

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: P893214

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893214
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-RFLW-UNV-L935
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3500K
Light Source: -
Ballast/Driver: -

Summary

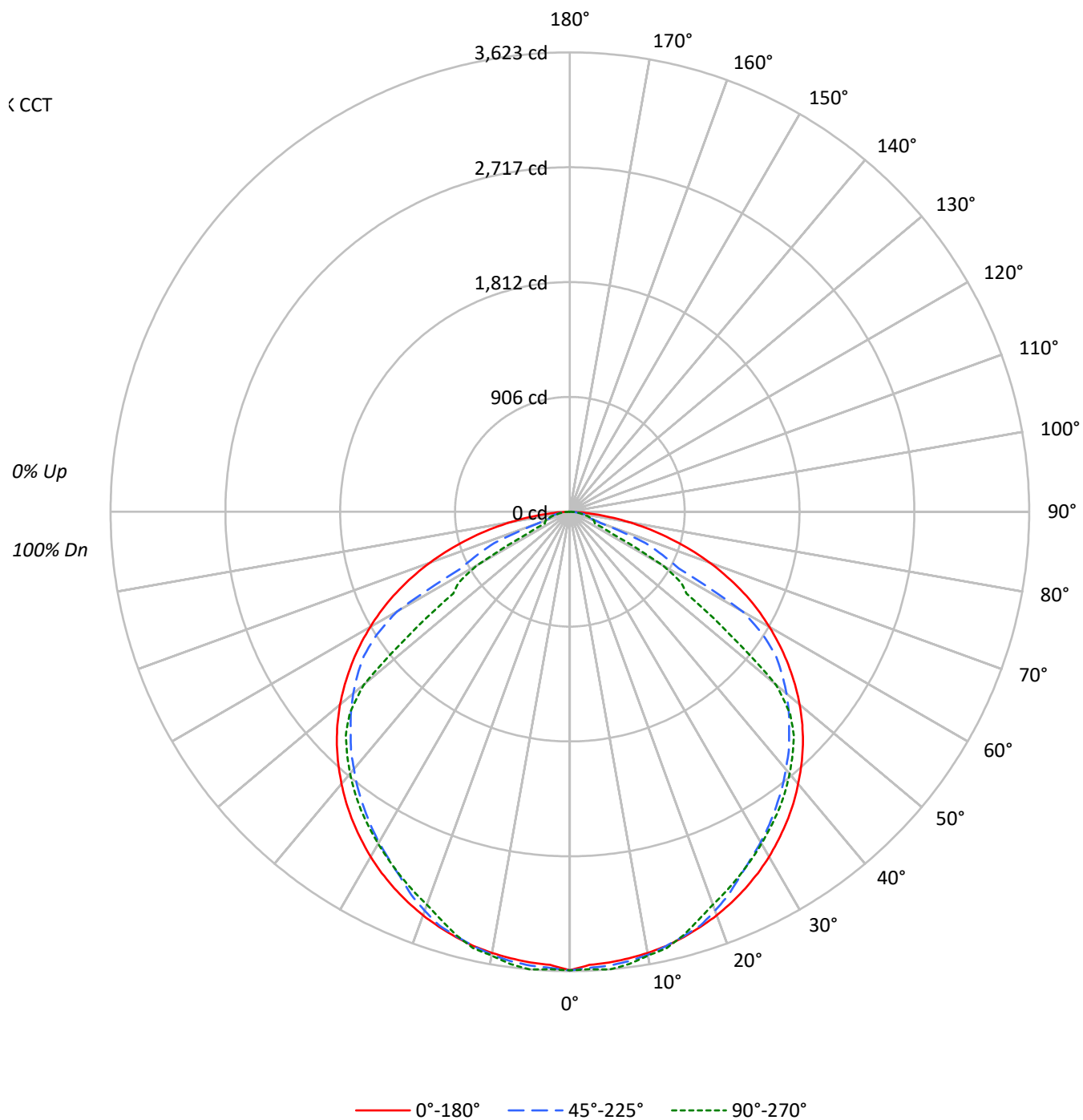
Lumens per Lamp: N/A
Luminaire Lumens: 9427.0 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 75.5
Input Voltage (V): 120
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	93	87	82	98	91	85	81	88	83	79		85	81	77		82
3	92	82	75	69	90	81	74	68	78	72	67		75	70	66		73
4	85	73	65	59	82	72	64	58	70	63	57		67	61	57		65
5	78	66	57	51	76	65	56	50	62	55	50		61	54	49		59
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53
7	67	54	45	39	65	53	45	39	51	44	39		50	43	39		49
8	62	49	41	35	61	48	40	35	47	40	35		46	39	35		45
9	58	45	37	32	57	44	37	31	43	36	31		42	36	31		41
10	54	42	34	29	53	41	34	29	40	33	28		39	33	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46955	46955	46955
5°	46525	46830	47221
10°	46592	46769	46857
15°	46693	46589	46484
20°	46811	46272	45565
25°	46940	45454	45359
30°	47118	45147	45329
35°	47288	44973	45522
40°	47488	44918	45711
45°	47742	44897	45900
50°	47814	45067	42883
55°	47605	44931	25430
60°	47201	40950	22051
65°	46429	24755	6677
70°	44591	9814	7658
75°	41315	8052	7827
80°	35751	8502	7336
85°	25402	7971	6973

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 50°

Luminance: 47814 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.5	3.6
10°-20°	980.9	10.4
20°-30°	1482.3	15.7
30°-40°	1808.6	19.2
40°-50°	1913.1	20.3
50°-60°	1584.6	16.8
60°-70°	880.9	9.3
70°-80°	357.1	3.8
80°-90°	77.0	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°	2805.7	29.8
0°-40°	4614.3	48.9
0°-60°	8112.1	86.1
0°-90°	9427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9427.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3616	3616	3616	3616	3616	
5°	3569	3633	3593	3598	3623	340
15°	3473	3527	3466	3463	3458	981
25°	3276	3300	3172	3152	3166	1511
35°	2983	2946	2837	2848	2872	1867
45°	2600	2466	2445	2475	2500	2004
55°	2103	1960	1985	1362	1123	1879
65°	1511	1385	806	271	217	1490
75°	824	459	160	158	156	870
85°	170	57	54	49	47	214
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3616.1	3616.1	3616.1	3616.1	3616.1
2.5°	3577.1	3639.5	3600.5	3608.3	3611.6
5°	3569.3	3632.8	3592.7	3598.2	3622.7
7.5°	3552.5	3617.2	3574.8	3578.2	3597.1
10°	3533.6	3592.7	3547.0	3541.4	3553.7
12.5°	3508.0	3561.5	3508.0	3510.2	3525.8
15°	3473.4	3526.9	3465.6	3463.4	3457.8
17.5°	3432.2	3482.3	3422.2	3386.5	3374.2
20°	3387.6	3426.6	3348.6	3294.0	3297.4
22.5°	3334.1	3367.6	3269.5	3219.4	3233.8
25°	3276.2	3299.6	3172.5	3152.5	3165.9
27.5°	3212.7	3230.5	3089.0	3084.5	3095.7
30°	3142.5	3149.1	3011.0	3008.7	3023.2
32.5°	3064.5	3053.3	2927.4	2929.6	2948.6
35°	2983.1	2946.3	2837.1	2848.3	2871.7
37.5°	2897.3	2831.6	2748.0	2762.5	2788.1
40°	2801.5	2712.3	2649.9	2672.2	2696.7
42.5°	2703.4	2587.5	2555.2	2576.4	2599.8
45°	2599.8	2466.1	2444.9	2475.0	2499.5
47.5°	2487.2	2346.8	2343.5	2366.9	2355.7
50°	2366.9	2223.1	2230.9	2199.7	2122.8
52.5°	2237.6	2095.0	2110.6	1975.7	1596.9
55°	2102.8	1960.1	1984.7	1361.7	1123.3
57.5°	1964.6	1822.0	1806.4	1041.9	1040.8
60°	1817.5	1681.6	1576.8	920.5	849.1
62.5°	1669.3	1535.6	968.4	693.1	390.0
65°	1511.1	1385.1	805.7	270.8	217.3
67.5°	1345.0	1232.5	645.2	203.9	211.7
70°	1174.5	1074.2	258.5	197.2	201.7
72.5°	1000.7	829.1	171.6	182.8	182.8
75°	823.5	459.1	160.5	158.2	156.0
77.5°	647.4	307.6	140.4	130.4	127.0
80°	478.1	110.3	113.7	101.4	98.1
82.5°	316.5	85.8	81.3	73.5	71.3
85°	170.5	56.8	53.5	49.0	46.8
87.5°	61.3	29.0	29.0	23.4	21.2
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	26.05	27.62	26.42	27.94	28.25	22.04	23.61	22.41	23.93	24.24
	3H	28.06	29.47	28.44	29.79	30.15	22.17	23.58	22.55	23.91	24.27
	4H	28.67	29.99	29.07	30.34	30.71	22.29	23.61	22.69	23.96	24.34
	6H	29.07	30.29	29.48	30.65	31.04	22.40	23.62	22.81	23.98	24.37
	8H	29.19	30.35	29.61	30.74	31.14	22.43	23.59	22.86	23.98	24.38
	12H	29.26	30.37	29.69	30.75	31.18	22.46	23.57	22.89	23.95	24.38
4H	2H	26.18	27.50	26.58	27.85	28.23	22.77	24.09	23.17	24.43	24.81
	3H	28.34	29.43	28.75	29.83	30.23	22.96	24.05	23.37	24.45	24.85
	4H	29.00	29.97	29.43	30.39	30.83	23.12	24.10	23.55	24.51	24.95
	6H	29.44	30.29	29.90	30.73	31.19	23.28	24.13	23.74	24.58	25.03
	8H	29.58	30.37	30.04	30.82	31.29	23.34	24.13	23.80	24.57	25.04
	12H	29.69	30.39	30.17	30.87	31.34	23.38	24.09	23.86	24.57	25.04
8H	4H	28.93	29.72	29.39	30.17	30.63	23.39	24.18	23.85	24.63	25.09
	6H	29.37	30.03	29.87	30.52	31.00	23.60	24.25	24.09	24.74	25.22
	8H	29.52	30.11	30.03	30.62	31.11	23.68	24.27	24.19	24.78	25.27
	12H	29.65	30.18	30.16	30.67	31.23	23.77	24.29	24.28	24.78	25.34
12H	4H	28.90	29.61	29.39	30.09	30.56	23.40	24.11	23.89	24.59	25.06
	6H	29.33	29.92	29.85	30.43	30.92	23.62	24.21	24.13	24.71	25.20
	8H	29.50	30.03	30.01	30.52	31.08	23.74	24.26	24.25	24.75	25.32