

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: P894094

Luminaire Tested: 4MB-SC3-A-UNV-CC93-LOW-4000K

Issue Date: 11/11/2024

**Test Information**

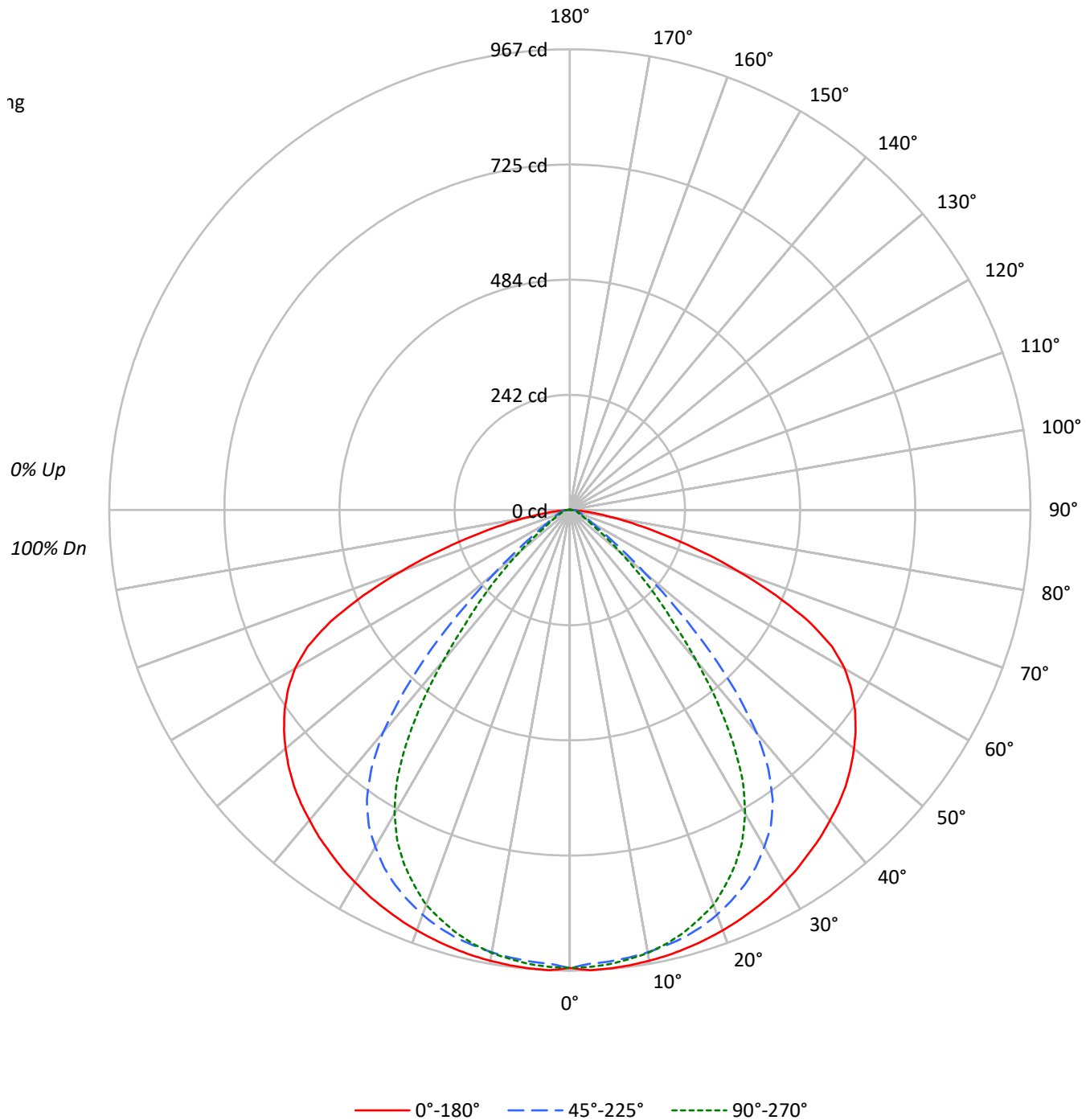
Test Method: LM-79-2019  
Report Number: P894094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-A-UNV-CC93-LOW-4000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 4000K CCT, LOW lumen settir  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1970.0 lumens  
Efficiency: N/A  
Efficacy: 118.0 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	55	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°	9787	9787	9787
5°	9873	9726	9784
10°	9935	9749	9762
15°	10034	9791	9689
20°	10176	9798	9559
25°	10365	9756	9236
30°	10607	9603	8655
35°	10910	9234	7442
40°	11299	8110	5501
45°	11796	5852	3700
50°	12344	3269	2207
55°	12974	1690	1209
60°	13574	1100	855
65°	13341	904	680
70°	11253	831	634
75°	8275	846	681
80°	5519	997	856
85°	3015	1613	1309

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 13688 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	4.6
10°-20°	263.7	13.4
20°-30°	401.1	20.4
30°-40°	458.1	23.3
40°-50°	369.6	18.8
50°-60°	202.3	10.3
60°-70°	106.7	5.4
70°-80°	52.3	2.7
80°-90°	18.4	0.9
90°-100°	4.0	0.2
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	756.1	38.4
0°-40°	1214.2	61.6
0°-60°	1786.1	90.7
0°-90°	1963.5	99.7
90°-120°	4.9	0.2
90°-150°	5.9	0.3
90°-180°	7.0	0.4
0°-180°	1970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	966	963	951	960	957	92
15°	952	946	929	927	919	269
25°	922	909	868	839	822	426
35°	878	840	743	642	599	550
45°	819	704	406	278	257	632
55°	731	301	95	74	68	652
65°	554	69	38	30	28	535
75°	210	39	22	18	17	232
85°	26	20	14	12	11	36
90°	1	11	8	7	7	2
95°	1	1	3	4	4	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	1	0	0
155°	0	0	1	1	1	0
165°	0	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°	961.0	961.0	961.0	961.0	961.0
2.5°	966.9	964.2	953.3	962.6	959.9
5°	965.8	962.9	951.4	959.9	957.0
7.5°	963.9	960.2	947.7	955.4	950.9
10°	960.7	957.0	942.7	948.8	944.0
12.5°	957.0	952.0	936.0	939.2	933.1
15°	951.7	945.8	928.6	927.0	919.0
17.5°	945.8	938.7	917.7	910.7	901.2
20°	938.9	930.2	904.1	890.5	882.0
22.5°	931.2	919.8	887.1	866.3	853.0
25°	922.4	909.2	868.2	838.7	821.9
27.5°	913.1	895.1	845.3	806.5	783.9
30°	902.0	880.2	816.6	764.2	736.0
32.5°	890.8	861.6	785.8	709.7	676.2
35°	877.5	840.5	742.7	641.6	598.6
37.5°	865.0	815.3	684.5	556.3	510.0
40°	849.9	785.5	610.0	458.2	413.8
42.5°	835.5	750.9	513.5	363.5	324.9
45°	819.0	703.6	406.3	277.6	256.9
47.5°	799.9	639.0	295.4	206.6	193.6
50°	779.1	550.2	206.3	150.0	139.3
52.5°	756.3	430.2	139.1	104.2	98.4
55°	730.7	300.7	95.2	73.7	68.1
57.5°	701.2	195.7	69.1	55.6	51.9
60°	666.4	125.0	54.0	44.1	42.0
62.5°	620.6	87.8	44.4	36.4	34.6
65°	553.6	69.4	37.5	30.3	28.2
67.5°	468.8	58.8	32.2	25.5	24.2
70°	377.9	51.1	27.9	22.1	21.3
72.5°	290.4	44.7	24.2	19.7	19.1
75°	210.3	39.1	21.5	18.1	17.3
77.5°	145.7	33.8	19.1	16.2	15.7
80°	94.1	29.3	17.0	14.9	14.6
82.5°	54.0	24.5	15.4	14.4	14.1
85°	25.8	20.5	13.8	12.5	11.2
87.5°	8.2	15.2	10.9	9.6	8.5
90°	1.1	10.6	8.5	7.4	6.9
92.5°	1.1	5.9	6.1	6.1	5.9
95°	0.8	1.3	2.9	4.5	4.3
97.5°	0.8	0.5	1.9	3.2	3.2
100°	0.5	0.3	0.8	2.1	2.1
102.5°	0.5	0.3	0.3	1.3	1.3
105°	0.3	0.0	0.3	0.5	0.5
107.5°	0.3	0.3	0.3	0.5	0.3
110°	0.3	0.3	0.3	0.5	0.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.3	0.3	0.3	0.5	0.3
115°	0.3	0.3	0.3	0.5	0.3
117.5°	0.3	0.3	0.3	0.5	0.3
120°	0.3	0.3	0.3	0.5	0.3
122.5°	0.3	0.3	0.3	0.5	0.3
125°	0.3	0.3	0.3	0.5	0.3
127.5°	0.3	0.3	0.3	0.5	0.3
130°	0.3	0.3	0.5	0.5	0.3
132.5°	0.3	0.3	0.5	0.5	0.3
135°	0.3	0.3	0.5	0.5	0.3
137.5°	0.3	0.3	0.5	0.5	0.5
140°	0.5	0.3	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.8	0.5
145°	0.5	0.5	0.5	0.8	0.5
147.5°	0.5	0.5	0.8	0.8	0.5
150°	0.5	0.5	0.8	0.8	0.5
152.5°	0.5	0.5	0.8	0.8	0.8
155°	0.5	0.5	0.8	1.1	0.8
157.5°	0.5	0.5	0.8	1.1	0.8
160°	0.5	0.8	1.1	1.1	0.8
162.5°	0.5	0.8	1.1	1.1	1.1
165°	0.5	0.8	1.1	1.1	1.1
167.5°	0.8	0.8	1.1	1.3	1.1
170°	0.8	0.8	1.1	1.3	1.1
172.5°	0.8	0.8	1.1	1.3	1.1
175°	0.8	0.8	1.1	1.3	1.1
177.5°	0.8	0.8	1.1	1.3	1.3
180°	1.1	1.1	1.1	1.1	1.1



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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	17.83	19.23	18.20	19.55	19.87	6.35	7.75	6.72	8.07	8.39
	3H	20.74	21.99	21.13	22.32	22.70	7.28	8.53	7.67	8.86	9.24
	4H	21.63	22.80	22.04	23.15	23.54	7.80	8.96	8.21	9.32	9.71
	6H	22.13	23.20	22.55	23.58	23.98	8.43	9.51	8.85	9.88	10.28
	8H	22.24	23.26	22.68	23.66	24.07	8.85	9.87	9.29	10.27	10.68
	12H	22.29	23.26	22.73	23.65	24.09	9.30	10.27	9.74	10.66	11.10
4H	2H	17.65	18.81	18.05	19.17	19.55	6.87	8.03	7.27	8.39	8.78
	3H	20.58	21.53	20.99	21.94	22.35	8.06	9.01	8.48	9.42	9.83
	4H	21.48	22.33	21.92	22.76	23.21	8.73	9.58	9.17	10.01	10.46
	6H	22.07	22.81	22.54	23.26	23.73	9.55	10.29	10.01	10.74	11.21
	8H	22.23	22.92	22.71	23.38	23.85	10.08	10.77	10.55	11.23	11.70
	12H	22.32	22.94	22.81	23.43	23.91	10.66	11.28	11.15	11.76	12.24
8H	4H	21.37	22.06	21.84	22.51	22.99	9.32	10.01	9.79	10.46	10.94
	6H	21.97	22.54	22.47	23.04	23.53	10.32	10.89	10.83	11.39	11.88
	8H	22.16	22.67	22.68	23.19	23.69	11.00	11.51	11.52	12.03	12.53
	12H	22.30	22.76	22.82	23.26	23.83	11.76	12.22	12.28	12.72	13.29
12H	4H	21.33	21.94	21.82	22.43	22.91	9.58	10.19	10.07	10.68	11.16
	6H	21.92	22.43	22.44	22.95	23.45	10.63	11.14	11.15	11.66	12.16
	8H	22.13	22.59	22.65	23.09	23.66	11.39	11.85	11.91	12.35	12.93