

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: P893191

Luminaire Tested: 4MB-10HL-LVR-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-LVR-UNV-L940
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

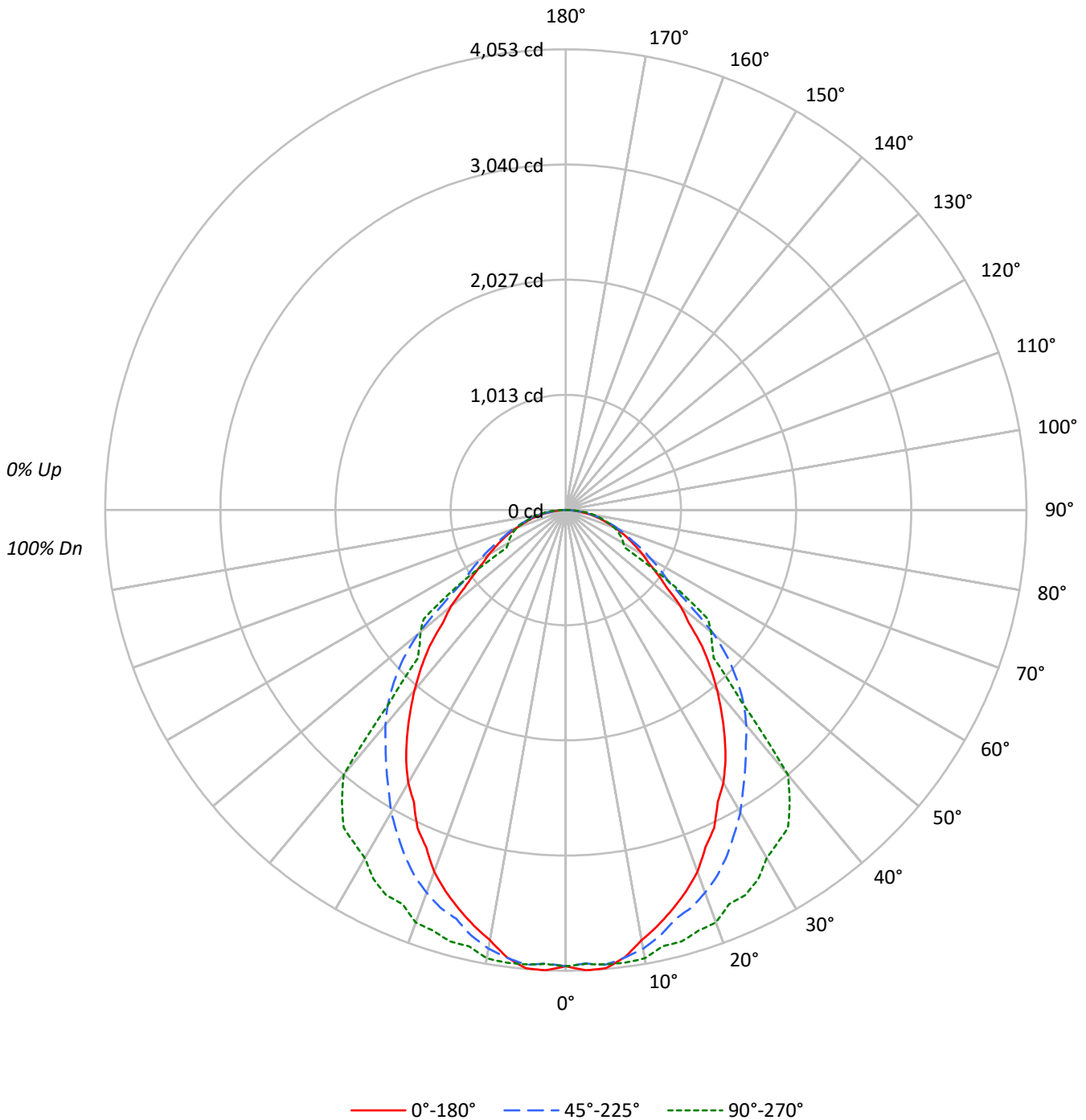
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8402.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	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	57	53	62	56	52	52	52	52	50
6	74	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	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	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°	28559	28559	28559
5°	28904	28677	28659
10°	27765	28309	28932
15°	26770	27430	28950
20°	25644	27125	29240
25°	24228	26329	29346
30°	22769	25229	29045
35°	21174	23929	29612
40°	19237	22938	28237
45°	17045	21529	18515
50°	14588	18816	18476
55°	12225	13731	14374
60°	11122	12397	8320
65°	10420	10975	8891
70°	9588	10397	9515
75°	9009	9754	9690
80°	8404	9227	10383
85°	7217	7698	11070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21529 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.4	4.5
10°-20°	1067.2	12.7
20°-30°	1555.4	18.5
30°-40°	1779.3	21.2
40°-50°	1522.1	18.1
50°-60°	1003.8	11.9
60°-70°	606.8	7.2
70°-80°	371.2	4.4
80°-90°	114.7	1.4
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°	3004.0	35.8
0°-40°	4783.3	56.9
0°-60°	7309.3	87.0
0°-90°	8402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8402.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4014	4014	4014	4014	4014	
5°	4047	4043	4015	4007	4013	379
15°	3634	3677	3724	3962	3930	1022
25°	3086	3133	3354	3640	3738	1412
35°	2438	2560	2755	3188	3409	1519
45°	1694	1825	2140	1999	1840	1297
55°	986	1041	1107	1312	1159	896
65°	619	634	652	582	528	612
75°	328	336	355	371	352	346
85°	88	87	94	112	136	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4013.9	4013.9	4013.9	4013.9	4013.9
2.5°	4052.8	4041.0	3992.7	4038.7	3997.4
5°	4046.9	4043.4	4015.1	4006.8	4012.7
7.5°	3969.1	3977.4	3972.6	4061.1	4016.3
10°	3843.0	3859.5	3918.4	4042.2	4004.5
12.5°	3744.0	3756.9	3835.9	4019.8	3931.4
15°	3634.3	3676.8	3723.9	3962.0	3930.2
17.5°	3516.4	3556.5	3668.5	3884.2	3880.7
20°	3386.8	3461.0	3582.5	3782.9	3861.8
22.5°	3211.1	3311.3	3482.3	3736.9	3752.2
25°	3086.2	3133.3	3353.8	3640.2	3738.1
27.5°	2896.4	2986.0	3211.1	3501.1	3662.6
30°	2771.4	2845.7	3070.8	3419.8	3535.3
32.5°	2614.6	2703.1	2904.6	3331.4	3470.5
35°	2437.8	2560.4	2754.9	3187.5	3409.2
37.5°	2251.6	2373.0	2602.9	3068.5	3235.9
40°	2071.2	2174.9	2469.6	2925.8	3040.2
42.5°	1886.1	1998.1	2317.6	2644.1	2286.9
45°	1694.0	1824.8	2139.6	1999.3	1840.1
47.5°	1466.5	1626.8	1942.7	1606.7	1743.5
50°	1317.9	1405.2	1699.9	1514.8	1669.2
52.5°	1121.1	1238.9	1365.1	1414.6	1577.3
55°	985.5	1040.9	1106.9	1312.0	1158.8
57.5°	860.5	910.1	986.7	925.4	617.7
60°	781.6	804.0	871.2	661.3	584.7
62.5°	692.0	714.4	763.9	617.7	561.1
65°	618.9	634.2	651.9	582.3	528.1
67.5°	541.1	549.3	568.2	537.5	496.3
70°	460.9	472.7	499.8	491.6	457.4
72.5°	390.2	400.8	424.4	436.2	404.3
75°	327.7	336.0	354.8	371.3	352.5
77.5°	260.5	268.8	293.5	311.2	303.0
80°	205.1	206.3	225.2	242.8	253.4
82.5°	143.8	146.2	160.3	179.2	200.4
85°	88.4	87.2	94.3	112.0	135.6
87.5°	34.2	33.0	38.9	47.2	69.6
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	19.47	20.95	19.84	21.26	21.58	19.15	20.63	19.51	20.94	21.26
	3H	21.03	22.36	21.41	22.68	23.05	20.77	22.09	21.15	22.42	22.78
	4H	21.63	22.87	22.03	23.22	23.60	21.52	22.76	21.92	23.11	23.48
	6H	22.09	23.23	22.50	23.60	23.99	22.18	23.33	22.60	23.70	24.09
	8H	22.24	23.33	22.67	23.72	24.12	22.46	23.55	22.89	23.94	24.34
	12H	22.34	23.38	22.77	23.77	24.20	22.68	23.73	23.11	24.11	24.54
4H	2H	20.06	21.31	20.47	21.65	22.03	19.81	21.05	20.21	21.40	21.78
	3H	21.85	22.88	22.26	23.28	23.68	21.70	22.72	22.11	23.12	23.53
	4H	22.58	23.51	23.01	23.92	24.36	22.59	23.52	23.02	23.93	24.37
	6H	23.16	23.97	23.62	24.41	24.87	23.40	24.20	23.86	24.65	25.11
	8H	23.36	24.11	23.83	24.56	25.03	23.73	24.48	24.19	24.92	25.39
	12H	23.50	24.17	23.98	24.65	25.12	24.00	24.67	24.48	25.15	25.62
8H	4H	22.90	23.66	23.37	24.10	24.57	22.91	23.66	23.38	24.11	24.58
	6H	23.61	24.24	24.11	24.73	25.21	23.86	24.48	24.36	24.98	25.45
	8H	23.88	24.44	24.40	24.95	25.44	24.28	24.84	24.79	25.35	25.84
	12H	24.09	24.59	24.60	25.08	25.65	24.65	25.14	25.16	25.64	26.20
12H	4H	22.94	23.61	23.42	24.09	24.56	22.94	23.61	23.42	24.09	24.56
	6H	23.68	24.24	24.20	24.76	25.24	23.91	24.48	24.43	24.99	25.47
	8H	24.01	24.51	24.52	25.00	25.57	24.39	24.89	24.90	25.38	25.95