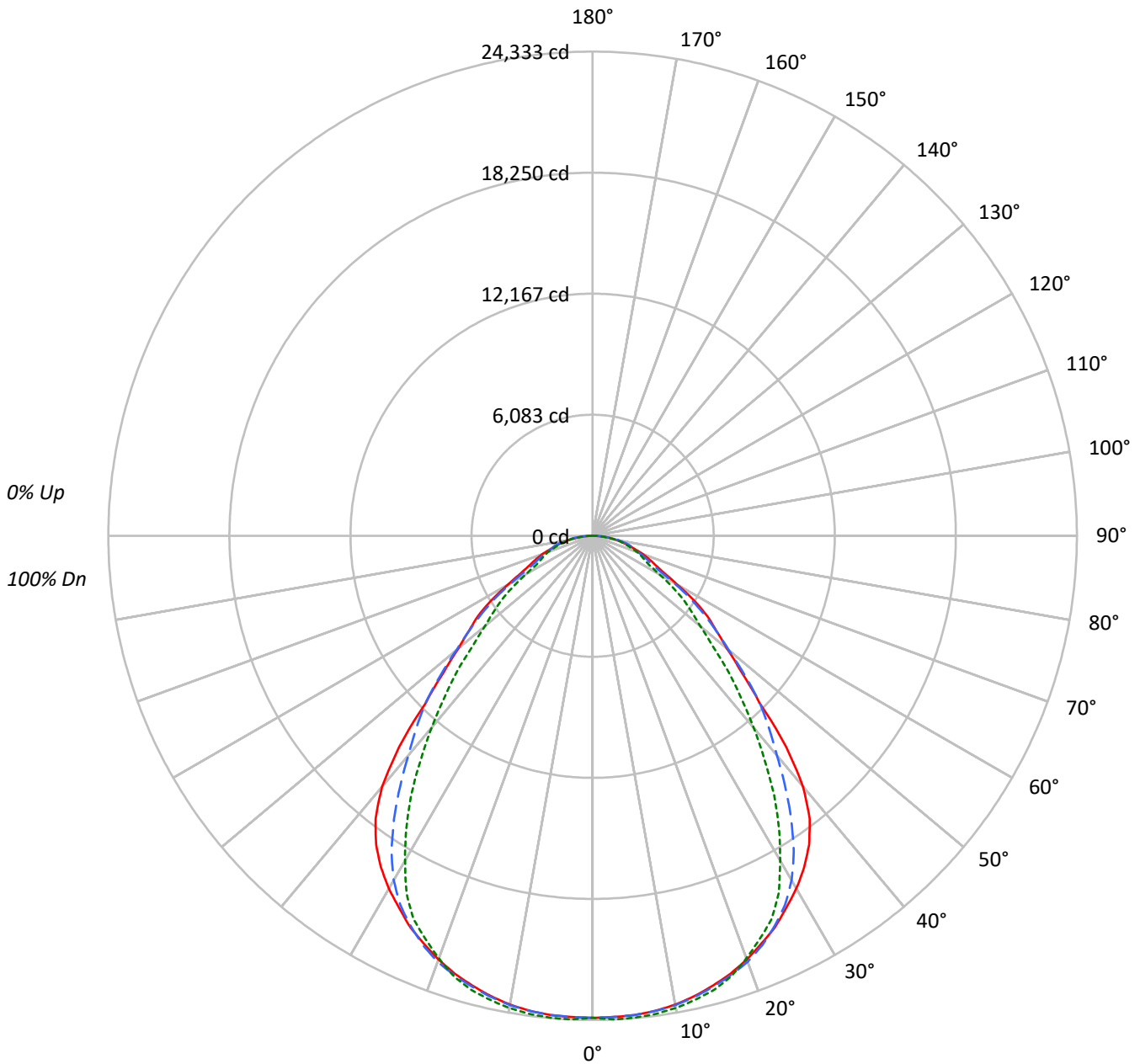
Lumens per Lamp: N/A
Luminaire Lumens: 50281.0 lumens
Efficiency: N/A
Efficacy: 164.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 3.38' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P860179

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

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	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	54	48	59	53	48	57	52	48	46																			
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41																			
8	66	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	77145	77145	77145
5°	77297	77276	77715
10°	77364	77447	77922
15°	77138	77338	77875
20°	76801	77191	76574
25°	76240	76026	74736
30°	75274	73500	69306
35°	73694	67620	61770
40°	68390	59849	52319
45°	53355	53499	43297
50°	43577	44195	34966
55°	39044	37571	30724
60°	31257	29588	24582
65°	26194	23979	21740
70°	24870	22848	22133
75°	22565	24255	21347
80°	22677	24786	22501
85°	19731	23115	18796



TEST NUMBER: P860179

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2303.3	4.6
10°-20°	6624.3	13.2
20°-30°	9889.0	19.7
30°-40°	10790.6	21.5
40°-50°	8827.2	17.6
50°-60°	5803.9	11.5
60°-70°	3329.8	6.6
70°-80°	2017.8	4.0
80°-90°	677.5	1.3
90°-100°	17.6	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°	18816.6	37.4
0°-40°	29607.2	58.9
0°-60°	44238.2	88.0
0°-90°	50263.4	100.0
90°-120°	17.6	0.0
90°-150°	17.6	0.0
90°-180°	18.0	0.0
0°-180°	50281.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	24224	24224	24224	24224	24224	
5°	24180	24141	24173	24272	24311	###
15°	23397	23394	23458	23608	23621	6604
25°	21697	21748	21636	21374	21269	9982
35°	18956	18528	17394	16208	15889	11749
45°	11847	12732	11879	10486	9614	9404
55°	7032	6840	6767	5815	5534	6193
65°	3476	3425	3182	3096	2885	3554
75°	1834	1984	1971	1891	1735	1985
85°	540	613	633	553	514	586
90°	3	45	90	105	112	25
95°	3	6	10	10	6	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: P860179

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	24224.4	24224.4	24224.4	24224.4	24224.4
2.5°	24208.5	24173.3	24205.3	24304.3	24333.1
5°	24179.7	24141.4	24173.3	24272.4	24310.7
7.5°	24080.7	24058.3	24090.2	24189.3	24237.2
10°	23924.1	23898.5	23949.7	24035.9	24096.6
12.5°	23690.9	23681.3	23729.2	23853.8	23879.4
15°	23396.9	23393.7	23457.6	23607.8	23620.6
17.5°	23064.7	23061.5	23141.3	23240.4	23205.2
20°	22662.1	22684.4	22777.1	22684.4	22595.0
22.5°	22179.6	22249.9	22272.3	21981.5	21936.8
25°	21697.2	21748.3	21636.5	21374.5	21269.1
27.5°	21074.2	21134.9	20927.2	20553.4	20253.1
30°	20470.3	20412.8	19987.9	19265.8	18847.3
32.5°	19777.0	19572.5	18808.9	17812.1	17431.9
35°	18955.9	18527.8	17393.5	16208.2	15888.7
37.5°	17917.5	17134.7	15895.1	14658.6	14176.2
40°	16451.0	15546.8	14396.6	13118.6	12585.1
42.5°	14396.6	14061.2	13109.1	11671.3	11035.5
45°	11847.0	12732.0	11879.0	10486.0	9613.7
47.5°	10140.9	11371.0	10345.4	9339.0	8137.6
50°	8795.8	9642.5	8920.4	8013.0	7057.7
52.5°	7824.5	8080.1	7789.4	6792.6	6249.4
55°	7032.2	6840.5	6767.0	5814.9	5533.7
57.5°	6048.1	5942.7	5754.2	5070.5	4699.8
60°	4907.5	5131.2	4645.5	4450.6	3859.6
62.5°	4032.1	4252.5	3731.8	3719.0	3226.9
65°	3476.2	3425.0	3182.2	3095.9	2885.1
67.5°	3076.8	2917.0	2834.0	2722.1	2648.6
70°	2671.0	2603.9	2453.8	2476.1	2377.1
72.5°	2226.9	2313.2	2163.0	2204.5	2025.6
75°	1833.9	1984.1	1971.3	1891.4	1734.9
77.5°	1511.2	1671.0	1699.7	1626.3	1498.5
80°	1236.5	1345.1	1351.5	1306.8	1226.9
82.5°	907.4	971.3	1019.2	942.5	891.4
85°	540.0	613.4	632.6	552.7	514.4
87.5°	175.7	246.0	274.8	284.4	287.5
90°	3.2	44.7	89.5	105.4	111.8
92.5°	3.2	12.8	19.2	28.8	31.9
95°	3.2	6.4	9.6	9.6	6.4
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: P860179

CATALOG NUMBER: SPHB-48SE-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)