

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: P893616

Luminaire Tested: 4MB-5SL-ASYMR-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893616
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-L950
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with ASYMMERIC REFLECTOR, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

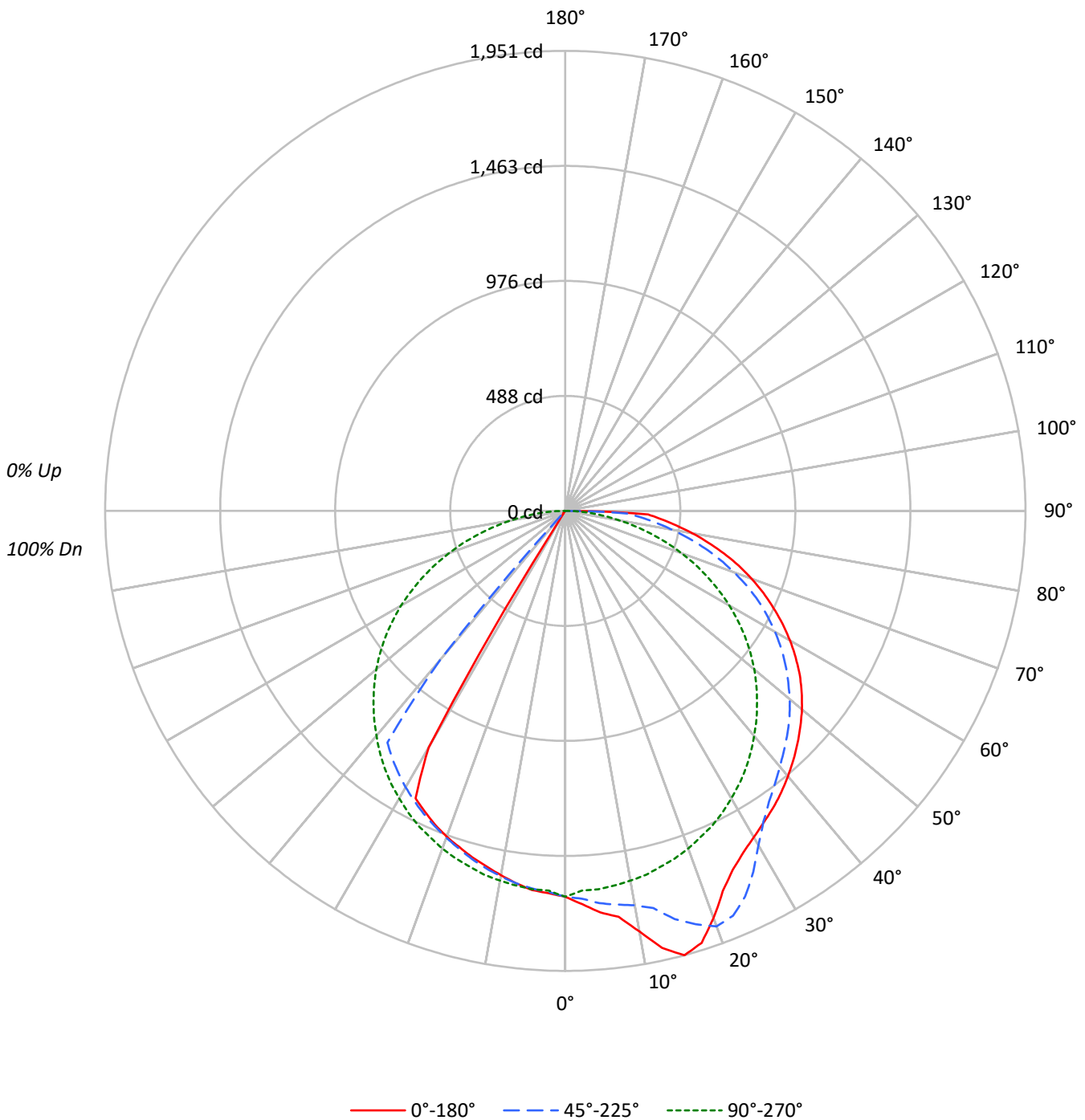
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4427.0 lumens
Efficiency: N/A
Efficacy: 126.5 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°	21246	21246	21246	21246	21246
5°	22280	21768	20998	20961	21034
10°	23872	22390	20994	20746	20685
15°	26229	24087	21001	20548	20447
20°	25394	25912	21057	20382	20319
25°	24060	25860	21107	20315	20167
30°	23957	24548	21105	20290	17367
35°	24363	23873	21138	20292	238
40°	24892	23987	21111	13995	159
45°	25573	24471	21116	259	103
50°	26466	25084	21126	190	38
55°	27474	25799	21068	127	20
60°	28572	26674	20883	49	23
65°	29917	27730	20500	58	58
70°	31914	28888	19852	72	72
75°	34934	30749	18995	186	95
80°	40993	34405	17588	277	142
85°	61010	48302	16478	417	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 87.5°
 Luminance: 104608 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.8	3.5
10°-20°	468.1	10.6
20°-30°	719.6	16.3
30°-40°	771.2	17.4
40°-50°	700.4	15.8
50°-60°	638.9	14.4
60°-70°	475.3	10.7
70°-80°	334.5	7.6
80°-90°	162.1	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°	1344.6	30.4
0°-40°	2115.8	47.8
0°-60°	3455.1	78.0
0°-90°	4427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4427.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1636	1636	1636	1636	1636	
5°	1709	1670	1611	1608	1614	166
15°	1951	1792	1562	1528	1521	539
25°	1679	1805	1473	1418	1408	781
35°	1537	1506	1334	1280	15	963
45°	1393	1333	1150	14	6	1076
55°	1214	1140	931	6	1	1084
65°	974	902	667	2	2	964
75°	696	613	379	4	2	734
85°	410	324	111	3	2	411
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°	1636.2	1636.2	1636.2	1636.2	1636.2	1636.2	1636.2	1636.2	1636.2
2.5°	1670.0	1651.2	1646.5	1659.7	1611.9	1643.7	1617.5	1623.1	1623.1
5°	1709.3	1683.1	1670.0	1666.2	1610.9	1632.5	1608.1	1608.1	1613.7
7.5°	1736.5	1707.5	1684.0	1674.7	1602.5	1621.2	1593.1	1593.1	1593.1
10°	1810.5	1756.2	1698.1	1681.2	1592.2	1606.2	1573.4	1575.3	1568.8
12.5°	1897.7	1849.0	1725.3	1678.4	1580.9	1587.5	1552.8	1551.9	1544.4
15°	1951.1	1914.6	1791.8	1674.7	1562.2	1567.8	1528.5	1525.6	1521.0
17.5°	1921.1	1915.5	1837.7	1671.8	1545.3	1540.6	1501.3	1498.5	1494.7
20°	1837.7	1851.8	1875.2	1666.2	1523.8	1514.4	1475.0	1473.2	1470.4
22.5°	1744.9	1759.0	1858.3	1675.6	1497.5	1486.3	1446.9	1445.1	1441.3
25°	1679.3	1679.3	1804.9	1698.1	1473.2	1452.6	1417.9	1415.1	1407.6
27.5°	1633.4	1625.0	1725.3	1723.4	1442.2	1418.8	1387.0	1384.1	1374.8
30°	1597.8	1583.8	1637.2	1735.6	1407.6	1382.3	1353.2	1350.4	1158.3
32.5°	1565.9	1551.0	1563.1	1745.9	1372.9	1342.9	1317.6	939.9	41.2
35°	1536.9	1520.0	1506.0	1738.4	1333.5	1303.5	1280.1	27.2	15.0
37.5°	1504.1	1491.0	1459.1	1699.0	1291.4	1261.4	1238.9	15.0	13.1
40°	1468.5	1456.3	1415.1	1640.9	1245.4	1220.1	825.6	13.1	9.4
42.5°	1431.9	1422.6	1373.8	1556.6	1199.5	1174.2	26.2	10.3	7.5
45°	1392.6	1384.1	1332.6	1454.4	1149.9	1126.4	14.1	7.5	5.6
47.5°	1352.3	1340.1	1289.5	1344.8	1099.3	1075.8	12.2	5.6	3.7
50°	1310.1	1297.0	1241.7	1248.3	1045.8	1022.4	9.4	3.7	1.9
52.5°	1263.3	1247.3	1191.1	1161.1	989.6	968.1	7.5	1.9	0.9
55°	1213.6	1195.8	1139.6	1085.2	930.6	906.2	5.6	1.9	0.9
57.5°	1158.3	1138.6	1085.2	1013.0	867.8	612.9	3.7	1.9	0.9
60°	1100.2	1080.5	1027.1	945.6	804.1	42.2	1.9	1.9	0.9
62.5°	1038.3	1017.7	966.2	877.2	735.6	34.7	1.9	1.9	1.9
65°	973.7	949.3	902.5	806.9	667.2	29.1	1.9	1.9	1.9
67.5°	909.0	878.1	834.0	734.7	597.0	24.4	1.9	1.9	1.9
70°	840.6	806.9	760.9	661.6	522.9	19.7	1.9	1.9	1.9
72.5°	770.3	737.5	687.9	587.6	453.6	15.0	1.9	1.9	1.9
75°	696.3	666.3	612.9	513.5	378.6	11.2	3.7	1.9	1.9
77.5°	619.4	596.0	536.0	437.6	305.5	7.5	3.7	1.9	1.9
80°	548.2	522.0	460.1	360.8	235.2	5.6	3.7	2.8	1.9
82.5°	475.1	451.7	389.8	290.5	168.7	4.7	3.7	2.8	1.9
85°	409.5	387.0	324.2	226.8	110.6	3.7	2.8	2.8	1.9
87.5°	351.4	330.8	269.0	165.9	62.8	2.8	2.8	2.8	1.9
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	25.15	26.76	25.51	27.08	27.39	20.58	22.20	20.95	22.51	22.83
	3H	27.60	29.06	27.97	29.39	29.75	21.23	22.69	21.60	23.02	23.38
	4H	28.72	30.10	29.12	30.45	30.83	21.37	22.75	21.77	23.10	23.48
	6H	29.81	31.10	30.22	31.46	31.85	21.41	22.69	21.82	23.06	23.45
	8H	30.34	31.57	30.77	31.96	32.36	21.40	22.63	21.82	23.02	23.41
	12H	30.91	32.09	31.34	32.47	32.90	21.38	22.56	21.81	22.94	23.37
4H	2H	25.81	27.19	26.21	27.54	27.91	21.71	23.09	22.11	23.44	23.82
	3H	28.50	29.66	28.91	30.06	30.46	23.05	24.22	23.46	24.62	25.02
	4H	29.79	30.85	30.22	31.27	31.70	23.59	24.65	24.02	25.06	25.50
	6H	31.07	32.01	31.53	32.45	32.90	23.86	24.80	24.32	25.24	25.69
	8H	31.70	32.58	32.16	33.02	33.48	23.90	24.78	24.36	25.22	25.68
	12H	32.39	33.18	32.87	33.65	34.12	23.91	24.70	24.39	25.18	25.65
8H	4H	30.15	31.03	30.61	31.47	31.94	24.53	25.41	24.99	25.85	26.32
	6H	31.64	32.37	32.13	32.86	33.34	25.12	25.86	25.62	26.35	26.82
	8H	32.42	33.09	32.93	33.59	34.08	25.30	25.97	25.81	26.47	26.96
	12H	33.31	33.90	33.82	34.39	34.95	25.40	26.00	25.91	26.49	27.04
12H	4H	30.20	30.99	30.67	31.46	31.93	24.75	25.54	25.23	26.02	26.49
	6H	31.73	32.39	32.23	32.90	33.38	25.47	26.14	25.98	26.65	27.13
	8H	32.61	33.20	33.11	33.69	34.25	25.79	26.38	26.29	26.87	27.43