

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: P892708

Luminaire Tested: 2MB-4HL-ACL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892708
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-ACL-UNV-L950
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

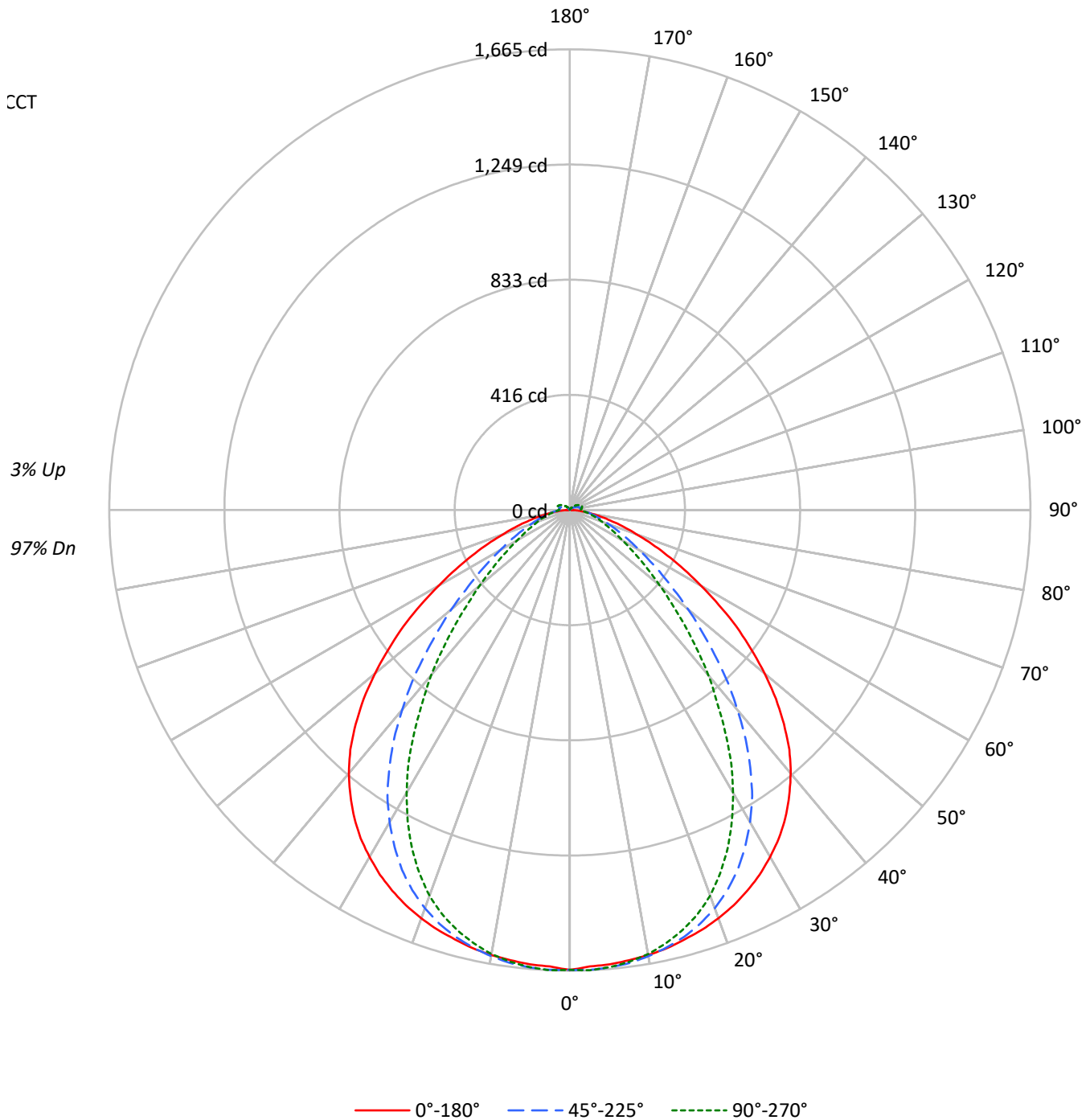
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3552.0 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.09 / 1.19
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	99	99	99	97
1	109	105	102	98	106	103	99	96	98	95	93	94	91	89	89	88	86	89	88	86	84
2	101	94	88	83	98	92	86	82	88	83	79	84	80	77	81	77	75	81	77	75	73
3	93	84	77	71	90	82	75	70	79	73	68	76	71	67	73	69	65	73	69	65	63
4	86	75	68	62	84	74	67	61	71	65	60	68	63	59	66	61	58	66	61	58	56
5	80	68	60	54	78	67	59	54	65	58	53	62	57	52	60	55	51	60	55	51	49
6	74	62	54	48	72	61	53	48	59	52	47	57	51	46	55	50	46	55	50	46	44
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	51	45	41	39
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	42	37	47	42	37	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	35	44	38	34	44	38	34	32
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	41	35	31	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34030	34030	34030
5°	33750	33368	33178
10°	33712	32604	32102
15°	33672	31709	30747
20°	33699	30570	29013
25°	33639	29028	26598
30°	33425	26898	23621
35°	32984	24164	20070
40°	32077	20785	16504
45°	30414	17146	12876
50°	27892	13686	9855
55°	24745	10672	7587
60°	20913	8281	5844
65°	17283	6556	4728
70°	13791	5286	3952
75°	10919	4363	3394
80°	8263	3713	2920
85°	6171	3201	2562

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30414 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	4.4
10°-20°	449.3	12.6
20°-30°	658.9	18.5
30°-40°	718.5	20.2
40°-50°	609.7	17.2
50°-60°	415.0	11.7
60°-70°	242.2	6.8
70°-80°	126.1	3.5
80°-90°	55.0	1.5
90°-100°	34.9	1.0
100°-110°	32.2	0.9
110°-120°	23.9	0.7
120°-130°	14.4	0.4
130°-140°	7.7	0.2
140°-150°	3.9	0.1
150°-160°	1.9	0.1
160°-170°	0.8	0.0
170°-180°	0.2	0.0
0°-30°	1265.6	35.6
0°-40°	1984.1	55.9
0°-60°	3008.8	84.7
0°-90°	3432.0	96.6
90°-120°	91.1	2.6
90°-150°	117.1	3.3
90°-180°	120.0	3.4
0°-180°	3552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1648	1656	1659	1660	1658	157
15°	1606	1610	1597	1582	1572	454
25°	1518	1497	1436	1379	1349	700
35°	1358	1289	1137	1023	979	848
45°	1094	958	741	624	584	841
55°	735	585	406	326	308	655
65°	389	307	208	172	163	390
75°	160	138	107	97	93	174
85°	39	46	53	51	50	42
90°	6	21	37	40	39	6
95°	12	23	38	42	41	9
105°	4	17	35	45	46	4
115°	3	10	27	38	41	3
125°	1	6	16	26	30	1
135°	1	4	10	15	18	1
145°	1	3	6	9	10	1
155°	1	2	4	6	6	1
165°	1	1	3	4	4	0
175°	1	1	2	2	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1661.9	1661.9	1661.9	1661.9	1661.9
2.5°	1651.5	1659.1	1663.3	1666.1	1664.7
5°	1648.0	1655.6	1659.1	1660.5	1658.4
7.5°	1641.1	1649.4	1651.5	1650.1	1646.6
10°	1633.4	1640.4	1637.6	1634.1	1629.3
12.5°	1622.3	1627.2	1619.5	1611.9	1604.2
15°	1606.3	1610.5	1596.6	1582.0	1572.3
17.5°	1590.4	1589.0	1568.1	1544.5	1532.7
20°	1570.2	1562.6	1531.3	1497.3	1483.4
22.5°	1546.6	1533.4	1487.6	1441.7	1420.9
25°	1518.1	1496.6	1435.5	1379.2	1349.4
27.5°	1486.2	1455.6	1372.3	1302.2	1268.8
30°	1448.0	1406.3	1302.8	1216.7	1179.9
32.5°	1407.0	1353.5	1227.1	1119.5	1085.5
35°	1358.4	1289.0	1136.9	1023.0	979.2
37.5°	1302.8	1214.6	1044.5	919.5	873.7
40°	1242.4	1136.2	941.7	816.7	779.9
42.5°	1174.4	1052.8	845.9	714.6	677.8
45°	1094.5	958.4	741.0	624.3	584.1
47.5°	1010.5	865.3	644.5	530.6	497.2
50°	919.5	767.4	558.4	454.2	425.0
52.5°	825.7	676.4	475.7	384.7	360.4
55°	734.8	584.8	406.3	326.4	307.7
57.5°	639.6	507.7	345.2	277.8	259.0
60°	547.9	429.9	290.3	234.7	220.2
62.5°	465.3	362.5	247.2	200.0	189.6
65°	388.9	307.0	208.3	172.2	163.2
67.5°	320.8	254.2	178.5	149.3	141.0
70°	257.0	207.6	149.3	128.5	122.9
72.5°	208.3	172.9	126.4	112.5	108.3
75°	159.7	137.5	106.9	97.2	93.1
77.5°	120.1	107.6	91.0	83.3	79.9
80°	86.8	83.3	76.4	72.2	68.8
82.5°	59.7	63.2	63.9	60.4	59.0
85°	38.9	46.5	52.8	51.4	50.0
87.5°	21.5	31.3	43.1	43.8	42.4
90°	6.3	20.8	36.8	39.6	38.9
92.5°	11.8	22.2	37.5	40.3	39.6
95°	11.8	22.9	38.2	41.7	41.0
97.5°	11.1	22.9	38.9	43.1	43.1
100°	5.6	22.2	38.9	44.4	44.4
102.5°	3.5	20.1	37.5	45.1	45.8
105°	3.5	17.4	35.4	45.1	45.8
107.5°	3.5	14.6	34.0	43.8	45.8
110°	2.8	12.5	31.9	41.7	44.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.8	11.1	29.9	40.3	43.1
115°	2.8	10.4	27.1	38.2	41.0
117.5°	2.1	9.0	23.6	35.4	38.9
120°	2.1	7.6	20.8	32.6	36.1
122.5°	1.4	6.9	18.1	29.2	33.3
125°	1.4	5.6	16.0	25.7	29.9
127.5°	1.4	5.6	14.6	22.9	26.4
130°	1.4	4.9	12.5	20.1	22.9
132.5°	1.4	4.9	11.1	17.4	20.1
135°	1.4	4.2	9.7	15.3	18.1
137.5°	1.4	4.2	9.0	13.2	16.0
140°	1.4	3.5	7.6	11.8	13.9
142.5°	1.4	3.5	6.9	10.4	11.8
145°	1.4	2.8	6.3	9.0	10.4
147.5°	1.4	2.8	5.6	7.6	9.0
150°	1.4	2.8	5.6	6.9	7.6
152.5°	1.4	2.1	4.9	6.3	6.9
155°	1.4	2.1	4.2	6.3	6.3
157.5°	1.4	2.1	3.5	5.6	6.3
160°	1.4	2.1	3.5	4.9	5.6
162.5°	1.4	2.1	2.8	3.5	4.9
165°	1.4	1.4	2.8	3.5	4.2
167.5°	1.4	1.4	2.1	2.8	3.5
170°	1.4	1.4	2.1	2.1	2.1
172.5°	1.4	1.4	2.1	2.1	1.4
175°	1.4	1.4	2.1	2.1	1.4
177.5°	1.4	1.4	2.1	2.1	1.4
180°	1.4	1.4	1.4	1.4	1.4



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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	22.34	21.37	22.73	23.13	17.05	18.44	17.47	18.83	19.23
	3H	21.97	23.22	22.41	23.62	24.06	18.25	19.50	18.69	19.90	20.34
	4H	22.27	23.44	22.72	23.85	24.32	18.79	19.95	19.24	20.37	20.84
	6H	22.42	23.49	22.89	23.93	24.41	19.29	20.37	19.76	20.81	21.28
	8H	22.44	23.47	22.92	23.92	24.41	19.54	20.56	20.02	21.02	21.50
	12H	22.44	23.42	22.93	23.87	24.38	19.79	20.77	20.28	21.22	21.73
4H	2H	20.98	22.15	21.44	22.57	23.03	17.55	18.72	18.01	19.14	19.60
	3H	22.17	23.14	22.64	23.61	24.09	18.93	19.90	19.40	20.37	20.85
	4H	22.56	23.43	23.05	23.91	24.43	19.57	20.44	20.06	20.92	21.44
	6H	22.81	23.56	23.32	24.07	24.61	20.20	20.96	20.72	21.47	22.01
	8H	22.86	23.56	23.38	24.07	24.62	20.51	21.21	21.03	21.72	22.27
	12H	22.88	23.51	23.42	24.05	24.61	20.83	21.47	21.37	22.01	22.56
8H	4H	22.59	23.29	23.11	23.80	24.35	19.81	20.52	20.33	21.03	21.57
	6H	22.89	23.48	23.45	24.03	24.59	20.56	21.14	21.11	21.70	22.25
	8H	22.99	23.51	23.56	24.08	24.65	20.95	21.47	21.52	22.04	22.61
	12H	23.06	23.52	23.62	24.07	24.72	21.39	21.86	21.95	22.41	23.05
12H	4H	22.57	23.20	23.11	23.74	24.29	19.83	20.46	20.36	21.00	21.55
	6H	22.89	23.42	23.46	23.98	24.55	20.60	21.13	21.17	21.70	22.26
	8H	23.02	23.49	23.59	24.04	24.68	21.05	21.51	21.61	22.07	22.71