

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: P859970

Luminaire Tested: **SPHB-18SE-M-L950-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: P859970
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-L950-CD
Description: 18000 Lumen Standard Efficacy Select Pro High Bay with Medium Lens
and, 5000K 90CRI LEDs
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

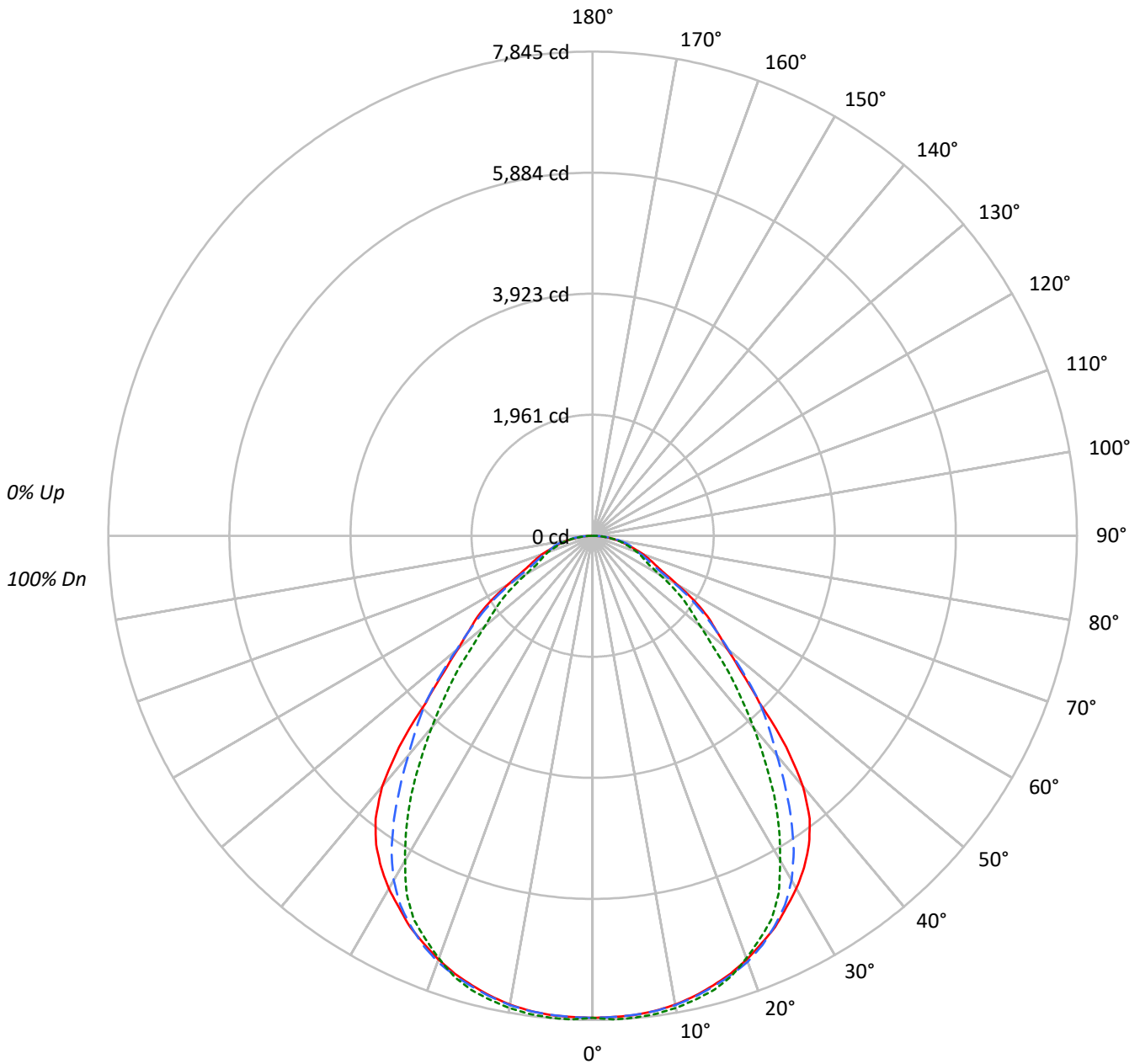
Lumens per Lamp: N/A
Luminaire Lumens: 16210.0 lumens
Efficiency: N/A
Efficacy: 138.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.16 / 1.22
Luminous Opening: Rectangular (W 1' x L: 1.38' x H: 0')
CIE Type: Direct

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

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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	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°	60915	60915	60915
5°	61035	61019	61366
10°	61087	61153	61529
15°	60910	61068	61492
20°	60644	60952	60464
25°	60200	60031	59012
30°	59438	58038	54725
35°	58191	53394	48774
40°	54002	47258	41312
45°	42130	42243	34189
50°	34410	34897	27610
55°	30830	29667	24260
60°	24681	23364	19411
65°	20684	18934	17166
70°	19638	18041	17476
75°	17817	19152	16855
80°	17904	19571	17765
85°	15581	18248	14838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	742.6	4.6
10°-20°	2135.6	13.2
20°-30°	3188.1	19.7
30°-40°	3478.8	21.5
40°-50°	2845.8	17.6
50°-60°	1871.1	11.5
60°-70°	1073.5	6.6
70°-80°	650.5	4.0
80°-90°	218.4	1.3
90°-100°	5.7	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°	6066.3	37.4
0°-40°	9545.0	58.9
0°-60°	14261.9	88.0
0°-90°	16204.3	100.0
90°-120°	5.7	0.0
90°-150°	5.7	0.0
90°-180°	6.0	0.0
0°-180°	16210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7810	7810	7810	7810	7810	
5°	7795	7783	7793	7825	7838	741
15°	7543	7542	7562	7611	7615	2129
25°	6995	7011	6975	6891	6857	3218
35°	6111	5973	5608	5225	5122	3788
45°	3819	4105	3830	3381	3099	3032
55°	2267	2205	2182	1875	1784	1997
65°	1121	1104	1026	998	930	1146
75°	591	640	636	610	559	640
85°	174	198	204	178	166	189
90°	1	14	29	34	36	8
95°	1	2	3	3	2	0
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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CATALOG NUMBER: SPHB-18SE-M-L950-CD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7809.7	7809.7	7809.7	7809.7	7809.7
2.5°	7804.5	7793.2	7803.5	7835.4	7844.7
5°	7795.3	7782.9	7793.2	7825.1	7837.5
7.5°	7763.3	7756.1	7766.4	7798.3	7813.8
10°	7712.8	7704.6	7721.1	7748.9	7768.5
12.5°	7637.7	7634.6	7650.0	7690.2	7698.4
15°	7542.9	7541.9	7562.5	7610.9	7615.0
17.5°	7435.8	7434.7	7460.5	7492.4	7481.1
20°	7306.0	7313.2	7343.1	7313.2	7284.4
22.5°	7150.5	7173.1	7180.3	7086.6	7072.2
25°	6994.9	7011.4	6975.3	6890.9	6856.9
27.5°	6794.1	6813.6	6746.7	6626.2	6529.3
30°	6599.4	6580.8	6443.9	6211.1	6076.1
32.5°	6375.9	6310.0	6063.8	5742.4	5619.8
35°	6111.2	5973.1	5607.5	5225.3	5122.3
37.5°	5776.4	5524.0	5124.4	4725.8	4570.2
40°	5303.6	5012.1	4641.3	4229.3	4057.3
42.5°	4641.3	4533.2	4226.2	3762.7	3557.7
45°	3819.3	4104.7	3829.6	3380.6	3099.4
47.5°	3269.3	3665.9	3335.2	3010.8	2623.5
50°	2835.7	3108.6	2875.8	2583.3	2275.3
52.5°	2522.5	2604.9	2511.2	2189.8	2014.7
55°	2267.1	2205.3	2181.6	1874.7	1784.0
57.5°	1949.8	1915.9	1855.1	1634.7	1515.2
60°	1582.1	1654.2	1497.7	1434.8	1244.3
62.5°	1299.9	1371.0	1203.1	1199.0	1040.3
65°	1120.7	1104.2	1025.9	998.1	930.1
67.5°	991.9	940.4	913.6	877.6	853.9
70°	861.1	839.5	791.1	798.3	766.3
72.5°	717.9	745.7	697.3	710.7	653.0
75°	591.2	639.6	635.5	609.8	559.3
77.5°	487.2	538.7	548.0	524.3	483.1
80°	398.6	433.6	435.7	421.3	395.5
82.5°	292.5	313.1	328.6	303.9	287.4
85°	174.1	197.8	203.9	178.2	165.8
87.5°	56.7	79.3	88.6	91.7	92.7
90°	1.0	14.4	28.8	34.0	36.1
92.5°	1.0	4.1	6.2	9.3	10.3
95°	1.0	2.1	3.1	3.1	2.1
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



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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)