

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: P893955

Luminaire Tested: 4MB-8HL-LVRF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893955
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-8HL-LVRF-UNV-L840
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C
Light Source: -
Ballast/Driver: -

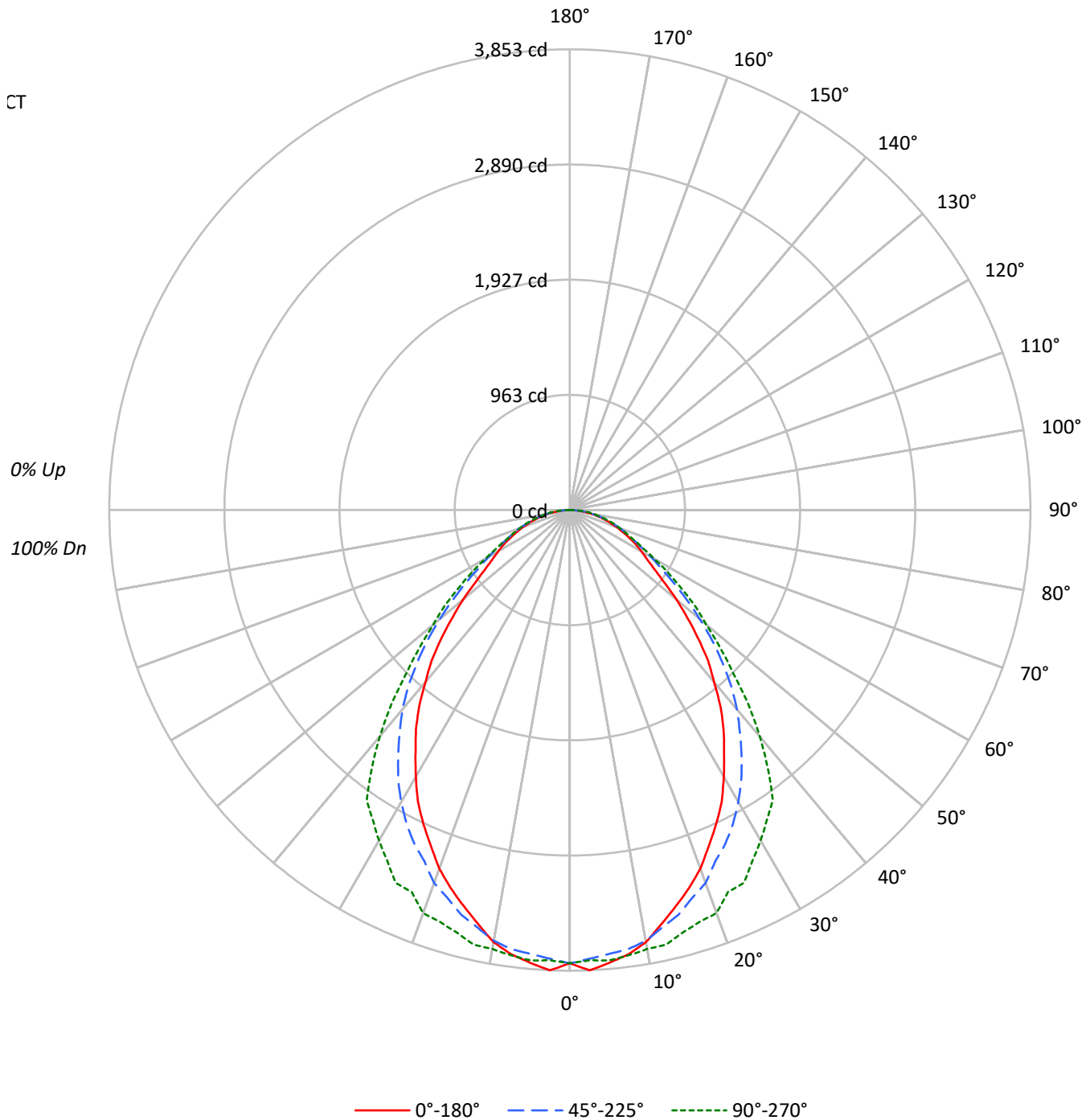
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7686.0 lumens
Efficiency: N/A
Efficacy: 132.7 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): 57.9
Input Voltage (V): 120
Input Current (Ain): 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

TEST NUMBER: P893955
CATALOG NUMBER: 4MB-8HL-LVRF-UNV-L840

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°	26971	26971	26971
5°	27147	26620	27001
10°	26511	26429	26937
15°	25259	25819	26937
20°	24163	25132	27157
25°	22748	24172	27019
30°	21163	23164	26228
35°	19489	21743	25720
40°	17431	20209	22966
45°	15280	18176	19476
50°	12895	15705	16483
55°	10698	13144	14057
60°	9837	11175	11595
65°	9216	9825	9903
70°	8581	9311	9241
75°	8005	8692	9003
80°	7478	8080	8637
85°	6294	6849	9527

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 19476 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.8	4.7
10°-20°	998.0	13.0
20°-30°	1437.3	18.7
30°-40°	1586.8	20.6
40°-50°	1361.6	17.7
50°-60°	927.6	12.1
60°-70°	583.5	7.6
70°-80°	332.2	4.3
80°-90°	101.0	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°	2793.2	36.3
0°-40°	4380.0	57.0
0°-60°	6669.3	86.8
0°-90°	7686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3791	3791	3791	3791	3791	
5°	3801	3786	3727	3805	3780	359
15°	3429	3466	3505	3664	3657	965
25°	2898	2956	3079	3327	3442	1331
35°	2244	2331	2503	2776	2961	1396
45°	1519	1619	1806	1915	1936	1170
55°	862	916	1060	1111	1133	792
65°	547	556	584	612	588	544
75°	291	294	316	330	328	310
85°	77	79	84	100	117	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3790.7	3790.7	3790.7	3790.7	3790.7
2.5°	3853.0	3813.4	3756.7	3811.1	3769.2
5°	3800.9	3786.2	3727.2	3805.4	3780.5
7.5°	3747.6	3715.9	3705.7	3789.6	3756.7
10°	3669.5	3651.3	3658.1	3765.8	3728.4
12.5°	3545.9	3558.4	3574.3	3711.4	3722.7
15°	3429.2	3465.5	3505.1	3663.8	3657.0
17.5°	3314.7	3364.6	3402.0	3606.0	3611.7
20°	3191.2	3219.6	3319.3	3516.5	3586.7
22.5°	3038.2	3093.8	3179.9	3425.8	3457.5
25°	2897.7	2955.5	3079.0	3327.2	3441.7
27.5°	2750.4	2803.7	2956.6	3210.5	3307.9
30°	2575.9	2647.3	2819.5	3077.9	3192.4
32.5°	2401.4	2505.6	2671.1	2936.2	3068.8
35°	2243.8	2331.1	2503.3	2776.5	2961.2
37.5°	2069.3	2161.1	2335.6	2601.9	2719.8
40°	1876.7	1975.2	2175.8	2391.2	2472.7
42.5°	1711.2	1796.2	1997.9	2149.8	2214.4
45°	1518.6	1619.4	1806.4	1915.2	1935.6
47.5°	1332.7	1448.3	1616.0	1667.0	1706.7
50°	1165.0	1255.6	1418.8	1450.6	1489.1
52.5°	993.9	1090.2	1233.0	1264.7	1321.4
55°	862.4	915.7	1059.6	1110.6	1133.2
57.5°	766.1	800.1	902.1	966.7	973.5
60°	691.3	708.3	785.3	834.1	814.8
62.5°	622.2	635.8	674.3	711.7	686.7
65°	547.4	556.4	583.6	612.0	588.2
67.5°	477.1	487.3	512.2	532.6	512.2
70°	412.5	420.4	447.6	456.7	444.2
72.5°	352.4	355.8	378.5	394.4	386.4
75°	291.2	293.5	316.2	329.8	327.5
77.5°	235.7	239.1	258.4	270.8	264.0
80°	182.5	184.7	197.2	215.3	210.8
82.5°	128.1	132.6	140.5	156.4	168.9
85°	77.1	79.3	83.9	99.7	116.7
87.5°	29.5	31.7	34.0	41.9	55.5
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	18.90	20.38	19.27	20.69	21.01	20.26	21.74	20.63	22.06	22.37
	3H	20.48	21.81	20.86	22.13	22.50	21.55	22.87	21.93	23.20	23.56
	4H	21.09	22.33	21.49	22.68	23.06	22.10	23.34	22.50	23.69	24.07
	6H	21.56	22.70	21.97	23.07	23.46	22.55	23.70	22.97	24.07	24.46
	8H	21.71	22.80	22.14	23.19	23.60	22.74	23.83	23.17	24.22	24.62
	12H	21.81	22.86	22.24	23.24	23.67	22.90	23.94	23.33	24.32	24.75
4H	2H	19.51	20.76	19.92	21.11	21.48	20.63	21.87	21.03	22.22	22.60
	3H	21.32	22.35	21.73	22.75	23.15	22.19	23.21	22.60	23.61	24.02
	4H	22.04	22.97	22.48	23.39	23.82	22.89	23.82	23.32	24.23	24.67
	6H	22.64	23.44	23.10	23.89	24.35	23.50	24.30	23.96	24.75	25.21
	8H	22.84	23.59	23.31	24.04	24.51	23.74	24.50	24.21	24.94	25.41
	12H	22.98	23.65	23.46	24.13	24.60	23.96	24.63	24.44	25.11	25.58
8H	4H	22.37	23.12	22.83	23.57	24.03	23.12	23.87	23.59	24.32	24.79
	6H	23.09	23.72	23.59	24.21	24.69	23.87	24.49	24.36	24.98	25.46
	8H	23.37	23.93	23.88	24.44	24.93	24.20	24.76	24.71	25.27	25.76
	12H	23.58	24.08	24.09	24.57	25.14	24.50	25.00	25.01	25.49	26.06
12H	4H	22.41	23.08	22.89	23.56	24.03	23.14	23.81	23.62	24.29	24.76
	6H	23.16	23.72	23.68	24.23	24.72	23.90	24.46	24.42	24.97	25.46
	8H	23.50	23.99	24.01	24.49	25.05	24.29	24.79	24.80	25.28	25.85