

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: P893313

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893313
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-L830
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3000K C
Light Source: -
Ballast/Driver: -

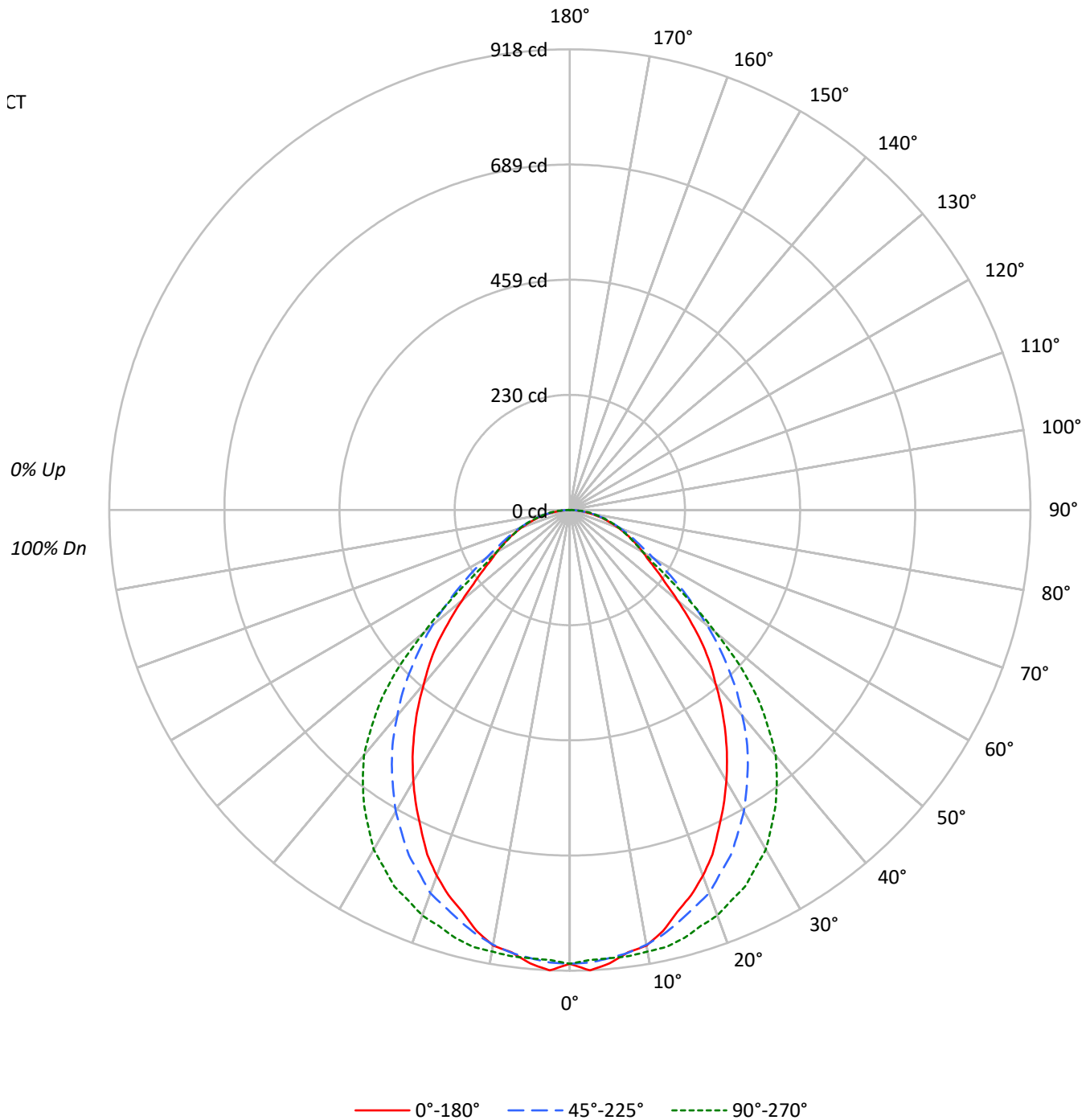
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1879.0 lumens
Efficiency: N/A
Efficacy: 136.2 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 (Ain): 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°	6433	6433	6433
5°	6477	6404	6404
10°	6366	6355	6454
15°	6102	6244	6500
20°	5870	6151	6511
25°	5507	5961	6496
30°	5126	5698	6420
35°	4692	5374	6216
40°	4201	4969	5930
45°	3728	4499	5332
50°	3102	3960	4205
55°	2642	3336	3056
60°	2395	2756	2415
65°	2256	2414	2248
70°	2122	2240	2191
75°	1977	2133	2095
80°	1811	1967	2024
85°	1576	1731	2261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	4.6
10°-20°	240.9	12.8
20°-30°	349.8	18.6
30°-40°	389.5	20.7
40°-50°	344.1	18.3
50°-60°	225.8	12.0
60°-70°	138.3	7.4
70°-80°	80.5	4.3
80°-90°	24.6	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°	676.2	36.0
0°-40°	1065.7	56.7
0°-60°	1635.6	87.0
0°-90°	1879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	907	907	897	906	897	86
15°	828	838	848	881	882	234
25°	702	718	759	808	828	323
35°	540	569	619	684	716	337
45°	370	393	447	507	530	283
55°	213	228	269	267	246	193
65°	134	136	143	139	134	133
75°	72	73	78	79	76	76
85°	19	20	21	24	28	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.1	904.1	904.1	904.1	904.1
2.5°	918.2	906.9	902.7	906.9	897.5
5°	906.9	907.4	896.6	905.5	896.6
7.5°	889.0	895.2	890.0	903.6	896.6
10°	881.1	881.5	879.6	893.7	893.3
12.5°	859.0	860.4	865.5	886.7	891.4
15°	828.4	837.8	847.7	881.1	882.5
17.5°	804.4	815.7	828.9	864.6	868.8
20°	775.3	780.0	812.4	843.9	859.9
22.5°	742.8	751.8	783.3	825.6	841.6
25°	701.5	718.4	759.3	807.7	827.5
27.5°	663.4	683.1	725.4	779.5	802.5
30°	623.9	646.4	693.5	746.6	781.4
32.5°	583.0	611.2	655.9	717.0	747.5
35°	540.2	569.3	618.7	684.1	715.6
37.5°	497.4	525.6	579.2	649.3	677.5
40°	452.3	480.0	535.0	606.0	638.5
42.5°	413.3	437.2	493.7	554.3	584.4
45°	370.5	393.0	447.1	507.3	529.9
47.5°	323.5	349.8	402.4	451.8	460.7
50°	280.2	307.5	357.8	386.5	379.9
52.5°	242.1	265.2	311.2	323.5	307.9
55°	213.0	228.0	268.9	266.6	246.4
57.5°	186.2	195.6	230.4	217.2	197.9
60°	168.3	172.5	193.7	181.5	169.7
62.5°	151.4	153.3	164.6	158.0	149.0
65°	134.0	136.3	143.4	139.2	133.5
67.5°	118.0	118.9	125.5	124.6	117.5
70°	102.0	103.4	107.7	109.5	105.3
72.5°	86.5	87.9	92.1	94.0	90.3
75°	71.9	72.9	77.6	79.0	76.2
77.5°	57.8	59.7	62.5	64.9	61.6
80°	44.2	45.1	48.0	50.8	49.4
82.5°	31.0	32.4	34.3	38.1	39.0
85°	19.3	20.2	21.2	24.0	27.7
87.5°	7.5	8.0	9.4	10.3	13.6
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	14.00	15.48	14.36	15.79	16.11	14.65	16.13	15.01	16.44	16.76
	3H	15.60	16.92	15.98	17.25	17.61	16.08	17.41	16.46	17.74	18.10
	4H	16.21	17.46	16.61	17.81	18.18	16.69	17.93	17.09	18.28	18.66
	6H	16.68	17.83	17.10	18.20	18.59	17.18	18.32	17.59	18.69	19.08
	8H	16.84	17.93	17.26	18.32	18.72	17.37	18.46	17.80	18.85	19.26
	12H	16.94	17.98	17.37	18.36	18.79	17.54	18.59	17.97	18.97	19.40
4H	2H	14.62	15.86	15.02	16.21	16.59	15.14	16.38	15.54	16.73	17.11
	3H	16.44	17.47	16.85	17.87	18.27	16.84	17.87	17.25	18.27	18.67
	4H	17.18	18.10	17.61	18.52	18.96	17.59	18.52	18.03	18.93	19.37
	6H	17.77	18.58	18.23	19.02	19.48	18.23	19.03	18.69	19.48	19.94
	8H	17.97	18.72	18.44	19.17	19.64	18.48	19.24	18.95	19.68	20.15
	12H	18.11	18.79	18.60	19.26	19.74	18.71	19.38	19.19	19.86	20.33
8H	4H	17.50	18.25	17.96	18.69	19.16	17.86	18.62	18.33	19.06	19.53
	6H	18.22	18.84	18.72	19.33	19.81	18.64	19.26	19.14	19.75	20.23
	8H	18.49	19.05	19.01	19.56	20.05	18.98	19.54	19.50	20.05	20.54
	12H	18.71	19.21	19.22	19.70	20.26	19.30	19.80	19.81	20.29	20.86
12H	4H	17.53	18.20	18.01	18.68	19.15	17.88	18.55	18.37	19.03	19.51
	6H	18.28	18.84	18.80	19.36	19.84	18.68	19.25	19.20	19.76	20.24
	8H	18.62	19.11	19.13	19.61	20.17	19.09	19.59	19.60	20.08	20.64