

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: P893312

Luminaire Tested: 4MB-2SL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893312
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-L950
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

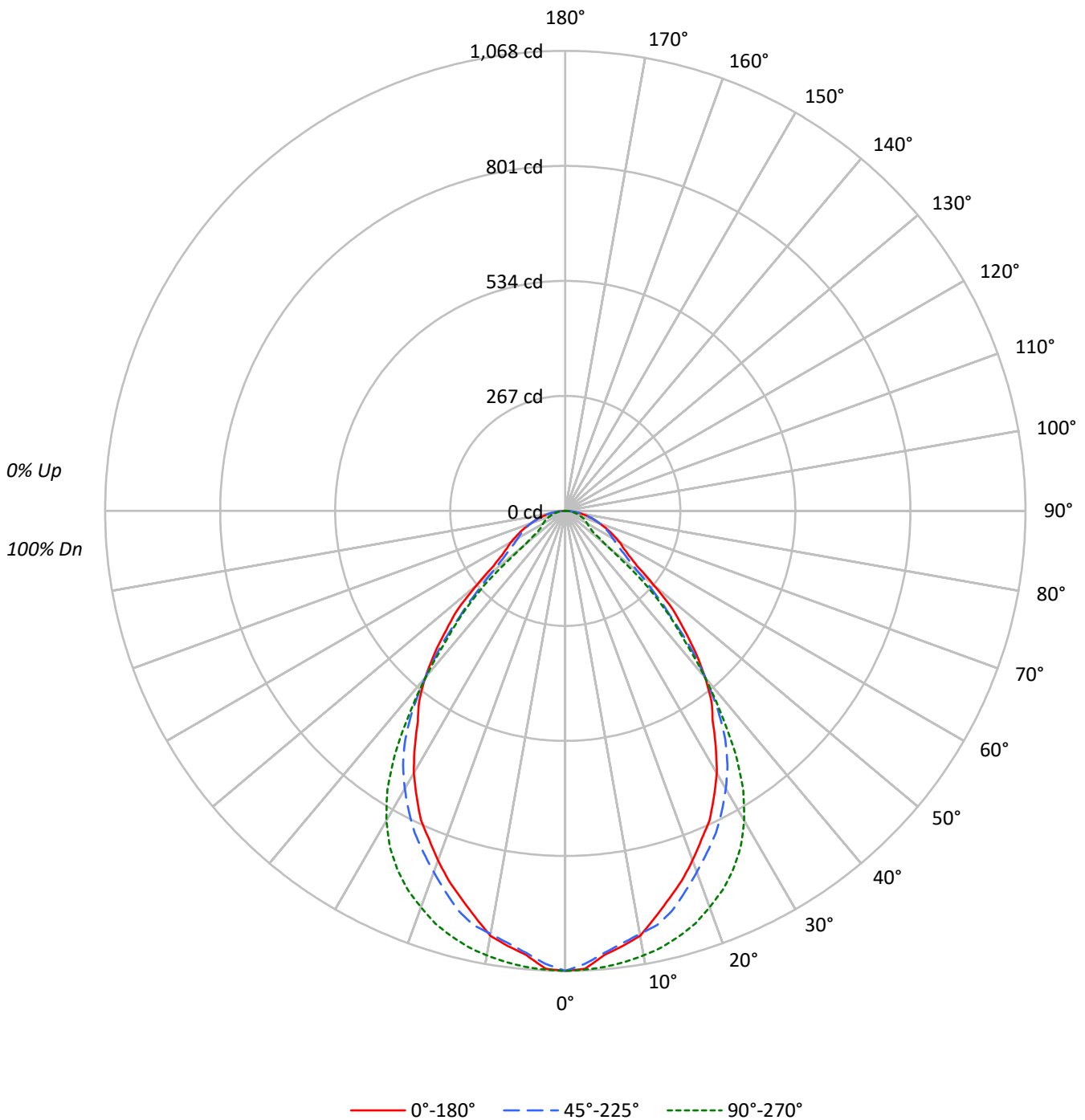
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1733.0 lumens
Efficiency: N/A
Efficacy: 125.6 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°	7597	7597	7597
5°	7393	7359	7589
10°	7236	7204	7572
15°	6862	7073	7529
20°	6537	6758	7414
25°	6218	6484	7225
30°	5777	6121	6821
35°	5180	5625	5983
40°	4693	4703	4677
45°	3924	3475	3390
50°	2964	2446	1386
55°	2229	1956	875
60°	2072	1802	842
65°	1928	1798	843
70°	1764	1764	830
75°	1671	1718	803
80°	1545	1623	824
85°	1347	1412	898

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 4015 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	5.7
10°-20°	271.8	15.7
20°-30°	385.4	22.2
30°-40°	397.0	22.9
40°-50°	277.3	16.0
50°-60°	133.1	7.7
60°-70°	93.4	5.4
70°-80°	58.4	3.4
80°-90°	18.0	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°	755.8	43.6
0°-40°	1152.8	66.5
0°-60°	1563.2	90.2
0°-90°	1733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1733.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1035	1034	1030	1057	1063	98
15°	932	938	960	988	1022	262
25°	792	800	826	882	920	362
35°	596	613	648	661	689	376
45°	390	399	345	328	337	300
55°	180	171	158	101	70	168
65°	114	107	107	81	50	113
75°	61	60	62	54	29	64
85°	16	16	17	17	11	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1067.8	1067.8	1067.8	1067.8	1067.8
2.5°	1063.7	1060.4	1052.4	1067.0	1065.9
5°	1035.1	1033.7	1030.4	1057.3	1062.6
7.5°	1018.8	1016.1	1012.2	1041.9	1056.5
10°	1001.5	1004.8	997.1	1024.3	1048.0
12.5°	965.7	974.5	985.0	1006.2	1037.5
15°	931.6	938.5	960.2	987.7	1022.1
17.5°	899.6	907.6	926.3	967.6	1004.2
20°	863.3	874.3	892.5	945.3	979.2
22.5°	825.9	836.1	858.9	915.6	953.3
25°	792.0	800.0	825.9	881.8	920.3
27.5°	747.2	762.0	786.5	840.5	880.9
30°	703.2	715.8	745.0	790.4	830.3
32.5°	650.0	668.5	700.7	735.4	768.7
35°	596.4	612.6	647.6	661.0	688.8
37.5°	557.3	561.7	581.5	579.9	595.5
40°	505.3	514.1	506.4	485.7	503.6
42.5°	449.1	459.6	428.5	404.6	410.9
45°	390.0	399.0	345.4	327.8	336.9
47.5°	338.8	338.0	278.5	266.7	254.0
50°	267.8	276.6	221.0	199.0	125.2
52.5°	209.2	212.5	182.2	127.1	82.3
55°	179.7	170.9	157.7	101.0	70.5
57.5°	159.6	148.6	139.8	93.8	64.4
60°	145.6	133.2	126.6	89.2	59.2
62.5°	129.6	120.0	117.5	85.0	54.5
65°	114.5	107.1	106.8	81.2	50.1
67.5°	99.3	95.2	96.3	76.5	45.1
70°	84.8	83.9	84.8	70.5	39.9
72.5°	72.4	71.6	73.8	62.7	34.1
75°	60.8	60.0	62.5	53.9	29.2
77.5°	48.4	49.0	50.6	44.9	24.5
80°	37.7	37.7	39.6	35.2	20.1
82.5°	27.0	27.2	28.3	25.9	15.7
85°	16.5	16.5	17.3	17.1	11.0
87.5°	5.5	6.3	7.4	8.0	5.5
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	12.69	14.05	13.06	14.36	14.67	9.02	10.38	9.39	10.69	11.00
	3H	14.43	15.64	14.81	15.97	16.33	11.00	12.21	11.38	12.54	12.90
	4H	15.10	16.23	15.50	16.58	16.96	11.70	12.83	12.11	13.18	13.56
	6H	15.61	16.65	16.02	17.02	17.41	12.23	13.27	12.64	13.63	14.03
	8H	15.78	16.76	16.21	17.16	17.56	12.41	13.40	12.84	13.79	14.19
	12H	15.89	16.83	16.32	17.21	17.64	12.55	13.49	12.98	13.88	14.31
4H	2H	13.22	14.35	13.62	14.70	15.08	10.65	11.77	11.05	12.12	12.51
	3H	15.20	16.13	15.61	16.53	16.94	12.82	13.75	13.24	14.16	14.56
	4H	16.00	16.84	16.44	17.26	17.70	13.70	14.54	14.14	14.96	15.40
	6H	16.64	17.37	17.11	17.81	18.28	14.35	15.07	14.81	15.52	15.98
	8H	16.86	17.54	17.33	17.99	18.46	14.56	15.23	15.02	15.68	16.15
	12H	17.02	17.62	17.50	18.10	18.57	14.71	15.31	15.20	15.80	16.27
8H	4H	16.29	16.96	16.75	17.41	17.88	14.35	15.03	14.82	15.48	15.95
	6H	17.07	17.62	17.57	18.12	18.60	15.21	15.77	15.71	16.26	16.74
	8H	17.37	17.87	17.89	18.38	18.87	15.54	16.04	16.06	16.56	17.05
	12H	17.60	18.05	18.12	18.54	19.11	15.81	16.25	16.32	16.74	17.31
12H	4H	16.30	16.90	16.79	17.38	17.86	14.42	15.03	14.91	15.51	15.98
	6H	17.12	17.62	17.64	18.13	18.63	15.35	15.85	15.87	16.36	16.86
	8H	17.48	17.93	18.00	18.42	18.99	15.76	16.21	16.28	16.70	17.27