

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: P893651

Luminaire Tested: 4MB-5SL-LVRF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893651
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-5SL-LVRF-UNV-L840
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C
Light Source: -
Ballast/Driver: -

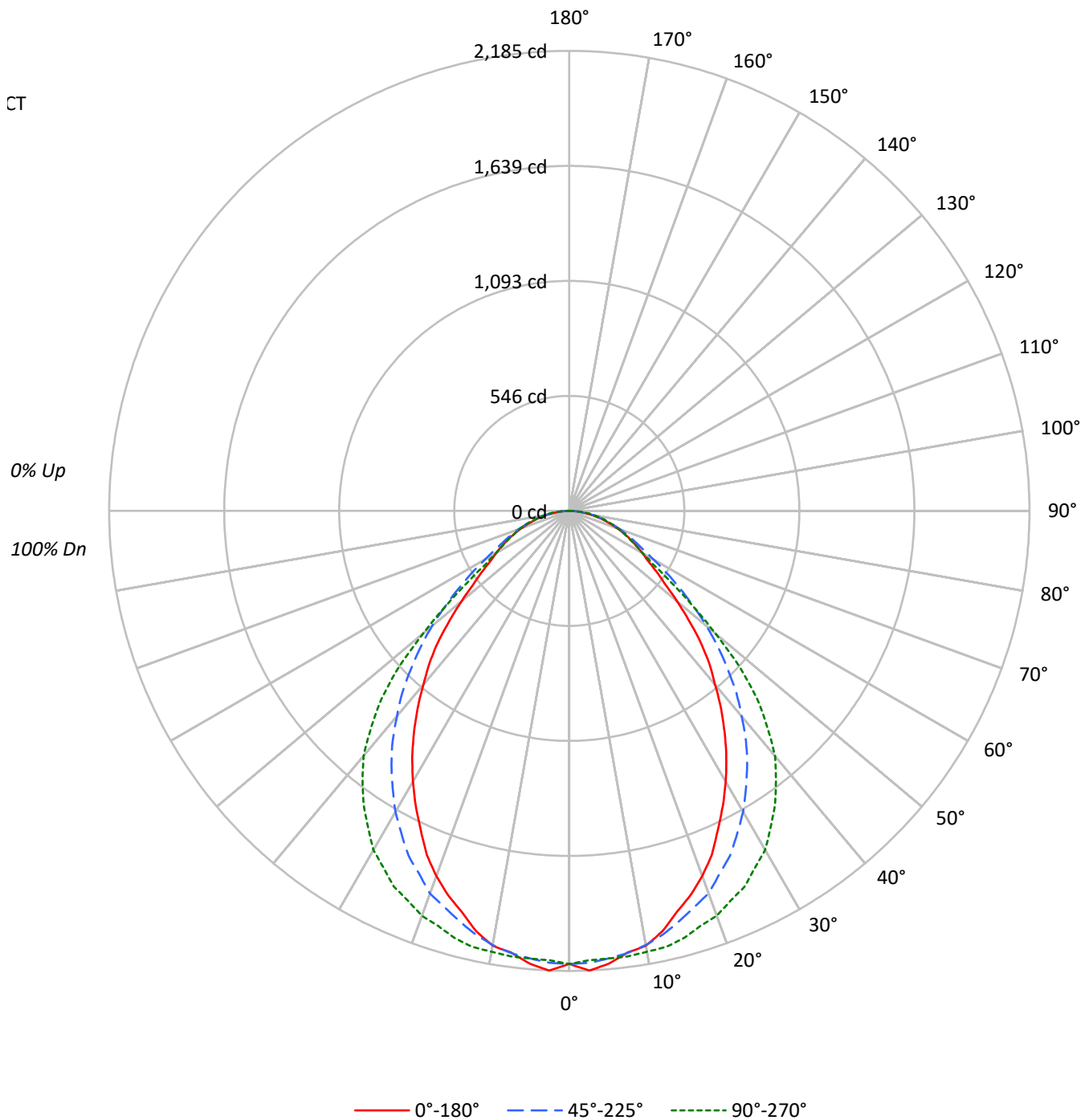
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4472.0 lumens
Efficiency: N/A
Efficacy: 127.8 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): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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°	15309	15309	15309
5°	15416	15240	15240
10°	15150	15125	15360
15°	14523	14860	15471
20°	13970	14640	15495
25°	13106	14187	15460
30°	12199	13559	15279
35°	11167	12790	14792
40°	9998	11827	14113
45°	8872	10707	12688
50°	7382	9425	10007
55°	6288	7939	7273
60°	5701	6560	5747
65°	5369	5746	5350
70°	5051	5330	5213
75°	4706	5075	4984
80°	4310	4675	4814
85°	3747	4114	5388

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12688 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.7	4.6
10°-20°	573.2	12.8
20°-30°	832.5	18.6
30°-40°	927.0	20.7
40°-50°	819.0	18.3
50°-60°	537.4	12.0
60°-70°	329.1	7.4
70°-80°	191.5	4.3
80°-90°	58.7	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°	1609.4	36.0
0°-40°	2536.4	56.7
0°-60°	3892.8	87.0
0°-90°	4472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2152	2152	2152	2152	2152	
5°	2158	2160	2134	2155	2134	204
15°	1972	1994	2017	2097	2100	556
25°	1670	1710	1807	1922	1969	768
35°	1286	1355	1472	1628	1703	802
45°	882	935	1064	1207	1261	675
55°	507	543	640	634	586	460
65°	319	324	341	331	318	317
75°	171	173	185	188	181	182
85°	46	48	50	57	66	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2151.7	2151.7	2151.7	2151.7	2151.7
2.5°	2185.3	2158.4	2148.4	2158.4	2136.1
5°	2158.4	2159.6	2133.8	2155.1	2133.8
7.5°	2115.9	2130.5	2118.2	2150.6	2133.8
10°	2096.9	2098.0	2093.5	2127.1	2126.0
12.5°	2044.3	2047.7	2060.0	2110.3	2121.5
15°	1971.6	1994.0	2017.4	2096.9	2100.3
17.5°	1914.5	1941.4	1972.7	2057.7	2067.8
20°	1845.1	1856.3	1933.5	2008.5	2046.5
22.5°	1767.9	1789.2	1864.2	1964.9	2002.9
25°	1669.5	1709.7	1807.1	1922.3	1969.3
27.5°	1578.8	1625.8	1726.5	1855.2	1910.0
30°	1484.8	1538.5	1650.4	1776.9	1859.7
32.5°	1387.5	1454.6	1560.9	1706.4	1779.1
35°	1285.7	1355.0	1472.5	1628.1	1703.0
37.5°	1183.8	1251.0	1378.5	1545.3	1612.4
40°	1076.4	1142.4	1273.4	1442.3	1519.5
42.5°	983.5	1040.6	1174.9	1319.2	1390.8
45°	881.7	935.4	1064.1	1207.3	1261.0
47.5°	769.8	832.5	957.8	1075.3	1096.6
50°	666.9	731.8	851.5	919.8	904.1
52.5°	576.3	631.1	740.7	769.8	732.9
55°	506.9	542.7	640.0	634.4	586.3
57.5°	443.1	465.5	548.3	517.0	471.1
60°	400.6	410.7	461.0	431.9	403.9
62.5°	360.3	364.8	391.6	376.0	354.7
65°	318.9	324.5	341.3	331.2	317.8
67.5°	280.9	283.1	298.8	296.5	279.7
70°	242.8	246.2	256.2	260.7	250.6
72.5°	205.9	209.2	219.3	223.8	214.8
75°	171.2	173.4	184.6	188.0	181.3
77.5°	137.6	142.1	148.8	154.4	146.6
80°	105.2	107.4	114.1	120.8	117.5
82.5°	73.9	77.2	81.7	90.6	92.9
85°	45.9	48.1	50.4	57.1	66.0
87.5°	17.9	19.0	22.4	24.6	32.4
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	17.01	18.49	17.37	18.80	19.12	17.66	19.14	18.03	19.46	19.77
	3H	18.61	19.94	18.99	20.26	20.63	19.10	20.42	19.48	20.75	21.11
	4H	19.23	20.47	19.63	20.82	21.20	19.70	20.94	20.10	21.29	21.67
	6H	19.70	20.84	20.11	21.21	21.60	20.19	21.34	20.60	21.70	22.10
	8H	19.85	20.94	20.28	21.33	21.73	20.39	21.48	20.81	21.87	22.27
	12H	19.95	20.99	20.38	21.38	21.81	20.55	21.60	20.98	21.98	22.41
4H	2H	17.63	18.87	18.03	19.22	19.60	18.16	19.40	18.56	19.75	20.13
	3H	19.45	20.48	19.86	20.88	21.28	19.85	20.88	20.26	21.28	21.68
	4H	20.19	21.12	20.62	21.53	21.97	20.61	21.53	21.04	21.95	22.39
	6H	20.79	21.59	21.25	22.04	22.50	21.24	22.05	21.70	22.49	22.95
	8H	20.98	21.74	21.45	22.18	22.65	21.50	22.25	21.96	22.69	23.16
	12H	21.13	21.80	21.61	22.28	22.75	21.72	22.39	22.20	22.87	23.34
8H	4H	20.51	21.26	20.97	21.71	22.17	20.88	21.63	21.34	22.07	22.54
	6H	21.23	21.86	21.73	22.35	22.83	21.65	22.27	22.15	22.77	23.24
	8H	21.51	22.07	22.02	22.58	23.06	22.00	22.56	22.51	23.07	23.55
	12H	21.72	22.22	22.23	22.71	23.28	22.31	22.81	22.82	23.30	23.87
12H	4H	20.54	21.22	21.03	21.69	22.17	20.90	21.57	21.38	22.05	22.52
	6H	21.30	21.86	21.81	22.37	22.86	21.70	22.26	22.21	22.77	23.26
	8H	21.63	22.13	22.14	22.62	23.18	22.10	22.60	22.61	23.09	23.66