

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: P894109

Luminaire Tested: 4MB-SC3-ACL-UNV-CC93-HI-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894109
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-ACL-UNV-CC93-HI-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 4000K CC
HI lumen setting
Light Source: -
Ballast/Driver: -

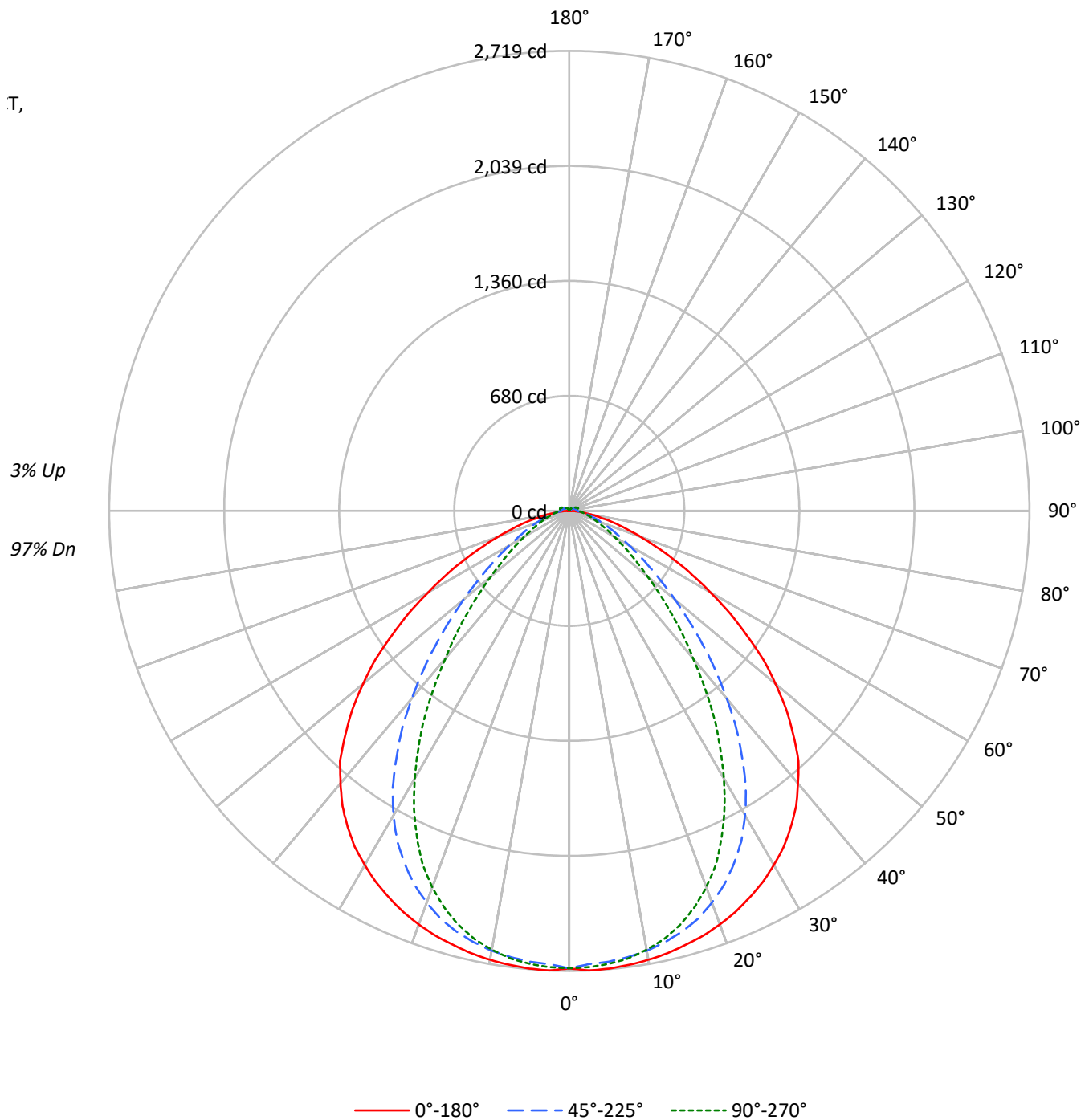
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5546.0 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.39961257980444
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	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27533	27533	27533
5°	27709	26786	26744
10°	27758	26205	25805
15°	27841	25523	24631
20°	27976	24585	23023
25°	28059	23283	20883
30°	28086	21493	18194
35°	27966	18994	15219
40°	27471	16045	11977
45°	26413	12952	9287
50°	24589	10050	6967
55°	22012	7694	5330
60°	18913	5914	4060
65°	15770	4665	3227
70°	12614	3743	2636
75°	10044	3016	2244
80°	7360	2490	1965
85°	5054	2114	1810

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 26413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	256.1	4.6
10°-20°	729.5	13.2
20°-30°	1063.6	19.2
30°-40°	1142.7	20.6
40°-50°	951.0	17.1
50°-60°	636.1	11.5
60°-70°	364.1	6.6
70°-80°	181.0	3.3
80°-90°	74.1	1.3
90°-100°	43.0	0.8
100°-110°	37.9	0.7
110°-120°	27.8	0.5
120°-130°	17.9	0.3
130°-140°	10.7	0.2
140°-150°	6.0	0.1
150°-160°	3.0	0.1
160°-170°	1.3	0.0
170°-180°	0.3	0.0
0°-30°	2049.1	36.9
0°-40°	3191.8	57.6
0°-60°	4778.9	86.2
0°-90°	5398.1	97.3
90°-120°	108.7	2.0
90°-150°	143.3	2.6
90°-180°	148.0	2.7
0°-180°	5546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2704	2704	2704	2704	2704	
5°	2715	2707	2674	2696	2688	258
15°	2655	2637	2574	2555	2532	751
25°	2521	2461	2300	2185	2130	1163
35°	2282	2117	1781	1562	1493	1425
45°	1872	1556	1112	900	847	1439
55°	1277	921	580	458	435	1144
65°	684	464	292	237	224	683
75°	275	200	144	128	124	295
85°	54	60	67	70	71	63
90°	8	25	46	54	56	8
95°	12	25	45	54	56	9
105°	8	20	40	53	55	8
115°	4	12	32	43	47	4
125°	2	8	21	32	35	2
135°	2	6	14	21	24	1
145°	2	5	10	14	17	1
155°	2	4	6	9	11	1
165°	2	3	5	6	7	1
175°	2	2	3	3	3	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2703.5	2703.5	2703.5	2703.5	2703.5
2.5°	2719.3	2712.2	2681.5	2705.9	2698.8
5°	2715.4	2706.7	2674.4	2696.4	2687.8
7.5°	2706.7	2697.2	2660.2	2677.5	2668.0
10°	2694.1	2682.2	2639.7	2648.3	2633.3
12.5°	2678.3	2663.3	2610.5	2608.1	2591.5
15°	2655.4	2637.3	2574.2	2555.3	2532.4
17.5°	2631.8	2605.0	2527.7	2489.0	2457.5
20°	2601.0	2565.5	2463.8	2406.2	2366.8
22.5°	2565.5	2517.4	2392.0	2303.7	2262.7
25°	2521.4	2461.4	2300.5	2184.6	2130.2
27.5°	2474.0	2394.4	2201.2	2048.9	1986.6
30°	2417.2	2318.7	2077.3	1894.4	1827.3
32.5°	2357.3	2222.5	1941.7	1731.9	1658.6
35°	2282.4	2116.8	1780.8	1561.6	1492.9
37.5°	2201.2	1990.6	1621.5	1387.3	1310.0
40°	2102.6	1857.3	1446.4	1214.5	1138.0
42.5°	2004.8	1712.2	1278.4	1058.4	992.1
45°	1872.3	1556.0	1112.0	899.9	847.0
47.5°	1739.0	1388.8	952.7	771.3	719.3
50°	1590.7	1224.8	813.1	647.5	604.1
52.5°	1446.4	1071.8	686.1	547.3	510.3
55°	1276.8	921.2	579.7	458.2	434.6
57.5°	1123.8	781.6	489.0	388.0	365.9
60°	962.2	662.5	409.3	328.1	307.6
62.5°	820.2	556.8	344.6	278.4	264.2
65°	683.8	463.7	291.8	236.6	224.0
67.5°	558.4	387.2	246.1	201.9	191.6
70°	448.0	313.9	207.4	171.9	164.8
72.5°	352.5	252.4	172.7	148.3	142.0
75°	275.2	200.3	144.3	127.8	123.8
77.5°	198.7	156.2	120.7	109.6	107.3
80°	140.4	118.3	99.4	94.6	93.1
82.5°	93.1	86.0	82.0	82.0	81.2
85°	53.6	59.9	67.0	70.2	71.0
87.5°	27.6	40.2	53.6	59.9	60.7
90°	7.9	25.2	45.7	54.4	56.0
92.5°	11.8	25.2	45.0	54.4	56.0
95°	11.8	25.2	45.0	54.4	56.0
97.5°	11.0	24.4	45.0	54.4	56.0
100°	10.3	22.9	44.2	54.4	56.0
102.5°	8.7	22.1	42.6	53.6	56.0
105°	7.9	20.5	40.2	52.8	55.2
107.5°	7.1	17.4	37.9	50.5	53.6
110°	5.5	15.0	36.3	48.1	52.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.7	13.4	33.9	45.7	49.7
115°	3.9	11.8	31.5	43.4	47.3
117.5°	3.2	11.0	28.4	40.2	44.2
120°	2.4	10.3	26.0	37.9	41.0
122.5°	2.4	9.5	22.9	34.7	37.9
125°	2.4	7.9	21.3	31.5	34.7
127.5°	1.6	7.1	18.9	28.4	31.5
130°	1.6	7.1	17.4	26.0	28.4
132.5°	1.6	6.3	15.8	23.7	26.0
135°	1.6	6.3	14.2	21.3	23.7
137.5°	1.6	5.5	12.6	19.7	22.1
140°	1.6	5.5	11.8	17.4	19.7
142.5°	1.6	4.7	10.3	16.6	18.1
145°	1.6	4.7	9.5	14.2	16.6
147.5°	1.6	4.7	8.7	13.4	15.0
150°	1.6	3.9	7.9	11.0	13.4
152.5°	1.6	3.9	7.1	10.3	12.6
155°	1.6	3.9	6.3	8.7	11.0
157.5°	1.6	3.9	6.3	7.9	9.5
160°	2.4	3.2	5.5	7.1	8.7
162.5°	2.4	3.2	4.7	6.3	7.9
165°	2.4	3.2	4.7	5.5	7.1
167.5°	2.4	3.2	3.9	4.7	5.5
170°	2.4	2.4	3.9	3.9	3.9
172.5°	2.4	2.4	3.2	3.9	3.2
175°	2.4	2.4	3.2	3.2	3.2
177.5°	2.4	2.4	3.2	3.2	3.2
180°	2.4	2.4	2.4	2.4	2.4



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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	20.25	21.65	20.66	22.02	22.40	15.55	16.94	15.96	17.31	17.69
	3H	21.35	22.59	21.77	22.98	23.41	16.69	17.93	17.11	18.32	18.75
	4H	21.65	22.82	22.10	23.22	23.67	17.19	18.35	17.63	18.76	19.20
	6H	21.80	22.87	22.26	23.29	23.75	17.69	18.76	18.15	19.19	19.64
	8H	21.82	22.84	22.29	23.28	23.75	17.95	18.97	18.42	19.41	19.88
	12H	21.81	22.79	22.29	23.22	23.72	18.24	19.22	18.72	19.66	20.15
4H	2H	20.24	21.40	20.68	21.80	22.25	16.05	17.21	16.49	17.61	18.06
	3H	21.47	22.43	21.93	22.89	23.35	17.36	18.32	17.82	18.78	19.24
	4H	21.86	22.72	22.34	23.19	23.69	17.95	18.82	18.43	19.29	19.79
	6H	22.09	22.84	22.59	23.33	23.86	18.57	19.32	19.08	19.82	20.34
	8H	22.13	22.83	22.64	23.33	23.86	18.89	19.60	19.40	20.09	20.62
	12H	22.14	22.77	22.67	23.30	23.83	19.27	19.89	19.80	20.42	20.96
8H	4H	21.84	22.54	22.35	23.04	23.57	18.19	18.89	18.70	19.39	19.92
	6H	22.12	22.70	22.66	23.24	23.78	18.92	19.50	19.46	20.04	20.58
	8H	22.19	22.71	22.75	23.27	23.82	19.32	19.84	19.88	20.40	20.95
	12H	22.24	22.70	22.79	23.24	23.87	19.81	20.28	20.37	20.82	21.44
12H	4H	21.82	22.45	22.35	22.97	23.51	18.21	18.83	18.74	19.36	19.90
	6H	22.10	22.62	22.66	23.18	23.73	18.95	19.48	19.51	20.03	20.58
	8H	22.21	22.67	22.76	23.21	23.84	19.41	19.88	19.97	20.42	21.04