

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: P894599

Luminaire Tested: 8TMB-14HL-FLTU-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894599
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-L840
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 40
Light Source: -
Ballast/Driver: -

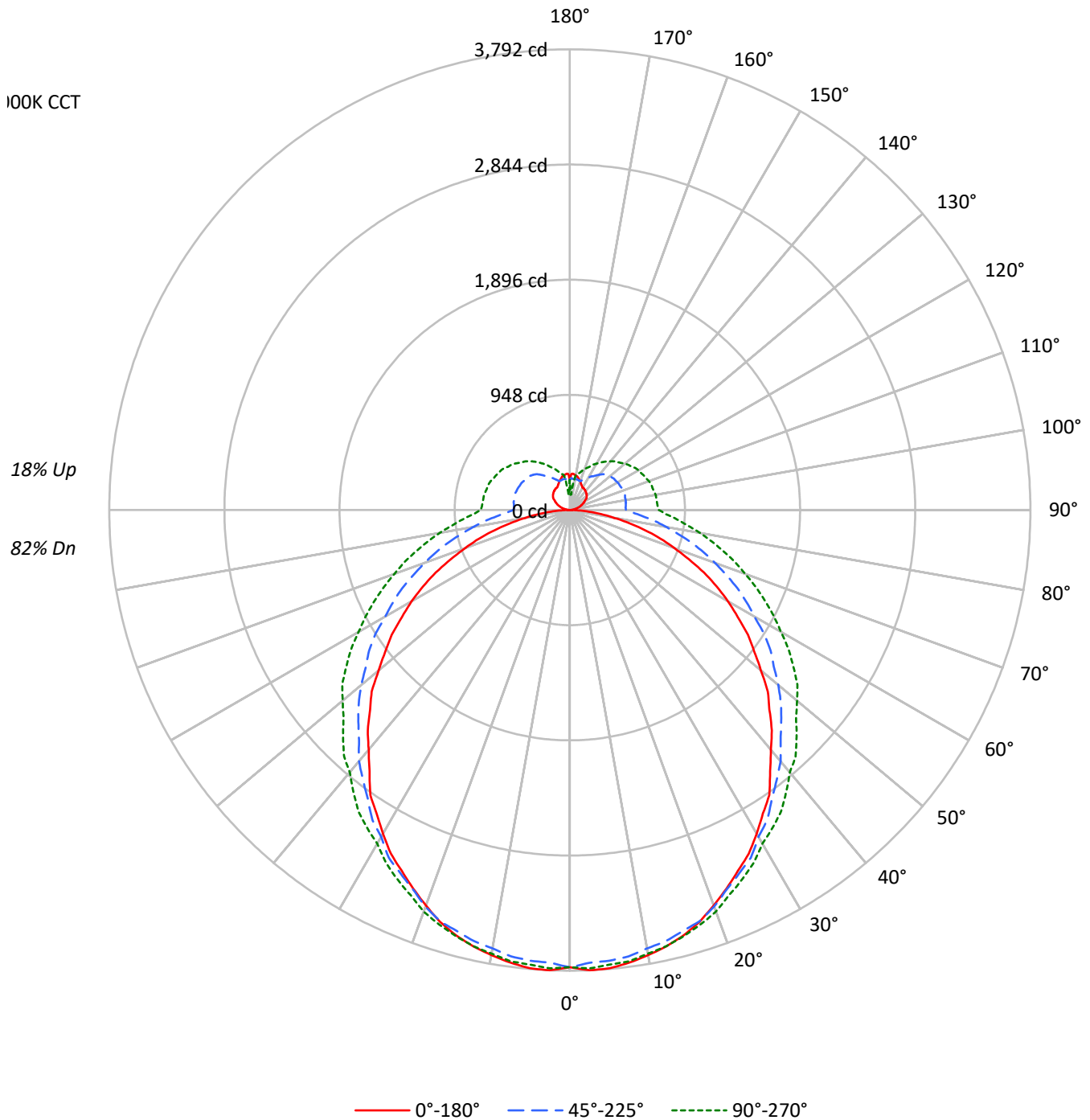
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14150.2 lumens
Efficiency: N/A
Efficacy: 136.6 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

TEST NUMBER: P894599
CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

Luminous Intensity Polar Plot





TEST NUMBER: P894599
 CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

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°	13354	13354	13354
5°	13453	12808	12765
10°	13341	12319	12182
15°	13219	11886	11626
20°	12956	11428	11074
25°	12670	10862	10464
30°	12415	10309	9872
35°	12182	9781	9491
40°	11675	9328	8941
45°	11364	8787	8557
50°	10995	8333	8154
55°	10674	7902	7794
60°	10210	7308	7311
65°	9683	6831	6855
70°	8866	6238	6360
75°	8020	5647	5888
80°	6585	5000	5412
85°	4954	4375	4966

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11364 cd/sqm



TEST NUMBER: P894599
 CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.5	2.5
10°-20°	1018.1	7.2
20°-30°	1529.3	10.8
30°-40°	1832.9	13.0
40°-50°	1921.6	13.6
50°-60°	1802.7	12.7
60°-70°	1497.3	10.6
70°-80°	1070.5	7.6
80°-90°	634.9	4.5
90°-100°	465.8	3.3
100°-110°	458.9	3.2
110°-120°	428.1	3.0
120°-130°	375.6	2.7
130°-140°	302.5	2.1
140°-150°	217.1	1.5
150°-160°	138.0	1.0
160°-170°	76.5	0.5
170°-180°	24.1	0.2
0°-30°	2903.9	20.5
0°-40°	4736.7	33.5
0°-60°	8461.0	59.8
0°-90°	11663.7	82.4
90°-120°	1352.7	9.6
90°-150°	2248.0	15.9
90°-180°	2486.0	17.6
0°-180°	14150.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3764	3764	3764	3764	3764	
5°	3786	3778	3724	3742	3756	359
15°	3624	3602	3588	3614	3630	1020
25°	3276	3306	3300	3338	3356	1512
35°	2864	2874	2900	2984	3032	1778
45°	2324	2390	2462	2624	2640	1798
55°	1790	1848	2018	2182	2246	1592
65°	1218	1310	1522	1726	1776	1200
75°	642	790	1036	1250	1308	678
85°	158	346	606	810	886	173
90°	6	210	462	660	732	13
95°	18	220	462	652	720	19
105°	64	242	470	644	704	68
115°	116	262	460	612	672	115
125°	166	270	446	568	620	145
135°	192	260	414	514	556	149
145°	208	240	340	452	484	131
155°	228	240	278	350	396	105
165°	272	264	256	254	318	76
175°	300	288	258	214	130	28
180°	248	248	248	248	248	



TEST NUMBER: P894599
 CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3763.8	3763.8	3763.8	3763.8	3763.8
2.5°	3791.8	3761.8	3729.8	3777.8	3775.8
5°	3785.8	3777.8	3723.8	3741.8	3755.8
7.5°	3757.8	3737.8	3705.8	3749.8	3745.8
10°	3719.8	3695.8	3663.8	3689.8	3707.8
12.5°	3677.8	3657.8	3635.8	3663.8	3675.8
15°	3623.8	3601.8	3587.8	3613.8	3629.8
17.5°	3553.8	3547.8	3549.8	3551.8	3577.8
20°	3463.8	3467.8	3473.8	3509.8	3517.8
22.5°	3371.8	3393.8	3377.8	3433.8	3429.8
25°	3275.8	3305.8	3299.8	3337.8	3355.8
27.5°	3189.8	3191.8	3227.8	3281.8	3275.8
30°	3075.8	3109.8	3105.8	3171.8	3171.8
32.5°	2959.8	3009.8	3025.8	3083.8	3103.8
35°	2863.8	2873.8	2899.8	2983.8	3031.8
37.5°	2707.8	2755.8	2797.8	2907.8	2925.8
40°	2575.8	2623.8	2699.8	2827.8	2817.8
42.5°	2461.9	2511.9	2567.8	2715.8	2751.8
45°	2323.9	2389.9	2461.9	2623.8	2639.8
47.5°	2211.9	2263.9	2357.9	2505.9	2525.8
50°	2053.9	2137.9	2239.9	2411.9	2441.9
52.5°	1913.9	1985.9	2115.9	2293.9	2361.9
55°	1789.9	1847.9	2017.9	2181.9	2245.9
57.5°	1637.9	1717.9	1895.9	2077.9	2135.9
60°	1503.9	1581.9	1753.9	1961.9	2007.9
62.5°	1361.9	1453.9	1639.9	1841.9	1893.9
65°	1217.9	1309.9	1521.9	1725.9	1775.9
67.5°	1061.9	1175.9	1391.9	1603.9	1655.9
70°	915.9	1039.9	1271.9	1483.9	1535.9
72.5°	784.0	917.9	1153.9	1371.9	1427.9
75°	642.0	790.0	1035.9	1249.9	1307.9
77.5°	504.0	664.0	913.9	1129.9	1197.9
80°	370.0	546.0	808.0	1015.9	1087.9
82.5°	260.0	440.0	710.0	913.9	979.9
85°	158.0	346.0	606.0	810.0	885.9
87.5°	70.0	268.0	524.0	726.0	794.0
90°	6.0	210.0	462.0	660.0	732.0
92.5°	12.0	214.0	460.0	652.0	724.0
95°	18.0	220.0	462.0	652.0	720.0
97.5°	26.0	228.0	466.0	652.0	718.0
100°	38.0	232.0	468.0	652.0	718.0
102.5°	50.0	238.0	466.0	642.0	710.0
105°	64.0	242.0	470.0	644.0	704.0
107.5°	78.0	246.0	470.0	634.0	702.0
110°	92.0	252.0	466.0	628.0	694.0



TEST NUMBER: P894599
 CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.0	258.0	464.0	616.0	680.0
115°	116.0	262.0	460.0	612.0	672.0
117.5°	128.0	264.0	458.0	602.0	660.0
120°	138.0	268.0	454.0	590.0	654.0
122.5°	150.0	270.0	448.0	578.0	642.0
125°	166.0	270.0	446.0	568.0	620.0
127.5°	174.0	272.0	438.0	556.0	610.0
130°	182.0	266.0	434.0	542.0	594.0
132.5°	188.0	264.0	424.0	528.0	574.0
135°	192.0	260.0	414.0	514.0	556.0
137.5°	198.0	254.0	400.0	504.0	544.0
140°	202.0	250.0	380.0	484.0	524.0
142.5°	206.0	244.0	360.0	466.0	504.0
145°	208.0	240.0	340.0	452.0	484.0
147.5°	214.0	234.0	328.0	434.0	462.0
150°	212.0	230.0	310.0	412.0	440.0
152.5°	218.0	236.0	294.0	382.0	422.0
155°	228.0	240.0	278.0	350.0	396.0
157.5°	238.0	248.0	266.0	322.0	376.0
160°	252.0	252.0	252.0	300.0	360.0
162.5°	260.0	260.0	254.0	274.0	338.0
165°	272.0	264.0	256.0	254.0	318.0
167.5°	284.0	268.0	260.0	246.0	304.0
170°	286.0	274.0	258.0	232.0	294.0
172.5°	294.0	280.0	256.0	220.0	228.0
175°	300.0	288.0	258.0	214.0	130.0
177.5°	298.0	288.0	264.0	214.0	126.0
180°	248.0	248.0	248.0	248.0	248.0



TEST NUMBER: P894599
 CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L840

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	16.75	18.08	17.36	18.71	19.42	19.34	20.67	19.96	21.30	22.01
	3H	18.18	19.39	18.81	20.03	20.78	21.74	22.95	22.37	23.58	24.33
	4H	18.65	19.79	19.29	20.44	21.20	22.88	24.03	23.53	24.68	25.44
	6H	18.91	19.98	19.57	20.64	21.41	24.04	25.10	24.70	25.76	26.54
	8H	18.97	19.98	19.63	20.66	21.45	24.62	25.64	25.29	26.32	27.10
	12H	18.98	19.95	19.66	20.63	21.44	25.26	26.23	25.93	26.91	27.72
4H	2H	17.64	18.78	18.28	19.43	20.19	19.68	20.83	20.33	21.48	22.24
	3H	19.29	20.26	19.95	20.95	21.73	22.29	23.26	22.95	23.95	24.73
	4H	19.87	20.76	20.55	21.45	22.26	23.60	24.48	24.27	25.18	25.99
	6H	20.25	21.03	20.94	21.75	22.57	24.92	25.71	25.62	26.42	27.24
	8H	20.34	21.07	21.04	21.79	22.62	25.60	26.33	26.30	27.05	27.88
	12H	20.38	21.05	21.10	21.78	22.62	26.34	27.01	27.06	27.75	28.59
8H	4H	20.51	21.25	21.21	21.96	22.79	23.75	24.48	24.45	25.20	26.03
	6H	21.04	21.66	21.77	22.42	23.26	25.22	25.84	25.95	26.59	27.43
	8H	21.21	21.77	21.95	22.53	23.38	26.02	26.57	26.76	27.33	28.18
	12H	21.32	21.81	22.06	22.56	23.47	26.92	27.41	27.66	28.16	29.07
12H	4H	20.67	21.34	21.40	22.08	22.92	23.74	24.40	24.46	25.14	25.98
	6H	21.30	21.86	22.04	22.62	23.47	25.24	25.79	25.98	26.55	27.40
	8H	21.55	22.04	22.29	22.79	23.70	26.09	26.58	26.83	27.33	28.24