

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: P893613

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893613
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-5SL-ASYMR-UNV-L930
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

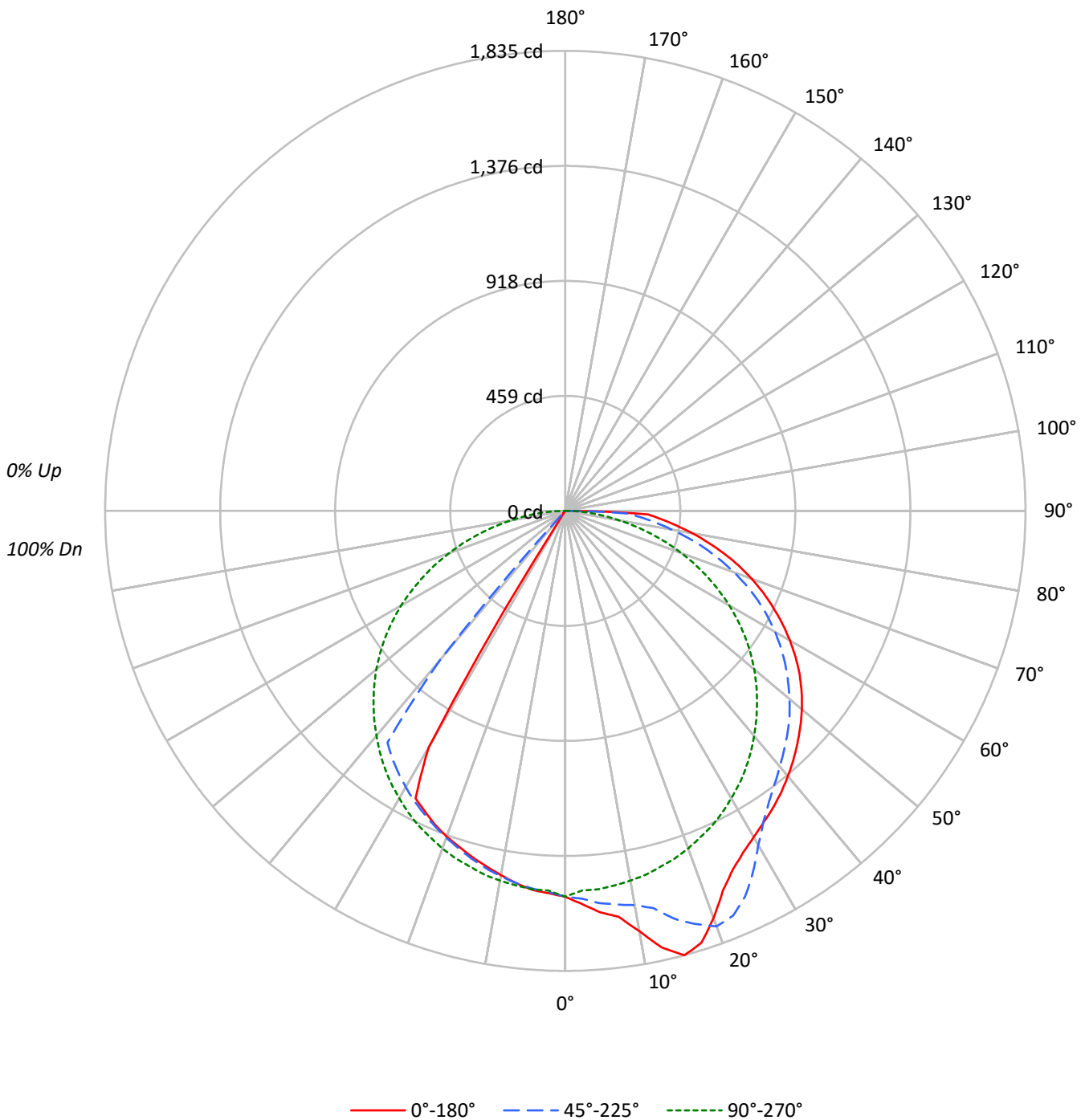
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4163.0 lumens
Efficiency: N/A
Efficacy: 118.9 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): 35
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	50
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	19980	19980	19980	19980	19980
5°	20952	20470	19746	19711	19780
10°	22449	21054	19741	19509	19451
15°	24665	22650	19748	19322	19228
20°	23880	24367	19800	19168	19107
25°	22626	24318	19848	19103	18964
30°	22528	23083	19846	19080	16331
35°	22909	22449	19878	19082	224
40°	23407	22556	19853	13161	149
45°	24047	23012	19857	242	97
50°	24888	23589	19868	178	36
55°	25835	24260	19811	120	20
60°	26869	25082	19636	47	23
65°	28132	26073	19277	55	55
70°	30012	27168	18668	68	68
75°	32852	28913	17861	176	90
80°	38548	32356	16541	262	135
85°	57375	45426	15495	387	268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 98387 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	3.5
10°-20°	440.2	10.6
20°-30°	676.7	16.3
30°-40°	725.2	17.4
40°-50°	658.7	15.8
50°-60°	600.8	14.4
60°-70°	447.0	10.7
70°-80°	314.6	7.6
80°-90°	152.4	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°	1264.4	30.4
0°-40°	1989.6	47.8
0°-60°	3249.1	78.0
0°-90°	4163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4163.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1539	1539	1539	1539	1539	
5°	1607	1570	1515	1512	1518	156
15°	1835	1685	1469	1437	1430	507
25°	1579	1697	1385	1333	1324	734
35°	1445	1416	1254	1204	14	905
45°	1310	1253	1081	13	5	1012
55°	1141	1072	875	5	1	1019
65°	916	849	627	2	2	907
75°	655	576	356	4	2	690
85°	385	305	104	3	2	387
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°	1538.7	1538.7	1538.7	1538.7	1538.7	1538.7	1538.7	1538.7	1538.7
2.5°	1570.4	1552.8	1548.3	1560.7	1515.7	1545.7	1521.0	1526.3	1526.3
5°	1607.4	1582.7	1570.4	1566.9	1514.9	1535.1	1512.2	1512.2	1517.5
7.5°	1632.9	1605.6	1583.6	1574.8	1506.9	1524.6	1498.1	1498.1	1498.1
10°	1702.6	1651.5	1596.8	1581.0	1497.2	1510.5	1479.6	1481.4	1475.2
12.5°	1784.5	1738.7	1622.4	1578.3	1486.7	1492.8	1460.2	1459.3	1452.3
15°	1834.8	1800.4	1684.9	1574.8	1469.0	1474.3	1437.3	1434.7	1430.3
17.5°	1806.6	1801.3	1728.1	1572.1	1453.2	1448.8	1411.8	1409.1	1405.6
20°	1728.1	1741.3	1763.4	1566.9	1432.9	1424.1	1387.1	1385.3	1382.7
22.5°	1640.9	1654.1	1747.5	1575.7	1408.2	1397.7	1360.6	1358.9	1355.4
25°	1579.2	1579.2	1697.3	1596.8	1385.3	1365.9	1333.3	1330.7	1323.6
27.5°	1536.0	1528.1	1622.4	1620.6	1356.2	1334.2	1304.2	1301.6	1292.8
30°	1502.5	1489.3	1539.5	1632.1	1323.6	1299.8	1272.5	1269.9	1089.2
32.5°	1472.6	1458.5	1469.9	1641.8	1291.0	1262.8	1239.0	883.9	38.8
35°	1445.2	1429.4	1416.2	1634.7	1254.0	1225.8	1203.8	25.6	14.1
37.5°	1414.4	1402.1	1372.1	1597.7	1214.4	1186.2	1165.0	14.1	12.3
40°	1380.9	1369.5	1330.7	1543.1	1171.2	1147.4	776.4	12.3	8.8
42.5°	1346.5	1337.7	1291.9	1463.7	1128.0	1104.2	24.7	9.7	7.0
45°	1309.5	1301.6	1253.1	1367.7	1081.3	1059.3	13.2	7.0	5.3
47.5°	1271.6	1260.2	1212.6	1264.6	1033.7	1011.7	11.5	5.3	3.5
50°	1232.0	1219.6	1167.7	1173.8	983.5	961.4	8.8	3.5	1.8
52.5°	1187.9	1172.9	1120.1	1091.9	930.6	910.3	7.0	1.8	0.9
55°	1141.2	1124.5	1071.6	1020.5	875.1	852.2	5.3	1.8	0.9
57.5°	1089.2	1070.7	1020.5	952.6	816.0	576.3	3.5	1.8	0.9
60°	1034.6	1016.1	965.8	889.2	756.1	39.7	1.8	1.8	0.9
62.5°	976.4	957.0	908.6	824.8	691.8	32.6	1.8	1.8	1.8
65°	915.6	892.7	848.6	758.8	627.4	27.3	1.8	1.8	1.8
67.5°	854.8	825.7	784.3	690.9	561.4	22.9	1.8	1.8	1.8
70°	790.5	758.8	715.6	622.2	491.7	18.5	1.8	1.8	1.8
72.5°	724.4	693.5	646.8	552.5	426.5	14.1	1.8	1.8	1.8
75°	654.8	626.6	576.3	482.9	356.0	10.6	3.5	1.8	1.8
77.5°	582.5	560.5	504.1	411.5	287.3	7.0	3.5	1.8	1.8
80°	515.5	490.9	432.7	339.3	221.2	5.3	3.5	2.6	1.8
82.5°	446.8	424.8	366.6	273.2	158.6	4.4	3.5	2.6	1.8
85°	385.1	364.0	304.9	213.3	104.0	3.5	2.6	2.6	1.8
87.5°	330.5	311.1	252.9	156.0	59.0	2.6	2.6	2.6	1.8
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	24.94	26.55	25.30	26.86	27.18	20.37	21.98	20.73	22.30	22.61
	3H	27.38	28.85	27.76	29.17	29.53	21.01	22.48	21.39	22.80	23.16
	4H	28.51	29.89	28.91	30.24	30.61	21.16	22.54	21.55	22.89	23.26
	6H	29.60	30.88	30.01	31.25	31.64	21.20	22.48	21.61	22.85	23.24
	8H	30.13	31.36	30.55	31.75	32.15	21.18	22.41	21.61	22.80	23.20
	12H	30.70	31.88	31.13	32.26	32.69	21.17	22.34	21.60	22.73	23.15
4H	2H	25.59	26.98	25.99	27.32	27.70	21.50	22.88	21.89	23.23	23.60
	3H	28.28	29.45	28.69	29.85	30.25	22.84	24.01	23.25	24.40	24.80
	4H	29.58	30.64	30.01	31.05	31.49	23.37	24.44	23.80	24.85	25.28
	6H	30.86	31.79	31.31	32.23	32.69	23.65	24.58	24.10	25.02	25.48
	8H	31.49	32.36	31.95	32.81	33.27	23.69	24.56	24.15	25.01	25.47
	12H	32.17	32.96	32.65	33.44	33.91	23.70	24.49	24.18	24.96	25.43
8H	4H	29.94	30.82	30.40	31.26	31.72	24.32	25.20	24.78	25.64	26.10
	6H	31.42	32.16	31.92	32.65	33.12	24.91	25.65	25.40	26.13	26.61
	8H	32.21	32.87	32.71	33.38	33.86	25.09	25.75	25.60	26.26	26.74
	12H	33.10	33.69	33.60	34.18	34.74	25.19	25.78	25.70	26.27	26.83
12H	4H	29.98	30.77	30.46	31.25	31.72	24.54	25.33	25.02	25.80	26.27
	6H	31.51	32.18	32.02	32.68	33.17	25.26	25.93	25.77	26.43	26.92
	8H	32.39	32.98	32.90	33.47	34.03	25.57	26.16	26.08	26.65	27.21