

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: P893880

Luminaire Tested: 4MB-7HL-RND-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893880
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RND-UNV-L950
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

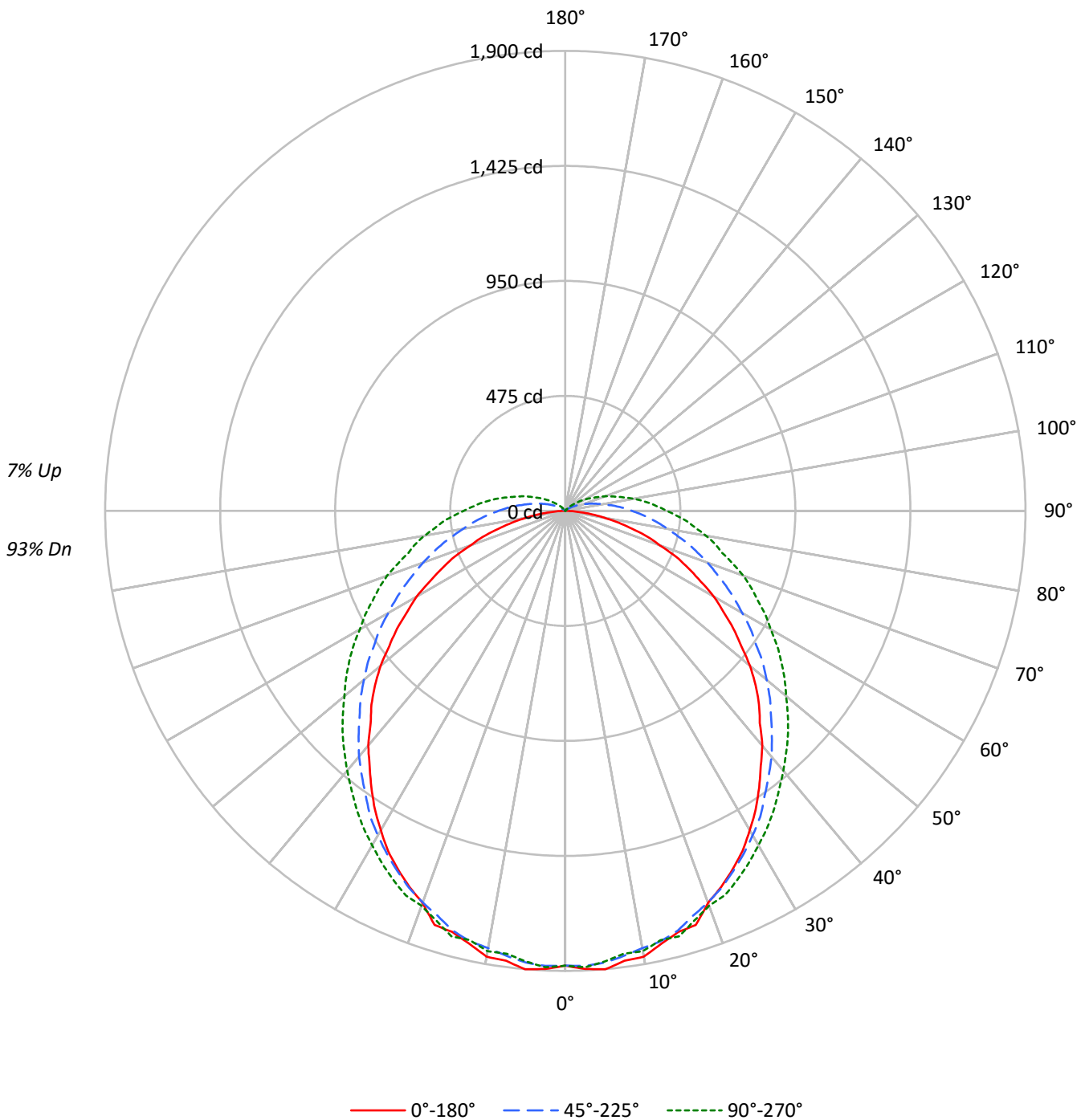
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6186.0 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13362	13362	13362
5°	13573	13377	13339
10°	13506	13245	13338
15°	13264	13220	13397
20°	13042	13029	13140
25°	12828	12882	13199
30°	12514	12712	13100
35°	12118	12469	13051
40°	11754	12304	13007
45°	11384	12085	13088
50°	11013	12011	13171
55°	10508	11925	13514
60°	10098	12004	13937
65°	9430	12324	14782
70°	8669	13010	16282
75°	7865	14408	18446
80°	6757	17602	24183
85°	5470	28474	41381

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 75115 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.1	2.9
10°-20°	506.9	8.2
20°-30°	759.6	12.3
30°-40°	902.6	14.6
40°-50°	934.5	15.1
50°-60°	866.0	14.0
60°-70°	721.0	11.7
70°-80°	535.1	8.7
80°-90°	353.9	5.7
90°-100°	215.4	3.5
100°-110°	120.7	2.0
110°-120°	59.5	1.0
120°-130°	24.2	0.4
130°-140°	7.0	0.1
140°-150°	1.0	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
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0°-30°	1444.5	23.4
0°-40°	2347.2	37.9
0°-60°	4147.7	67.0
0°-90°	5757.7	93.1
90°-120°	395.6	6.4
90°-150°	427.8	6.9
90°-180°	428.0	6.9
0°-180°	6186.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1878	1878	1878	1878	1878	
5°	1900	1880	1873	1882	1868	180
15°	1801	1794	1795	1797	1819	510
25°	1634	1632	1641	1673	1681	752
35°	1395	1406	1436	1481	1503	873
45°	1131	1148	1201	1276	1301	872
55°	847	883	961	1058	1089	758
65°	560	612	732	839	878	556
75°	286	373	524	637	671	306
85°	67	188	349	472	507	75
90°	3	122	276	386	420	5
95°	1	76	214	319	354	1
105°	1	25	116	197	224	1
115°	1	6	54	108	130	1
125°	1	2	20	50	64	1
135°	2	1	5	16	22	1
145°	2	1	0	2	3	1
155°	2	2	0	0	0	1
165°	3	2	0	0	0	1
175°	3	2	0	0	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1878.0	1878.0	1878.0	1878.0	1878.0
2.5°	1893.5	1884.0	1880.6	1876.3	1886.6
5°	1900.4	1879.7	1872.9	1882.3	1867.7
7.5°	1873.7	1868.6	1854.0	1859.1	1845.4
10°	1869.4	1841.1	1833.3	1850.5	1846.2
12.5°	1830.8	1806.7	1820.5	1832.5	1816.2
15°	1800.7	1793.8	1794.7	1797.3	1818.7
17.5°	1793.0	1762.0	1753.4	1774.9	1773.2
20°	1722.5	1716.5	1720.8	1749.2	1735.4
22.5°	1681.3	1662.4	1685.6	1713.1	1719.1
25°	1634.0	1632.3	1640.9	1672.7	1681.3
27.5°	1584.2	1573.0	1596.2	1633.2	1640.0
30°	1523.2	1518.9	1547.3	1579.0	1594.5
32.5°	1463.1	1465.6	1498.3	1524.9	1551.6
35°	1395.2	1405.5	1435.6	1481.1	1502.6
37.5°	1326.5	1339.4	1379.7	1432.1	1450.2
40°	1265.5	1268.0	1324.7	1378.0	1400.4
42.5°	1189.0	1214.8	1262.9	1333.3	1350.5
45°	1131.4	1147.8	1201.0	1275.8	1300.7
47.5°	1066.2	1085.1	1146.1	1219.1	1245.7
50°	994.9	1012.0	1085.1	1168.4	1189.9
52.5°	915.8	951.0	1027.5	1113.4	1141.8
55°	847.1	883.2	961.3	1057.6	1089.4
57.5°	773.2	809.3	907.2	996.6	1037.8
60°	709.6	744.0	843.6	954.5	979.4
62.5°	630.6	679.6	787.8	896.9	932.1
65°	560.1	612.5	732.0	839.4	878.0
67.5°	495.7	549.8	674.4	789.5	831.6
70°	416.7	488.0	625.4	738.8	782.7
72.5°	358.2	429.6	573.0	685.6	725.1
75°	286.1	372.9	524.1	636.6	671.0
77.5°	225.9	319.6	473.4	599.7	634.0
80°	164.9	271.5	429.6	550.7	590.2
82.5°	112.5	226.8	389.2	505.2	543.0
85°	67.0	188.1	348.8	472.5	506.9
87.5°	29.2	153.8	311.9	425.3	460.5
90°	3.4	122.0	275.8	385.7	420.1
92.5°	0.9	97.9	244.0	350.5	384.0
95°	0.9	75.6	213.9	318.7	354.0
97.5°	0.9	58.4	183.8	286.1	319.6
100°	0.9	44.7	158.9	251.7	287.8
102.5°	0.9	33.5	134.9	223.4	254.3
105°	0.9	24.9	116.0	196.7	224.2
107.5°	0.9	18.0	97.1	171.8	199.3
110°	0.9	12.9	81.6	148.6	176.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	9.5	66.2	128.0	151.2
115°	0.9	6.0	54.1	108.2	129.7
117.5°	0.9	4.3	43.0	91.1	111.7
120°	0.9	3.4	34.4	75.6	93.6
122.5°	0.9	2.6	26.6	61.9	79.0
125°	0.9	1.7	19.8	49.8	63.6
127.5°	0.9	1.7	14.6	39.5	51.5
130°	0.9	0.9	10.3	30.1	40.4
132.5°	0.9	0.9	6.9	22.3	30.1
135°	1.7	0.9	5.2	16.3	22.3
137.5°	1.7	0.9	3.4	11.2	15.5
140°	1.7	0.9	1.7	6.9	9.5
142.5°	1.7	0.9	0.9	3.4	5.2
145°	1.7	0.9	0.0	1.7	2.6
147.5°	1.7	0.9	0.0	0.9	0.9
150°	1.7	0.9	0.0	0.0	0.0
152.5°	1.7	0.9	0.0	0.0	0.0
155°	1.7	1.7	0.0	0.0	0.0
157.5°	1.7	1.7	0.0	0.0	0.0
160°	1.7	1.7	0.0	0.0	0.0
162.5°	1.7	1.7	0.0	0.0	0.0
165°	2.6	1.7	0.0	0.0	0.0
167.5°	2.6	1.7	0.0	0.0	0.0
170°	2.6	1.7	0.0	0.0	0.0
172.5°	2.6	1.7	0.0	0.0	0.0
175°	2.6	1.7	0.0	0.0	0.0
177.5°	2.6	1.7	0.0	0.0	0.0
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	19.24	20.77	19.70	21.23	21.71	20.81	22.35	21.28	22.80	23.29
	3H	21.00	22.40	21.48	22.87	23.39	23.40	24.80	23.88	25.26	25.79
	4H	21.66	22.99	22.16	23.47	24.01	24.65	25.98	25.16	26.47	27.00
	6H	22.13	23.37	22.65	23.87	24.42	26.04	27.28	26.55	27.77	28.32
	8H	22.28	23.47	22.81	23.99	24.55	26.77	27.95	27.29	28.47	29.03
	12H	22.38	23.52	22.92	24.04	24.63	27.61	28.75	28.14	29.26	29.85
4H	2H	20.19	21.52	20.69	22.00	22.54	21.38	22.71	21.88	23.19	23.73
	3H	22.23	23.37	22.75	23.89	24.45	24.25	25.39	24.76	25.91	26.47
	4H	23.05	24.09	23.58	24.62	25.21	25.73	26.77	26.26	27.30	27.90
	6H	23.70	24.62	24.25	25.18	25.78	27.35	28.27	27.90	28.83	29.44
	8H	23.92	24.79	24.48	25.35	25.97	28.20	29.07	28.76	29.63	30.25
	12H	24.09	24.88	24.67	25.47	26.09	29.20	29.98	29.78	30.57	31.20
8H	4H	23.89	24.76	24.45	25.32	25.94	26.10	26.97	26.66	27.53	28.15
	6H	24.82	25.55	25.41	26.16	26.78	27.98	28.71	28.57	29.32	29.94
	8H	25.20	25.86	25.80	26.48	27.12	29.04	29.70	29.64	30.32	30.95
	12H	25.52	26.12	26.13	26.72	27.42	30.29	30.89	30.90	31.49	32.19
12H	4H	24.16	24.94	24.74	25.53	26.16	26.14	26.93	26.72	27.52	28.14
	6H	25.24	25.91	25.85	26.52	27.16	28.09	28.75	28.69	29.37	30.00
	8H	25.78	26.38	26.39	26.98	27.68	29.26	29.86	29.87	30.46	31.16