

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: P894089

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

Issue Date: 11/11/2024

**Test Information**

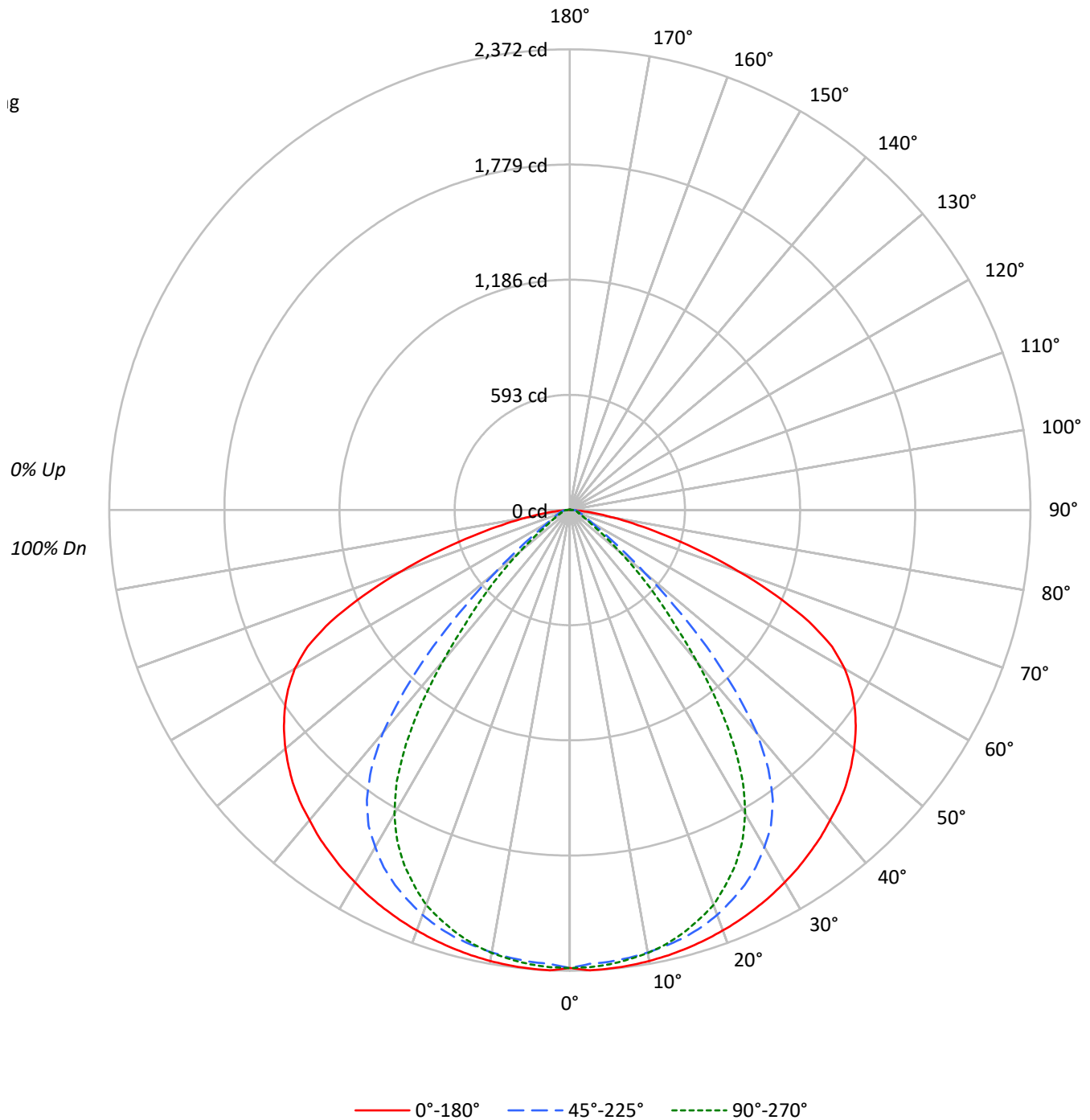
Test Method: LM-79-2019  
Report Number: P894089  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-A-UNV-CC83-MID-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 5000K CCT, MID lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4834.1 lumens  
Efficiency: N/A  
Efficacy: 144.3 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): 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	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°	24015	24015	24015
5°	24228	23867	24007
10°	24380	23921	23955
15°	24622	24023	23776
20°	24970	24044	23456
25°	25435	23939	22664
30°	26028	23564	21239
35°	26770	22657	18261
40°	27724	19899	13498
45°	28945	14359	9078
50°	30290	8022	5417
55°	31838	4148	2965
60°	33306	2699	2100
65°	32737	2217	1668
70°	27609	2040	1554
75°	20308	2082	1668
80°	13548	2452	2105
85°	7397	3961	3202

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 33589 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.9	4.6
10°-20°	647.1	13.4
20°-30°	984.3	20.4
30°-40°	1124.1	23.3
40°-50°	906.9	18.8
50°-60°	496.4	10.3
60°-70°	261.7	5.4
70°-80°	128.3	2.7
80°-90°	45.2	0.9
90°-100°	9.7	0.2
100°-110°	1.4	0.0
110°-120°	0.8	0.0
120°-130°	0.8	0.0
130°-140°	0.8	0.0
140°-150°	0.9	0.0
150°-160°	0.9	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	1855.2	38.4
0°-40°	2979.4	61.6
0°-60°	4382.6	90.7
0°-90°	4817.9	99.7
90°-120°	12.0	0.2
90°-150°	14.5	0.3
90°-180°	16.0	0.3
0°-180°	4834.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2358	2358	2358	2358	2358	
5°	2370	2363	2335	2356	2348	226
15°	2335	2321	2278	2275	2255	661
25°	2264	2231	2130	2058	2017	1046
35°	2153	2062	1822	1574	1469	1351
45°	2010	1726	997	681	630	1551
55°	1793	738	234	181	167	1600
65°	1358	170	92	74	69	1314
75°	516	96	53	44	42	570
85°	63	50	34	31	27	87
90°	3	26	21	18	17	4
95°	2	3	7	11	10	2
105°	1	0	1	1	1	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	2	1	1
155°	1	1	2	3	2	1
165°	1	2	3	3	3	0
175°	2	2	3	3	3	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2358.1	2358.1	2358.1	2358.1	2358.1
2.5°	2372.5	2365.9	2339.2	2362.0	2355.5
5°	2369.9	2362.7	2334.6	2355.5	2348.3
7.5°	2365.3	2356.2	2325.5	2344.4	2333.3
10°	2357.5	2348.3	2313.1	2328.1	2316.4
12.5°	2348.3	2335.9	2296.8	2304.6	2289.6
15°	2335.3	2320.9	2278.5	2274.6	2255.0
17.5°	2320.9	2303.3	2251.8	2234.8	2211.3
20°	2304.0	2282.4	2218.5	2185.2	2164.3
22.5°	2285.0	2257.0	2176.7	2125.8	2093.2
25°	2263.5	2230.9	2130.4	2058.0	2016.9
27.5°	2240.7	2196.3	2074.3	1979.0	1923.6
30°	2213.3	2159.8	2003.8	1875.3	1806.1
32.5°	2185.9	2114.1	1928.1	1741.5	1659.3
35°	2153.2	2062.5	1822.4	1574.5	1468.8
37.5°	2122.6	2000.5	1679.5	1365.0	1251.5
40°	2085.4	1927.5	1496.8	1124.2	1015.3
42.5°	2050.1	1842.6	1260.0	892.0	797.3
45°	2009.7	1726.5	997.0	681.2	630.3
47.5°	1962.7	1567.9	724.9	507.0	475.0
50°	1911.8	1350.0	506.3	368.0	341.9
52.5°	1855.7	1055.7	341.3	255.8	241.4
55°	1793.1	738.0	233.6	180.7	167.0
57.5°	1720.6	480.2	169.6	136.4	127.2
60°	1635.2	306.7	132.5	108.3	103.1
62.5°	1522.9	215.3	109.0	89.4	84.8
65°	1358.5	170.3	92.0	74.4	69.2
67.5°	1150.3	144.2	79.0	62.6	59.4
70°	927.2	125.3	68.5	54.2	52.2
72.5°	712.5	109.6	59.4	48.3	47.0
75°	516.1	95.9	52.9	44.4	42.4
77.5°	357.6	82.9	47.0	39.8	38.5
80°	231.0	71.8	41.8	36.5	35.9
82.5°	132.5	60.0	37.8	35.2	34.6
85°	63.3	50.2	33.9	30.7	27.4
87.5°	20.2	37.2	26.8	23.5	20.9
90°	2.6	26.1	20.9	18.3	17.0
92.5°	2.6	14.4	15.0	15.0	14.4
95°	2.0	3.3	7.2	11.1	10.4
97.5°	2.0	1.3	4.6	7.8	7.8
100°	1.3	0.7	2.0	5.2	5.2
102.5°	1.3	0.7	0.7	3.3	3.3
105°	0.7	0.0	0.7	1.3	1.3
107.5°	0.7	0.7	0.7	1.3	0.7
110°	0.7	0.7	0.7	1.3	0.7



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**CANDELA DISTRIBUTION (continued):**

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



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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	20.95	22.35	21.32	22.67	22.99	9.46	10.86	9.84	11.18	11.51
	3H	23.86	25.11	24.25	25.44	25.81	10.40	11.64	10.78	11.98	12.35
	4H	24.75	25.92	25.16	26.27	26.66	10.92	12.08	11.33	12.44	12.83
	6H	25.25	26.32	25.67	26.70	27.10	11.55	12.62	11.97	13.00	13.40
	8H	25.36	26.38	25.80	26.78	27.19	11.97	12.99	12.41	13.38	13.80
	12H	25.41	26.38	25.84	26.77	27.21	12.42	13.39	12.86	13.78	14.22
4H	2H	20.76	21.93	21.17	22.28	22.67	9.98	11.15	10.39	11.50	11.89
	3H	23.69	24.65	24.11	25.06	25.47	11.18	12.13	11.59	12.54	12.95
	4H	24.60	25.45	25.04	25.88	26.32	11.84	12.70	12.28	13.12	13.57
	6H	25.19	25.93	25.66	26.38	26.85	12.67	13.41	13.13	13.86	14.33
	8H	25.35	26.04	25.82	26.50	26.97	13.20	13.89	13.67	14.34	14.82
	12H	25.44	26.06	25.93	26.55	27.03	13.78	14.39	14.27	14.88	15.36
8H	4H	24.49	25.18	24.96	25.63	26.11	12.44	13.13	12.91	13.58	14.06
	6H	25.09	25.66	25.59	26.16	26.64	13.44	14.01	13.94	14.51	15.00
	8H	25.27	25.79	25.80	26.31	26.80	14.11	14.63	14.64	15.15	15.64
	12H	25.42	25.88	25.94	26.38	26.95	14.88	15.33	15.40	15.83	16.41
12H	4H	24.45	25.06	24.94	25.55	26.03	12.70	13.31	13.19	13.80	14.28
	6H	25.04	25.55	25.56	26.07	26.57	13.75	14.26	14.27	14.78	15.28
	8H	25.25	25.71	25.77	26.21	26.78	14.51	14.97	15.03	15.47	16.04