

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: P894125

Luminaire Tested: 4MB-SC3-AOL-UNV-CC83-MID-5000K

Issue Date: 11/11/2024

**Test Information**

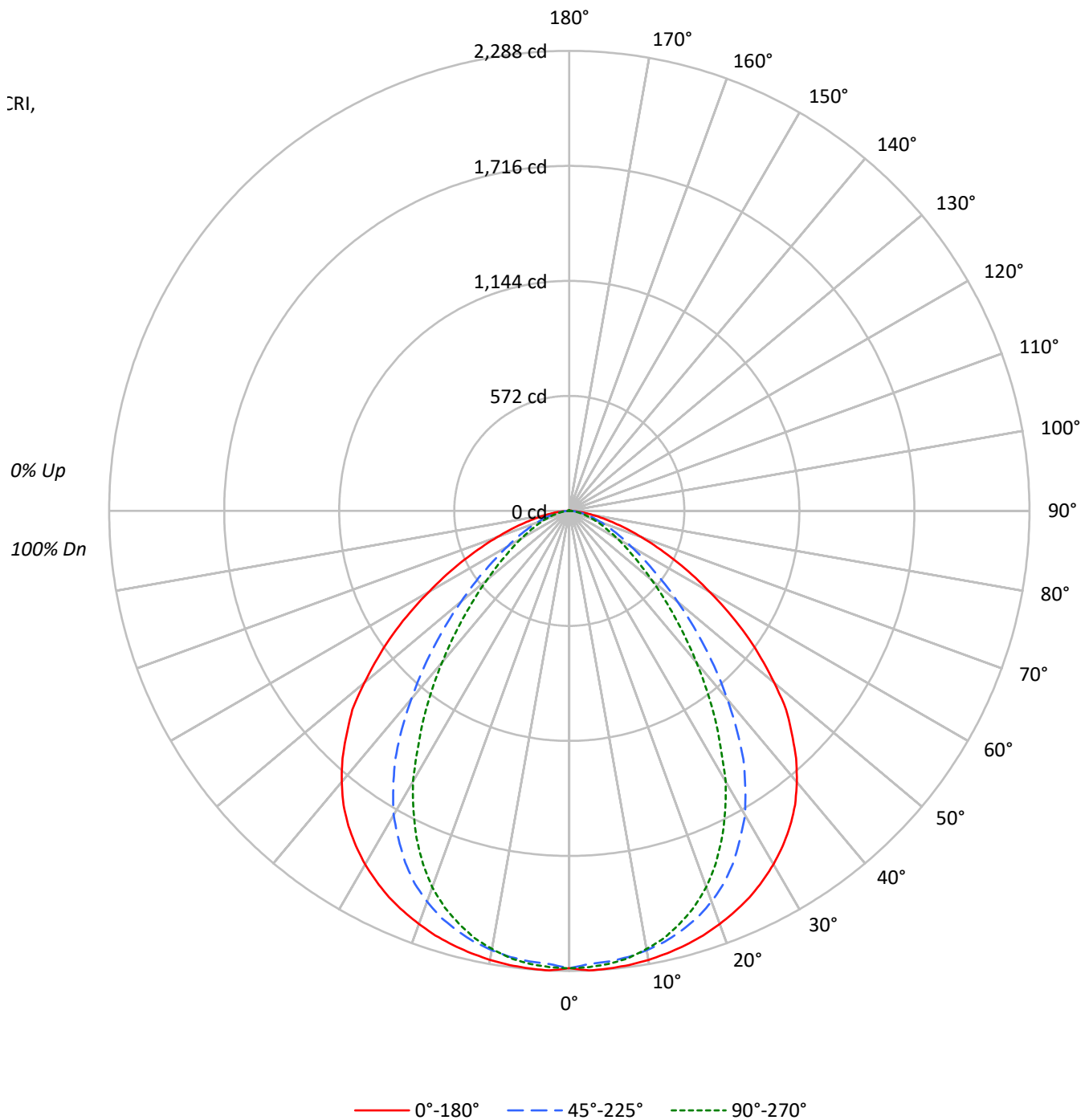
Test Method: LM-79-2019  
Report Number: P894125  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-AOL-UNV-CC83-MID-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800  
5000K CCT, MID lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4544.1 lumens  
Efficiency: N/A  
Efficacy: 135.6 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9948  
Total Harmonic Distortion (THDi): 5.65231997856897  
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				
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87			
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76			
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	52			
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46			
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34			
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	23166	23166	23166
5°	23355	23001	23122
10°	23450	22943	22882
15°	23571	22779	22401
20°	23698	22412	21583
25°	23830	21682	20186
30°	23872	20542	18278
35°	23795	18765	15722
40°	23397	16239	13065
45°	22527	13647	10573
50°	21080	11114	8467
55°	19048	8933	6790
60°	16427	7269	5622
65°	13900	6053	4622
70°	11348	5148	3925
75°	9090	4340	3337
80°	7079	3712	2868
85°	5492	3284	2594

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 22527 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.4	4.7
10°-20°	613.0	13.5
20°-30°	893.5	19.7
30°-40°	963.1	21.2
40°-50°	807.4	17.8
50°-60°	546.6	12.0
60°-70°	311.7	6.9
70°-80°	142.5	3.1
80°-90°	37.3	0.8
90°-100°	4.6	0.1
100°-110°	3.1	0.1
110°-120°	1.7	0.0
120°-130°	1.0	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1721.8	37.9
0°-40°	2684.9	59.1
0°-60°	4038.8	88.9
0°-90°	4530.4	99.7
90°-120°	9.5	0.2
90°-150°	12.2	0.3
90°-180°	14.0	0.3
0°-180°	4544.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2275	2275	2275	2275	2275	
5°	2284	2277	2250	2268	2262	217
15°	2236	2216	2160	2146	2125	632
25°	2121	2065	1930	1841	1796	977
35°	1914	1770	1509	1325	1265	1195
45°	1564	1305	948	781	734	1204
55°	1073	785	503	408	382	955
65°	577	401	251	204	192	576
75°	231	170	110	90	85	252
85°	47	40	28	24	22	55
90°	6	6	4	3	3	7
95°	10	6	3	2	2	8
105°	6	5	2	1	1	7
115°	3	3	1	1	1	3
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	1	1	1
155°	1	1	1	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	3	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2274.7	2274.7	2274.7	2274.7	2274.7
2.5°	2287.8	2281.9	2255.8	2277.3	2270.8
5°	2284.5	2277.3	2249.9	2268.2	2261.7
7.5°	2278.0	2268.9	2238.2	2251.9	2243.4
10°	2267.6	2256.5	2218.6	2226.4	2212.7
12.5°	2253.2	2239.5	2194.5	2192.5	2176.2
15°	2235.6	2216.0	2160.5	2146.2	2124.6
17.5°	2214.0	2189.2	2120.1	2091.4	2065.3
20°	2186.6	2154.7	2067.9	2022.2	1991.5
22.5°	2155.3	2112.2	2007.2	1934.1	1900.8
25°	2120.7	2064.6	1929.5	1840.8	1796.4
27.5°	2077.7	2007.2	1839.5	1724.6	1679.0
30°	2030.0	1940.6	1746.8	1600.0	1554.3
32.5°	1975.9	1864.3	1628.7	1465.6	1401.6
35°	1913.9	1769.7	1509.3	1324.6	1264.6
37.5°	1844.1	1671.1	1366.4	1182.4	1121.7
40°	1759.9	1554.3	1221.5	1039.5	982.7
42.5°	1669.2	1435.6	1082.6	903.8	854.8
45°	1564.1	1305.1	947.5	781.1	734.1
47.5°	1463.0	1173.3	820.9	668.8	630.3
50°	1330.5	1033.0	701.5	566.4	534.4
52.5°	1201.3	903.1	599.7	484.2	454.2
55°	1072.8	785.0	503.1	407.8	382.4
57.5°	937.0	669.5	423.5	345.2	328.2
60°	806.5	569.7	356.9	289.7	276.0
62.5°	687.1	477.7	302.1	244.7	231.6
65°	576.8	401.3	251.2	203.6	191.8
67.5°	472.4	330.2	209.5	169.7	161.2
70°	381.1	267.5	172.9	139.6	131.8
72.5°	302.1	214.0	138.3	114.2	105.7
75°	231.0	169.7	110.3	90.0	84.8
77.5°	172.3	127.9	84.8	69.2	65.3
80°	120.7	92.7	63.3	52.2	48.9
82.5°	82.2	63.9	44.4	36.5	34.6
85°	47.0	39.8	28.1	23.5	22.2
87.5°	24.1	20.9	15.0	11.1	9.8
90°	6.5	6.5	3.9	3.3	2.6
92.5°	10.4	5.9	3.9	2.6	2.0
95°	9.8	5.9	3.3	2.0	2.0
97.5°	9.1	5.9	2.6	2.0	1.3
100°	8.5	5.2	2.6	1.3	1.3
102.5°	7.8	5.2	2.6	1.3	1.3
105°	6.5	4.6	2.0	1.3	0.7
107.5°	5.9	3.9	2.0	1.3	0.7
110°	4.6	3.3	2.0	1.3	0.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	3.9	3.3	1.3	1.3	0.7
115°	3.3	2.6	1.3	0.7	0.7
117.5°	2.6	2.0	1.3	0.7	0.7
120°	2.0	2.0	1.3	0.7	0.7
122.5°	2.0	1.3	1.3	0.7	0.7
125°	1.3	1.3	1.3	0.7	0.7
127.5°	1.3	1.3	1.3	0.7	0.7
130°	1.3	1.3	1.3	0.7	0.7
132.5°	1.3	1.3	1.3	1.3	0.7
135°	0.7	1.3	1.3	1.3	0.7
137.5°	1.3	1.3	1.3	1.3	1.3
140°	1.3	1.3	1.3	1.3	1.3
142.5°	1.3	1.3	1.3	1.3	1.3
145°	1.3	1.3	1.3	1.3	1.3
147.5°	1.3	1.3	1.3	1.3	1.3
150°	1.3	1.3	1.3	1.3	1.3
152.5°	1.3	1.3	1.3	1.3	1.3
155°	1.3	1.3	1.3	2.0	2.0
157.5°	1.3	1.3	2.0	2.0	2.0
160°	1.3	1.3	2.0	2.0	2.0
162.5°	1.3	1.3	2.0	2.0	2.0
165°	1.3	2.0	2.0	2.0	2.0
167.5°	1.3	2.0	2.0	2.0	2.6
170°	1.3	2.0	2.0	2.6	2.6
172.5°	1.3	2.0	2.0	2.6	2.6
175°	2.0	2.0	2.0	2.6	2.6
177.5°	2.0	2.0	2.0	2.6	2.6
180°	2.0	2.0	2.0	2.0	2.0



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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	21.29	22.73	21.66	23.05	23.37	16.13	17.57	16.50	17.89	18.21
	3H	22.60	23.88	22.98	24.21	24.58	17.14	18.43	17.53	18.76	19.13
	4H	23.02	24.22	23.43	24.58	24.96	17.48	18.68	17.88	19.03	19.42
	6H	23.29	24.39	23.70	24.77	25.17	17.70	18.81	18.12	19.18	19.58
	8H	23.36	24.41	23.79	24.80	25.21	17.77	18.82	18.20	19.22	19.63
	12H	23.40	24.40	23.83	24.79	25.23	17.81	18.82	18.25	19.21	19.64
4H	2H	21.29	22.48	21.69	22.84	23.23	16.75	17.95	17.16	18.31	18.70
	3H	22.75	23.74	23.17	24.15	24.56	17.95	18.94	18.37	19.35	19.76
	4H	23.28	24.16	23.71	24.58	25.03	18.37	19.25	18.80	19.67	20.12
	6H	23.65	24.42	24.12	24.87	25.34	18.68	19.44	19.14	19.89	20.36
	8H	23.77	24.48	24.24	24.93	25.41	18.77	19.49	19.24	19.94	20.41
	12H	23.84	24.48	24.33	24.96	25.44	18.84	19.48	19.33	19.97	20.44
8H	4H	23.26	23.97	23.73	24.43	24.90	18.70	19.42	19.17	19.87	20.34
	6H	23.69	24.28	24.19	24.78	25.26	19.09	19.68	19.60	20.18	20.67
	8H	23.85	24.37	24.37	24.89	25.39	19.23	19.76	19.76	20.28	20.78
	12H	23.98	24.44	24.49	24.94	25.52	19.36	19.83	19.87	20.32	20.90
12H	4H	23.23	23.87	23.72	24.35	24.83	18.75	19.38	19.24	19.87	20.35
	6H	23.66	24.19	24.18	24.70	25.20	19.16	19.69	19.68	20.21	20.71
	8H	23.85	24.32	24.36	24.81	25.39	19.35	19.82	19.87	20.32	20.89