

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: P894135

Luminaire Tested: 4MB-SC3-ASMF-UNV-CC83-HI-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894135
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-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with FROSTED ASYMMETRIC LENS, 80CRI, 3500K CCT, 1 lumen setting
Light Source: -
Ballast/Driver: -

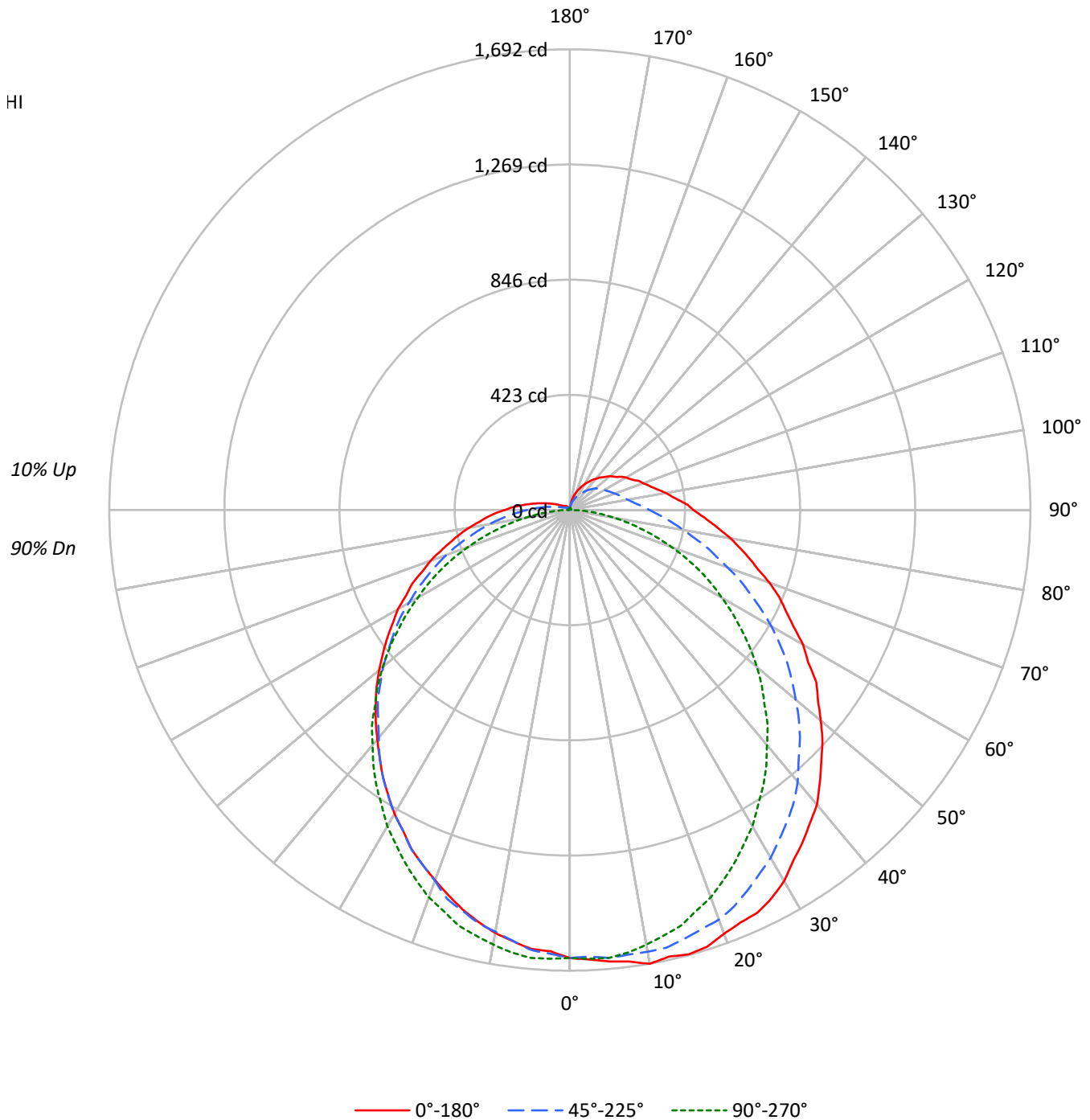
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5657.0 lumens
Efficiency: N/A
Efficacy: 111.6 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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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	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°	16757	16757	16757	16757	16757
5°	16968	16371	16212	16085	16498
10°	17404	16029	15476	15309	16219
15°	17659	15690	14790	14669	15879
20°	17746	15366	14007	13905	15506
25°	18067	14872	13184	13270	15225
30°	18178	14396	12401	12582	14880
35°	18134	13877	11578	11919	14562
40°	18298	13340	10735	11175	14247
45°	18243	12707	9903	10607	14073
50°	18381	12055	9102	9957	13959
55°	18789	11487	8186	9306	13911
60°	19103	10782	7247	8612	14096
65°	19762	10018	6296	7925	14413
70°	21378	9289	5161	7268	14906
75°	24020	8759	3946	6503	15937
80°	29853	8247	2644	5830	18717
85°	44631	8135	1326	5132	26241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 146953 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.1	2.8
10°-20°	447.4	7.9
20°-30°	674.7	11.9
30°-40°	809.8	14.3
40°-50°	843.2	14.9
50°-60°	781.7	13.8
60°-70°	643.7	11.4
70°-80°	464.4	8.2
80°-90°	294.8	5.2
90°-100°	181.8	3.2
100°-110°	121.2	2.1
110°-120°	86.3	1.5
120°-130°	63.2	1.1
130°-140°	43.5	0.8
140°-150°	26.5	0.5
150°-160°	13.1	0.2
160°-170°	4.8	0.1
170°-180°	0.8	0.0
0°-30°	1278.3	22.6
0°-40°	2088.1	36.9
0°-60°	3713.0	65.6
0°-90°	5115.9	90.4
90°-120°	389.2	6.9
90°-150°	522.4	9.2
90°-180°	541.0	9.6
0°-180°	5657.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1645	1645	1645	1645	1645	
5°	1664	1651	1651	1622	1618	160
15°	1689	1630	1580	1524	1519	476
25°	1631	1542	1431	1376	1375	750
35°	1491	1394	1238	1197	1197	934
45°	1306	1195	1011	998	1008	1011
55°	1106	975	771	790	819	982
65°	875	732	525	579	638	872
75°	682	518	276	384	452	723
85°	519	352	72	222	305	441
90°	453	293	7	158	238	250
95°	404	248	4	106	184	321
105°	317	194	4	44	96	338
115°	260	160	5	21	46	260
125°	211	134	6	16	26	192
135°	170	107	6	12	20	133
145°	130	76	6	9	14	82
155°	89	50	7	6	9	42
165°	52	29	7	4	5	15
175°	7	12	7	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°	1645.4	1645.4	1645.4	1645.4	1645.4	1645.4	1645.4	1645.4	1645.4
2.5°	1652.0	1656.9	1641.3	1651.1	1649.5	1651.1	1631.4	1647.8	1622.3
5°	1664.3	1666.8	1651.1	1656.9	1651.1	1637.2	1622.3	1616.6	1618.2
7.5°	1672.5	1685.7	1647.0	1648.7	1638.8	1624.0	1596.0	1601.0	1597.7
10°	1692.3	1677.5	1647.0	1639.6	1620.7	1605.1	1573.0	1575.5	1577.1
12.5°	1679.9	1676.6	1646.2	1619.1	1600.1	1587.0	1554.1	1545.8	1549.9
15°	1689.0	1675.0	1629.7	1608.4	1579.6	1556.5	1523.6	1517.9	1518.7
17.5°	1680.8	1669.2	1613.3	1583.7	1543.4	1529.4	1498.1	1488.2	1483.3
20°	1656.1	1650.3	1601.0	1549.9	1513.8	1486.6	1448.8	1443.0	1447.1
22.5°	1639.6	1625.6	1576.3	1525.3	1472.6	1448.8	1410.9	1410.1	1410.9
25°	1631.4	1613.3	1542.5	1489.1	1430.7	1409.3	1376.4	1364.0	1374.7
27.5°	1606.7	1590.3	1507.2	1448.8	1383.8	1355.0	1327.8	1325.4	1327.0
30°	1573.8	1541.7	1475.1	1403.5	1341.0	1311.4	1289.2	1272.7	1288.3
32.5°	1526.9	1508.8	1433.1	1355.0	1285.9	1265.3	1243.1	1241.4	1241.4
35°	1490.7	1477.6	1393.6	1312.2	1238.1	1210.2	1197.0	1191.3	1197.0
37.5°	1448.8	1429.0	1351.7	1260.4	1184.7	1160.8	1147.7	1142.7	1146.8
40°	1412.6	1376.4	1302.3	1206.9	1126.3	1104.9	1090.9	1095.8	1099.9
42.5°	1359.1	1338.5	1243.9	1152.6	1076.1	1053.0	1041.5	1045.6	1055.5
45°	1306.4	1287.5	1195.4	1095.8	1011.1	998.7	997.9	995.5	1007.8
47.5°	1258.7	1231.6	1141.9	1039.9	956.8	942.8	944.4	952.7	963.4
50°	1203.6	1171.5	1082.7	979.8	896.7	887.7	894.3	900.0	914.0
52.5°	1148.5	1123.0	1028.4	923.1	835.9	829.3	838.3	857.2	865.5
55°	1105.7	1059.6	974.9	856.4	770.9	771.7	789.8	800.5	818.6
57.5°	1037.4	1002.9	914.0	797.2	710.0	715.7	740.4	758.5	770.0
60°	988.9	945.3	854.8	733.8	645.8	654.9	682.8	710.0	729.7
62.5°	926.3	888.5	793.1	671.3	586.6	599.7	631.0	663.1	677.1
65°	875.3	832.6	732.2	608.8	524.9	540.5	579.2	615.4	638.4
67.5°	831.7	787.3	677.9	551.2	462.4	485.4	530.6	566.0	584.1
70°	779.9	728.1	616.2	487.0	397.4	424.5	482.1	523.2	543.8
72.5°	724.8	682.8	562.7	427.8	337.3	370.2	433.6	476.3	496.1
75°	682.0	635.1	517.5	368.6	276.4	315.9	384.2	432.7	452.5
77.5°	638.4	595.6	466.5	314.3	222.1	266.6	340.6	394.1	414.6
80°	599.7	550.4	423.7	269.8	165.4	218.0	299.5	352.1	376.0
82.5°	557.0	514.2	386.7	222.9	117.6	173.6	259.1	316.7	336.5
85°	519.1	474.7	352.1	185.9	72.4	134.1	222.1	281.4	305.2
87.5°	484.6	447.5	320.0	158.0	36.2	102.0	186.8	246.8	274.0
90°	453.3	411.3	292.9	132.5	6.6	74.0	158.0	217.2	237.8
92.5°	433.6	383.4	270.7	116.0	4.1	52.7	131.6	190.0	213.9
95°	403.9	359.5	247.6	103.7	4.1	35.4	106.1	162.9	183.5
97.5°	378.4	337.3	231.2	96.3	3.3	23.9	87.2	136.6	158.0
100°	358.7	320.0	216.4	89.7	4.1	17.3	69.1	116.0	134.9
102.5°	336.5	301.1	204.8	85.6	4.1	12.3	54.3	97.9	115.2
105°	316.7	285.5	194.2	81.4	4.1	10.7	43.6	80.6	96.3
107.5°	301.9	269.0	185.1	79.0	4.1	10.7	34.6	65.8	79.0
110°	287.1	255.9	176.1	76.5	4.1	9.9	27.1	54.3	65.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	277.2	243.5	167.8	74.0	4.9	9.9	22.2	45.2	54.3
115°	260.0	232.8	160.4	73.2	4.9	9.0	20.6	37.0	46.1
117.5°	247.6	222.9	153.0	70.8	4.9	9.0	19.7	30.4	37.0
120°	238.6	211.4	146.4	68.3	4.9	8.2	18.1	27.1	31.3
122.5°	227.1	200.7	140.7	66.6	4.9	8.2	17.3	25.5	28.0
125°	211.4	190.9	134.1	63.3	5.8	8.2	16.5	23.9	26.3
127.5°	201.6	181.8	129.2	59.2	5.8	7.4	15.6	22.2	24.7
130°	193.3	171.9	123.4	55.1	5.8	7.4	14.8	20.6	23.0
132.5°	181.0	162.1	115.2	51.8	5.8	6.6	13.2	18.9	21.4
135°	169.5	153.8	106.9	48.5	5.8	6.6	12.3	18.1	19.7
137.5°	162.1	145.6	99.5	45.2	5.8	5.8	11.5	16.5	18.1
140°	149.7	136.6	91.3	42.0	5.8	5.8	10.7	15.6	16.5
142.5°	140.7	127.5	83.9	38.7	5.8	5.8	9.9	14.0	15.6
145°	130.0	118.5	75.7	35.4	5.8	4.9	9.0	13.2	14.0
147.5°	120.1	107.8	69.1	32.9	5.8	4.9	8.2	11.5	12.3
150°	110.2	97.1	62.5	30.4	5.8	4.9	7.4	9.9	11.5
152.5°	99.5	83.9	55.9	28.0	5.8	4.9	6.6	9.0	9.9
155°	88.9	73.2	50.2	25.5	6.6	4.9	5.8	7.4	9.0
157.5°	79.8	63.3	44.4	23.0	6.6	4.1	5.8	6.6	7.4
160°	69.1	54.3	39.5	20.6	6.6	4.1	4.9	5.8	6.6
162.5°	60.9	45.2	34.6	18.9	6.6	4.1	4.9	4.9	5.8
165°	51.8	37.8	28.8	17.3	6.6	4.1	4.1	4.1	4.9
167.5°	42.0	29.6	23.9	15.6	6.6	4.1	4.1	3.3	4.1
170°	31.3	22.2	19.7	14.0	6.6	4.1	3.3	2.5	3.3
172.5°	14.0	17.3	15.6	12.3	7.4	4.1	3.3	2.5	1.6
175°	7.4	12.3	12.3	10.7	7.4	4.1	3.3	2.5	0.8
177.5°	5.8	7.4	9.0	9.0	7.4	4.9	3.3	1.6	0.8
180°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9



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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	20.16	21.64	20.66	22.14	22.68	19.13	20.61	19.63	21.11	21.65
	3H	22.24	23.59	22.76	24.10	24.69	21.00	22.35	21.52	22.86	23.44
	4H	23.19	24.46	23.73	24.99	25.59	21.75	23.02	22.28	23.55	24.15
	6H	24.11	25.29	24.66	25.83	26.45	22.38	23.57	22.93	24.11	24.72
	8H	24.54	25.67	25.10	26.24	26.85	22.63	23.77	23.20	24.34	24.95
	12H	24.96	26.05	25.53	26.60	27.25	22.87	23.96	23.44	24.51	25.16
4H	2H	20.65	21.93	21.19	22.45	23.05	19.69	20.97	20.23	21.50	22.09
	3H	22.96	24.05	23.52	24.62	25.24	21.75	22.84	22.30	23.41	24.03
	4H	24.08	25.07	24.65	25.65	26.30	22.60	23.60	23.18	24.18	24.83
	6H	25.18	26.06	25.77	26.66	27.33	23.36	24.24	23.95	24.84	25.51
	8H	25.71	26.54	26.31	27.14	27.81	23.68	24.50	24.27	25.10	25.78
	12H	26.24	26.99	26.86	27.62	28.30	23.97	24.72	24.59	25.35	26.03
8H	4H	24.33	25.16	24.93	25.76	26.44	22.94	23.77	23.54	24.37	25.05
	6H	25.62	26.32	26.25	26.96	27.64	23.83	24.53	24.46	25.17	25.85
	8H	26.29	26.92	26.93	27.57	28.26	24.23	24.86	24.87	25.51	26.20
	12H	26.99	27.55	27.63	28.20	28.95	24.61	25.18	25.26	25.82	26.58
12H	4H	24.35	25.10	24.97	25.73	26.41	23.01	23.76	23.63	24.39	25.07
	6H	25.67	26.30	26.31	26.96	27.65	23.94	24.57	24.58	25.22	25.91
	8H	26.41	26.98	27.06	27.62	28.38	24.40	24.96	25.04	25.61	26.36