

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: P893929

Luminaire Tested: 4MB-8HL-FLTU-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893929
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-FLTU-UNV-L830
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 300
Light Source: -
Ballast/Driver: -

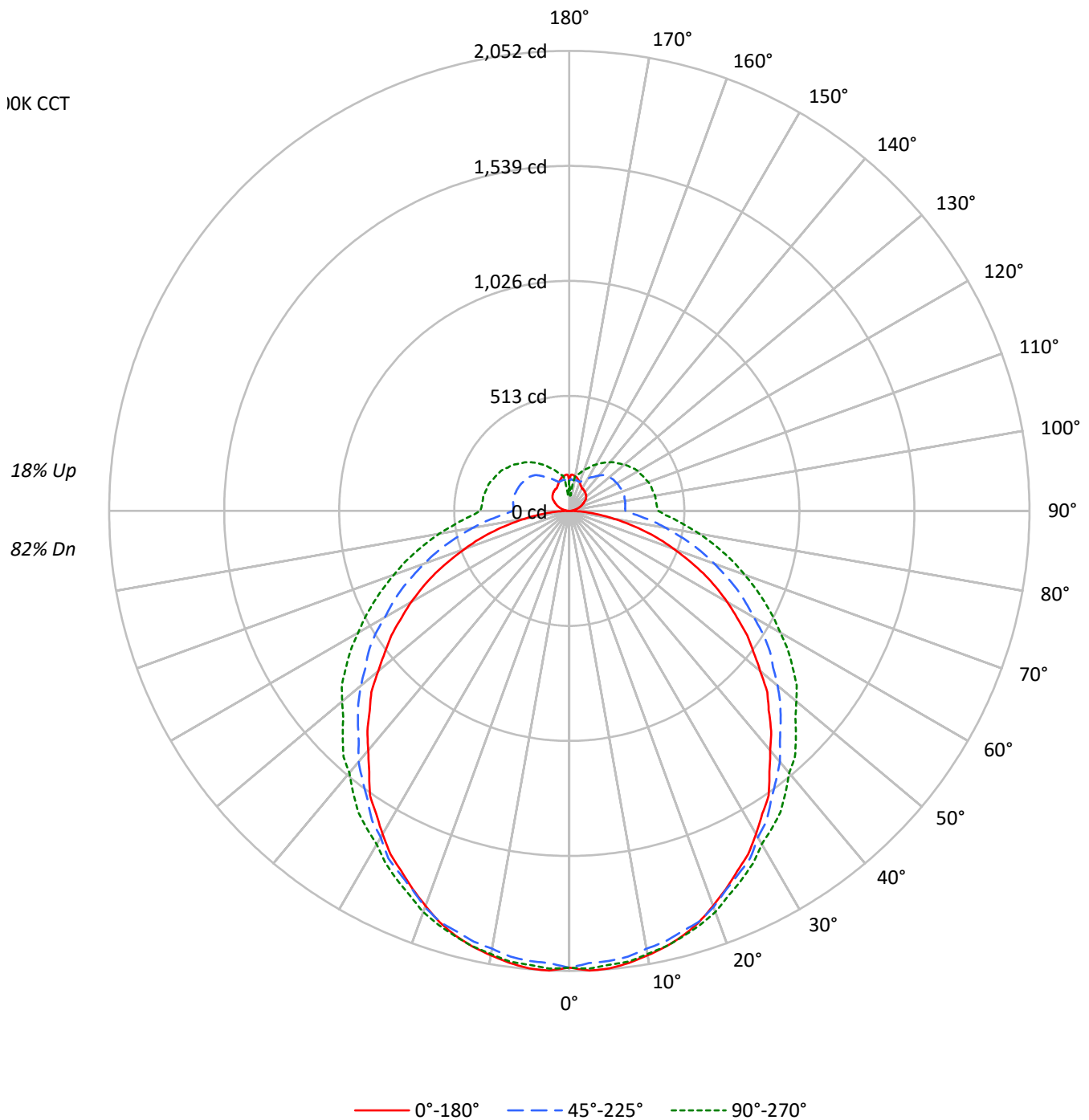
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7659.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	69	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14495	14495	14495
5°	14568	13880	13855
10°	14413	13330	13222
15°	14248	12844	12619
20°	13931	12332	12020
25°	13588	11705	11358
30°	13277	11093	10715
35°	12988	10510	10301
40°	12404	10008	9704
45°	12026	9412	9288
50°	11583	8912	8850
55°	11182	8435	8459
60°	10620	7785	7935
65°	9978	7260	7440
70°	9017	6612	6902
75°	7991	5965	6391
80°	6328	5259	5874
85°	4367	4576	5390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12026 cd/sqm



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 CATALOG NUMBER: 4MB-8HL-FLTU-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.0	2.5
10°-20°	551.1	7.2
20°-30°	827.8	10.8
30°-40°	992.1	13.0
40°-50°	1040.1	13.6
50°-60°	975.7	12.7
60°-70°	810.4	10.6
70°-80°	579.5	7.6
80°-90°	343.7	4.5
90°-100°	252.1	3.3
100°-110°	248.4	3.2
110°-120°	231.7	3.0
120°-130°	203.3	2.7
130°-140°	163.7	2.1
140°-150°	117.5	1.5
150°-160°	74.7	1.0
160°-170°	41.4	0.5
170°-180°	13.0	0.2
0°-30°	1571.8	20.5
0°-40°	2563.9	33.5
0°-60°	4579.7	59.8
0°-90°	6313.2	82.4
90°-120°	732.2	9.6
90°-150°	1216.7	15.9
90°-180°	1346.0	17.6
0°-180°	7659.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2037	2037	2037	2037	2037	
5°	2049	2045	2016	2025	2033	194
15°	1962	1950	1942	1956	1965	552
25°	1773	1789	1786	1807	1816	818
35°	1550	1556	1570	1615	1641	962
45°	1258	1294	1332	1420	1429	973
55°	969	1000	1092	1181	1216	862
65°	659	709	824	934	961	650
75°	348	428	561	676	708	367
85°	86	187	328	438	480	94
90°	3	114	250	357	396	7
95°	10	119	250	353	390	10
105°	35	131	254	349	381	37
115°	63	142	249	331	364	62
125°	90	146	241	307	336	79
135°	104	141	224	278	301	81
145°	113	130	184	245	262	71
155°	123	130	150	189	214	57
165°	147	143	139	138	172	41
175°	162	156	140	116	70	15
180°	134	134	134	134	134	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2037.2	2037.2	2037.2	2037.2	2037.2
2.5°	2052.4	2036.1	2018.8	2044.8	2043.7
5°	2049.1	2044.8	2015.6	2025.3	2032.9
7.5°	2034.0	2023.2	2005.8	2029.6	2027.5
10°	2013.4	2000.4	1983.1	1997.2	2006.9
12.5°	1990.7	1979.9	1967.9	1983.1	1989.6
15°	1961.5	1949.5	1942.0	1956.0	1964.7
17.5°	1923.6	1920.3	1921.4	1922.5	1936.6
20°	1874.9	1877.0	1880.3	1899.8	1904.1
22.5°	1825.1	1837.0	1828.3	1858.6	1856.5
25°	1773.1	1789.3	1786.1	1806.7	1816.4
27.5°	1726.6	1727.6	1747.1	1776.3	1773.1
30°	1664.9	1683.3	1681.1	1716.8	1716.8
32.5°	1602.1	1629.1	1637.8	1669.2	1680.0
35°	1550.1	1555.5	1569.6	1615.1	1641.0
37.5°	1465.7	1491.7	1514.4	1573.9	1583.7
40°	1394.2	1420.2	1461.3	1530.6	1525.2
42.5°	1332.5	1359.6	1389.9	1470.0	1489.5
45°	1257.8	1293.6	1332.5	1420.2	1428.9
47.5°	1197.2	1225.4	1276.2	1356.3	1367.2
50°	1111.7	1157.2	1212.4	1305.5	1321.7
52.5°	1035.9	1074.9	1145.3	1241.6	1278.4
55°	968.8	1000.2	1092.2	1181.0	1215.6
57.5°	886.6	929.8	1026.2	1124.7	1156.1
60°	814.0	856.2	949.3	1061.9	1086.8
62.5°	737.2	787.0	887.6	997.0	1025.1
65°	659.2	709.0	823.8	934.2	961.2
67.5°	574.8	636.5	753.4	868.1	896.3
70°	495.8	562.9	688.5	803.2	831.3
72.5°	424.3	496.9	624.6	742.6	772.9
75°	347.5	427.6	560.7	676.5	707.9
77.5°	272.8	359.4	494.7	611.6	648.4
80°	200.3	295.5	437.3	549.9	588.9
82.5°	140.7	238.1	384.3	494.7	530.4
85°	85.5	187.3	328.0	438.4	479.5
87.5°	37.9	145.1	283.6	392.9	429.7
90°	3.2	113.7	250.1	357.2	396.2
92.5°	6.5	115.8	249.0	352.9	391.9
95°	9.7	119.1	250.1	352.9	389.7
97.5°	14.1	123.4	252.2	352.9	388.6
100°	20.6	125.6	253.3	352.9	388.6
102.5°	27.1	128.8	252.2	347.5	384.3
105°	34.6	131.0	254.4	348.6	381.0
107.5°	42.2	133.1	254.4	343.1	380.0
110°	49.8	136.4	252.2	339.9	375.6



TEST NUMBER: P893929

CATALOG NUMBER: 4MB-8HL-FLTU-UNV-L830

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	56.3	139.6	251.1	333.4	368.0
115°	62.8	141.8	249.0	331.2	363.7
117.5°	69.3	142.9	247.9	325.8	357.2
120°	74.7	145.1	245.7	319.3	354.0
122.5°	81.2	146.1	242.5	312.8	347.5
125°	89.8	146.1	241.4	307.4	335.6
127.5°	94.2	147.2	237.1	300.9	330.2
130°	98.5	144.0	234.9	293.4	321.5
132.5°	101.8	142.9	229.5	285.8	310.7
135°	103.9	140.7	224.1	278.2	300.9
137.5°	107.2	137.5	216.5	272.8	294.4
140°	109.3	135.3	205.7	262.0	283.6
142.5°	111.5	132.1	194.8	252.2	272.8
145°	112.6	129.9	184.0	244.6	262.0
147.5°	115.8	126.7	177.5	234.9	250.1
150°	114.7	124.5	167.8	223.0	238.1
152.5°	118.0	127.7	159.1	206.8	228.4
155°	123.4	129.9	150.5	189.4	214.3
157.5°	128.8	134.2	144.0	174.3	203.5
160°	136.4	136.4	136.4	162.4	194.8
162.5°	140.7	140.7	137.5	148.3	182.9
165°	147.2	142.9	138.6	137.5	172.1
167.5°	153.7	145.1	140.7	133.1	164.5
170°	154.8	148.3	139.6	125.6	159.1
172.5°	159.1	151.5	138.6	119.1	123.4
175°	162.4	155.9	139.6	115.8	70.4
177.5°	161.3	155.9	142.9	115.8	68.2
180°	134.2	134.2	134.2	134.2	134.2



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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	18.34	17.62	18.97	19.68	19.53	20.85	20.14	21.48	22.19
	3H	18.45	19.65	19.07	20.29	21.04	21.89	23.10	22.52	23.73	24.48
	4H	18.91	20.05	19.56	20.70	21.47	23.01	24.15	23.65	24.80	25.56
	6H	19.18	20.24	19.84	20.90	21.68	24.12	25.18	24.78	25.84	26.62
	8H	19.23	20.25	19.90	20.93	21.71	24.67	25.69	25.34	26.37	27.15
	12H	19.25	20.22	19.92	20.89	21.71	25.25	26.22	25.93	26.90	27.71
4H	2H	17.89	19.03	18.53	19.68	20.44	19.87	21.01	20.52	21.66	22.43
	3H	19.54	20.51	20.20	21.20	21.98	22.45	23.42	23.11	24.11	24.89
	4H	20.12	21.01	20.80	21.70	22.51	23.73	24.62	24.40	25.31	26.12
	6H	20.50	21.28	21.19	22.00	22.82	25.01	25.80	25.71	26.51	27.33
	8H	20.59	21.32	21.29	22.04	22.87	25.66	26.39	26.36	27.11	27.94
	12H	20.63	21.30	21.35	22.04	22.88	26.35	27.02	27.07	27.75	28.59
8H	4H	20.75	21.48	21.45	22.20	23.03	23.88	24.61	24.58	25.33	26.16
	6H	21.28	21.90	22.01	22.66	23.49	25.31	25.93	26.04	26.69	27.53
	8H	21.45	22.01	22.19	22.77	23.62	26.08	26.64	26.82	27.40	28.25
	12H	21.56	22.05	22.30	22.80	23.71	26.93	27.43	27.68	28.18	29.09
12H	4H	20.90	21.57	21.63	22.31	23.15	23.87	24.54	24.59	25.28	26.12
	6H	21.53	22.09	22.27	22.84	23.70	25.33	25.89	26.07	26.65	27.50
	8H	21.77	22.27	22.52	23.02	23.93	26.15	26.65	26.90	27.40	28.31