

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: P893639

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893639
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-LVR-UNV-L940
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

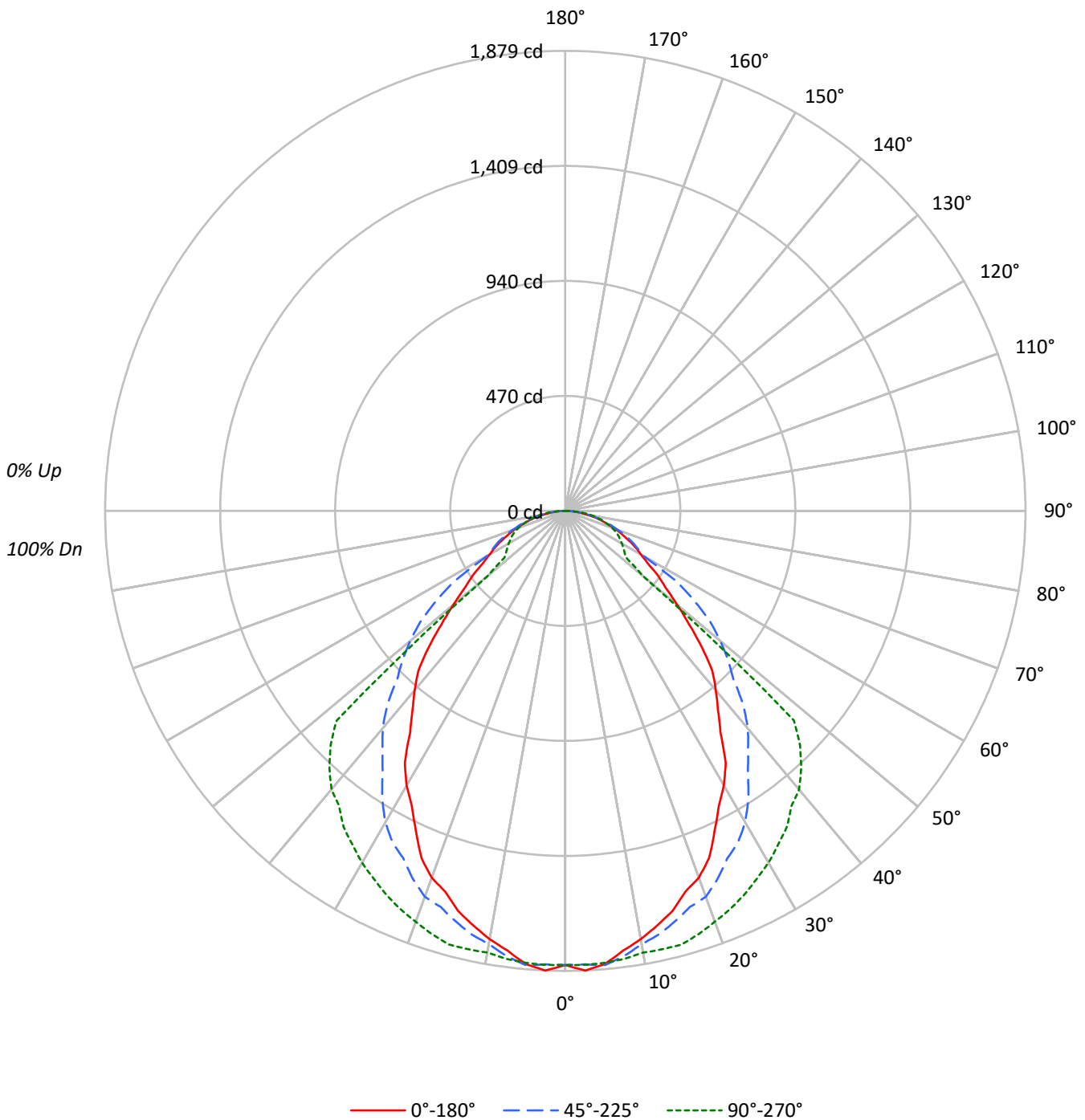
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3958.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.33 / 1.27
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
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				
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13196	13196	13196
5°	13267	13301	13233
10°	12832	12982	13236
15°	12462	12776	13508
20°	12071	12702	13520
25°	11326	12292	13579
30°	10638	12070	13635
35°	9593	11288	13699
40°	8886	10768	13795
45°	7949	9760	13639
50°	6595	9143	4583
55°	5746	8026	3666
60°	5082	5230	3801
65°	4832	5088	4035
70°	4533	4808	4256
75°	4220	4530	4374
80°	3843	4269	4581
85°	3404	3633	4947

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13639 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.9	4.4
10°-20°	494.9	12.5
20°-30°	728.0	18.4
30°-40°	832.5	21.0
40°-50°	788.3	19.9
50°-60°	434.3	11.0
60°-70°	278.9	7.0
70°-80°	172.1	4.3
80°-90°	53.0	1.3
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°	1398.8	35.3
0°-40°	2231.4	56.4
0°-60°	3454.0	87.3
0°-90°	3958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1855	1855	1855	1855	1855	
5°	1858	1873	1862	1862	1853	174
15°	1692	1713	1734	1825	1834	475
25°	1443	1507	1566	1668	1730	664
35°	1104	1199	1300	1488	1577	698
45°	790	865	970	1245	1356	604
55°	463	486	647	333	296	414
65°	287	296	302	269	240	284
75°	154	156	165	173	159	163
85°	42	42	44	51	61	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1854.7	1854.7	1854.7	1854.7	1854.7
2.5°	1879.4	1884.1	1853.8	1852.8	1855.7
5°	1857.6	1872.7	1862.3	1862.3	1852.8
7.5°	1811.2	1836.7	1833.9	1855.7	1845.3
10°	1776.1	1796.9	1796.9	1853.8	1832.0
12.5°	1734.4	1758.1	1771.4	1831.0	1833.9
15°	1691.8	1712.6	1734.4	1825.4	1833.9
17.5°	1630.2	1668.1	1695.6	1784.6	1812.1
20°	1594.2	1617.0	1677.6	1749.6	1785.6
22.5°	1534.6	1567.7	1626.4	1707.0	1760.0
25°	1442.7	1507.1	1565.8	1668.1	1729.7
27.5°	1357.4	1405.7	1527.0	1635.0	1693.7
30°	1294.9	1332.8	1469.2	1586.7	1659.6
32.5°	1219.1	1280.7	1391.5	1539.3	1617.0
35°	1104.5	1199.2	1299.6	1488.1	1577.2
37.5°	1024.0	1089.3	1225.7	1435.1	1517.5
40°	956.7	1016.4	1159.4	1368.8	1485.3
42.5°	889.5	937.8	1076.1	1319.5	1425.6
45°	790.0	864.8	970.0	1244.7	1355.5
47.5°	685.8	765.4	900.8	1181.2	1266.5
50°	595.8	659.3	826.0	1055.2	414.0
52.5°	517.2	575.9	746.4	381.7	312.6
55°	463.2	485.9	647.0	333.4	295.5
57.5°	398.8	435.7	542.8	317.3	280.4
60°	357.1	373.2	367.5	301.2	267.1
62.5°	324.0	335.3	333.4	285.1	252.0
65°	287.0	296.5	302.2	269.0	239.7
67.5°	250.1	258.6	267.1	249.1	222.6
70°	217.9	223.6	231.1	225.4	204.6
72.5°	184.7	191.3	196.1	200.8	180.9
75°	153.5	156.3	164.8	173.3	159.1
77.5°	125.0	127.9	133.6	143.0	135.5
80°	93.8	96.6	104.2	111.8	111.8
82.5°	66.3	68.2	72.9	83.4	88.1
85°	41.7	41.7	44.5	51.2	60.6
87.5°	16.1	16.1	18.9	22.7	30.3
90°	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	16.91	18.40	17.28	18.71	19.02	14.72	16.20	15.08	16.51	16.83
	3H	18.44	19.77	18.82	20.09	20.46	17.05	18.37	17.42	18.70	19.06
	4H	19.03	20.28	19.43	20.62	21.00	18.00	19.24	18.40	19.59	19.97
	6H	19.49	20.64	19.90	21.00	21.40	18.78	19.93	19.19	20.30	20.69
	8H	19.63	20.73	20.06	21.12	21.52	19.09	20.18	19.52	20.57	20.98
	12H	19.73	20.77	20.16	21.16	21.59	19.34	20.39	19.77	20.77	21.20
4H	2H	17.46	18.71	17.86	19.06	19.44	15.82	17.06	16.22	17.41	17.79
	3H	19.24	20.27	19.65	20.67	21.07	18.27	19.29	18.68	19.69	20.10
	4H	19.96	20.88	20.39	21.30	21.74	19.33	20.26	19.76	20.67	21.11
	6H	20.54	21.35	21.00	21.79	22.25	20.22	21.03	20.68	21.47	21.93
	8H	20.73	21.48	21.20	21.93	22.40	20.57	21.32	21.04	21.77	22.24
	12H	20.87	21.54	21.35	22.02	22.49	20.86	21.53	21.34	22.01	22.48
8H	4H	20.26	21.02	20.73	21.46	21.93	19.72	20.47	20.18	20.92	21.38
	6H	20.97	21.60	21.47	22.09	22.57	20.75	21.38	21.25	21.87	22.35
	8H	21.24	21.80	21.75	22.31	22.80	21.20	21.76	21.71	22.27	22.76
	12H	21.45	21.94	21.96	22.44	23.00	21.58	22.08	22.09	22.58	23.14
12H	4H	20.30	20.97	20.78	21.45	21.92	19.75	20.43	20.24	20.90	21.38
	6H	21.04	21.60	21.55	22.11	22.60	20.82	21.38	21.33	21.89	22.38
	8H	21.36	21.86	21.87	22.35	22.92	21.33	21.83	21.84	22.32	22.88