

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: P894121

Luminaire Tested: 4MB-SC3-AOL-UNV-CC83-LOW-4000K

Issue Date: 11/11/2024

**Test Information**

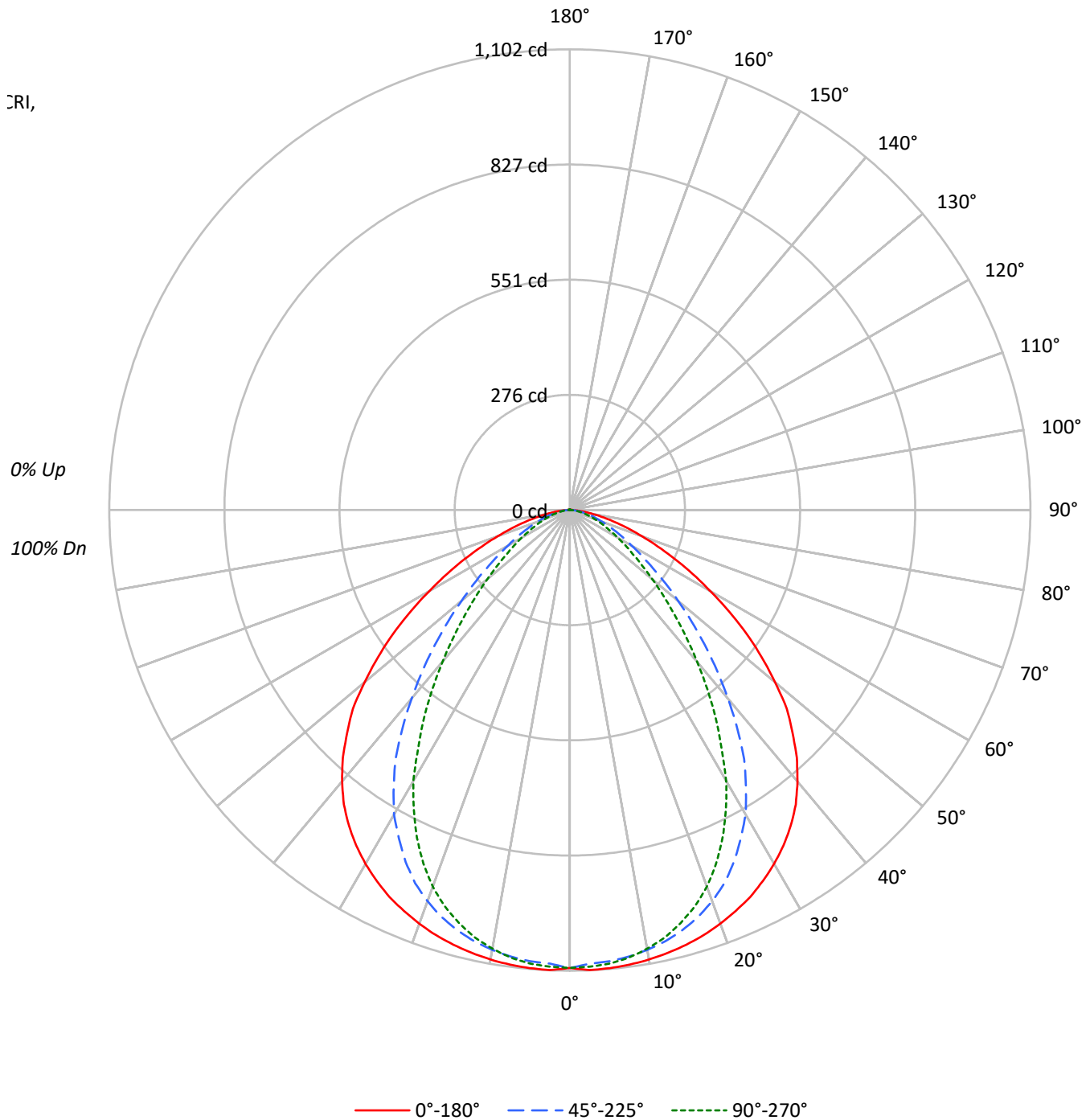
Test Method: LM-79-2019  
Report Number: P894121  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-AOL-UNV-CC83-LOW-4000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800  
4000K CCT, LOW lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2187.9 lumens  
Efficiency: N/A  
Efficacy: 131.0 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): 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	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	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

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

	0°	45°	90°
0°	11155	11155	11155
5°	11245	11076	11133
10°	11292	11048	11019
15°	11350	10968	10786
20°	11411	10791	10392
25°	11475	10440	9720
30°	11495	9891	8801
35°	11458	9036	7570
40°	11266	7820	6291
45°	10847	6570	5091
50°	10151	5352	4077
55°	9173	4302	3269
60°	7911	3501	2707
65°	6694	2916	2227
70°	5464	2480	1891
75°	4376	2089	1605
80°	3407	1789	1384
85°	2641	1577	1250

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10847 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.7	4.7
10°-20°	295.2	13.5
20°-30°	430.2	19.7
30°-40°	463.7	21.2
40°-50°	388.7	17.8
50°-60°	263.2	12.0
60°-70°	150.1	6.9
70°-80°	68.6	3.1
80°-90°	18.0	0.8
90°-100°	2.2	0.1
100°-110°	1.5	0.1
110°-120°	0.8	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	829.1	37.9
0°-40°	1292.8	59.1
0°-60°	1944.8	88.9
0°-90°	2181.4	99.7
90°-120°	4.5	0.2
90°-150°	5.8	0.3
90°-180°	6.0	0.3
0°-180°	2187.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1100	1097	1083	1092	1089	105
15°	1076	1067	1040	1033	1023	304
25°	1021	994	929	886	865	470
35°	922	852	727	638	609	575
45°	753	628	456	376	354	580
55°	517	378	242	196	184	460
65°	278	193	121	98	92	277
75°	111	82	53	43	41	121
85°	23	19	14	11	11	26
90°	3	3	2	2	1	3
95°	5	3	2	1	1	4
105°	3	2	1	1	0	3
115°	2	1	1	0	0	2
125°	1	1	1	0	0	1
135°	0	1	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	1	1	0
180°	1	1	1	1	1	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1095.3	1095.3	1095.3	1095.3	1095.3
2.5°	1101.6	1098.8	1086.2	1096.6	1093.4
5°	1100.0	1096.6	1083.4	1092.2	1089.0
7.5°	1096.9	1092.5	1077.7	1084.3	1080.2
10°	1091.9	1086.5	1068.3	1072.1	1065.5
12.5°	1084.9	1078.3	1056.7	1055.7	1047.9
15°	1076.5	1067.0	1040.3	1033.4	1023.0
17.5°	1066.1	1054.2	1020.8	1007.0	994.5
20°	1052.9	1037.5	995.7	973.7	958.9
22.5°	1037.8	1017.1	966.5	931.3	915.3
25°	1021.2	994.1	929.1	886.4	865.0
27.5°	1000.4	966.5	885.7	830.4	808.4
30°	977.5	934.4	841.1	770.4	748.4
32.5°	951.4	897.7	784.3	705.7	674.9
35°	921.6	852.1	726.8	637.8	608.9
37.5°	887.9	804.7	657.9	569.3	540.1
40°	847.4	748.4	588.2	500.5	473.2
42.5°	803.7	691.2	521.3	435.2	411.6
45°	753.1	628.4	456.2	376.1	353.5
47.5°	704.4	564.9	395.3	322.1	303.5
50°	640.7	497.4	337.8	272.7	257.3
52.5°	578.4	434.9	288.8	233.1	218.7
55°	516.6	378.0	242.3	196.4	184.1
57.5°	451.2	322.4	203.9	166.2	158.0
60°	388.4	274.3	171.9	139.5	132.9
62.5°	330.9	230.0	145.5	117.8	111.5
65°	277.8	193.2	121.0	98.0	92.4
67.5°	227.5	159.0	100.9	81.7	77.6
70°	183.5	128.8	83.3	67.2	63.5
72.5°	145.5	103.1	66.6	55.0	50.9
75°	111.2	81.7	53.1	43.4	40.8
77.5°	82.9	61.6	40.8	33.3	31.4
80°	58.1	44.6	30.5	25.1	23.6
82.5°	39.6	30.8	21.4	17.6	16.7
85°	22.6	19.2	13.5	11.3	10.7
87.5°	11.6	10.1	7.2	5.3	4.7
90°	3.1	3.1	1.9	1.6	1.3
92.5°	5.0	2.8	1.9	1.3	0.9
95°	4.7	2.8	1.6	0.9	0.9
97.5°	4.4	2.8	1.3	0.9	0.6
100°	4.1	2.5	1.3	0.6	0.6
102.5°	3.8	2.5	1.3	0.6	0.6
105°	3.1	2.2	0.9	0.6	0.3
107.5°	2.8	1.9	0.9	0.6	0.3
110°	2.2	1.6	0.9	0.6	0.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.9	1.6	0.6	0.6	0.3
115°	1.6	1.3	0.6	0.3	0.3
117.5°	1.3	0.9	0.6	0.3	0.3
120°	0.9	0.9	0.6	0.3	0.3
122.5°	0.9	0.6	0.6	0.3	0.3
125°	0.6	0.6	0.6	0.3	0.3
127.5°	0.6	0.6	0.6	0.3	0.3
130°	0.6	0.6	0.6	0.3	0.3
132.5°	0.6	0.6	0.6	0.6	0.3
135°	0.3	0.6	0.6	0.6	0.3
137.5°	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6
145°	0.6	0.6	0.6	0.6	0.6
147.5°	0.6	0.6	0.6	0.6	0.6
150°	0.6	0.6	0.6	0.6	0.6
152.5°	0.6	0.6	0.6	0.6	0.6
155°	0.6	0.6	0.6	0.9	0.9
157.5°	0.6	0.6	0.9	0.9	0.9
160°	0.6	0.6	0.9	0.9	0.9
162.5°	0.6	0.6	0.9	0.9	0.9
165°	0.6	0.9	0.9	0.9	0.9
167.5°	0.6	0.9	0.9	0.9	1.3
170°	0.6	0.9	0.9	1.3	1.3
172.5°	0.6	0.9	0.9	1.3	1.3
175°	0.9	0.9	0.9	1.3	1.3
177.5°	0.9	0.9	0.9	1.3	1.3
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	18.75	20.19	19.12	20.51	20.83	13.59	15.03	13.96	15.35	15.67
	3H	20.06	21.34	20.44	21.68	22.05	14.60	15.89	14.99	16.22	16.59
	4H	20.48	21.68	20.89	22.04	22.42	14.94	16.14	15.34	16.49	16.88
	6H	20.75	21.85	21.17	22.23	22.63	15.16	16.27	15.58	16.64	17.04
	8H	20.82	21.87	21.25	22.27	22.68	15.23	16.28	15.66	16.68	17.09
	12H	20.86	21.86	21.29	22.25	22.69	15.27	16.28	15.71	16.67	17.10
4H	2H	18.75	19.95	19.15	20.30	20.69	14.21	15.41	14.62	15.77	16.16
	3H	20.21	21.20	20.63	21.61	22.02	15.41	16.40	15.83	16.81	17.22
	4H	20.74	21.62	21.18	22.05	22.49	15.83	16.71	16.27	17.14	17.58
	6H	21.12	21.88	21.58	22.33	22.80	16.14	16.91	16.60	17.36	17.82
	8H	21.23	21.94	21.70	22.39	22.87	16.23	16.95	16.70	17.40	17.88
	12H	21.30	21.94	21.79	22.43	22.91	16.30	16.94	16.79	17.43	17.91
8H	4H	20.72	21.44	21.19	21.89	22.36	16.16	16.88	16.63	17.33	17.81
	6H	21.15	21.74	21.65	22.24	22.73	16.55	17.14	17.06	17.64	18.13
	8H	21.31	21.84	21.83	22.35	22.85	16.70	17.23	17.22	17.74	18.24
	12H	21.44	21.91	21.95	22.40	22.98	16.82	17.29	17.34	17.79	18.36
12H	4H	20.69	21.33	21.18	21.81	22.29	16.21	16.85	16.70	17.33	17.81
	6H	21.12	21.65	21.64	22.17	22.66	16.62	17.15	17.14	17.67	18.17
	8H	21.31	21.78	21.83	22.28	22.85	16.81	17.28	17.33	17.78	18.35