

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: P893538

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-LVRF-UNV-L835
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3500K C
Light Source: -
Ballast/Driver: -

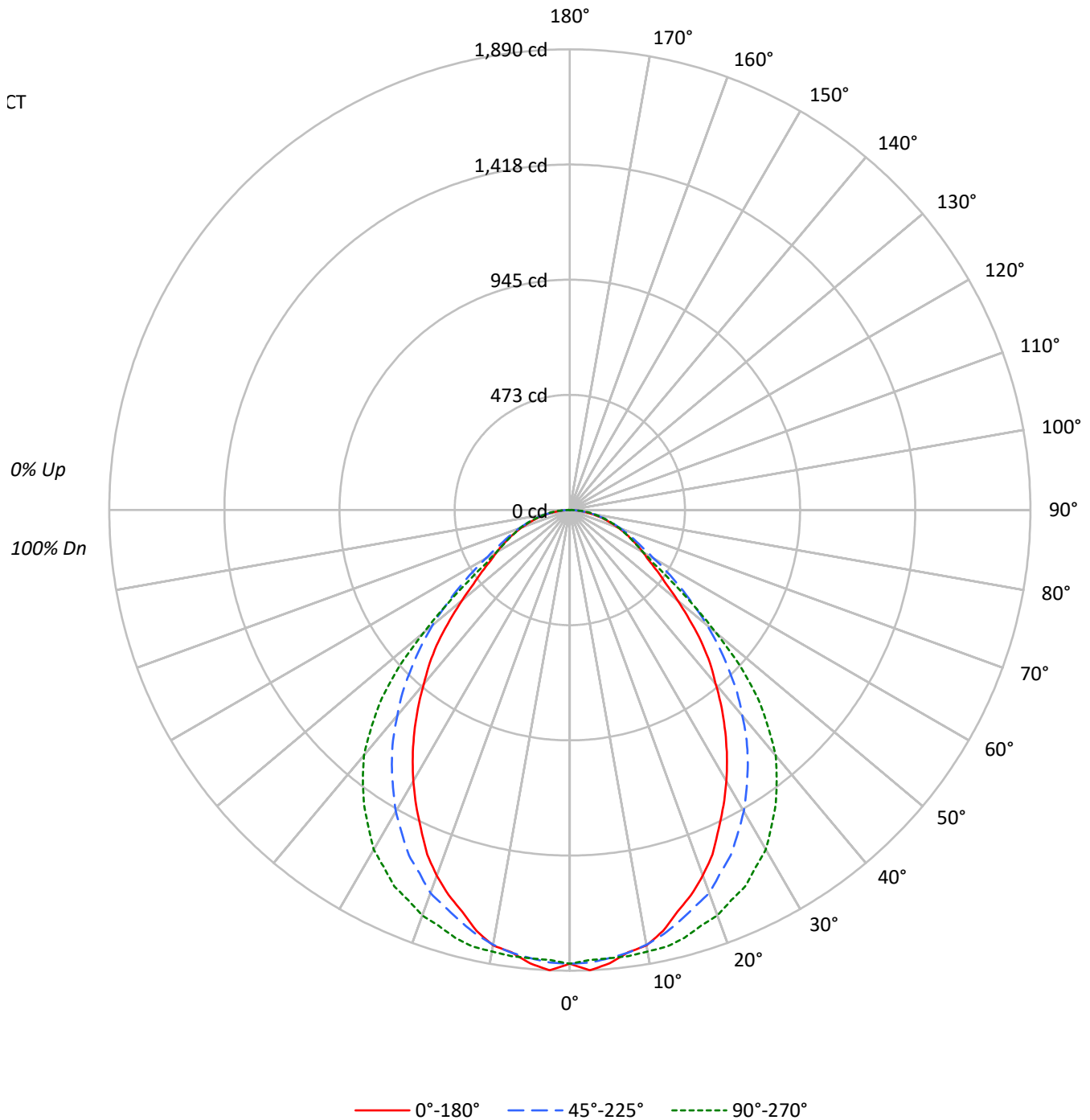
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3868.0 lumens
Efficiency: N/A
Efficacy: 129.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
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 (Ain): 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	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	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	56	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	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13242	13242	13242
5°	13334	13182	13182
10°	13104	13083	13285
15°	12561	12854	13381
20°	12084	12663	13403
25°	11336	12270	13373
30°	10551	11728	13215
35°	9659	11062	12794
40°	8647	10230	12207
45°	7673	9261	10975
50°	6385	8152	8656
55°	5438	6867	6290
60°	4931	5673	4972
65°	4643	4970	4628
70°	4369	4610	4510
75°	4071	4390	4310
80°	3729	4044	4163
85°	3241	3559	4661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10975 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.2	4.6
10°-20°	495.8	12.8
20°-30°	720.0	18.6
30°-40°	801.8	20.7
40°-50°	708.4	18.3
50°-60°	464.8	12.0
60°-70°	284.6	7.4
70°-80°	165.6	4.3
80°-90°	50.8	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°	1392.0	36.0
0°-40°	2193.8	56.7
0°-60°	3367.0	87.0
0°-90°	3868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1861	1861	1861	1861	1861	
5°	1867	1868	1846	1864	1846	176
15°	1705	1725	1745	1814	1817	481
25°	1444	1479	1563	1663	1703	664
35°	1112	1172	1274	1408	1473	694
45°	763	809	920	1044	1091	583
55°	438	469	554	549	507	398
65°	276	281	295	286	275	274
75°	148	150	160	163	157	157
85°	40	42	44	49	57	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1861.1	1861.1	1861.1	1861.1	1861.1
2.5°	1890.1	1866.9	1858.2	1866.9	1847.6
5°	1866.9	1867.9	1845.6	1864.0	1845.6
7.5°	1830.1	1842.7	1832.1	1860.1	1845.6
10°	1813.7	1814.6	1810.8	1839.8	1838.8
12.5°	1768.2	1771.1	1781.7	1825.3	1835.0
15°	1705.3	1724.6	1745.0	1813.7	1816.6
17.5°	1655.9	1679.2	1706.3	1779.8	1788.5
20°	1595.9	1605.6	1672.4	1737.2	1770.1
22.5°	1529.1	1547.5	1612.4	1699.5	1732.4
25°	1444.0	1478.8	1563.0	1662.7	1703.4
27.5°	1365.6	1406.2	1493.3	1604.6	1652.1
30°	1284.3	1330.7	1427.5	1536.9	1608.5
32.5°	1200.1	1258.2	1350.1	1475.9	1538.8
35°	1112.0	1172.0	1273.6	1408.2	1473.0
37.5°	1023.9	1082.0	1192.3	1336.5	1394.6
40°	931.0	988.1	1101.4	1247.5	1314.3
42.5°	850.7	900.1	1016.2	1141.1	1203.0
45°	762.6	809.1	920.4	1044.3	1090.7
47.5°	665.9	720.1	828.4	930.1	948.5
50°	576.8	632.9	736.5	795.5	782.0
52.5°	498.4	545.8	640.7	665.9	633.9
55°	438.4	469.4	553.6	548.7	507.1
57.5°	383.3	402.6	474.2	447.1	407.4
60°	346.5	355.2	398.7	373.6	349.4
62.5°	311.6	315.5	338.7	325.2	306.8
65°	275.8	280.7	295.2	286.5	274.9
67.5°	242.9	244.9	258.4	256.5	242.0
70°	210.0	212.9	221.6	225.5	216.8
72.5°	178.1	181.0	189.7	193.6	185.8
75°	148.1	150.0	159.7	162.6	156.8
77.5°	119.0	122.9	128.7	133.6	126.8
80°	91.0	92.9	98.7	104.5	101.6
82.5°	63.9	66.8	70.7	78.4	80.3
85°	39.7	41.6	43.6	49.4	57.1
87.5°	15.5	16.5	19.4	21.3	28.1
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	16.51	17.99	16.87	18.30	18.61	17.16	18.64	17.52	18.95	19.27
	3H	18.11	19.43	18.48	19.76	20.12	18.59	19.92	18.97	20.25	20.61
	4H	18.72	19.97	19.12	20.31	20.69	19.20	20.44	19.60	20.79	21.17
	6H	19.19	20.34	19.61	20.71	21.10	19.68	20.83	20.10	21.20	21.59
	8H	19.35	20.44	19.77	20.83	21.23	19.88	20.97	20.31	21.36	21.76
	12H	19.45	20.49	19.88	20.87	21.30	20.05	21.09	20.48	21.48	21.91
4H	2H	17.13	18.37	17.53	18.72	19.10	17.65	18.89	18.05	19.24	19.62
	3H	18.95	19.98	19.36	20.38	20.78	19.35	20.38	19.76	20.78	21.18
	4H	19.69	20.61	20.12	21.03	21.47	20.10	21.03	20.53	21.44	21.88
	6H	20.28	21.09	20.74	21.53	21.99	20.74	21.54	21.20	21.99	22.45
	8H	20.48	21.23	20.95	21.68	22.15	20.99	21.74	21.46	22.19	22.66
	12H	20.62	21.29	21.11	21.77	22.25	21.22	21.89	21.70	22.37	22.84
8H	4H	20.00	20.76	20.47	21.20	21.67	20.37	21.12	20.84	21.57	22.04
	6H	20.73	21.35	21.23	21.84	22.32	21.15	21.77	21.64	22.26	22.74
	8H	21.00	21.56	21.52	22.07	22.56	21.49	22.05	22.01	22.56	23.05
	12H	21.22	21.72	21.73	22.21	22.77	21.81	22.31	22.32	22.80	23.36
12H	4H	20.04	20.71	20.52	21.19	21.66	20.39	21.06	20.87	21.54	22.01
	6H	20.79	21.35	21.31	21.86	22.35	21.19	21.75	21.71	22.26	22.75
	8H	21.13	21.62	21.64	22.12	22.68	21.60	22.09	22.11	22.59	23.15