

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: P893552

Luminaire Tested: 4MB-4SL-RFLW-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893552
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-L950
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K
Light Source: -
Ballast/Driver: -

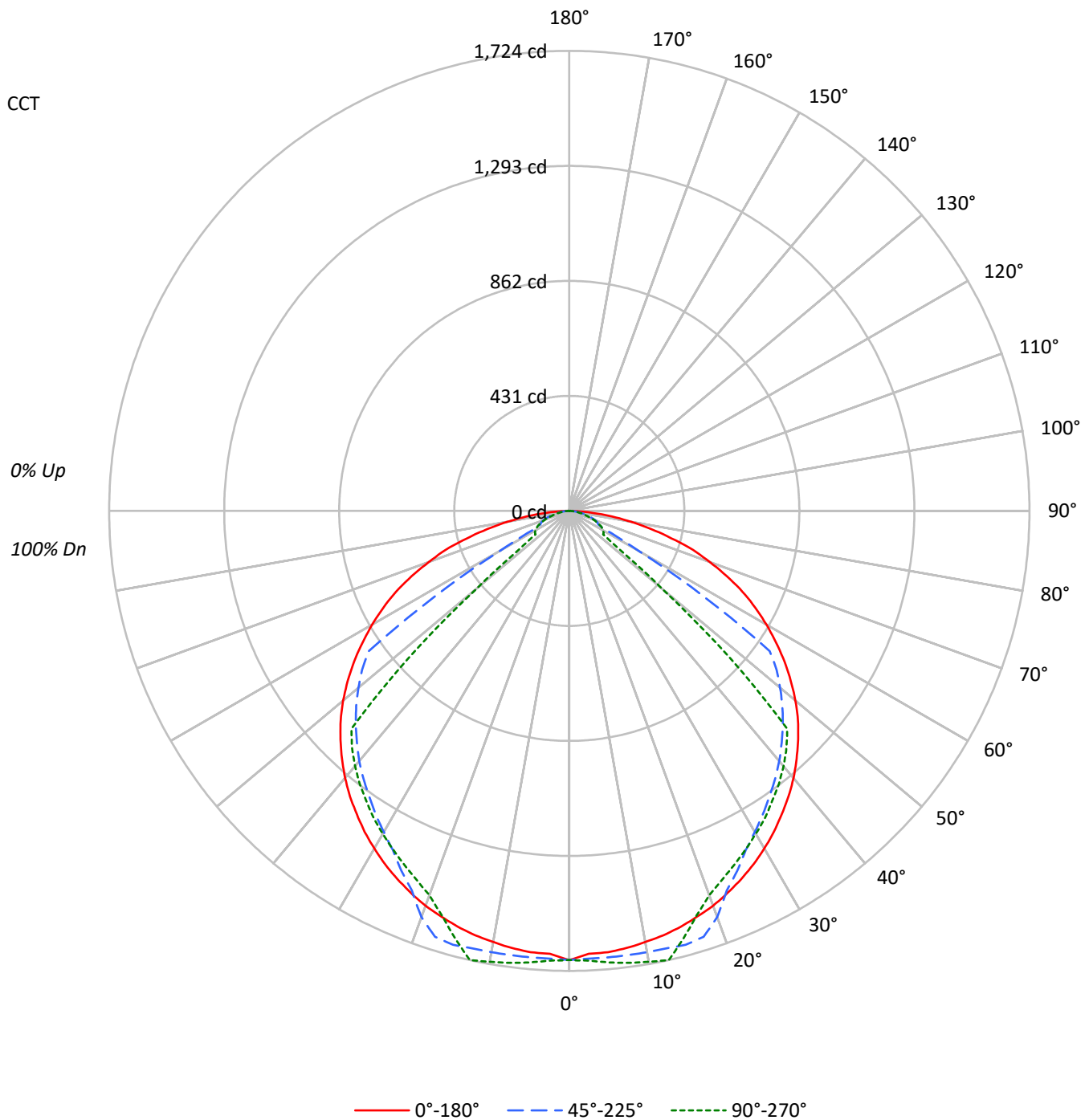
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4105.0 lumens
Efficiency: N/A
Efficacy: 137.8 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): 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				
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°	21855	21855	21855
5°	21636	21888	22139
10°	21632	22141	22625
15°	21692	22626	22263
20°	21764	22378	21177
25°	21819	21321	20961
30°	21908	20837	20952
35°	21999	20714	21020
40°	22150	20743	21168
45°	22259	20771	21195
50°	22343	20821	9163
55°	22286	20755	3495
60°	22155	7921	3810
65°	22002	3678	3914
70°	21249	3956	3664
75°	19852	3778	3196
80°	17461	3320	2744
85°	13796	2875	2294

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 22343 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	3.9
10°-20°	466.7	11.4
20°-30°	696.4	17.0
30°-40°	844.1	20.6
40°-50°	864.3	21.1
50°-60°	574.8	14.0
60°-70°	327.6	8.0
70°-80°	137.6	3.4
80°-90°	32.8	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°	1323.8	32.2
0°-40°	2167.9	52.8
0°-60°	3607.0	87.9
0°-90°	4105.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4105.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1683	1683	1683	1683	1683	
5°	1660	1693	1679	1683	1698	158
15°	1614	1658	1683	1677	1656	456
25°	1523	1596	1488	1455	1463	703
35°	1388	1413	1307	1312	1326	869
45°	1212	1139	1131	1145	1154	935
55°	984	901	917	201	154	879
65°	716	641	120	127	127	705
75°	396	83	75	66	64	420
85°	93	23	19	15	15	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.1	1683.1	1683.1	1683.1	1683.1
2.5°	1661.8	1696.6	1679.2	1681.2	1686.9
5°	1659.9	1692.7	1679.2	1683.1	1698.5
7.5°	1652.2	1686.9	1679.2	1690.8	1708.2
10°	1640.6	1681.2	1679.2	1698.5	1715.9
12.5°	1629.0	1669.6	1679.2	1708.2	1723.6
15°	1613.6	1658.0	1683.1	1677.3	1656.1
17.5°	1594.3	1646.4	1673.4	1590.4	1588.5
20°	1575.0	1631.0	1619.4	1540.3	1532.5
22.5°	1549.9	1615.5	1540.3	1486.2	1495.9
25°	1522.9	1596.2	1488.1	1455.3	1463.0
27.5°	1493.9	1576.9	1432.2	1420.6	1430.2
30°	1461.1	1549.9	1389.7	1385.8	1397.4
32.5°	1426.4	1497.8	1349.2	1351.1	1364.6
35°	1387.8	1412.9	1306.7	1312.5	1326.0
37.5°	1349.2	1333.7	1266.2	1275.8	1289.3
40°	1306.7	1272.0	1223.7	1233.4	1248.8
42.5°	1260.4	1206.3	1177.4	1190.9	1204.4
45°	1212.1	1138.8	1131.1	1144.6	1154.2
47.5°	1161.9	1080.9	1082.8	1092.5	818.4
50°	1106.0	1023.0	1030.7	714.2	453.6
52.5°	1046.1	963.1	978.6	397.6	229.7
55°	984.4	901.4	916.8	200.7	154.4
57.5°	918.7	839.6	598.3	144.8	152.5
60°	853.1	774.0	305.0	142.8	146.7
62.5°	785.6	708.4	144.8	137.0	139.0
65°	716.1	640.8	119.7	127.4	127.4
67.5°	638.9	569.4	113.9	113.9	111.9
70°	559.7	472.9	104.2	98.4	96.5
72.5°	486.4	181.4	90.7	81.1	79.1
75°	395.7	83.0	75.3	65.6	63.7
77.5°	314.6	69.5	59.8	52.1	50.2
80°	233.5	54.0	44.4	38.6	36.7
82.5°	162.1	36.7	30.9	25.1	25.1
85°	92.6	23.2	19.3	15.4	15.4
87.5°	36.7	11.6	9.7	5.8	5.8
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	23.64	25.16	24.01	25.48	25.79	11.41	12.93	11.77	13.24	13.56
	3H	25.66	27.02	26.04	27.35	27.71	13.72	15.08	14.10	15.41	15.77
	4H	26.12	27.40	26.52	27.75	28.12	14.44	15.71	14.84	16.06	16.43
	6H	26.53	27.70	26.94	28.07	28.46	14.92	16.09	15.33	16.46	16.85
	8H	26.68	27.80	27.11	28.19	28.59	15.06	16.17	15.48	16.56	16.96
	12H	26.78	27.85	27.21	28.23	28.66	15.14	16.21	15.57	16.59	17.02
4H	2H	23.48	24.76	23.88	25.10	25.48	12.21	13.48	12.61	13.83	14.21
	3H	25.69	26.73	26.10	27.13	27.54	14.72	15.76	15.13	16.16	16.57
	4H	26.13	27.07	26.57	27.49	27.93	15.54	16.48	15.97	16.89	17.33
	6H	26.60	27.41	27.06	27.86	28.32	16.13	16.94	16.59	17.39	17.85
	8H	26.79	27.55	27.26	28.00	28.46	16.30	17.06	16.76	17.50	17.97
	12H	26.94	27.62	27.43	28.10	28.57	16.42	17.10	16.90	17.57	18.05
8H	4H	26.05	26.81	26.52	27.26	27.73	16.38	17.14	16.84	17.58	18.05
	6H	26.51	27.14	27.01	27.63	28.11	17.00	17.63	17.50	18.12	18.60
	8H	26.71	27.28	27.23	27.79	28.28	17.20	17.76	17.71	18.27	18.76
	12H	26.90	27.40	27.41	27.89	28.46	17.36	17.86	17.87	18.35	18.91
12H	4H	26.02	26.70	26.50	27.18	27.65	16.45	17.13	16.93	17.60	18.08
	6H	26.47	27.03	26.98	27.54	28.03	17.09	17.66	17.61	18.17	18.66
	8H	26.69	27.19	27.20	27.68	28.25	17.34	17.85	17.85	18.34	18.90