

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: P894792

Luminaire Tested: 8TMB-18HL-FLTU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894792
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-18HL-FLTU-UNV-L850
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 50
Light Source: -
Ballast/Driver: -

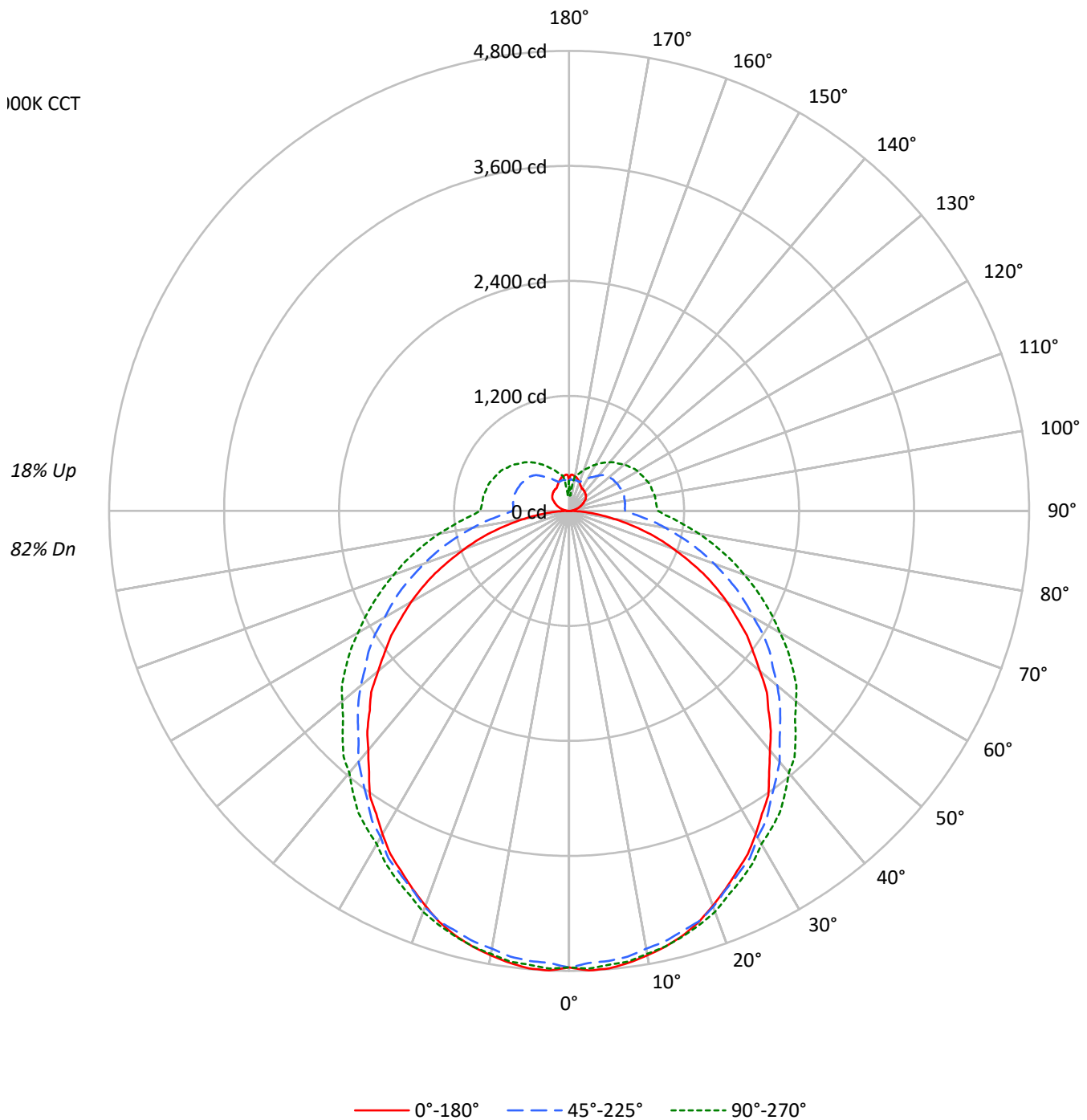
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17911.0 lumens
Efficiency: N/A
Efficacy: 132.9 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): 134.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.62
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P894792
CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P894792

CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

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°	16904	16904	16904
5°	17029	16212	16158
10°	16886	15593	15420
15°	16732	15046	14717
20°	16399	14466	14018
25°	16038	13750	13246
30°	15715	13049	12496
35°	15420	12380	12014
40°	14778	11807	11317
45°	14384	11122	10832
50°	13918	10548	10322
55°	13511	10002	9865
60°	12924	9251	9254
65°	12256	8647	8677
70°	11223	7896	8050
75°	10151	7148	7454
80°	8335	6328	6850
85°	6271	5537	6286

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14384 cd/sqm



TEST NUMBER: P894792
 CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.3	2.5
10°-20°	1288.7	7.2
20°-30°	1935.8	10.8
30°-40°	2320.0	13.0
40°-50°	2432.4	13.6
50°-60°	2281.8	12.7
60°-70°	1895.2	10.6
70°-80°	1355.1	7.6
80°-90°	803.6	4.5
90°-100°	589.5	3.3
100°-110°	580.8	3.2
110°-120°	541.8	3.0
120°-130°	475.4	2.7
130°-140°	382.9	2.1
140°-150°	274.8	1.5
150°-160°	174.6	1.0
160°-170°	96.8	0.5
170°-180°	30.5	0.2
0°-30°	3675.7	20.5
0°-40°	5995.7	33.5
0°-60°	10709.9	59.8
0°-90°	14763.8	82.4
90°-120°	1712.2	9.6
90°-150°	2845.3	15.9
90°-180°	3147.0	17.6
0°-180°	17911.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4764	4764	4764	4764	4764	
5°	4792	4782	4714	4736	4754	454
15°	4587	4559	4541	4574	4595	1291
25°	4146	4184	4177	4225	4248	1913
35°	3625	3638	3671	3777	3838	2250
45°	2942	3025	3116	3321	3342	2275
55°	2266	2339	2554	2762	2843	2016
65°	1542	1658	1926	2185	2248	1519
75°	813	1000	1311	1582	1656	859
85°	200	438	767	1025	1121	220
90°	8	266	585	835	926	16
95°	23	278	585	825	911	24
105°	81	306	595	815	891	86
115°	147	332	582	775	851	145
125°	210	342	564	719	785	184
135°	243	329	524	651	704	188
145°	263	304	430	572	613	166
155°	289	304	352	443	501	133
165°	344	334	324	322	402	97
175°	380	364	327	271	164	35
180°	314	314	314	314	314	



TEST NUMBER: P894792

CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4764.2	4764.2	4764.2	4764.2	4764.2
2.5°	4799.6	4761.6	4721.1	4781.9	4779.4
5°	4792.0	4781.9	4713.5	4736.3	4754.0
7.5°	4756.6	4731.3	4690.8	4746.4	4741.4
10°	4708.5	4678.1	4637.6	4670.5	4693.3
12.5°	4655.3	4630.0	4602.2	4637.6	4652.8
15°	4587.0	4559.1	4541.4	4574.3	4594.6
17.5°	4498.4	4490.8	4493.3	4495.8	4528.7
20°	4384.5	4389.5	4397.1	4442.7	4452.8
22.5°	4268.0	4295.9	4275.6	4346.5	4341.4
25°	4146.5	4184.5	4176.9	4225.0	4247.8
27.5°	4037.6	4040.2	4085.7	4154.1	4146.5
30°	3893.4	3936.4	3931.3	4014.9	4014.9
32.5°	3746.5	3809.8	3830.1	3903.5	3928.8
35°	3625.0	3637.7	3670.6	3776.9	3837.7
37.5°	3427.6	3488.3	3541.5	3680.7	3703.5
40°	3260.5	3321.2	3417.4	3579.5	3566.8
42.5°	3116.2	3179.5	3250.4	3437.7	3483.3
45°	2941.5	3025.1	3116.2	3321.2	3341.5
47.5°	2799.8	2865.6	2984.6	3171.9	3197.2
50°	2599.8	2706.1	2835.2	3052.9	3090.9
52.5°	2422.6	2513.7	2678.3	2903.6	2989.6
55°	2265.6	2339.0	2554.2	2761.8	2842.8
57.5°	2073.2	2174.5	2399.8	2630.2	2703.6
60°	1903.6	2002.4	2220.1	2483.3	2541.6
62.5°	1723.9	1840.4	2075.8	2331.5	2397.3
65°	1541.6	1658.1	1926.4	2184.6	2247.9
67.5°	1344.2	1488.5	1761.9	2030.2	2096.0
70°	1159.4	1316.3	1610.0	1878.3	1944.1
72.5°	992.3	1161.9	1460.6	1736.6	1807.4
75°	812.6	999.9	1311.3	1582.1	1655.6
77.5°	637.9	840.4	1156.9	1430.3	1516.3
80°	468.3	691.1	1022.7	1286.0	1377.1
82.5°	329.1	556.9	898.7	1156.9	1240.4
85°	200.0	437.9	767.0	1025.2	1121.4
87.5°	88.6	339.2	663.2	918.9	1005.0
90°	7.6	265.8	584.8	835.4	926.5
92.5°	15.2	270.9	582.2	825.2	916.4
95°	22.8	278.5	584.8	825.2	911.3
97.5°	32.9	288.6	589.8	825.2	908.8
100°	48.1	293.6	592.4	825.2	908.8
102.5°	63.3	301.2	589.8	812.6	898.7
105°	81.0	306.3	594.9	815.1	891.1
107.5°	98.7	311.4	594.9	802.5	888.5
110°	116.4	319.0	589.8	794.9	878.4



TEST NUMBER: P894792

CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	131.6	326.6	587.3	779.7	860.7
115°	146.8	331.6	582.2	774.6	850.6
117.5°	162.0	334.1	579.7	762.0	835.4
120°	174.7	339.2	574.6	746.8	827.8
122.5°	189.9	341.7	567.0	731.6	812.6
125°	210.1	341.7	564.5	718.9	784.7
127.5°	220.2	344.3	554.4	703.7	772.1
130°	230.4	336.7	549.3	686.0	751.8
132.5°	238.0	334.1	536.7	668.3	726.5
135°	243.0	329.1	524.0	650.6	703.7
137.5°	250.6	321.5	506.3	637.9	688.6
140°	255.7	316.4	481.0	612.6	663.2
142.5°	260.7	308.8	455.7	589.8	637.9
145°	263.3	303.8	430.3	572.1	612.6
147.5°	270.9	296.2	415.2	549.3	584.8
150°	268.3	291.1	392.4	521.5	556.9
152.5°	275.9	298.7	372.1	483.5	534.1
155°	288.6	303.8	351.9	443.0	501.2
157.5°	301.2	313.9	336.7	407.6	475.9
160°	319.0	319.0	319.0	379.7	455.7
162.5°	329.1	329.1	321.5	346.8	427.8
165°	344.3	334.1	324.0	321.5	402.5
167.5°	359.5	339.2	329.1	311.4	384.8
170°	362.0	346.8	326.6	293.6	372.1
172.5°	372.1	354.4	324.0	278.5	288.6
175°	379.7	364.5	326.6	270.9	164.5
177.5°	377.2	364.5	334.1	270.9	159.5
180°	313.9	313.9	313.9	313.9	313.9



TEST NUMBER: P894792
 CATALOG NUMBER: 8TMB-18HL-FLTU-UNV-L850

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	17.57	18.90	18.18	19.52	20.24	20.16	21.49	20.77	22.12	22.83
	3H	19.00	20.21	19.63	20.84	21.59	22.56	23.77	23.19	24.40	25.15
	4H	19.47	20.61	20.11	21.26	22.02	23.70	24.85	24.35	25.50	26.26
	6H	19.73	20.79	20.39	21.45	22.23	24.86	25.92	25.52	26.58	27.36
	8H	19.79	20.80	20.45	21.48	22.26	25.44	26.46	26.11	27.14	27.92
	12H	19.80	20.77	20.48	21.45	22.26	26.08	27.05	26.75	27.72	28.54
4H	2H	18.46	19.60	19.10	20.25	21.01	20.50	21.65	21.15	22.30	23.06
	3H	20.11	21.08	20.77	21.77	22.55	23.11	24.08	23.77	24.77	25.55
	4H	20.69	21.58	21.37	22.27	23.08	24.42	25.30	25.09	26.00	26.81
	6H	21.07	21.85	21.76	22.56	23.38	25.74	26.52	26.44	27.24	28.06
	8H	21.16	21.89	21.86	22.61	23.44	26.42	27.15	27.12	27.87	28.70
	12H	21.20	21.86	21.92	22.60	23.44	27.16	27.83	27.88	28.57	29.41
8H	4H	21.33	22.06	22.03	22.78	23.61	24.57	25.30	25.26	26.01	26.85
	6H	21.86	22.48	22.59	23.24	24.08	26.04	26.66	26.77	27.41	28.25
	8H	22.03	22.59	22.77	23.35	24.20	26.84	27.39	27.58	28.15	29.00
	12H	22.14	22.63	22.88	23.38	24.29	27.73	28.23	28.48	28.98	29.89
12H	4H	21.49	22.16	22.21	22.90	23.74	24.56	25.22	25.28	25.96	26.80
	6H	22.12	22.68	22.86	23.43	24.29	26.06	26.61	26.80	27.37	28.22
	8H	22.36	22.86	23.11	23.61	24.52	26.90	27.40	27.65	28.15	29.06