

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: P894110

Luminaire Tested: 4MB-SC3-ACL-UNV-CC93-HI-5000K

Issue Date: 11/11/2024

**Test Information**

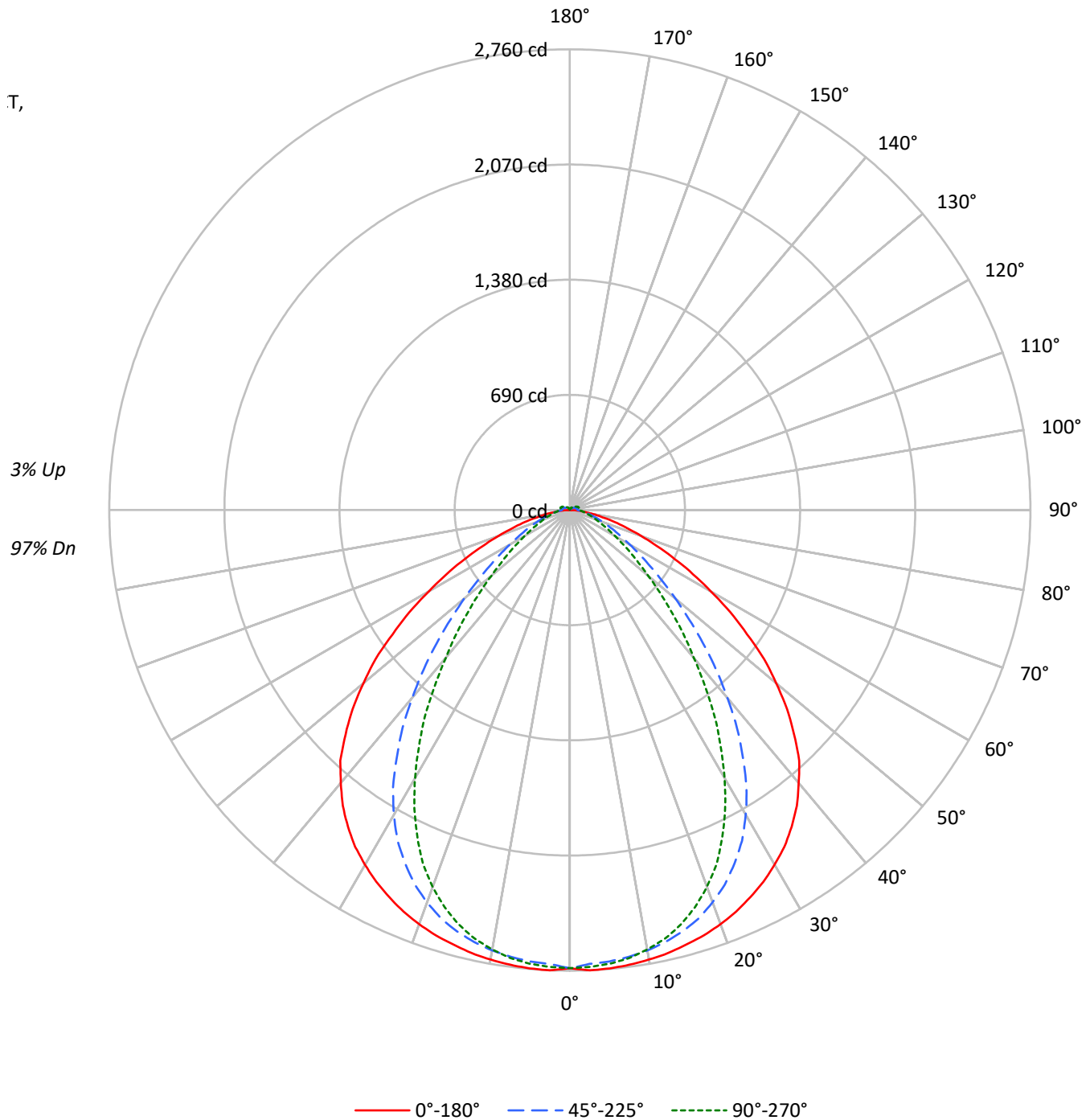
Test Method: LM-79-2019  
Report Number: P894110  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-ACL-UNV-CC93-HI-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K CC  
HI lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5629.9 lumens  
Efficiency: N/A  
Efficacy: 111.0 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	63	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°	27951	27951	27951
5°	28128	27192	27149
10°	28178	26601	26196
15°	28262	25910	25004
20°	28400	24958	23371
25°	28483	23636	21199
30°	28513	21819	18470
35°	28390	19282	15449
40°	27886	16287	12160
45°	26812	13149	9428
50°	24962	10202	7073
55°	22347	7809	5409
60°	19198	6003	4121
65°	16008	4736	3276
70°	12803	3801	2676
75°	10197	3062	2279
80°	7470	2527	1995
85°	5129	2148	1838

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 26812 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.0	4.6
10°-20°	740.6	13.2
20°-30°	1079.7	19.2
30°-40°	1160.0	20.6
40°-50°	965.4	17.1
50°-60°	645.7	11.5
60°-70°	369.6	6.6
70°-80°	183.8	3.3
80°-90°	75.2	1.3
90°-100°	43.6	0.8
100°-110°	38.5	0.7
110°-120°	28.2	0.5
120°-130°	18.2	0.3
130°-140°	10.8	0.2
140°-150°	6.1	0.1
150°-160°	3.1	0.1
160°-170°	1.3	0.0
170°-180°	0.3	0.0
0°-30°	2080.2	36.9
0°-40°	3240.1	57.6
0°-60°	4851.2	86.2
0°-90°	5479.9	97.3
90°-120°	110.3	2.0
90°-150°	145.4	2.6
90°-180°	150.0	2.7
0°-180°	5629.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2744	2744	2744	2744	2744	
5°	2756	2748	2715	2737	2728	262
15°	2696	2677	2613	2594	2571	762
25°	2560	2499	2335	2218	2162	1180
35°	2317	2149	1808	1585	1516	1447
45°	1901	1580	1129	914	860	1461
55°	1296	935	588	465	441	1161
65°	694	471	296	240	227	694
75°	279	203	146	130	126	300
85°	54	61	68	71	72	64
90°	8	26	46	55	57	8
95°	12	26	46	55	57	9
105°	8	21	41	54	56	8
115°	4	12	32	44	48	4
125°	2	8	22	32	35	2
135°	2	6	14	22	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°	2744.5	2744.5	2744.5	2744.5	2744.5
2.5°	2760.5	2753.3	2722.1	2746.9	2739.7
5°	2756.5	2747.7	2714.9	2737.3	2728.5
7.5°	2747.7	2738.1	2700.4	2718.1	2708.5
10°	2734.9	2722.9	2679.6	2688.4	2673.2
12.5°	2718.9	2703.7	2650.0	2647.6	2630.8
15°	2695.6	2677.2	2613.2	2594.0	2570.8
17.5°	2671.6	2644.4	2565.9	2526.7	2494.7
20°	2640.4	2604.4	2501.1	2442.7	2402.6
22.5°	2604.4	2555.5	2428.2	2338.6	2296.9
25°	2559.5	2498.7	2335.4	2217.7	2162.4
27.5°	2511.5	2430.6	2234.5	2080.0	2016.7
30°	2453.9	2353.8	2108.8	1923.1	1855.0
32.5°	2393.0	2256.1	1971.1	1758.1	1683.7
35°	2317.0	2148.8	1807.8	1585.2	1515.5
37.5°	2234.5	2020.7	1646.0	1408.3	1329.8
40°	2134.4	1885.4	1468.3	1232.9	1155.3
42.5°	2035.1	1738.1	1297.8	1074.4	1007.2
45°	1900.6	1579.6	1128.9	913.5	859.9
47.5°	1765.3	1409.9	967.1	783.0	730.2
50°	1614.8	1243.3	825.4	657.3	613.3
52.5°	1468.3	1088.0	696.5	555.6	518.0
55°	1296.2	935.1	588.4	465.2	441.1
57.5°	1140.9	793.4	496.4	393.9	371.5
60°	976.7	672.5	415.5	333.1	312.2
62.5°	832.6	565.2	349.9	282.6	268.2
65°	694.1	470.8	296.2	240.2	227.4
67.5°	566.8	393.1	249.8	205.0	194.5
70°	454.7	318.6	210.6	174.5	167.3
72.5°	357.9	256.2	175.3	150.5	144.1
75°	279.4	203.4	146.5	129.7	125.7
77.5°	201.8	158.5	122.5	111.3	108.9
80°	142.5	120.1	100.9	96.1	94.5
82.5°	94.5	87.3	83.3	83.3	82.5
85°	54.4	60.8	68.1	71.3	72.1
87.5°	28.0	40.8	54.4	60.8	61.6
90°	8.0	25.6	46.4	55.2	56.8
92.5°	12.0	25.6	45.6	55.2	56.8
95°	12.0	25.6	45.6	55.2	56.8
97.5°	11.2	24.8	45.6	55.2	56.8
100°	10.4	23.2	44.8	55.2	56.8
102.5°	8.8	22.4	43.2	54.4	56.8
105°	8.0	20.8	40.8	53.6	56.0
107.5°	7.2	17.6	38.4	51.2	54.4
110°	5.6	15.2	36.8	48.8	52.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.8	13.6	34.4	46.4	50.4
115°	4.0	12.0	32.0	44.0	48.0
117.5°	3.2	11.2	28.8	40.8	44.8
120°	2.4	10.4	26.4	38.4	41.6
122.5°	2.4	9.6	23.2	35.2	38.4
125°	2.4	8.0	21.6	32.0	35.2
127.5°	1.6	7.2	19.2	28.8	32.0
130°	1.6	7.2	17.6	26.4	28.8
132.5°	1.6	6.4	16.0	24.0	26.4
135°	1.6	6.4	14.4	21.6	24.0
137.5°	1.6	5.6	12.8	20.0	22.4
140°	1.6	5.6	12.0	17.6	20.0
142.5°	1.6	4.8	10.4	16.8	18.4
145°	1.6	4.8	9.6	14.4	16.8
147.5°	1.6	4.8	8.8	13.6	15.2
150°	1.6	4.0	8.0	11.2	13.6
152.5°	1.6	4.0	7.2	10.4	12.8
155°	1.6	4.0	6.4	8.8	11.2
157.5°	1.6	4.0	6.4	8.0	9.6
160°	2.4	3.2	5.6	7.2	8.8
162.5°	2.4	3.2	4.8	6.4	8.0
165°	2.4	3.2	4.8	5.6	7.2
167.5°	2.4	3.2	4.0	4.8	5.6
170°	2.4	2.4	4.0	4.0	4.0
172.5°	2.4	2.4	3.2	4.0	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	20.31	21.70	20.72	22.07	22.45	15.60	16.99	16.01	17.36	17.75
	3H	21.40	22.64	21.82	23.03	23.46	16.74	17.98	17.17	18.37	18.80
	4H	21.71	22.87	22.15	23.27	23.72	17.24	18.41	17.69	18.81	19.26
	6H	21.85	22.92	22.31	23.35	23.81	17.74	18.82	18.20	19.24	19.70
	8H	21.87	22.89	22.34	23.33	23.80	18.00	19.02	18.48	19.47	19.93
	12H	21.86	22.84	22.34	23.28	23.77	18.30	19.27	18.77	19.71	20.20
4H	2H	20.29	21.45	20.73	21.86	22.30	16.10	17.26	16.54	17.67	18.11
	3H	21.52	22.49	21.98	22.94	23.41	17.41	18.37	17.87	18.83	19.29
	4H	21.91	22.77	22.39	23.24	23.75	18.01	18.87	18.48	19.34	19.84
	6H	22.14	22.89	22.64	23.39	23.91	18.63	19.38	19.13	19.87	20.40
	8H	22.18	22.88	22.69	23.38	23.91	18.95	19.65	19.46	20.14	20.68
	12H	22.19	22.82	22.72	23.35	23.88	19.32	19.95	19.85	20.48	21.01
8H	4H	21.90	22.60	22.41	23.09	23.62	18.25	18.95	18.75	19.44	19.97
	6H	22.17	22.75	22.72	23.29	23.83	18.97	19.55	19.51	20.09	20.63
	8H	22.25	22.77	22.81	23.32	23.88	19.37	19.90	19.93	20.45	21.01
	12H	22.29	22.75	22.85	23.29	23.92	19.87	20.33	20.42	20.87	21.50
12H	4H	21.87	22.50	22.40	23.03	23.56	18.26	18.89	18.79	19.41	19.95
	6H	22.15	22.67	22.71	23.23	23.78	19.01	19.53	19.57	20.09	20.64
	8H	22.26	22.72	22.81	23.26	23.89	19.47	19.93	20.02	20.47	21.10