

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: P893656

Luminaire Tested: 4MB-5SL-LVRF-UNV-L950

Issue Date: 11/11/2024

**Test Information**

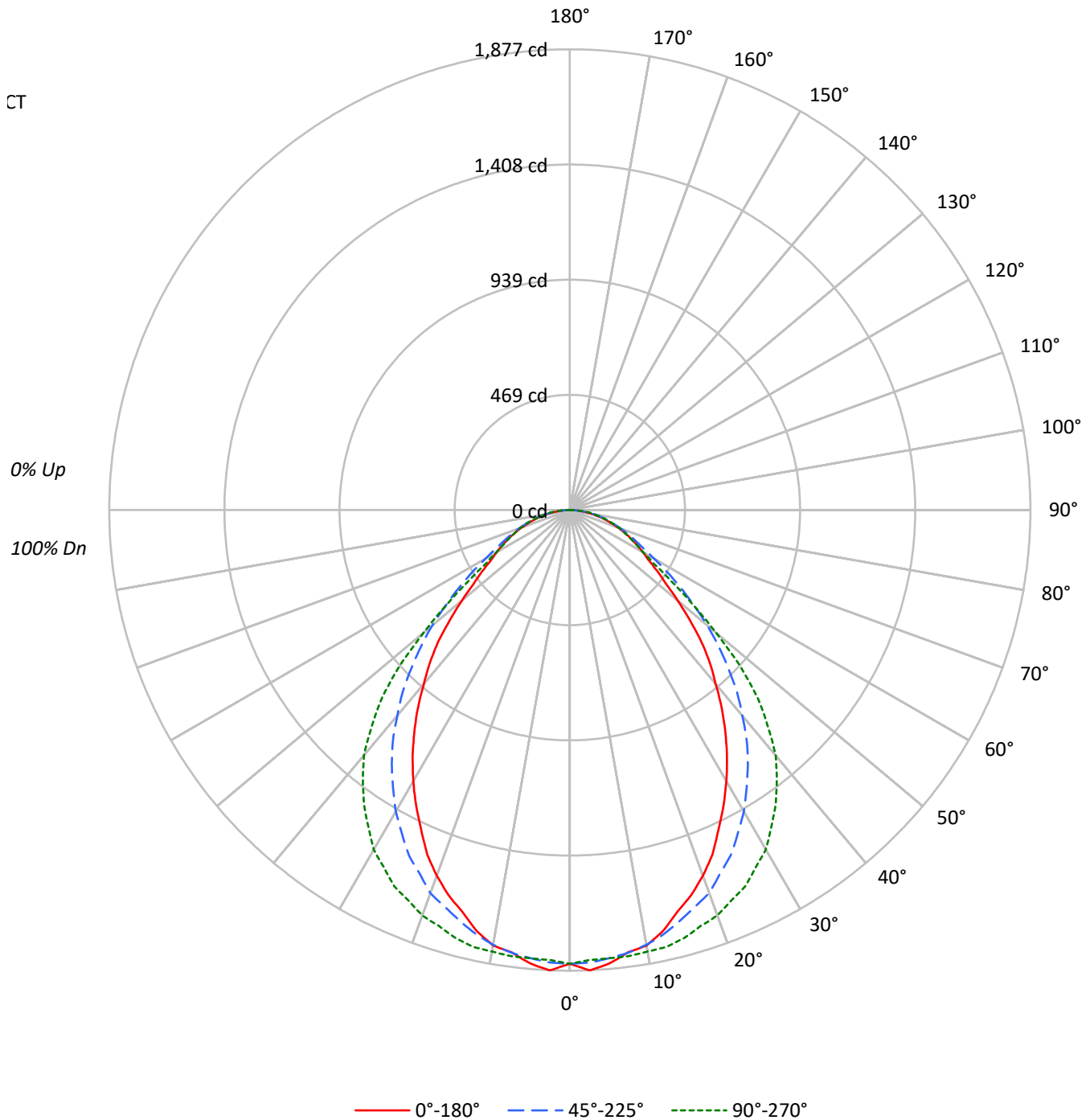
Test Method: LM-79-2019  
Report Number: P893656  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-LVRF-UNV-L950  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 5000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3842.0 lumens  
Efficiency: N/A  
Efficacy: 109.8 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 (A<sub>in</sub>): 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: P893656  
CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L950

### Luminous Intensity Polar Plot





TEST NUMBER: P893656

CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L950

**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°	13153	13153	13153
5°	13244	13093	13093
10°	13015	12994	13196
15°	12477	12767	13291
20°	12003	12577	13312
25°	11260	12188	13282
30°	10481	11649	13126
35°	9593	10988	12708
40°	8590	10161	12125
45°	7622	9199	10901
50°	6341	8098	8597
55°	5402	6821	6248
60°	4897	5637	4938
65°	4613	4936	4596
70°	4339	4579	4479
75°	4044	4360	4280
80°	3704	4020	4134
85°	3216	3535	4629

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10901 cd/sqm



TEST NUMBER: P893656  
 CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L950

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.0	4.6
10°-20°	492.5	12.8
20°-30°	715.2	18.6
30°-40°	796.4	20.7
40°-50°	703.6	18.3
50°-60°	461.7	12.0
60°-70°	282.7	7.4
70°-80°	164.5	4.3
80°-90°	50.4	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°	1382.7	36.0
0°-40°	2179.1	56.7
0°-60°	3344.4	87.0
0°-90°	3842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1849	1849	1849	1849	1849	
5°	1854	1855	1833	1852	1833	175
15°	1694	1713	1733	1802	1804	478
25°	1434	1469	1552	1652	1692	660
35°	1104	1164	1265	1399	1463	689
45°	758	804	914	1037	1083	580
55°	436	466	550	545	504	395
65°	274	279	293	284	273	272
75°	147	149	159	162	156	156
85°	39	41	43	49	57	44
90°	0	0	0	0	0	



TEST NUMBER: P893656

CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L950

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1848.6	1848.6	1848.6	1848.6	1848.6
2.5°	1877.4	1854.4	1845.7	1854.4	1835.1
5°	1854.4	1855.3	1833.2	1851.5	1833.2
7.5°	1817.8	1830.3	1819.8	1847.6	1833.2
10°	1801.5	1802.5	1798.6	1827.4	1826.5
12.5°	1756.3	1759.2	1769.8	1813.0	1822.6
15°	1693.8	1713.1	1733.2	1801.5	1804.4
17.5°	1644.8	1667.9	1694.8	1767.8	1776.5
20°	1585.2	1594.8	1661.1	1725.5	1758.2
22.5°	1518.9	1537.1	1601.5	1688.1	1720.7
25°	1434.3	1468.9	1552.5	1651.5	1691.9
27.5°	1356.4	1396.8	1483.3	1593.8	1641.0
30°	1275.7	1321.8	1417.9	1526.6	1597.7
32.5°	1192.0	1249.7	1341.0	1466.0	1528.5
35°	1104.5	1164.1	1265.1	1398.7	1463.1
37.5°	1017.1	1074.7	1184.3	1327.6	1385.2
40°	924.8	981.5	1094.0	1239.1	1305.5
42.5°	845.0	894.0	1009.4	1133.4	1194.9
45°	757.5	803.7	914.2	1037.3	1083.4
47.5°	661.4	715.2	822.9	923.8	942.1
50°	572.9	628.7	731.6	790.2	776.7
52.5°	495.1	542.2	636.4	661.4	629.7
55°	435.5	466.2	549.9	545.1	503.7
57.5°	380.7	399.9	471.0	444.1	404.7
60°	344.1	352.8	396.1	371.1	347.0
62.5°	309.5	313.4	336.5	323.0	304.7
65°	274.0	278.8	293.2	284.5	273.0
67.5°	241.3	243.2	256.7	254.7	240.3
70°	208.6	211.5	220.1	224.0	215.3
72.5°	176.9	179.8	188.4	192.3	184.6
75°	147.1	149.0	158.6	161.5	155.7
77.5°	118.2	122.1	127.9	132.7	125.9
80°	90.4	92.3	98.1	103.8	100.9
82.5°	63.4	66.3	70.2	77.9	79.8
85°	39.4	41.3	43.3	49.0	56.7
87.5°	15.4	16.3	19.2	21.1	27.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893656  
 CATALOG NUMBER: 4MB-5SL-LVRF-UNV-L950

**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	16.48	17.96	16.85	18.28	18.59	17.13	18.61	17.50	18.93	19.24
	3H	18.08	19.41	18.46	19.74	20.10	18.57	19.89	18.95	20.22	20.59
	4H	18.70	19.94	19.10	20.29	20.67	19.17	20.42	19.57	20.77	21.14
	6H	19.17	20.32	19.58	20.68	21.08	19.66	20.81	20.07	21.17	21.57
	8H	19.32	20.41	19.75	20.80	21.21	19.86	20.95	20.29	21.34	21.74
	12H	19.42	20.47	19.85	20.85	21.28	20.03	21.07	20.46	21.45	21.88
4H	2H	17.10	18.35	17.50	18.70	19.07	17.63	18.87	18.03	19.22	19.60
	3H	18.92	19.95	19.33	20.35	20.75	19.32	20.35	19.74	20.75	21.16
	4H	19.66	20.59	20.10	21.00	21.44	20.08	21.00	20.51	21.42	21.86
	6H	20.26	21.07	20.72	21.51	21.97	20.71	21.52	21.17	21.96	22.42
	8H	20.46	21.21	20.92	21.65	22.12	20.97	21.72	21.43	22.17	22.63
	12H	20.60	21.27	21.08	21.75	22.22	21.19	21.86	21.67	22.34	22.81
8H	4H	19.98	20.73	20.45	21.18	21.65	20.35	21.10	20.81	21.55	22.01
	6H	20.71	21.33	21.20	21.82	22.30	21.12	21.75	21.62	22.24	22.72
	8H	20.98	21.54	21.49	22.05	22.54	21.47	22.03	21.98	22.54	23.03
	12H	21.20	21.69	21.71	22.18	22.75	21.79	22.28	22.30	22.77	23.34
12H	4H	20.02	20.69	20.50	21.17	21.64	20.37	21.04	20.85	21.52	21.99
	6H	20.77	21.33	21.28	21.84	22.33	21.17	21.73	21.68	22.24	22.73
	8H	21.10	21.60	21.61	22.09	22.66	21.57	22.07	22.08	22.56	23.13