

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: P894101

Luminaire Tested: 4MB-SC3-ACL-UNV-CC83-HI-5000K

Issue Date: 11/11/2024

**Test Information**

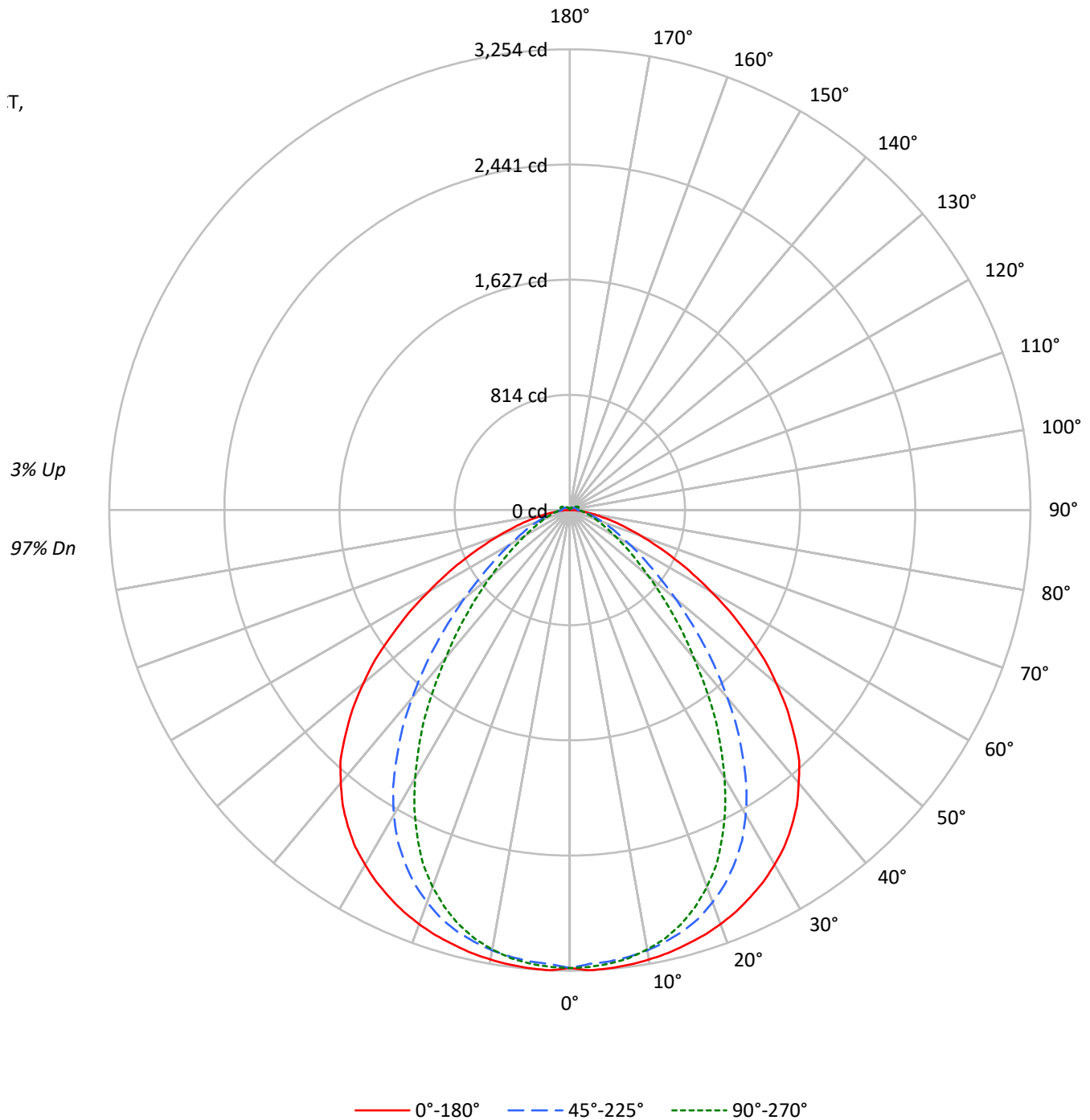
Test Method: LM-79-2019  
Report Number: P894101  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-ACL-UNV-CC83-HI-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 5000K CC  
HI lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6637.0 lumens  
Efficiency: N/A  
Efficacy: 130.9 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°	32950	32950	32950
5°	33159	32055	32005
10°	33218	31359	30882
15°	33318	30544	29476
20°	33480	29422	27552
25°	33578	27863	24991
30°	33612	25722	21774
35°	33468	22730	18213
40°	32874	19200	14334
45°	31609	15500	11113
50°	29428	12027	8339
55°	26343	9207	6377
60°	22632	7077	4859
65°	18872	5583	3861
70°	15095	4479	3156
75°	12022	3609	2687
80°	8807	2978	2351
85°	6053	2530	2164

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 31609 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	306.5	4.6
10°-20°	873.0	13.2
20°-30°	1272.8	19.2
30°-40°	1367.5	20.6
40°-50°	1138.1	17.1
50°-60°	761.2	11.5
60°-70°	435.7	6.6
70°-80°	216.6	3.3
80°-90°	88.7	1.3
90°-100°	51.4	0.8
100°-110°	45.4	0.7
110°-120°	33.3	0.5
120°-130°	21.4	0.3
130°-140°	12.8	0.2
140°-150°	7.2	0.1
150°-160°	3.6	0.1
160°-170°	1.5	0.0
170°-180°	0.3	0.0
0°-30°	2452.2	36.9
0°-40°	3819.7	57.6
0°-60°	5719.0	86.2
0°-90°	6460.0	97.3
90°-120°	130.1	2.0
90°-150°	171.5	2.6
90°-180°	177.0	2.7
0°-180°	6637.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3235	3235	3235	3235	3235	
5°	3250	3239	3200	3227	3216	309
15°	3178	3156	3081	3058	3031	898
25°	3017	2946	2753	2614	2549	1392
35°	2731	2533	2131	1869	1787	1706
45°	2241	1862	1331	1077	1014	1723
55°	1528	1102	694	548	520	1369
65°	818	555	349	283	268	818
75°	329	240	173	153	148	353
85°	64	72	80	84	85	75
90°	9	30	55	65	67	9
95°	14	30	54	65	67	11
105°	9	24	48	63	66	10
115°	5	14	38	52	57	5
125°	3	9	26	38	42	2
135°	2	8	17	26	28	1
145°	2	6	11	17	20	1
155°	2	5	8	10	13	1
165°	3	4	6	7	8	1
175°	3	3	4	4	4	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3235.4	3235.4	3235.4	3235.4	3235.4
2.5°	3254.2	3245.8	3208.9	3238.2	3229.7
5°	3249.5	3239.1	3200.4	3226.9	3216.5
7.5°	3239.1	3227.8	3183.5	3204.2	3192.9
10°	3224.0	3209.9	3158.9	3169.3	3151.4
12.5°	3205.2	3187.2	3124.0	3121.2	3101.3
15°	3177.8	3156.1	3080.6	3057.9	3030.6
17.5°	3149.5	3117.4	3024.9	2978.7	2940.9
20°	3112.7	3070.2	2948.5	2879.6	2832.4
22.5°	3070.2	3012.6	2862.6	2756.9	2707.8
25°	3017.3	2945.6	2753.1	2614.3	2549.2
27.5°	2960.7	2865.4	2634.2	2452.0	2377.4
30°	2892.8	2774.8	2486.0	2267.0	2186.8
32.5°	2821.0	2659.6	2323.7	2072.6	1984.8
35°	2731.4	2533.2	2131.1	1868.7	1786.6
37.5°	2634.2	2382.2	1940.5	1660.2	1567.7
40°	2516.2	2222.7	1730.9	1453.5	1361.9
42.5°	2399.2	2049.0	1529.9	1266.6	1187.3
45°	2240.6	1862.1	1330.8	1076.9	1013.6
47.5°	2081.1	1662.0	1140.1	923.0	860.8
50°	1903.7	1465.7	973.1	774.9	723.0
52.5°	1730.9	1282.6	821.1	655.0	610.6
55°	1528.0	1102.4	693.7	548.4	520.0
57.5°	1344.9	935.3	585.2	464.4	437.9
60°	1151.4	792.8	489.8	392.6	368.1
62.5°	981.6	666.3	412.4	333.2	316.2
65°	818.3	555.0	349.2	283.1	268.0
67.5°	668.2	463.4	294.5	241.6	229.3
70°	536.1	375.6	248.2	205.7	197.3
72.5°	421.9	302.0	206.7	177.4	169.9
75°	329.4	239.7	172.7	152.9	148.2
77.5°	237.8	186.9	144.4	131.2	128.4
80°	168.0	141.6	118.9	113.3	111.4
82.5°	111.4	102.9	98.2	98.2	97.2
85°	64.2	71.7	80.2	84.0	84.9
87.5°	33.0	48.1	64.2	71.7	72.7
90°	9.4	30.2	54.7	65.1	67.0
92.5°	14.2	30.2	53.8	65.1	67.0
95°	14.2	30.2	53.8	65.1	67.0
97.5°	13.2	29.3	53.8	65.1	67.0
100°	12.3	27.4	52.9	65.1	67.0
102.5°	10.4	26.4	51.0	64.2	67.0
105°	9.4	24.5	48.1	63.2	66.1
107.5°	8.5	20.8	45.3	60.4	64.2
110°	6.6	17.9	43.4	57.6	62.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	16.0	40.6	54.7	59.5
115°	4.7	14.2	37.8	51.9	56.6
117.5°	3.8	13.2	34.0	48.1	52.9
120°	2.8	12.3	31.1	45.3	49.1
122.5°	2.8	11.3	27.4	41.5	45.3
125°	2.8	9.4	25.5	37.8	41.5
127.5°	1.9	8.5	22.7	34.0	37.8
130°	1.9	8.5	20.8	31.1	34.0
132.5°	1.9	7.6	18.9	28.3	31.1
135°	1.9	7.6	17.0	25.5	28.3
137.5°	1.9	6.6	15.1	23.6	26.4
140°	1.9	6.6	14.2	20.8	23.6
142.5°	1.9	5.7	12.3	19.8	21.7
145°	1.9	5.7	11.3	17.0	19.8
147.5°	1.9	5.7	10.4	16.0	17.9
150°	1.9	4.7	9.4	13.2	16.0
152.5°	1.9	4.7	8.5	12.3	15.1
155°	1.9	4.7	7.6	10.4	13.2
157.5°	1.9	4.7	7.6	9.4	11.3
160°	2.8	3.8	6.6	8.5	10.4
162.5°	2.8	3.8	5.7	7.6	9.4
165°	2.8	3.8	5.7	6.6	8.5
167.5°	2.8	3.8	4.7	5.7	6.6
170°	2.8	2.8	4.7	4.7	4.7
172.5°	2.8	2.8	3.8	4.7	3.8
175°	2.8	2.8	3.8	3.8	3.8
177.5°	2.8	2.8	3.8	3.8	3.8
180°	2.8	2.8	2.8	2.8	2.8



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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	20.88	22.27	21.29	22.64	23.02	16.17	17.56	16.58	17.94	18.32
	3H	21.97	23.21	22.39	23.60	24.03	17.31	18.56	17.74	18.94	19.37
	4H	22.28	23.44	22.72	23.85	24.29	17.81	18.98	18.26	19.38	19.83
	6H	22.42	23.50	22.88	23.92	24.38	18.31	19.39	18.77	19.81	20.27
	8H	22.44	23.46	22.91	23.91	24.37	18.57	19.59	19.05	20.04	20.51
	12H	22.43	23.41	22.91	23.85	24.34	18.87	19.84	19.34	20.28	20.77
4H	2H	20.86	22.02	21.31	22.43	22.87	16.67	17.83	17.12	18.24	18.68
	3H	22.10	23.06	22.55	23.51	23.98	17.98	18.94	18.44	19.40	19.87
	4H	22.48	23.34	22.96	23.81	24.32	18.58	19.44	19.06	19.91	20.41
	6H	22.71	23.46	23.22	23.96	24.48	19.20	19.95	19.70	20.44	20.97
	8H	22.75	23.45	23.26	23.95	24.48	19.52	20.22	20.03	20.72	21.25
	12H	22.77	23.39	23.29	23.92	24.45	19.89	20.52	20.42	21.05	21.58
8H	4H	22.47	23.17	22.98	23.66	24.19	18.82	19.52	19.33	20.01	20.54
	6H	22.74	23.32	23.29	23.87	24.41	19.54	20.12	20.08	20.66	21.20
	8H	22.82	23.34	23.38	23.90	24.45	19.95	20.47	20.51	21.03	21.58
	12H	22.86	23.33	23.42	23.87	24.49	20.44	20.90	20.99	21.44	22.07
12H	4H	22.44	23.07	22.97	23.60	24.13	18.83	19.46	19.36	19.99	20.52
	6H	22.72	23.25	23.28	23.80	24.36	19.58	20.10	20.14	20.66	21.21
	8H	22.83	23.29	23.39	23.83	24.46	20.04	20.50	20.59	21.04	21.67