

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: P893974

Luminaire Tested: 4MB-8HL-RND-UNV-L935

Issue Date: 11/11/2024

**Test Information**

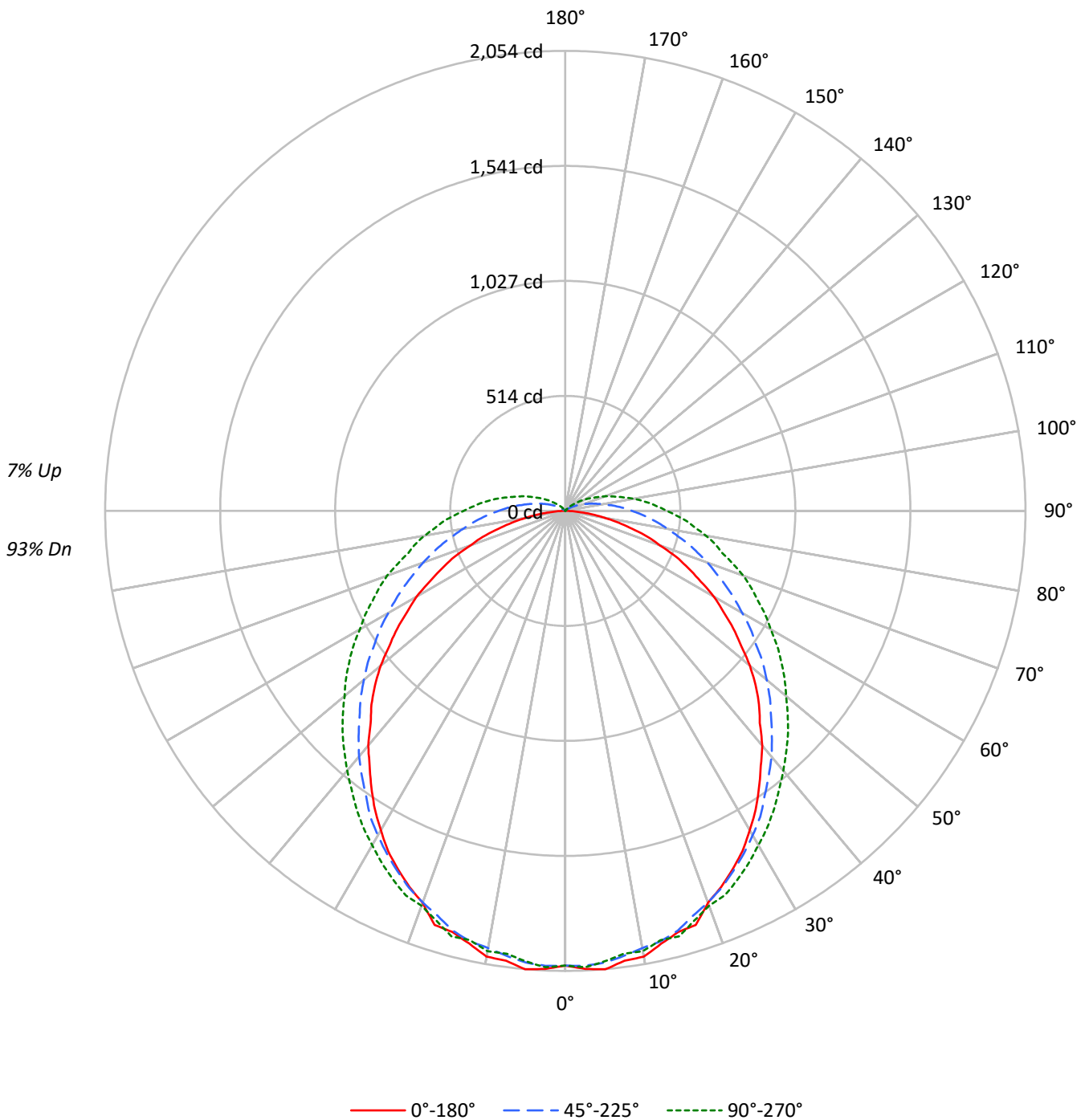
Test Method: LM-79-2019  
Report Number: P893974  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-RND-UNV-L935  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6687.0 lumens  
Efficiency: N/A  
Efficacy: 115.5 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): 57.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 4.23  
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°	14444	14444	14444
5°	14672	14459	14420
10°	14600	14318	14419
15°	14338	14290	14482
20°	14098	14085	14204
25°	13867	13925	14268
30°	13528	13742	14161
35°	13100	13479	14108
40°	12706	13300	14060
45°	12307	13064	14147
50°	11904	12983	14237
55°	11359	12891	14608
60°	10916	12978	15065
65°	10194	13320	15979
70°	9370	14065	17599
75°	8503	15573	19939
80°	7306	19024	26141
85°	5910	30777	44728

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 87.5°  
 Luminance: 81199 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.5	2.9
10°-20°	547.9	8.2
20°-30°	821.1	12.3
30°-40°	975.7	14.6
40°-50°	1010.2	15.1
50°-60°	936.1	14.0
60°-70°	779.4	11.7
70°-80°	578.4	8.7
80°-90°	382.6	5.7
90°-100°	232.8	3.5
100°-110°	130.5	2.0
110°-120°	64.3	1.0
120°-130°	26.2	0.4
130°-140°	7.6	0.1
140°-150°	1.1	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	1561.5	23.4
0°-40°	2537.2	37.9
0°-60°	4483.6	67.0
0°-90°	6224.0	93.1
90°-120°	427.6	6.4
90°-150°	462.4	6.9
90°-180°	463.0	6.9
0°-180°	6687.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2030	2030	2030	2030	2030	
5°	2054	2032	2024	2035	2019	194
15°	1946	1939	1940	1943	1966	551
25°	1766	1764	1774	1808	1817	813
35°	1508	1519	1552	1601	1624	944
45°	1223	1241	1298	1379	1406	942
55°	916	955	1039	1143	1178	819
65°	606	662	791	907	949	602
75°	309	403	566	688	725	331
85°	72	203	377	511	548	81
90°	4	132	298	417	454	5
95°	1	82	231	344	383	1
105°	1	27	125	213	242	1
115°	1	6	58	117	140	1
125°	1	2	21	54	69	1
135°	2	1	6	18	24	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°	2030.1	2030.1	2030.1	2030.1	2030.1
2.5°	2046.8	2036.6	2032.9	2028.3	2039.4
5°	2054.3	2032.0	2024.5	2034.8	2019.0
7.5°	2025.5	2019.9	2004.1	2009.7	1994.8
10°	2020.8	1990.2	1981.8	2000.4	1995.8
12.5°	1979.0	1953.0	1967.9	1980.9	1963.3
15°	1946.5	1939.1	1940.0	1942.8	1966.0
17.5°	1938.2	1904.7	1895.5	1918.7	1916.8
20°	1862.0	1855.5	1860.2	1890.8	1876.0
22.5°	1817.4	1797.0	1822.1	1851.8	1858.3
25°	1766.4	1764.5	1773.8	1808.2	1817.4
27.5°	1712.5	1700.4	1725.5	1765.4	1772.9
30°	1646.6	1641.9	1672.6	1706.9	1723.6
32.5°	1581.6	1584.3	1619.6	1648.4	1677.2
35°	1508.2	1519.3	1551.8	1601.1	1624.3
37.5°	1433.9	1447.8	1491.5	1548.1	1567.6
40°	1368.0	1370.7	1432.0	1489.6	1513.8
42.5°	1285.3	1313.2	1365.2	1441.3	1459.9
45°	1223.1	1240.7	1298.3	1379.1	1406.0
47.5°	1152.5	1172.9	1238.9	1317.8	1346.6
50°	1075.4	1094.0	1172.9	1263.0	1286.2
52.5°	990.0	1028.1	1110.7	1203.6	1234.2
55°	915.7	954.7	1039.2	1143.2	1177.6
57.5°	835.8	874.8	980.7	1077.3	1121.9
60°	767.1	804.2	912.0	1031.8	1058.7
62.5°	681.7	734.6	851.6	969.6	1007.6
65°	605.5	662.2	791.2	907.3	949.1
67.5°	535.9	594.4	729.0	853.5	899.0
70°	450.4	527.5	676.1	798.7	846.0
72.5°	387.3	464.3	619.4	741.1	783.8
75°	309.3	403.1	566.5	688.2	725.3
77.5°	244.2	345.5	511.7	648.2	685.4
80°	178.3	293.5	464.3	595.3	638.0
82.5°	121.7	245.2	420.7	546.1	586.9
85°	72.4	203.4	377.0	510.8	547.9
87.5°	31.6	166.2	337.1	459.7	497.8
90°	3.7	131.9	298.1	417.0	454.1
92.5°	0.9	105.9	263.7	378.9	415.1
95°	0.9	81.7	231.2	344.5	382.6
97.5°	0.9	63.2	198.7	309.3	345.5
100°	0.9	48.3	171.8	272.1	311.1
102.5°	0.9	36.2	145.8	241.5	274.9
105°	0.9	26.9	125.4	212.7	242.4
107.5°	0.9	19.5	104.9	185.7	215.5
110°	0.9	13.9	88.2	160.7	190.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.9	10.2	71.5	138.4	163.4
115°	0.9	6.5	58.5	117.0	140.2
117.5°	0.9	4.6	46.4	98.4	120.7
120°	0.9	3.7	37.1	81.7	101.2
122.5°	0.9	2.8	28.8	66.9	85.4
125°	0.9	1.9	21.4	53.9	68.7
127.5°	0.9	1.9	15.8	42.7	55.7
130°	0.9	0.9	11.1	32.5	43.6
132.5°	0.9	0.9	7.4	24.1	32.5
135°	1.9	0.9	5.6	17.6	24.1
137.5°	1.9	0.9	3.7	12.1	16.7
140°	1.9	0.9	1.9	7.4	10.2
142.5°	1.9	0.9	0.9	3.7	5.6
145°	1.9	0.9	0.0	1.9	2.8
147.5°	1.9	0.9	0.0	0.9	0.9
150°	1.9	0.9	0.0	0.0	0.0
152.5°	1.9	0.9	0.0	0.0	0.0
155°	1.9	1.9	0.0	0.0	0.0
157.5°	1.9	1.9	0.0	0.0	0.0
160°	1.9	1.9	0.0	0.0	0.0
162.5°	1.9	1.9	0.0	0.0	0.0
165°	2.8	1.9	0.0	0.0	0.0
167.5°	2.8	1.9	0.0	0.0	0.0
170°	2.8	1.9	0.0	0.0	0.0
172.5°	2.8	1.9	0.0	0.0	0.0
175°	2.8	1.9	0.0	0.0	0.0
177.5°	2.8	1.9	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	19.51	21.04	19.97	21.50	21.98	21.08	22.62	21.55	23.07	23.56
	3H	21.27	22.67	21.75	23.14	23.66	23.67	25.07	24.15	25.53	26.06
	4H	21.93	23.26	22.43	23.74	24.28	24.92	26.26	25.43	26.74	27.27
	6H	22.41	23.65	22.92	24.14	24.69	26.31	27.55	26.82	28.04	28.60
	8H	22.55	23.74	23.08	24.26	24.82	27.04	28.22	27.56	28.74	29.30
	12H	22.65	23.79	23.19	24.31	24.90	27.88	29.02	28.41	29.53	30.12
4H	2H	20.46	21.79	20.96	22.28	22.81	21.65	22.98	22.15	23.47	24.00
	3H	22.50	23.64	23.02	24.16	24.72	24.52	25.66	25.03	26.18	26.74
	4H	23.32	24.36	23.85	24.89	25.48	26.00	27.04	26.53	27.58	28.17
	6H	23.97	24.89	24.52	25.45	26.05	27.62	28.54	28.17	29.10	29.71
	8H	24.19	25.06	24.75	25.62	26.24	28.47	29.34	29.03	29.90	30.52
	12H	24.36	25.15	24.94	25.74	26.36	29.47	30.25	30.05	30.84	31.47
8H	4H	24.16	25.03	24.72	25.59	26.21	26.37	27.24	26.93	27.80	28.42
	6H	25.09	25.82	25.68	26.43	27.05	28.25	28.98	28.84	29.59	30.21
	8H	25.47	26.14	26.07	26.75	27.39	29.31	29.97	29.91	30.59	31.22
	12H	25.79	26.39	26.40	26.99	27.69	30.56	31.16	31.17	31.76	32.46
12H	4H	24.43	25.21	25.01	25.80	26.43	26.41	27.20	26.99	27.79	28.41
	6H	25.51	26.18	26.12	26.79	27.43	28.36	29.02	28.96	29.64	30.28
	8H	26.05	26.65	26.66	27.25	27.95	29.53	30.13	30.14	30.73	31.43