

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: P893328

Luminaire Tested: 4MB-2SL-RFLW-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893328
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-L950
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K
Light Source: -
Ballast/Driver: -

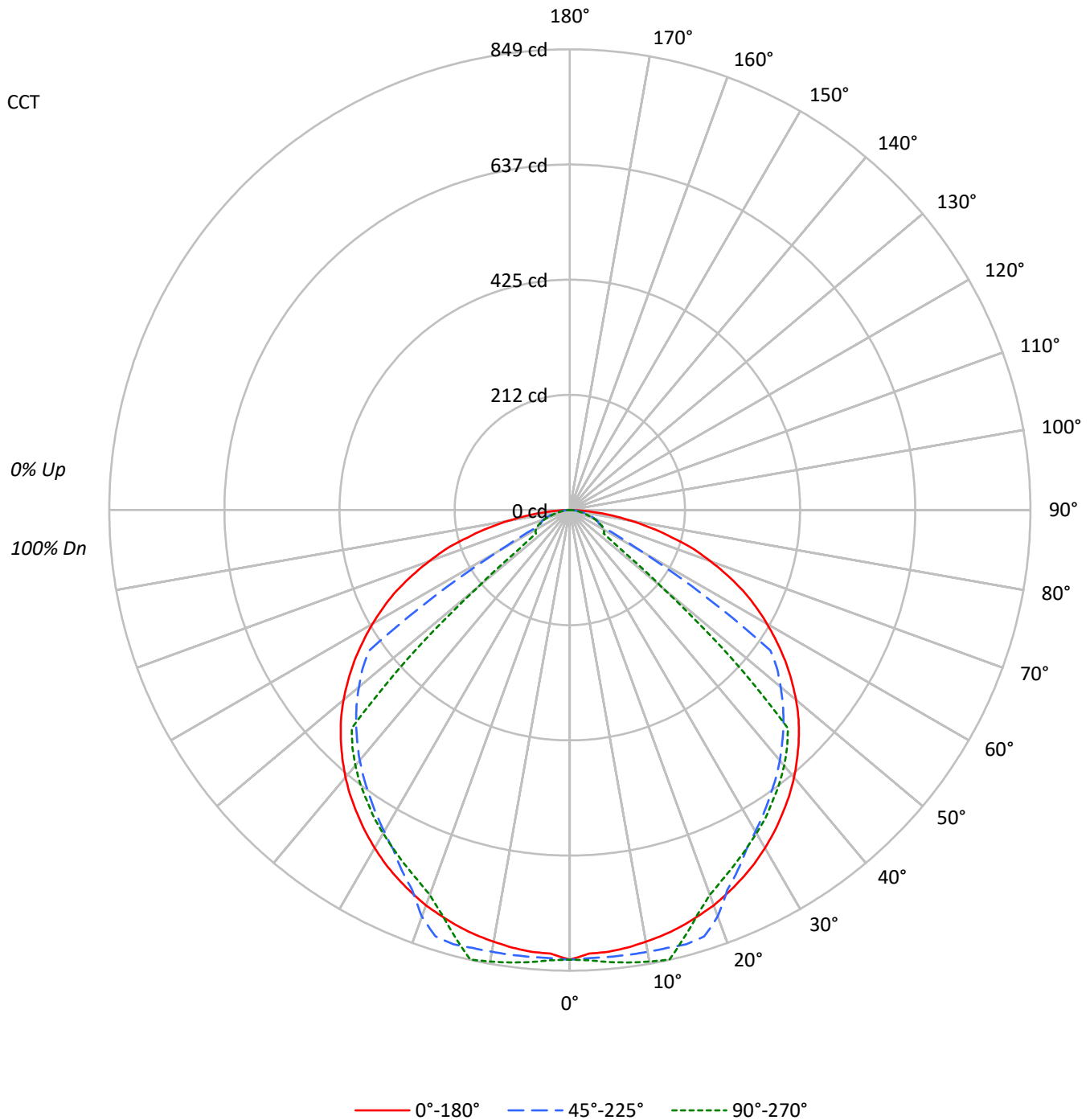
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2021.0 lumens
Efficiency: N/A
Efficacy: 146.5 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

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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	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°	10759	10759	10759
5°	10652	10776	10900
10°	10650	10900	11139
15°	10679	11139	10960
20°	10715	11017	10426
25°	10743	10496	10320
30°	10785	10259	10316
35°	10830	10197	10348
40°	10904	10213	10421
45°	10959	10227	10436
50°	11000	10250	4511
55°	10971	10219	1721
60°	10907	3898	1875
65°	10831	1810	1926
70°	10463	1948	1803
75°	9773	1861	1575
80°	8599	1638	1353
85°	6794	1415	1132

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 11000 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.9
10°-20°	229.8	11.4
20°-30°	342.8	17.0
30°-40°	415.6	20.6
40°-50°	425.5	21.1
50°-60°	283.0	14.0
60°-70°	161.3	8.0
70°-80°	67.8	3.4
80°-90°	16.2	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°	651.8	32.2
0°-40°	1067.3	52.8
0°-60°	1775.8	87.9
0°-90°	2021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	817	833	827	829	836	78
15°	794	816	829	826	815	224
25°	750	786	733	716	720	346
35°	683	696	643	646	653	428
45°	597	561	557	564	568	460
55°	485	444	451	99	76	433
65°	352	316	59	63	63	347
75°	195	41	37	32	31	207
85°	46	11	10	8	8	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.6	828.6	828.6	828.6	828.6
2.5°	818.2	835.3	826.7	827.7	830.5
5°	817.2	833.4	826.7	828.6	836.2
7.5°	813.4	830.5	826.7	832.4	841.0
10°	807.7	827.7	826.7	836.2	844.8
12.5°	802.0	822.0	826.7	841.0	848.6
15°	794.4	816.3	828.6	825.8	815.3
17.5°	784.9	810.6	823.9	783.0	782.1
20°	775.4	803.0	797.3	758.3	754.5
22.5°	763.1	795.4	758.3	731.7	736.5
25°	749.8	785.9	732.6	716.5	720.3
27.5°	735.5	776.4	705.1	699.4	704.1
30°	719.3	763.1	684.2	682.3	688.0
32.5°	702.2	737.4	664.2	665.2	671.8
35°	683.2	695.6	643.3	646.2	652.8
37.5°	664.2	656.6	623.4	628.1	634.8
40°	643.3	626.2	602.5	607.2	614.8
42.5°	620.5	593.9	579.7	586.3	593.0
45°	596.8	560.7	556.9	563.5	568.3
47.5°	572.1	532.1	533.1	537.8	402.9
50°	544.5	503.6	507.4	351.6	223.3
52.5°	515.0	474.2	481.8	195.8	113.1
55°	484.6	443.8	451.4	98.8	76.0
57.5°	452.3	413.4	294.6	71.3	75.1
60°	420.0	381.1	150.1	70.3	72.2
62.5°	386.8	348.7	71.3	67.5	68.4
65°	352.5	315.5	58.9	62.7	62.7
67.5°	314.5	280.3	56.1	56.1	55.1
70°	275.6	232.8	51.3	48.5	47.5
72.5°	239.5	89.3	44.7	39.9	39.0
75°	194.8	40.9	37.1	32.3	31.4
77.5°	154.9	34.2	29.5	25.7	24.7
80°	115.0	26.6	21.9	19.0	18.1
82.5°	79.8	18.1	15.2	12.4	12.4
85°	45.6	11.4	9.5	7.6	7.6
87.5°	18.1	5.7	4.8	2.9	2.9
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	21.18	22.70	21.55	23.02	23.33	8.95	10.47	9.31	10.78	11.10
	3H	23.20	24.56	23.58	24.89	25.25	11.26	12.62	11.64	12.95	13.31
	4H	23.66	24.93	24.06	25.28	25.66	11.98	13.25	12.38	13.60	13.98
	6H	24.07	25.24	24.48	25.61	26.00	12.46	13.63	12.87	14.00	14.39
	8H	24.22	25.33	24.65	25.72	26.13	12.60	13.71	13.03	14.10	14.51
	12H	24.32	25.38	24.75	25.77	26.20	12.69	13.75	13.12	14.14	14.56
4H	2H	21.02	22.29	21.42	22.64	23.02	9.75	11.02	10.15	11.37	11.74
	3H	23.22	24.27	23.64	24.67	25.07	12.26	13.30	12.67	13.70	14.10
	4H	23.67	24.61	24.11	25.03	25.47	13.08	14.02	13.51	14.43	14.87
	6H	24.14	24.95	24.60	25.40	25.86	13.67	14.48	14.13	14.93	15.39
	8H	24.33	25.09	24.79	25.54	26.00	13.84	14.60	14.30	15.05	15.51
	12H	24.48	25.16	24.96	25.64	26.11	13.96	14.64	14.44	15.12	15.59
8H	4H	23.59	24.35	24.06	24.80	25.26	13.92	14.68	14.38	15.12	15.59
	6H	24.05	24.68	24.55	25.17	25.65	14.54	15.17	15.04	15.66	16.14
	8H	24.25	24.82	24.76	25.33	25.81	14.74	15.31	15.26	15.82	16.31
	12H	24.43	24.94	24.94	25.43	25.99	14.90	15.40	15.41	15.89	16.46
12H	4H	23.56	24.24	24.04	24.72	25.19	13.99	14.67	14.47	15.14	15.62
	6H	24.00	24.57	24.52	25.08	25.57	14.63	15.20	15.15	15.71	16.20
	8H	24.23	24.73	24.74	25.22	25.79	14.89	15.39	15.40	15.88	16.45