

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: P893663

Luminaire Tested: 4MB-5SL-RFLW-UNV-L940

Issue Date: 11/11/2024

**Test Information**

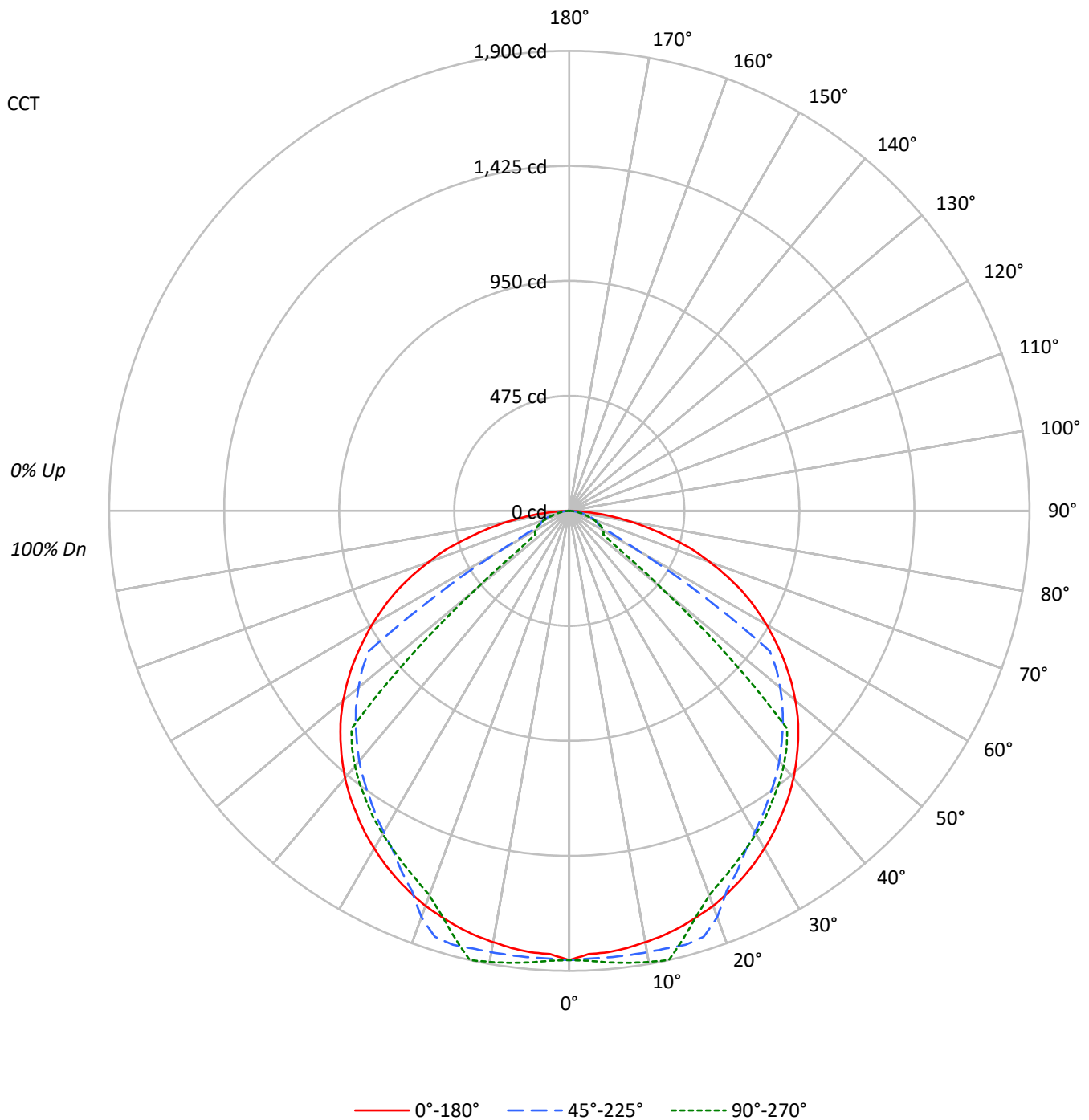
Test Method: LM-79-2019  
Report Number: P893663  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-RFLW-UNV-L940  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 4000K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4525.0 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38  
Luminous Opening: Rectangular (W 0.21' 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				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	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

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

	0°	45°	90°
0°	24091	24091	24091
5°	23851	24127	24405
10°	23846	24406	24940
15°	23911	24941	24540
20°	23990	24667	23343
25°	24051	23503	23106
30°	24149	22969	23097
35°	24250	22833	23171
40°	24416	22865	23334
45°	24536	22896	23364
50°	24627	22951	10101
55°	24565	22879	3853
60°	24422	8731	4199
65°	24251	4053	4314
70°	23425	4362	4040
75°	21884	4164	3522
80°	19248	3657	3021
85°	15212	3173	2533

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 24627 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.2	3.9
10°-20°	514.5	11.4
20°-30°	767.6	17.0
30°-40°	930.4	20.6
40°-50°	952.7	21.1
50°-60°	633.6	14.0
60°-70°	361.1	8.0
70°-80°	151.7	3.4
80°-90°	36.2	0.8
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°	1459.3	32.2
0°-40°	2389.7	52.8
0°-60°	3976.0	87.9
0°-90°	4525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4525.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1855	1855	1855	1855	1855	
5°	1830	1866	1851	1855	1872	174
15°	1779	1828	1855	1849	1826	502
25°	1679	1760	1640	1604	1613	774
35°	1530	1557	1440	1447	1462	958
45°	1336	1255	1247	1262	1272	1031
55°	1085	994	1011	221	170	969
65°	789	706	132	140	140	777
75°	436	92	83	72	70	463
85°	102	26	21	17	17	122
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1855.3	1855.3	1855.3	1855.3	1855.3
2.5°	1831.9	1870.2	1851.0	1853.2	1859.5
5°	1829.8	1865.9	1851.0	1855.3	1872.3
7.5°	1821.2	1859.5	1851.0	1863.8	1882.9
10°	1808.5	1853.2	1851.0	1872.3	1891.5
12.5°	1795.7	1840.4	1851.0	1882.9	1900.0
15°	1778.7	1827.6	1855.3	1848.9	1825.5
17.5°	1757.4	1814.9	1844.6	1753.2	1751.0
20°	1736.1	1797.8	1785.1	1697.8	1689.3
22.5°	1708.5	1780.8	1697.8	1638.3	1648.9
25°	1678.7	1759.5	1640.4	1604.2	1612.7
27.5°	1646.8	1738.3	1578.7	1565.9	1576.6
30°	1610.6	1708.5	1531.9	1527.6	1540.4
32.5°	1572.3	1651.0	1487.2	1489.3	1504.2
35°	1529.8	1557.4	1440.4	1446.8	1461.7
37.5°	1487.2	1470.2	1395.7	1406.4	1421.3
40°	1440.4	1402.1	1348.9	1359.5	1376.6
42.5°	1389.3	1329.8	1297.8	1312.7	1327.6
45°	1336.1	1255.3	1246.8	1261.7	1272.3
47.5°	1280.8	1191.5	1193.6	1204.2	902.1
50°	1219.1	1127.6	1136.1	787.2	500.0
52.5°	1153.2	1061.7	1078.7	438.3	253.2
55°	1085.1	993.6	1010.6	221.3	170.2
57.5°	1012.7	925.5	659.6	159.6	168.1
60°	940.4	853.2	336.2	157.4	161.7
62.5°	865.9	780.8	159.6	151.1	153.2
65°	789.3	706.4	131.9	140.4	140.4
67.5°	704.2	627.6	125.5	125.5	123.4
70°	617.0	521.3	114.9	108.5	106.4
72.5°	536.2	200.0	100.0	89.4	87.2
75°	436.2	91.5	83.0	72.3	70.2
77.5°	346.8	76.6	66.0	57.4	55.3
80°	257.4	59.6	48.9	42.6	40.4
82.5°	178.7	40.4	34.0	27.7	27.7
85°	102.1	25.5	21.3	17.0	17.0
87.5°	40.4	12.8	10.6	6.4	6.4
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	23.98	25.50	24.35	25.82	26.13	11.75	13.27	12.11	13.58	13.90
	3H	26.00	27.36	26.38	27.69	28.05	14.06	15.42	14.44	15.75	16.11
	4H	26.46	27.73	26.86	28.08	28.46	14.77	16.05	15.17	16.39	16.77
	6H	26.87	28.04	27.28	28.41	28.80	15.26	16.43	15.67	16.80	17.19
	8H	27.02	28.13	27.45	28.52	28.93	15.40	16.51	15.82	16.90	17.30
	12H	27.12	28.18	27.55	28.57	29.00	15.48	16.55	15.91	16.93	17.36
4H	2H	23.82	25.09	24.22	25.44	25.82	12.55	13.82	12.94	14.17	14.54
	3H	26.03	27.07	26.44	27.47	27.87	15.06	16.10	15.47	16.50	16.90
	4H	26.47	27.41	26.91	27.83	28.27	15.88	16.81	16.31	17.23	17.67
	6H	26.94	27.75	27.40	28.20	28.66	16.47	17.28	16.92	17.72	18.19
	8H	27.13	27.89	27.59	28.34	28.80	16.64	17.40	17.10	17.84	18.31
	12H	27.28	27.96	27.76	28.44	28.91	16.76	17.43	17.24	17.91	18.38
8H	4H	26.39	27.15	26.86	27.60	28.06	16.71	17.48	17.18	17.92	18.39
	6H	26.85	27.48	27.35	27.97	28.45	17.34	17.97	17.83	18.46	18.93
	8H	27.05	27.62	27.57	28.13	28.61	17.54	18.10	18.05	18.61	19.10
	12H	27.23	27.74	27.74	28.23	28.79	17.69	18.20	18.20	18.69	19.25
12H	4H	26.36	27.04	26.84	27.52	27.99	16.79	17.46	17.27	17.94	18.41
	6H	26.80	27.37	27.32	27.88	28.37	17.43	18.00	17.94	18.51	18.99
	8H	27.03	27.53	27.54	28.02	28.59	17.68	18.18	18.19	18.68	19.24