

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: P893316

Luminaire Tested: 4MB-2SL-LVRF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893316
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-LVRF-UNV-L850
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K C
Light Source: -
Ballast/Driver: -

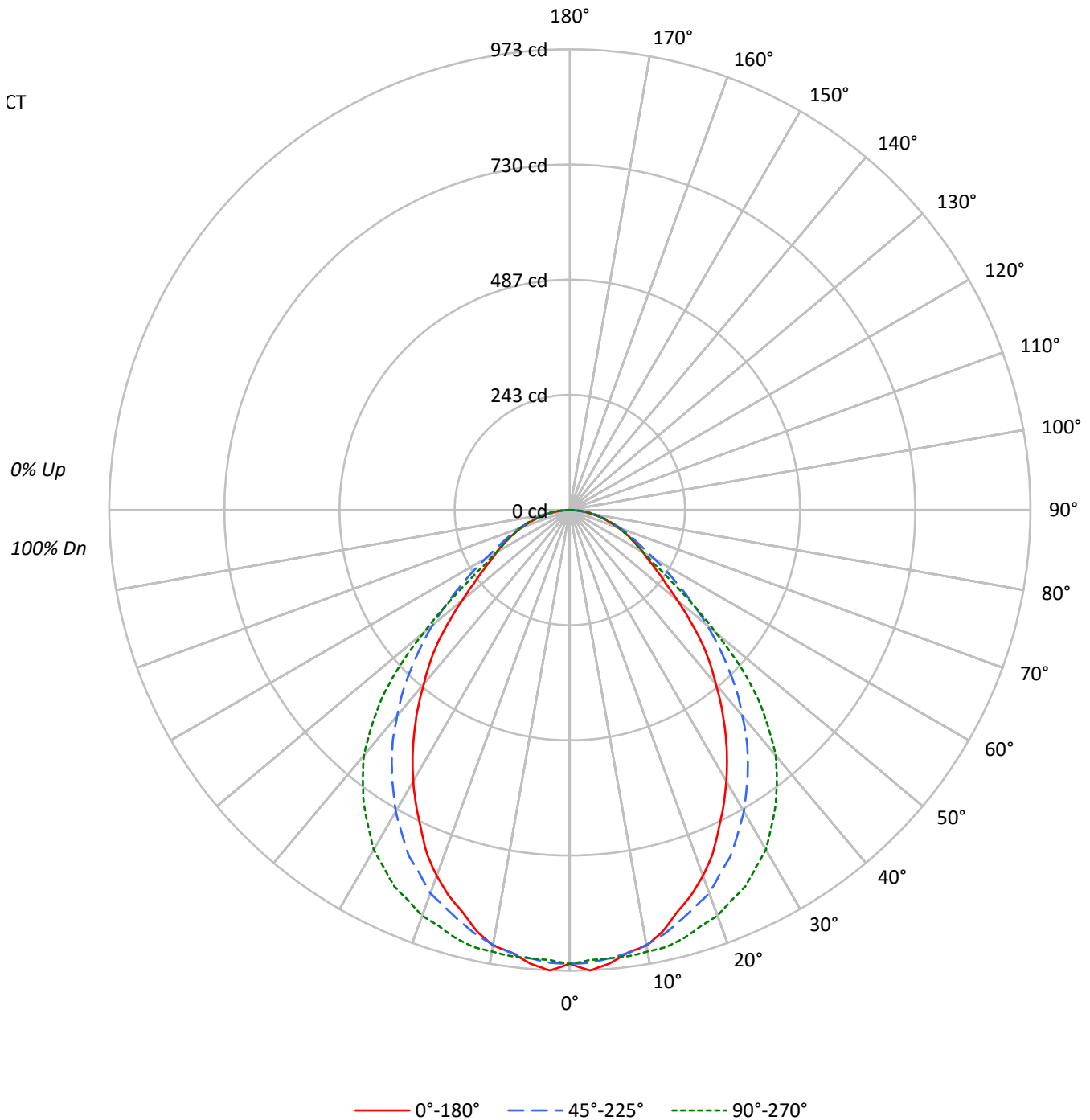
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1992.0 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
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	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	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	60	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	56	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6820	6820	6820
5°	6866	6789	6789
10°	6748	6737	6842
15°	6469	6619	6891
20°	6223	6521	6902
25°	5838	6319	6886
30°	5434	6040	6806
35°	4974	5697	6589
40°	4454	5268	6287
45°	3952	4769	5652
50°	3289	4198	4457
55°	2801	3537	3240
60°	2539	2921	2560
65°	2391	2559	2384
70°	2251	2374	2322
75°	2098	2260	2218
80°	1922	2081	2143
85°	1665	1829	2400

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	4.6
10°-20°	255.3	12.8
20°-30°	370.8	18.6
30°-40°	412.9	20.7
40°-50°	364.8	18.3
50°-60°	239.4	12.0
60°-70°	146.6	7.4
70°-80°	85.3	4.3
80°-90°	26.1	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°	716.9	36.0
0°-40°	1129.8	56.7
0°-60°	1734.0	87.0
0°-90°	1992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	961	962	950	960	950	91
15°	878	888	899	934	936	248
25°	744	762	805	856	877	342
35°	573	604	656	725	759	357
45°	393	417	474	538	562	300
55°	226	242	285	283	261	205
65°	142	144	152	148	142	141
75°	76	77	82	84	81	81
85°	20	21	22	25	29	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	958.5	958.5	958.5	958.5	958.5
2.5°	973.4	961.4	957.0	961.4	951.5
5°	961.4	961.9	950.5	960.0	950.5
7.5°	942.5	949.0	943.5	958.0	950.5
10°	934.0	934.5	932.5	947.5	947.0
12.5°	910.6	912.1	917.6	940.0	945.0
15°	878.2	888.2	898.6	934.0	935.5
17.5°	852.8	864.8	878.7	916.6	921.1
20°	821.9	826.9	861.3	894.7	911.6
22.5°	787.5	797.0	830.4	875.2	892.2
25°	743.6	761.6	804.9	856.3	877.2
27.5°	703.3	724.2	769.1	826.4	850.8
30°	661.4	685.3	735.2	791.5	828.4
32.5°	618.0	647.9	695.3	760.1	792.5
35°	572.7	603.6	655.9	725.2	758.6
37.5°	527.3	557.2	614.1	688.3	718.2
40°	479.5	508.9	567.2	642.5	676.9
42.5°	438.1	463.5	523.3	587.6	619.5
45°	392.8	416.7	474.0	537.8	561.7
47.5°	342.9	370.8	426.6	479.0	488.5
50°	297.1	326.0	379.3	409.7	402.7
52.5°	256.7	281.1	330.0	342.9	326.5
55°	225.8	241.7	285.1	282.6	261.2
57.5°	197.4	207.3	244.2	230.3	209.8
60°	178.4	182.9	205.3	192.4	179.9
62.5°	160.5	162.5	174.4	167.5	158.0
65°	142.0	144.5	152.0	147.5	141.6
67.5°	125.1	126.1	133.1	132.1	124.6
70°	108.2	109.7	114.1	116.1	111.6
72.5°	91.7	93.2	97.7	99.7	95.7
75°	76.3	77.3	82.2	83.7	80.7
77.5°	61.3	63.3	66.3	68.8	65.3
80°	46.9	47.8	50.8	53.8	52.3
82.5°	32.9	34.4	36.4	40.4	41.4
85°	20.4	21.4	22.4	25.4	29.4
87.5°	8.0	8.5	10.0	11.0	14.5
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	14.20	15.68	14.56	15.99	16.31	14.85	16.33	15.22	16.65	16.96
	3H	15.80	17.13	16.18	17.45	17.82	16.29	17.61	16.67	17.94	18.30
	4H	16.42	17.66	16.82	18.01	18.39	16.89	18.13	17.29	18.48	18.86
	6H	16.89	18.04	17.30	18.40	18.79	17.38	18.53	17.79	18.89	19.28
	8H	17.04	18.13	17.47	18.52	18.92	17.58	18.67	18.00	19.06	19.46
	12H	17.14	18.18	17.57	18.57	19.00	17.74	18.79	18.17	19.17	19.60
4H	2H	14.82	16.06	15.22	16.41	16.79	15.35	16.59	15.75	16.94	17.32
	3H	16.64	17.67	17.05	18.07	18.47	17.04	18.07	17.45	18.47	18.87
	4H	17.38	18.31	17.81	18.72	19.16	17.80	18.72	18.23	19.14	19.58
	6H	17.98	18.78	18.44	19.23	19.69	18.43	19.24	18.89	19.68	20.14
	8H	18.18	18.93	18.64	19.37	19.84	18.69	19.44	19.15	19.88	20.35
	12H	18.32	18.99	18.80	19.47	19.94	18.91	19.58	19.39	20.06	20.53
8H	4H	17.70	18.45	18.16	18.90	19.36	18.07	18.82	18.53	19.26	19.73
	6H	18.42	19.05	18.92	19.54	20.02	18.84	19.46	19.34	19.95	20.43
	8H	18.70	19.26	19.21	19.77	20.26	19.19	19.75	19.70	20.26	20.75
	12H	18.91	19.41	19.42	19.90	20.47	19.50	20.00	20.01	20.49	21.06
12H	4H	17.73	18.41	18.22	18.88	19.36	18.09	18.76	18.57	19.24	19.71
	6H	18.49	19.05	19.00	19.56	20.05	18.89	19.45	19.40	19.96	20.45
	8H	18.82	19.32	19.33	19.81	20.38	19.29	19.79	19.80	20.28	20.85