

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: P893206

Luminaire Tested: 4MB-10HL-LVRF-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-LVRF-UNV-L935
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3500K (C)
Light Source: -
Ballast/Driver: -

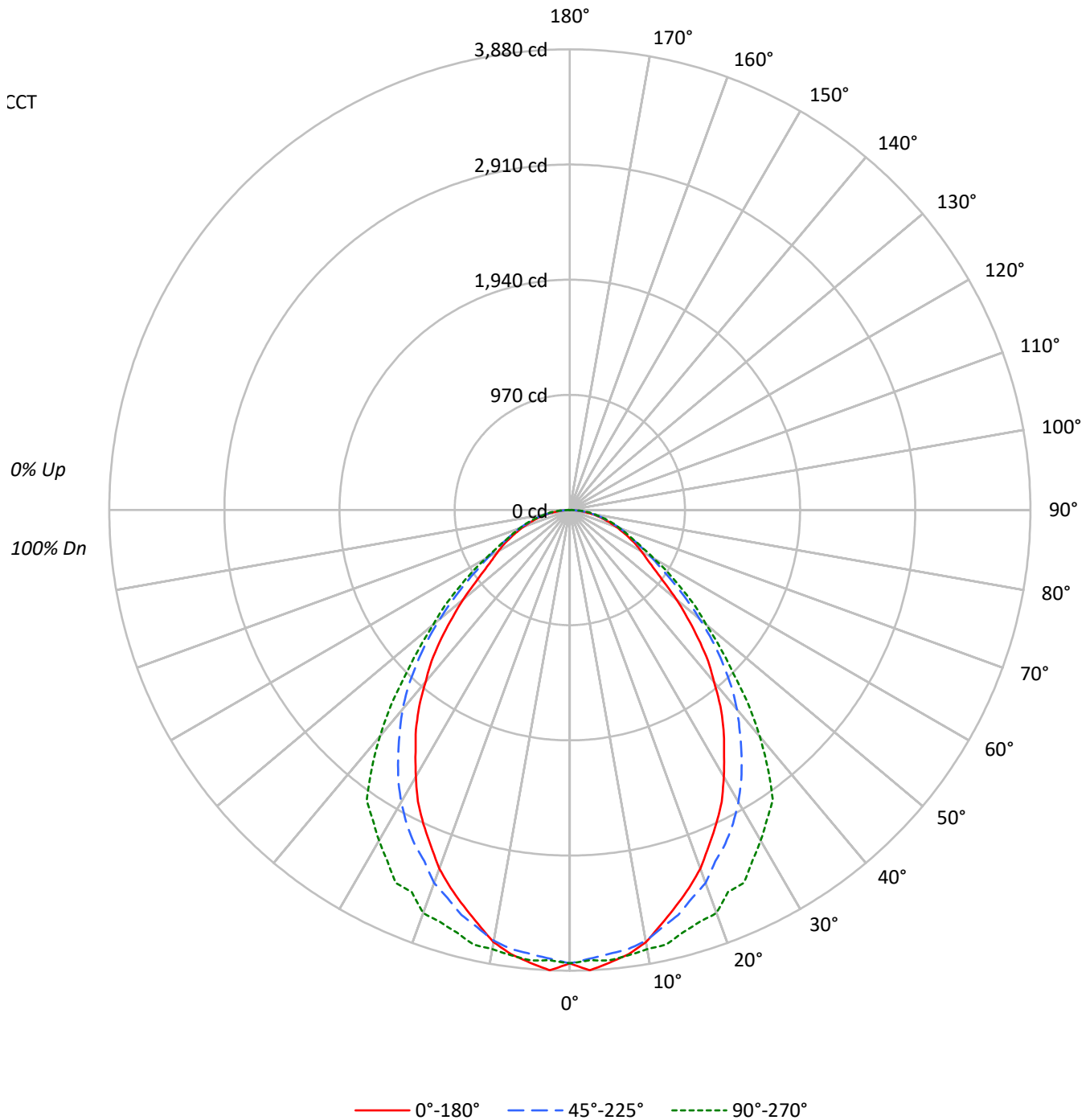
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7740.0 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27160	27160	27160
5°	27337	26807	27191
10°	26697	26615	27126
15°	25437	26000	27127
20°	24332	25309	27348
25°	22909	24342	27209
30°	21312	23327	26412
35°	19626	21896	25901
40°	17552	20351	23128
45°	15387	18304	19613
50°	12986	15815	16598
55°	10773	13236	14156
60°	9905	11255	11676
65°	9280	9894	9972
70°	8642	9378	9307
75°	8063	8753	9066
80°	7527	8137	8699
85°	6335	6890	9592

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 19613 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.3	4.7
10°-20°	1005.1	13.0
20°-30°	1447.4	18.7
30°-40°	1598.0	20.6
40°-50°	1371.2	17.7
50°-60°	934.1	12.1
60°-70°	587.6	7.6
70°-80°	334.6	4.3
80°-90°	101.7	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°	2812.8	36.3
0°-40°	4410.8	57.0
0°-60°	6716.1	86.8
0°-90°	7740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7740.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3817	3817	3817	3817	3817	
5°	3828	3813	3753	3832	3807	361
15°	3453	3490	3530	3690	3683	972
25°	2918	2976	3101	3351	3466	1340
35°	2260	2348	2521	2796	2982	1406
45°	1529	1631	1819	1929	1949	1178
55°	868	922	1067	1118	1141	798
65°	551	560	588	616	592	548
75°	293	296	318	332	330	313
85°	78	80	84	100	118	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3817.3	3817.3	3817.3	3817.3	3817.3
2.5°	3880.1	3840.2	3783.1	3837.9	3795.7
5°	3827.6	3812.8	3753.4	3832.2	3807.1
7.5°	3774.0	3742.0	3731.8	3816.2	3783.1
10°	3695.2	3677.0	3683.8	3792.2	3754.6
12.5°	3570.8	3583.4	3599.4	3737.5	3748.9
15°	3453.3	3489.8	3529.8	3689.5	3682.7
17.5°	3338.0	3388.2	3425.9	3631.3	3637.0
20°	3213.6	3242.2	3342.6	3541.2	3611.9
22.5°	3059.6	3115.5	3202.2	3449.9	3481.8
25°	2918.1	2976.3	3100.7	3350.6	3465.9
27.5°	2769.7	2823.4	2977.4	3233.0	3331.2
30°	2594.0	2665.9	2839.3	3099.5	3214.8
32.5°	2418.2	2523.2	2689.8	2956.9	3090.4
35°	2259.6	2347.5	2520.9	2796.0	2982.0
37.5°	2083.8	2176.3	2352.0	2620.2	2738.9
40°	1889.8	1989.1	2191.1	2408.0	2490.1
42.5°	1723.2	1808.8	2012.0	2164.9	2229.9
45°	1529.2	1630.8	1819.1	1928.6	1949.2
47.5°	1342.1	1458.5	1627.4	1678.7	1718.7
50°	1173.2	1264.5	1428.8	1460.7	1499.5
52.5°	1000.8	1097.8	1241.6	1273.6	1330.6
55°	868.5	922.1	1067.0	1118.4	1141.2
57.5°	771.5	805.7	908.4	973.5	980.3
60°	696.1	713.3	790.9	839.9	820.5
62.5°	626.5	640.2	679.0	716.7	691.6
65°	551.2	560.3	587.7	616.3	592.3
67.5°	480.4	490.7	515.8	536.4	515.8
70°	415.4	423.4	450.8	459.9	447.4
72.5°	354.9	358.3	381.2	397.1	389.2
75°	293.3	295.6	318.4	332.1	329.8
77.5°	237.4	240.8	260.2	272.7	265.9
80°	183.7	186.0	198.6	216.8	212.3
82.5°	129.0	133.5	141.5	157.5	170.0
85°	77.6	79.9	84.4	100.4	117.5
87.5°	29.7	32.0	34.2	42.2	55.9
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	18.93	20.41	19.29	20.72	21.03	20.29	21.77	20.65	22.08	22.39
	3H	20.50	21.83	20.88	22.16	22.52	21.57	22.90	21.95	23.23	23.59
	4H	21.11	22.35	21.51	22.70	23.08	22.13	23.37	22.53	23.72	24.10
	6H	21.58	22.73	21.99	23.10	23.49	22.58	23.72	22.99	24.09	24.48
	8H	21.74	22.83	22.17	23.22	23.62	22.76	23.86	23.19	24.25	24.65
	12H	21.84	22.88	22.27	23.26	23.69	22.92	23.96	23.35	24.35	24.78
4H	2H	19.54	20.78	19.94	21.13	21.51	20.65	21.90	21.05	22.24	22.62
	3H	21.34	22.37	21.75	22.77	23.17	22.21	23.24	22.62	23.64	24.04
	4H	22.07	22.99	22.50	23.41	23.85	22.91	23.84	23.35	24.26	24.70
	6H	22.66	23.47	23.12	23.91	24.37	23.52	24.33	23.98	24.77	25.23
	8H	22.87	23.62	23.33	24.06	24.53	23.77	24.52	24.23	24.97	25.43
	12H	23.01	23.68	23.49	24.16	24.63	23.98	24.66	24.47	25.13	25.61
8H	4H	22.39	23.15	22.86	23.59	24.06	23.15	23.90	23.61	24.34	24.81
	6H	23.12	23.74	23.61	24.23	24.71	23.89	24.51	24.39	25.01	25.48
	8H	23.39	23.95	23.91	24.46	24.95	24.22	24.78	24.74	25.29	25.78
	12H	23.61	24.10	24.12	24.59	25.16	24.53	25.02	25.04	25.52	26.08
12H	4H	22.43	23.10	22.91	23.58	24.05	23.16	23.83	23.64	24.31	24.78
	6H	23.19	23.75	23.70	24.26	24.74	23.93	24.49	24.44	25.00	25.49
	8H	23.52	24.02	24.03	24.51	25.08	24.32	24.81	24.83	25.31	25.87