

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: P893548

Luminaire Tested: 4MB-4SL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893548
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-4SL-RFLW-UNV-L850
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

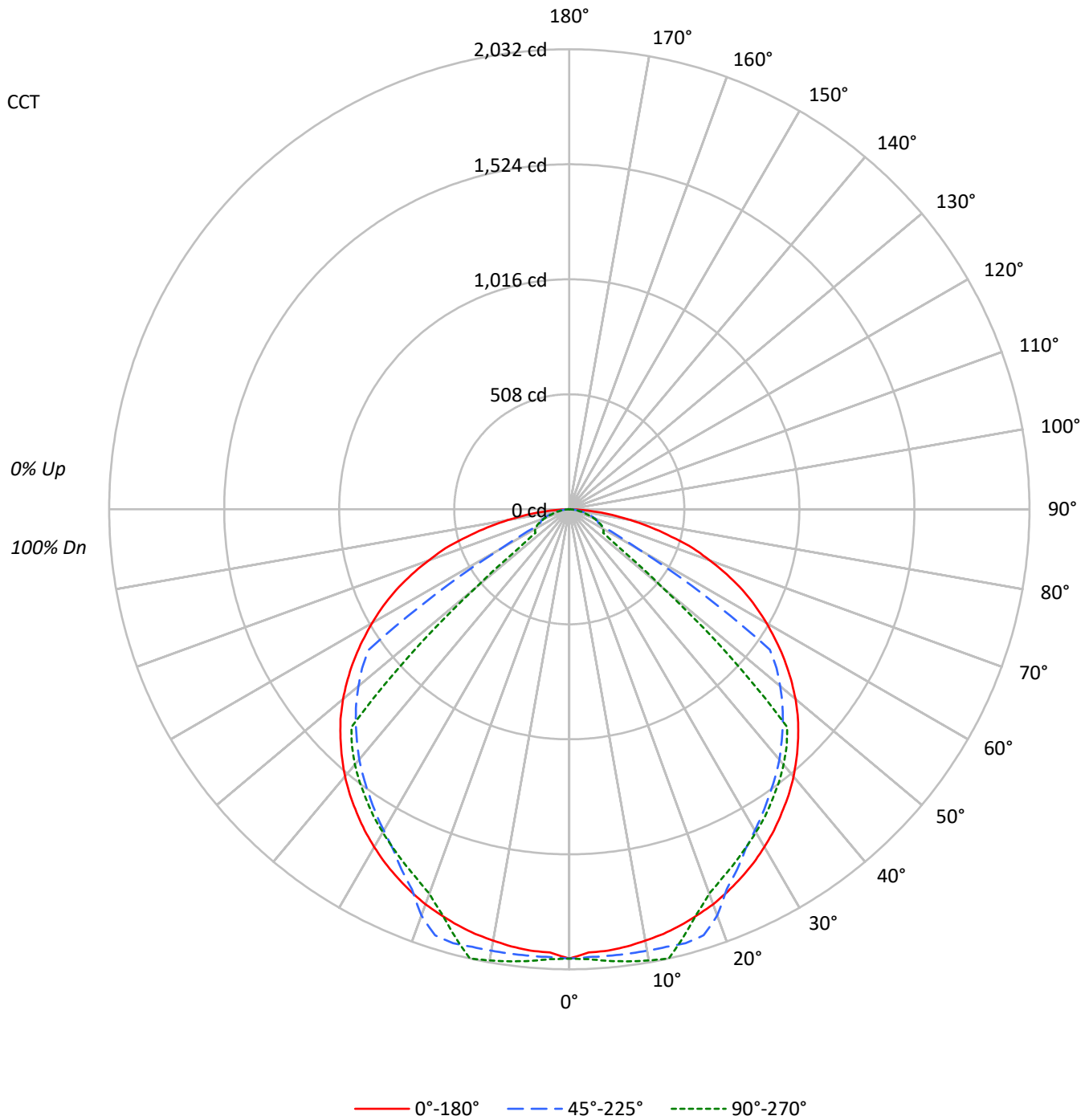
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4840.0 lumens
Efficiency: N/A
Efficacy: 162.4 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): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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°	25768	25768	25768
5°	25510	25807	26103
10°	25506	26106	26675
15°	25576	26677	26249
20°	25661	26384	24969
25°	25726	25139	24715
30°	25830	24567	24704
35°	25938	24423	24783
40°	26116	24457	24958
45°	26245	24490	24991
50°	26342	24548	10804
55°	26275	24473	4123
60°	26123	9339	4493
65°	25941	4335	4615
70°	25057	4666	4321
75°	23405	4455	3768
80°	20594	3911	3230
85°	16269	3397	2712

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 26342 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.5	3.9
10°-20°	550.3	11.4
20°-30°	821.1	17.0
30°-40°	995.2	20.6
40°-50°	1019.0	21.1
50°-60°	677.7	14.0
60°-70°	386.3	8.0
70°-80°	162.3	3.4
80°-90°	38.7	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°	1560.9	32.2
0°-40°	2556.1	52.8
0°-60°	4252.8	87.9
0°-90°	4840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1984	1984	1984	1984	1984	
5°	1957	1996	1980	1984	2003	186
15°	1902	1955	1984	1978	1953	537
25°	1796	1882	1755	1716	1725	828
35°	1636	1666	1541	1548	1563	1025
45°	1429	1343	1334	1350	1361	1103
55°	1161	1063	1081	237	182	1036
65°	844	756	141	150	150	831
75°	466	98	89	77	75	495
85°	109	27	23	18	18	131
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1984.4	1984.4	1984.4	1984.4	1984.4
2.5°	1959.4	2000.4	1979.9	1982.2	1989.0
5°	1957.1	1995.8	1979.9	1984.4	2002.6
7.5°	1948.0	1989.0	1979.9	1993.5	2014.0
10°	1934.4	1982.2	1979.9	2002.6	2023.1
12.5°	1920.7	1968.5	1979.9	2014.0	2032.2
15°	1902.5	1954.9	1984.4	1977.6	1952.6
17.5°	1879.8	1941.2	1973.1	1875.2	1872.9
20°	1857.0	1923.0	1909.3	1816.0	1806.9
22.5°	1827.4	1904.8	1816.0	1752.3	1763.7
25°	1795.6	1882.0	1754.6	1715.9	1725.0
27.5°	1761.4	1859.3	1688.6	1674.9	1686.3
30°	1722.7	1827.4	1638.5	1634.0	1647.6
32.5°	1681.8	1766.0	1590.7	1593.0	1608.9
35°	1636.3	1665.8	1540.7	1547.5	1563.4
37.5°	1590.7	1572.5	1492.9	1504.3	1520.2
40°	1540.7	1499.7	1442.8	1454.2	1472.4
42.5°	1486.1	1422.3	1388.2	1404.1	1420.1
45°	1429.2	1342.7	1333.6	1349.5	1360.9
47.5°	1370.0	1274.4	1276.7	1288.1	964.9
50°	1304.0	1206.1	1215.2	842.0	534.8
52.5°	1233.4	1135.6	1153.8	468.8	270.8
55°	1160.6	1062.8	1081.0	236.7	182.1
57.5°	1083.2	989.9	705.5	170.7	179.8
60°	1005.9	912.6	359.6	168.4	173.0
62.5°	926.2	835.2	170.7	161.6	163.9
65°	844.3	755.5	141.1	150.2	150.2
67.5°	753.3	671.3	134.3	134.3	132.0
70°	660.0	557.6	122.9	116.1	113.8
72.5°	573.5	213.9	107.0	95.6	93.3
75°	466.5	97.9	88.8	77.4	75.1
77.5°	370.9	81.9	70.5	61.4	59.2
80°	275.4	63.7	52.3	45.5	43.2
82.5°	191.2	43.2	36.4	29.6	29.6
85°	109.2	27.3	22.8	18.2	18.2
87.5°	43.2	13.7	11.4	6.8	6.8
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	24.21	25.74	24.58	26.05	26.36	11.98	13.50	12.35	13.82	14.13
	3H	26.23	27.59	26.61	27.92	28.28	14.30	15.65	14.67	15.98	16.34
	4H	26.70	27.97	27.10	28.32	28.70	15.01	16.28	15.41	16.63	17.01
	6H	27.10	28.28	27.52	28.64	29.04	15.49	16.66	15.90	17.03	17.42
	8H	27.25	28.37	27.68	28.76	29.16	15.63	16.75	16.06	17.14	17.54
	12H	27.35	28.42	27.78	28.80	29.23	15.72	16.78	16.15	17.17	17.60
4H	2H	24.06	25.33	24.46	25.68	26.05	12.78	14.05	13.18	14.40	14.78
	3H	26.26	27.31	26.67	27.71	28.11	15.29	16.34	15.70	16.74	17.14
	4H	26.71	27.65	27.14	28.06	28.50	16.11	17.05	16.54	17.47	17.90
	6H	27.17	27.99	27.63	28.43	28.89	16.70	17.52	17.16	17.96	18.42
	8H	27.36	28.12	27.83	28.57	29.04	16.87	17.63	17.34	18.08	18.54
	12H	27.52	28.19	28.00	28.67	29.15	16.99	17.67	17.47	18.15	18.62
8H	4H	26.63	27.39	27.09	27.83	28.30	16.95	17.71	17.41	18.15	18.62
	6H	27.08	27.71	27.58	28.20	28.68	17.57	18.20	18.07	18.69	19.17
	8H	27.28	27.85	27.80	28.36	28.85	17.77	18.34	18.29	18.85	19.34
	12H	27.47	27.97	27.98	28.46	29.03	17.93	18.43	18.44	18.92	19.49
12H	4H	26.59	27.27	27.08	27.75	28.22	17.02	17.70	17.50	18.18	18.65
	6H	27.04	27.60	27.55	28.11	28.60	17.66	18.23	18.18	18.74	19.23
	8H	27.26	27.76	27.77	28.25	28.82	17.92	18.42	18.43	18.91	19.48