

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: P893551

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893551
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-L940
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 4000K
Light Source: -
Ballast/Driver: -

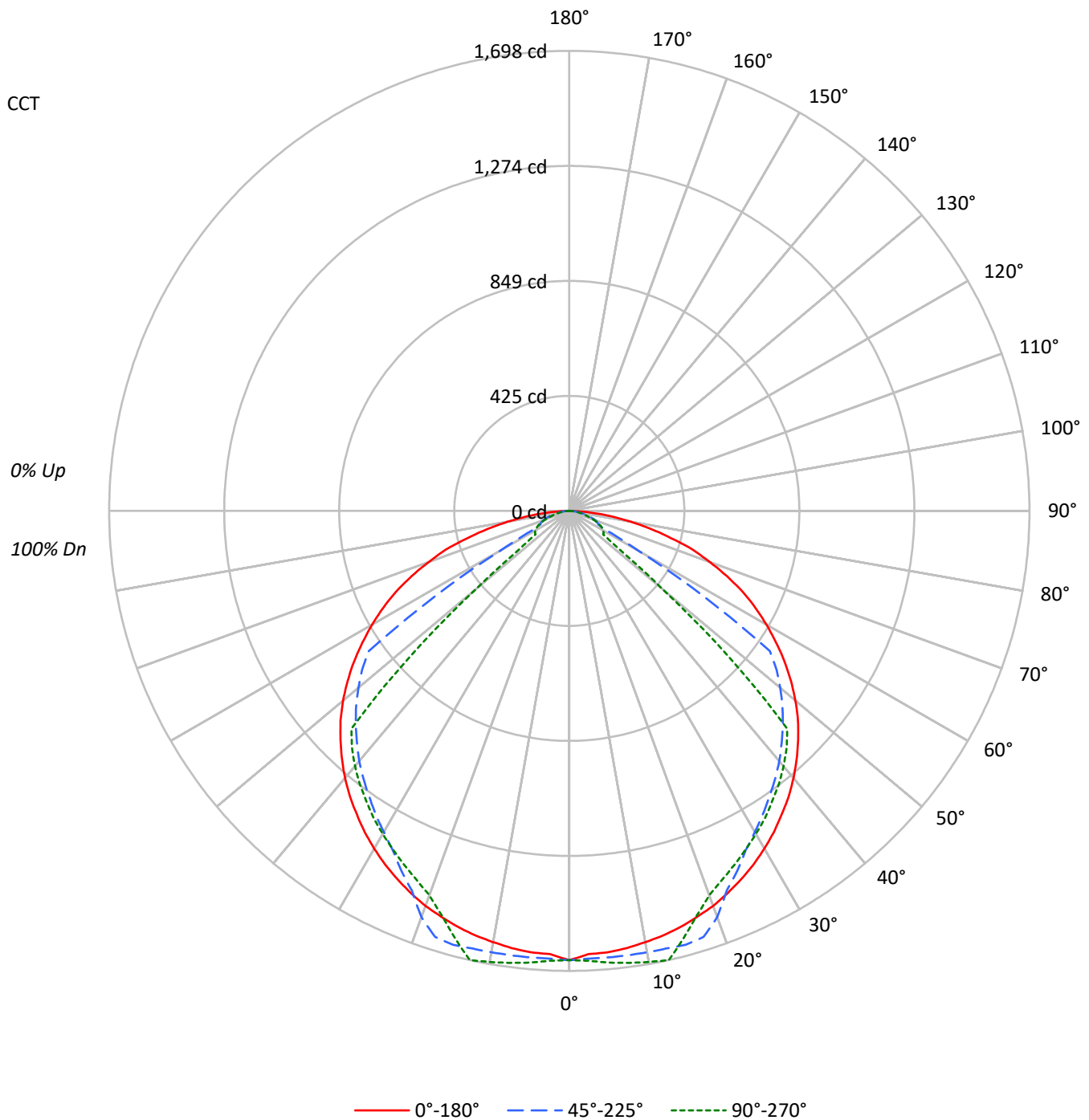
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4044.0 lumens
Efficiency: N/A
Efficacy: 135.7 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

TEST NUMBER: P893551
CATALOG NUMBER: 4MB-4SL-RFLW-UNV-L940

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°	21531	21531	21531
5°	21316	21563	21811
10°	21310	21813	22289
15°	21369	22290	21932
20°	21441	22045	20863
25°	21494	21004	20650
30°	21582	20527	20642
35°	21671	20406	20707
40°	21821	20434	20853
45°	21928	20463	20881
50°	22009	20512	9026
55°	21953	20447	3443
60°	21825	7801	3753
65°	21674	3623	3856
70°	20934	3899	3611
75°	19556	3723	3146
80°	17206	3268	2699
85°	13603	2831	2265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 22009 cd/sqm



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 CATALOG NUMBER: 4MB-4SL-RFLW-UNV-L940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	3.9
10°-20°	459.8	11.4
20°-30°	686.0	17.0
30°-40°	831.5	20.6
40°-50°	851.4	21.1
50°-60°	566.2	14.0
60°-70°	322.7	8.0
70°-80°	135.6	3.4
80°-90°	32.3	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°	1304.2	32.2
0°-40°	2135.7	52.8
0°-60°	3553.4	87.9
0°-90°	4044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4044.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1658	1658	1658	1658	1658	
5°	1635	1668	1654	1658	1673	156
15°	1590	1633	1658	1652	1632	449
25°	1500	1572	1466	1434	1441	692
35°	1367	1392	1287	1293	1306	856
45°	1194	1122	1114	1128	1137	921
55°	970	888	903	198	152	866
65°	705	631	118	126	126	694
75°	390	82	74	65	63	414
85°	91	23	19	15	15	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1658.1	1658.1	1658.1	1658.1	1658.1
2.5°	1637.2	1671.4	1654.3	1656.2	1661.9
5°	1635.3	1667.6	1654.3	1658.1	1673.3
7.5°	1627.6	1661.9	1654.3	1665.7	1682.8
10°	1616.2	1656.2	1654.3	1673.3	1690.4
12.5°	1604.8	1644.8	1654.3	1682.8	1698.0
15°	1589.6	1633.4	1658.1	1652.4	1631.5
17.5°	1570.6	1621.9	1648.6	1566.8	1564.9
20°	1551.6	1606.7	1595.3	1517.4	1509.8
22.5°	1526.9	1591.5	1517.4	1464.1	1473.6
25°	1500.2	1572.5	1466.0	1433.7	1441.3
27.5°	1471.7	1553.5	1410.9	1399.5	1409.0
30°	1439.4	1526.9	1369.0	1365.2	1376.7
32.5°	1405.2	1475.5	1329.1	1331.0	1344.3
35°	1367.1	1391.9	1287.3	1293.0	1306.3
37.5°	1329.1	1313.9	1247.4	1256.9	1270.2
40°	1287.3	1253.1	1205.5	1215.0	1230.2
42.5°	1241.7	1188.4	1159.9	1173.2	1186.5
45°	1194.1	1121.9	1114.3	1127.6	1137.1
47.5°	1144.7	1064.8	1066.7	1076.2	806.2
50°	1089.5	1007.8	1015.4	703.5	446.8
52.5°	1030.6	948.8	964.0	391.7	226.3
55°	969.7	888.0	903.2	197.8	152.1
57.5°	905.1	827.1	589.5	142.6	150.2
60°	840.4	762.5	300.4	140.7	144.5
62.5°	773.9	697.8	142.6	135.0	136.9
65°	705.4	631.3	117.9	125.5	125.5
67.5°	629.4	560.9	112.2	112.2	110.3
70°	551.4	465.9	102.7	97.0	95.1
72.5°	479.2	178.7	89.4	79.9	78.0
75°	389.8	81.8	74.2	64.6	62.7
77.5°	309.9	68.5	58.9	51.3	49.4
80°	230.1	53.2	43.7	38.0	36.1
82.5°	159.7	36.1	30.4	24.7	24.7
85°	91.3	22.8	19.0	15.2	15.2
87.5°	36.1	11.4	9.5	5.7	5.7
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	23.59	25.11	23.95	25.42	25.74	11.35	12.88	11.72	13.19	13.50
	3H	25.61	26.97	25.99	27.30	27.66	13.67	15.03	14.05	15.36	15.72
	4H	26.07	27.34	26.47	27.69	28.07	14.38	15.66	14.78	16.00	16.38
	6H	26.48	27.65	26.89	28.02	28.41	14.87	16.04	15.28	16.41	16.80
	8H	26.63	27.74	27.05	28.13	28.54	15.00	16.12	15.43	16.51	16.91
	12H	26.73	27.79	27.16	28.18	28.61	15.09	16.16	15.52	16.54	16.97
4H	2H	23.43	24.70	23.83	25.05	25.43	12.15	13.43	12.55	13.77	14.15
	3H	25.63	26.68	26.05	27.08	27.48	14.67	15.71	15.08	16.11	16.51
	4H	26.08	27.02	26.52	27.44	27.88	15.48	16.42	15.92	16.84	17.28
	6H	26.55	27.36	27.01	27.81	28.27	16.08	16.89	16.53	17.33	17.79
	8H	26.74	27.50	27.20	27.94	28.41	16.25	17.01	16.71	17.45	17.92
	12H	26.89	27.57	27.37	28.05	28.52	16.36	17.04	16.85	17.52	17.99
8H	4H	26.00	26.76	26.46	27.21	27.67	16.32	17.08	16.79	17.53	18.00
	6H	26.46	27.09	26.96	27.58	28.06	16.95	17.57	17.44	18.07	18.54
	8H	26.66	27.23	27.17	27.74	28.22	17.15	17.71	17.66	18.22	18.71
	12H	26.84	27.35	27.35	27.84	28.40	17.30	17.80	17.81	18.30	18.86
12H	4H	25.97	26.65	26.45	27.13	27.60	16.39	17.07	16.88	17.55	18.02
	6H	26.41	26.98	26.93	27.49	27.98	17.04	17.60	17.55	18.11	18.60
	8H	26.64	27.14	27.15	27.63	28.20	17.29	17.79	17.80	18.28	18.85