

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: P893615

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893615
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-L940
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

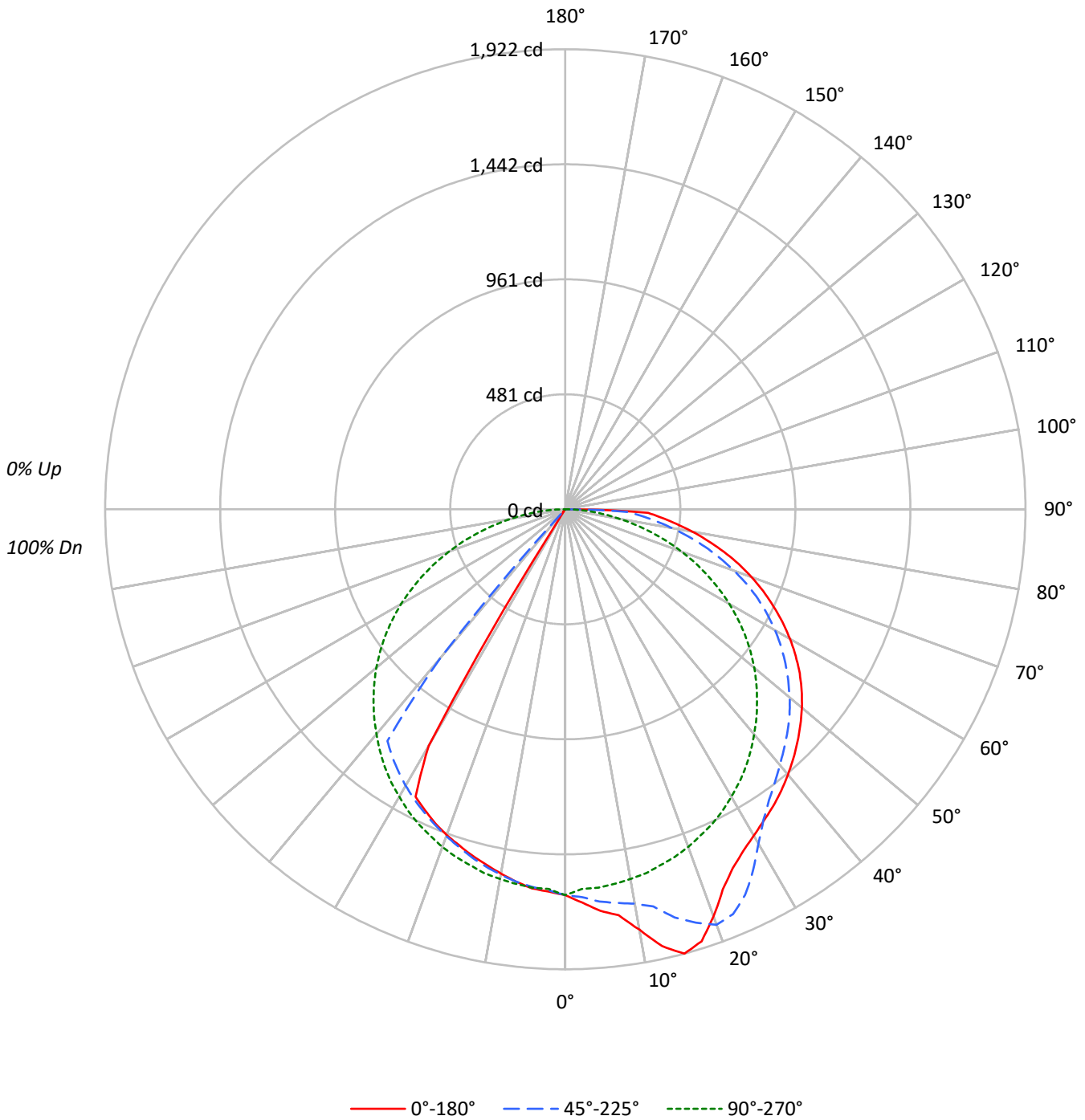
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4361.0 lumens
Efficiency: N/A
Efficacy: 124.6 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 (A_{in}): 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°	20929	20929	20929	20929	20929
5°	21948	21443	20685	20648	20721
10°	23516	22057	20680	20437	20377
15°	25838	23728	20688	20241	20142
20°	25016	25525	20743	20080	20015
25°	23702	25474	20792	20011	19866
30°	23600	24182	20791	19987	17108
35°	24000	23516	20825	19989	235
40°	24521	23629	20797	13786	156
45°	25191	24106	20801	253	101
50°	26072	24710	20811	186	36
55°	27065	25414	20753	125	20
60°	28146	26277	20571	47	23
65°	29472	27315	20196	55	55
70°	31439	28459	19556	68	68
75°	34412	30288	18714	186	90
80°	40380	33897	17326	277	135
85°	60101	47586	16225	417	268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 103060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	3.5
10°-20°	461.2	10.6
20°-30°	708.9	16.3
30°-40°	759.7	17.4
40°-50°	690.0	15.8
50°-60°	629.4	14.4
60°-70°	468.2	10.7
70°-80°	329.5	7.6
80°-90°	159.7	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°	1324.5	30.4
0°-40°	2084.2	47.8
0°-60°	3403.6	78.0
0°-90°	4361.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4361.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1612	1612	1612	1612	1612	
5°	1684	1645	1587	1584	1590	163
15°	1922	1765	1539	1506	1498	531
25°	1654	1778	1451	1397	1387	769
35°	1514	1484	1314	1261	15	948
45°	1372	1313	1133	14	6	1060
55°	1196	1123	917	6	1	1068
65°	959	889	657	2	2	950
75°	686	604	373	4	2	723
85°	403	319	109	3	2	405
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°	1611.8	1611.8	1611.8	1611.8	1611.8	1611.8	1611.8	1611.8	1611.8
2.5°	1645.1	1626.6	1622.0	1634.9	1587.8	1619.2	1593.4	1598.9	1598.9
5°	1683.8	1658.0	1645.1	1641.4	1586.9	1608.1	1584.1	1584.1	1589.7
7.5°	1710.6	1682.0	1658.9	1649.7	1578.6	1597.1	1569.4	1569.4	1569.4
10°	1783.5	1730.0	1672.8	1656.1	1568.4	1582.3	1550.0	1551.8	1545.4
12.5°	1869.4	1821.4	1699.5	1653.4	1557.4	1563.8	1529.7	1528.8	1521.4
15°	1922.0	1886.0	1765.1	1649.7	1538.9	1544.4	1505.7	1502.9	1498.3
17.5°	1892.5	1886.9	1810.3	1646.9	1522.3	1517.7	1478.9	1476.1	1472.4
20°	1810.3	1824.2	1847.2	1641.4	1501.1	1491.8	1453.1	1451.2	1448.4
22.5°	1718.9	1732.8	1830.6	1650.6	1475.2	1464.1	1425.4	1423.5	1419.8
25°	1654.3	1654.3	1778.0	1672.8	1451.2	1430.9	1396.7	1394.0	1386.6
27.5°	1609.1	1600.8	1699.5	1697.7	1420.7	1397.7	1366.3	1363.5	1354.3
30°	1574.0	1560.1	1612.8	1709.7	1386.6	1361.7	1333.0	1330.3	1141.0
32.5°	1542.6	1527.8	1539.8	1719.8	1352.4	1322.9	1298.0	925.9	40.6
35°	1514.0	1497.4	1483.5	1712.5	1313.7	1284.1	1261.0	26.8	14.8
37.5°	1481.7	1468.7	1437.4	1673.7	1272.1	1242.6	1220.4	14.8	12.9
40°	1446.6	1434.6	1394.0	1616.5	1226.9	1202.0	813.3	12.9	9.2
42.5°	1410.6	1401.4	1353.4	1533.4	1181.6	1156.7	25.8	10.2	7.4
45°	1371.8	1363.5	1312.7	1432.7	1132.7	1109.6	13.8	7.4	5.5
47.5°	1332.1	1320.1	1270.3	1324.7	1082.9	1059.8	12.0	5.5	3.7
50°	1290.6	1277.7	1223.2	1229.6	1030.2	1007.2	9.2	3.7	1.8
52.5°	1244.4	1228.7	1173.3	1143.8	974.9	953.6	7.4	1.8	0.9
55°	1195.5	1178.0	1122.6	1069.0	916.7	892.7	5.5	1.8	0.9
57.5°	1141.0	1121.6	1069.0	997.9	854.8	603.7	3.7	1.8	0.9
60°	1083.8	1064.4	1011.8	931.5	792.1	41.5	1.8	1.8	0.9
62.5°	1022.9	1002.6	951.8	864.1	724.7	34.2	1.8	1.8	1.8
65°	959.2	935.2	889.0	794.8	657.3	28.6	1.8	1.8	1.8
67.5°	895.5	865.0	821.6	723.8	588.1	24.0	1.8	1.8	1.8
70°	828.1	794.8	749.6	651.8	515.1	19.4	1.8	1.8	1.8
72.5°	758.8	726.5	677.6	578.8	446.8	14.8	1.8	1.8	1.8
75°	685.9	656.4	603.7	505.9	373.0	11.1	3.7	1.8	1.8
77.5°	610.2	587.1	528.0	431.1	300.9	7.4	3.7	1.8	1.8
80°	540.0	514.2	453.3	355.4	231.7	5.5	3.7	2.8	1.8
82.5°	468.0	445.0	384.0	286.2	166.2	4.6	3.7	2.8	1.8
85°	403.4	381.3	319.4	223.4	108.9	3.7	2.8	2.8	1.8
87.5°	346.2	325.9	264.9	163.4	61.9	2.8	2.8	2.8	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	25.10	26.71	25.46	27.03	27.34	20.53	22.14	20.90	22.46	22.77
	3H	27.54	29.01	27.92	29.34	29.70	21.17	22.64	21.55	22.96	23.32
	4H	28.67	30.05	29.07	30.40	30.77	21.32	22.70	21.72	23.05	23.42
	6H	29.76	31.05	30.17	31.41	31.80	21.36	22.64	21.77	23.01	23.40
	8H	30.29	31.52	30.72	31.91	32.31	21.35	22.57	21.77	22.96	23.36
	12H	30.86	32.04	31.29	32.42	32.85	21.33	22.51	21.76	22.89	23.32
4H	2H	25.76	27.14	26.15	27.49	27.86	21.66	23.04	22.06	23.39	23.76
	3H	28.44	29.61	28.85	30.01	30.41	23.00	24.17	23.41	24.57	24.96
	4H	29.74	30.80	30.17	31.21	31.65	23.54	24.60	23.97	25.01	25.45
	6H	31.02	31.95	31.47	32.39	32.85	23.81	24.74	24.26	25.18	25.64
	8H	31.65	32.52	32.11	32.97	33.43	23.85	24.72	24.31	25.17	25.63
	12H	32.33	33.13	32.81	33.60	34.07	23.86	24.65	24.34	25.12	25.59
8H	4H	30.10	30.98	30.56	31.42	31.89	24.48	25.36	24.94	25.80	26.27
	6H	31.59	32.32	32.08	32.81	33.28	25.07	25.81	25.56	26.30	26.77
	8H	32.37	33.03	32.88	33.54	34.02	25.25	25.91	25.76	26.42	26.90
	12H	33.26	33.85	33.76	34.34	34.90	25.35	25.94	25.86	26.43	26.99
12H	4H	30.14	30.93	30.62	31.41	31.88	24.70	25.49	25.18	25.97	26.43
	6H	31.67	32.34	32.18	32.84	33.33	25.42	26.09	25.93	26.59	27.08
	8H	32.55	33.15	33.06	33.63	34.19	25.73	26.33	26.24	26.82	27.37