

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: P893319

Luminaire Tested: 4MB-2SL-LVRF-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893319
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-2SL-LVRF-UNV-L940
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K C
Light Source: -
Ballast/Driver: -

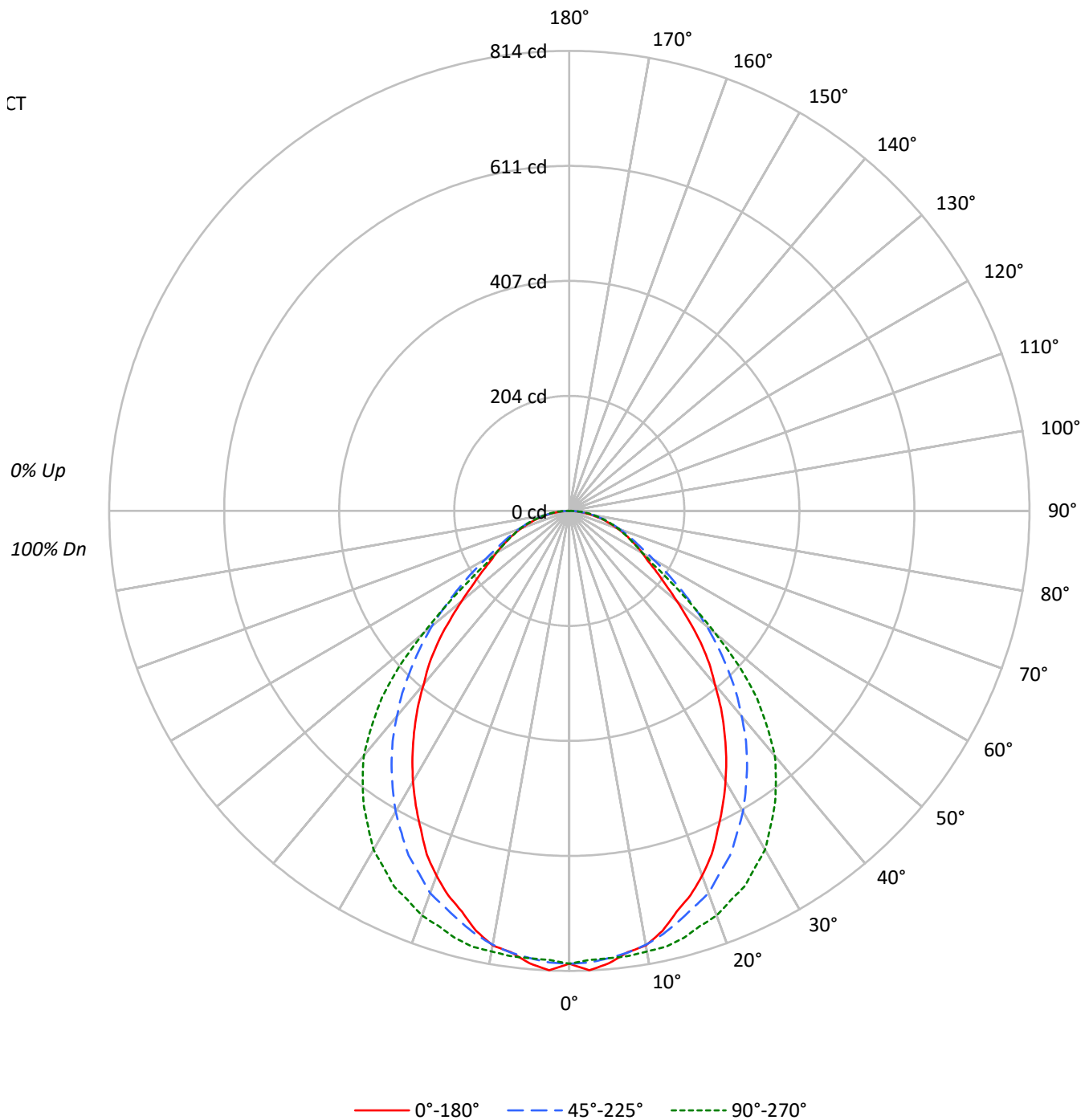
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1665.0 lumens
Efficiency: N/A
Efficacy: 120.7 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): 13.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
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°	5700	5700	5700
5°	5739	5674	5674
10°	5640	5632	5718
15°	5407	5533	5760
20°	5202	5451	5770
25°	4880	5282	5756
30°	4542	5049	5689
35°	4158	4762	5508
40°	3723	4403	5254
45°	3303	3987	4724
50°	2748	3509	3726
55°	2341	2956	2708
60°	2122	2442	2140
65°	1998	2140	1992
70°	1881	1985	1941
75°	1751	1889	1856
80°	1606	1741	1791
85°	1396	1527	2008

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4724 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	4.6
10°-20°	213.4	12.8
20°-30°	309.9	18.6
30°-40°	345.1	20.7
40°-50°	304.9	18.3
50°-60°	200.1	12.0
60°-70°	122.5	7.4
70°-80°	71.3	4.3
80°-90°	21.8	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°	599.2	36.0
0°-40°	944.4	56.7
0°-60°	1449.4	87.0
0°-90°	1665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	804	804	794	802	794	76
15°	734	742	751	781	782	207
25°	622	637	673	716	733	286
35°	479	504	548	606	634	299
45°	328	348	396	450	470	251
55°	189	202	238	236	218	171
65°	119	121	127	123	118	118
75°	64	65	69	70	68	68
85°	17	18	19	21	25	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.1	801.1	801.1	801.1	801.1
2.5°	813.6	803.6	799.9	803.6	795.3
5°	803.6	804.0	794.5	802.4	794.5
7.5°	787.8	793.2	788.6	800.7	794.5
10°	780.7	781.1	779.5	792.0	791.5
12.5°	761.1	762.4	767.0	785.7	789.9
15°	734.0	742.4	751.1	780.7	782.0
17.5°	712.8	722.8	734.5	766.1	769.9
20°	687.0	691.1	719.9	747.8	762.0
22.5°	658.2	666.1	694.1	731.5	745.7
25°	621.6	636.6	672.8	715.7	733.2
27.5°	587.8	605.3	642.8	690.7	711.1
30°	552.8	572.8	614.5	661.6	692.4
32.5°	516.6	541.6	581.2	635.3	662.4
35°	478.7	504.5	548.2	606.2	634.1
37.5°	440.8	465.8	513.3	575.3	600.3
40°	400.8	425.3	474.1	537.0	565.7
42.5°	366.2	387.4	437.4	491.2	517.8
45°	328.3	348.3	396.2	449.5	469.5
47.5°	286.6	310.0	356.6	400.4	408.3
50°	248.3	272.5	317.0	342.4	336.6
52.5°	214.5	235.0	275.8	286.6	272.9
55°	188.7	202.1	238.3	236.2	218.3
57.5°	165.0	173.3	204.1	192.5	175.4
60°	149.1	152.9	171.6	160.8	150.4
62.5°	134.1	135.8	145.8	140.0	132.1
65°	118.7	120.8	127.1	123.3	118.3
67.5°	104.6	105.4	111.2	110.4	104.1
70°	90.4	91.7	95.4	97.1	93.3
72.5°	76.7	77.9	81.7	83.3	80.0
75°	63.7	64.6	68.7	70.0	67.5
77.5°	51.2	52.9	55.4	57.5	54.6
80°	39.2	40.0	42.5	45.0	43.7
82.5°	27.5	28.7	30.4	33.7	34.6
85°	17.1	17.9	18.7	21.2	24.6
87.5°	6.7	7.1	8.3	9.2	12.1
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	13.58	15.06	13.94	15.37	15.69	14.23	15.71	14.59	16.02	16.34
	3H	15.18	16.50	15.56	16.83	17.19	15.66	16.99	16.04	17.32	17.68
	4H	15.79	17.04	16.20	17.39	17.77	16.27	17.51	16.67	17.86	18.24
	6H	16.27	17.41	16.68	17.78	18.17	16.76	17.90	17.17	18.27	18.66
	8H	16.42	17.51	16.84	17.90	18.30	16.95	18.04	17.38	18.43	18.84
	12H	16.52	17.56	16.95	17.94	18.37	17.12	18.17	17.55	18.55	18.98
4H	2H	14.20	15.44	14.60	15.79	16.17	14.72	15.97	15.12	16.31	16.69
	3H	16.02	17.05	16.43	17.45	17.85	16.42	17.45	16.83	17.85	18.25
	4H	16.76	17.68	17.19	18.10	18.54	17.17	18.10	17.61	18.52	18.95
	6H	17.36	18.16	17.81	18.60	19.06	17.81	18.61	18.27	19.06	19.52
	8H	17.55	18.31	18.02	18.75	19.22	18.06	18.82	18.53	19.26	19.73
	12H	17.69	18.37	18.18	18.85	19.32	18.29	18.96	18.77	19.44	19.91
8H	4H	17.08	17.83	17.54	18.27	18.74	17.44	18.20	17.91	18.64	19.11
	6H	17.80	18.42	18.30	18.92	19.39	18.22	18.84	18.72	19.33	19.81
	8H	18.07	18.63	18.59	19.14	19.63	18.56	19.12	19.08	19.63	20.12
	12H	18.29	18.79	18.80	19.28	19.85	18.88	19.38	19.39	19.87	20.44
12H	4H	17.11	17.78	17.59	18.26	18.73	17.46	18.14	17.95	18.61	19.09
	6H	17.86	18.43	18.38	18.94	19.42	18.26	18.82	18.78	19.34	19.82
	8H	18.20	18.69	18.71	19.19	19.75	18.67	19.17	19.18	19.66	20.22