

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: P893523

Luminaire Tested: 4MB-4SL-LVR-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893523
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-L840
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

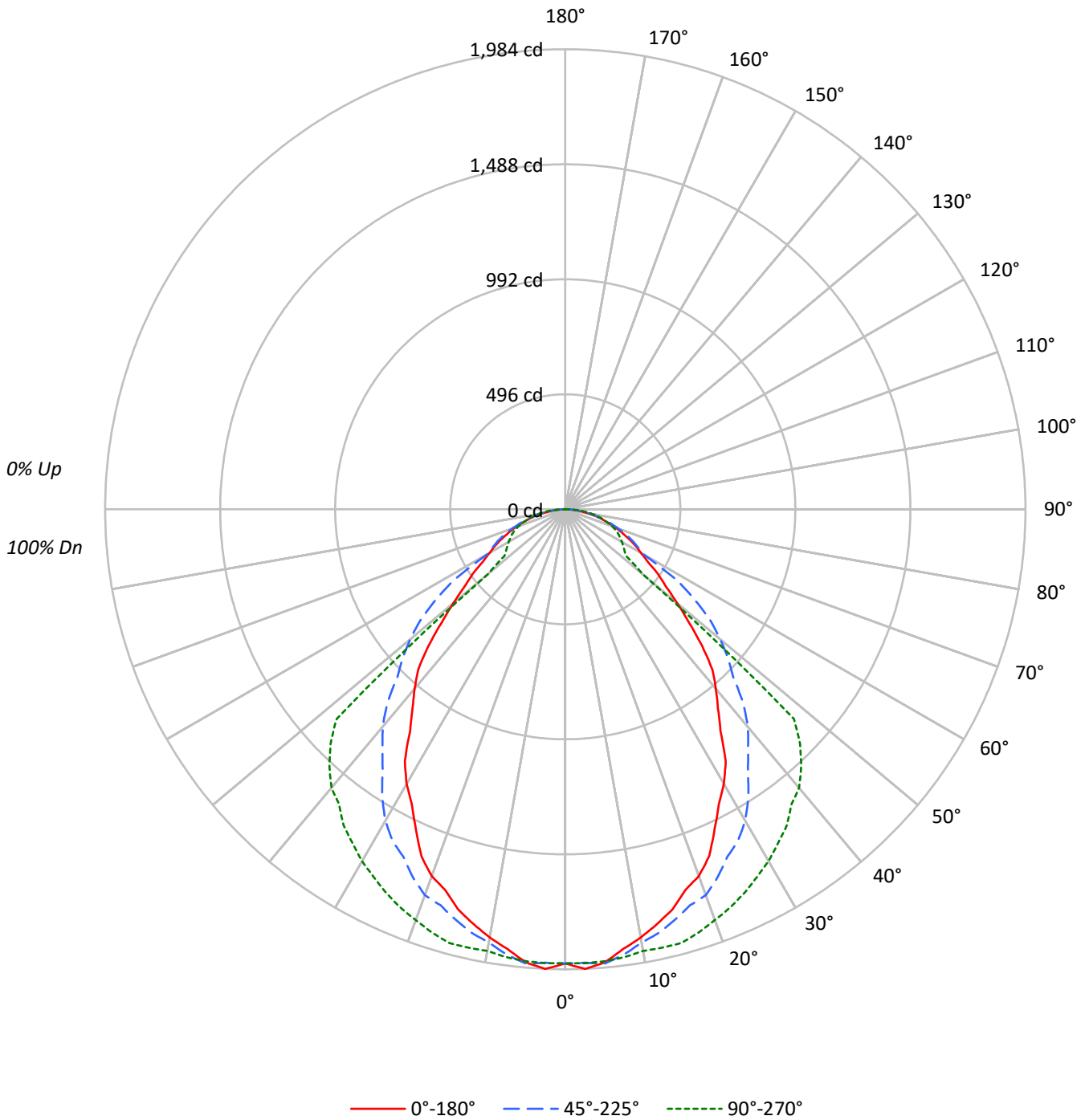
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4178.9 lumens
Efficiency: N/A
Efficacy: 140.2 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	45	45	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40	40	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36	36	36
9	61	48	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	33	33	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13933	13933	13933
5°	14008	14044	13972
10°	13549	13708	13975
15°	13158	13489	14263
20°	12745	13412	14275
25°	11958	12978	14337
30°	11232	12744	14396
35°	10129	11919	14464
40°	9382	11370	14565
45°	8393	10305	14401
50°	6963	9653	4838
55°	6067	8474	3870
60°	5366	5523	4013
65°	5101	5371	4259
70°	4785	5076	4493
75°	4453	4783	4618
80°	4056	4507	4835
85°	3592	3837	5225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14401 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.7	4.4
10°-20°	522.5	12.5
20°-30°	768.7	18.4
30°-40°	879.0	21.0
40°-50°	832.4	19.9
50°-60°	458.6	11.0
60°-70°	294.4	7.0
70°-80°	181.7	4.3
80°-90°	55.9	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°	1476.9	35.3
0°-40°	2356.0	56.4
0°-60°	3646.9	87.3
0°-90°	4178.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4178.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1958	1958	1958	1958	1958	
5°	1961	1977	1966	1966	1956	184
15°	1786	1808	1831	1927	1936	502
25°	1523	1591	1653	1761	1826	701
35°	1166	1266	1372	1571	1665	737
45°	834	913	1024	1314	1431	638
55°	489	513	683	352	312	437
65°	303	313	319	284	253	300
75°	162	165	174	183	168	172
85°	44	44	47	54	64	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1958.3	1958.3	1958.3	1958.3	1958.3
2.5°	1984.3	1989.3	1957.3	1956.3	1959.3
5°	1961.3	1977.3	1966.3	1966.3	1956.3
7.5°	1912.3	1939.3	1936.3	1959.3	1948.3
10°	1875.3	1897.3	1897.3	1957.3	1934.3
12.5°	1831.3	1856.3	1870.3	1933.3	1936.3
15°	1786.3	1808.3	1831.3	1927.3	1936.3
17.5°	1721.3	1761.3	1790.3	1884.3	1913.3
20°	1683.2	1707.2	1771.3	1847.3	1885.3
22.5°	1620.2	1655.2	1717.3	1802.3	1858.3
25°	1523.2	1591.2	1653.2	1761.3	1826.3
27.5°	1433.2	1484.2	1612.2	1726.3	1788.3
30°	1367.2	1407.2	1551.2	1675.2	1752.3
32.5°	1287.2	1352.2	1469.2	1625.2	1707.2
35°	1166.2	1266.2	1372.2	1571.2	1665.2
37.5°	1081.2	1150.2	1294.2	1515.2	1602.2
40°	1010.1	1073.2	1224.2	1445.2	1568.2
42.5°	939.1	990.1	1136.2	1393.2	1505.2
45°	834.1	913.1	1024.1	1314.2	1431.2
47.5°	724.1	808.1	951.1	1247.2	1337.2
50°	629.1	696.1	872.1	1114.2	437.1
52.5°	546.1	608.1	788.1	403.1	330.0
55°	489.1	513.1	683.1	352.1	312.0
57.5°	421.1	460.1	573.1	335.0	296.0
60°	377.1	394.1	388.1	318.0	282.0
62.5°	342.1	354.1	352.1	301.0	266.0
65°	303.0	313.0	319.0	284.0	253.0
67.5°	264.0	273.0	282.0	263.0	235.0
70°	230.0	236.0	244.0	238.0	216.0
72.5°	195.0	202.0	207.0	212.0	191.0
75°	162.0	165.0	174.0	183.0	168.0
77.5°	132.0	135.0	141.0	151.0	143.0
80°	99.0	102.0	110.0	118.0	118.0
82.5°	70.0	72.0	77.0	88.0	93.0
85°	44.0	44.0	47.0	54.0	64.0
87.5°	17.0	17.0	20.0	24.0	32.0
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	17.10	18.59	17.47	18.90	19.21	14.90	16.39	15.27	16.70	17.01
	3H	18.63	19.96	19.01	20.28	20.65	17.23	18.56	17.61	18.89	19.25
	4H	19.22	20.46	19.62	20.81	21.19	18.18	19.43	18.58	19.78	20.16
	6H	19.68	20.82	20.09	21.19	21.58	18.97	20.12	19.38	20.48	20.88
	8H	19.82	20.91	20.25	21.30	21.71	19.28	20.37	19.71	20.76	21.16
	12H	19.92	20.96	20.35	21.35	21.77	19.53	20.57	19.96	20.96	21.39
4H	2H	17.65	18.90	18.05	19.25	19.62	16.01	17.25	16.41	17.60	17.98
	3H	19.42	20.45	19.84	20.85	21.26	18.45	19.48	18.86	19.88	20.28
	4H	20.14	21.07	20.58	21.49	21.93	19.52	20.45	19.95	20.86	21.30
	6H	20.73	21.54	21.19	21.98	22.44	20.41	21.21	20.87	21.66	22.12
	8H	20.92	21.67	21.38	22.12	22.58	20.76	21.51	21.22	21.96	22.42
	12H	21.06	21.73	21.54	22.21	22.68	21.05	21.72	21.53	22.20	22.67
8H	4H	20.45	21.20	20.92	21.65	22.12	19.91	20.66	20.37	21.10	21.57
	6H	21.16	21.79	21.66	22.28	22.76	20.94	21.57	21.44	22.06	22.54
	8H	21.42	21.99	21.94	22.50	22.99	21.39	21.95	21.90	22.46	22.95
	12H	21.63	22.13	22.14	22.62	23.19	21.77	22.27	22.28	22.76	23.33
12H	4H	20.49	21.16	20.97	21.64	22.11	19.94	20.61	20.42	21.09	21.56
	6H	21.23	21.79	21.74	22.30	22.79	21.01	21.57	21.52	22.08	22.57
	8H	21.55	22.05	22.06	22.54	23.10	21.51	22.01	22.02	22.51	23.07