

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: P893932

Luminaire Tested: 4MB-8HL-FLTU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893932
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-L850
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 500
Light Source: -
Ballast/Driver: -

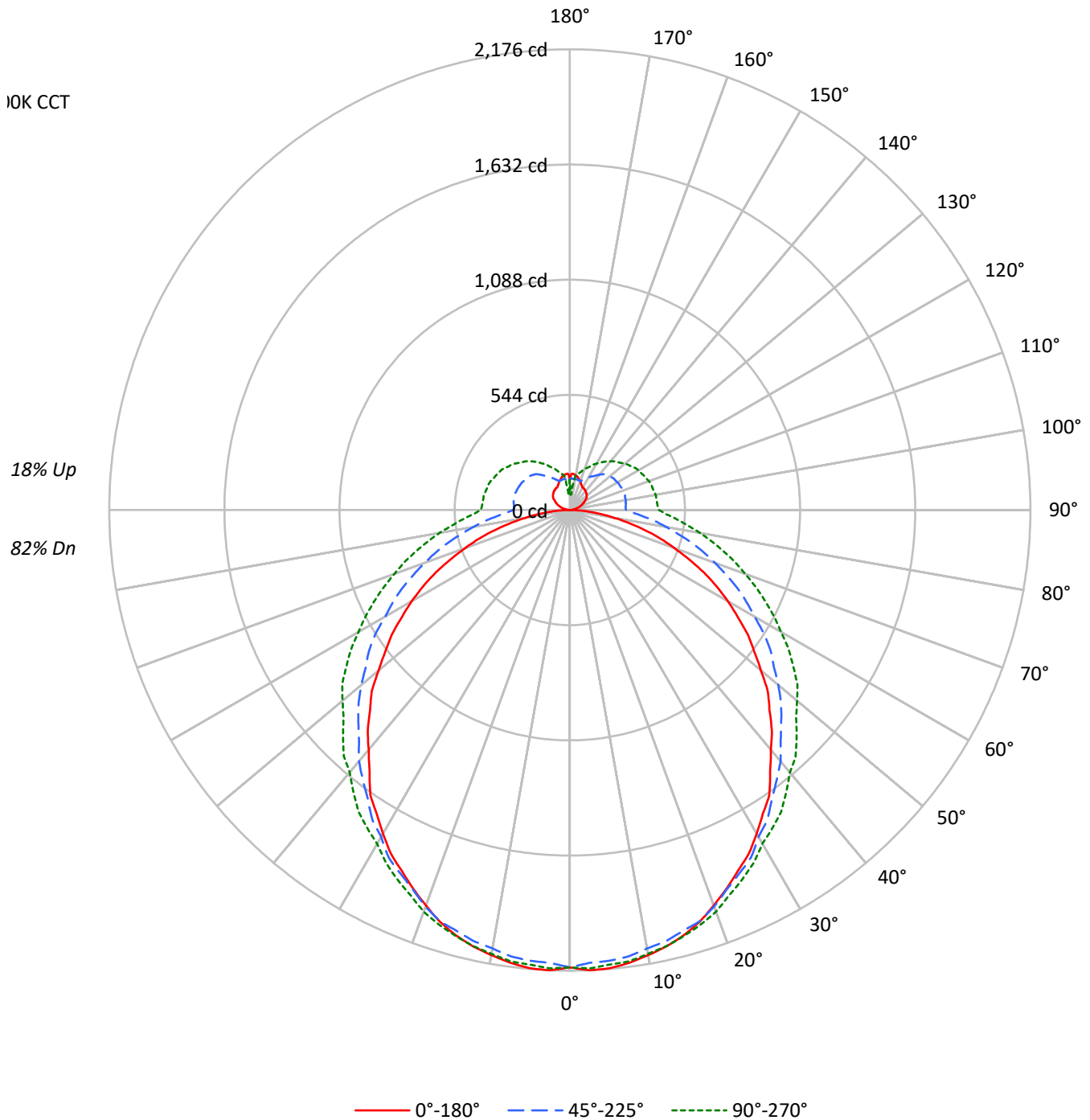
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8121.0 lumens
Efficiency: N/A
Efficacy: 140.3 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°	15369	15369	15369
5°	15447	14718	14691
10°	15283	14134	14020
15°	15108	13618	13380
20°	14770	13075	12745
25°	14408	12411	12043
30°	14078	11762	11362
35°	13771	11144	10923
40°	13153	10612	10290
45°	12752	9980	9849
50°	12282	9449	9384
55°	11857	8944	8970
60°	11261	8255	8414
65°	10580	7698	7889
70°	9561	7010	7319
75°	8472	6324	6777
80°	6707	5576	6229
85°	4632	4852	5716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12752 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	2.5
10°-20°	584.3	7.2
20°-30°	877.7	10.8
30°-40°	1051.9	13.0
40°-50°	1102.9	13.6
50°-60°	1034.6	12.7
60°-70°	859.3	10.6
70°-80°	614.4	7.6
80°-90°	364.4	4.5
90°-100°	267.3	3.3
100°-110°	263.3	3.2
110°-120°	245.7	3.0
120°-130°	215.6	2.7
130°-140°	173.6	2.1
140°-150°	124.6	1.5
150°-160°	79.2	1.0
160°-170°	43.9	0.5
170°-180°	13.8	0.2
0°-30°	1666.6	20.5
0°-40°	2718.5	33.5
0°-60°	4855.9	59.8
0°-90°	6694.0	82.4
90°-120°	776.3	9.6
90°-150°	1290.1	15.9
90°-180°	1427.0	17.6
0°-180°	8121.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2160	2160	2160	2160	2160	
5°	2173	2168	2137	2148	2156	206
15°	2080	2067	2059	2074	2083	586
25°	1880	1897	1894	1916	1926	868
35°	1644	1649	1664	1712	1740	1020
45°	1334	1372	1413	1506	1515	1032
55°	1027	1060	1158	1252	1289	914
65°	699	752	874	990	1019	689
75°	368	453	594	717	751	389
85°	91	199	348	465	508	100
90°	3	120	265	379	420	7
95°	10	126	265	374	413	11
105°	37	139	270	370	404	39
115°	67	150	264	351	386	66
125°	95	155	256	326	356	83
135°	110	149	238	295	319	85
145°	119	138	195	259	278	75
155°	131	138	160	201	227	61
165°	156	152	147	146	182	44
175°	172	165	148	123	75	16
180°	142	142	142	142	142	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2160.1	2160.1	2160.1	2160.1	2160.1
2.5°	2176.2	2159.0	2140.6	2168.1	2167.0
5°	2172.7	2168.1	2137.2	2147.5	2155.5
7.5°	2156.7	2145.2	2126.8	2152.1	2149.8
10°	2134.9	2121.1	2102.7	2117.6	2128.0
12.5°	2110.8	2099.3	2086.7	2102.7	2109.6
15°	2079.8	2067.1	2059.1	2074.0	2083.2
17.5°	2039.6	2036.2	2037.3	2038.5	2053.4
20°	1987.9	1990.2	1993.7	2014.3	2018.9
22.5°	1935.2	1947.8	1938.6	1970.7	1968.4
25°	1880.1	1897.3	1893.8	1915.6	1926.0
27.5°	1830.7	1831.9	1852.5	1883.5	1880.1
30°	1765.3	1784.8	1782.5	1820.4	1820.4
32.5°	1698.7	1727.4	1736.6	1769.9	1781.3
35°	1643.6	1649.4	1664.3	1712.5	1740.0
37.5°	1554.1	1581.6	1605.7	1668.9	1679.2
40°	1478.3	1505.9	1549.5	1623.0	1617.2
42.5°	1412.9	1441.6	1473.7	1558.7	1579.3
45°	1333.7	1371.6	1412.9	1505.9	1515.1
47.5°	1269.4	1299.3	1353.2	1438.2	1449.6
50°	1178.8	1227.0	1285.5	1384.2	1401.4
52.5°	1098.4	1139.7	1214.3	1316.5	1355.5
55°	1027.3	1060.5	1158.1	1252.2	1289.0
57.5°	940.0	985.9	1088.1	1192.5	1225.8
60°	863.1	907.9	1006.6	1126.0	1152.4
62.5°	781.6	834.4	941.2	1057.1	1086.9
65°	699.0	751.8	873.5	990.5	1019.2
67.5°	609.5	674.9	798.9	920.5	950.4
70°	525.7	596.8	730.0	851.6	881.5
72.5°	449.9	526.8	662.3	787.4	819.5
75°	368.4	453.4	594.5	717.4	750.6
77.5°	289.2	381.1	524.5	648.5	687.5
80°	212.3	313.3	463.7	583.1	624.4
82.5°	149.2	252.5	407.5	524.5	562.4
85°	90.7	198.6	347.8	464.8	508.5
87.5°	40.2	153.8	300.7	416.6	455.7
90°	3.4	120.5	265.1	378.8	420.1
92.5°	6.9	122.8	264.0	374.2	415.5
95°	10.3	126.3	265.1	374.2	413.2
97.5°	14.9	130.8	267.4	374.2	412.1
100°	21.8	133.1	268.6	374.2	412.1
102.5°	28.7	136.6	267.4	368.4	407.5
105°	36.7	138.9	269.7	369.6	404.0
107.5°	44.8	141.2	269.7	363.8	402.9
110°	52.8	144.6	267.4	360.4	398.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	59.7	148.1	266.3	353.5	390.2
115°	66.6	150.4	264.0	351.2	385.7
117.5°	73.5	151.5	262.8	345.5	378.8
120°	79.2	153.8	260.5	338.6	375.3
122.5°	86.1	154.9	257.1	331.7	368.4
125°	95.3	154.9	256.0	326.0	355.8
127.5°	99.9	156.1	251.4	319.1	350.1
130°	104.4	152.7	249.1	311.0	340.9
132.5°	107.9	151.5	243.3	303.0	329.4
135°	110.2	149.2	237.6	295.0	319.1
137.5°	113.6	145.8	229.6	289.2	312.2
140°	115.9	143.5	218.1	277.8	300.7
142.5°	118.2	140.0	206.6	267.4	289.2
145°	119.4	137.7	195.1	259.4	277.8
147.5°	122.8	134.3	188.2	249.1	265.1
150°	121.7	132.0	177.9	236.4	252.5
152.5°	125.1	135.4	168.7	219.2	242.2
155°	130.8	137.7	159.5	200.9	227.3
157.5°	136.6	142.3	152.7	184.8	215.8
160°	144.6	144.6	144.6	172.2	206.6
162.5°	149.2	149.2	145.8	157.2	194.0
165°	156.1	151.5	146.9	145.8	182.5
167.5°	163.0	153.8	149.2	141.2	174.5
170°	164.1	157.2	148.1	133.1	168.7
172.5°	168.7	160.7	146.9	126.3	130.8
175°	172.2	165.3	148.1	122.8	74.6
177.5°	171.0	165.3	151.5	122.8	72.3
180°	142.3	142.3	142.3	142.3	142.3



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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	17.22	18.54	17.83	19.17	19.88	19.73	21.05	20.34	21.68	22.40
	3H	18.65	19.85	19.27	20.49	21.24	22.09	23.30	22.72	23.94	24.69
	4H	19.12	20.26	19.76	20.91	21.67	23.21	24.35	23.85	25.00	25.76
	6H	19.38	20.44	20.04	21.10	21.88	24.32	25.39	24.98	26.05	26.82
	8H	19.43	20.45	20.10	21.13	21.91	24.87	25.89	25.54	26.57	27.35
	12H	19.45	20.42	20.12	21.10	21.91	25.46	26.43	26.13	27.10	27.92
4H	2H	18.09	19.23	18.74	19.88	20.64	20.08	21.22	20.72	21.87	22.63
	3H	19.74	20.71	20.40	21.40	22.18	22.65	23.62	23.31	24.31	25.09
	4H	20.33	21.21	21.00	21.91	22.72	23.93	24.82	24.61	25.51	26.32
	6H	20.70	21.48	21.40	22.20	23.02	25.22	26.00	25.91	26.72	27.54
	8H	20.79	21.53	21.49	22.24	23.08	25.86	26.60	26.56	27.31	28.15
	12H	20.83	21.50	21.56	22.24	23.08	26.55	27.22	27.27	27.96	28.80
8H	4H	20.95	21.68	21.65	22.40	23.23	24.08	24.82	24.78	25.53	26.37
	6H	21.48	22.10	22.21	22.86	23.70	25.52	26.14	26.25	26.89	27.73
	8H	21.65	22.21	22.40	22.97	23.82	26.29	26.84	27.03	27.60	28.45
	12H	21.76	22.26	22.50	23.00	23.91	27.14	27.63	27.88	28.38	29.29
12H	4H	21.11	21.77	21.83	22.51	23.35	24.08	24.74	24.80	25.48	26.32
	6H	21.73	22.29	22.47	23.05	23.90	25.54	26.10	26.28	26.85	27.70
	8H	21.98	22.47	22.72	23.22	24.13	26.36	26.85	27.10	27.60	28.51