

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: P859963

Luminaire Tested: **SPHB-18SE-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: P859963
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-18SE-M-L740-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 4000K 70CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

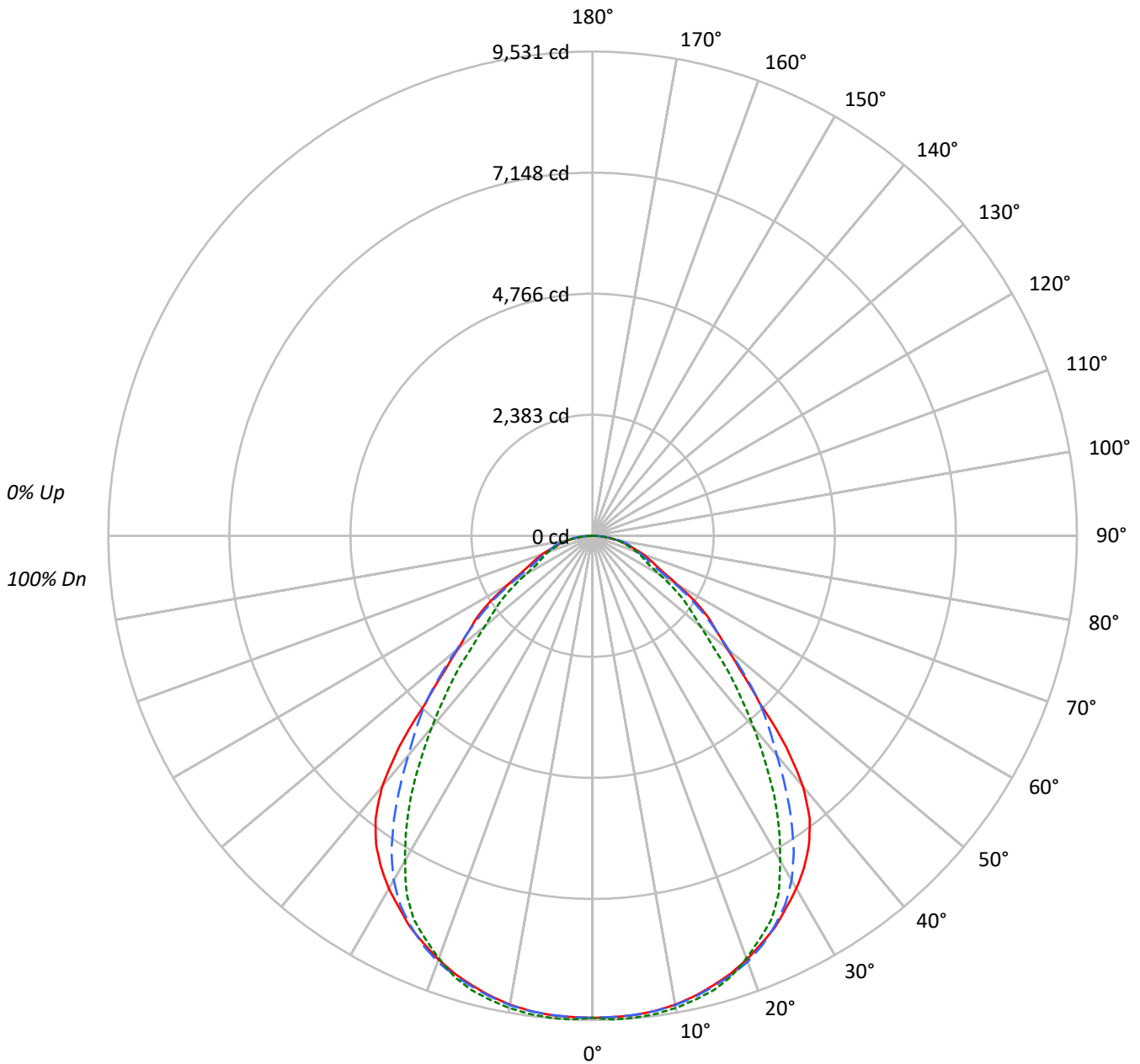
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19694.0 lumens
Efficiency: N/A
Efficacy: 167.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

Input Watts (W): 117.4
Input Voltage (V): NR
Input Current (Ain): 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

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Luminous Intensity Polar Plot





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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	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°	74007	74007	74007
5°	74153	74133	74555
10°	74218	74297	74752
15°	74001	74193	74708
20°	73678	74051	73460
25°	73139	72935	71695
30°	72213	70511	66488
35°	70697	64870	59258
40°	65608	57416	50191
45°	51185	51323	41536
50°	41805	42397	33545
55°	37456	36044	29474
60°	29986	28386	23582
65°	25128	23004	20856
70°	23859	21918	21232
75°	21647	23269	20478
80°	21754	23775	21583
85°	18928	22177	18033



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	902.2	4.6
10°-20°	2594.6	13.2
20°-30°	3873.3	19.7
30°-40°	4226.4	21.5
40°-50°	3457.4	17.6
50°-60°	2273.3	11.5
60°-70°	1304.2	6.6
70°-80°	790.3	4.0
80°-90°	265.4	1.3
90°-100°	6.9	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°	7370.1	37.4
0°-40°	11596.5	58.9
0°-60°	17327.2	88.0
0°-90°	19687.1	100.0
90°-120°	6.9	0.0
90°-150°	6.9	0.0
90°-180°	7.0	0.0
0°-180°	19694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9488	9488	9488	9488	9488	
5°	9471	9456	9468	9507	9522	901
15°	9164	9163	9188	9247	9252	2587
25°	8498	8518	8475	8372	8331	3910
35°	7425	7257	6813	6348	6223	4602
45°	4640	4987	4653	4107	3766	3683
55°	2754	2679	2650	2278	2167	2426
65°	1362	1342	1246	1213	1130	1392
75°	718	777	772	741	680	777
85°	212	240	248	216	202	229
90°	1	18	35	41	44	10
95°	1	2	4	4	2	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9488.2	9488.2	9488.2	9488.2	<i>9488.2</i>
2.5°	<i>9481.9</i>	<i>9468.2</i>	<i>9480.7</i>	<i>9519.5</i>	<i>9530.7</i>
5°	9470.7	9455.7	9468.2	9507.0	<i>9522.0</i>
7.5°	9431.9	9423.1	9435.6	9474.4	<i>9493.2</i>
10°	9370.6	9360.6	9380.6	9414.4	<i>9438.1</i>
12.5°	9279.2	9275.5	9294.2	9343.0	<i>9353.0</i>
15°	9164.1	9162.8	9187.9	9246.7	<i>9251.7</i>
17.5°	9033.9	9032.7	9064.0	9102.8	<i>9089.0</i>
20°	8876.3	8885.0	8921.3	8885.0	<i>8850.0</i>
22.5°	8687.3	8714.8	8723.6	8609.7	<i>8592.2</i>
25°	8498.3	8518.4	8474.6	8371.9	<i>8330.6</i>
27.5°	8254.3	8278.1	8196.7	8050.3	<i>7932.7</i>
30°	8017.8	7995.3	7828.8	7546.0	<i>7382.1</i>
32.5°	7746.2	7666.1	7367.1	6976.6	<i>6827.7</i>
35°	7424.6	7256.9	6812.7	6348.4	<i>6223.3</i>
37.5°	7017.9	6711.3	6225.8	5741.5	<i>5552.5</i>
40°	6443.5	6089.4	5638.9	5138.3	<i>4929.3</i>
42.5°	5638.9	5507.5	5134.5	4571.4	<i>4322.4</i>
45°	4640.2	4986.9	4652.7	4107.1	<i>3765.5</i>
47.5°	3972.0	4453.8	4052.1	3657.9	<i>3187.3</i>
50°	3445.1	3776.8	3493.9	3138.5	<i>2764.4</i>
52.5°	3064.7	3164.8	3050.9	2660.5	<i>2447.8</i>
55°	2754.4	2679.3	2650.5	2277.6	<i>2167.4</i>
57.5°	2368.9	2327.6	2253.8	1986.0	<i>1840.8</i>
60°	1922.2	2009.8	1819.6	1743.2	<i>1511.7</i>
62.5°	1579.3	1665.6	1461.6	1456.6	<i>1263.9</i>
65°	1361.5	1341.5	1246.4	1212.6	<i>1130.0</i>
67.5°	1205.1	1142.5	1110.0	1066.2	<i>1037.4</i>
70°	1046.2	1019.9	961.1	969.8	<i>931.0</i>
72.5°	872.2	906.0	847.2	863.5	<i>793.4</i>
75°	718.3	777.1	772.1	740.8	<i>679.5</i>
77.5°	591.9	654.5	665.8	637.0	<i>586.9</i>
80°	484.3	526.8	529.3	511.8	<i>480.5</i>
82.5°	355.4	380.4	399.2	369.2	<i>349.1</i>
85°	211.5	240.3	247.8	216.5	<i>201.5</i>
87.5°	68.8	96.4	107.6	111.4	<i>112.6</i>
90°	1.3	17.5	35.0	41.3	<i>43.8</i>
92.5°	1.3	5.0	7.5	11.3	<i>12.5</i>
95°	1.3	2.5	3.8	3.8	<i>2.5</i>
97.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
100°	0.0	0.0	0.0	0.0	<i>0.0</i>
102.5°	0.0	0.0	0.0	0.0	<i>0.0</i>
105°	0.0	0.0	0.0	0.0	<i>0.0</i>



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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)