

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: P893542

Luminaire Tested: 4MB-4SL-LVRF-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893542
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-L935
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3500K C
Light Source: -
Ballast/Driver: -

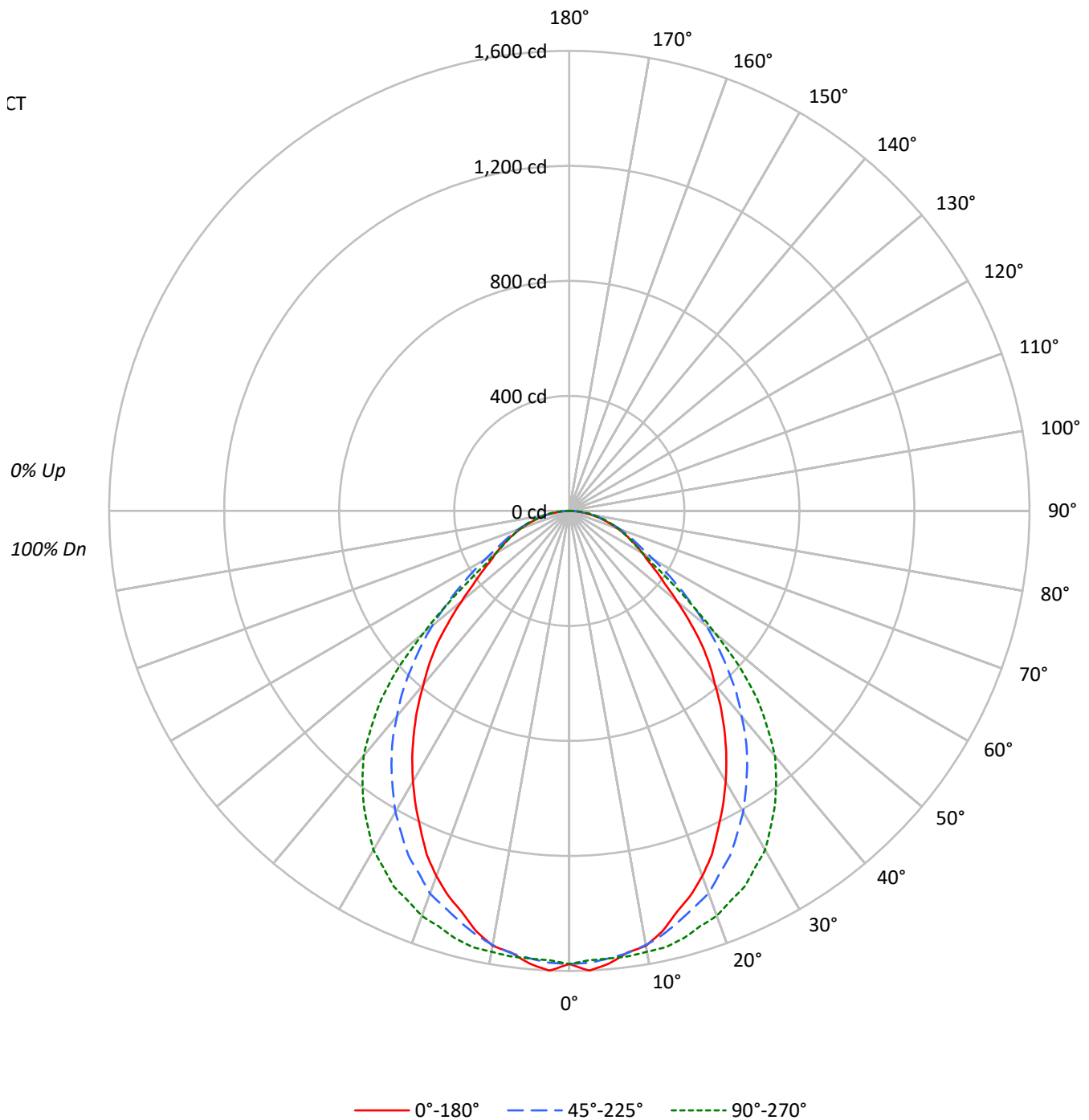
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3275.0 lumens
Efficiency: N/A
Efficacy: 109.9 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 (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	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°	11212	11212	11212
5°	11290	11161	11161
10°	11094	11077	11248
15°	10636	10883	11330
20°	10232	10721	11348
25°	9598	10389	11322
30°	8934	9930	11189
35°	8178	9367	10833
40°	7322	8661	10336
45°	6497	7841	9292
50°	5406	6903	7329
55°	4605	5814	5327
60°	4175	4804	4209
65°	3931	4207	3918
70°	3699	3905	3819
75°	3447	3717	3648
80°	3155	3425	3524
85°	2743	3012	3943

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	4.6
10°-20°	419.8	12.8
20°-30°	609.6	18.6
30°-40°	678.9	20.7
40°-50°	599.8	18.3
50°-60°	393.6	12.0
60°-70°	241.0	7.4
70°-80°	140.2	4.3
80°-90°	43.0	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°	1178.6	36.0
0°-40°	1857.5	56.7
0°-60°	2850.8	87.0
0°-90°	3275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1581	1582	1563	1578	1563	149
15°	1444	1460	1477	1536	1538	407
25°	1223	1252	1323	1408	1442	563
35°	942	992	1078	1192	1247	587
45°	646	685	779	884	924	494
55°	371	397	469	465	429	337
65°	234	238	250	243	233	232
75°	125	127	135	138	133	133
85°	34	35	37	42	48	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1575.8	1575.8	1575.8	1575.8	1575.8
2.5°	1600.4	1580.7	1573.3	1580.7	1564.3
5°	1580.7	1581.5	1562.7	1578.2	1562.7
7.5°	1549.6	1560.2	1551.2	1575.0	1562.7
10°	1535.6	1536.4	1533.2	1557.8	1556.9
12.5°	1497.1	1499.6	1508.6	1545.5	1553.7
15°	1443.9	1460.2	1477.4	1535.6	1538.1
17.5°	1402.1	1421.7	1444.7	1506.9	1514.3
20°	1351.3	1359.4	1416.0	1470.9	1498.8
22.5°	1294.7	1310.3	1365.2	1438.9	1466.8
25°	1222.6	1252.1	1323.4	1407.8	1442.2
27.5°	1156.2	1190.6	1264.4	1358.6	1398.8
30°	1087.4	1126.7	1208.7	1301.3	1361.9
32.5°	1016.1	1065.3	1143.1	1249.6	1302.9
35°	941.5	992.3	1078.4	1192.3	1247.2
37.5°	867.0	916.1	1009.5	1131.6	1180.8
40°	788.3	836.6	932.5	1056.3	1112.8
42.5°	720.3	762.1	860.4	966.1	1018.6
45°	645.7	685.1	779.3	884.2	923.5
47.5°	563.8	609.7	701.4	787.5	803.0
50°	488.4	535.9	623.6	673.6	662.1
52.5°	422.0	462.2	542.5	563.8	536.7
55°	371.2	397.4	468.7	464.6	429.4
57.5°	324.5	340.9	401.5	378.6	345.0
60°	293.4	300.7	337.6	316.3	295.8
62.5°	263.9	267.1	286.8	275.3	259.8
65°	233.5	237.6	249.9	242.6	232.7
67.5°	205.7	207.3	218.8	217.2	204.9
70°	177.8	180.3	187.7	190.9	183.6
72.5°	150.8	153.2	160.6	163.9	157.3
75°	125.4	127.0	135.2	137.7	132.7
77.5°	100.8	104.1	109.0	113.1	107.3
80°	77.0	78.7	83.6	88.5	86.0
82.5°	54.1	56.5	59.8	66.4	68.0
85°	33.6	35.2	36.9	41.8	48.3
87.5°	13.1	13.9	16.4	18.0	23.8
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	15.93	17.41	16.29	17.72	18.04	16.58	18.06	16.94	18.37	18.69
	3H	17.53	18.85	17.91	19.18	19.54	18.02	19.34	18.39	19.67	20.03
	4H	18.14	19.39	18.55	19.74	20.12	18.62	19.86	19.02	20.21	20.59
	6H	18.62	19.76	19.03	20.13	20.52	19.11	20.25	19.52	20.62	21.01
	8H	18.77	19.86	19.20	20.25	20.65	19.30	20.39	19.73	20.78	21.19
	12H	18.87	19.91	19.30	20.29	20.72	19.47	20.52	19.90	20.90	21.33
4H	2H	16.55	17.79	16.95	18.14	18.52	17.07	18.31	17.47	18.66	19.04
	3H	18.37	19.40	18.78	19.80	20.20	18.77	19.80	19.18	20.20	20.60
	4H	19.11	20.03	19.54	20.45	20.89	19.52	20.45	19.96	20.87	21.30
	6H	19.71	20.51	20.16	20.95	21.41	20.16	20.96	20.62	21.41	21.87
	8H	19.90	20.66	20.37	21.10	21.57	20.41	21.17	20.88	21.61	22.08
	12H	20.04	20.72	20.53	21.20	21.67	20.64	21.31	21.12	21.79	22.26
8H	4H	19.43	20.18	19.89	20.62	21.09	19.79	20.55	20.26	20.99	21.46
	6H	20.15	20.77	20.65	21.27	21.74	20.57	21.19	21.07	21.68	22.16
	8H	20.42	20.98	20.94	21.49	21.98	20.91	21.47	21.43	21.98	22.47
	12H	20.64	21.14	21.15	21.63	22.20	21.23	21.73	21.74	22.22	22.79
12H	4H	19.46	20.13	19.94	20.61	21.08	19.81	20.49	20.30	20.96	21.44
	6H	20.21	20.78	20.73	21.29	21.78	20.61	21.17	21.13	21.69	22.17
	8H	20.55	21.04	21.06	21.54	22.10	21.02	21.52	21.53	22.01	22.57