

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: P894137

Luminaire Tested: 4MB-SC3-ASMF-UNV-CC83-HI-5000K

Issue Date: 11/11/2024

**Test Information**

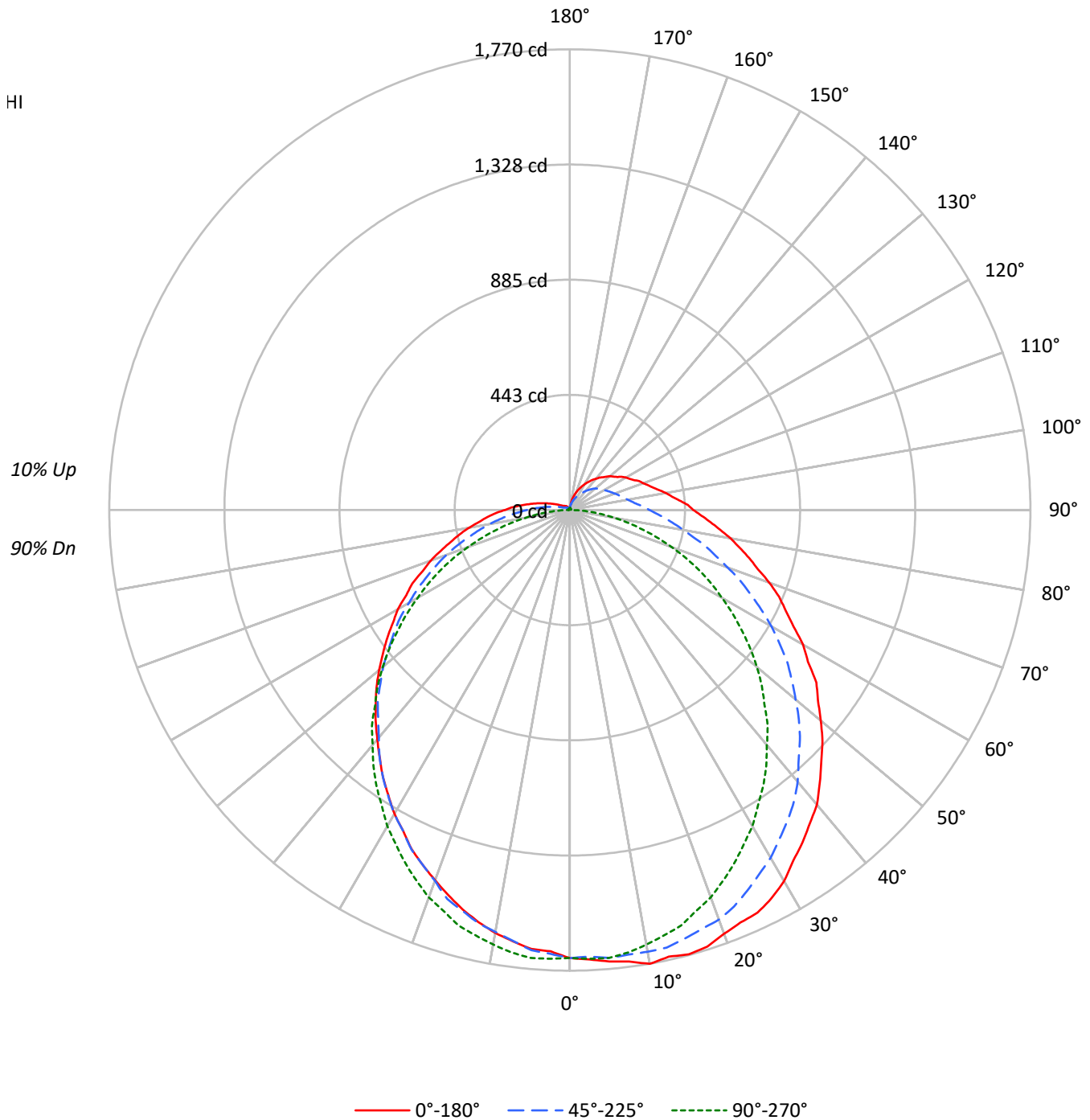
Test Method: LM-79-2019  
Report Number: P894137  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-185-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-ASMF-UNV-CC83-HI-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 5000K CCT, 1 lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5918.0 lumens  
Efficiency: N/A  
Efficacy: 116.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.21 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.12')  
CIE Type: Direct  
  
Input Watts (W): 50.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.39961257980444  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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CATALOG NUMBER: 4MB-SC3-ASMF-UNV-CC83-HI-5000K

### 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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	93	93	93	90
1	105	99	95	90	101	96	92	88	90	87	83	85	82	79	79	77	75	75	75	75	72
2	95	86	79	72	91	83	76	71	78	72	68	73	69	65	69	65	62	62	62	62	59
3	86	75	66	60	83	73	65	58	68	62	56	64	59	54	60	56	52	52	52	52	49
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	44	44	44	44	42
5	72	59	50	43	69	57	49	42	54	47	41	51	45	40	48	43	38	38	38	38	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	34	34	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	30	30	30	28
8	57	44	35	29	55	43	35	29	41	33	28	39	32	27	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	24	22
10	50	37	29	24	49	36	29	23	34	28	23	33	27	22	31	26	22	22	22	22	20

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

	0°	45°	90°	135°	180°
0°	17530	17530	17530	17530	17530
5°	17751	17127	16960	16828	17259
10°	18207	16769	16190	16015	16968
15°	18474	16414	15471	15346	16612
20°	18564	16074	14653	14546	16222
25°	18901	15558	13792	13882	15927
30°	19016	15060	12973	13162	15567
35°	18971	14517	12113	12469	15233
40°	19141	13956	11229	11690	14905
45°	19085	13292	10359	11097	14722
50°	19229	12610	9523	10416	14603
55°	19656	12017	8563	9735	14551
60°	19984	11279	7581	9010	14747
65°	20674	10481	6586	8290	15079
70°	22364	9717	5398	7602	15594
75°	25129	9162	4129	6803	16673
80°	31232	8627	2766	6098	19578
85°	46695	8512	1387	5370	27453

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 153728 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.3	2.8
10°-20°	468.1	7.9
20°-30°	705.8	11.9
30°-40°	847.2	14.3
40°-50°	882.1	14.9
50°-60°	817.7	13.8
60°-70°	673.4	11.4
70°-80°	485.8	8.2
80°-90°	308.4	5.2
90°-100°	190.1	3.2
100°-110°	126.8	2.1
110°-120°	90.3	1.5
120°-130°	66.1	1.1
130°-140°	45.5	0.8
140°-150°	27.7	0.5
150°-160°	13.7	0.2
160°-170°	5.0	0.1
170°-180°	0.8	0.0
0°-30°	1337.2	22.6
0°-40°	2184.4	36.9
0°-60°	3884.3	65.6
0°-90°	5351.9	90.4
90°-120°	407.2	6.9
90°-150°	546.5	9.2
90°-180°	566.0	9.6
0°-180°	5918.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1721	1721	1721	1721	1721	
5°	1741	1727	1727	1697	1693	167
15°	1767	1705	1652	1594	1589	498
25°	1707	1614	1497	1440	1438	785
35°	1560	1458	1295	1252	1252	977
45°	1367	1250	1058	1044	1054	1057
55°	1157	1020	806	826	856	1028
65°	916	766	549	606	668	912
75°	714	541	289	402	473	756
85°	543	368	76	232	319	461
90°	474	306	7	165	249	262
95°	423	259	4	111	192	336
105°	331	203	4	46	101	354
115°	272	168	5	22	48	272
125°	221	140	6	17	28	201
135°	177	112	6	13	21	139
145°	136	79	6	10	15	86
155°	93	52	7	6	10	44
165°	54	30	7	4	5	16
175°	8	13	8	3	1	1
180°	5	5	5	5	5	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1721.3	1721.3	1721.3	1721.3	1721.3	1721.3	1721.3	1721.3	1721.3
2.5°	1728.2	1733.3	1717.0	1727.3	1725.6	1727.3	1706.7	1723.9	1697.2
5°	1741.1	1743.7	1727.3	1733.3	1727.3	1712.7	1697.2	1691.2	1692.9
7.5°	1749.7	1763.5	1723.0	1724.7	1714.4	1698.9	1669.7	1674.8	1671.4
10°	1770.4	1754.9	1723.0	1715.3	1695.5	1679.1	1645.6	1648.1	1649.9
12.5°	1757.4	1754.0	1722.2	1693.8	1674.0	1660.2	1625.8	1617.2	1621.5
15°	1766.9	1752.3	1704.9	1682.6	1652.4	1628.3	1593.9	1587.9	1588.8
17.5°	1758.3	1746.3	1687.7	1656.7	1614.6	1599.9	1567.2	1556.9	1551.7
20°	1732.5	1726.5	1674.8	1621.5	1583.6	1555.2	1515.6	1509.6	1513.9
22.5°	1715.3	1700.6	1649.0	1595.6	1540.6	1515.6	1476.0	1475.1	1476.0
25°	1706.7	1687.7	1613.7	1557.8	1496.7	1474.3	1439.9	1427.0	1438.1
27.5°	1680.8	1663.6	1576.7	1515.6	1447.6	1417.5	1389.1	1386.5	1388.2
30°	1646.4	1612.9	1543.1	1468.3	1402.9	1371.9	1348.6	1331.4	1347.8
32.5°	1597.4	1578.4	1499.2	1417.5	1345.2	1323.7	1300.4	1298.7	1298.7
35°	1559.5	1545.7	1457.9	1372.7	1295.3	1266.0	1252.2	1246.2	1252.2
37.5°	1515.6	1494.9	1414.0	1318.5	1239.3	1214.4	1200.6	1195.4	1199.7
40°	1477.7	1439.9	1362.4	1262.6	1178.2	1155.8	1141.2	1146.4	1150.7
42.5°	1421.8	1400.3	1301.3	1205.8	1125.7	1101.6	1089.6	1093.9	1104.2
45°	1366.7	1346.9	1250.5	1146.4	1057.7	1044.8	1044.0	1041.4	1054.3
47.5°	1316.8	1288.4	1194.6	1087.9	1000.9	986.3	988.0	996.6	1007.8
50°	1259.1	1225.6	1132.6	1025.0	938.1	928.6	935.5	941.5	956.2
52.5°	1201.5	1174.8	1075.8	965.6	874.4	867.5	877.0	896.8	905.4
55°	1156.7	1108.5	1019.9	895.9	806.4	807.3	826.2	837.4	856.3
57.5°	1085.3	1049.1	956.2	834.0	742.7	748.8	774.6	793.5	805.6
60°	1034.5	988.9	894.2	767.7	675.6	685.1	714.3	742.7	763.4
62.5°	969.1	929.5	829.7	702.3	613.6	627.4	660.1	693.7	708.3
65°	915.7	871.0	766.0	636.9	549.1	565.4	605.9	643.8	667.9
67.5°	870.1	823.6	709.2	576.6	483.7	507.8	555.1	592.1	611.1
70°	815.9	761.7	644.6	509.5	415.7	444.1	504.3	547.4	568.9
72.5°	758.2	714.3	588.7	447.5	352.9	387.3	453.6	498.3	519.0
75°	713.5	664.4	541.3	385.6	289.2	330.5	401.9	452.7	473.4
77.5°	667.9	623.1	488.0	328.8	232.4	278.8	356.3	412.3	433.8
80°	627.4	575.8	443.2	282.3	173.0	228.1	313.3	368.4	393.3
82.5°	582.7	537.9	404.5	233.2	123.1	181.6	271.1	331.3	352.0
85°	543.1	496.6	368.4	194.5	75.7	140.3	232.4	294.3	319.3
87.5°	506.9	468.2	334.8	165.2	37.9	106.7	195.4	258.2	286.6
90°	474.2	430.3	306.4	138.6	6.9	77.5	165.2	227.2	248.7
92.5°	453.6	401.1	283.2	121.4	4.3	55.1	137.7	198.8	223.8
95°	422.6	376.1	259.1	108.4	4.3	37.0	111.0	170.4	191.9
97.5°	395.9	352.9	241.8	100.7	3.4	25.0	91.2	142.9	165.2
100°	375.2	334.8	226.4	93.8	4.3	18.1	72.3	121.4	141.1
102.5°	352.0	315.0	214.3	89.5	4.3	12.9	56.8	102.4	120.5
105°	331.3	298.6	203.1	85.2	4.3	11.2	45.6	84.3	100.7
107.5°	315.9	281.4	193.6	82.6	4.3	11.2	36.1	68.9	82.6
110°	300.4	267.7	184.2	80.0	4.3	10.3	28.4	56.8	68.9



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CATALOG NUMBER: 4MB-SC3-ASM-F-UNV-CC83-HI-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	290.0	254.8	175.6	77.5	5.2	10.3	23.2	47.3	56.8
115°	272.0	243.6	167.8	76.6	5.2	9.5	21.5	38.7	48.2
117.5°	259.1	233.2	160.1	74.0	5.2	9.5	20.7	31.8	38.7
120°	249.6	221.2	153.2	71.4	5.2	8.6	18.9	28.4	32.7
122.5°	237.5	210.0	147.2	69.7	5.2	8.6	18.1	26.7	29.3
125°	221.2	199.7	140.3	66.3	6.0	8.6	17.2	25.0	27.5
127.5°	210.9	190.2	135.1	62.0	6.0	7.7	16.4	23.2	25.8
130°	202.3	179.9	129.1	57.7	6.0	7.7	15.5	21.5	24.1
132.5°	189.3	169.5	120.5	54.2	6.0	6.9	13.8	19.8	22.4
135°	177.3	160.9	111.9	50.8	6.0	6.9	12.9	18.9	20.7
137.5°	169.5	152.3	104.1	47.3	6.0	6.0	12.0	17.2	18.9
140°	156.6	142.9	95.5	43.9	6.0	6.0	11.2	16.4	17.2
142.5°	147.2	133.4	87.8	40.5	6.0	6.0	10.3	14.6	16.4
145°	136.0	123.9	79.2	37.0	6.0	5.2	9.5	13.8	14.6
147.5°	125.7	112.7	72.3	34.4	6.0	5.2	8.6	12.0	12.9
150°	115.3	101.6	65.4	31.8	6.0	5.2	7.7	10.3	12.0
152.5°	104.1	87.8	58.5	29.3	6.0	5.2	6.9	9.5	10.3
155°	92.9	76.6	52.5	26.7	6.9	5.2	6.0	7.7	9.5
157.5°	83.5	66.3	46.5	24.1	6.9	4.3	6.0	6.9	7.7
160°	72.3	56.8	41.3	21.5	6.9	4.3	5.2	6.0	6.9
162.5°	63.7	47.3	36.1	19.8	6.9	4.3	5.2	5.2	6.0
165°	54.2	39.6	30.1	18.1	6.9	4.3	4.3	4.3	5.2
167.5°	43.9	31.0	25.0	16.4	6.9	4.3	4.3	3.4	4.3
170°	32.7	23.2	20.7	14.6	6.9	4.3	3.4	2.6	3.4
172.5°	14.6	18.1	16.4	12.9	7.7	4.3	3.4	2.6	1.7
175°	7.7	12.9	12.9	11.2	7.7	4.3	3.4	2.6	0.9
177.5°	6.0	7.7	9.5	9.5	7.7	5.2	3.4	1.7	0.9
180°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2



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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	20.31	21.79	20.82	22.29	22.84	19.28	20.76	19.79	21.26	21.81
	3H	22.40	23.75	22.92	24.26	24.84	21.16	22.50	21.68	23.02	23.60
	4H	23.34	24.62	23.88	25.15	25.74	21.90	23.18	22.44	23.71	24.30
	6H	24.26	25.45	24.81	25.99	26.60	22.54	23.72	23.09	24.26	24.88
	8H	24.69	25.83	25.26	26.39	27.01	22.79	23.93	23.36	24.49	25.11
	12H	25.11	26.20	25.68	26.76	27.41	23.02	24.11	23.59	24.67	25.32
4H	2H	20.81	22.08	21.35	22.61	23.21	19.85	21.13	20.39	21.65	22.25
	3H	23.12	24.21	23.67	24.78	25.40	21.91	23.00	22.46	23.56	24.18
	4H	24.23	25.23	24.81	25.81	26.46	22.76	23.76	23.33	24.33	24.98
	6H	25.34	26.22	25.93	26.82	27.48	23.52	24.40	24.11	25.00	25.66
	8H	25.87	26.69	26.46	27.30	27.97	23.83	24.66	24.43	25.26	25.94
	12H	26.39	27.15	27.01	27.78	28.46	24.12	24.88	24.74	25.51	26.19
8H	4H	24.49	25.32	25.09	25.92	26.60	23.10	23.93	23.70	24.53	25.20
	6H	25.77	26.47	26.40	27.12	27.80	23.98	24.68	24.61	25.33	26.01
	8H	26.44	27.07	27.08	27.73	28.42	24.38	25.01	25.02	25.67	26.36
	12H	27.15	27.71	27.79	28.35	29.11	24.77	25.34	25.41	25.98	26.74
12H	4H	24.51	25.26	25.13	25.89	26.57	23.16	23.91	23.78	24.54	25.22
	6H	25.83	26.46	26.47	27.11	27.81	24.09	24.73	24.73	25.38	26.07
	8H	26.57	27.13	27.21	27.78	28.53	24.56	25.12	25.20	25.76	26.52