

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: P893308

Luminaire Tested: 4MB-2SL-LVRA-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893308
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-L850
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

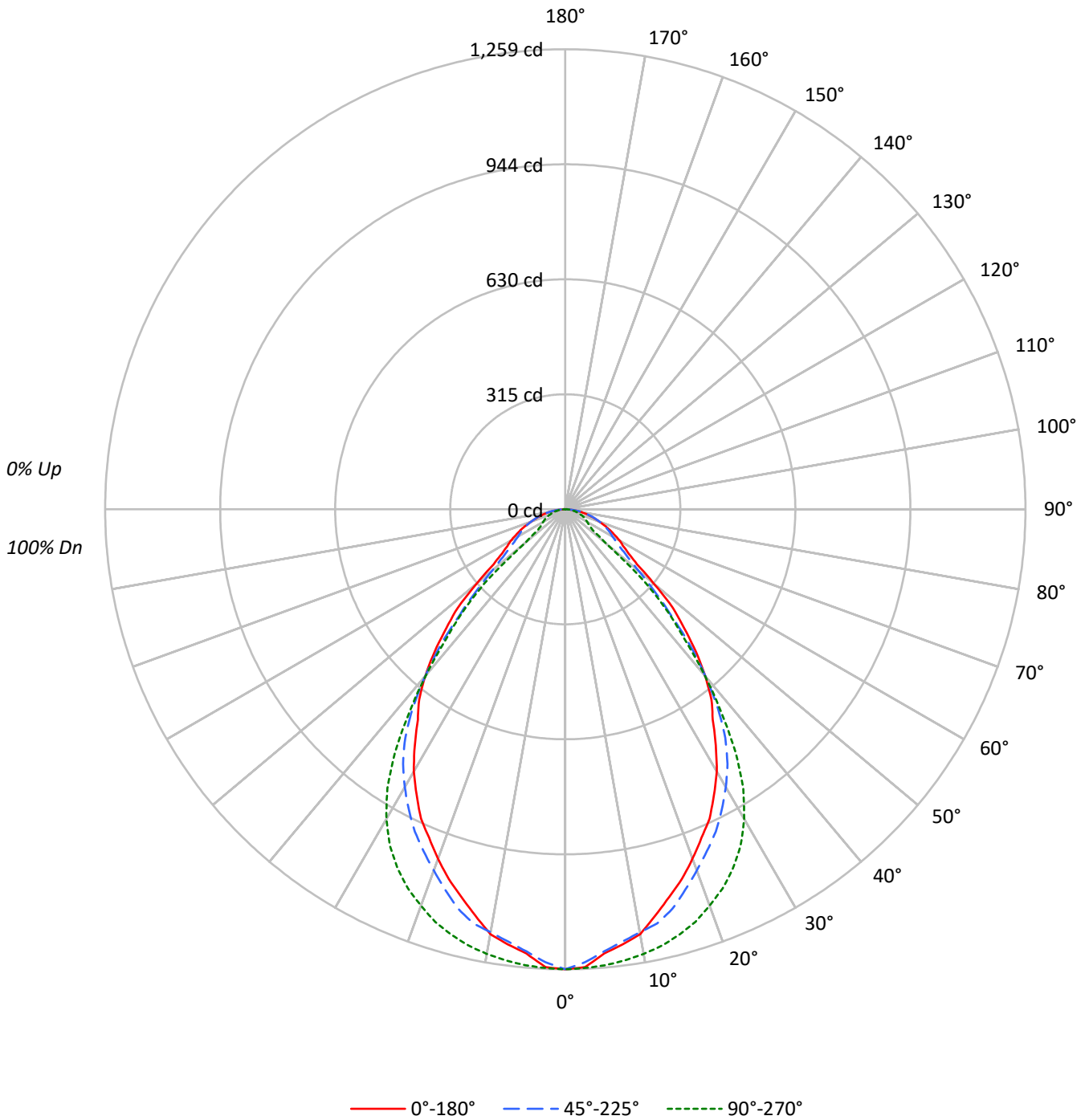
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2043.0 lumens
Efficiency: N/A
Efficacy: 148.0 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°	8956	8956	8956
5°	8715	8676	8946
10°	8530	8492	8926
15°	8089	8338	8876
20°	7706	7966	8740
25°	7330	7643	8517
30°	6810	7215	8042
35°	6107	6631	7054
40°	5533	5545	5514
45°	4626	4097	3996
50°	3494	2883	1634
55°	2629	2306	1031
60°	2442	2123	993
65°	2273	2120	993
70°	2078	2078	978
75°	1971	2023	946
80°	1819	1913	971
85°	1592	1665	1061

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 4733 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	5.7
10°-20°	320.4	15.7
20°-30°	454.3	22.2
30°-40°	468.1	22.9
40°-50°	326.9	16.0
50°-60°	156.9	7.7
60°-70°	110.1	5.4
70°-80°	68.8	3.4
80°-90°	21.3	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°	891.0	43.6
0°-40°	1359.1	66.5
0°-60°	1842.9	90.2
0°-90°	2043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1259	1259	1259	1259	1259	
5°	1220	1219	1215	1246	1253	115
15°	1098	1106	1132	1164	1205	309
25°	934	943	974	1040	1085	427
35°	703	722	763	779	812	443
45°	460	470	407	386	397	354
55°	212	202	186	119	83	199
65°	135	126	126	96	59	134
75°	72	71	74	64	34	75
85°	20	20	20	20	13	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1258.8	1258.8	1258.8	1258.8	1258.8
2.5°	1253.9	1250.0	1240.6	1257.8	1256.5
5°	1220.2	1218.6	1214.7	1246.5	1252.6
7.5°	1201.1	1197.8	1193.3	1228.3	1245.5
10°	1180.6	1184.5	1175.4	1207.5	1235.5
12.5°	1138.4	1148.8	1161.2	1186.1	1223.1
15°	1098.2	1106.3	1132.0	1164.4	1205.0
17.5°	1060.6	1070.0	1092.0	1140.7	1183.9
20°	1017.8	1030.7	1052.1	1114.4	1154.3
22.5°	973.6	985.6	1012.6	1079.4	1123.8
25°	933.7	943.1	973.6	1039.5	1084.9
27.5°	880.8	898.4	927.2	990.8	1038.5
30°	828.9	843.9	878.2	931.8	978.8
32.5°	766.3	788.1	826.0	866.9	906.1
35°	703.1	722.2	763.4	779.3	812.1
37.5°	657.0	662.2	685.5	683.6	702.1
40°	595.7	606.0	597.0	572.6	593.7
42.5°	529.5	541.8	505.1	476.9	484.4
45°	459.7	470.4	407.2	386.4	397.1
47.5°	399.4	398.4	328.3	314.4	299.5
50°	315.7	326.1	260.5	234.6	147.6
52.5°	246.6	250.5	214.8	149.9	97.0
55°	211.9	201.5	185.9	119.1	83.1
57.5°	188.2	175.2	164.8	110.6	75.9
60°	171.6	157.0	149.2	105.1	69.8
62.5°	152.8	141.5	138.5	100.3	64.2
65°	135.0	126.2	125.9	95.7	59.0
67.5°	117.1	112.3	113.6	90.2	53.2
70°	99.9	99.0	99.9	83.1	47.0
72.5°	85.3	84.4	86.9	74.0	40.2
75°	71.7	70.7	73.6	63.6	34.4
77.5°	57.1	57.7	59.7	52.9	28.9
80°	44.4	44.4	46.7	41.5	23.7
82.5°	31.8	32.1	33.4	30.5	18.5
85°	19.5	19.5	20.4	20.1	13.0
87.5°	6.5	7.5	8.8	9.4	6.5
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	13.26	14.62	13.63	14.93	15.25	9.59	10.95	9.96	11.26	11.58
	3H	15.00	16.21	15.38	16.54	16.90	11.57	12.78	11.95	13.11	13.47
	4H	15.67	16.80	16.08	17.15	17.53	12.28	13.40	12.68	13.75	14.14
	6H	16.18	17.22	16.59	17.59	17.98	12.80	13.84	13.21	14.21	14.60
	8H	16.35	17.34	16.78	17.73	18.13	12.98	13.97	13.41	14.36	14.77
	12H	16.46	17.40	16.89	17.79	18.22	13.12	14.07	13.56	14.45	14.88
4H	2H	13.79	14.92	14.20	15.27	15.65	11.22	12.34	11.62	12.70	13.08
	3H	15.77	16.70	16.18	17.11	17.51	13.40	14.33	13.81	14.73	15.13
	4H	16.57	17.41	17.01	17.83	18.27	14.28	15.11	14.71	15.53	15.97
	6H	17.22	17.94	17.68	18.39	18.85	14.92	15.64	15.38	16.09	16.55
	8H	17.44	18.11	17.90	18.56	19.03	15.13	15.80	15.60	16.25	16.72
	12H	17.59	18.19	18.08	18.67	19.15	15.29	15.89	15.77	16.37	16.84
8H	4H	16.86	17.53	17.33	17.98	18.45	14.92	15.60	15.39	16.05	16.52
	6H	17.64	18.20	18.14	18.69	19.17	15.79	16.34	16.29	16.84	17.32
	8H	17.94	18.44	18.46	18.95	19.45	16.11	16.61	16.63	17.13	17.62
	12H	18.18	18.62	18.69	19.11	19.68	16.38	16.82	16.89	17.31	17.88
12H	4H	16.87	17.47	17.36	17.96	18.43	15.00	15.60	15.48	16.08	16.55
	6H	17.69	18.19	18.21	18.71	19.20	15.92	16.42	16.44	16.94	17.43
	8H	18.06	18.50	18.57	18.99	19.56	16.34	16.78	16.85	17.27	17.84