

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: P893236

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893236
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-A-UNV-L850
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

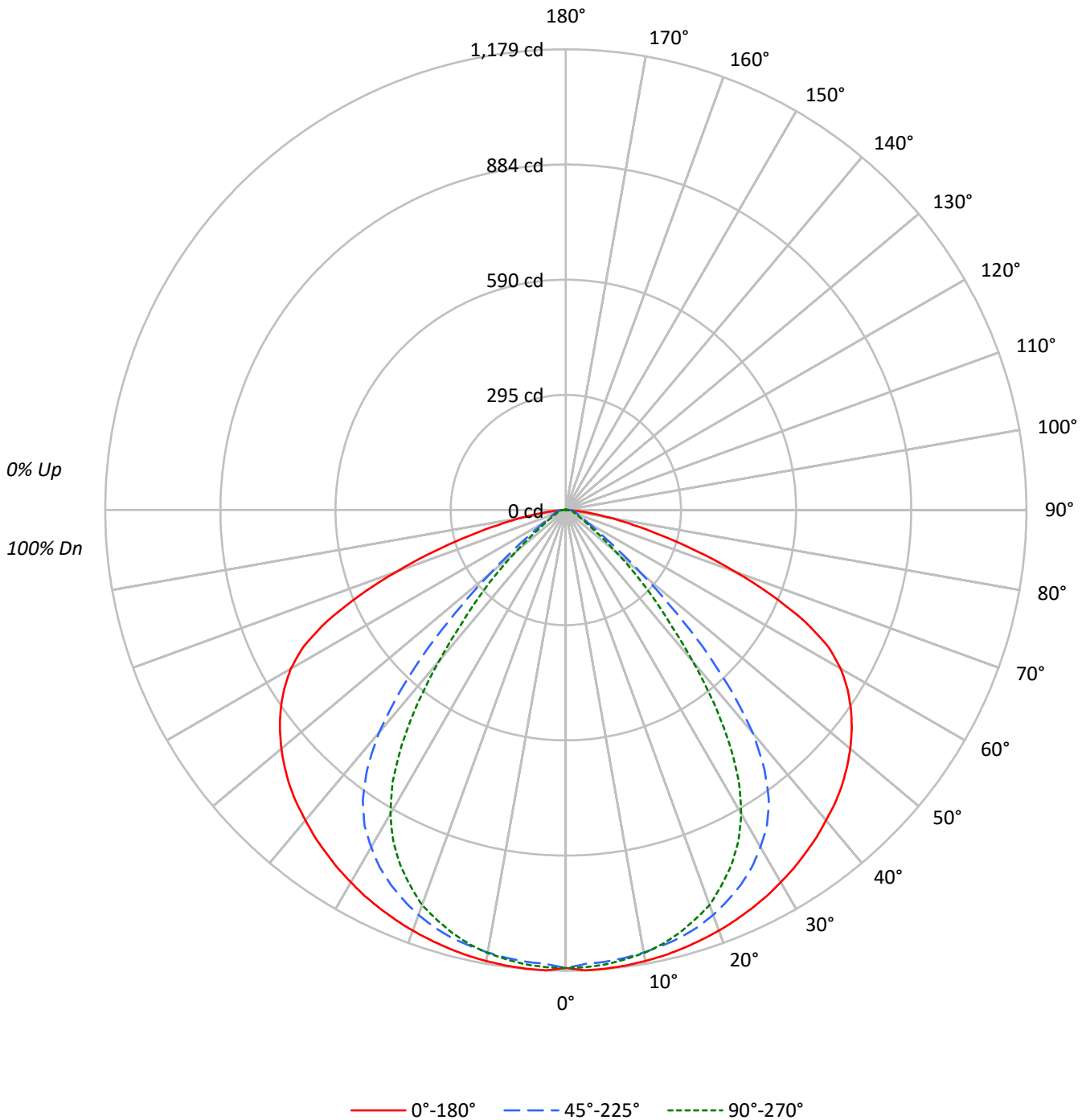
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2402.9 lumens
Efficiency: N/A
Efficacy: 174.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' 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	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11938	11938	11938
5°	12044	11865	11934
10°	12119	11890	11908
15°	12240	11943	11819
20°	12413	11952	11660
25°	12644	11900	11266
30°	12938	11714	10558
35°	13308	11263	9077
40°	13781	9892	6710
45°	14388	7138	4512
50°	15058	3988	2693
55°	15826	2061	1474
60°	16555	1340	1043
65°	16273	1101	829
70°	13724	1015	771
75°	10097	1035	830
80°	6733	1220	1044
85°	3681	1975	1589

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 16698 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	4.6
10°-20°	321.7	13.4
20°-30°	489.3	20.4
30°-40°	558.8	23.3
40°-50°	450.8	18.8
50°-60°	246.7	10.3
60°-70°	130.1	5.4
70°-80°	63.8	2.7
80°-90°	22.5	0.9
90°-100°	4.8	0.2
100°-110°	0.6	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	922.3	38.4
0°-40°	1481.1	61.6
0°-60°	2178.6	90.7
0°-90°	2395.0	99.7
90°-120°	5.9	0.2
90°-150°	7.0	0.3
90°-180°	8.0	0.3
0°-180°	2402.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1178	1174	1161	1171	1167	112
15°	1161	1154	1133	1131	1121	328
25°	1125	1109	1059	1023	1003	520
35°	1070	1025	906	783	730	671
45°	999	858	496	339	313	771
55°	891	367	116	90	83	795
65°	675	85	46	37	34	653
75°	257	48	26	22	21	283
85°	32	25	17	15	14	43
90°	1	13	10	9	8	2
95°	1	2	4	6	5	1
105°	0	0	0	1	1	0
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	2	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1172.2	1172.2	1172.2	1172.2	1172.2
2.5°	1179.4	1176.1	1162.8	1174.2	1170.9
5°	1178.1	1174.5	1160.6	1170.9	1167.4
7.5°	1175.8	1171.3	1156.0	1165.4	1159.9
10°	1171.9	1167.4	1149.8	1157.3	1151.5
12.5°	1167.4	1161.2	1141.7	1145.6	1138.2
15°	1160.9	1153.7	1132.7	1130.7	1121.0
17.5°	1153.7	1145.0	1119.4	1110.9	1099.2
20°	1145.3	1134.6	1102.8	1086.3	1075.9
22.5°	1135.9	1122.0	1082.1	1056.8	1040.5
25°	1125.2	1109.0	1059.0	1023.0	1002.6
27.5°	1113.8	1091.8	1031.1	983.8	956.2
30°	1100.2	1073.6	996.1	932.2	897.8
32.5°	1086.6	1050.9	958.5	865.7	824.8
35°	1070.4	1025.3	905.9	782.7	730.1
37.5°	1055.1	994.5	834.9	678.6	622.1
40°	1036.6	958.2	744.1	558.9	504.7
42.5°	1019.1	916.0	626.3	443.4	396.4
45°	999.0	858.3	495.6	338.6	313.3
47.5°	975.7	779.4	360.4	252.0	236.1
50°	950.4	671.1	251.7	182.9	170.0
52.5°	922.5	524.8	169.6	127.1	120.0
55°	891.3	366.8	116.1	89.8	83.0
57.5°	855.3	238.7	84.3	67.8	63.2
60°	812.8	152.4	65.8	53.8	51.2
62.5°	757.1	107.0	54.2	44.4	42.2
65°	675.3	84.7	45.7	37.0	34.4
67.5°	571.8	71.7	39.2	31.1	29.5
70°	460.9	62.3	34.1	26.9	25.9
72.5°	354.2	54.5	29.5	24.0	23.4
75°	256.6	47.7	26.3	22.1	21.1
77.5°	177.7	41.2	23.4	19.8	19.1
80°	114.8	35.7	20.8	18.2	17.8
82.5°	65.8	29.8	18.8	17.5	17.2
85°	31.5	25.0	16.9	15.2	13.6
87.5°	10.1	18.5	13.3	11.7	10.4
90°	1.3	13.0	10.4	9.1	8.4
92.5°	1.3	7.1	7.5	7.5	7.1
95°	1.0	1.6	3.6	5.5	5.2
97.5°	1.0	0.6	2.3	3.9	3.9
100°	0.6	0.3	1.0	2.6	2.6
102.5°	0.6	0.3	0.3	1.6	1.6
105°	0.3	0.0	0.3	0.6	0.6
107.5°	0.3	0.3	0.3	0.6	0.3
110°	0.3	0.3	0.3	0.6	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.3	0.3	0.3	0.6	0.3
115°	0.3	0.3	0.3	0.6	0.3
117.5°	0.3	0.3	0.3	0.6	0.3
120°	0.3	0.3	0.3	0.6	0.3
122.5°	0.3	0.3	0.3	0.6	0.3
125°	0.3	0.3	0.3	0.6	0.3
127.5°	0.3	0.3	0.3	0.6	0.3
130°	0.3	0.3	0.6	0.6	0.3
132.5°	0.3	0.3	0.6	0.6	0.3
135°	0.3	0.3	0.6	0.6	0.3
137.5°	0.3	0.3	0.6	0.6	0.6
140°	0.6	0.3	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	1.0	0.6
145°	0.6	0.6	0.6	1.0	0.6
147.5°	0.6	0.6	1.0	1.0	0.6
150°	0.6	0.6	1.0	1.0	0.6
152.5°	0.6	0.6	1.0	1.0	1.0
155°	0.6	0.6	1.0	1.3	1.0
157.5°	0.6	0.6	1.0	1.3	1.0
160°	0.6	1.0	1.3	1.3	1.0
162.5°	0.6	1.0	1.3	1.3	1.3
165°	0.6	1.0	1.3	1.3	1.3
167.5°	1.0	1.0	1.3	1.6	1.3
170°	1.0	1.0	1.3	1.6	1.3
172.5°	1.0	1.0	1.3	1.6	1.3
175°	1.0	1.0	1.3	1.6	1.3
177.5°	1.0	1.0	1.3	1.6	1.6
180°	1.3	1.3	1.3	1.3	1.3



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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	18.52	19.92	18.89	20.24	20.56	7.04	8.44	7.41	8.76	9.08
	3H	21.43	22.68	21.82	23.01	23.39	7.97	9.21	8.35	9.55	9.92
	4H	22.33	23.49	22.73	23.85	24.23	8.49	9.65	8.90	10.01	10.40
	6H	22.82	23.89	23.24	24.27	24.67	9.12	10.19	9.54	10.57	10.97
	8H	22.93	23.95	23.37	24.35	24.76	9.54	10.56	9.97	10.95	11.37
	12H	22.98	23.95	23.42	24.34	24.78	9.99	10.96	10.42	11.35	11.79
4H	2H	18.34	19.50	18.74	19.86	20.24	7.55	8.72	7.96	9.07	9.46
	3H	21.27	22.22	21.68	22.63	23.04	8.75	9.70	9.16	10.11	10.52
	4H	22.17	23.02	22.61	23.45	23.90	9.41	10.27	9.85	10.69	11.14
	6H	22.76	23.50	23.23	23.95	24.43	10.24	10.98	10.70	11.43	11.90
	8H	22.92	23.62	23.40	24.07	24.54	10.77	11.46	11.24	11.91	12.39
	12H	23.01	23.63	23.50	24.12	24.60	11.35	11.96	11.84	12.45	12.93
8H	4H	22.06	22.75	22.53	23.20	23.68	10.01	10.70	10.48	11.15	11.63
	6H	22.66	23.23	23.16	23.73	24.22	11.01	11.58	11.52	12.08	12.57
	8H	22.85	23.36	23.37	23.88	24.38	11.69	12.20	12.21	12.72	13.22
	12H	22.99	23.45	23.51	23.95	24.52	12.45	12.90	12.97	13.40	13.98
12H	4H	22.02	22.64	22.51	23.12	23.60	10.27	10.88	10.76	11.37	11.85
	6H	22.61	23.12	23.13	23.64	24.14	11.32	11.83	11.84	12.35	12.85
	8H	22.82	23.28	23.34	23.78	24.35	12.08	12.54	12.60	13.04	13.62