

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: P893152

Luminaire Tested: 4MB-10HL-ACL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893152
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-10HL-ACL-UNV-L950
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K
Light Source: -
Ballast/Driver: -

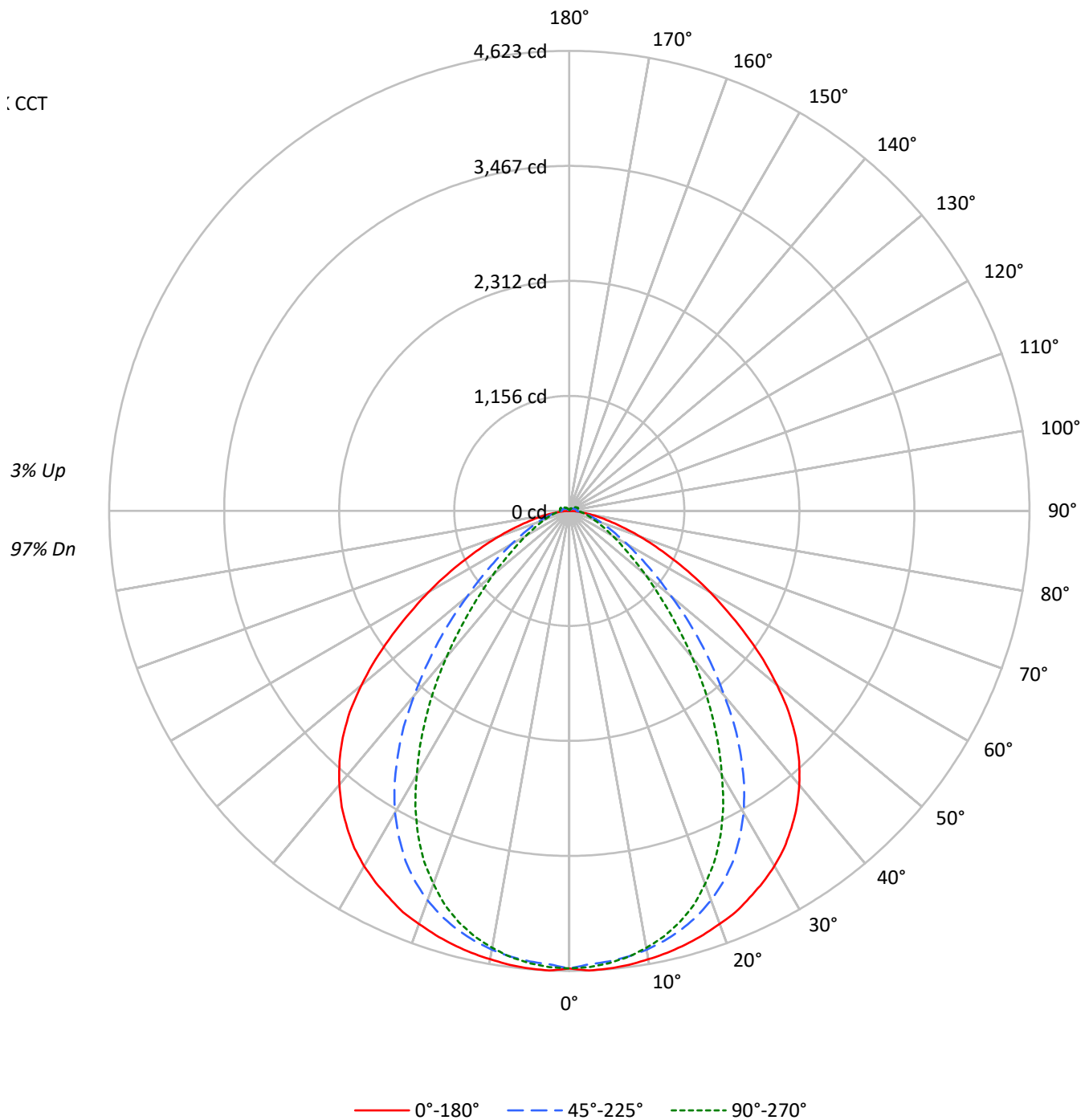
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9326.0 lumens
Efficiency: N/A
Efficacy: 123.5 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): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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°	46823	46823	46823
5°	47104	45520	45396
10°	47142	44447	43694
15°	47303	43174	41632
20°	47501	41550	38795
25°	47716	39352	35245
30°	47887	36241	30531
35°	47667	32044	25452
40°	46960	26874	20233
45°	45409	21648	15300
50°	42110	16548	11539
55°	37384	12677	8595
60°	32080	9753	6652
65°	26464	7644	5263
70°	21377	6125	4304
75°	16267	5005	3671
80°	12168	4100	3240
85°	8279	3470	2946

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 45409 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	434.9	4.7
10°-20°	1234.9	13.2
20°-30°	1797.6	19.3
30°-40°	1929.1	20.7
40°-50°	1596.2	17.1
50°-60°	1057.9	11.3
60°-70°	602.8	6.5
70°-80°	298.9	3.2
80°-90°	120.9	1.3
90°-100°	71.0	0.8
100°-110°	63.2	0.7
110°-120°	47.7	0.5
120°-130°	31.7	0.3
130°-140°	19.4	0.2
140°-150°	11.1	0.1
150°-160°	5.7	0.1
160°-170°	2.4	0.0
170°-180°	0.6	0.0
0°-30°	3467.4	37.2
0°-40°	5396.5	57.9
0°-60°	8050.7	86.3
0°-90°	9073.2	97.3
90°-120°	181.9	1.9
90°-150°	244.1	2.6
90°-180°	253.0	2.7
0°-180°	9326.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4598	4598	4598	4598	4598	
5°	4616	4604	4545	4579	4562	439
15°	4512	4476	4354	4315	4280	1275
25°	4288	4176	3888	3677	3595	1979
35°	3890	3581	3004	2611	2497	2431
45°	3219	2614	1859	1497	1395	2466
55°	2168	1533	955	756	701	1940
65°	1148	769	478	386	365	1153
75°	446	332	240	209	202	492
85°	88	94	110	116	116	101
90°	12	39	75	92	94	11
95°	14	41	76	92	94	11
105°	11	30	68	88	92	12
115°	6	20	53	75	81	6
125°	4	14	38	56	62	4
135°	3	11	26	39	44	2
145°	4	8	18	27	30	2
155°	4	7	12	17	21	2
165°	5	6	8	10	13	1
175°	5	6	6	6	6	0
180°	6	6	6	6	6	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4597.6	4597.6	4597.6	4597.6	4597.6
2.5°	4623.4	4613.3	4560.6	4600.3	4588.3
5°	4616.0	4604.0	4544.8	4579.1	4562.4
7.5°	4600.3	4585.5	4519.0	4542.1	4521.7
10°	4575.4	4556.9	4477.3	4482.0	4458.8
12.5°	4548.5	4519.9	4422.8	4409.8	4381.2
15°	4511.6	4475.5	4354.4	4314.6	4280.4
17.5°	4469.0	4419.1	4269.3	4199.0	4154.6
20°	4416.3	4349.7	4163.9	4056.6	3988.2
22.5°	4365.5	4267.4	4038.1	3884.6	3812.5
25°	4287.8	4175.9	3888.3	3676.6	3595.2
27.5°	4211.0	4060.3	3704.3	3444.5	3350.1
30°	4121.3	3923.5	3502.7	3182.8	3066.3
32.5°	4017.8	3773.7	3268.8	2910.9	2787.0
35°	3890.2	3581.3	3004.3	2611.3	2496.7
37.5°	3753.3	3369.6	2731.5	2326.5	2208.2
40°	3594.3	3144.9	2422.7	2030.6	1922.4
42.5°	3417.6	2887.8	2136.0	1752.3	1644.1
45°	3218.8	2614.1	1858.6	1497.1	1395.4
47.5°	2990.4	2333.9	1590.5	1266.8	1181.8
50°	2724.1	2053.7	1338.9	1063.4	1000.5
52.5°	2456.0	1790.2	1136.4	901.6	834.1
55°	2168.4	1533.1	955.2	755.5	700.9
57.5°	1890.1	1305.7	798.0	633.4	595.5
60°	1632.1	1102.2	675.0	534.5	504.0
62.5°	1384.3	929.3	565.0	452.2	425.4
65°	1147.5	769.3	478.1	385.6	365.3
67.5°	939.5	642.7	403.2	329.2	313.5
70°	759.2	519.7	339.4	282.0	269.1
72.5°	590.9	417.0	284.8	244.1	233.0
75°	445.7	332.0	239.5	209.0	202.5
77.5°	335.7	258.0	197.9	180.3	175.7
80°	232.1	192.3	163.7	156.3	153.5
82.5°	148.0	137.8	134.1	134.1	134.1
85°	87.8	94.3	110.0	116.5	115.6
87.5°	41.6	62.0	88.8	100.8	102.6
90°	12.0	38.8	74.9	91.5	94.3
92.5°	13.9	39.8	74.9	91.5	94.3
95°	13.9	40.7	75.8	91.5	94.3
97.5°	13.9	38.8	74.9	92.5	95.2
100°	13.9	37.9	74.0	91.5	95.2
102.5°	12.0	35.1	71.2	90.6	94.3
105°	11.1	30.5	68.4	87.8	92.5
107.5°	9.2	27.7	65.7	85.1	90.6
110°	8.3	25.0	62.0	82.3	88.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.4	22.2	57.3	79.5	85.1
115°	6.5	20.3	52.7	74.9	81.4
117.5°	5.5	18.5	48.1	70.3	77.7
120°	4.6	16.6	44.4	65.7	72.1
122.5°	4.6	15.7	40.7	60.1	67.5
125°	3.7	13.9	37.9	55.5	62.0
127.5°	3.7	12.9	34.2	50.9	56.4
130°	2.8	12.9	31.4	47.2	52.7
132.5°	2.8	12.0	27.7	42.5	48.1
135°	2.8	11.1	25.9	38.8	43.5
137.5°	2.8	11.1	23.1	36.1	40.7
140°	3.7	10.2	20.3	32.4	37.0
142.5°	3.7	9.2	19.4	29.6	33.3
145°	3.7	8.3	17.6	26.8	30.5
147.5°	3.7	8.3	15.7	24.0	27.7
150°	3.7	7.4	14.8	21.3	25.0
152.5°	3.7	7.4	13.9	18.5	23.1
155°	3.7	7.4	12.0	16.6	21.3
157.5°	3.7	6.5	11.1	14.8	18.5
160°	4.6	6.5	10.2	12.9	16.6
162.5°	4.6	6.5	9.2	12.0	14.8
165°	4.6	5.5	8.3	10.2	12.9
167.5°	4.6	5.5	8.3	9.2	11.1
170°	4.6	5.5	7.4	7.4	8.3
172.5°	4.6	5.5	6.5	7.4	5.5
175°	4.6	5.5	6.5	6.5	5.5
177.5°	4.6	5.5	5.5	6.5	5.5
180°	5.5	5.5	5.5	5.5	5.5



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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	22.03	23.42	22.44	23.79	24.17	17.15	18.53	17.56	18.91	19.29
	3H	23.12	24.36	23.55	24.75	25.18	18.29	19.53	18.72	19.92	20.35
	4H	23.42	24.58	23.87	24.98	25.43	18.80	19.95	19.24	20.36	20.81
	6H	23.56	24.63	24.02	25.06	25.52	19.30	20.37	19.76	20.79	21.25
	8H	23.58	24.59	24.05	25.04	25.51	19.57	20.58	20.04	21.03	21.50
	12H	23.57	24.54	24.05	24.98	25.47	19.86	20.83	20.34	21.27	21.77
4H	2H	22.00	23.16	22.45	23.57	24.01	17.65	18.81	18.10	19.22	19.66
	3H	23.24	24.19	23.70	24.65	25.12	18.97	19.93	19.43	20.38	20.85
	4H	23.61	24.47	24.09	24.94	25.44	19.57	20.43	20.05	20.89	21.40
	6H	23.84	24.59	24.34	25.08	25.61	20.19	20.94	20.70	21.44	21.96
	8H	23.87	24.57	24.38	25.07	25.60	20.52	21.22	21.03	21.71	22.25
	12H	23.88	24.50	24.41	25.03	25.57	20.89	21.52	21.42	22.05	22.58
8H	4H	23.59	24.29	24.10	24.79	25.32	19.81	20.51	20.32	21.00	21.54
	6H	23.87	24.44	24.41	24.98	25.53	20.54	21.12	21.09	21.66	22.20
	8H	23.93	24.45	24.49	25.01	25.56	20.95	21.47	21.51	22.03	22.58
	12H	23.97	24.43	24.52	24.97	25.60	21.44	21.90	22.00	22.44	23.07
12H	4H	23.57	24.19	24.10	24.72	25.26	19.83	20.45	20.35	20.98	21.51
	6H	23.84	24.36	24.40	24.92	25.47	20.58	21.10	21.14	21.66	22.21
	8H	23.94	24.40	24.50	24.94	25.57	21.04	21.50	21.60	22.04	22.67