

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: P892809

Luminaire Tested: 2MB-5HL-AOL-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-5HL-AOL-UNV-L930
Description: 5000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3000K CCT
Light Source: -
Ballast/Driver: -

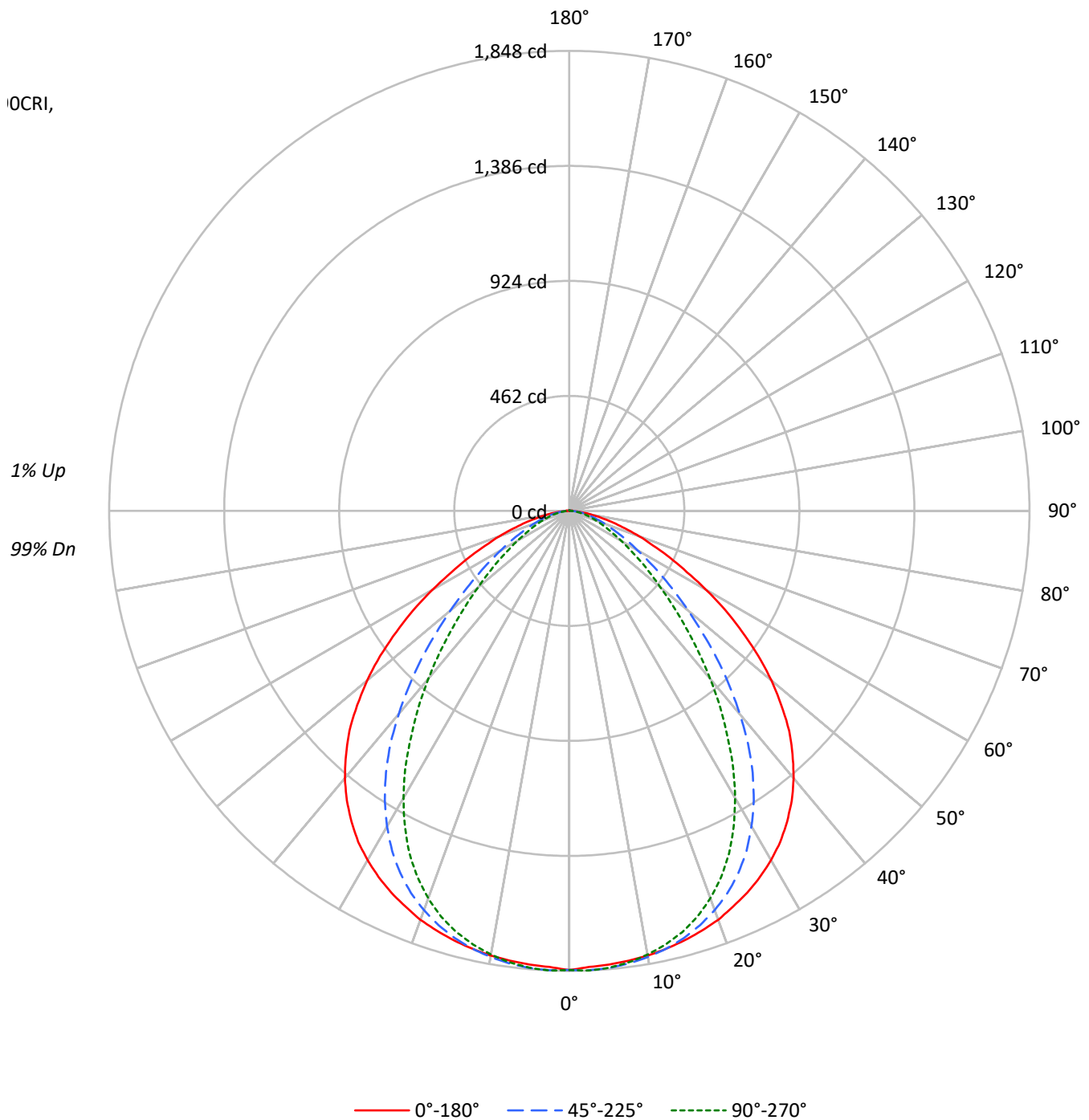
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3823.1 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.1 / 1.2
Luminous Opening: Rectangular (W 0.27' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 33.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 2MB-5HL-AOL-UNV-L930

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	101	101	101	99				99
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	88	83	89	85	81	86	83	79	83	80	77	75				75
3	94	85	78	72	92	83	77	72	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46				46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	40	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37765	37765	37765
5°	37601	37878	37864
10°	37722	37832	37628
15°	37867	37662	37134
20°	38090	37188	36087
25°	38217	36278	34306
30°	38304	34601	31487
35°	38106	32084	27699
40°	37468	28473	23523
45°	36166	24261	19138
50°	33764	19881	15227
55°	30259	16097	12281
60°	26017	12978	9866
65°	21668	10722	8208
70°	17985	9148	6987
75°	14470	7864	6076
80°	11450	7016	5330
85°	10079	6907	5310

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 36166 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	4.6
10°-20°	499.9	13.1
20°-30°	737.2	19.3
30°-40°	809.6	21.2
40°-50°	689.0	18.0
50°-60°	467.5	12.2
60°-70°	263.5	6.9
70°-80°	122.8	3.2
80°-90°	35.9	0.9
90°-100°	8.5	0.2
100°-110°	5.5	0.1
110°-120°	3.4	0.1
120°-130°	1.9	0.0
130°-140°	1.1	0.0
140°-150°	0.9	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1412.1	36.9
0°-40°	2221.6	58.1
0°-60°	3378.2	88.4
0°-90°	3800.4	99.4
90°-120°	17.4	0.5
90°-150°	21.3	0.6
90°-180°	23.0	0.6
0°-180°	3823.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1829	1838	1843	1844	1842	174
15°	1786	1789	1777	1762	1752	505
25°	1692	1670	1606	1546	1518	780
35°	1524	1447	1284	1158	1108	952
45°	1249	1088	838	699	661	957
55°	848	665	451	364	344	758
65°	447	337	221	180	169	448
75°	183	143	99	81	77	198
85°	43	38	29	24	23	46
90°	8	9	8	7	7	7
95°	13	10	8	6	6	9
105°	4	8	5	4	4	4
115°	2	4	3	3	3	2
125°	2	2	2	2	2	1
135°	1	2	2	2	2	1
145°	1	2	2	2	2	1
155°	1	2	2	2	2	0
165°	2	2	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1844.3	1844.3	1844.3	1844.3	1844.3
2.5°	1833.8	1841.3	1846.6	1849.6	1848.1
5°	1829.3	1838.3	1842.8	1844.3	1842.1
7.5°	1822.5	1831.5	1833.8	1833.0	1829.3
10°	1814.2	1821.0	1819.5	1815.7	1809.7
12.5°	1801.4	1806.7	1801.4	1791.6	1784.1
15°	1786.3	1788.6	1776.6	1761.5	1751.7
17.5°	1768.3	1766.8	1744.9	1723.1	1709.6
20°	1748.0	1739.7	1706.6	1673.4	1656.1
22.5°	1720.1	1707.3	1661.4	1614.0	1592.9
25°	1691.5	1670.4	1605.7	1545.5	1518.4
27.5°	1658.4	1624.5	1540.9	1464.2	1430.3
30°	1620.0	1574.8	1463.4	1372.3	1331.7
32.5°	1577.1	1515.3	1379.1	1269.2	1225.5
35°	1524.4	1446.8	1283.5	1158.5	1108.1
37.5°	1467.2	1368.6	1179.6	1038.1	995.9
40°	1401.7	1281.2	1065.2	921.4	880.0
42.5°	1327.2	1187.1	951.5	805.5	768.6
45°	1248.9	1088.5	837.8	699.3	660.9
47.5°	1154.8	979.4	724.9	598.5	564.6
50°	1059.9	870.2	624.1	508.9	478.0
52.5°	957.5	766.3	530.7	432.1	406.5
55°	847.6	664.7	450.9	364.3	344.0
57.5°	743.7	569.1	379.4	304.9	286.1
60°	635.3	480.3	316.9	256.7	240.9
62.5°	533.0	402.7	268.0	213.8	201.0
65°	447.2	337.2	221.3	179.9	169.4
67.5°	364.3	280.0	184.4	149.8	140.8
70°	300.4	226.6	152.8	123.5	116.7
72.5°	234.1	183.7	123.5	100.9	94.9
75°	182.9	143.0	99.4	81.3	76.8
77.5°	135.5	110.7	78.3	64.0	61.0
80°	97.1	82.1	59.5	48.9	45.2
82.5°	67.8	57.2	42.9	35.4	33.1
85°	42.9	37.6	29.4	24.1	22.6
87.5°	22.6	21.1	17.3	14.3	13.6
90°	7.5	9.0	8.3	6.8	6.8
92.5°	12.8	9.8	7.5	6.8	6.0
95°	12.8	9.8	7.5	6.0	6.0
97.5°	12.0	9.0	6.8	6.0	5.3
100°	6.0	9.0	6.0	5.3	4.5
102.5°	3.8	8.3	6.0	4.5	4.5
105°	3.8	7.5	5.3	3.8	3.8
107.5°	3.0	6.8	4.5	3.8	3.8
110°	3.0	6.0	4.5	3.8	3.0



TEST NUMBER: P892809

CATALOG NUMBER: 2MB-5HL-AOL-UNV-L930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	5.3	3.8	3.0	3.0
115°	2.3	4.5	3.0	3.0	3.0
117.5°	2.3	3.8	3.0	3.0	3.0
120°	1.5	3.0	2.3	2.3	2.3
122.5°	1.5	2.3	2.3	2.3	2.3
125°	1.5	2.3	2.3	2.3	2.3
127.5°	1.5	1.5	2.3	2.3	2.3
130°	0.8	1.5	1.5	2.3	2.3
132.5°	0.8	1.5	1.5	1.5	1.5
135°	0.8	1.5	1.5	1.5	1.5
137.5°	0.8	1.5	1.5	1.5	1.5
140°	0.8	1.5	1.5	1.5	1.5
142.5°	0.8	1.5	1.5	1.5	1.5
145°	0.8	1.5	1.5	1.5	1.5
147.5°	0.8	1.5	1.5	1.5	1.5
150°	0.8	1.5	1.5	1.5	1.5
152.5°	0.8	1.5	1.5	1.5	1.5
155°	0.8	1.5	1.5	1.5	1.5
157.5°	1.5	1.5	1.5	1.5	2.3
160°	1.5	1.5	1.5	1.5	2.3
162.5°	1.5	1.5	1.5	2.3	2.3
165°	1.5	1.5	1.5	2.3	2.3
167.5°	1.5	1.5	1.5	2.3	2.3
170°	1.5	1.5	1.5	2.3	2.3
172.5°	1.5	1.5	1.5	2.3	2.3
175°	1.5	1.5	2.3	2.3	2.3
177.5°	1.5	1.5	2.3	2.3	2.3
180°	2.3	2.3	2.3	2.3	2.3



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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	23.05	24.49	23.42	24.82	25.15	18.26	19.70	18.63	20.02	20.35
	3H	24.27	25.56	24.66	25.90	26.28	19.27	20.55	19.66	20.90	21.27
	4H	24.67	25.88	25.08	26.24	26.63	19.62	20.82	20.03	21.18	21.58
	6H	24.93	26.04	25.35	26.42	26.83	19.88	20.98	20.30	21.37	21.77
	8H	25.00	26.06	25.44	26.46	26.88	19.96	21.01	20.40	21.41	21.83
	12H	25.05	26.06	25.49	26.45	26.90	20.02	21.03	20.46	21.42	21.87
4H	2H	23.07	24.27	23.48	24.63	25.03	18.88	20.08	19.29	20.45	20.84
	3H	24.47	25.46	24.89	25.87	26.29	20.08	21.07	20.50	21.49	21.90
	4H	24.97	25.86	25.42	26.29	26.74	20.52	21.41	20.96	21.84	22.29
	6H	25.35	26.12	25.81	26.57	27.05	20.87	21.64	21.34	22.09	22.57
	8H	25.46	26.18	25.94	26.64	27.12	20.98	21.70	21.46	22.16	22.64
	12H	25.55	26.19	26.05	26.69	27.17	21.08	21.72	21.57	22.21	22.70
8H	4H	24.97	25.69	25.45	26.15	26.63	20.86	21.58	21.33	22.03	22.52
	6H	25.41	26.01	25.92	26.51	27.00	21.30	21.89	21.81	22.40	22.89
	8H	25.58	26.11	26.11	26.64	27.14	21.47	22.00	22.00	22.53	23.03
	12H	25.73	26.21	26.26	26.71	27.29	21.63	22.10	22.15	22.61	23.19
12H	4H	24.95	25.59	25.44	26.08	26.56	20.91	21.55	21.40	22.04	22.52
	6H	25.39	25.92	25.91	26.44	26.95	21.38	21.91	21.90	22.43	22.94
	8H	25.59	26.06	26.11	26.57	27.15	21.60	22.07	22.12	22.58	23.16