

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: P893949

Luminaire Tested: 4MB-8HL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893949
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-L930
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

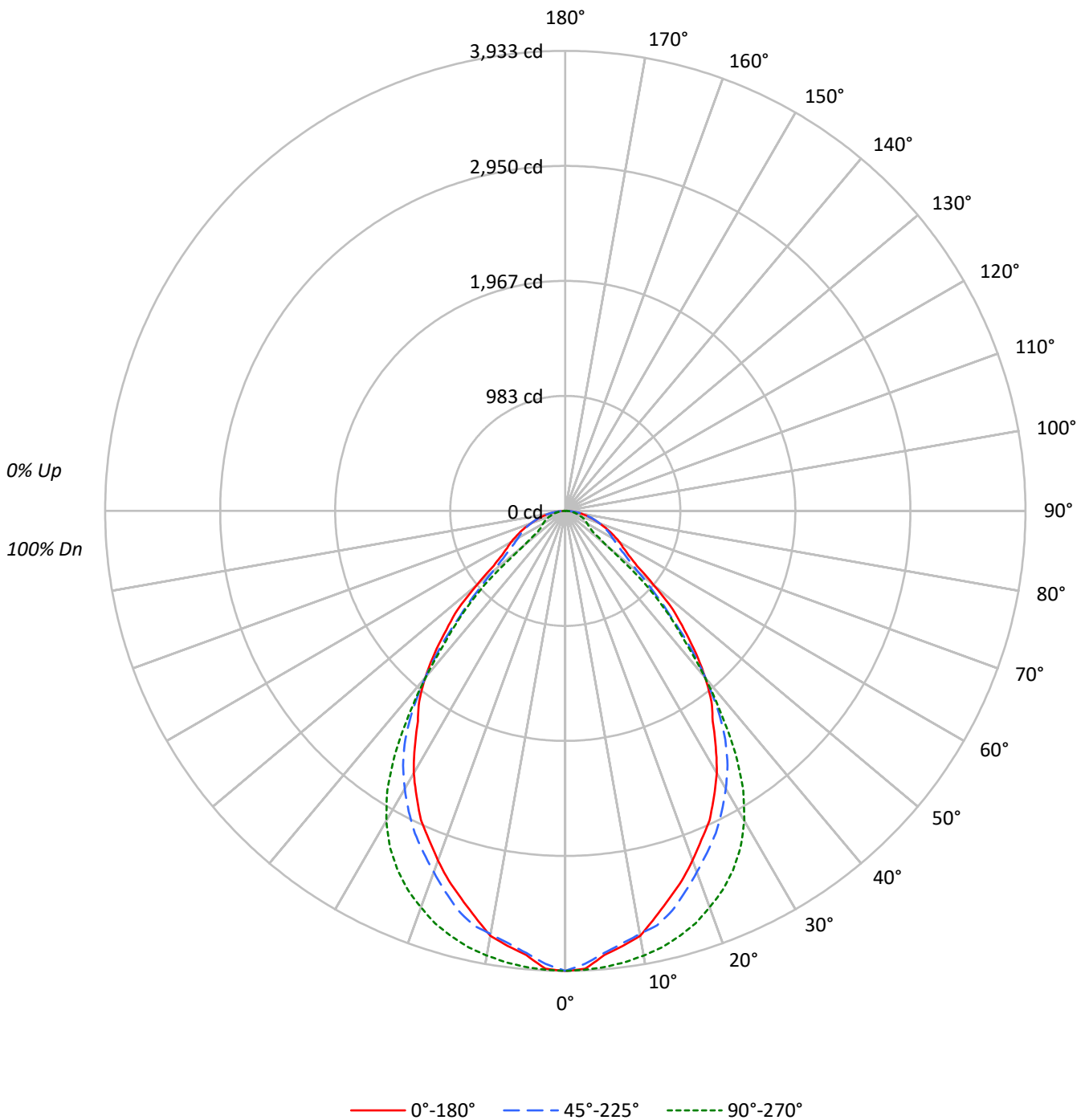
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6383.0 lumens
Efficiency: N/A
Efficacy: 110.2 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	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27983	27983	27983
5°	27228	27105	27952
10°	26649	26532	27888
15°	25274	26051	27731
20°	24076	24889	27307
25°	22902	23881	26610
30°	21278	22543	25125
35°	19079	20717	22037
40°	17285	17323	17229
45°	14452	12800	12484
50°	10917	9010	5105
55°	8211	7205	3219
60°	7630	6635	3101
65°	7100	6621	3106
70°	6495	6495	3058
75°	6158	6326	2952
80°	5691	5982	3032
85°	4963	5217	3306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 14789 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.3	5.7
10°-20°	1001.0	15.7
20°-30°	1419.5	22.2
30°-40°	1462.4	22.9
40°-50°	1021.4	16.0
50°-60°	490.1	7.7
60°-70°	343.8	5.4
70°-80°	215.0	3.4
80°-90°	66.5	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°	2783.8	43.6
0°-40°	4246.1	66.5
0°-60°	5757.7	90.2
0°-90°	6383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3933	3933	3933	3933	3933	
5°	3812	3807	3795	3894	3914	361
15°	3431	3456	3537	3638	3765	966
25°	2917	2947	3042	3248	3390	1334
35°	2197	2256	2385	2435	2537	1384
45°	1436	1470	1272	1207	1241	1107
55°	662	630	581	372	260	620
65°	422	394	393	299	184	418
75°	224	221	230	199	107	236
85°	61	61	64	63	40	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3932.9	3932.9	3932.9	3932.9	3932.9
2.5°	3917.7	3905.6	3876.2	3929.9	3925.8
5°	3812.3	3807.2	3795.1	3894.4	3913.7
7.5°	3752.5	3742.4	3728.2	3837.7	3891.4
10°	3688.6	3700.8	3672.4	3772.8	3860.0
12.5°	3556.9	3589.3	3627.8	3705.9	3821.4
15°	3431.2	3456.5	3536.6	3638.0	3764.7
17.5°	3313.6	3343.0	3411.9	3564.0	3698.8
20°	3179.8	3220.3	3287.2	3481.9	3606.5
22.5°	3041.9	3079.4	3163.6	3372.4	3511.3
25°	2917.3	2946.7	3041.9	3247.7	3389.6
27.5°	2752.0	2806.8	2897.0	3095.7	3244.7
30°	2589.9	2636.5	2743.9	2911.2	3058.2
32.5°	2394.2	2462.1	2580.7	2708.5	2831.1
35°	2196.6	2256.4	2385.1	2434.8	2537.1
37.5°	2052.6	2068.8	2141.8	2135.7	2193.5
40°	1861.0	1893.5	1865.1	1789.1	1855.0
42.5°	1654.3	1692.8	1578.2	1490.1	1513.4
45°	1436.3	1469.8	1272.1	1207.2	1240.7
47.5°	1247.8	1244.8	1025.8	982.2	935.6
50°	986.3	1018.7	814.0	732.9	461.2
52.5°	770.4	782.5	671.0	468.3	303.1
55°	661.9	629.5	580.8	372.0	259.5
57.5°	587.9	547.4	514.9	345.7	237.2
60°	536.2	490.6	466.3	328.4	217.9
62.5°	477.4	441.9	432.8	313.2	200.7
65°	421.7	394.3	393.3	299.0	184.5
67.5°	365.9	350.7	354.8	281.8	166.2
70°	312.2	309.2	312.2	259.5	147.0
72.5°	266.6	263.5	271.7	231.1	125.7
75°	224.0	221.0	230.1	198.7	107.4
77.5°	178.4	180.4	186.5	165.2	90.2
80°	138.9	138.9	146.0	129.7	74.0
82.5°	99.3	100.4	104.4	95.3	57.8
85°	60.8	60.8	63.9	62.8	40.5
87.5°	20.3	23.3	27.4	29.4	20.3
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	17.22	18.58	17.59	18.89	19.20	13.55	14.91	13.92	15.22	15.54
	3H	18.96	20.17	19.34	20.50	20.86	15.53	16.74	15.91	17.07	17.43
	4H	19.63	20.76	20.03	21.11	21.49	16.23	17.36	16.64	17.71	18.09
	6H	20.14	21.18	20.55	21.55	21.94	16.76	17.80	17.17	18.17	18.56
	8H	20.31	21.30	20.74	21.69	22.09	16.94	17.93	17.37	18.32	18.72
	12H	20.42	21.36	20.85	21.74	22.17	17.08	18.02	17.51	18.41	18.84
4H	2H	17.75	18.88	18.15	19.23	19.61	15.18	16.30	15.58	16.65	17.04
	3H	19.73	20.66	20.14	21.06	21.47	17.35	18.28	17.77	18.69	19.09
	4H	20.53	21.37	20.97	21.79	22.23	18.23	19.07	18.67	19.49	19.93
	6H	21.18	21.90	21.64	22.34	22.81	18.88	19.60	19.34	20.05	20.51
	8H	21.39	22.07	21.86	22.52	22.99	19.09	19.76	19.55	20.21	20.68
	12H	21.55	22.15	22.03	22.63	23.10	19.24	19.84	19.73	20.33	20.80
8H	4H	20.82	21.49	21.28	21.94	22.41	18.88	19.56	19.35	20.01	20.48
	6H	21.60	22.15	22.10	22.65	23.13	19.74	20.30	20.24	20.79	21.27
	8H	21.90	22.40	22.42	22.91	23.41	20.07	20.57	20.59	21.08	21.58
	12H	22.14	22.58	22.65	23.07	23.64	20.34	20.78	20.85	21.27	21.84
12H	4H	20.83	21.43	21.32	21.91	22.39	18.96	19.56	19.44	20.04	20.51
	6H	21.65	22.15	22.17	22.66	23.16	19.88	20.38	20.40	20.89	21.39
	8H	22.02	22.46	22.53	22.95	23.52	20.30	20.74	20.81	21.23	21.80