

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: P893806

Luminaire Tested: 4MB-7HL-ACL-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-20)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-ACL-UNV-L935
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K (C)
Light Source: -
Ballast/Driver: -

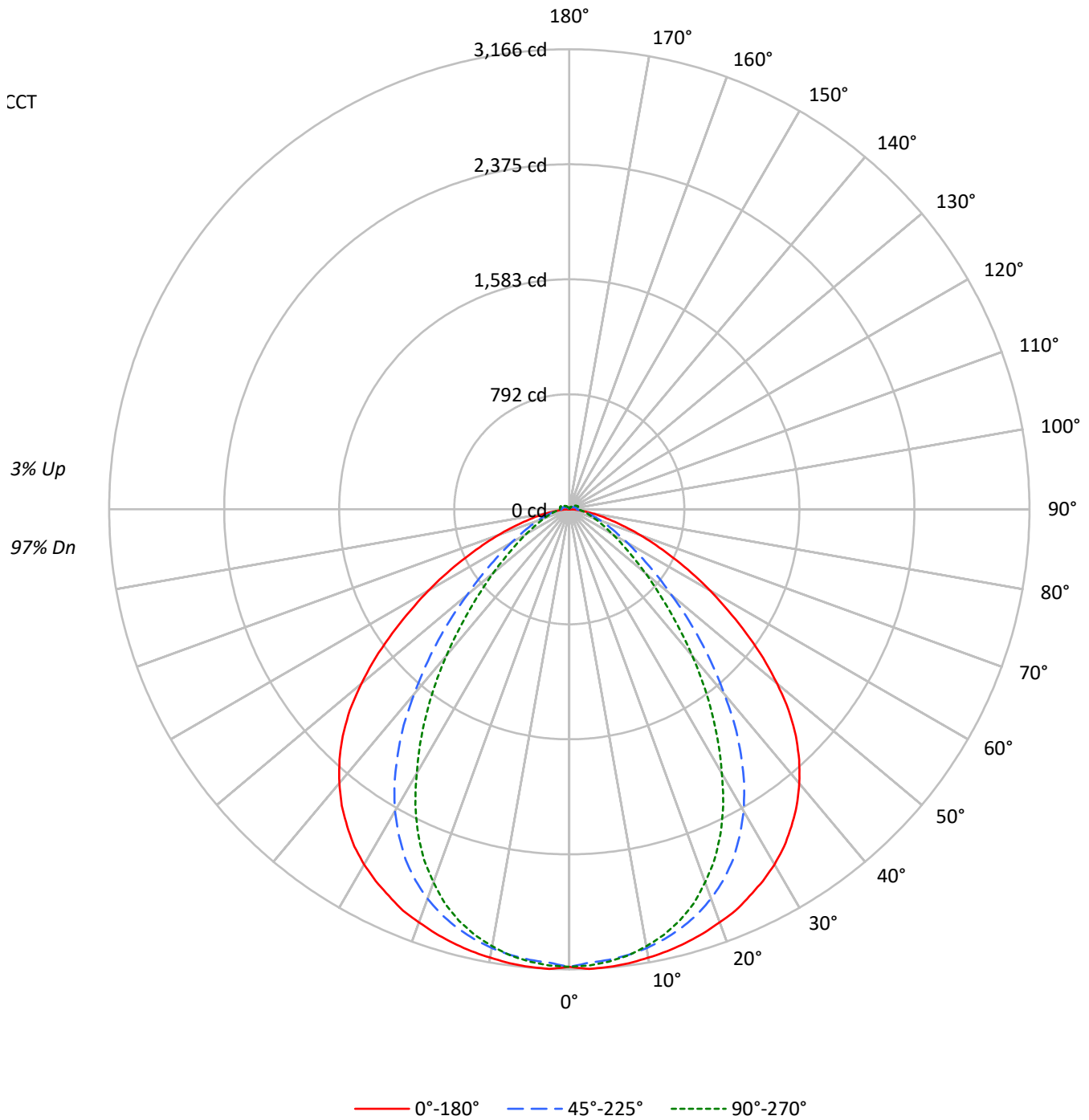
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6387.0 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.15
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	94	94	92	90	90	89	87	85				85
2	101	94	89	84	99	92	87	83	88	84	80	85	81	78	82	79	76	74				74
3	94	85	78	72	91	83	76	71	80	74	70	77	72	68	74	70	67	65				65
4	87	76	69	63	84	75	68	62	72	66	61	70	64	60	67	63	59	57				57
5	81	69	61	55	78	68	60	55	66	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	56	51	47	45				45
7	70	58	50	44	68	57	49	44	55	48	43	53	47	43	52	47	42	41				41
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32067	32067	32067
5°	32259	31175	31090
10°	32285	30441	29925
15°	32395	29568	28512
20°	32532	28456	26569
25°	32679	26950	24138
30°	32795	24821	20910
35°	32644	21945	17431
40°	32161	18405	13857
45°	31100	14826	10477
50°	28839	11334	7903
55°	25602	8683	5886
60°	21969	6680	4555
65°	18125	5234	3603
70°	14639	4194	2948
75°	11139	3427	2515
80°	8335	2808	2218
85°	5676	2379	2019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 31100 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.8	4.7
10°-20°	845.8	13.2
20°-30°	1231.1	19.3
30°-40°	1321.1	20.7
40°-50°	1093.2	17.1
50°-60°	724.5	11.3
60°-70°	412.8	6.5
70°-80°	204.7	3.2
80°-90°	82.8	1.3
90°-100°	48.6	0.8
100°-110°	43.3	0.7
110°-120°	32.7	0.5
120°-130°	21.7	0.3
130°-140°	13.3	0.2
140°-150°	7.6	0.1
150°-160°	3.9	0.1
160°-170°	1.7	0.0
170°-180°	0.4	0.0
0°-30°	2374.7	37.2
0°-40°	3695.9	57.9
0°-60°	5513.6	86.3
0°-90°	6213.9	97.3
90°-120°	124.6	2.0
90°-150°	167.2	2.6
90°-180°	173.0	2.7
0°-180°	6387.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3149	3149	3149	3149	3149	
5°	3161	3153	3113	3136	3125	301
15°	3090	3065	2982	2955	2932	873
25°	2936	2860	2663	2518	2462	1355
35°	2664	2453	2058	1788	1710	1665
45°	2204	1790	1273	1025	956	1689
55°	1485	1050	654	517	480	1329
65°	786	527	327	264	250	789
75°	305	227	164	143	139	337
85°	60	65	75	80	79	69
90°	8	27	51	63	65	7
95°	10	28	52	63	65	8
105°	8	21	47	60	63	8
115°	4	14	36	51	56	4
125°	2	10	26	38	42	2
135°	2	8	18	27	30	2
145°	2	6	12	18	21	2
155°	2	5	8	11	15	1
165°	3	4	6	7	9	1
175°	3	4	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3148.7	3148.7	3148.7	3148.7	3148.7
2.5°	3166.4	3159.4	3123.3	3150.6	3142.3
5°	3161.3	3153.1	3112.6	3136.0	3124.6
7.5°	3150.6	3140.4	3094.8	3110.7	3096.7
10°	3133.5	3120.8	3066.4	3069.5	3053.7
12.5°	3115.1	3095.5	3029.0	3020.1	3000.5
15°	3089.8	3065.1	2982.1	2954.9	2931.5
17.5°	3060.7	3026.5	2923.9	2875.7	2845.3
20°	3024.6	2979.0	2851.7	2778.2	2731.3
22.5°	2989.7	2922.6	2765.5	2660.4	2611.0
25°	2936.5	2859.9	2662.9	2517.9	2462.2
27.5°	2884.0	2780.7	2536.9	2359.0	2294.4
30°	2822.5	2687.0	2398.9	2179.8	2100.0
32.5°	2751.6	2584.4	2238.7	1993.6	1908.7
35°	2664.2	2452.7	2057.5	1788.4	1709.9
37.5°	2570.5	2307.7	1870.7	1593.3	1512.3
40°	2461.6	2153.8	1659.2	1390.7	1316.6
42.5°	2340.6	1977.7	1462.9	1200.1	1126.0
45°	2204.5	1790.3	1272.9	1025.3	955.6
47.5°	2048.0	1598.4	1089.2	867.6	809.3
50°	1865.6	1406.5	917.0	728.3	685.2
52.5°	1682.0	1226.0	778.3	617.4	571.2
55°	1485.0	1050.0	654.2	517.4	480.0
57.5°	1294.4	894.2	546.5	433.8	407.8
60°	1117.7	754.9	462.3	366.0	345.1
62.5°	948.0	636.4	386.9	309.7	291.3
65°	785.9	526.9	327.4	264.1	250.1
67.5°	643.4	440.1	276.1	225.4	214.7
70°	519.9	355.9	232.4	193.2	184.3
72.5°	404.7	285.6	195.1	167.2	159.6
75°	305.2	227.3	164.0	143.1	138.7
77.5°	229.9	176.7	135.5	123.5	120.3
80°	159.0	131.7	112.1	107.0	105.1
82.5°	101.3	94.4	91.8	91.8	91.8
85°	60.2	64.6	75.4	79.8	79.2
87.5°	28.5	42.4	60.8	69.0	70.3
90°	8.2	26.6	51.3	62.7	64.6
92.5°	9.5	27.2	51.3	62.7	64.6
95°	9.5	27.9	51.9	62.7	64.6
97.5°	9.5	26.6	51.3	63.3	65.2
100°	9.5	26.0	50.7	62.7	65.2
102.5°	8.2	24.1	48.8	62.1	64.6
105°	7.6	20.9	46.9	60.2	63.3
107.5°	6.3	19.0	45.0	58.3	62.1
110°	5.7	17.1	42.4	56.4	60.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	15.2	39.3	54.5	58.3
115°	4.4	13.9	36.1	51.3	55.7
117.5°	3.8	12.7	32.9	48.1	53.2
120°	3.2	11.4	30.4	45.0	49.4
122.5°	3.2	10.8	27.9	41.2	46.2
125°	2.5	9.5	26.0	38.0	42.4
127.5°	2.5	8.9	23.4	34.8	38.6
130°	1.9	8.9	21.5	32.3	36.1
132.5°	1.9	8.2	19.0	29.1	32.9
135°	1.9	7.6	17.7	26.6	29.8
137.5°	1.9	7.6	15.8	24.7	27.9
140°	2.5	7.0	13.9	22.2	25.3
142.5°	2.5	6.3	13.3	20.3	22.8
145°	2.5	5.7	12.0	18.4	20.9
147.5°	2.5	5.7	10.8	16.5	19.0
150°	2.5	5.1	10.1	14.6	17.1
152.5°	2.5	5.1	9.5	12.7	15.8
155°	2.5	5.1	8.2	11.4	14.6
157.5°	2.5	4.4	7.6	10.1	12.7
160°	3.2	4.4	7.0	8.9	11.4
162.5°	3.2	4.4	6.3	8.2	10.1
165°	3.2	3.8	5.7	7.0	8.9
167.5°	3.2	3.8	5.7	6.3	7.6
170°	3.2	3.8	5.1	5.1	5.7
172.5°	3.2	3.8	4.4	5.1	3.8
175°	3.2	3.8	4.4	4.4	3.8
177.5°	3.2	3.8	3.8	4.4	3.8
180°	3.8	3.8	3.8	3.8	3.8



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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	20.71	22.10	21.12	22.47	22.86	15.83	17.22	16.24	17.59	17.98
	3H	21.81	23.05	22.23	23.43	23.86	16.98	18.21	17.40	18.60	19.03
	4H	22.10	23.26	22.55	23.67	24.11	17.48	18.64	17.93	19.05	19.49
	6H	22.25	23.32	22.71	23.74	24.20	17.99	19.06	18.45	19.48	19.94
	8H	22.26	23.28	22.74	23.72	24.19	18.25	19.27	18.73	19.71	20.18
	12H	22.25	23.22	22.73	23.66	24.16	18.55	19.52	19.02	19.96	20.45
4H	2H	20.69	21.84	21.13	22.25	22.70	16.33	17.49	16.78	17.90	18.35
	3H	21.92	22.88	22.38	23.33	23.80	17.65	18.61	18.11	19.07	19.53
	4H	22.29	23.15	22.77	23.62	24.13	18.25	19.11	18.73	19.58	20.08
	6H	22.52	23.27	23.03	23.77	24.29	18.88	19.62	19.38	20.12	20.65
	8H	22.56	23.26	23.07	23.75	24.28	19.20	19.90	19.71	20.40	20.93
	12H	22.57	23.19	23.10	23.72	24.25	19.58	20.20	20.11	20.73	21.27
8H	4H	22.28	22.98	22.79	23.47	24.00	18.50	19.19	19.01	19.69	20.22
	6H	22.55	23.13	23.09	23.67	24.21	19.23	19.80	19.77	20.35	20.89
	8H	22.61	23.13	23.17	23.69	24.24	19.63	20.15	20.20	20.71	21.26
	12H	22.65	23.11	23.21	23.65	24.28	20.13	20.59	20.68	21.13	21.76
12H	4H	22.25	22.88	22.78	23.41	23.94	18.51	19.13	19.04	19.66	20.20
	6H	22.53	23.05	23.09	23.61	24.16	19.26	19.78	19.82	20.34	20.89
	8H	22.62	23.08	23.18	23.63	24.25	19.73	20.19	20.28	20.73	21.35