

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: P893420

Luminaire Tested: 4MB-3SL-LVRA-UNV-L850

Issue Date: 11/11/2024

**Test Information**

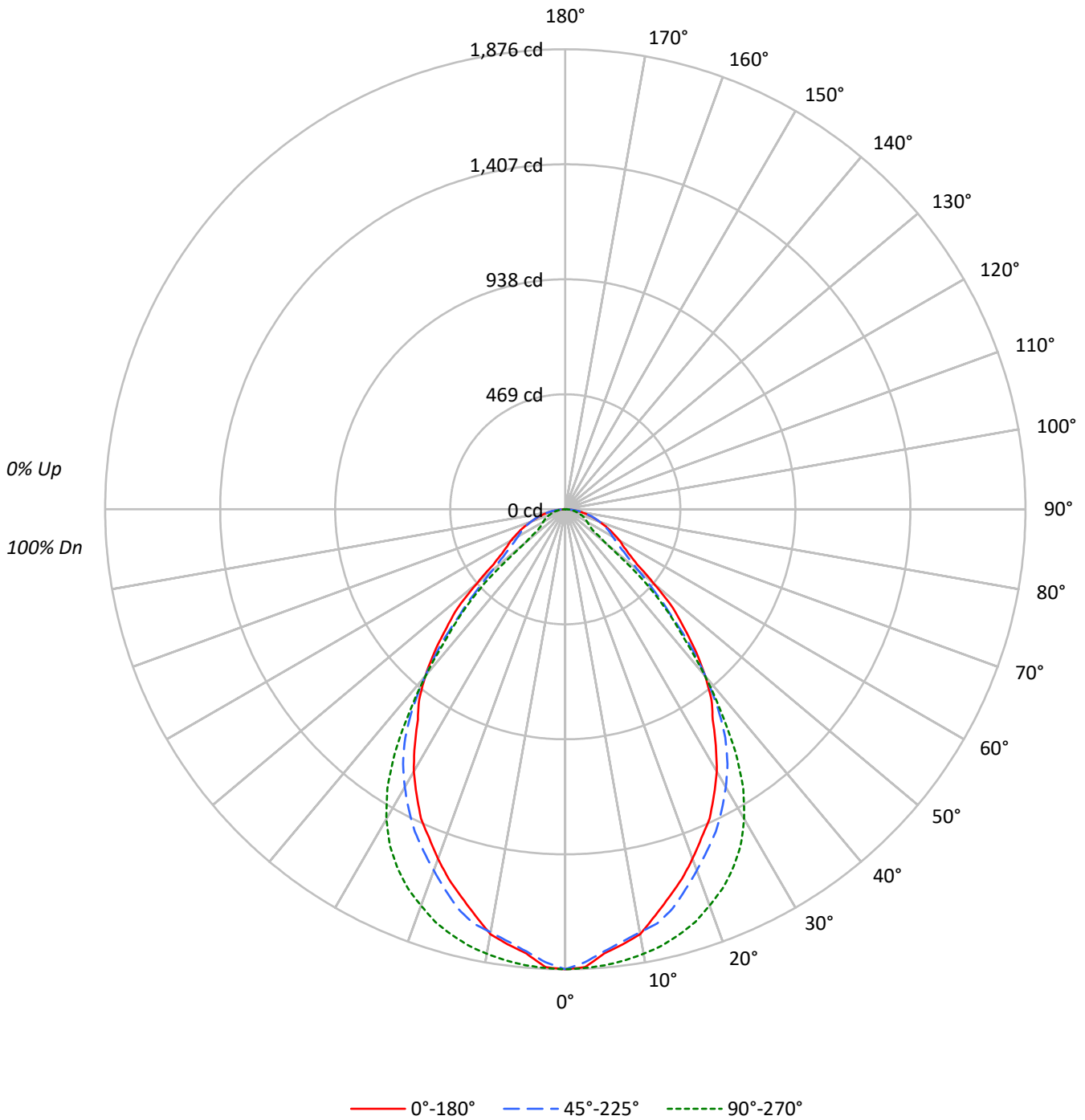
Test Method: LM-79-2019  
Report Number: P893420  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-LVRA-UNV-L850  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3044.0 lumens  
Efficiency: N/A  
Efficacy: 144.3 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.2  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P893420  
CATALOG NUMBER: 4MB-3SL-LVRA-UNV-L850

### Luminous Intensity Polar Plot





TEST NUMBER: P893420

CATALOG NUMBER: 4MB-3SL-LVRA-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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	37	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	13345	13345	13345
5°	12985	12926	13330
10°	12709	12653	13299
15°	12053	12423	13224
20°	11482	11870	13022
25°	10922	11389	12690
30°	10147	10751	11982
35°	9098	9879	10509
40°	8243	8262	8216
45°	6893	6105	5954
50°	5206	4297	2434
55°	3916	3436	1534
60°	3639	3165	1478
65°	3386	3158	1482
70°	3098	3098	1458
75°	2936	3016	1408
80°	2712	2852	1446
85°	2367	2490	1576

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 7053 cd/sqm



TEST NUMBER: P893420  
 CATALOG NUMBER: 4MB-3SL-LVRA-UNV-L850

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.3	5.7
10°-20°	477.4	15.7
20°-30°	676.9	22.2
30°-40°	697.4	22.9
40°-50°	487.1	16.0
50°-60°	233.7	7.7
60°-70°	164.0	5.4
70°-80°	102.5	3.4
80°-90°	31.7	1.0
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°	1327.6	43.6
0°-40°	2024.9	66.5
0°-60°	2745.8	90.2
0°-90°	3044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3044.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1876	1876	1876	1876	1876	
5°	1818	1816	1810	1857	1866	172
15°	1636	1648	1687	1735	1795	461
25°	1391	1405	1451	1549	1616	636
35°	1048	1076	1137	1161	1210	660
45°	685	701	607	576	592	528
55°	316	300	277	177	124	296
65°	201	188	188	143	88	199
75°	107	105	110	95	51	112
85°	29	29	30	30	19	32
90°	0	0	0	0	0	



TEST NUMBER: P893420

CATALOG NUMBER: 4MB-3SL-LVRA-UNV-L850

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1875.6	1875.6	1875.6	1875.6	1875.6
2.5°	1868.3	1862.5	1848.5	1874.1	1872.2
5°	1818.1	1815.6	1809.8	1857.2	1866.4
7.5°	1789.5	1784.7	1777.9	1830.1	1855.8
10°	1759.1	1764.9	1751.4	1799.2	1840.8
12.5°	1696.2	1711.7	1730.1	1767.3	1822.4
15°	1636.3	1648.4	1686.6	1734.9	1795.3
17.5°	1580.2	1594.2	1627.1	1699.6	1763.9
20°	1516.4	1535.8	1567.7	1660.5	1719.9
22.5°	1450.7	1468.6	1508.7	1608.3	1674.5
25°	1391.2	1405.2	1450.7	1548.8	1616.5
27.5°	1312.4	1338.5	1381.6	1476.3	1547.4
30°	1235.1	1257.3	1308.6	1388.3	1458.4
32.5°	1141.8	1174.2	1230.7	1291.6	1350.1
35°	1047.5	1076.0	1137.4	1161.1	1209.9
37.5°	978.9	986.6	1021.4	1018.5	1046.1
40°	887.5	903.0	889.5	853.2	884.6
42.5°	788.9	807.3	752.7	710.6	721.7
45°	685.0	700.9	606.7	575.7	591.7
47.5°	595.1	593.6	489.2	468.4	446.2
50°	470.3	485.8	388.2	349.5	219.9
52.5°	367.4	373.2	320.0	223.3	144.5
55°	315.7	300.2	277.0	177.4	123.7
57.5°	280.4	261.0	245.6	164.8	113.1
60°	255.7	234.0	222.4	156.6	103.9
62.5°	227.7	210.8	206.4	149.4	95.7
65°	201.1	188.0	187.6	142.6	88.0
67.5°	174.5	167.3	169.2	134.4	79.3
70°	148.9	147.4	148.9	123.7	70.1
72.5°	127.1	125.7	129.6	110.2	59.9
75°	106.8	105.4	109.7	94.7	51.2
77.5°	85.1	86.0	88.9	78.8	43.0
80°	66.2	66.2	69.6	61.9	35.3
82.5°	47.4	47.9	49.8	45.4	27.6
85°	29.0	29.0	30.5	30.0	19.3
87.5°	9.7	11.1	13.1	14.0	9.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893420  
 CATALOG NUMBER: 4MB-3SL-LVRA-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	14.65	16.00	15.01	16.32	16.63	10.98	12.33	11.35	12.65	12.96
	3H	16.39	17.59	16.77	17.92	18.29	12.96	14.16	13.34	14.49	14.86
	4H	17.06	18.19	17.46	18.54	18.92	13.66	14.79	14.06	15.14	15.52
	6H	17.57	18.60	17.98	18.97	19.37	14.18	15.22	14.60	15.59	15.99
	8H	17.74	18.72	18.17	19.11	19.52	14.37	15.35	14.80	15.75	16.15
	12H	17.85	18.79	18.28	19.17	19.60	14.51	15.45	14.94	15.83	16.26
4H	2H	15.18	16.31	15.58	16.66	17.04	12.60	13.73	13.01	14.08	14.46
	3H	17.16	18.09	17.57	18.49	18.89	14.78	15.71	15.19	16.11	16.52
	4H	17.96	18.79	18.39	19.21	19.65	15.66	16.50	16.09	16.91	17.36
	6H	18.60	19.33	19.06	19.77	20.24	16.30	17.03	16.77	17.47	17.94
	8H	18.82	19.50	19.29	19.94	20.42	16.51	17.19	16.98	17.64	18.11
	12H	18.98	19.58	19.46	20.06	20.53	16.67	17.27	17.16	17.75	18.23
8H	4H	18.24	18.92	18.71	19.37	19.84	16.31	16.99	16.78	17.43	17.90
	6H	19.03	19.58	19.53	20.08	20.56	17.17	17.73	17.67	18.22	18.70
	8H	19.33	19.83	19.85	20.34	20.83	17.50	18.00	18.02	18.51	19.00
	12H	19.56	20.00	20.08	20.50	21.07	17.76	18.20	18.28	18.70	19.27
12H	4H	18.26	18.86	18.74	19.34	19.82	16.38	16.98	16.87	17.46	17.94
	6H	19.08	19.58	19.60	20.09	20.58	17.31	17.81	17.83	18.32	18.81
	8H	19.44	19.88	19.96	20.38	20.95	17.72	18.16	18.24	18.66	19.23