

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: P894050

Luminaire Tested: 4MB-9HL-LVRF-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894050
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-9HL-LVRF-UNV-L835
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3500K C
Light Source: -
Ballast/Driver: -

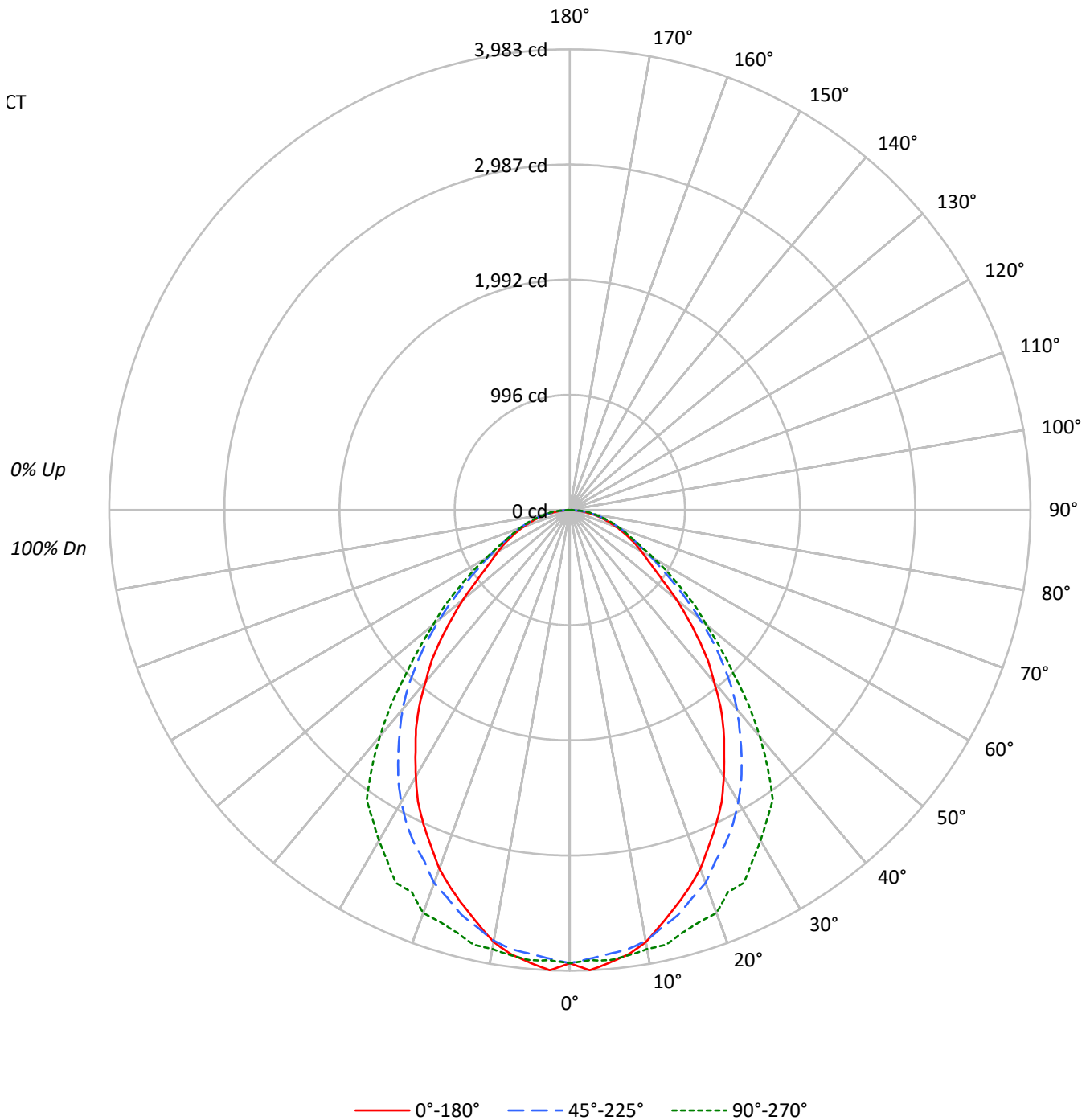
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7945.0 lumens
Efficiency: N/A
Efficacy: 123.4 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): 64.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.94
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	102	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	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27879	27879	27879
5°	28062	27517	27911
10°	27404	27320	27844
15°	26111	26688	27845
20°	24977	25979	28073
25°	23515	24987	27929
30°	21876	23945	27111
35°	20146	22476	26587
40°	18018	20890	23741
45°	15795	18789	20132
50°	13329	16234	17038
55°	11059	13587	14531
60°	10169	11552	11986
65°	9526	10157	10236
70°	8870	9625	9553
75°	8277	8984	9305
80°	7728	8350	8928
85°	6506	7078	9853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20132 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.9	4.7
10°-20°	1031.7	13.0
20°-30°	1485.8	18.7
30°-40°	1640.3	20.6
40°-50°	1407.5	17.7
50°-60°	958.8	12.1
60°-70°	603.2	7.6
70°-80°	343.4	4.3
80°-90°	104.4	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°	2887.3	36.3
0°-40°	4527.6	57.0
0°-60°	6894.0	86.8
0°-90°	7945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7945.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3918	3918	3918	3918	3918	
5°	3929	3914	3853	3934	3908	371
15°	3545	3582	3623	3787	3780	998
25°	2995	3055	3183	3439	3558	1376
35°	2319	2410	2588	2870	3061	1443
45°	1570	1674	1867	1980	2001	1210
55°	892	946	1095	1148	1171	819
65°	566	575	603	633	608	562
75°	301	303	327	341	338	321
85°	80	82	87	103	121	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3918.4	3918.4	3918.4	3918.4	3918.4
2.5°	3982.9	3941.9	3883.3	3939.5	3896.2
5°	3929.0	3913.8	3852.8	3933.7	3907.9
7.5°	3873.9	3841.1	3830.6	3917.3	3883.3
10°	3793.1	3774.4	3781.4	3892.7	3854.0
12.5°	3665.4	3678.3	3694.7	3836.4	3848.2
15°	3544.8	3582.2	3623.2	3787.2	3780.2
17.5°	3426.4	3478.0	3516.6	3727.5	3733.4
20°	3298.8	3328.0	3431.1	3635.0	3707.6
22.5°	3140.6	3198.0	3287.0	3541.2	3574.0
25°	2995.4	3055.1	3182.8	3439.3	3557.6
27.5°	2843.1	2898.1	3056.3	3318.7	3419.4
30°	2662.7	2736.5	2914.5	3181.6	3299.9
32.5°	2482.3	2590.0	2761.1	3035.2	3172.2
35°	2319.4	2409.6	2587.7	2870.0	3061.0
37.5°	2139.0	2233.9	2414.3	2689.6	2811.4
40°	1939.9	2041.8	2249.2	2471.7	2556.1
42.5°	1768.9	1856.7	2065.2	2222.2	2289.0
45°	1569.7	1674.0	1867.3	1979.7	2000.8
47.5°	1377.6	1497.1	1670.5	1723.2	1764.2
50°	1204.2	1297.9	1466.6	1499.4	1539.3
52.5°	1027.3	1126.9	1274.5	1307.3	1365.9
55°	891.5	946.5	1095.3	1148.0	1171.4
57.5°	791.9	827.0	932.5	999.2	1006.3
60°	714.6	732.1	811.8	862.2	842.3
62.5°	643.1	657.2	697.0	735.7	709.9
65°	565.8	575.2	603.3	632.6	608.0
67.5°	493.2	503.7	529.5	550.6	529.5
70°	426.4	434.6	462.7	472.1	459.2
72.5°	364.3	367.8	391.3	407.7	399.5
75°	301.1	303.4	326.8	340.9	338.5
77.5°	243.7	247.2	267.1	280.0	272.9
80°	188.6	190.9	203.8	222.6	217.9
82.5°	132.4	137.1	145.3	161.7	174.5
85°	79.7	82.0	86.7	103.1	120.7
87.5°	30.5	32.8	35.1	43.3	57.4
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	19.02	20.50	19.38	20.81	21.12	20.38	21.86	20.74	22.17	22.48
	3H	20.60	21.92	20.97	22.25	22.61	21.66	22.99	22.04	23.32	23.68
	4H	21.20	22.44	21.60	22.79	23.17	22.22	23.46	22.62	23.81	24.19
	6H	21.67	22.82	22.09	23.19	23.58	22.67	23.82	23.08	24.18	24.57
	8H	21.83	22.92	22.26	23.31	23.71	22.86	23.95	23.28	24.34	24.74
	12H	21.93	22.97	22.36	23.35	23.78	23.01	24.05	23.44	24.44	24.87
4H	2H	19.63	20.87	20.03	21.22	21.60	20.74	21.99	21.14	22.34	22.71
	3H	21.43	22.46	21.85	22.86	23.27	22.30	23.33	22.71	23.73	24.13
	4H	22.16	23.08	22.59	23.50	23.94	23.00	23.93	23.44	24.35	24.79
	6H	22.76	23.56	23.21	24.00	24.46	23.61	24.42	24.07	24.86	25.32
	8H	22.96	23.71	23.42	24.15	24.62	23.86	24.61	24.32	25.06	25.53
	12H	23.10	23.77	23.58	24.25	24.72	24.07	24.75	24.56	25.23	25.70
8H	4H	22.48	23.24	22.95	23.68	24.15	23.24	23.99	23.70	24.43	24.90
	6H	23.21	23.83	23.71	24.32	24.80	23.98	24.60	24.48	25.10	25.57
	8H	23.48	24.04	24.00	24.56	25.04	24.31	24.87	24.83	25.38	25.87
	12H	23.70	24.19	24.21	24.69	25.25	24.62	25.12	25.13	25.61	26.17
12H	4H	22.52	23.19	23.01	23.67	24.15	23.25	23.92	23.73	24.40	24.87
	6H	23.28	23.84	23.79	24.35	24.84	24.02	24.58	24.53	25.09	25.58
	8H	23.61	24.11	24.12	24.60	25.17	24.41	24.90	24.92	25.40	25.96