

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: P893347

Luminaire Tested: 4MB-3SL-A-UNV-L840

Issue Date: 11/11/2024

**Test Information**

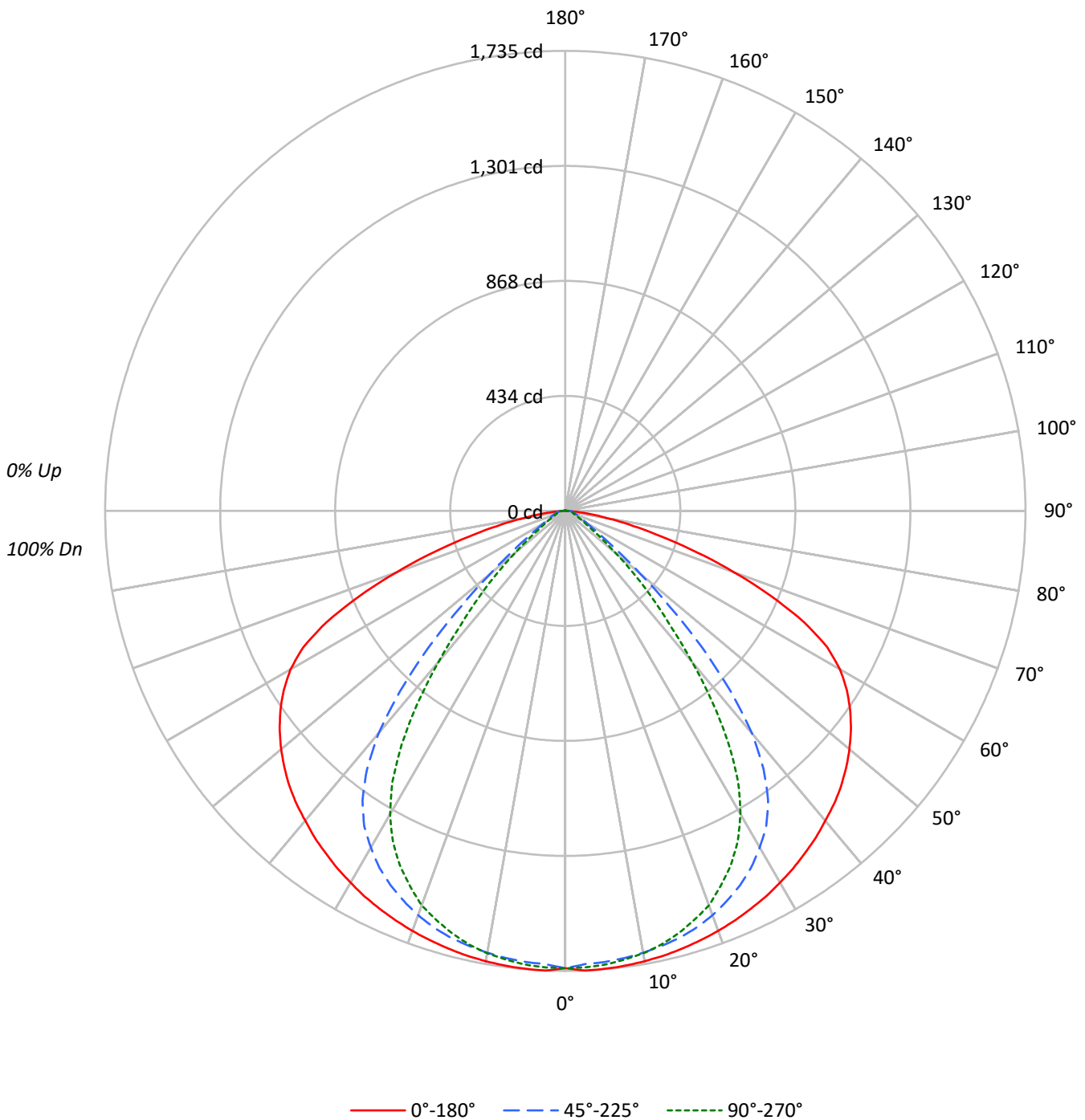
Test Method: LM-79-2019  
Report Number: P893347  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-3SL-A-UNV-L840  
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3536.1 lumens  
Efficiency: N/A  
Efficacy: 167.6 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

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

	0°	45°	90°
0°	17567	17567	17567
5°	17722	17458	17561
10°	17833	17498	17522
15°	18010	17573	17391
20°	18265	17588	17158
25°	18605	17512	16578
30°	19039	17237	15536
35°	19583	16574	13358
40°	20279	14556	9874
45°	21173	10504	6641
50°	22158	5869	3963
55°	23288	3034	2170
60°	24363	1974	1536
65°	23946	1622	1219
70°	20195	1492	1137
75°	14854	1523	1220
80°	9912	1789	1542
85°	5410	2898	2337

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 24570 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.8	4.6
10°-20°	473.3	13.4
20°-30°	720.0	20.4
30°-40°	822.3	23.3
40°-50°	663.4	18.8
50°-60°	363.1	10.3
60°-70°	191.4	5.4
70°-80°	93.9	2.7
80°-90°	33.1	0.9
90°-100°	7.1	0.2
100°-110°	1.0	0.0
110°-120°	0.6	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.7	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1357.1	38.4
0°-40°	2179.4	61.6
0°-60°	3205.8	90.7
0°-90°	3524.2	99.7
90°-120°	8.7	0.2
90°-150°	10.6	0.3
90°-180°	12.0	0.3
0°-180°	3536.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1725	1725	1725	1725	1725	
5°	1734	1728	1708	1723	1718	165
15°	1708	1698	1667	1664	1650	483
25°	1656	1632	1558	1505	1475	765
35°	1575	1509	1333	1152	1074	988
45°	1470	1263	729	498	461	1135
55°	1312	540	171	132	122	1170
65°	994	125	67	54	51	961
75°	378	70	39	32	31	417
85°	46	37	25	22	20	64
90°	2	19	15	13	12	3
95°	1	2	5	8	8	1
105°	0	0	0	1	1	1
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	1	1	1
155°	1	1	1	2	1	0
165°	1	1	2	2	2	0
175°	1	1	2	2	2	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1724.9	1724.9	1724.9	1724.9	1724.9
2.5°	1735.4	1730.7	1711.1	1727.8	1723.0
5°	1733.5	1728.3	1707.7	1723.0	1717.8
7.5°	1730.2	1723.5	1701.1	1714.9	1706.8
10°	1724.4	1717.8	1692.0	1703.0	1694.4
12.5°	1717.8	1708.7	1680.1	1685.8	1674.8
15°	1708.2	1697.7	1666.7	1663.8	1649.5
17.5°	1697.7	1684.8	1647.1	1634.7	1617.5
20°	1685.3	1669.6	1622.8	1598.4	1583.2
22.5°	1671.5	1650.9	1592.2	1555.0	1531.1
25°	1655.7	1631.9	1558.4	1505.4	1475.3
27.5°	1639.0	1606.6	1517.3	1447.6	1407.1
30°	1619.0	1579.8	1465.8	1371.7	1321.1
32.5°	1598.9	1546.4	1410.4	1273.9	1213.7
35°	1575.1	1508.7	1333.1	1151.7	1074.4
37.5°	1552.6	1463.4	1228.5	998.5	915.4
40°	1525.4	1409.9	1094.9	822.4	742.7
42.5°	1499.6	1347.9	921.6	652.5	583.2
45°	1470.1	1262.9	729.3	498.3	461.1
47.5°	1435.7	1146.9	530.3	370.9	347.5
50°	1398.5	987.5	370.4	269.2	250.1
52.5°	1357.4	772.3	249.6	187.1	176.6
55°	1311.6	539.8	170.9	132.2	122.2
57.5°	1258.6	351.3	124.1	99.8	93.1
60°	1196.1	224.3	96.9	79.2	75.4
62.5°	1114.0	157.5	79.7	65.4	62.0
65°	993.7	124.6	67.3	54.4	50.6
67.5°	841.5	105.5	57.8	45.8	43.4
70°	678.2	91.6	50.1	39.6	38.2
72.5°	521.2	80.2	43.4	35.3	34.4
75°	377.5	70.2	38.7	32.5	31.0
77.5°	261.6	60.6	34.4	29.1	28.2
80°	169.0	52.5	30.5	26.7	26.3
82.5°	96.9	43.9	27.7	25.8	25.3
85°	46.3	36.8	24.8	22.4	20.0
87.5°	14.8	27.2	19.6	17.2	15.3
90°	1.9	19.1	15.3	13.4	12.4
92.5°	1.9	10.5	11.0	11.0	10.5
95°	1.4	2.4	5.3	8.1	7.6
97.5°	1.4	1.0	3.3	5.7	5.7
100°	1.0	0.5	1.4	3.8	3.8
102.5°	1.0	0.5	0.5	2.4	2.4
105°	0.5	0.0	0.5	1.0	1.0
107.5°	0.5	0.5	0.5	1.0	0.5
110°	0.5	0.5	0.5	1.0	0.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	0.5	0.5	1.0	0.5
115°	0.5	0.5	0.5	1.0	0.5
117.5°	0.5	0.5	0.5	1.0	0.5
120°	0.5	0.5	0.5	1.0	0.5
122.5°	0.5	0.5	0.5	1.0	0.5
125°	0.5	0.5	0.5	1.0	0.5
127.5°	0.5	0.5	0.5	1.0	0.5
130°	0.5	0.5	1.0	1.0	0.5
132.5°	0.5	0.5	1.0	1.0	0.5
135°	0.5	0.5	1.0	1.0	0.5
137.5°	0.5	0.5	1.0	1.0	1.0
140°	1.0	0.5	1.0	1.0	1.0
142.5°	1.0	1.0	1.0	1.4	1.0
145°	1.0	1.0	1.0	1.4	1.0
147.5°	1.0	1.0	1.4	1.4	1.0
150°	1.0	1.0	1.4	1.4	1.0
152.5°	1.0	1.0	1.4	1.4	1.4
155°	1.0	1.0	1.4	1.9	1.4
157.5°	1.0	1.0	1.4	1.9	1.4
160°	1.0	1.4	1.9	1.9	1.4
162.5°	1.0	1.4	1.9	1.9	1.9
165°	1.0	1.4	1.9	1.9	1.9
167.5°	1.4	1.4	1.9	2.4	1.9
170°	1.4	1.4	1.9	2.4	1.9
172.5°	1.4	1.4	1.9	2.4	1.9
175°	1.4	1.4	1.9	2.4	1.9
177.5°	1.4	1.4	1.9	2.4	2.4
180°	1.9	1.9	1.9	1.9	1.9



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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	19.86	21.26	20.23	21.58	21.91	8.38	9.78	8.75	10.10	10.42
	3H	22.77	24.02	23.16	24.36	24.73	9.31	10.56	9.70	10.90	11.27
	4H	23.67	24.83	24.07	25.19	25.58	9.83	11.00	10.24	11.35	11.74
	6H	24.16	25.23	24.58	25.61	26.01	10.47	11.54	10.89	11.91	12.32
	8H	24.28	25.29	24.71	25.69	26.10	10.89	11.90	11.32	12.30	12.71
	12H	24.32	25.29	24.76	25.68	26.12	11.33	12.30	11.77	12.69	13.13
4H	2H	19.68	20.84	20.09	21.20	21.59	8.90	10.06	9.31	10.42	10.81
	3H	22.61	23.56	23.03	23.97	24.38	10.09	11.04	10.51	11.45	11.86
	4H	23.51	24.36	23.95	24.79	25.24	10.76	11.61	11.20	12.04	12.49
	6H	24.10	24.84	24.57	25.30	25.77	11.58	12.32	12.05	12.77	13.24
	8H	24.26	24.96	24.74	25.41	25.89	12.11	12.81	12.59	13.26	13.73
	12H	24.36	24.97	24.85	25.46	25.94	12.69	13.31	13.18	13.79	14.27
8H	4H	23.40	24.09	23.87	24.54	25.02	11.35	12.04	11.82	12.49	12.97
	6H	24.00	24.57	24.51	25.07	25.56	12.35	12.92	12.86	13.42	13.91
	8H	24.19	24.70	24.71	25.22	25.72	13.03	13.54	13.55	14.06	14.56
	12H	24.33	24.79	24.85	25.29	25.87	13.79	14.25	14.31	14.75	15.32
12H	4H	23.36	23.98	23.85	24.46	24.95	11.61	12.22	12.10	12.71	13.19
	6H	23.95	24.46	24.47	24.98	25.48	12.66	13.18	13.19	13.69	14.19
	8H	24.16	24.62	24.68	25.12	25.70	13.43	13.88	13.94	14.38	14.96