

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: P893659

Luminaire Tested: 4MB-5SL-RFLW-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893659
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-L840
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

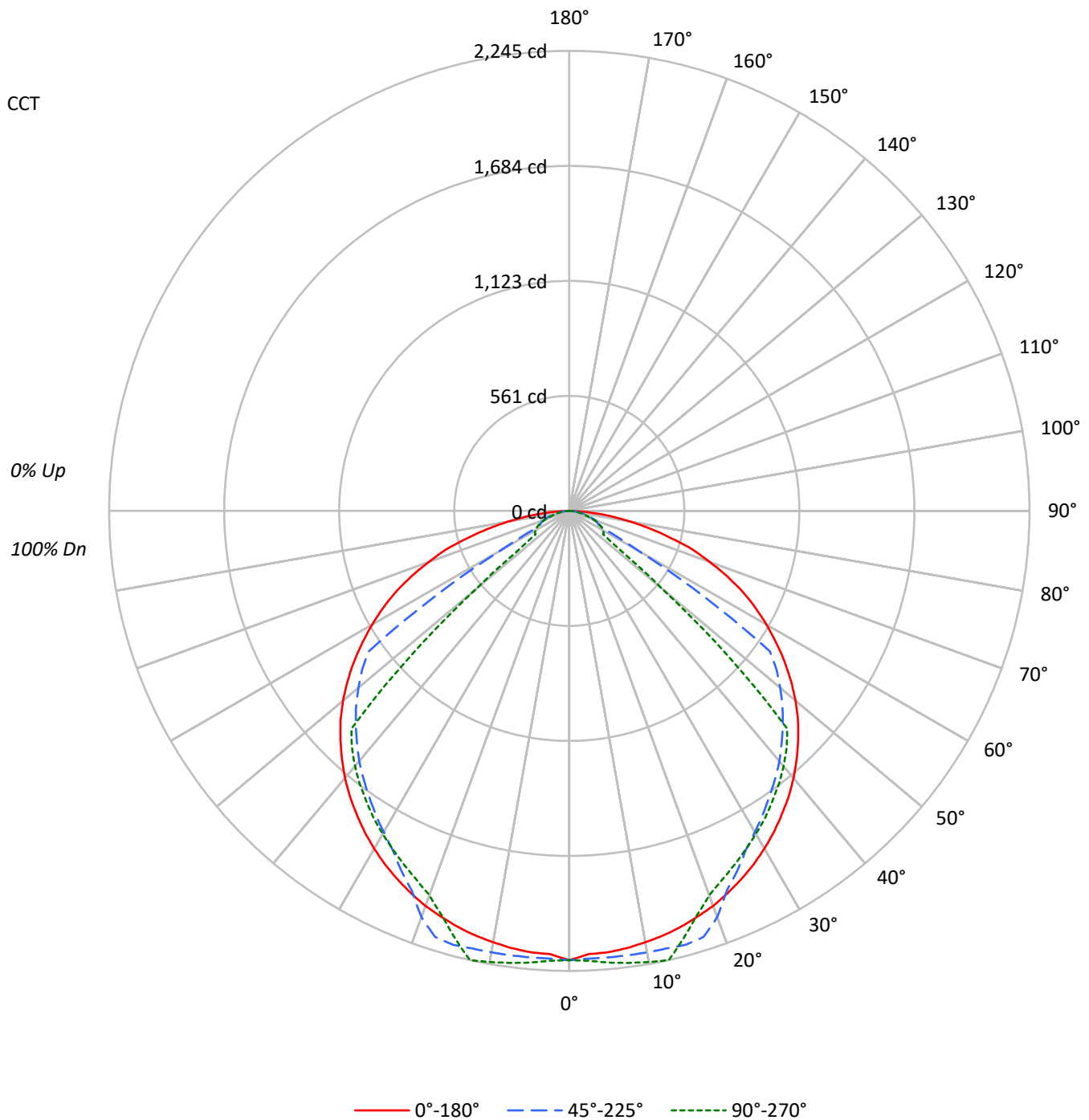
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5347.0 lumens
Efficiency: N/A
Efficacy: 152.8 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_{in}): 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	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°	28467	28467	28467
5°	28182	28511	28838
10°	28177	28840	29471
15°	28255	29471	28998
20°	28349	29147	27584
25°	28420	27772	27304
30°	28536	27142	27292
35°	28655	26981	27379
40°	28852	27020	27572
45°	28994	27055	27608
50°	29102	27120	11935
55°	29027	27035	4553
60°	28858	10315	4963
65°	28657	4790	5097
70°	27681	5156	4772
75°	25858	4922	4164
80°	22747	4322	3574
85°	17983	3740	2995

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 29102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.4	3.9
10°-20°	607.9	11.4
20°-30°	907.1	17.0
30°-40°	1099.5	20.6
40°-50°	1125.8	21.1
50°-60°	748.7	14.0
60°-70°	426.7	8.0
70°-80°	179.3	3.4
80°-90°	42.7	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°	1724.4	32.2
0°-40°	2823.8	52.8
0°-60°	4698.3	87.9
0°-90°	5347.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5347.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2192	2192	2192	2192	2192	
5°	2162	2205	2187	2192	2212	206
15°	2102	2160	2192	2185	2157	594
25°	1984	2079	1938	1896	1906	915
35°	1808	1840	1702	1710	1727	1132
45°	1579	1483	1473	1491	1503	1218
55°	1282	1174	1194	262	201	1145
65°	933	835	156	166	166	918
75°	515	108	98	86	83	547
85°	121	30	25	20	20	145
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2192.3	2192.3	2192.3	2192.3	2192.3
2.5°	2164.7	2209.9	2187.3	2189.8	2197.3
5°	2162.1	2204.9	2187.3	2192.3	2212.4
7.5°	2152.1	2197.3	2187.3	2202.4	2225.0
10°	2137.0	2189.8	2187.3	2212.4	2235.1
12.5°	2121.9	2174.7	2187.3	2225.0	2245.1
15°	2101.8	2159.6	2192.3	2184.8	2157.1
17.5°	2076.7	2144.5	2179.7	2071.6	2069.1
20°	2051.5	2124.4	2109.3	2006.3	1996.2
22.5°	2018.8	2104.3	2006.3	1935.9	1948.4
25°	1983.6	2079.2	1938.4	1895.6	1905.7
27.5°	1945.9	2054.0	1865.5	1850.4	1863.0
30°	1903.2	2018.8	1810.2	1805.1	1820.2
32.5°	1857.9	1951.0	1757.4	1759.9	1777.5
35°	1807.7	1840.3	1702.1	1709.6	1727.2
37.5°	1757.4	1737.3	1649.3	1661.8	1679.4
40°	1702.1	1656.8	1594.0	1606.5	1626.6
42.5°	1641.7	1571.3	1533.6	1551.2	1568.8
45°	1578.9	1483.3	1473.3	1490.9	1503.4
47.5°	1513.5	1407.9	1410.4	1423.0	1066.0
50°	1440.6	1332.5	1342.5	930.2	590.8
52.5°	1362.7	1254.5	1274.7	517.9	299.2
55°	1282.2	1174.1	1194.2	261.5	201.1
57.5°	1196.7	1093.6	779.4	188.6	198.6
60°	1111.2	1008.2	397.2	186.0	191.1
62.5°	1023.2	922.7	188.6	178.5	181.0
65°	932.7	834.7	155.9	165.9	165.9
67.5°	832.2	741.7	148.3	148.3	145.8
70°	729.1	616.0	135.8	128.2	125.7
72.5°	633.6	236.3	118.2	105.6	103.1
75°	515.4	108.1	98.1	85.5	83.0
77.5°	409.8	90.5	77.9	67.9	65.4
80°	304.2	70.4	57.8	50.3	47.8
82.5°	211.2	47.8	40.2	32.7	32.7
85°	120.7	30.2	25.1	20.1	20.1
87.5°	47.8	15.1	12.6	7.5	7.5
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	24.56	26.08	24.92	26.39	26.71	12.33	13.85	12.69	14.16	14.48
	3H	26.58	27.94	26.96	28.27	28.63	14.64	16.00	15.02	16.33	16.69
	4H	27.04	28.31	27.44	28.66	29.04	15.35	16.63	15.75	16.97	17.35
	6H	27.45	28.62	27.86	28.99	29.38	15.84	17.01	16.25	17.38	17.77
	8H	27.60	28.71	28.03	29.10	29.51	15.98	17.09	16.40	17.48	17.88
	12H	27.70	28.76	28.13	29.15	29.58	16.06	17.13	16.49	17.51	17.94
4H	2H	24.40	25.67	24.80	26.02	26.40	13.13	14.40	13.53	14.75	15.12
	3H	26.61	27.65	27.02	28.05	28.45	15.64	16.68	16.05	17.08	17.48
	4H	27.05	27.99	27.49	28.41	28.85	16.46	17.40	16.89	17.81	18.25
	6H	27.52	28.33	27.98	28.78	29.24	17.05	17.86	17.51	18.31	18.77
	8H	27.71	28.47	28.17	28.92	29.38	17.22	17.98	17.68	18.42	18.89
	12H	27.86	28.54	28.34	29.02	29.49	17.34	18.02	17.82	18.49	18.97
8H	4H	26.97	27.73	27.44	28.18	28.64	17.29	18.06	17.76	18.50	18.97
	6H	27.43	28.06	27.93	28.55	29.03	17.92	18.55	18.41	19.04	19.52
	8H	27.63	28.20	28.15	28.71	29.19	18.12	18.68	18.63	19.19	19.68
	12H	27.82	28.32	28.33	28.81	29.37	18.27	18.78	18.78	19.27	19.83
12H	4H	26.94	27.62	27.42	28.10	28.57	17.37	18.04	17.85	18.52	19.00
	6H	27.38	27.95	27.90	28.46	28.95	18.01	18.58	18.52	19.09	19.57
	8H	27.61	28.11	28.12	28.60	29.17	18.26	18.77	18.77	19.26	19.82