

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: P893645

Luminaire Tested: 4MB-5SL-LVRA-UNV-L930

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893645  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-LVRA-UNV-L930  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

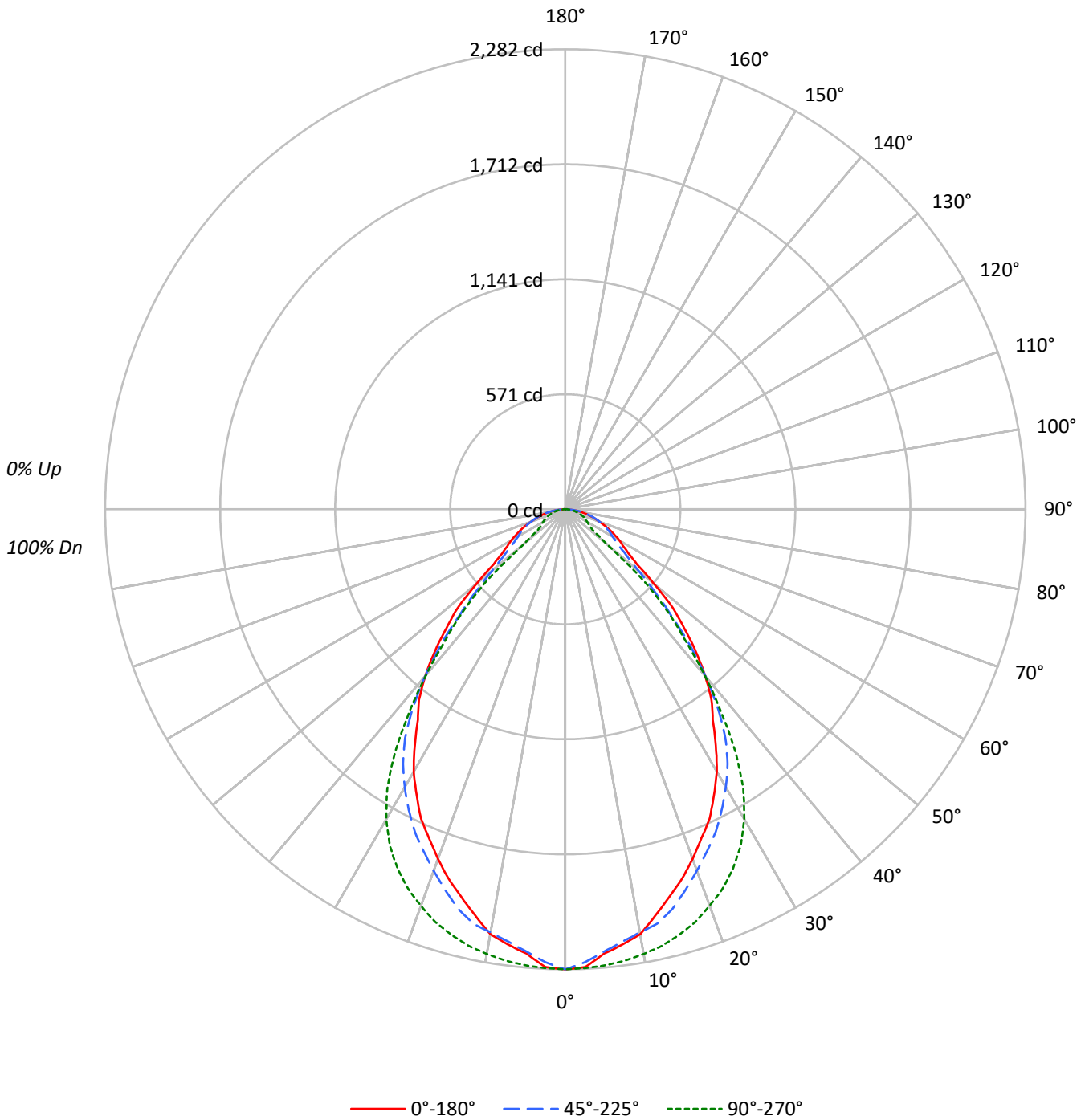
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3704.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 9.55  
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16238	16238	16238
5°	15801	15729	16221
10°	15465	15397	16183
15°	14666	15117	16092
20°	13971	14444	15846
25°	13290	13858	15442
30°	12347	13082	14580
35°	11071	12022	12788
40°	10031	10052	9998
45°	8387	7428	7245
50°	6335	5228	2962
55°	4765	4180	1868
60°	4428	3851	1800
65°	4120	3842	1803
70°	3769	3769	1774
75°	3574	3670	1715
80°	3302	3470	1758
85°	2882	3029	1918

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 8582 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.8	5.7
10°-20°	580.9	15.7
20°-30°	823.7	22.2
30°-40°	848.6	22.9
40°-50°	592.7	16.0
50°-60°	284.4	7.7
60°-70°	199.5	5.4
70°-80°	124.8	3.4
80°-90°	38.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1615.4	43.6
0°-40°	2464.0	66.5
0°-60°	3341.1	90.2
0°-90°	3704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3704.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2282	2282	2282	2282	2282	
5°	2212	2209	2202	2260	2271	209
15°	1991	2006	2052	2111	2185	561
25°	1693	1710	1765	1885	1967	774
35°	1275	1309	1384	1413	1472	803
45°	834	853	738	701	720	642
55°	384	365	337	216	151	360
65°	245	229	228	174	107	242
75°	130	128	134	115	62	137
85°	35	35	37	36	24	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2282.2	2282.2	2282.2	2282.2	2282.2
2.5°	2273.4	2266.4	2249.3	2280.5	2278.1
5°	2212.3	2209.3	2202.3	2259.9	2271.1
7.5°	2177.5	2171.7	2163.4	2227.0	2258.1
10°	2140.5	2147.5	2131.1	2189.3	2239.9
12.5°	2064.0	2082.8	2105.2	2150.5	2217.5
15°	1991.1	2005.8	2052.3	2111.1	2184.6
17.5°	1922.9	1939.9	1979.9	2068.1	2146.4
20°	1845.2	1868.7	1907.6	2020.5	2092.8
22.5°	1765.2	1787.0	1835.8	1957.0	2037.6
25°	1692.9	1709.9	1765.2	1884.6	1967.0
27.5°	1597.0	1628.7	1681.1	1796.4	1882.9
30°	1502.9	1529.9	1592.3	1689.3	1774.6
32.5°	1389.3	1428.8	1497.6	1571.7	1642.9
35°	1274.6	1309.4	1384.1	1412.9	1472.3
37.5°	1191.1	1200.5	1242.9	1239.4	1272.9
40°	1080.0	1098.8	1082.3	1038.2	1076.4
42.5°	960.0	982.3	915.8	864.7	878.2
45°	833.5	852.9	738.2	700.6	720.0
47.5°	724.1	722.3	595.3	570.0	542.9
50°	572.3	591.1	472.3	425.3	267.6
52.5°	447.0	454.1	389.4	271.8	175.9
55°	384.1	365.3	337.0	215.9	150.6
57.5°	341.2	317.6	298.8	200.6	137.6
60°	311.2	284.7	270.6	190.6	126.5
62.5°	277.0	256.5	251.2	181.8	116.5
65°	244.7	228.8	228.2	173.5	107.1
67.5°	212.3	203.5	205.9	163.5	96.5
70°	181.2	179.4	181.2	150.6	85.3
72.5°	154.7	152.9	157.6	134.1	72.9
75°	130.0	128.2	133.5	115.3	62.4
77.5°	103.5	104.7	108.2	95.9	52.4
80°	80.6	80.6	84.7	75.3	42.9
82.5°	57.6	58.2	60.6	55.3	33.5
85°	35.3	35.3	37.1	36.5	23.5
87.5°	11.8	13.5	15.9	17.1	11.8
90°	0.0	0.0	0.0	0.0	0.0



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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	15.33	16.68	15.70	17.00	17.31	11.66	13.02	12.03	13.33	13.64
	3H	17.07	18.28	17.45	18.61	18.97	13.64	14.85	14.02	15.18	15.54
	4H	17.74	18.87	18.14	19.22	19.60	14.34	15.47	14.75	15.82	16.20
	6H	18.25	19.29	18.66	19.66	20.05	14.87	15.91	15.28	16.28	16.67
	8H	18.42	19.40	18.85	19.79	20.20	15.05	16.04	15.48	16.43	16.83
	12H	18.53	19.47	18.96	19.85	20.28	15.19	16.13	15.62	16.52	16.95
4H	2H	15.86	16.99	16.26	17.34	17.72	13.29	14.41	13.69	14.76	15.15
	3H	17.84	18.77	18.25	19.17	19.57	15.46	16.39	15.88	16.80	17.20
	4H	18.64	19.48	19.07	19.89	20.34	16.34	17.18	16.78	17.60	18.04
	6H	19.28	20.01	19.75	20.45	20.92	16.99	17.71	17.45	18.16	18.62
	8H	19.50	20.18	19.97	20.63	21.10	17.20	17.87	17.66	18.32	18.79
	12H	19.66	20.26	20.14	20.74	21.21	17.35	17.95	17.84	18.43	18.91
8H	4H	18.92	19.60	19.39	20.05	20.52	16.99	17.67	17.46	18.12	18.59
	6H	19.71	20.26	20.21	20.76	21.24	17.85	18.41	18.35	18.90	19.38
	8H	20.01	20.51	20.53	21.02	21.51	18.18	18.68	18.70	19.19	19.69
	12H	20.24	20.68	20.76	21.18	21.75	18.44	18.89	18.96	19.38	19.95
12H	4H	18.94	19.54	19.43	20.02	20.50	17.06	17.66	17.55	18.15	18.62
	6H	19.76	20.26	20.28	20.77	21.26	17.99	18.49	18.51	19.00	19.50
	8H	20.12	20.56	20.64	21.06	21.63	18.40	18.84	18.92	19.34	19.91