

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: P893522

Luminaire Tested: 4MB-4SL-LVR-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893522
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-4SL-LVR-UNV-L835
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

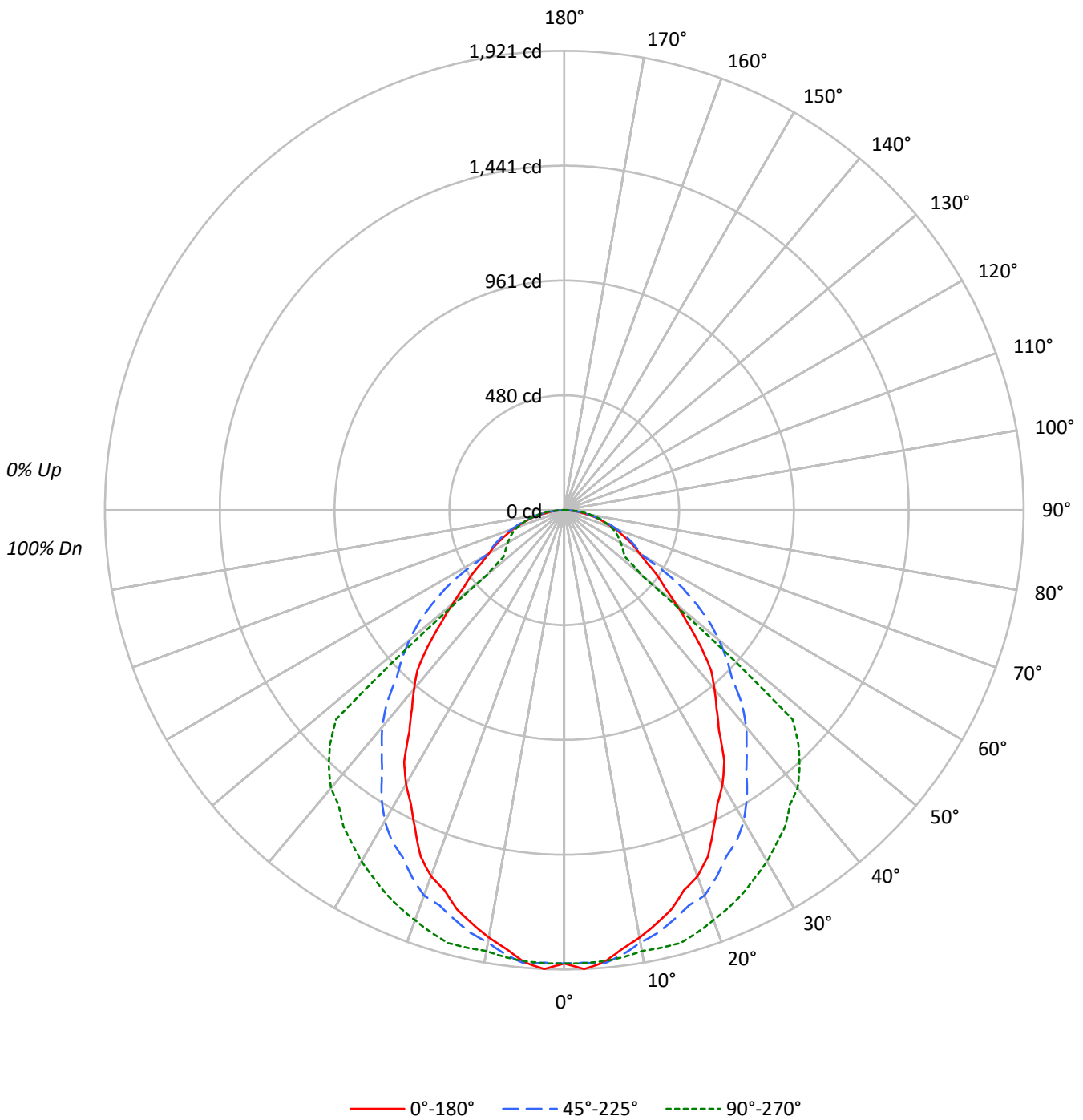
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4045.0 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.32 / 1.27
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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°	13486	13486	13486
5°	13559	13593	13524
10°	13114	13268	13527
15°	12736	13056	13805
20°	12336	12982	13817
25°	11575	12562	13877
30°	10873	12336	13935
35°	9805	11536	14000
40°	9082	11005	14098
45°	8124	9975	13939
50°	6740	9344	4682
55°	5872	8202	3746
60°	5194	5345	3885
65°	4938	5199	4123
70°	4633	4914	4350
75°	4310	4629	4470
80°	3925	4364	4679
85°	3478	3714	5061

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13939 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.8	4.4
10°-20°	505.8	12.5
20°-30°	744.0	18.4
30°-40°	850.8	21.0
40°-50°	805.7	19.9
50°-60°	443.9	11.0
60°-70°	285.0	7.0
70°-80°	175.9	4.3
80°-90°	54.1	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°	1429.6	35.3
0°-40°	2280.4	56.4
0°-60°	3530.0	87.3
0°-90°	4045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4045.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1896	1896	1896	1896	1896	
5°	1898	1914	1903	1903	1894	178
15°	1729	1750	1772	1866	1874	485
25°	1474	1540	1600	1705	1768	679
35°	1129	1226	1328	1521	1612	714
45°	807	884	991	1272	1385	618
55°	473	497	661	341	302	423
65°	293	303	309	275	245	290
75°	157	160	168	177	163	167
85°	43	43	46	52	62	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1895.5	1895.5	1895.5	1895.5	1895.5
2.5°	1920.7	1925.5	1894.5	1893.6	1896.5
5°	1898.4	1913.9	1903.2	1903.2	1893.6
7.5°	1851.0	1877.1	1874.2	1896.5	1885.8
10°	1815.1	1836.4	1836.4	1894.5	1872.3
12.5°	1772.5	1796.7	1810.3	1871.3	1874.2
15°	1729.0	1750.3	1772.5	1865.5	1874.2
17.5°	1666.1	1704.8	1732.9	1823.9	1851.9
20°	1629.3	1652.5	1714.5	1788.0	1824.8
22.5°	1568.3	1602.2	1662.2	1744.5	1798.7
25°	1474.4	1540.2	1600.2	1704.8	1767.7
27.5°	1387.3	1436.6	1560.5	1670.9	1730.9
30°	1323.4	1362.1	1501.5	1621.5	1696.1
32.5°	1245.9	1308.8	1422.1	1573.1	1652.5
35°	1128.8	1225.6	1328.2	1520.8	1611.8
37.5°	1046.5	1113.3	1252.7	1466.6	1550.9
40°	977.8	1038.7	1184.9	1398.9	1517.9
42.5°	909.0	958.4	1099.7	1348.5	1457.0
45°	807.4	883.9	991.3	1272.1	1385.3
47.5°	700.9	782.2	920.6	1207.2	1294.3
50°	608.9	673.8	844.2	1078.4	423.0
52.5°	528.6	588.6	762.8	390.1	319.5
55°	473.4	496.6	661.2	340.8	302.0
57.5°	407.6	445.3	554.7	324.3	286.6
60°	365.0	381.4	375.6	307.8	273.0
62.5°	331.1	342.7	340.8	291.4	257.5
65°	293.3	303.0	308.8	274.9	244.9
67.5°	255.6	264.3	273.0	254.6	227.5
70°	222.7	228.5	236.2	230.4	209.1
72.5°	188.8	195.6	200.4	205.2	184.9
75°	156.8	159.7	168.4	177.2	162.6
77.5°	127.8	130.7	136.5	146.2	138.4
80°	95.8	98.7	106.5	114.2	114.2
82.5°	67.8	69.7	74.5	85.2	90.0
85°	42.6	42.6	45.5	52.3	62.0
87.5°	16.5	16.5	19.4	23.2	31.0
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	16.99	18.47	17.35	18.79	19.10	14.79	16.27	15.16	16.59	16.90
	3H	18.52	19.84	18.89	20.17	20.53	17.12	18.45	17.50	18.78	19.14
	4H	19.11	20.35	19.51	20.70	21.08	18.07	19.31	18.47	19.66	20.04
	6H	19.56	20.71	19.98	21.08	21.47	18.86	20.00	19.27	20.37	20.76
	8H	19.71	20.80	20.14	21.19	21.59	19.17	20.26	19.59	20.65	21.05
	12H	19.81	20.85	20.24	21.23	21.66	19.42	20.46	19.85	20.84	21.27
4H	2H	17.54	18.78	17.94	19.13	19.51	15.90	17.14	16.30	17.49	17.87
	3H	19.31	20.34	19.72	20.74	21.14	18.34	19.37	18.75	19.77	20.17
	4H	20.03	20.96	20.46	21.37	21.81	19.41	20.33	19.84	20.75	21.19
	6H	20.62	21.42	21.08	21.87	22.33	20.30	21.10	20.75	21.54	22.01
	8H	20.81	21.56	21.27	22.00	22.47	20.65	21.40	21.11	21.84	22.31
	12H	20.94	21.62	21.43	22.10	22.57	20.94	21.61	21.42	22.09	22.56
8H	4H	20.34	21.09	20.80	21.54	22.00	19.79	20.55	20.26	20.99	21.46
	6H	21.05	21.67	21.55	22.17	22.64	20.83	21.45	21.33	21.95	22.42
	8H	21.31	21.87	21.83	22.38	22.87	21.27	21.84	21.79	22.35	22.84
	12H	21.52	22.02	22.03	22.51	23.08	21.66	22.16	22.17	22.65	23.22
12H	4H	20.38	21.05	20.86	21.53	22.00	19.83	20.50	20.31	20.98	21.45
	6H	21.11	21.68	21.63	22.19	22.68	20.89	21.46	21.41	21.97	22.46
	8H	21.43	21.93	21.94	22.43	22.99	21.40	21.90	21.91	22.39	22.96