

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: P894102

Luminaire Tested: 4MB-SC3-ACL-UNV-CC83-LOW-3500K

Issue Date: 11/11/2024

**Test Information**

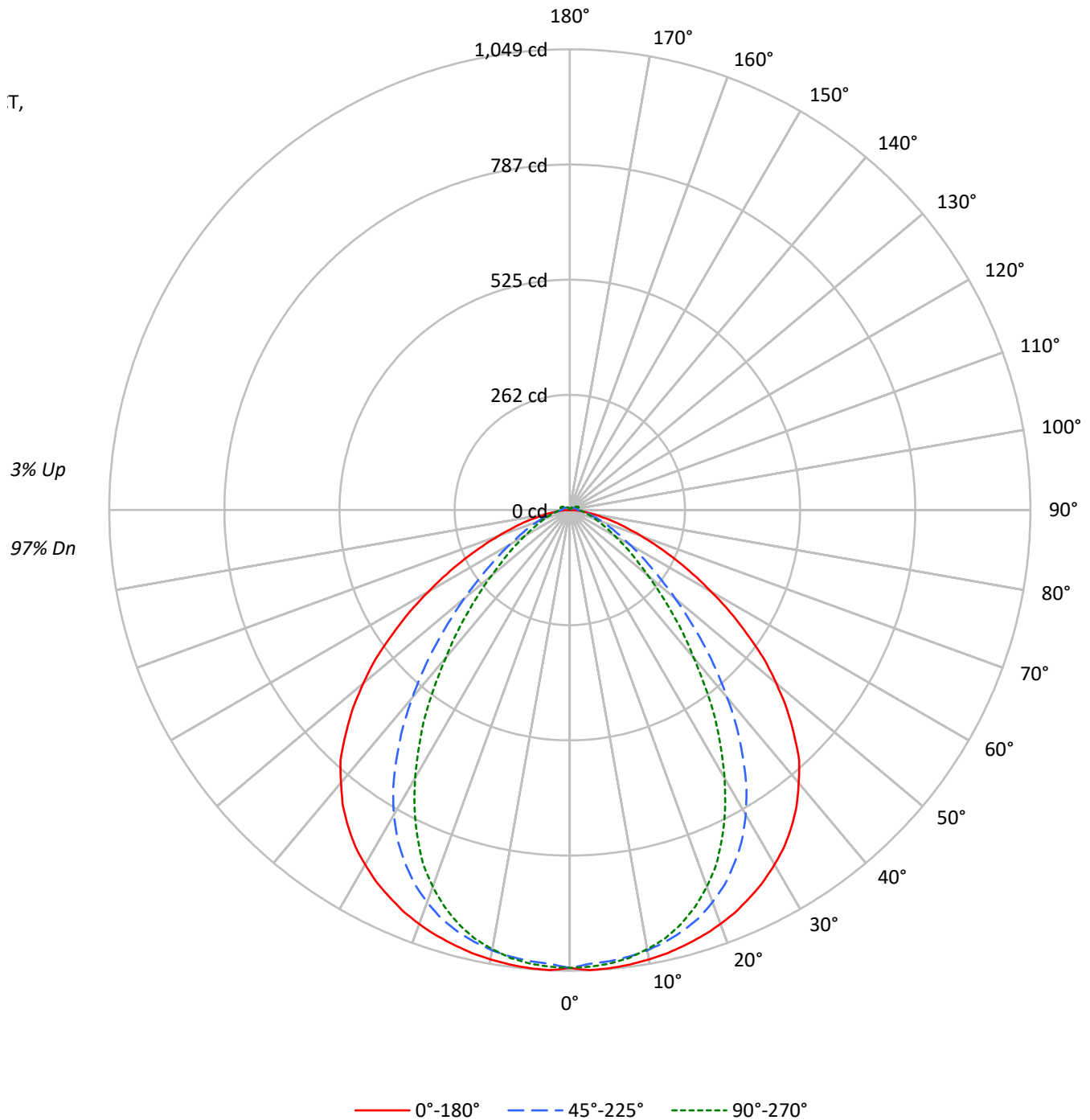
Test Method: LM-79-2019  
Report Number: P894102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-ACL-UNV-CC83-LOW-3500K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 3500K CC  
LOW lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2139.0 lumens  
Efficiency: N/A  
Efficacy: 128.1 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): 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				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°	10619	10619	10619
5°	10687	10331	10314
10°	10706	10107	9952
15°	10738	9844	9500
20°	10790	9482	8879
25°	10821	8980	8055
30°	10833	8290	7018
35°	10786	7325	5870
40°	10594	6189	4619
45°	10187	4996	3582
50°	9484	3876	2687
55°	8491	2968	2055
60°	7294	2281	1565
65°	6082	1799	1245
70°	4866	1444	1017
75°	3876	1164	867
80°	2836	959	758
85°	1952	817	698

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10187 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.8	4.6
10°-20°	281.4	13.2
20°-30°	410.2	19.2
30°-40°	440.7	20.6
40°-50°	366.8	17.1
50°-60°	245.3	11.5
60°-70°	140.4	6.6
70°-80°	69.8	3.3
80°-90°	28.6	1.3
90°-100°	16.6	0.8
100°-110°	14.6	0.7
110°-120°	10.7	0.5
120°-130°	6.9	0.3
130°-140°	4.1	0.2
140°-150°	2.3	0.1
150°-160°	1.2	0.1
160°-170°	0.5	0.0
170°-180°	0.1	0.0
0°-30°	790.3	36.9
0°-40°	1231.0	57.6
0°-60°	1843.1	86.2
0°-90°	2082.0	97.3
90°-120°	41.9	2.0
90°-150°	55.3	2.6
90°-180°	57.0	2.7
0°-180°	2139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1043	1043	1043	1043	1043	
5°	1047	1044	1032	1040	1037	100
15°	1024	1017	993	986	977	290
25°	972	949	887	843	822	448
35°	880	816	687	602	576	550
45°	722	600	429	347	327	555
55°	492	355	224	177	168	441
65°	264	179	112	91	86	264
75°	106	77	56	49	48	114
85°	21	23	26	27	27	24
90°	3	10	18	21	22	3
95°	5	10	17	21	22	4
105°	3	8	16	20	21	3
115°	2	5	12	17	18	1
125°	1	3	8	12	13	1
135°	1	2	6	8	9	0
145°	1	2	4	6	6	0
155°	1	2	2	3	4	0
165°	1	1	2	2	3	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1042.7	1042.7	1042.7	1042.7	1042.7
2.5°	1048.8	1046.1	1034.2	1043.6	1040.9
5°	1047.3	1043.9	1031.5	1040.0	1036.6
7.5°	1043.9	1040.3	1026.0	1032.7	1029.0
10°	1039.1	1034.5	1018.1	1021.4	1015.6
12.5°	1033.0	1027.2	1006.8	1005.9	999.5
15°	1024.2	1017.2	992.8	985.5	976.7
17.5°	1015.0	1004.7	974.9	960.0	947.8
20°	1003.2	989.5	950.2	928.0	912.8
22.5°	989.5	970.9	922.6	888.5	872.7
25°	972.4	949.3	887.3	842.6	821.6
27.5°	954.2	923.5	848.9	790.2	766.2
30°	932.3	894.3	801.2	730.6	704.8
32.5°	909.2	857.2	748.9	668.0	639.7
35°	880.3	816.4	686.8	602.3	575.8
37.5°	848.9	767.7	625.4	535.0	505.2
40°	810.9	716.3	557.9	468.4	438.9
42.5°	773.2	660.4	493.1	408.2	382.7
45°	722.1	600.1	428.9	347.1	326.7
47.5°	670.7	535.7	367.4	297.5	277.4
50°	613.5	472.4	313.6	249.7	233.0
52.5°	557.9	413.4	264.6	211.1	196.8
55°	492.5	355.3	223.6	176.7	167.6
57.5°	433.4	301.4	188.6	149.7	141.1
60°	371.1	255.5	157.9	126.5	118.6
62.5°	316.3	214.7	132.9	107.4	101.9
65°	263.7	178.9	112.5	91.3	86.4
67.5°	215.4	149.3	94.9	77.9	73.9
70°	172.8	121.1	80.0	66.3	63.6
72.5°	136.0	97.3	66.6	57.2	54.8
75°	106.2	77.3	55.7	49.3	47.8
77.5°	76.7	60.2	46.5	42.3	41.4
80°	54.1	45.6	38.3	36.5	35.9
82.5°	35.9	33.2	31.6	31.6	31.3
85°	20.7	23.1	25.9	27.1	27.4
87.5°	10.6	15.5	20.7	23.1	23.4
90°	3.0	9.7	17.6	21.0	21.6
92.5°	4.6	9.7	17.3	21.0	21.6
95°	4.6	9.7	17.3	21.0	21.6
97.5°	4.3	9.4	17.3	21.0	21.6
100°	4.0	8.8	17.0	21.0	21.6
102.5°	3.3	8.5	16.4	20.7	21.6
105°	3.0	7.9	15.5	20.4	21.3
107.5°	2.7	6.7	14.6	19.5	20.7
110°	2.1	5.8	14.0	18.6	20.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	5.2	13.1	17.6	19.2
115°	1.5	4.6	12.2	16.7	18.3
117.5°	1.2	4.3	11.0	15.5	17.0
120°	0.9	4.0	10.0	14.6	15.8
122.5°	0.9	3.7	8.8	13.4	14.6
125°	0.9	3.0	8.2	12.2	13.4
127.5°	0.6	2.7	7.3	11.0	12.2
130°	0.6	2.7	6.7	10.0	11.0
132.5°	0.6	2.4	6.1	9.1	10.0
135°	0.6	2.4	5.5	8.2	9.1
137.5°	0.6	2.1	4.9	7.6	8.5
140°	0.6	2.1	4.6	6.7	7.6
142.5°	0.6	1.8	4.0	6.4	7.0
145°	0.6	1.8	3.7	5.5	6.4
147.5°	0.6	1.8	3.3	5.2	5.8
150°	0.6	1.5	3.0	4.3	5.2
152.5°	0.6	1.5	2.7	4.0	4.9
155°	0.6	1.5	2.4	3.3	4.3
157.5°	0.6	1.5	2.4	3.0	3.7
160°	0.9	1.2	2.1	2.7	3.3
162.5°	0.9	1.2	1.8	2.4	3.0
165°	0.9	1.2	1.8	2.1	2.7
167.5°	0.9	1.2	1.5	1.8	2.1
170°	0.9	0.9	1.5	1.5	1.5
172.5°	0.9	0.9	1.2	1.5	1.2
175°	0.9	0.9	1.2	1.2	1.2
177.5°	0.9	0.9	1.2	1.2	1.2
180°	0.9	0.9	0.9	0.9	0.9



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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	16.94	18.33	17.35	18.71	19.09	12.24	13.63	12.65	14.00	14.39
	3H	18.04	19.28	18.46	19.67	20.09	13.38	14.62	13.80	15.01	15.44
	4H	18.34	19.51	18.79	19.91	20.36	13.88	15.04	14.33	15.45	15.90
	6H	18.49	19.56	18.95	19.98	20.44	14.38	15.45	14.84	15.88	16.34
	8H	18.51	19.53	18.98	19.97	20.44	14.64	15.66	15.11	16.11	16.57
	12H	18.50	19.48	18.98	19.91	20.41	14.94	15.91	15.41	16.35	16.84
4H	2H	16.92	18.09	17.37	18.49	18.94	12.74	13.90	13.18	14.31	14.75
	3H	18.16	19.12	18.62	19.58	20.04	14.05	15.01	14.51	15.47	15.93
	4H	18.55	19.41	19.03	19.88	20.38	14.64	15.51	15.12	15.98	16.48
	6H	18.78	19.53	19.28	20.02	20.55	15.27	16.02	15.77	16.51	17.03
	8H	18.82	19.52	19.33	20.02	20.55	15.59	16.29	16.10	16.78	17.31
	12H	18.83	19.46	19.36	19.98	20.52	15.96	16.59	16.49	17.11	17.65
8H	4H	18.53	19.23	19.04	19.73	20.26	14.88	15.59	15.39	16.08	16.61
	6H	18.81	19.39	19.35	19.93	20.47	15.61	16.19	16.15	16.73	17.27
	8H	18.88	19.40	19.44	19.96	20.51	16.01	16.53	16.57	17.09	17.64
	12H	18.93	19.39	19.48	19.93	20.56	16.50	16.97	17.06	17.51	18.13
12H	4H	18.51	19.14	19.04	19.66	20.20	14.90	15.52	15.43	16.05	16.59
	6H	18.79	19.31	19.35	19.87	20.42	15.64	16.17	16.20	16.72	17.28
	8H	18.90	19.36	19.45	19.90	20.52	16.10	16.57	16.66	17.11	17.73