

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: P893323

Luminaire Tested: 4MB-2SL-RFLW-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-RFLW-UNV-L840
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

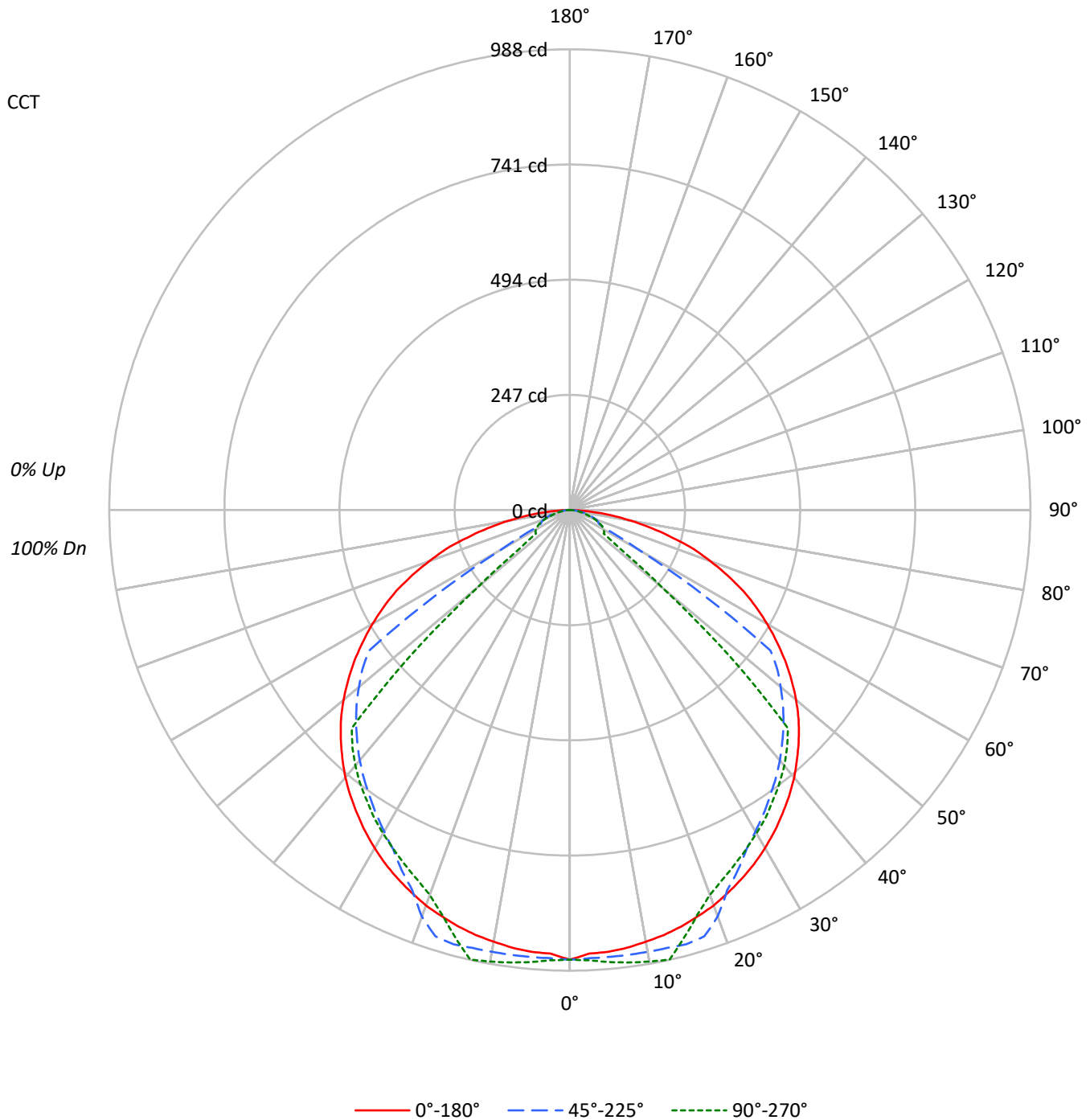
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2352.0 lumens
Efficiency: N/A
Efficacy: 170.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' 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

TEST NUMBER: P893323
CATALOG NUMBER: 4MB-2SL-RFLW-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P893323

CATALOG NUMBER: 4MB-2SL-RFLW-UNV-L840

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	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	77	77	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	66	66	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	58	58	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	61	55	51	51	51	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40	40	40	40	38
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	36	36	36	35
9	60	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	33	33	33	31
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12522	12522	12522
5°	12397	12541	12685
10°	12394	12686	12963
15°	12428	12963	12756
20°	12470	12821	12134
25°	12501	12216	12011
30°	12553	11938	12006
35°	12604	11868	12043
40°	12691	11884	12128
45°	12754	11901	12144
50°	12801	11929	5250
55°	12768	11892	2004
60°	12694	4537	2181
65°	12607	2108	2243
70°	12176	2267	2100
75°	11374	2162	1831
80°	10005	1899	1570
85°	7911	1654	1311

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 12801 cd/sqm



TEST NUMBER: P893323
 CATALOG NUMBER: 4MB-2SL-RFLW-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	3.9
10°-20°	267.4	11.4
20°-30°	399.0	17.0
30°-40°	483.6	20.6
40°-50°	495.2	21.1
50°-60°	329.3	14.0
60°-70°	187.7	8.0
70°-80°	78.9	3.4
80°-90°	18.8	0.8
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°	758.5	32.2
0°-40°	1242.1	52.8
0°-60°	2066.6	87.9
0°-90°	2352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2352.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	951	970	962	964	973	90
15°	924	950	964	961	949	261
25°	872	915	853	834	838	403
35°	795	810	749	752	760	498
45°	694	652	648	656	661	536
55°	564	516	525	115	88	504
65°	410	367	69	73	73	404
75°	227	48	43	38	36	241
85°	53	13	11	9	9	64
90°	0	0	0	0	0	



TEST NUMBER: P893323

CATALOG NUMBER: 4MB-2SL-RFLW-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	964.3	964.3	964.3	964.3	964.3
2.5°	952.2	972.1	962.1	963.2	966.5
5°	951.1	969.9	962.1	964.3	973.2
7.5°	946.6	966.5	962.1	968.8	978.7
10°	940.0	963.2	962.1	973.2	983.1
12.5°	933.4	956.6	962.1	978.7	987.6
15°	924.5	950.0	964.3	961.0	948.9
17.5°	913.5	943.3	958.8	911.3	910.1
20°	902.4	934.5	927.8	882.5	878.1
22.5°	888.0	925.6	882.5	851.5	857.1
25°	872.5	914.6	852.6	833.8	838.3
27.5°	856.0	903.5	820.6	813.9	819.5
30°	837.2	888.0	796.2	794.0	800.7
32.5°	817.3	858.2	773.0	774.1	781.9
35°	795.1	809.5	748.7	752.0	759.7
37.5°	773.0	764.2	725.5	731.0	738.7
40°	748.7	728.8	701.1	706.7	715.5
42.5°	722.1	691.2	674.6	682.3	690.1
45°	694.5	652.5	648.1	655.8	661.3
47.5°	665.7	619.3	620.4	625.9	468.9
50°	633.7	586.1	590.5	409.2	259.9
52.5°	599.4	551.8	560.7	227.8	131.6
55°	564.0	516.5	525.3	115.0	88.5
57.5°	526.4	481.1	342.8	82.9	87.4
60°	488.8	443.5	174.7	81.8	84.0
62.5°	450.1	405.9	82.9	78.5	79.6
65°	410.3	367.2	68.6	73.0	73.0
67.5°	366.1	326.2	65.2	65.2	64.1
70°	320.7	270.9	59.7	56.4	55.3
72.5°	278.7	104.0	52.0	46.4	45.3
75°	226.7	47.6	43.1	37.6	36.5
77.5°	180.3	39.8	34.3	29.9	28.8
80°	133.8	31.0	25.4	22.1	21.0
82.5°	92.9	21.0	17.7	14.4	14.4
85°	53.1	13.3	11.1	8.8	8.8
87.5°	21.0	6.6	5.5	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893323
 CATALOG NUMBER: 4MB-2SL-RFLW-UNV-L840

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	21.71	23.23	22.07	23.54	23.86	9.47	10.99	9.83	11.31	11.62
	3H	23.73	25.09	24.11	25.41	25.78	11.78	13.14	12.16	13.47	13.83
	4H	24.19	25.46	24.59	25.81	26.19	12.50	13.77	12.90	14.12	14.50
	6H	24.60	25.77	25.01	26.14	26.53	12.98	14.16	13.40	14.52	14.91
	8H	24.75	25.86	25.17	26.25	26.65	13.12	14.24	13.55	14.63	15.03
	12H	24.84	25.91	25.27	26.29	26.72	13.21	14.27	13.64	14.66	15.09
4H	2H	21.55	22.82	21.95	23.17	23.55	10.27	11.54	10.67	11.89	12.27
	3H	23.75	24.80	24.16	25.20	25.60	12.78	13.83	13.19	14.23	14.63
	4H	24.20	25.14	24.63	25.55	25.99	13.60	14.54	14.03	14.96	15.39
	6H	24.67	25.48	25.12	25.92	26.38	14.19	15.01	14.65	15.45	15.91
	8H	24.86	25.62	25.32	26.06	26.53	14.36	15.12	14.83	15.57	16.04
	12H	25.01	25.69	25.49	26.17	26.64	14.48	15.16	14.96	15.64	16.11
8H	4H	24.12	24.88	24.58	25.32	25.79	14.44	15.20	14.90	15.65	16.11
	6H	24.58	25.21	25.08	25.70	26.18	15.06	15.69	15.56	16.18	16.66
	8H	24.78	25.34	25.29	25.85	26.34	15.26	15.83	15.78	16.34	16.83
	12H	24.96	25.46	25.47	25.96	26.52	15.42	15.92	15.93	16.41	16.98
12H	4H	24.09	24.77	24.57	25.25	25.72	14.51	15.19	14.99	15.67	16.14
	6H	24.53	25.10	25.05	25.61	26.10	15.16	15.72	15.67	16.23	16.72
	8H	24.75	25.25	25.26	25.75	26.31	15.41	15.91	15.92	16.40	16.97