

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: P893309

Luminaire Tested: 4MB-2SL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893309
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-LVRA-UNV-L930
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

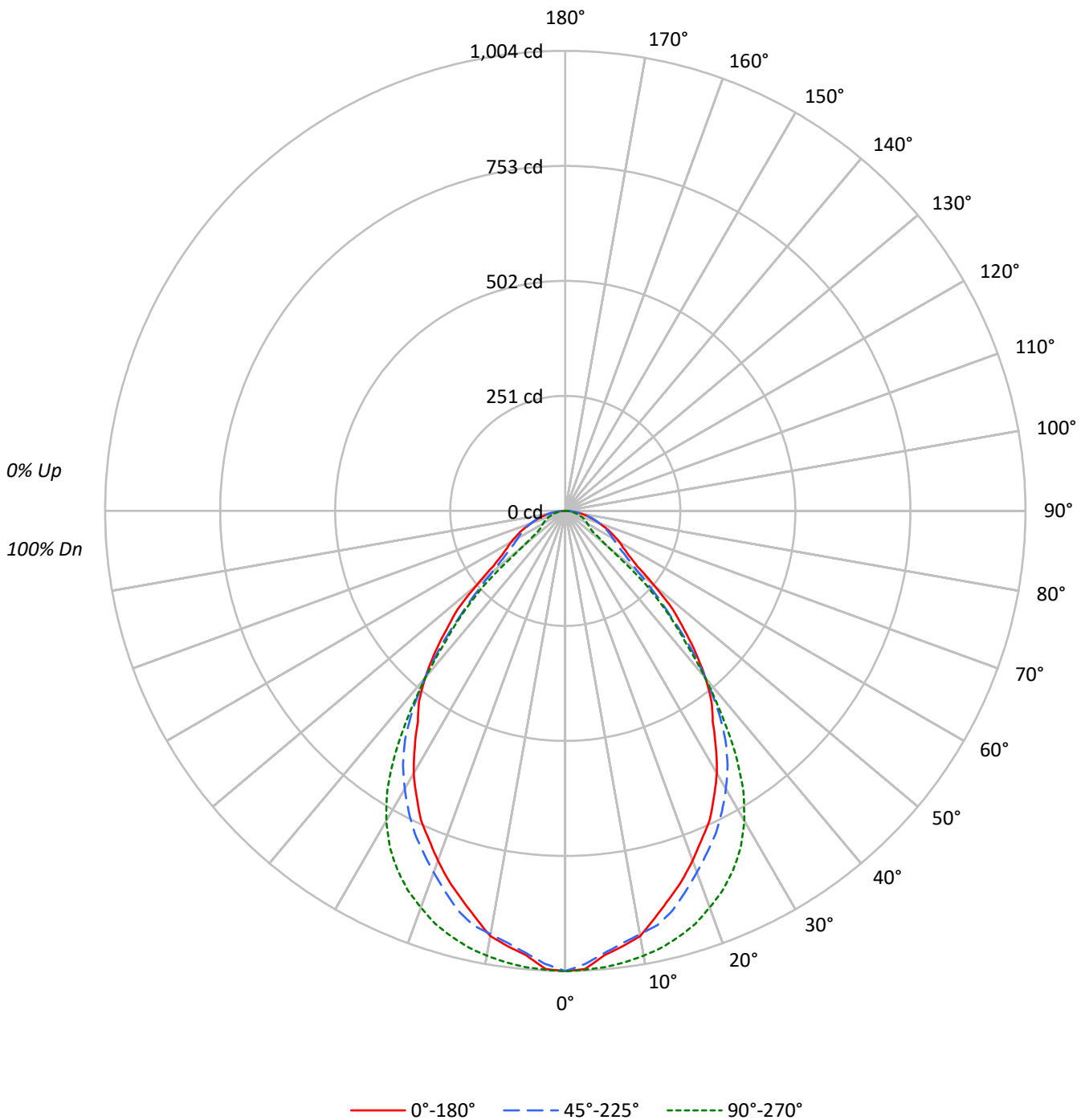
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1630.0 lumens
Efficiency: N/A
Efficacy: 118.1 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7146	7146	7146
5°	6953	6921	7138
10°	6806	6775	7121
15°	6454	6652	7082
20°	6148	6356	6973
25°	5849	6098	6795
30°	5434	5757	6416
35°	4872	5291	5628
40°	4414	4424	4400
45°	3691	3269	3188
50°	2788	2301	1304
55°	2096	1840	822
60°	1948	1695	793
65°	1813	1690	793
70°	1658	1658	780
75°	1572	1616	753
80°	1455	1528	774
85°	1265	1331	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 3776 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	5.7
10°-20°	255.6	15.7
20°-30°	362.5	22.2
30°-40°	373.4	22.9
40°-50°	260.8	16.0
50°-60°	125.2	7.7
60°-70°	87.8	5.4
70°-80°	54.9	3.4
80°-90°	17.0	1.0
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°	710.9	43.6
0°-40°	1084.3	66.5
0°-60°	1470.3	90.2
0°-90°	1630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1630.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	974	972	969	994	999	92
15°	876	883	903	929	961	247
25°	745	752	777	829	866	341
35°	561	576	609	622	648	353
45°	367	375	325	308	317	283
55°	169	161	148	95	66	158
65°	108	101	100	76	47	107
75°	57	56	59	51	27	60
85°	16	16	16	16	10	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1004.3	1004.3	1004.3	1004.3	1004.3
2.5°	1000.5	997.3	989.8	1003.6	1002.5
5°	973.5	972.2	969.1	994.5	999.4
7.5°	958.3	955.7	952.0	980.0	993.7
10°	942.0	945.1	937.8	963.4	985.7
12.5°	908.3	916.6	926.4	946.4	975.9
15°	876.2	882.7	903.1	929.0	961.4
17.5°	846.2	853.7	871.3	910.1	944.5
20°	812.0	822.4	839.4	889.1	921.0
22.5°	776.8	786.4	807.9	861.2	896.7
25°	745.0	752.5	776.8	829.4	865.6
27.5°	702.8	716.8	739.8	790.5	828.6
30°	661.4	673.3	700.7	743.4	780.9
32.5°	611.4	628.7	659.0	691.6	723.0
35°	560.9	576.2	609.1	621.8	647.9
37.5°	524.2	528.3	546.9	545.4	560.2
40°	475.2	483.5	476.3	456.9	473.7
42.5°	422.4	432.3	403.0	380.5	386.5
45°	366.8	375.3	324.9	308.3	316.8
47.5°	318.6	317.9	262.0	250.8	238.9
50°	251.9	260.1	207.9	187.1	117.8
52.5°	196.7	199.8	171.4	119.6	77.4
55°	169.0	160.7	148.3	95.0	66.3
57.5°	150.1	139.8	131.5	88.3	60.6
60°	136.9	125.3	119.1	83.9	55.7
62.5°	121.9	112.9	110.5	80.0	51.3
65°	107.7	100.7	100.4	76.4	47.1
67.5°	93.4	89.6	90.6	72.0	42.5
70°	79.7	78.9	79.7	66.3	37.5
72.5°	68.1	67.3	69.4	59.0	32.1
75°	57.2	56.4	58.8	50.7	27.4
77.5°	45.6	46.1	47.6	42.2	23.0
80°	35.5	35.5	37.3	33.1	18.9
82.5°	25.4	25.6	26.7	24.3	14.8
85°	15.5	15.5	16.3	16.0	10.4
87.5°	5.2	6.0	7.0	7.5	5.2
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	12.48	13.83	12.84	14.15	14.46	8.81	10.17	9.18	10.48	10.80
	3H	14.22	15.42	14.60	15.75	16.12	10.79	12.00	11.17	12.33	12.69
	4H	14.89	16.02	15.29	16.37	16.75	11.49	12.62	11.90	12.97	13.35
	6H	15.40	16.43	15.81	16.80	17.20	12.02	13.05	12.43	13.42	13.82
	8H	15.57	16.55	16.00	16.94	17.35	12.20	13.19	12.63	13.58	13.98
	12H	15.68	16.62	16.11	17.00	17.43	12.34	13.28	12.77	13.67	14.10
4H	2H	13.01	14.14	13.41	14.49	14.87	10.43	11.56	10.84	11.91	12.29
	3H	14.99	15.92	15.40	16.32	16.72	12.61	13.54	13.03	13.95	14.35
	4H	15.79	16.62	16.22	17.04	17.48	13.49	14.33	13.93	14.75	15.19
	6H	16.43	17.16	16.89	17.60	18.07	14.13	14.86	14.60	15.30	15.77
	8H	16.65	17.33	17.12	17.78	18.25	14.34	15.02	14.81	15.47	15.94
	12H	16.81	17.41	17.29	17.89	18.36	14.50	15.10	14.99	15.58	16.06
8H	4H	16.07	16.75	16.54	17.20	17.67	14.14	14.82	14.61	15.26	15.73
	6H	16.86	17.41	17.36	17.91	18.39	15.00	15.56	15.50	16.05	16.53
	8H	17.16	17.66	17.68	18.17	18.66	15.33	15.83	15.85	16.34	16.83
	12H	17.39	17.83	17.91	18.33	18.90	15.59	16.03	16.11	16.53	17.10
12H	4H	16.09	16.69	16.57	17.17	17.64	14.21	14.81	14.70	15.29	15.77
	6H	16.91	17.41	17.43	17.92	18.41	15.14	15.64	15.66	16.15	16.64
	8H	17.27	17.71	17.79	18.21	18.78	15.55	15.99	16.07	16.49	17.06