

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: P894179

Luminaire Tested: 4MB-SC3-ASYMR-UNV-CC83-MID-5000K

Issue Date: 11/11/2024

**Test Information**

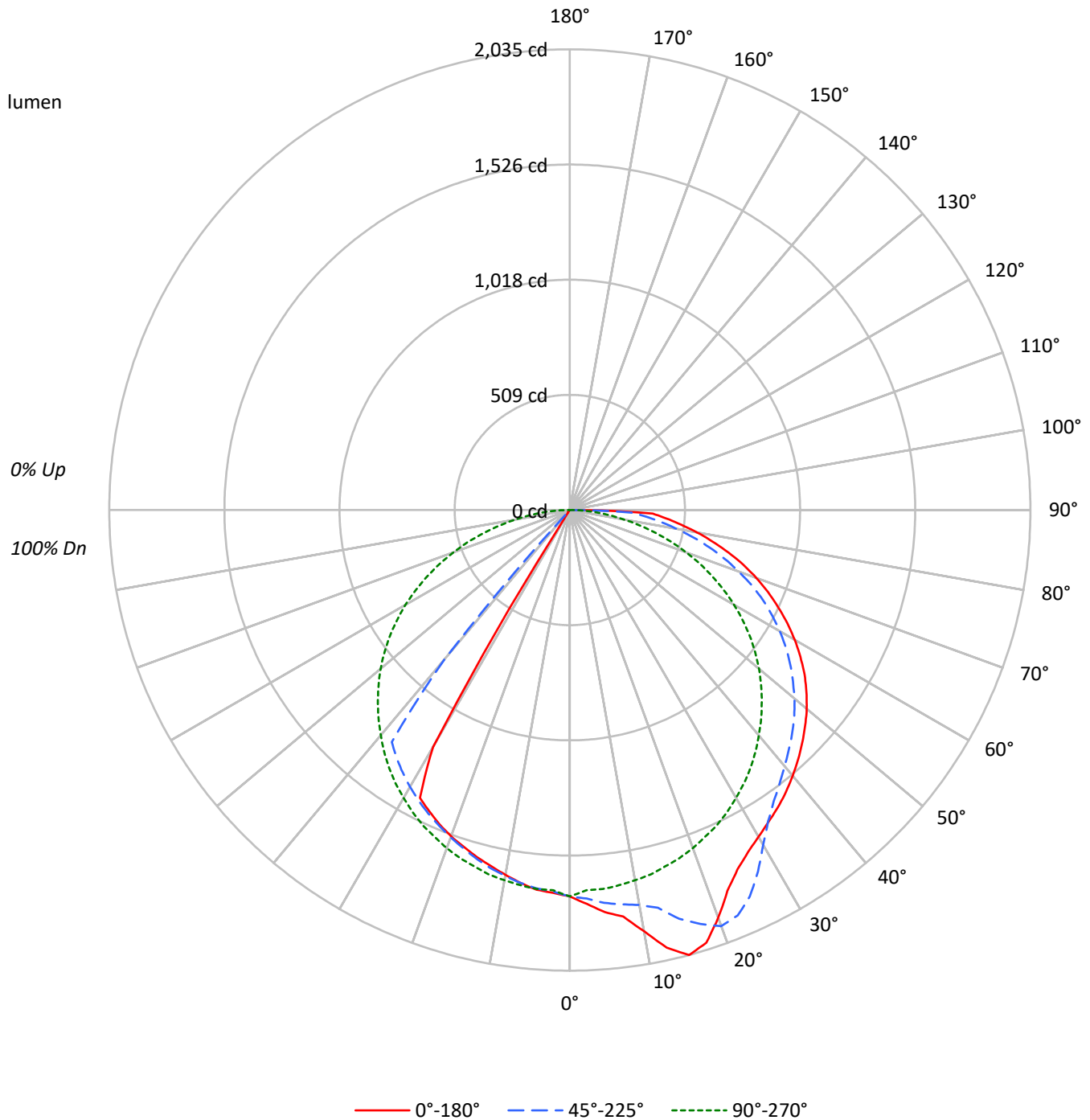
Test Method: LM-79-2019  
Report Number: P894179  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2410-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-ASYMR-UNV-CC83-MID-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 80CRI, 5000K CCT, MID setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4618.0 lumens  
Efficiency: N/A  
Efficacy: 137.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.28 / 1.25  
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.5  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9948  
Total Harmonic Distortion (THDi): 5.65231997856897  
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	85	85	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	71	71	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	41	41	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	27	26

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

	0°	45°	90°	135°	180°
0°	22163	22163	22163	22163	22163
5°	23242	22706	21903	21866	21943
10°	24903	23355	21900	21641	21577
15°	27361	25127	21907	21434	21329
20°	26490	27030	21964	21262	21195
25°	25099	26976	22017	21192	21037
30°	24990	25607	22016	21165	18117
35°	25414	24902	22052	21167	247
40°	25965	25021	22022	14598	166
45°	26677	25527	22027	270	108
50°	27607	26167	22040	198	40
55°	28658	26911	21975	134	23
60°	29806	27824	21781	52	26
65°	31208	28925	21385	61	61
70°	33292	30137	20710	76	76
75°	36439	32074	19812	196	100
80°	42766	35893	18351	292	150
85°	63647	50387	17193	432	298

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 87.5°  
 Luminance: 109133 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.6	3.5
10°-20°	488.3	10.6
20°-30°	750.7	16.3
30°-40°	804.5	17.4
40°-50°	730.6	15.8
50°-60°	666.5	14.4
60°-70°	495.8	10.7
70°-80°	349.0	7.6
80°-90°	169.1	3.7
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°	1402.6	30.4
0°-40°	2207.1	47.8
0°-60°	3604.2	78.0
0°-90°	4618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4618.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1707	1707	1707	1707	1707	
5°	1783	1742	1680	1678	1683	173
15°	2035	1869	1630	1594	1587	562
25°	1752	1883	1537	1479	1468	815
35°	1603	1571	1391	1335	16	1004
45°	1453	1390	1200	15	6	1122
55°	1266	1189	971	6	1	1131
65°	1016	941	696	2	2	1006
75°	726	639	395	4	2	766
85°	427	338	115	3	2	429
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1706.8	1706.8	1706.8	1706.8	1706.8	1706.8	1706.8	1706.8	1706.8
2.5°	1742.0	1722.5	1717.6	1731.3	1681.4	1714.6	1687.3	1693.1	1693.1
5°	1783.1	1755.7	1742.0	1738.1	1680.4	1702.9	1677.5	1677.5	1683.4
7.5°	1811.4	1781.1	1756.7	1746.9	1671.6	1691.2	1661.9	1661.9	1661.9
10°	1888.7	1832.0	1771.3	1753.7	1660.9	1675.5	1641.3	1643.3	1636.4
12.5°	1979.6	1928.7	1799.7	1750.8	1649.1	1656.0	1619.8	1618.8	1611.0
15°	2035.3	1997.2	1869.1	1746.9	1629.6	1635.5	1594.4	1591.5	1586.6
17.5°	2004.0	1998.1	1917.0	1744.0	1612.0	1607.1	1566.1	1563.1	1559.2
20°	1917.0	1931.7	1956.1	1738.1	1589.5	1579.7	1538.7	1536.7	1533.8
22.5°	1820.2	1834.9	1938.5	1747.9	1562.1	1550.4	1509.4	1507.4	1503.5
25°	1751.8	1751.8	1882.8	1771.3	1536.7	1515.2	1479.1	1476.1	1468.3
27.5°	1703.9	1695.1	1799.7	1797.7	1504.5	1480.0	1446.8	1443.9	1434.1
30°	1666.7	1652.1	1707.8	1810.4	1468.3	1441.9	1411.6	1408.7	1208.3
32.5°	1633.5	1617.9	1630.6	1821.2	1432.1	1400.8	1374.5	980.5	43.0
35°	1603.2	1585.6	1570.9	1813.4	1391.1	1359.8	1335.3	28.3	15.6
37.5°	1569.0	1555.3	1522.1	1772.3	1347.1	1315.8	1292.3	15.6	13.7
40°	1531.8	1519.1	1476.1	1711.7	1299.2	1272.8	861.2	13.7	9.8
42.5°	1493.7	1483.9	1433.1	1623.7	1251.3	1224.9	27.4	10.8	7.8
45°	1452.7	1443.9	1390.1	1517.2	1199.5	1175.0	14.7	7.8	5.9
47.5°	1410.6	1397.9	1345.1	1402.8	1146.7	1122.2	12.7	5.9	3.9
50°	1366.6	1352.9	1295.3	1302.1	1091.0	1066.5	9.8	3.9	2.0
52.5°	1317.8	1301.1	1242.5	1211.2	1032.3	1009.8	7.8	2.0	1.0
55°	1265.9	1247.4	1188.7	1132.0	970.7	945.3	5.9	2.0	1.0
57.5°	1208.3	1187.7	1132.0	1056.7	905.2	639.3	3.9	2.0	1.0
60°	1147.7	1127.1	1071.4	986.4	838.7	44.0	2.0	2.0	1.0
62.5°	1083.1	1061.6	1007.9	915.0	767.4	36.2	2.0	2.0	2.0
65°	1015.7	990.3	941.4	841.7	696.0	30.3	2.0	2.0	2.0
67.5°	948.2	916.0	870.0	766.4	622.7	25.4	2.0	2.0	2.0
70°	876.9	841.7	793.8	690.2	545.5	20.5	2.0	2.0	2.0
72.5°	803.6	769.3	717.5	612.9	473.1	15.6	2.0	2.0	2.0
75°	726.3	695.0	639.3	535.7	394.9	11.7	3.9	2.0	2.0
77.5°	646.2	621.7	559.2	456.5	318.7	7.8	3.9	2.0	2.0
80°	571.9	544.5	480.0	376.4	245.4	5.9	3.9	2.9	2.0
82.5°	495.6	471.2	406.7	303.0	176.0	4.9	3.9	2.9	2.0
85°	427.2	403.7	338.2	236.6	115.4	3.9	2.9	2.9	2.0
87.5°	366.6	345.1	280.6	173.0	65.5	2.9	2.9	2.9	2.0
90°	0.0	0.0	0.0	0.0	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	25.30	26.91	25.66	27.22	27.54	20.73	22.34	21.09	22.66	22.97
	3H	27.74	29.21	28.12	29.53	29.89	21.37	22.84	21.75	23.16	23.52
	4H	28.87	30.25	29.27	30.60	30.97	21.52	22.90	21.91	23.25	23.62
	6H	29.96	31.25	30.37	31.61	32.00	21.56	22.84	21.97	23.21	23.60
	8H	30.49	31.72	30.91	32.11	32.51	21.54	22.77	21.97	23.16	23.56
	12H	31.06	32.24	31.49	32.62	33.05	21.53	22.70	21.96	23.09	23.51
4H	2H	25.95	27.34	26.35	27.68	28.06	21.86	23.24	22.25	23.59	23.96
	3H	28.64	29.81	29.05	30.21	30.61	23.20	24.37	23.61	24.76	25.16
	4H	29.94	31.00	30.37	31.41	31.85	23.73	24.80	24.17	25.21	25.64
	6H	31.22	32.15	31.67	32.59	33.05	24.01	24.94	24.46	25.38	25.84
	8H	31.85	32.72	32.31	33.17	33.63	24.05	24.92	24.51	25.37	25.83
	12H	32.53	33.32	33.01	33.80	34.27	24.06	24.85	24.54	25.32	25.79
8H	4H	30.30	31.18	30.76	31.62	32.08	24.68	25.56	25.14	26.00	26.46
	6H	31.78	32.52	32.28	33.01	33.48	25.27	26.01	25.76	26.50	26.97
	8H	32.57	33.23	33.07	33.74	34.22	25.45	26.11	25.96	26.62	27.10
	12H	33.46	34.05	33.96	34.54	35.10	25.55	26.14	26.06	26.63	27.19
12H	4H	30.34	31.13	30.82	31.61	32.08	24.90	25.69	25.38	26.16	26.63
	6H	31.87	32.54	32.38	33.04	33.53	25.62	26.29	26.13	26.79	27.28
	8H	32.75	33.34	33.26	33.83	34.39	25.93	26.53	26.44	27.01	27.57