

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: P894699

Luminaire Tested: 8TMB-16HL-FLTU-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894699
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-16HL-FLTU-UNV-L940
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 40
Light Source: -
Ballast/Driver: -

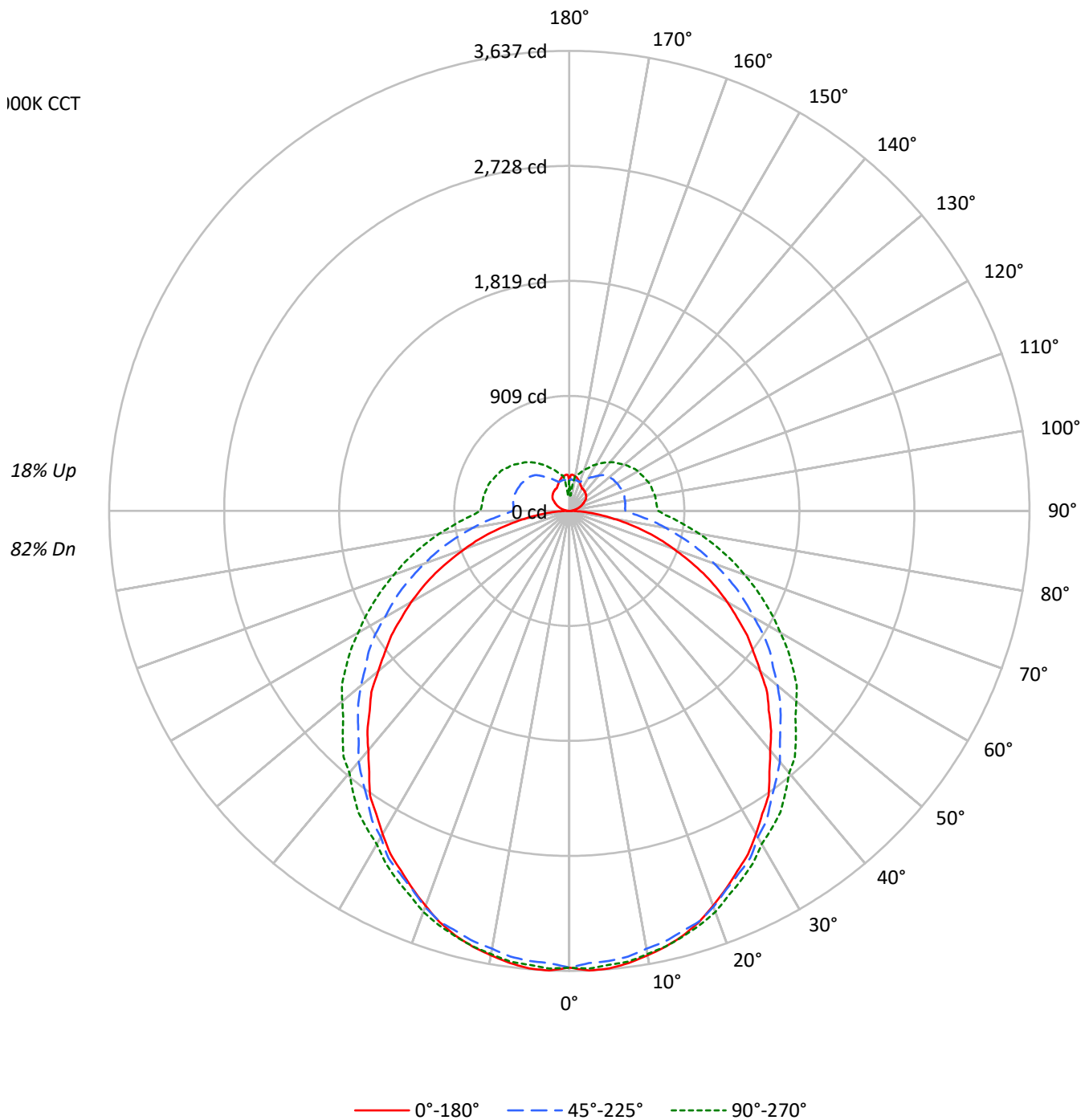
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13573.0 lumens
Efficiency: N/A
Efficacy: 117.2 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): 115.8
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°	12810	12810	12810
5°	12904	12286	12244
10°	12796	11816	11685
15°	12680	11402	11152
20°	12427	10962	10622
25°	12154	10419	10038
30°	11908	9888	9470
35°	11685	9382	9104
40°	11199	8947	8576
45°	10901	8428	8208
50°	10547	7993	7822
55°	10239	7580	7476
60°	9794	7010	7012
65°	9288	6552	6575
70°	8505	5984	6100
75°	7692	5417	5648
80°	6316	4796	5191
85°	4750	4196	4763

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10901 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.0	2.5
10°-20°	976.5	7.2
20°-30°	1466.9	10.8
30°-40°	1758.1	13.0
40°-50°	1843.2	13.6
50°-60°	1729.1	12.7
60°-70°	1436.2	10.6
70°-80°	1026.9	7.6
80°-90°	609.0	4.5
90°-100°	446.8	3.3
100°-110°	440.2	3.2
110°-120°	410.6	3.0
120°-130°	360.3	2.7
130°-140°	290.1	2.1
140°-150°	208.2	1.5
150°-160°	132.3	1.0
160°-170°	73.3	0.5
170°-180°	23.1	0.2
0°-30°	2785.4	20.5
0°-40°	4543.6	33.5
0°-60°	8115.9	59.8
0°-90°	11188.1	82.4
90°-120°	1297.5	9.6
90°-150°	2156.2	15.9
90°-180°	2385.0	17.6
0°-180°	13573.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3610	3610	3610	3610	3610	
5°	3631	3624	3572	3589	3603	344
15°	3476	3455	3442	3466	3482	979
25°	3142	3171	3165	3202	3219	1450
35°	2747	2757	2782	2862	2908	1705
45°	2229	2292	2362	2517	2532	1724
55°	1717	1772	1936	2093	2154	1527
65°	1168	1256	1460	1656	1704	1151
75°	616	758	994	1199	1255	651
85°	152	332	581	777	850	166
90°	6	201	443	633	702	12
95°	17	211	443	625	691	18
105°	61	232	451	618	675	65
115°	111	251	441	587	645	110
125°	159	259	428	545	595	139
135°	184	249	397	493	533	143
145°	200	230	326	434	464	126
155°	219	230	267	336	380	101
165°	261	253	246	244	305	73
175°	288	276	248	205	125	27
180°	238	238	238	238	238	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3610.3	3610.3	3610.3	3610.3	3610.3
2.5°	3637.2	3608.4	3577.7	3623.7	3621.8
5°	3631.4	3623.7	3571.9	3589.2	3602.6
7.5°	3604.5	3585.4	3554.7	3596.9	3593.0
10°	3568.1	3545.1	3514.4	3539.3	3556.6
12.5°	3527.8	3508.6	3487.5	3514.4	3525.9
15°	3476.0	3454.9	3441.5	3466.4	3481.8
17.5°	3408.9	3403.1	3405.0	3407.0	3431.9
20°	3322.5	3326.4	3332.1	3366.7	3374.3
22.5°	3234.3	3255.4	3240.1	3293.8	3289.9
25°	3142.2	3171.0	3165.2	3201.7	3219.0
27.5°	3059.7	3061.7	3096.2	3148.0	3142.2
30°	2950.4	2983.0	2979.2	3042.5	3042.5
32.5°	2839.1	2887.1	2902.4	2958.1	2977.2
35°	2747.0	2756.6	2781.6	2862.1	2908.2
37.5°	2597.4	2643.5	2683.7	2789.3	2806.5
40°	2470.8	2516.8	2589.7	2712.5	2702.9
42.5°	2361.5	2409.4	2463.1	2605.1	2639.6
45°	2229.1	2292.4	2361.5	2516.8	2532.2
47.5°	2121.7	2171.6	2261.7	2403.7	2422.9
50°	1970.1	2050.7	2148.5	2313.5	2342.3
52.5°	1835.8	1904.9	2029.6	2200.3	2265.5
55°	1716.9	1772.5	1935.6	2092.9	2154.3
57.5°	1571.1	1647.8	1818.6	1993.1	2048.8
60°	1442.6	1517.4	1682.4	1881.9	1926.0
62.5°	1306.4	1394.6	1573.0	1766.8	1816.7
65°	1168.3	1256.5	1459.8	1655.5	1703.5
67.5°	1018.6	1128.0	1335.2	1538.5	1588.4
70°	878.6	997.5	1220.1	1423.4	1473.3
72.5°	752.0	880.5	1106.9	1316.0	1369.7
75°	615.8	757.7	993.7	1199.0	1254.6
77.5°	483.4	636.9	876.7	1083.9	1149.1
80°	354.9	523.7	775.0	974.5	1043.6
82.5°	249.4	422.0	681.0	876.7	940.0
85°	151.5	331.9	581.3	776.9	849.8
87.5°	67.1	257.1	502.6	696.4	761.6
90°	5.8	201.4	443.1	633.0	702.1
92.5°	11.5	205.3	441.2	625.4	694.4
95°	17.3	211.0	443.1	625.4	690.6
97.5°	24.9	218.7	447.0	625.4	688.7
100°	36.4	222.5	448.9	625.4	688.7
102.5°	48.0	228.3	447.0	615.8	681.0
105°	61.4	232.1	450.8	617.7	675.3
107.5°	74.8	236.0	450.8	608.1	673.3
110°	88.2	241.7	447.0	602.4	665.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	99.8	247.5	445.1	590.8	652.2
115°	111.3	251.3	441.2	587.0	644.6
117.5°	122.8	253.2	439.3	577.4	633.0
120°	132.4	257.1	435.5	565.9	627.3
122.5°	143.9	259.0	429.7	554.4	615.8
125°	159.2	259.0	427.8	544.8	594.7
127.5°	166.9	260.9	420.1	533.3	585.1
130°	174.6	255.1	416.3	519.9	569.7
132.5°	180.3	253.2	406.7	506.4	550.6
135°	184.2	249.4	397.1	493.0	533.3
137.5°	189.9	243.6	383.7	483.4	521.8
140°	193.8	239.8	364.5	464.2	502.6
142.5°	197.6	234.0	345.3	447.0	483.4
145°	199.5	230.2	326.1	433.5	464.2
147.5°	205.3	224.4	314.6	416.3	443.1
150°	203.3	220.6	297.3	395.2	422.0
152.5°	209.1	226.4	282.0	366.4	404.8
155°	218.7	230.2	266.6	335.7	379.8
157.5°	228.3	237.9	255.1	308.9	360.6
160°	241.7	241.7	241.7	287.7	345.3
162.5°	249.4	249.4	243.6	262.8	324.2
165°	260.9	253.2	245.5	243.6	305.0
167.5°	272.4	257.1	249.4	236.0	291.6
170°	274.3	262.8	247.5	222.5	282.0
172.5°	282.0	268.6	245.5	211.0	218.7
175°	287.7	276.2	247.5	205.3	124.7
177.5°	285.8	276.2	253.2	205.3	120.9
180°	237.9	237.9	237.9	237.9	237.9



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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	16.61	17.93	17.22	18.56	19.28	19.20	20.52	19.81	21.15	21.87
	3H	18.04	19.24	18.66	19.88	20.63	21.60	22.80	22.22	23.44	24.19
	4H	18.50	19.65	19.15	20.30	21.06	22.74	23.88	23.38	24.53	25.29
	6H	18.77	19.83	19.43	20.49	21.27	23.90	24.96	24.55	25.62	26.40
	8H	18.82	19.84	19.49	20.52	21.30	24.48	25.49	25.15	26.18	26.96
	12H	18.84	19.81	19.51	20.49	21.30	25.11	26.08	25.79	26.76	27.57
4H	2H	17.49	18.64	18.14	19.29	20.05	19.54	20.68	20.19	21.33	22.09
	3H	19.15	20.12	19.81	20.80	21.59	22.15	23.12	22.81	23.81	24.59
	4H	19.73	20.62	20.40	21.31	22.12	23.45	24.34	24.13	25.03	25.84
	6H	20.10	20.88	20.80	21.60	22.42	24.78	25.56	25.47	26.28	27.10
	8H	20.19	20.93	20.89	21.64	22.48	25.46	26.19	26.16	26.90	27.74
	12H	20.23	20.90	20.96	21.64	22.48	26.20	26.86	26.92	27.60	28.44
8H	4H	20.37	21.10	21.07	21.82	22.65	23.60	24.34	24.30	25.05	25.88
	6H	20.90	21.52	21.63	22.28	23.11	25.07	25.69	25.80	26.45	27.29
	8H	21.07	21.63	21.81	22.38	23.24	25.87	26.43	26.61	27.19	28.04
	12H	21.17	21.67	21.92	22.42	23.33	26.77	27.27	27.51	28.02	28.93
12H	4H	20.53	21.20	21.25	21.93	22.77	23.59	24.26	24.31	25.00	25.84
	6H	21.15	21.71	21.90	22.47	23.32	25.09	25.65	25.83	26.41	27.26
	8H	21.40	21.90	22.15	22.65	23.56	25.94	26.44	26.69	27.19	28.10