

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: P893633

Luminaire Tested: 4MB-5SL-LVR-UNV-L830

Issue Date: 11/11/2024

**Test Information**

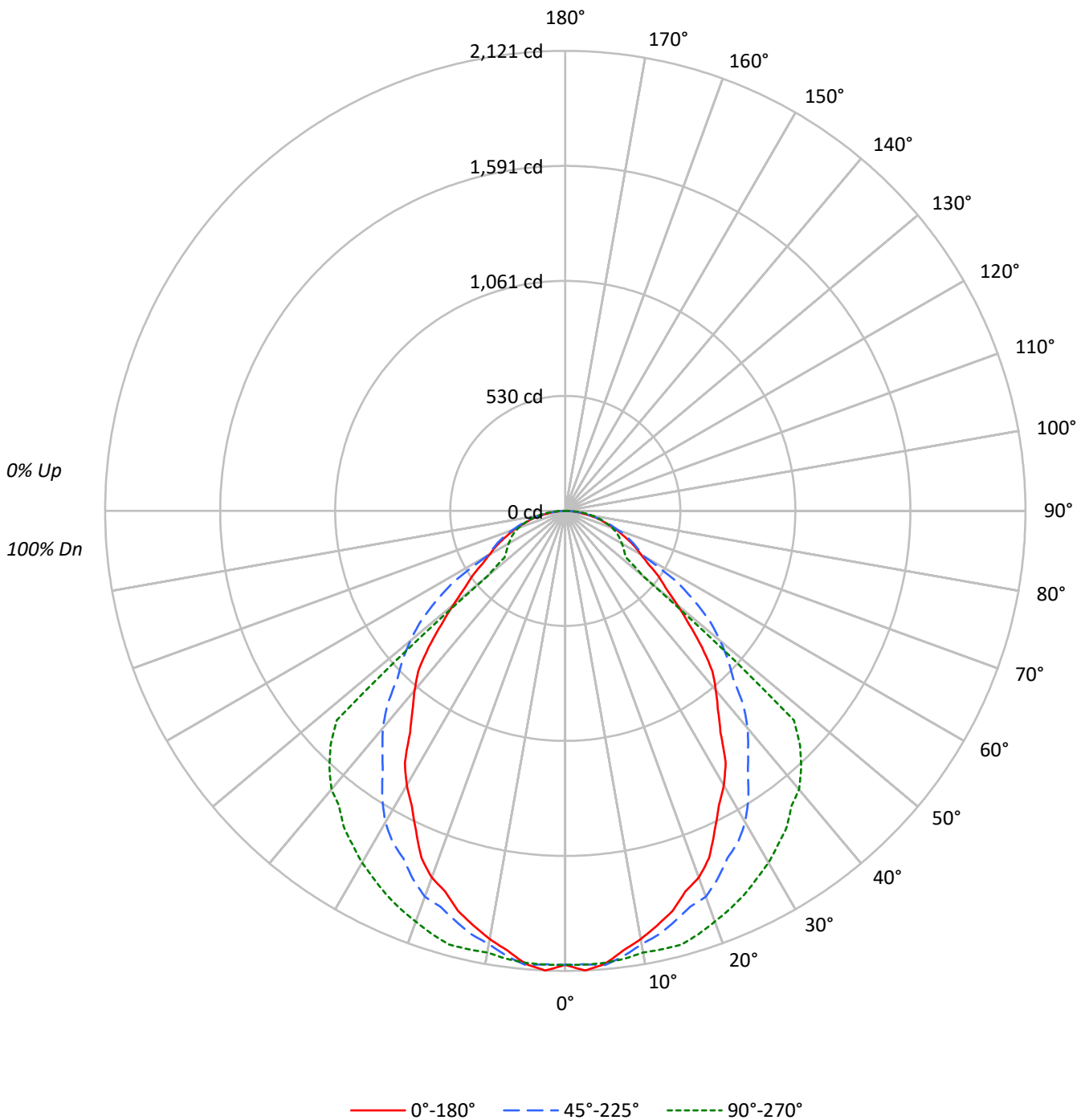
Test Method: LM-79-2019  
Report Number: P893633  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-LVR-UNV-L830  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4467.0 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.32 / 1.27  
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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	32	32	32	30

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

	0°	45°	90°
0°	14893	14893	14893
5°	14974	15011	14935
10°	14482	14652	14938
15°	14065	14419	15245
20°	13623	14335	15258
25°	12782	13873	15325
30°	12006	13622	15388
35°	10827	12740	15461
40°	10029	12153	15569
45°	8971	11015	15393
50°	7443	10318	5171
55°	6485	9058	4138
60°	5735	5903	4290
65°	5453	5741	4554
70°	5115	5427	4803
75°	4761	5113	4937
80°	4335	4818	5171
85°	3837	4098	5584

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 15393 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.5	4.4
10°-20°	558.5	12.5
20°-30°	821.6	18.4
30°-40°	939.6	21.0
40°-50°	889.7	19.9
50°-60°	490.2	11.0
60°-70°	314.7	7.0
70°-80°	194.2	4.3
80°-90°	59.8	1.3
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°	1578.7	35.3
0°-40°	2518.3	56.4
0°-60°	3898.2	87.3
0°-90°	4467.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4467.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2093	2093	2093	2093	2093	
5°	2096	2114	2102	2102	2091	197
15°	1909	1933	1958	2060	2070	536
25°	1628	1701	1767	1883	1952	750
35°	1246	1353	1467	1680	1780	788
45°	892	976	1095	1405	1530	682
55°	523	548	730	376	334	467
65°	324	335	341	304	270	321
75°	173	176	186	196	180	184
85°	47	47	50	58	68	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2093.2	2093.2	2093.2	2093.2	2093.2
2.5°	2121.0	2126.4	2092.2	2091.1	2094.3
5°	2096.5	2113.6	2101.8	2101.8	2091.1
7.5°	2044.1	2072.9	2069.7	2094.3	2082.6
10°	2004.5	2028.0	2028.0	2092.2	2067.6
12.5°	1957.5	1984.2	1999.2	2066.5	2069.7
15°	1909.4	1932.9	1957.5	2060.1	2069.7
17.5°	1839.9	1882.6	1913.6	2014.1	2045.1
20°	1799.2	1824.9	1893.3	1974.6	2015.2
22.5°	1731.9	1769.3	1835.6	1926.5	1986.3
25°	1628.2	1700.9	1767.2	1882.6	1952.1
27.5°	1532.0	1586.5	1723.3	1845.2	1911.5
30°	1461.4	1504.2	1658.1	1790.7	1873.0
32.5°	1375.9	1445.4	1570.5	1737.2	1824.9
35°	1246.5	1353.4	1466.8	1679.5	1780.0
37.5°	1155.7	1229.4	1383.4	1619.6	1712.7
40°	1079.8	1147.1	1308.5	1544.8	1676.3
42.5°	1003.9	1058.4	1214.5	1489.2	1609.0
45°	891.6	976.1	1094.7	1404.8	1529.8
47.5°	774.0	863.8	1016.7	1333.1	1429.3
50°	672.4	744.1	932.2	1190.9	467.2
52.5°	583.7	650.0	842.4	430.8	352.8
55°	522.8	548.4	730.2	376.3	333.6
57.5°	450.1	491.8	612.6	358.1	316.4
60°	403.0	421.2	414.8	340.0	301.5
62.5°	365.6	378.5	376.3	321.8	284.4
65°	323.9	334.6	341.0	303.6	270.5
67.5°	282.2	291.9	301.5	281.2	251.2
70°	245.9	252.3	260.9	254.4	230.9
72.5°	208.5	216.0	221.3	226.6	204.2
75°	173.2	176.4	186.0	195.6	179.6
77.5°	141.1	144.3	150.7	161.4	152.9
80°	105.8	109.0	117.6	126.2	126.2
82.5°	74.8	77.0	82.3	94.1	99.4
85°	47.0	47.0	50.2	57.7	68.4
87.5°	18.2	18.2	21.4	25.7	34.2
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	17.33	18.82	17.70	19.13	19.45	15.14	16.62	15.50	16.93	17.25
	3H	18.86	20.19	19.24	20.52	20.88	17.47	18.79	17.84	19.12	19.48
	4H	19.45	20.70	19.85	21.05	21.42	18.42	19.66	18.82	20.01	20.39
	6H	19.91	21.06	20.32	21.42	21.82	19.20	20.35	19.61	20.72	21.11
	8H	20.05	21.15	20.48	21.54	21.94	19.51	20.60	19.94	20.99	21.40
	12H	20.15	21.19	20.58	21.58	22.01	19.76	20.81	20.19	21.19	21.62
4H	2H	17.88	19.13	18.29	19.48	19.86	16.24	17.48	16.64	17.83	18.21
	3H	19.66	20.69	20.07	21.09	21.49	18.69	19.71	19.10	20.12	20.52
	4H	20.38	21.30	20.81	21.72	22.16	19.75	20.68	20.18	21.09	21.53
	6H	20.96	21.77	21.42	22.21	22.67	20.64	21.45	21.10	21.89	22.35
	8H	21.15	21.90	21.62	22.35	22.82	20.99	21.74	21.46	22.19	22.66
	12H	21.29	21.96	21.77	22.44	22.91	21.28	21.95	21.76	22.43	22.90
8H	4H	20.68	21.44	21.15	21.88	22.35	20.14	20.89	20.60	21.34	21.80
	6H	21.39	22.02	21.89	22.51	22.99	21.17	21.80	21.67	22.29	22.77
	8H	21.66	22.22	22.17	22.73	23.22	21.62	22.18	22.13	22.69	23.18
	12H	21.86	22.36	22.38	22.86	23.42	22.00	22.50	22.51	22.99	23.56
12H	4H	20.72	21.39	21.20	21.87	22.34	20.17	20.85	20.66	21.33	21.80
	6H	21.46	22.02	21.97	22.53	23.02	21.24	21.80	21.75	22.31	22.80
	8H	21.78	22.28	22.29	22.77	23.34	21.75	22.25	22.26	22.74	23.30