

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893652

Luminaire Tested: 4MB-5SL-LVRF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-LVRF-UNV-L850
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K C
Light Source: -
Ballast/Driver: -

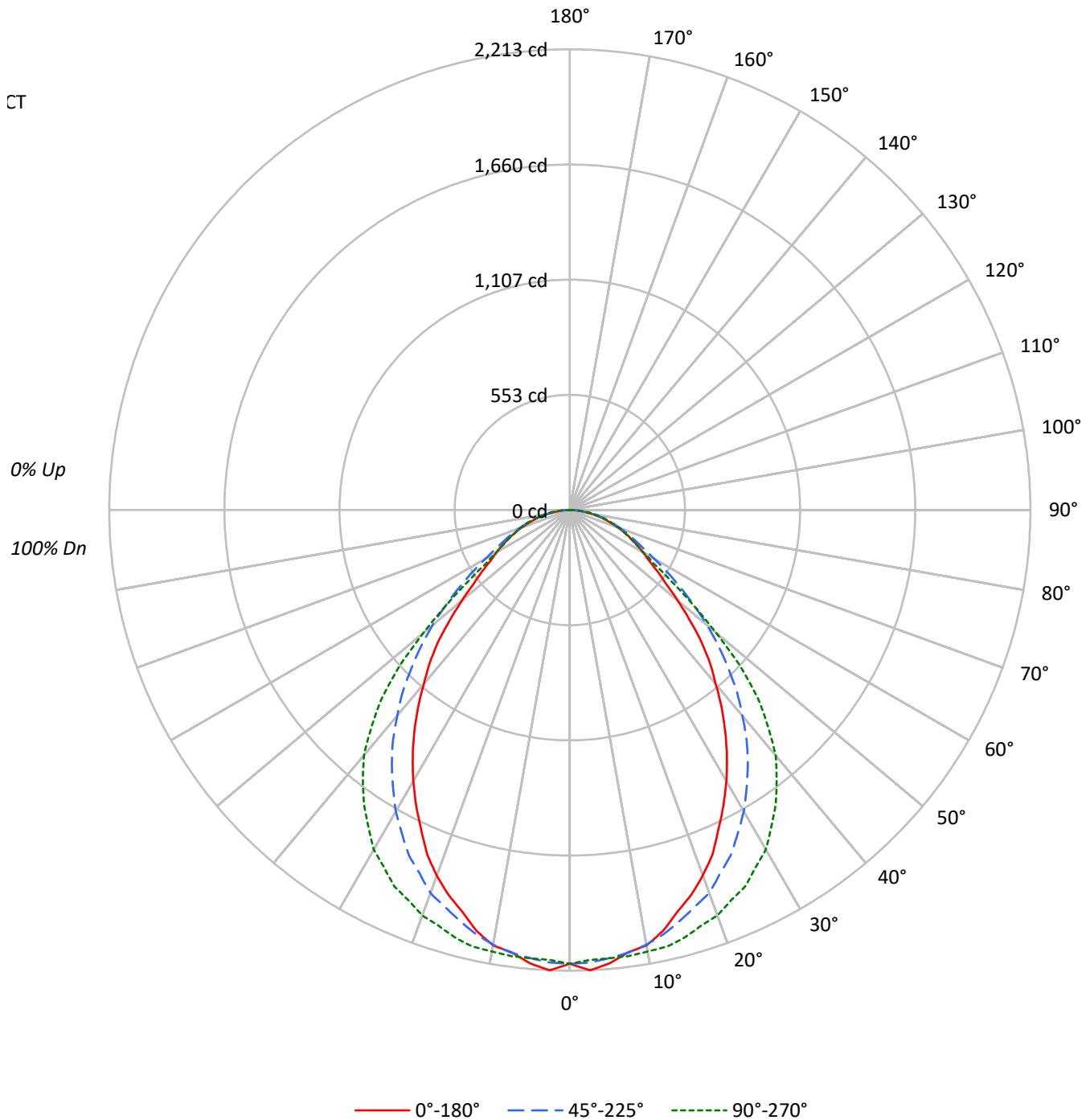
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4529.0 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893652
CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P893652

CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L850

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	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15504	15504	15504
5°	15612	15434	15434
10°	15342	15318	15556
15°	14708	15050	15667
20°	14148	14827	15693
25°	13273	14367	15657
30°	12355	13733	15473
35°	11309	12953	14980
40°	10125	11978	14293
45°	8985	10844	12850
50°	7476	9546	10135
55°	6367	8041	7366
60°	5773	6644	5821
65°	5438	5818	5418
70°	5115	5398	5280
75°	4767	5141	5047
80°	4364	4737	4876
85°	3796	4163	5461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12850 cd/sqm



TEST NUMBER: P893652
 CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.3	4.6
10°-20°	580.6	12.8
20°-30°	843.1	18.6
30°-40°	938.8	20.7
40°-50°	829.4	18.3
50°-60°	544.2	12.0
60°-70°	333.3	7.4
70°-80°	193.9	4.3
80°-90°	59.4	1.3
90°-100°	0.0	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°	1629.9	36.0
0°-40°	2568.7	56.7
0°-60°	3942.4	87.0
0°-90°	4529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2179	2179	2179	2179	2179	
5°	2186	2187	2161	2182	2161	206
15°	1997	2019	2043	2124	2127	563
25°	1691	1732	1830	1947	1994	778
35°	1302	1372	1491	1649	1725	812
45°	893	947	1078	1223	1277	683
55°	513	550	648	642	594	466
65°	323	329	346	335	322	321
75°	173	176	187	190	184	184
85°	46	49	51	58	67	52
90°	0	0	0	0	0	



TEST NUMBER: P893652

CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2179.1	2179.1	2179.1	2179.1	2179.1
2.5°	2213.1	2185.9	2175.7	2185.9	2163.3
5°	2185.9	2187.1	2161.0	2182.5	2161.0
7.5°	2142.9	2157.6	2145.2	2178.0	2161.0
10°	2123.6	2124.8	2120.2	2154.2	2153.1
12.5°	2070.4	2073.8	2086.2	2137.2	2148.6
15°	1996.7	2019.4	2043.2	2123.6	2127.0
17.5°	1938.9	1966.1	1997.8	2084.0	2094.2
20°	1868.6	1880.0	1958.2	2034.1	2072.6
22.5°	1790.5	1812.0	1887.9	1989.9	2028.4
25°	1690.7	1731.5	1830.1	1946.8	1994.4
27.5°	1598.9	1646.5	1748.5	1878.8	1934.4
30°	1503.8	1558.2	1671.5	1799.5	1883.4
32.5°	1405.2	1473.2	1580.8	1728.1	1801.8
35°	1302.0	1372.3	1491.3	1648.8	1724.7
37.5°	1198.9	1266.9	1396.1	1565.0	1632.9
40°	1090.1	1157.0	1289.6	1460.7	1538.9
42.5°	996.1	1053.9	1189.9	1336.0	1408.6
45°	893.0	947.4	1077.7	1222.7	1277.1
47.5°	779.6	843.1	970.0	1089.0	1110.5
50°	675.4	741.1	862.4	931.5	915.6
52.5°	583.6	639.1	750.2	779.6	742.2
55°	513.3	549.6	648.2	642.5	593.8
57.5°	448.7	471.4	555.3	523.5	477.1
60°	405.7	415.9	466.9	437.4	409.1
62.5°	364.9	369.4	396.6	380.8	359.2
65°	323.0	328.6	345.6	335.4	321.8
67.5°	284.4	286.7	302.6	300.3	283.3
70°	245.9	249.3	259.5	264.0	253.8
72.5°	208.5	211.9	222.1	226.6	217.6
75°	173.4	175.6	187.0	190.4	183.6
77.5°	139.4	143.9	150.7	156.4	148.4
80°	106.5	108.8	115.6	122.4	119.0
82.5°	74.8	78.2	82.7	91.8	94.1
85°	46.5	48.7	51.0	57.8	66.9
87.5°	18.1	19.3	22.7	24.9	32.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893652
 CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L850

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.05	18.53	17.42	18.85	19.16	17.70	19.19	18.07	19.50	19.81
	3H	18.65	19.98	19.03	20.31	20.67	19.14	20.47	19.52	20.79	21.16
	4H	19.27	20.51	19.67	20.86	21.24	19.75	20.99	20.15	21.34	21.72
	6H	19.74	20.89	20.15	21.26	21.65	20.23	21.38	20.65	21.75	22.14
	8H	19.89	20.98	20.32	21.37	21.78	20.43	21.52	20.86	21.91	22.31
	12H	19.99	21.04	20.42	21.42	21.85	20.60	21.64	21.03	22.02	22.45
4H	2H	17.68	18.92	18.08	19.27	19.65	18.20	19.44	18.60	19.79	20.17
	3H	19.50	20.52	19.91	20.92	21.33	19.90	20.92	20.31	21.32	21.73
	4H	20.23	21.16	20.67	21.58	22.02	20.65	21.57	21.08	21.99	22.43
	6H	20.83	21.64	21.29	22.08	22.54	21.28	22.09	21.74	22.53	22.99
	8H	21.03	21.78	21.49	22.23	22.69	21.54	22.29	22.00	22.74	23.21
	12H	21.17	21.84	21.65	22.32	22.79	21.76	22.44	22.25	22.92	23.39
8H	4H	20.55	21.30	21.02	21.75	22.22	20.92	21.67	21.38	22.12	22.58
	6H	21.28	21.90	21.77	22.39	22.87	21.69	22.32	22.19	22.81	23.29
	8H	21.55	22.11	22.06	22.62	23.11	22.04	22.60	22.55	23.11	23.60
	12H	21.77	22.26	22.28	22.76	23.32	22.36	22.85	22.87	23.35	23.91
12H	4H	20.59	21.26	21.07	21.74	22.21	20.94	21.61	21.42	22.09	22.56
	6H	21.34	21.90	21.86	22.41	22.90	21.74	22.30	22.25	22.81	23.30
	8H	21.67	22.17	22.18	22.66	23.23	22.15	22.64	22.66	23.14	23.70