

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: P893297

Luminaire Tested: 4MB-2SL-LVR-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-LVR-UNV-L830
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

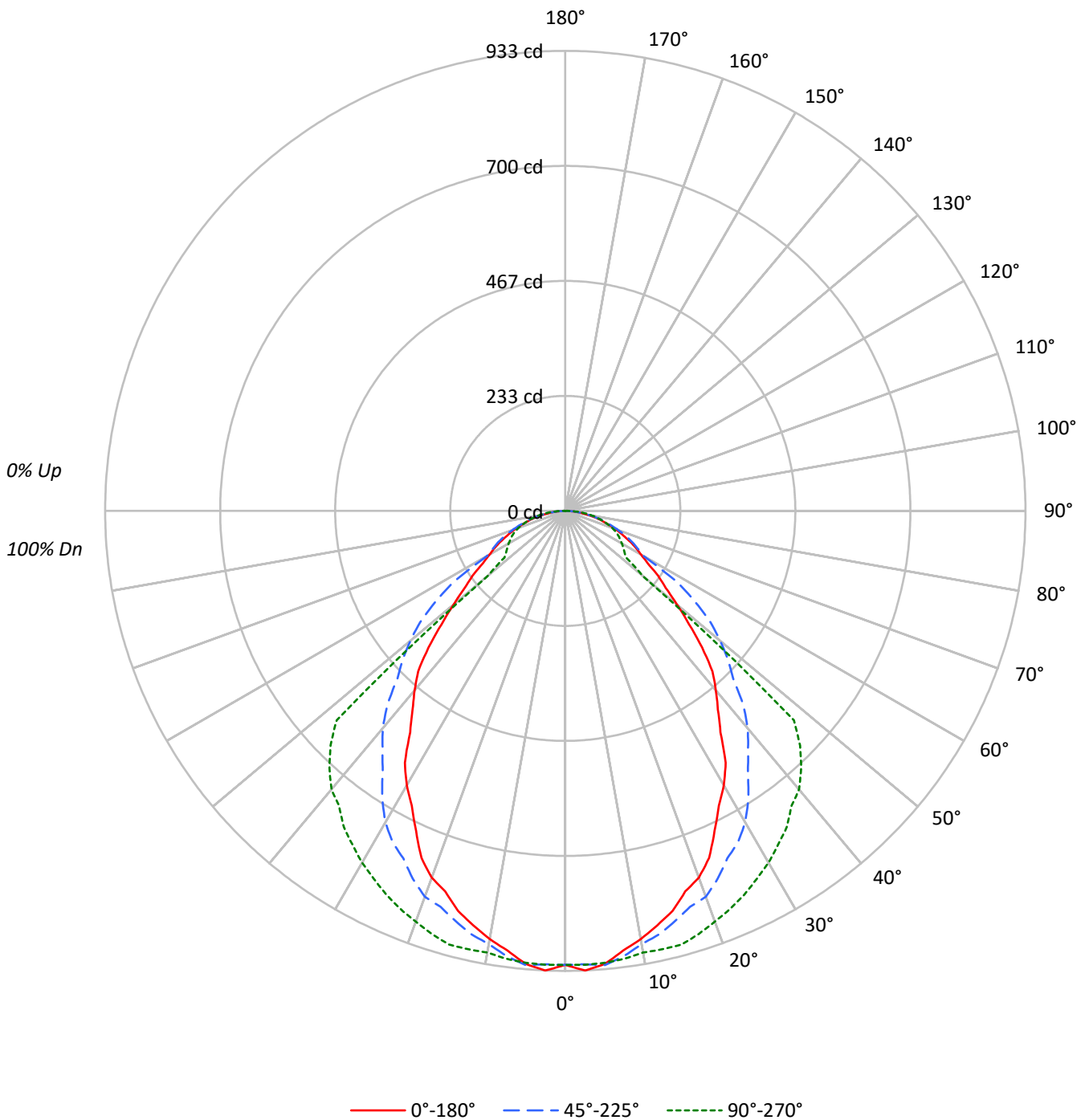
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1965.0 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.33 / 1.27
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
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	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	75	
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	67	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	45	
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	40	
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	36	
9	61	48	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	35	33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	32	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6551	6551	6551
5°	6587	6604	6570
10°	6371	6445	6571
15°	6187	6343	6707
20°	5993	6306	6712
25°	5623	6103	6741
30°	5282	5993	6769
35°	4762	5604	6801
40°	4412	5346	6849
45°	3946	4846	6772
50°	3274	4539	2275
55°	2853	3984	1820
60°	2523	2597	1887
65°	2399	2525	2003
70°	2251	2386	2114
75°	2095	2249	2172
80°	1909	2118	2274
85°	1690	1804	2457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6772 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	4.4
10°-20°	245.7	12.5
20°-30°	361.4	18.4
30°-40°	413.3	21.0
40°-50°	391.4	19.9
50°-60°	215.6	11.0
60°-70°	138.5	7.0
70°-80°	85.4	4.3
80°-90°	26.3	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°	694.5	35.3
0°-40°	1107.8	56.4
0°-60°	1714.8	87.3
0°-90°	1965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1965.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	922	930	925	925	920	86
15°	840	850	861	906	910	236
25°	716	748	777	828	859	330
35°	548	595	645	739	783	347
45°	392	429	482	618	673	300
55°	230	241	321	166	147	206
65°	142	147	150	134	119	141
75°	76	78	82	86	79	81
85°	21	21	22	25	30	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.8	920.8	920.8	920.8	920.8
2.5°	933.0	935.4	920.3	919.9	921.3
5°	922.2	929.7	924.6	924.6	919.9
7.5°	899.2	911.9	910.5	921.3	916.1
10°	881.8	892.1	892.1	920.3	909.5
12.5°	861.1	872.8	879.4	909.0	910.5
15°	839.9	850.3	861.1	906.2	910.5
17.5°	809.3	828.2	841.8	886.0	899.6
20°	791.5	802.8	832.9	868.6	886.5
22.5°	761.8	778.3	807.5	847.4	873.8
25°	716.2	748.2	777.4	828.2	858.7
27.5°	673.9	697.9	758.1	811.7	840.9
30°	642.9	661.7	729.4	787.7	823.9
32.5°	605.2	635.8	690.8	764.2	802.8
35°	548.3	595.4	645.2	738.8	783.0
37.5°	508.4	540.8	608.5	712.5	753.4
40°	475.0	504.6	575.6	679.6	737.4
42.5°	441.6	465.6	534.2	655.1	707.8
45°	392.2	429.4	481.6	617.9	673.0
47.5°	340.5	380.0	447.2	586.4	628.8
50°	295.8	327.3	410.1	523.9	205.5
52.5°	256.8	285.9	370.6	189.5	155.2
55°	230.0	241.3	321.2	165.5	146.7
57.5°	198.0	216.3	269.5	157.5	139.2
60°	177.3	185.3	182.5	149.5	132.6
62.5°	160.8	166.5	165.5	141.6	125.1
65°	142.5	147.2	150.0	133.6	119.0
67.5°	124.2	128.4	132.6	123.7	110.5
70°	108.2	111.0	114.7	111.9	101.6
72.5°	91.7	95.0	97.3	99.7	89.8
75°	76.2	77.6	81.8	86.1	79.0
77.5°	62.1	63.5	66.3	71.0	67.2
80°	46.6	48.0	51.7	55.5	55.5
82.5°	32.9	33.9	36.2	41.4	43.7
85°	20.7	20.7	22.1	25.4	30.1
87.5°	8.0	8.0	9.4	11.3	15.0
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	14.48	15.96	14.85	16.28	16.59	12.28	13.76	12.65	14.08	14.39
	3H	16.01	17.33	16.39	17.66	18.02	14.61	15.94	14.99	16.27	16.63
	4H	16.60	17.84	17.00	18.19	18.57	15.56	16.81	15.96	17.16	17.53
	6H	17.06	18.20	17.47	18.57	18.96	16.35	17.49	16.76	17.86	18.25
	8H	17.20	18.29	17.63	18.68	19.08	16.66	17.75	17.09	18.14	18.54
	12H	17.30	18.34	17.73	18.72	19.15	16.91	17.95	17.34	18.33	18.76
4H	2H	15.03	16.27	15.43	16.62	17.00	13.39	14.63	13.79	14.98	15.36
	3H	16.80	17.83	17.21	18.23	18.63	15.83	16.86	16.24	17.26	17.66
	4H	17.52	18.45	17.96	18.87	19.30	16.90	17.82	17.33	18.24	18.68
	6H	18.11	18.91	18.57	19.36	19.82	17.79	18.59	18.24	19.04	19.50
	8H	18.30	19.05	18.76	19.50	19.96	18.14	18.89	18.60	19.34	19.80
	12H	18.44	19.11	18.92	19.59	20.06	18.43	19.10	18.91	19.58	20.05
8H	4H	17.83	18.58	18.29	19.03	19.50	17.28	18.04	17.75	18.48	18.95
	6H	18.54	19.17	19.04	19.66	20.14	18.32	18.94	18.82	19.44	19.91
	8H	18.80	19.37	19.32	19.88	20.37	18.77	19.33	19.28	19.84	20.33
	12H	19.01	19.51	19.52	20.00	20.57	19.15	19.65	19.66	20.14	20.71
12H	4H	17.87	18.54	18.35	19.02	19.49	17.32	17.99	17.80	18.47	18.94
	6H	18.61	19.17	19.12	19.68	20.17	18.38	18.95	18.90	19.46	19.95
	8H	18.93	19.43	19.44	19.92	20.48	18.89	19.39	19.40	19.88	20.45