

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: P893238

Luminaire Tested: 4MB-2SL-A-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893238
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-L935
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

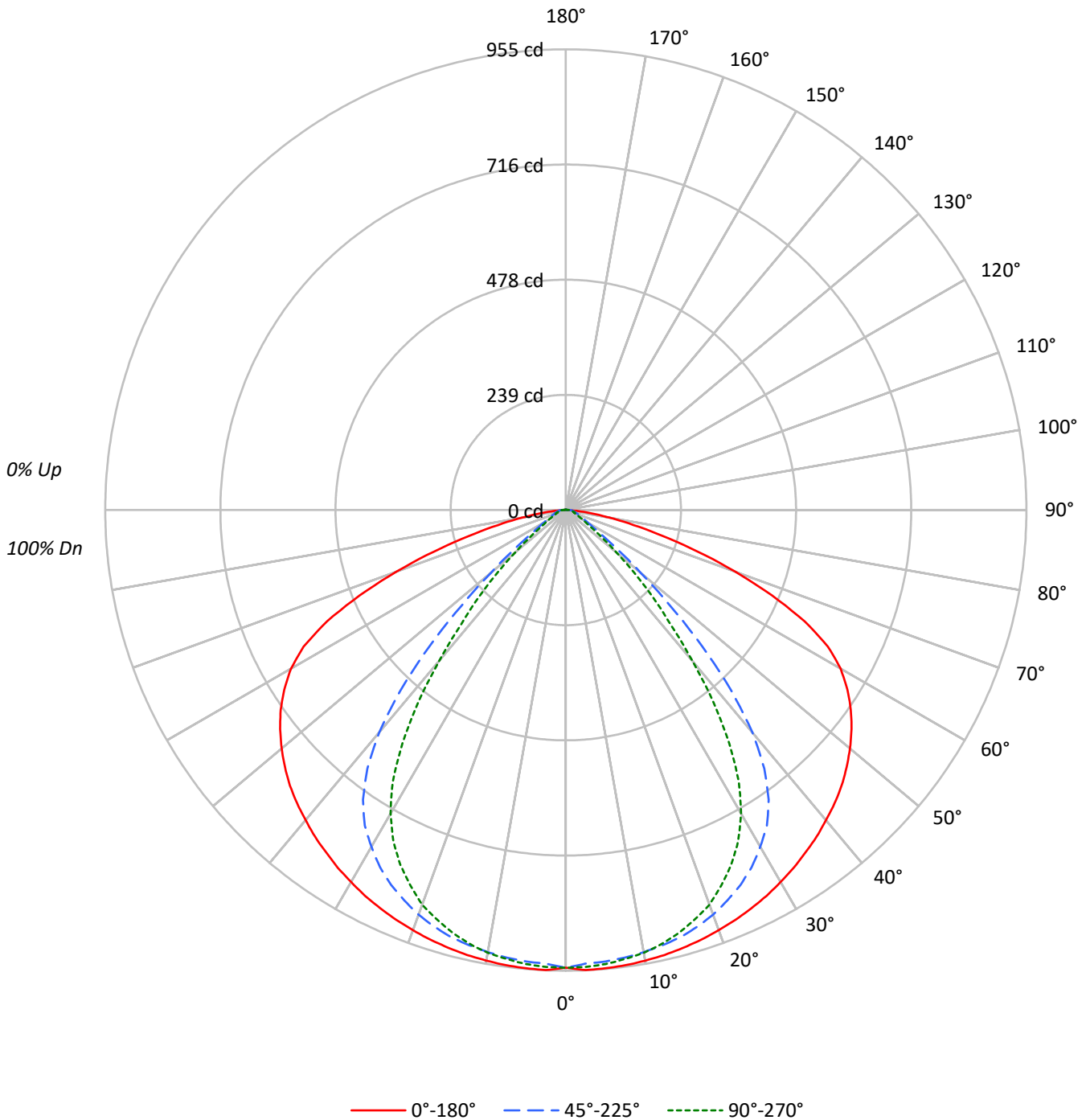
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1945.1 lumens
Efficiency: N/A
Efficacy: 140.9 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	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°	9663	9663	9663
5°	9748	9604	9660
10°	9809	9625	9638
15°	9907	9666	9566
20°	10047	9674	9438
25°	10234	9632	9119
30°	10472	9481	8546
35°	10772	9117	7348
40°	11155	8007	5431
45°	11646	5778	3653
50°	12187	3227	2180
55°	12811	1669	1193
60°	13400	1086	845
65°	13172	892	670
70°	11110	822	625
75°	8173	838	673
80°	5448	985	845
85°	2980	1601	1285

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 13516 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	4.6
10°-20°	260.3	13.4
20°-30°	396.0	20.4
30°-40°	452.3	23.3
40°-50°	364.9	18.8
50°-60°	199.7	10.3
60°-70°	105.3	5.4
70°-80°	51.6	2.7
80°-90°	18.2	0.9
90°-100°	3.9	0.2
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	746.5	38.4
0°-40°	1198.8	61.6
0°-60°	1763.4	90.7
0°-90°	1938.5	99.7
90°-120°	4.8	0.2
90°-150°	5.8	0.3
90°-180°	7.0	0.4
0°-180°	1945.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	954	951	939	948	945	91
15°	940	934	917	915	907	266
25°	911	898	857	828	812	421
35°	866	830	733	634	591	544
45°	809	695	401	274	254	624
55°	722	297	94	73	67	644
65°	547	68	37	30	28	529
75°	208	39	21	18	17	229
85°	26	20	14	12	11	35
90°	1	10	8	7	7	2
95°	1	1	3	4	4	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	1	0	0
155°	0	0	1	1	1	0
165°	0	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	948.8	948.8	948.8	948.8	948.8
2.5°	954.6	952.0	941.2	950.4	947.8
5°	953.5	950.6	939.4	947.8	944.9
7.5°	951.7	948.0	935.7	943.3	938.8
10°	948.5	944.9	930.7	936.7	932.0
12.5°	944.9	939.9	924.1	927.3	921.2
15°	939.6	933.8	916.8	915.2	907.3
17.5°	933.8	926.8	906.0	899.2	889.7
20°	927.0	918.4	892.6	879.2	870.8
22.5°	919.4	908.1	875.8	855.3	842.2
25°	910.7	897.6	857.2	828.0	811.5
27.5°	901.6	883.7	834.6	796.3	774.0
30°	890.5	869.0	806.2	754.5	726.7
32.5°	879.5	850.6	775.8	700.7	667.6
35°	866.4	829.9	733.3	633.5	591.0
37.5°	854.0	804.9	675.8	549.2	503.5
40°	839.1	775.5	602.3	452.4	408.5
42.5°	824.9	741.4	507.0	358.9	320.8
45°	808.6	694.7	401.2	274.1	253.6
47.5°	789.7	630.9	291.7	204.0	191.1
50°	769.2	543.2	203.7	148.1	137.6
52.5°	746.7	424.8	137.3	102.9	97.1
55°	721.5	296.9	94.0	72.7	67.2
57.5°	692.3	193.2	68.3	54.9	51.2
60°	657.9	123.4	53.3	43.6	41.5
62.5°	612.8	86.6	43.8	36.0	34.1
65°	546.6	68.5	37.0	29.9	27.8
67.5°	462.9	58.0	31.8	25.2	23.9
70°	373.1	50.4	27.6	21.8	21.0
72.5°	286.7	44.1	23.9	19.4	18.9
75°	207.7	38.6	21.3	17.9	17.1
77.5°	143.9	33.3	18.9	16.0	15.5
80°	92.9	28.9	16.8	14.7	14.4
82.5°	53.3	24.2	15.2	14.2	13.9
85°	25.5	20.2	13.7	12.3	11.0
87.5°	8.1	15.0	10.8	9.5	8.4
90°	1.1	10.5	8.4	7.4	6.8
92.5°	1.1	5.8	6.0	6.0	5.8
95°	0.8	1.3	2.9	4.5	4.2
97.5°	0.8	0.5	1.8	3.2	3.2
100°	0.5	0.3	0.8	2.1	2.1
102.5°	0.5	0.3	0.3	1.3	1.3
105°	0.3	0.0	0.3	0.5	0.5
107.5°	0.3	0.3	0.3	0.5	0.3
110°	0.3	0.3	0.3	0.5	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.3	0.3	0.3	0.5	0.3
115°	0.3	0.3	0.3	0.5	0.3
117.5°	0.3	0.3	0.3	0.5	0.3
120°	0.3	0.3	0.3	0.5	0.3
122.5°	0.3	0.3	0.3	0.5	0.3
125°	0.3	0.3	0.3	0.5	0.3
127.5°	0.3	0.3	0.3	0.5	0.3
130°	0.3	0.3	0.5	0.5	0.3
132.5°	0.3	0.3	0.5	0.5	0.3
135°	0.3	0.3	0.5	0.5	0.3
137.5°	0.3	0.3	0.5	0.5	0.5
140°	0.5	0.3	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.8	0.5
145°	0.5	0.5	0.5	0.8	0.5
147.5°	0.5	0.5	0.8	0.8	0.5
150°	0.5	0.5	0.8	0.8	0.5
152.5°	0.5	0.5	0.8	0.8	0.8
155°	0.5	0.5	0.8	1.1	0.8
157.5°	0.5	0.5	0.8	1.1	0.8
160°	0.5	0.8	1.1	1.1	0.8
162.5°	0.5	0.8	1.1	1.1	1.1
165°	0.5	0.8	1.1	1.1	1.1
167.5°	0.8	0.8	1.1	1.3	1.1
170°	0.8	0.8	1.1	1.3	1.1
172.5°	0.8	0.8	1.1	1.3	1.1
175°	0.8	0.8	1.1	1.3	1.1
177.5°	0.8	0.8	1.1	1.3	1.3
180°	1.1	1.1	1.1	1.1	1.1



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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	17.79	19.18	18.16	19.51	19.83	6.30	7.70	6.67	8.02	8.35
	3H	20.70	21.94	21.08	22.28	22.65	7.24	8.48	7.62	8.82	9.19
	4H	21.59	22.75	22.00	23.11	23.50	7.76	8.92	8.17	9.28	9.67
	6H	22.09	23.16	22.51	23.53	23.93	8.39	9.46	8.81	9.84	10.24
	8H	22.20	23.22	22.63	23.61	24.02	8.81	9.82	9.24	10.22	10.63
	12H	22.24	23.21	22.68	23.60	24.04	9.25	10.23	9.69	10.61	11.05
4H	2H	17.60	18.76	18.01	19.12	19.51	6.82	7.98	7.23	8.34	8.73
	3H	20.53	21.49	20.95	21.89	22.31	8.01	8.97	8.43	9.38	9.79
	4H	21.43	22.29	21.87	22.71	23.16	8.68	9.54	9.12	9.96	10.41
	6H	22.03	22.77	22.49	23.22	23.69	9.50	10.24	9.97	10.70	11.17
	8H	22.19	22.88	22.66	23.33	23.81	10.03	10.73	10.51	11.18	11.66
	12H	22.28	22.89	22.77	23.38	23.86	10.61	11.23	11.10	11.71	12.20
8H	4H	21.32	22.02	21.80	22.47	22.95	9.27	9.97	9.75	10.42	10.90
	6H	21.92	22.49	22.43	22.99	23.48	10.28	10.85	10.78	11.35	11.83
	8H	22.11	22.62	22.64	23.14	23.64	10.95	11.46	11.48	11.98	12.48
	12H	22.26	22.71	22.78	23.21	23.79	11.71	12.17	12.23	12.67	13.25
12H	4H	21.28	21.90	21.78	22.39	22.87	9.53	10.15	10.02	10.64	11.12
	6H	21.87	22.39	22.40	22.90	23.40	10.58	11.10	11.11	11.62	12.12
	8H	22.09	22.54	22.61	23.04	23.62	11.35	11.80	11.87	12.30	12.88