

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: P893544

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-LVRF-UNV-L950
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 5000K C
Light Source: -
Ballast/Driver: -

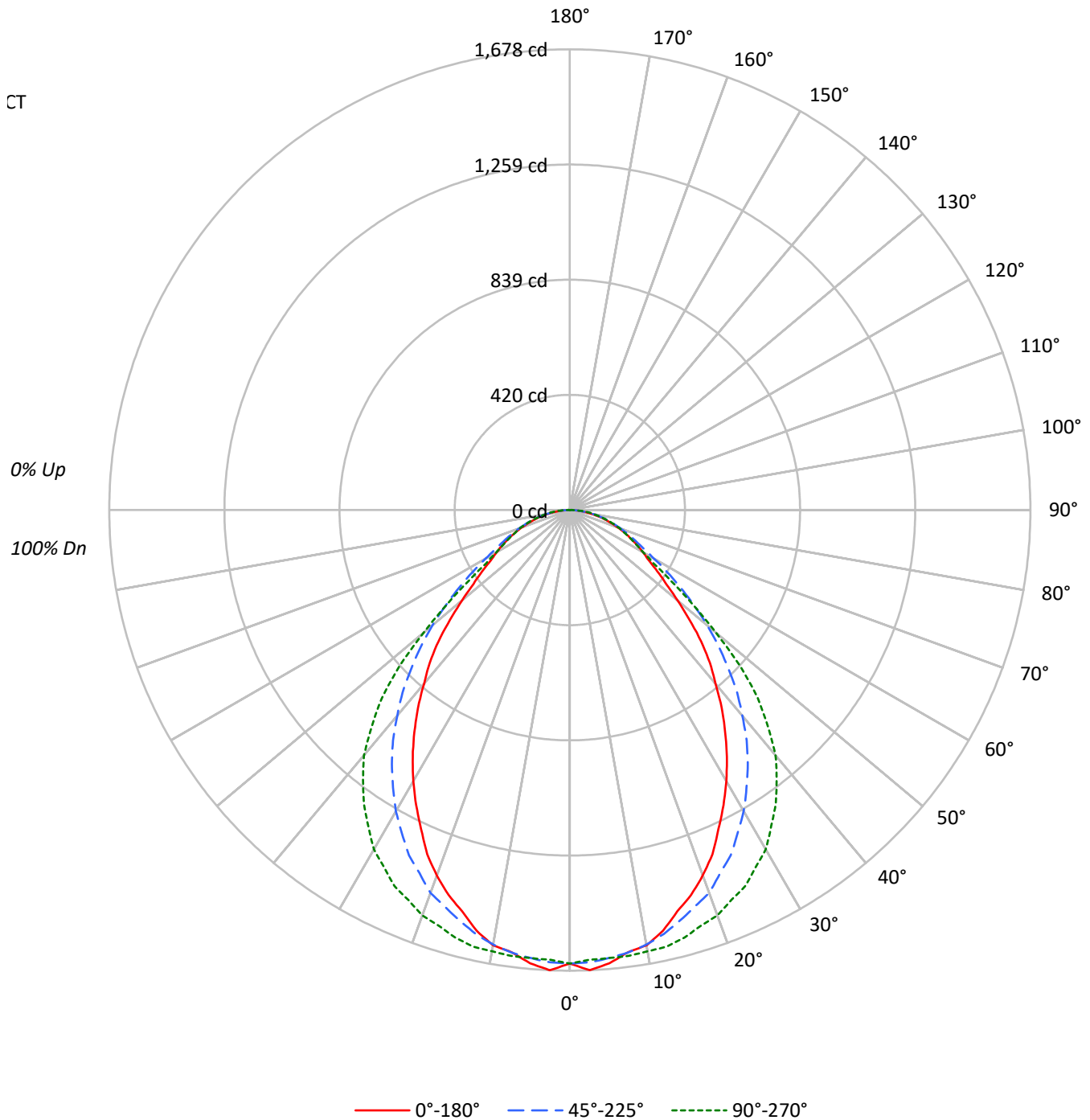
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3433.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (Ain): 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	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11753	11753	11753
5°	11835	11700	11700
10°	11630	11611	11791
15°	11148	11408	11876
20°	10724	11239	11896
25°	10061	10890	11868
30°	9365	10409	11729
35°	8573	9818	11356
40°	7675	9079	10834
45°	6811	8220	9741
50°	5666	7236	7682
55°	4827	6094	5583
60°	4376	5036	4413
65°	4121	4411	4106
70°	3878	4092	4002
75°	3612	3895	3827
80°	3307	3589	3696
85°	2874	3159	4139

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9741 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	4.6
10°-20°	440.1	12.8
20°-30°	639.1	18.6
30°-40°	711.6	20.7
40°-50°	628.7	18.3
50°-60°	412.5	12.0
60°-70°	252.6	7.4
70°-80°	147.0	4.3
80°-90°	45.0	1.3
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°	1235.5	36.0
0°-40°	1947.1	56.7
0°-60°	2988.4	87.0
0°-90°	3433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1652	1652	1652	1652	1652	
5°	1657	1658	1638	1654	1638	156
15°	1514	1531	1549	1610	1612	427
25°	1282	1312	1387	1476	1512	590
35°	987	1040	1130	1250	1307	616
45°	677	718	817	927	968	518
55°	389	417	491	487	450	353
65°	245	249	262	254	244	243
75°	131	133	142	144	139	139
85°	35	37	39	44	51	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1651.8	1651.8	1651.8	1651.8	1651.8
2.5°	1677.6	1657.0	1649.2	1657.0	1639.8
5°	1657.0	1657.8	1638.1	1654.4	1638.1
7.5°	1624.3	1635.5	1626.0	1650.9	1638.1
10°	1609.7	1610.6	1607.1	1632.9	1632.0
12.5°	1569.3	1571.9	1581.4	1620.0	1628.6
15°	1513.5	1530.7	1548.7	1609.7	1612.3
17.5°	1469.7	1490.3	1514.4	1579.6	1587.4
20°	1416.4	1425.0	1484.3	1541.9	1571.1
22.5°	1357.2	1373.5	1431.0	1508.4	1537.6
25°	1281.6	1312.5	1387.2	1475.7	1511.8
27.5°	1212.0	1248.1	1325.4	1424.2	1466.3
30°	1139.9	1181.1	1267.0	1364.0	1427.6
32.5°	1065.1	1116.7	1198.3	1309.9	1365.8
35°	987.0	1040.2	1130.4	1249.8	1307.4
37.5°	908.8	960.3	1058.3	1186.2	1237.8
40°	826.3	877.0	977.5	1107.2	1166.5
42.5°	755.0	798.8	901.9	1012.7	1067.7
45°	676.9	718.1	816.9	926.8	968.1
47.5°	591.0	639.1	735.3	825.5	841.8
50°	511.9	561.8	653.7	706.1	694.0
52.5°	442.4	484.5	568.6	591.0	562.6
55°	389.1	416.6	491.3	487.0	450.1
57.5°	340.2	357.3	420.9	396.8	361.6
60°	307.5	315.2	353.9	331.6	310.1
62.5°	276.6	280.0	300.6	288.6	272.3
65°	244.8	249.1	262.0	254.3	243.9
67.5°	215.6	217.3	229.3	227.6	214.7
70°	186.4	189.0	196.7	200.1	192.4
72.5°	158.1	160.6	168.4	171.8	164.9
75°	131.4	133.1	141.7	144.3	139.2
77.5°	105.7	109.1	114.2	118.5	112.5
80°	80.7	82.5	87.6	92.8	90.2
82.5°	56.7	59.3	62.7	69.6	71.3
85°	35.2	36.9	38.7	43.8	50.7
87.5°	13.7	14.6	17.2	18.9	24.9
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	16.09	17.57	16.46	17.88	18.20	16.74	18.22	17.11	18.54	18.85
	3H	17.69	19.02	18.07	19.35	19.71	18.18	19.50	18.56	19.83	20.19
	4H	18.31	19.55	18.71	19.90	20.28	18.78	20.03	19.18	20.37	20.75
	6H	18.78	19.93	19.19	20.29	20.69	19.27	20.42	19.68	20.78	21.18
	8H	18.93	20.02	19.36	20.41	20.81	19.47	20.56	19.89	20.95	21.35
	12H	19.03	20.08	19.46	20.46	20.89	19.63	20.68	20.07	21.06	21.49
4H	2H	16.71	17.95	17.11	18.30	18.68	17.24	18.48	17.64	18.83	19.21
	3H	18.53	19.56	18.94	19.96	20.36	18.93	19.96	19.34	20.36	20.76
	4H	19.27	20.20	19.70	20.61	21.05	19.69	20.61	20.12	21.03	21.47
	6H	19.87	20.67	20.33	21.12	21.58	20.32	21.13	20.78	21.57	22.03
	8H	20.07	20.82	20.53	21.26	21.73	20.58	21.33	21.04	21.77	22.24
	12H	20.21	20.88	20.69	21.36	21.83	20.80	21.47	21.28	21.95	22.42
8H	4H	19.59	20.34	20.05	20.79	21.25	19.96	20.71	20.42	21.15	21.62
	6H	20.31	20.94	20.81	21.43	21.91	20.73	21.35	21.23	21.85	22.32
	8H	20.59	21.15	21.10	21.66	22.15	21.08	21.64	21.59	22.15	22.64
	12H	20.80	21.30	21.31	21.79	22.36	21.39	21.89	21.90	22.38	22.95
12H	4H	19.62	20.30	20.11	20.78	21.25	19.98	20.65	20.46	21.13	21.60
	6H	20.38	20.94	20.89	21.45	21.94	20.78	21.34	21.29	21.85	22.34
	8H	20.71	21.21	21.22	21.70	22.27	21.18	21.68	21.69	22.17	22.74