

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: P894086

Luminaire Tested: 4MB-SC3-A-UNV-CC83-LOW-5000K

Issue Date: 11/11/2024

**Test Information**

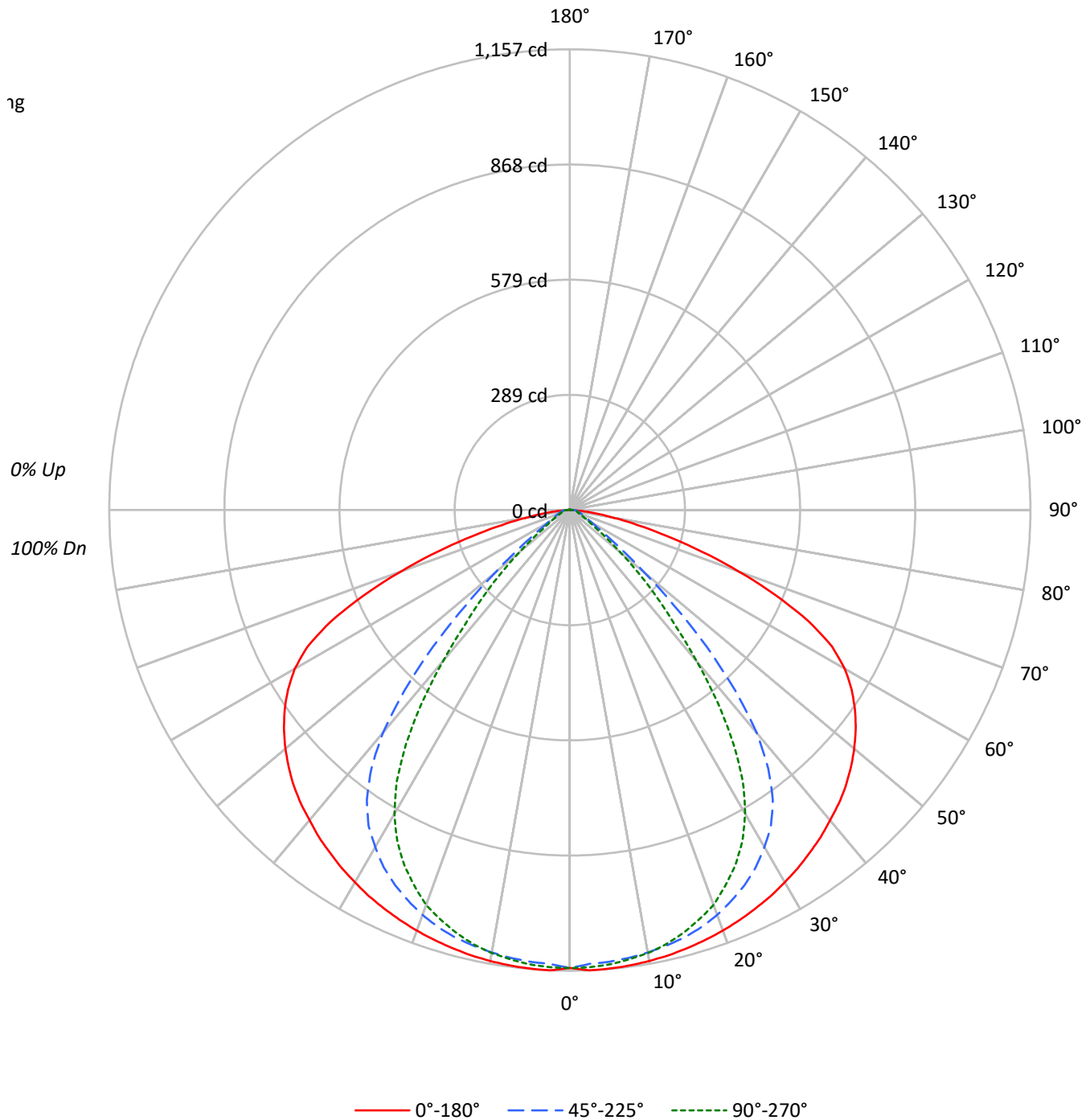
Test Method: LM-79-2019  
Report Number: P894086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-A-UNV-CC83-LOW-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 5000K CCT, LOW lumen settir  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2357.9 lumens  
Efficiency: N/A  
Efficacy: 141.2 lumens/watt  
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23  
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9915  
Total Harmonic Distortion (THDi): 6.67573310469889  
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	102	102	102	100
1	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

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

	0°	45°	90°
0°	11715	11715	11715
5°	11818	11642	11711
10°	11893	11668	11685
15°	12010	11718	11598
20°	12181	11729	11441
25°	12407	11678	11055
30°	12696	11494	10360
35°	13058	11053	8908
40°	13523	9706	6583
45°	14119	7004	4429
50°	14776	3913	2643
55°	15529	2022	1447
60°	16246	1316	1025
65°	15970	1082	812
70°	13468	995	759
75°	9908	1015	815
80°	6610	1196	1026
85°	3611	1940	1566

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 16385 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.2	4.6
10°-20°	315.6	13.4
20°-30°	480.1	20.4
30°-40°	548.3	23.3
40°-50°	442.4	18.8
50°-60°	242.2	10.3
60°-70°	127.7	5.4
70°-80°	62.6	2.7
80°-90°	22.1	0.9
90°-100°	4.7	0.2
100°-110°	0.6	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
<b>0°-30°</b>	<b>905.0</b>	<b>38.4</b>
<b>0°-40°</b>	<b>1453.3</b>	<b>61.6</b>
<b>0°-60°</b>	<b>2137.8</b>	<b>90.7</b>
<b>0°-90°</b>	<b>2350.2</b>	<b>99.7</b>
90°-120°	5.7	0.2
90°-150°	6.9	0.3
<b>90°-180°</b>	<b>8.0</b>	<b>0.3</b>
<b>0°-180°</b>	<b>2357.9</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1150	1150	1150	1150	1150	
5°	1156	1152	1139	1149	1146	110
15°	1139	1132	1111	1110	1100	322
25°	1104	1088	1039	1004	984	510
35°	1050	1006	889	768	716	659
45°	980	842	486	332	308	757
55°	875	360	114	88	82	780
65°	663	83	45	36	34	641
75°	252	47	26	22	21	278
85°	31	24	17	15	13	43
90°	1	13	10	9	8	2
95°	1	2	4	5	5	1
105°	0	0	0	1	1	0
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	0
175°	1	1	1	2	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1150.3	1150.3	1150.3	1150.3	1150.3
2.5°	1157.3	1154.1	1141.0	1152.2	1149.0
5°	1156.0	1152.5	1138.8	1149.0	1145.5
7.5°	1153.8	1149.3	1134.4	1143.6	1138.2
10°	1150.0	1145.5	1128.3	1135.6	1129.9
12.5°	1145.5	1139.5	1120.4	1124.2	1116.9
15°	1139.1	1132.1	1111.4	1109.5	1100.0
17.5°	1132.1	1123.5	1098.4	1090.1	1078.7
20°	1123.9	1113.4	1082.2	1065.9	1055.7
22.5°	1114.6	1100.9	1061.8	1037.0	1021.1
25°	1104.1	1088.2	1039.2	1003.9	983.8
27.5°	1093.0	1071.3	1011.8	965.4	938.3
30°	1079.6	1053.5	977.4	914.7	881.0
32.5°	1066.2	1031.2	940.5	849.5	809.4
35°	1050.3	1006.1	889.0	768.0	716.5
37.5°	1035.4	975.9	819.3	665.8	610.5
40°	1017.2	940.2	730.1	548.4	495.2
42.5°	1000.0	898.8	614.6	435.1	388.9
45°	980.3	842.2	486.3	332.3	307.5
47.5°	957.4	764.8	353.6	247.3	231.7
50°	932.6	658.5	247.0	179.5	166.8
52.5°	905.2	515.0	166.5	124.8	117.8
55°	874.6	360.0	113.9	88.2	81.5
57.5°	839.3	234.3	82.8	66.5	62.1
60°	797.6	149.6	64.6	52.8	50.3
62.5°	742.9	105.0	53.2	43.6	41.4
65°	662.7	83.1	44.9	36.3	33.7
67.5°	561.1	70.3	38.5	30.6	29.0
70°	452.3	61.1	33.4	26.4	25.5
72.5°	347.6	53.5	29.0	23.6	22.9
75°	251.8	46.8	25.8	21.6	20.7
77.5°	174.4	40.4	22.9	19.4	18.8
80°	112.7	35.0	20.4	17.8	17.5
82.5°	64.6	29.3	18.5	17.2	16.9
85°	30.9	24.5	16.6	15.0	13.4
87.5°	9.9	18.1	13.0	11.5	10.2
90°	1.3	12.7	10.2	8.9	8.3
92.5°	1.3	7.0	7.3	7.3	7.0
95°	1.0	1.6	3.5	5.4	5.1
97.5°	1.0	0.6	2.2	3.8	3.8
100°	0.6	0.3	1.0	2.5	2.5
102.5°	0.6	0.3	0.3	1.6	1.6
105°	0.3	0.0	0.3	0.6	0.6
107.5°	0.3	0.3	0.3	0.6	0.3
110°	0.3	0.3	0.3	0.6	0.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.3	0.3	0.3	0.6	0.3
115°	0.3	0.3	0.3	0.6	0.3
117.5°	0.3	0.3	0.3	0.6	0.3
120°	0.3	0.3	0.3	0.6	0.3
122.5°	0.3	0.3	0.3	0.6	0.3
125°	0.3	0.3	0.3	0.6	0.3
127.5°	0.3	0.3	0.3	0.6	0.3
130°	0.3	0.3	0.6	0.6	0.3
132.5°	0.3	0.3	0.6	0.6	0.3
135°	0.3	0.3	0.6	0.6	0.3
137.5°	0.3	0.3	0.6	0.6	0.6
140°	0.6	0.3	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	1.0	0.6
145°	0.6	0.6	0.6	1.0	0.6
147.5°	0.6	0.6	1.0	1.0	0.6
150°	0.6	0.6	1.0	1.0	0.6
152.5°	0.6	0.6	1.0	1.0	1.0
155°	0.6	0.6	1.0	1.3	1.0
157.5°	0.6	0.6	1.0	1.3	1.0
160°	0.6	1.0	1.3	1.3	1.0
162.5°	0.6	1.0	1.3	1.3	1.3
165°	0.6	1.0	1.3	1.3	1.3
167.5°	1.0	1.0	1.3	1.6	1.3
170°	1.0	1.0	1.3	1.6	1.3
172.5°	1.0	1.0	1.3	1.6	1.3
175°	1.0	1.0	1.3	1.6	1.3
177.5°	1.0	1.0	1.3	1.6	1.6
180°	1.3	1.3	1.3	1.3	1.3



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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	18.46	19.86	18.83	20.18	20.50	6.97	8.37	7.34	8.69	9.01
	3H	21.37	22.61	21.75	22.95	23.32	7.91	9.15	8.29	9.49	9.86
	4H	22.26	23.42	22.67	23.78	24.17	8.42	9.59	8.83	9.94	10.33
	6H	22.76	23.83	23.18	24.20	24.60	9.06	10.13	9.48	10.50	10.91
	8H	22.87	23.88	23.30	24.28	24.69	9.48	10.49	9.91	10.89	11.30
	12H	22.91	23.88	23.35	24.27	24.71	9.93	10.90	10.36	11.29	11.73
4H	2H	18.27	19.43	18.68	19.79	20.18	7.49	8.65	7.90	9.01	9.40
	3H	21.20	22.16	21.62	22.56	22.97	8.68	9.64	9.10	10.05	10.46
	4H	22.10	22.96	22.54	23.38	23.83	9.35	10.20	9.79	10.63	11.08
	6H	22.70	23.44	23.16	23.89	24.36	10.17	10.91	10.64	11.36	11.84
	8H	22.86	23.55	23.33	24.00	24.48	10.70	11.40	11.18	11.85	12.33
	12H	22.95	23.56	23.44	24.05	24.53	11.29	11.90	11.78	12.39	12.87
8H	4H	21.99	22.69	22.47	23.14	23.62	9.94	10.63	10.41	11.08	11.56
	6H	22.59	23.16	23.10	23.66	24.15	10.94	11.51	11.45	12.02	12.50
	8H	22.78	23.29	23.30	23.81	24.31	11.62	12.13	12.14	12.65	13.15
	12H	22.93	23.38	23.44	23.88	24.46	12.39	12.84	12.91	13.34	13.92
12H	4H	21.95	22.57	22.44	23.06	23.54	10.20	10.82	10.69	11.30	11.78
	6H	22.54	23.06	23.07	23.57	24.07	11.25	11.77	11.78	12.29	12.78
	8H	22.76	23.21	23.28	23.71	24.29	12.02	12.48	12.54	12.98	13.55