

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: P893950

Luminaire Tested: 4MB-8HL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-LVRA-UNV-L935
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

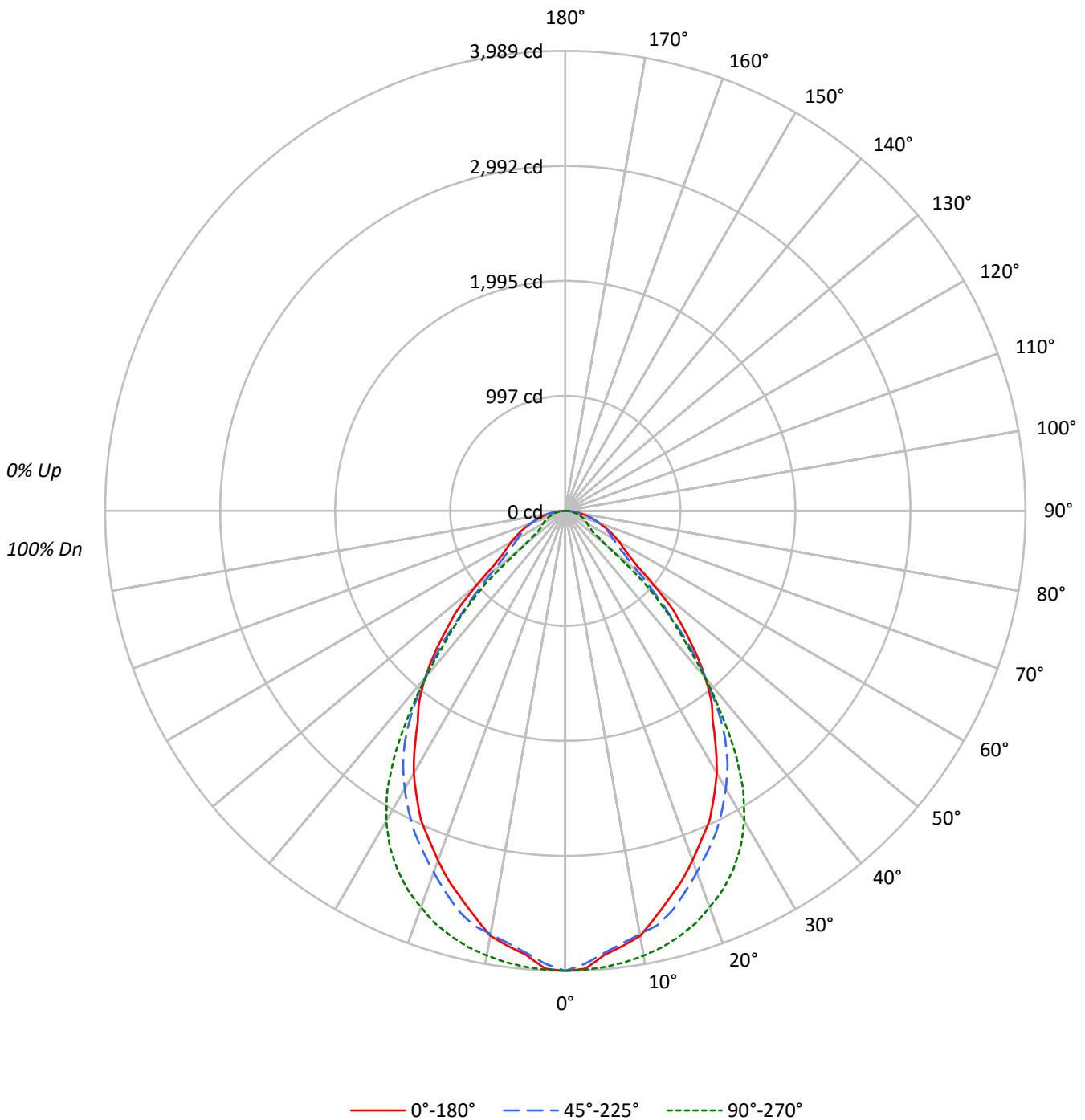
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6474.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28382	28382	28382
5°	27617	27492	28351
10°	27029	26911	28285
15°	25634	26422	28126
20°	24419	25245	27697
25°	23229	24221	26989
30°	21581	22864	25483
35°	19351	21012	22351
40°	17532	17570	17474
45°	14659	12983	12662
50°	11072	9139	5178
55°	8327	7308	3265
60°	7740	6729	3145
65°	7201	6716	3150
70°	6588	6588	3102
75°	6246	6416	2996
80°	5769	6064	3077
85°	5037	5290	3355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15000 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.5	5.7
10°-20°	1015.3	15.7
20°-30°	1439.7	22.2
30°-40°	1483.2	22.9
40°-50°	1036.0	16.0
50°-60°	497.1	7.7
60°-70°	348.7	5.4
70°-80°	218.1	3.4
80°-90°	67.4	1.0
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°	2823.5	43.6
0°-40°	4306.7	66.5
0°-60°	5839.8	90.2
0°-90°	6474.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6474.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3989	3989	3989	3989	3989	
5°	3867	3862	3849	3950	3970	366
15°	3480	3506	3587	3690	3818	980
25°	2959	2989	3085	3294	3438	1353
35°	2228	2288	2419	2470	2573	1404
45°	1457	1491	1290	1224	1258	1122
55°	671	638	589	377	263	629
65°	428	400	399	303	187	424
75°	227	224	233	202	109	239
85°	62	62	65	64	41	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3989.0	3989.0	3989.0	3989.0	3989.0
2.5°	3973.6	3961.2	3931.4	3985.9	3981.8
5°	3866.7	3861.5	3849.2	3949.9	3969.5
7.5°	3806.0	3795.7	3781.3	3892.4	3946.9
10°	3741.2	3753.6	3724.8	3826.6	3915.0
12.5°	3607.6	3640.5	3679.5	3758.7	3875.9
15°	3480.1	3505.8	3587.0	3689.8	3818.3
17.5°	3360.8	3390.7	3460.6	3614.8	3751.5
20°	3225.1	3266.3	3334.1	3531.5	3658.0
22.5°	3085.3	3123.3	3208.7	3420.5	3561.3
25°	2958.9	2988.7	3085.3	3294.0	3437.9
27.5°	2791.3	2846.8	2938.3	3139.8	3290.9
30°	2626.8	2674.1	2783.0	2952.7	3101.8
32.5°	2428.4	2497.2	2617.5	2747.1	2871.5
35°	2227.9	2288.5	2419.1	2469.5	2573.3
37.5°	2081.9	2098.3	2172.4	2166.2	2224.8
40°	1887.6	1920.5	1891.7	1814.6	1881.4
42.5°	1677.8	1716.9	1600.7	1511.3	1534.9
45°	1456.8	1490.7	1290.3	1224.5	1258.4
47.5°	1265.6	1262.5	1040.4	996.2	948.9
50°	1000.3	1033.2	825.6	743.3	467.8
52.5°	781.4	793.7	680.6	475.0	307.4
55°	671.3	638.4	589.1	377.3	263.2
57.5°	596.3	555.2	522.3	350.6	240.6
60°	543.9	497.6	472.9	333.1	221.0
62.5°	484.2	448.2	439.0	317.7	203.6
65°	427.7	399.9	398.9	303.3	187.1
67.5°	371.1	355.7	359.8	285.8	168.6
70°	316.7	313.6	316.7	263.2	149.1
72.5°	270.4	267.3	275.5	234.4	127.5
75°	227.2	224.1	233.4	201.5	109.0
77.5°	180.9	183.0	189.2	167.6	91.5
80°	140.8	140.8	148.0	131.6	75.1
82.5°	100.8	101.8	105.9	96.6	58.6
85°	61.7	61.7	64.8	63.7	41.1
87.5°	20.6	23.6	27.8	29.8	20.6
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	17.27	18.62	17.64	18.94	19.25	13.60	14.96	13.97	15.27	15.58
	3H	19.01	20.22	19.39	20.55	20.91	15.58	16.79	15.96	17.12	17.48
	4H	19.68	20.81	20.08	21.16	21.54	16.28	17.41	16.69	17.76	18.14
	6H	20.19	21.23	20.60	21.60	21.99	16.81	17.85	17.22	18.22	18.61
	8H	20.36	21.34	20.79	21.74	22.14	16.99	17.98	17.42	18.37	18.77
	12H	20.47	21.41	20.90	21.79	22.22	17.13	18.07	17.56	18.46	18.89
4H	2H	17.80	18.93	18.20	19.28	19.66	15.23	16.35	15.63	16.70	17.09
	3H	19.78	20.71	20.19	21.11	21.52	17.40	18.33	17.82	18.74	19.14
	4H	20.58	21.42	21.02	21.83	22.28	18.28	19.12	18.72	19.54	19.98
	6H	21.22	21.95	21.69	22.39	22.86	18.93	19.65	19.39	20.10	20.56
	8H	21.44	22.12	21.91	22.57	23.04	19.14	19.81	19.60	20.26	20.73
	12H	21.60	22.20	22.08	22.68	23.15	19.29	19.89	19.78	20.37	20.85
8H	4H	20.86	21.54	21.33	21.99	22.46	18.93	19.61	19.40	20.06	20.53
	6H	21.65	22.20	22.15	22.70	23.18	19.79	20.35	20.29	20.84	21.32
	8H	21.95	22.45	22.47	22.96	23.45	20.12	20.62	20.64	21.13	21.63
	12H	22.18	22.63	22.70	23.12	23.69	20.38	20.82	20.90	21.32	21.89
12H	4H	20.88	21.48	21.37	21.96	22.44	19.00	19.60	19.49	20.09	20.56
	6H	21.70	22.20	22.22	22.71	23.20	19.93	20.43	20.45	20.94	21.44
	8H	22.06	22.51	22.58	23.00	23.57	20.34	20.78	20.86	21.28	21.85