

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: P893543

Luminaire Tested: 4MB-4SL-LVRF-UNV-L940

Issue Date: 11/11/2024

**Test Information**

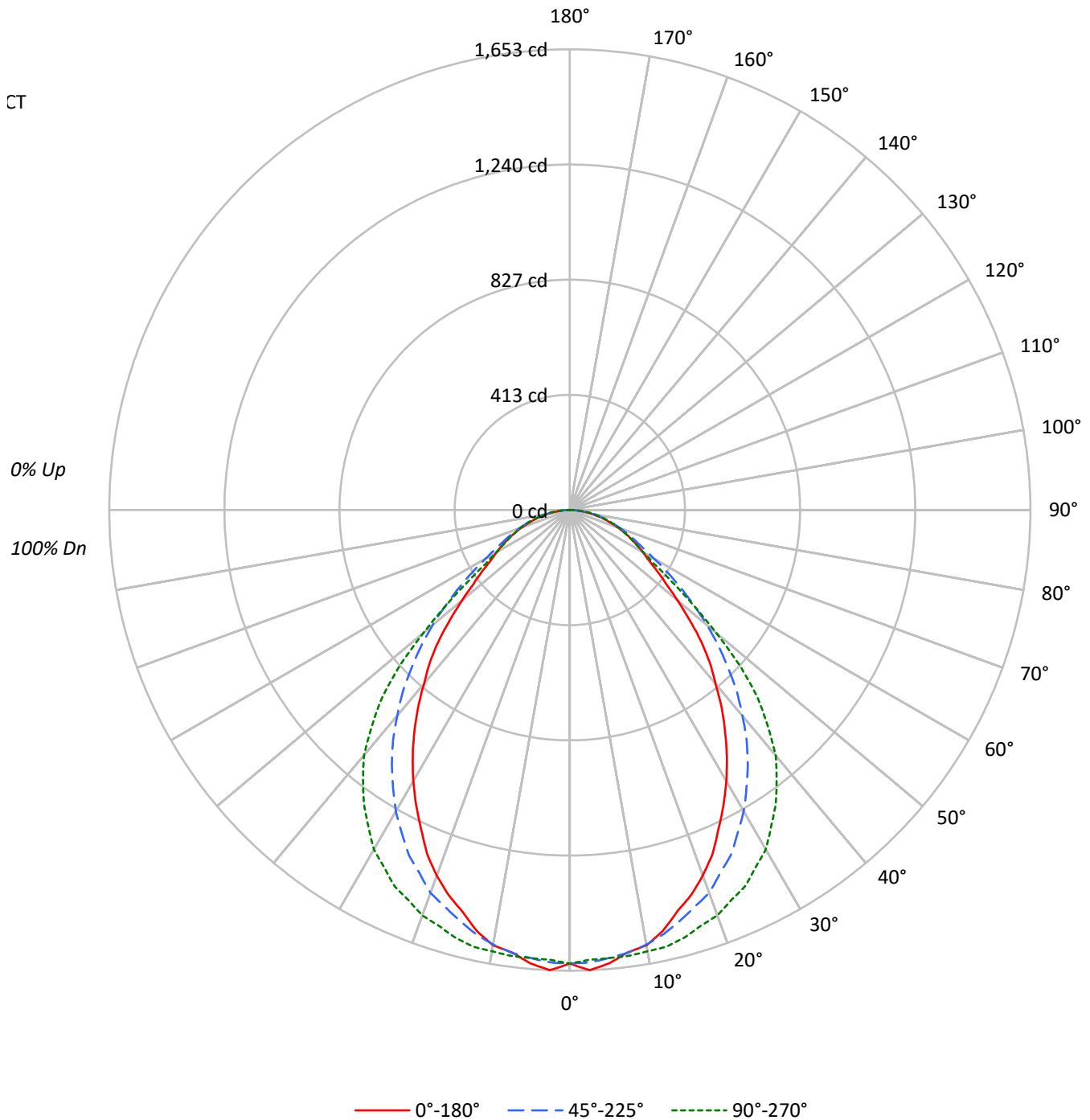
Test Method: LM-79-2019  
Report Number: P893543  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-4SL-LVRF-UNV-L940  
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3382.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 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): 29.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.5  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 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	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°	11578	11578	11578
5°	11658	11525	11525
10°	11457	11439	11616
15°	10983	11238	11699
20°	10565	11072	11719
25°	9911	10729	11692
30°	9225	10255	11555
35°	8445	9673	11186
40°	7561	8944	10674
45°	6709	8097	9596
50°	5582	7128	7568
55°	4755	6004	5500
60°	4310	4961	4347
65°	4061	4345	4046
70°	3819	4032	3944
75°	3560	3838	3769
80°	3257	3536	3643
85°	2833	3110	4074

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9596 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.1	4.6
10°-20°	433.5	12.8
20°-30°	629.6	18.6
30°-40°	701.1	20.7
40°-50°	619.4	18.3
50°-60°	406.4	12.0
60°-70°	248.9	7.4
70°-80°	144.8	4.3
80°-90°	44.4	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°	1217.1	36.0
0°-40°	1918.2	56.7
0°-60°	2944.0	87.0
0°-90°	3382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3382.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1627	1627	1627	1627	1627	
5°	1632	1633	1614	1630	1614	154
15°	1491	1508	1526	1586	1588	421
25°	1262	1293	1367	1454	1489	581
35°	972	1025	1114	1231	1288	606
45°	667	707	805	913	954	510
55°	383	410	484	480	443	348
65°	241	245	258	250	240	240
75°	130	131	140	142	137	137
85°	35	36	38	43	50	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1627.3	1627.3	1627.3	1627.3	1627.3
2.5°	1652.6	1632.3	1624.7	1632.3	1615.4
5°	1632.3	1633.2	1613.7	1629.8	1613.7
7.5°	1600.2	1611.2	1601.9	1626.4	1613.7
10°	1585.8	1586.6	1583.3	1608.6	1607.8
12.5°	1546.0	1548.6	1557.9	1596.0	1604.4
15°	1491.0	1507.9	1525.7	1585.8	1588.3
17.5°	1447.9	1468.2	1491.9	1556.2	1563.8
20°	1395.4	1403.9	1462.3	1518.9	1547.7
22.5°	1337.0	1353.1	1409.8	1485.9	1514.7
25°	1262.5	1293.0	1366.6	1453.8	1489.3
27.5°	1194.0	1229.5	1305.7	1403.0	1444.5
30°	1122.9	1163.5	1248.2	1343.8	1406.4
32.5°	1049.3	1100.1	1180.5	1290.5	1345.5
35°	972.3	1024.8	1113.6	1231.2	1287.9
37.5°	895.3	946.1	1042.5	1168.6	1219.4
40°	814.1	864.0	963.0	1090.8	1149.2
42.5°	743.8	787.0	888.5	997.7	1051.8
45°	666.8	707.4	804.7	913.1	953.7
47.5°	582.2	629.6	724.4	813.2	829.3
50°	504.3	553.4	644.0	695.6	683.7
52.5°	435.8	477.3	560.2	582.2	554.3
55°	383.3	410.4	484.0	479.8	443.4
57.5°	335.1	352.0	414.6	390.9	356.3
60°	302.9	310.6	348.6	326.6	305.5
62.5°	272.5	275.9	296.2	284.3	268.2
65°	241.2	245.4	258.1	250.5	240.3
67.5°	212.4	214.1	225.9	224.2	211.6
70°	183.6	186.2	193.8	197.2	189.6
72.5°	155.7	158.2	165.9	169.2	162.5
75°	129.5	131.2	139.6	142.2	137.1
77.5°	104.1	107.5	112.5	116.8	110.9
80°	79.5	81.2	86.3	91.4	88.9
82.5°	55.8	58.4	61.8	68.5	70.2
85°	34.7	36.4	38.1	43.2	49.9
87.5°	13.5	14.4	16.9	18.6	24.5
90°	0.0	0.0	0.0	0.0	0.0



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**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	16.04	17.52	16.40	17.83	18.15	16.69	18.17	17.05	18.48	18.80
	3H	17.64	18.97	18.02	19.29	19.66	18.13	19.45	18.50	19.78	20.14
	4H	18.26	19.50	18.66	19.85	20.23	18.73	19.97	19.13	20.32	20.70
	6H	18.73	19.87	19.14	20.24	20.63	19.22	20.37	19.63	20.73	21.12
	8H	18.88	19.97	19.31	20.36	20.76	19.42	20.51	19.84	20.90	21.30
	12H	18.98	20.02	19.41	20.41	20.83	19.58	20.63	20.01	21.01	21.44
4H	2H	16.66	17.90	17.06	18.25	18.63	17.18	18.43	17.58	18.78	19.15
	3H	18.48	19.51	18.89	19.91	20.31	18.88	19.91	19.29	20.31	20.71
	4H	19.22	20.15	19.65	20.56	21.00	19.64	20.56	20.07	20.98	21.42
	6H	19.82	20.62	20.28	21.07	21.53	20.27	21.08	20.73	21.52	21.98
	8H	20.01	20.77	20.48	21.21	21.68	20.53	21.28	20.99	21.72	22.19
	12H	20.16	20.83	20.64	21.31	21.78	20.75	21.42	21.23	21.90	22.37
8H	4H	19.54	20.29	20.00	20.74	21.20	19.91	20.66	20.37	21.10	21.57
	6H	20.26	20.88	20.76	21.38	21.85	20.68	21.30	21.18	21.80	22.27
	8H	20.53	21.09	21.05	21.61	22.09	21.02	21.59	21.54	22.10	22.58
	12H	20.75	21.25	21.26	21.74	22.31	21.34	21.84	21.85	22.33	22.90
12H	4H	19.57	20.24	20.06	20.72	21.20	19.92	20.60	20.41	21.08	21.55
	6H	20.33	20.89	20.84	21.40	21.89	20.73	21.29	21.24	21.80	22.29
	8H	20.66	21.16	21.17	21.65	22.21	21.13	21.63	21.64	22.12	22.69