

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: P894600

Luminaire Tested: 8TMB-14HL-FLTU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894600
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: 8TMB-14HL-FLTU-UNV-L850
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 50
Light Source: -
Ballast/Driver: -

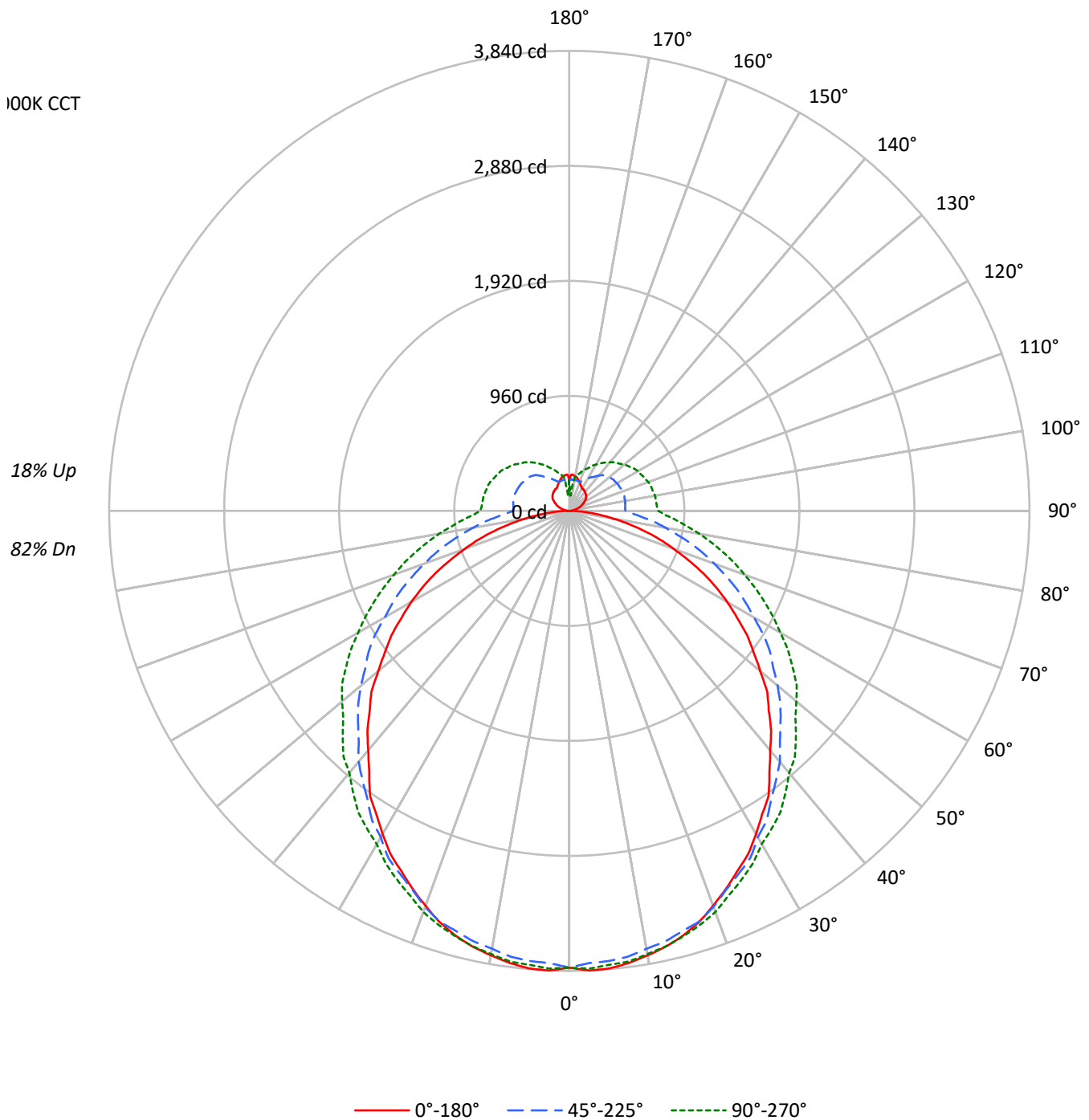
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14331.0 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 7.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 103.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 5.03
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
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	82	
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	66	
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	54	
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	45	
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	38	
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	33	
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	28	
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	25	
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	22	
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	20	
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	18	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13525	13525	13525
5°	13625	12972	12928
10°	13511	12476	12338
15°	13388	12038	11775
20°	13121	11574	11216
25°	12832	11001	10598
30°	12574	10440	9998
35°	12338	9906	9612
40°	11824	9447	9055
45°	11509	8899	8667
50°	11135	8439	8258
55°	10811	8003	7894
60°	10341	7401	7404
65°	9807	6919	6943
70°	8980	6318	6441
75°	8122	5719	5964
80°	6669	5064	5481
85°	5017	4430	5030

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11509 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	361.1	2.5
10°-20°	1031.1	7.2
20°-30°	1548.8	10.8
30°-40°	1856.3	13.0
40°-50°	1946.2	13.6
50°-60°	1825.7	12.7
60°-70°	1516.4	10.6
70°-80°	1084.3	7.6
80°-90°	643.0	4.5
90°-100°	471.7	3.3
100°-110°	464.7	3.2
110°-120°	433.5	3.0
120°-130°	380.4	2.7
130°-140°	306.3	2.1
140°-150°	219.9	1.5
150°-160°	139.7	1.0
160°-170°	77.4	0.5
170°-180°	24.4	0.2
0°-30°	2941.0	20.5
0°-40°	4797.3	33.5
0°-60°	8569.2	59.8
0°-90°	11812.9	82.4
90°-120°	1370.0	9.6
90°-150°	2276.6	15.9
90°-180°	2518.0	17.6
0°-180°	14331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3812	3812	3812	3812	3812	
5°	3834	3826	3771	3790	3804	364
15°	3670	3648	3634	3660	3676	1033
25°	3318	3348	3342	3380	3399	1531
35°	2900	2911	2937	3022	3071	1800
45°	2354	2420	2493	2657	2674	1821
55°	1813	1872	2044	2210	2275	1613
65°	1234	1327	1541	1748	1799	1216
75°	650	800	1049	1266	1325	687
85°	160	350	614	820	897	176
90°	6	213	468	668	741	13
95°	18	223	468	660	729	19
105°	65	245	476	652	713	69
115°	118	265	466	620	681	116
125°	168	273	452	575	628	147
135°	194	263	419	520	563	151
145°	211	243	344	458	490	133
155°	231	243	282	354	401	107
165°	276	267	259	257	322	77
175°	304	292	261	217	132	28
180°	251	251	251	251	251	



TEST NUMBER: P894600

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3811.9	3811.9	3811.9	3811.9	3811.9
2.5°	3840.3	3809.9	3777.5	3826.1	3824.1
5°	3834.2	3826.1	3771.4	3789.6	3803.8
7.5°	3805.8	3785.6	3753.2	3797.7	3793.7
10°	3767.4	3743.1	3710.6	3737.0	3755.2
12.5°	3724.8	3704.6	3682.3	3710.6	3722.8
15°	3670.1	3647.9	3633.7	3660.0	3676.2
17.5°	3599.2	3593.2	3595.2	3597.2	3623.6
20°	3508.1	3512.2	3518.2	3554.7	3562.8
22.5°	3414.9	3437.2	3421.0	3477.7	3473.7
25°	3317.7	3348.1	3342.0	3380.5	3398.7
27.5°	3230.6	3232.6	3269.1	3323.8	3317.7
30°	3115.2	3149.6	3145.5	3212.4	3212.4
32.5°	2997.7	3048.3	3064.5	3123.3	3143.5
35°	2900.5	2910.6	2936.9	3022.0	3070.6
37.5°	2742.5	2791.1	2833.6	2945.0	2963.3
40°	2608.8	2657.4	2734.4	2864.0	2853.9
42.5°	2493.3	2544.0	2600.7	2750.6	2787.0
45°	2353.6	2420.4	2493.3	2657.4	2673.6
47.5°	2240.2	2292.8	2388.0	2537.9	2558.2
50°	2080.1	2165.2	2268.5	2442.7	2473.1
52.5°	1938.4	2011.3	2142.9	2323.2	2392.1
55°	1812.8	1871.5	2043.7	2209.8	2274.6
57.5°	1658.9	1739.9	1920.1	2104.5	2163.2
60°	1523.1	1602.1	1776.3	1987.0	2033.6
62.5°	1379.3	1472.5	1660.9	1865.5	1918.1
65°	1233.5	1326.7	1541.4	1748.0	1798.6
67.5°	1075.5	1191.0	1409.7	1624.4	1677.1
70°	927.7	1053.2	1288.2	1502.9	1555.6
72.5°	794.0	929.7	1168.7	1389.5	1446.2
75°	650.2	800.1	1049.2	1265.9	1324.7
77.5°	510.4	672.5	925.6	1144.4	1213.3
80°	374.7	553.0	818.3	1028.9	1101.9
82.5°	263.3	445.6	719.0	925.6	992.5
85°	160.0	350.4	613.7	820.3	897.3
87.5°	70.9	271.4	530.7	735.2	804.1
90°	6.1	212.7	467.9	668.4	741.3
92.5°	12.2	216.7	465.9	660.3	733.2
95°	18.2	222.8	467.9	660.3	729.2
97.5°	26.3	230.9	471.9	660.3	727.1
100°	38.5	235.0	474.0	660.3	727.1
102.5°	50.6	241.0	471.9	650.2	719.0
105°	64.8	245.1	476.0	652.2	713.0
107.5°	79.0	249.1	476.0	642.1	710.9
110°	93.2	255.2	471.9	636.0	702.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.3	261.3	469.9	623.8	688.7
115°	117.5	265.3	465.9	619.8	680.6
117.5°	129.6	267.4	463.8	609.7	668.4
120°	139.8	271.4	459.8	597.5	662.3
122.5°	151.9	273.4	453.7	585.4	650.2
125°	168.1	273.4	451.7	575.2	627.9
127.5°	176.2	275.5	443.6	563.1	617.8
130°	184.3	269.4	439.5	548.9	601.6
132.5°	190.4	267.4	429.4	534.7	581.3
135°	194.4	263.3	419.3	520.5	563.1
137.5°	200.5	257.2	405.1	510.4	550.9
140°	204.6	253.2	384.8	490.2	530.7
142.5°	208.6	247.1	364.6	471.9	510.4
145°	210.6	243.1	344.3	457.8	490.2
147.5°	216.7	237.0	332.2	439.5	467.9
150°	214.7	232.9	313.9	417.2	445.6
152.5°	220.8	239.0	297.7	386.9	427.4
155°	230.9	243.1	281.5	354.5	401.0
157.5°	241.0	251.2	269.4	326.1	380.8
160°	255.2	255.2	255.2	303.8	364.6
162.5°	263.3	263.3	257.2	277.5	342.3
165°	275.5	267.4	259.3	257.2	322.0
167.5°	287.6	271.4	263.3	249.1	307.9
170°	289.6	277.5	261.3	235.0	297.7
172.5°	297.7	283.6	259.3	222.8	230.9
175°	303.8	291.7	261.3	216.7	131.7
177.5°	301.8	291.7	267.4	216.7	127.6
180°	251.2	251.2	251.2	251.2	251.2



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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	16.80	18.12	17.41	18.75	19.47	19.39	20.71	20.00	21.34	22.06
	3H	18.23	19.43	18.85	20.07	20.82	21.79	22.99	22.41	23.63	24.38
	4H	18.69	19.83	19.34	20.48	21.25	22.93	24.07	23.57	24.72	25.48
	6H	18.96	20.02	19.62	20.68	21.46	24.09	25.15	24.74	25.81	26.59
	8H	19.01	20.03	19.68	20.71	21.49	24.67	25.68	25.34	26.37	27.15
	12H	19.03	20.00	19.70	20.67	21.49	25.30	26.27	25.98	26.95	27.76
4H	2H	17.68	18.83	18.33	19.48	20.24	19.73	20.87	20.38	21.52	22.28
	3H	19.34	20.31	19.99	20.99	21.78	22.34	23.31	23.00	24.00	24.78
	4H	19.92	20.81	20.59	21.50	22.31	23.64	24.53	24.32	25.22	26.03
	6H	20.29	21.07	20.99	21.79	22.61	24.97	25.75	25.66	26.47	27.29
	8H	20.38	21.12	21.08	21.83	22.66	25.65	26.38	26.34	27.09	27.93
	12H	20.42	21.09	21.14	21.83	22.67	26.39	27.05	27.11	27.79	28.63
8H	4H	20.56	21.29	21.25	22.00	22.84	23.79	24.52	24.49	25.24	26.07
	6H	21.09	21.71	21.82	22.46	23.30	25.26	25.88	25.99	26.64	27.48
	8H	21.26	21.82	22.00	22.57	23.42	26.06	26.62	26.80	27.38	28.23
	12H	21.36	21.86	22.11	22.61	23.52	26.96	27.46	27.70	28.20	29.11
12H	4H	20.72	21.39	21.44	22.12	22.96	23.78	24.45	24.50	25.19	26.03
	6H	21.34	21.90	22.08	22.66	23.51	25.28	25.84	26.02	26.60	27.45
	8H	21.59	22.09	22.33	22.83	23.75	26.13	26.63	26.87	27.37	28.29