

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: P893240

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893240
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-L950
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

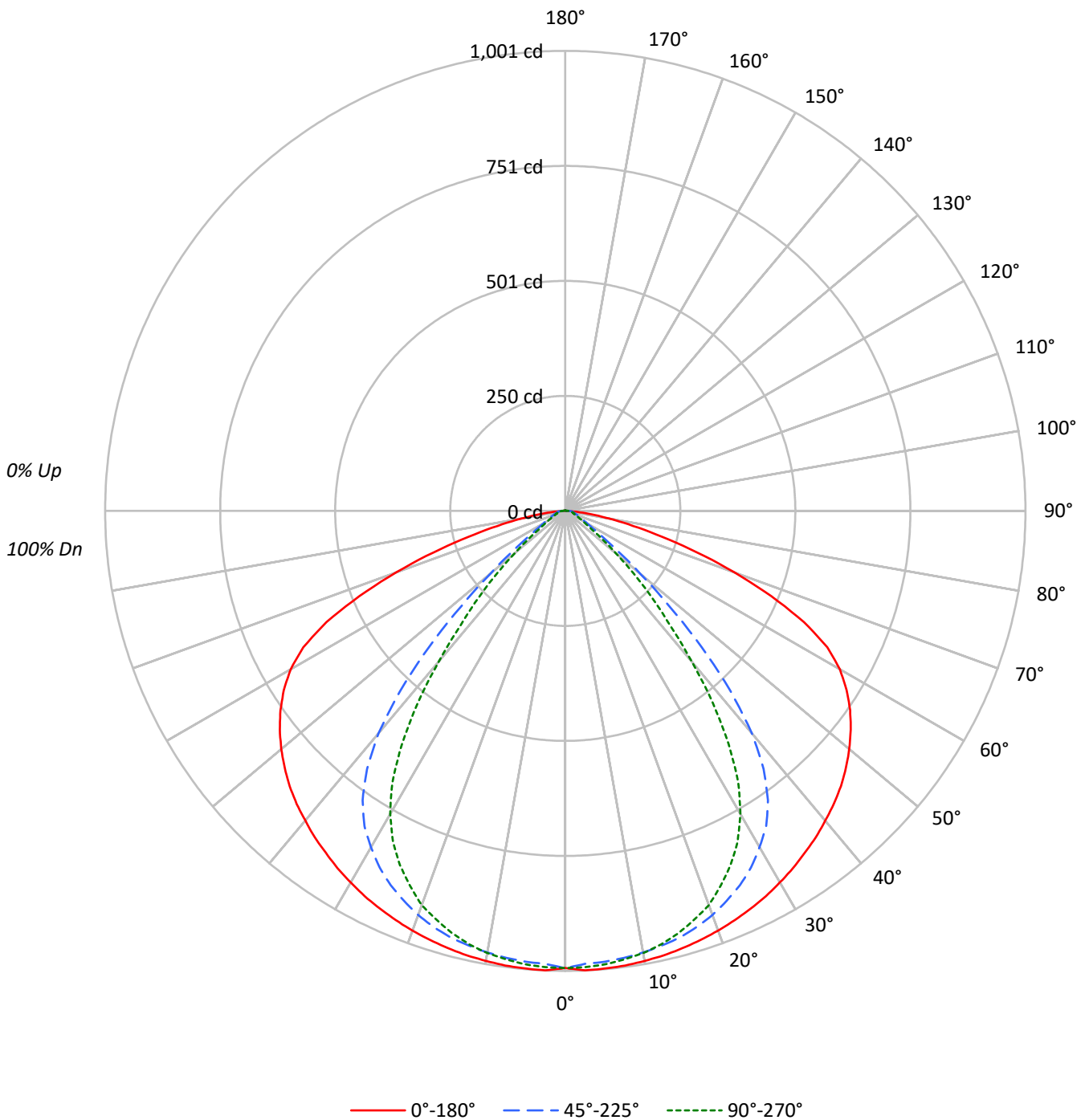
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2039.1 lumens
Efficiency: N/A
Efficacy: 147.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 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

TEST NUMBER: P893240
CATALOG NUMBER: 4MB-2SL-A-UNV-L950

Luminous Intensity Polar Plot





TEST NUMBER: P893240

CATALOG NUMBER: 4MB-2SL-A-UNV-L950

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	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10130	10130	10130
5°	10219	10068	10126
10°	10283	10090	10103
15°	10385	10133	10029
20°	10532	10142	9894
25°	10729	10098	9559
30°	10979	9939	8959
35°	11291	9557	7702
40°	11694	8394	5693
45°	12209	6056	3830
50°	12776	3384	2285
55°	13429	1749	1252
60°	14048	1139	886
65°	13808	935	704
70°	11646	861	655
75°	8566	877	704
80°	5712	1032	886
85°	3120	1671	1355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 14169 cd/sqm



TEST NUMBER: P893240
 CATALOG NUMBER: 4MB-2SL-A-UNV-L950

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	4.6
10°-20°	272.9	13.4
20°-30°	415.2	20.4
30°-40°	474.2	23.3
40°-50°	382.5	18.8
50°-60°	209.4	10.3
60°-70°	110.4	5.4
70°-80°	54.1	2.7
80°-90°	19.1	0.9
90°-100°	4.1	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°	782.5	38.4
0°-40°	1256.7	61.6
0°-60°	1848.6	90.7
0°-90°	2032.2	99.7
90°-120°	5.1	0.2
90°-150°	6.2	0.3
90°-180°	7.0	0.3
0°-180°	2039.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	1000	997	985	994	990	95
15°	985	979	961	959	951	279
25°	955	941	899	868	851	441
35°	908	870	769	664	620	570
45°	848	728	420	287	266	654
55°	756	311	98	76	70	675
65°	573	72	39	31	29	554
75°	218	40	22	19	18	240
85°	27	21	14	13	12	37
90°	1	11	9	8	7	2
95°	1	1	3	5	4	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	1	1	0
180°	1	1	1	1	1	



TEST NUMBER: P893240

CATALOG NUMBER: 4MB-2SL-A-UNV-L950

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	994.7	994.7	994.7	994.7	994.7
2.5°	1000.7	998.0	986.7	996.3	993.6
5°	999.6	996.6	984.8	993.6	990.5
7.5°	997.7	993.8	980.9	988.9	984.2
10°	994.4	990.5	975.7	982.0	977.0
12.5°	990.5	985.3	968.8	972.1	965.8
15°	985.0	979.0	961.1	959.4	951.2
17.5°	979.0	971.5	949.8	942.6	932.7
20°	971.8	962.7	935.8	921.7	912.9
22.5°	963.8	952.0	918.1	896.7	882.9
25°	954.8	941.0	898.6	868.1	850.7
27.5°	945.1	926.4	874.9	834.8	811.4
30°	933.6	911.0	845.2	791.0	761.8
32.5°	922.0	891.7	813.3	734.6	699.9
35°	908.2	870.0	768.7	664.1	619.5
37.5°	895.3	843.8	708.4	575.8	527.9
40°	879.6	813.0	631.4	474.2	428.2
42.5°	864.8	777.2	531.5	376.2	336.3
45°	847.7	728.2	420.5	287.3	265.9
47.5°	827.9	661.4	305.8	213.8	200.4
50°	806.4	569.4	213.6	155.2	144.2
52.5°	782.7	445.3	143.9	107.9	101.8
55°	756.3	311.3	98.5	76.2	70.5
57.5°	725.8	202.6	71.6	57.5	53.7
60°	689.7	129.4	55.9	45.7	43.5
62.5°	642.4	90.8	46.0	37.7	35.8
65°	573.0	71.8	38.8	31.4	29.2
67.5°	485.2	60.8	33.3	26.4	25.0
70°	391.1	52.8	28.9	22.8	22.0
72.5°	300.5	46.2	25.0	20.4	19.8
75°	217.7	40.5	22.3	18.7	17.9
77.5°	150.8	35.0	19.8	16.8	16.2
80°	97.4	30.3	17.6	15.4	15.1
82.5°	55.9	25.3	16.0	14.9	14.6
85°	26.7	21.2	14.3	12.9	11.6
87.5°	8.5	15.7	11.3	9.9	8.8
90°	1.1	11.0	8.8	7.7	7.2
92.5°	1.1	6.1	6.3	6.3	6.1
95°	0.8	1.4	3.0	4.7	4.4
97.5°	0.8	0.6	1.9	3.3	3.3
100°	0.6	0.3	0.8	2.2	2.2
102.5°	0.6	0.3	0.3	1.4	1.4
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



TEST NUMBER: P893240

CATALOG NUMBER: 4MB-2SL-A-UNV-L950

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	0.8	0.6
145°	0.6	0.6	0.6	0.8	0.6
147.5°	0.6	0.6	0.8	0.8	0.6
150°	0.6	0.6	0.8	0.8	0.6
152.5°	0.6	0.6	0.8	0.8	0.8
155°	0.6	0.6	0.8	1.1	0.8
157.5°	0.6	0.6	0.8	1.1	0.8
160°	0.6	0.8	1.1	1.1	0.8
162.5°	0.6	0.8	1.1	1.1	1.1
165°	0.6	0.8	1.1	1.1	1.1
167.5°	0.8	0.8	1.1	1.4	1.1
170°	0.8	0.8	1.1	1.4	1.1
172.5°	0.8	0.8	1.1	1.4	1.1
175°	0.8	0.8	1.1	1.4	1.1
177.5°	0.8	0.8	1.1	1.4	1.4
180°	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P893240
 CATALOG NUMBER: 4MB-2SL-A-UNV-L950

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	17.95	19.35	18.32	19.67	19.99	6.46	7.86	6.83	8.18	8.51
	3H	20.86	22.11	21.25	22.44	22.81	7.40	8.64	7.78	8.98	9.35
	4H	21.75	22.92	22.16	23.27	23.66	7.92	9.08	8.32	9.44	9.83
	6H	22.25	23.32	22.67	23.70	24.10	8.55	9.62	8.97	9.99	10.40
	8H	22.36	23.38	22.80	23.78	24.19	8.97	9.98	9.40	10.38	10.79
	12H	22.41	23.38	22.84	23.77	24.21	9.42	10.39	9.85	10.78	11.22
4H	2H	17.77	18.93	18.17	19.29	19.68	6.98	8.14	7.39	8.50	8.89
	3H	20.69	21.65	21.11	22.06	22.47	8.17	9.13	8.59	9.54	9.95
	4H	21.60	22.45	22.04	22.88	23.33	8.84	9.70	9.28	10.12	10.57
	6H	22.19	22.93	22.66	23.38	23.85	9.66	10.40	10.13	10.85	11.33
	8H	22.35	23.04	22.82	23.50	23.97	10.19	10.89	10.67	11.34	11.82
	12H	22.44	23.06	22.93	23.55	24.03	10.78	11.39	11.27	11.88	12.36
8H	4H	21.49	22.18	21.96	22.63	23.11	9.43	10.12	9.90	10.58	11.05
	6H	22.09	22.66	22.59	23.16	23.65	10.44	11.01	10.94	11.51	11.99
	8H	22.27	22.79	22.80	23.31	23.81	11.11	11.63	11.64	12.14	12.64
	12H	22.42	22.88	22.94	23.38	23.95	11.88	12.33	12.40	12.83	13.41
12H	4H	21.45	22.06	21.94	22.55	23.03	9.69	10.31	10.18	10.80	11.28
	6H	22.04	22.55	22.56	23.07	23.57	10.75	11.26	11.27	11.78	12.28
	8H	22.25	22.71	22.77	23.21	23.78	11.51	11.97	12.03	12.47	13.04