

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: P893957

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893957
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-L930
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 3000K C
Light Source: -
Ballast/Driver: -

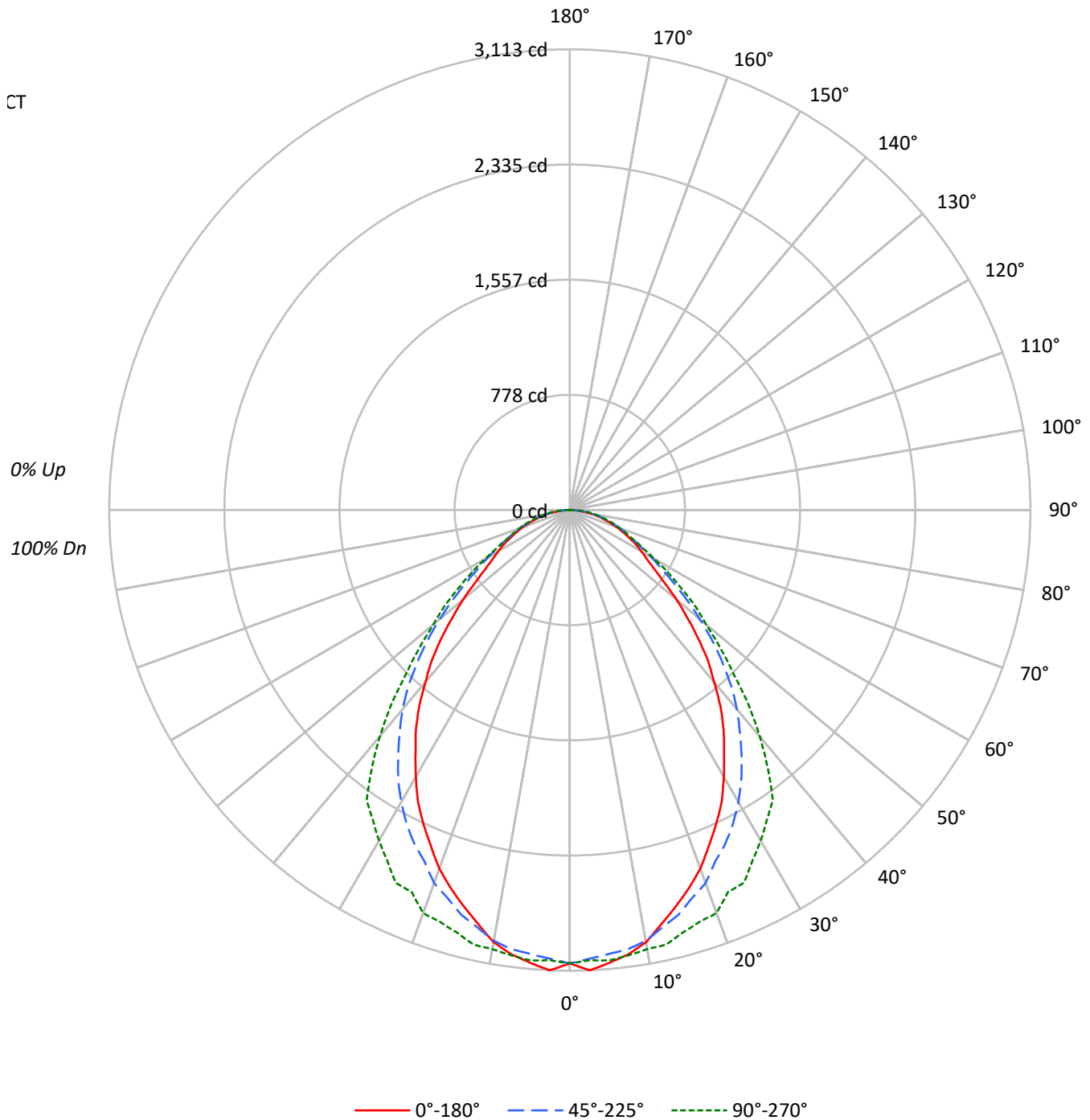
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6210.0 lumens
Efficiency: N/A
Efficacy: 107.3 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 (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	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°	21792	21792	21792
5°	21934	21509	21816
10°	21420	21353	21764
15°	20409	20860	21764
20°	19523	20306	21942
25°	18380	19530	21830
30°	17098	18716	21191
35°	15746	17568	20781
40°	14083	16328	18556
45°	12345	14686	15736
50°	10419	12689	13317
55°	8644	10620	11358
60°	7947	9029	9368
65°	7445	7938	8000
70°	6934	7524	7466
75°	6468	7024	7274
80°	6040	6527	6978
85°	5086	5535	7698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 15736 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.1	4.7
10°-20°	806.4	13.0
20°-30°	1161.3	18.7
30°-40°	1282.1	20.6
40°-50°	1100.1	17.7
50°-60°	749.4	12.1
60°-70°	471.5	7.6
70°-80°	268.4	4.3
80°-90°	81.6	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°	2256.8	36.3
0°-40°	3538.9	57.0
0°-60°	5388.5	86.8
0°-90°	6210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3063	3063	3063	3063	3063	
5°	3071	3059	3012	3075	3054	290
15°	2771	2800	2832	2960	2955	780
25°	2341	2388	2488	2688	2781	1075
35°	1813	1883	2023	2243	2392	1128
45°	1227	1308	1460	1547	1564	945
55°	697	740	856	897	916	640
65°	442	450	472	494	475	439
75°	235	237	256	266	265	251
85°	62	64	68	81	94	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3062.8	3062.8	3062.8	3062.8	3062.8
2.5°	3113.1	3081.1	3035.3	3079.2	3045.4
5°	3071.0	3059.1	3011.5	3074.7	3054.5
7.5°	3028.0	3002.3	2994.1	3061.8	3035.3
10°	2964.8	2950.1	2955.6	3042.6	3012.4
12.5°	2865.0	2875.1	2887.9	2998.7	3007.8
15°	2770.7	2800.0	2832.0	2960.2	2954.7
17.5°	2678.2	2718.5	2748.7	2913.5	2918.1
20°	2578.4	2601.3	2681.9	2841.2	2897.9
22.5°	2454.8	2499.6	2569.2	2767.9	2793.6
25°	2341.2	2387.9	2487.7	2688.3	2780.7
27.5°	2222.2	2265.2	2388.9	2594.0	2672.7
30°	2081.2	2138.9	2278.1	2486.8	2579.3
32.5°	1940.2	2024.4	2158.1	2372.4	2479.5
35°	1812.9	1883.4	2022.6	2243.3	2392.5
37.5°	1671.9	1746.1	1887.1	2102.3	2197.5
40°	1516.3	1595.9	1758.0	1932.0	1997.9
42.5°	1382.6	1451.3	1614.2	1736.9	1789.1
45°	1226.9	1308.4	1459.5	1547.4	1563.9
47.5°	1076.8	1170.2	1305.7	1346.9	1378.9
50°	941.3	1014.5	1146.4	1172.0	1203.1
52.5°	803.0	880.8	996.2	1021.8	1067.6
55°	696.8	739.8	856.1	897.3	915.6
57.5°	619.0	646.4	728.8	781.0	786.5
60°	558.5	572.3	634.5	673.9	658.3
62.5°	502.7	513.7	544.8	575.0	554.9
65°	442.2	449.6	471.5	494.4	475.2
67.5°	385.5	393.7	413.9	430.3	413.9
70°	333.3	339.7	361.7	369.0	358.9
72.5°	284.8	287.5	305.8	318.6	312.2
75°	235.3	237.1	255.5	266.4	264.6
77.5°	190.4	193.2	208.8	218.8	213.3
80°	147.4	149.2	159.3	174.0	170.3
82.5°	103.5	107.1	113.5	126.4	136.4
85°	62.3	64.1	67.8	80.6	94.3
87.5°	23.8	25.6	27.5	33.9	44.9
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	18.16	19.64	18.53	19.95	20.27	19.52	21.00	19.89	21.31	21.63
	3H	19.74	21.06	20.12	21.39	21.76	20.81	22.13	21.19	22.46	22.82
	4H	20.35	21.59	20.75	21.94	22.32	21.36	22.60	21.76	22.95	23.33
	6H	20.82	21.96	21.23	22.33	22.72	21.81	22.96	22.23	23.33	23.72
	8H	20.97	22.06	21.40	22.45	22.85	22.00	23.09	22.43	23.48	23.88
	12H	21.07	22.11	21.50	22.50	22.93	22.15	23.20	22.59	23.58	24.01
4H	2H	18.77	20.02	19.17	20.36	20.74	19.89	21.13	20.29	21.48	21.86
	3H	20.58	21.61	20.99	22.01	22.41	21.44	22.47	21.86	22.87	23.28
	4H	21.30	22.23	21.74	22.64	23.08	22.15	23.07	22.58	23.49	23.93
	6H	21.90	22.70	22.36	23.15	23.61	22.76	23.56	23.22	24.01	24.47
	8H	22.10	22.85	22.56	23.30	23.77	23.00	23.76	23.47	24.20	24.67
	12H	22.24	22.91	22.72	23.39	23.86	23.22	23.89	23.70	24.37	24.84
8H	4H	21.63	22.38	22.09	22.83	23.29	22.38	23.13	22.85	23.58	24.05
	6H	22.35	22.97	22.85	23.47	23.94	23.13	23.75	23.62	24.24	24.72
	8H	22.63	23.19	23.14	23.70	24.19	23.46	24.02	23.97	24.53	25.02
	12H	22.84	23.34	23.35	23.83	24.39	23.76	24.26	24.27	24.75	25.32
12H	4H	21.67	22.34	22.15	22.82	23.29	22.40	23.07	22.88	23.55	24.02
	6H	22.42	22.98	22.93	23.49	23.98	23.16	23.72	23.68	24.23	24.72
	8H	22.76	23.25	23.27	23.74	24.31	23.55	24.05	24.06	24.54	25.11