

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: P894693

Luminaire Tested: 8TMB-16HL-FLTU-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894693
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-L830
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 80CRI, 30
Light Source: -
Ballast/Driver: -

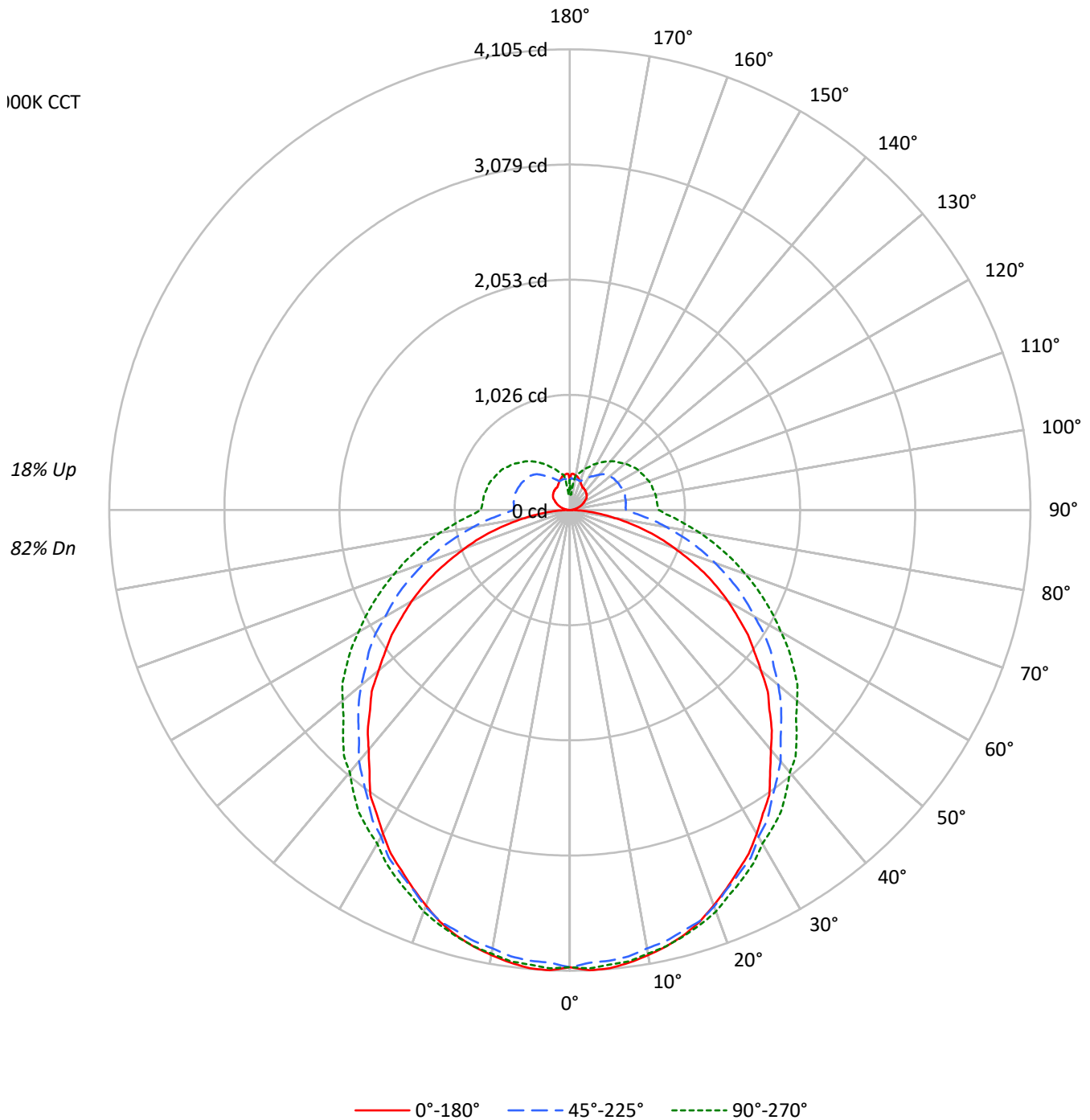
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15318.0 lumens
Efficiency: N/A
Efficacy: 132.3 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): 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
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	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	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14457	14457	14457
5°	14564	13865	13819
10°	14442	13335	13187
15°	14310	12867	12586
20°	14025	12371	11988
25°	13716	11759	11328
30°	13439	11160	10687
35°	13187	10588	10274
40°	12639	10098	9679
45°	12302	9512	9264
50°	11903	9021	8827
55°	11555	8554	8437
60°	11053	7911	7914
65°	10483	7395	7421
70°	9598	6753	6885
75°	8682	6113	6375
80°	7128	5412	5859
85°	5361	4735	5376

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.9	2.5
10°-20°	1102.1	7.2
20°-30°	1655.5	10.8
30°-40°	1984.2	13.0
40°-50°	2080.2	13.6
50°-60°	1951.4	12.7
60°-70°	1620.9	10.6
70°-80°	1158.9	7.6
80°-90°	687.3	4.5
90°-100°	504.2	3.3
100°-110°	496.7	3.2
110°-120°	463.4	3.0
120°-130°	406.6	2.7
130°-140°	327.4	2.1
140°-150°	235.0	1.5
150°-160°	149.3	1.0
160°-170°	82.8	0.5
170°-180°	26.1	0.2
0°-30°	3143.5	20.5
0°-40°	5127.7	33.5
0°-60°	9159.4	59.8
0°-90°	12626.4	82.4
90°-120°	1464.3	9.6
90°-150°	2433.4	15.9
90°-180°	2692.0	17.6
0°-180°	15318.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4074	4074	4074	4074	4074	
5°	4098	4090	4031	4051	4066	389
15°	3923	3899	3884	3912	3929	1104
25°	3546	3579	3572	3613	3633	1636
35°	3100	3111	3139	3230	3282	1924
45°	2516	2587	2665	2840	2858	1946
55°	1938	2000	2184	2362	2431	1724
65°	1318	1418	1648	1868	1922	1299
75°	695	855	1121	1353	1416	734
85°	171	374	656	877	959	188
90°	6	227	500	714	792	14
95°	20	238	500	706	779	20
105°	69	262	509	697	762	73
115°	126	284	498	662	727	124
125°	180	292	483	615	671	157
135°	208	281	448	556	602	161
145°	225	260	368	489	524	142
155°	247	260	301	379	429	114
165°	294	286	277	275	344	83
175°	325	312	279	232	141	30
180°	268	268	268	268	268	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4074.5	4074.5	4074.5	4074.5	4074.5
2.5°	4104.8	4072.3	4037.6	4089.6	4087.4
5°	4098.3	4089.6	4031.2	4050.6	4065.8
7.5°	4068.0	4046.3	4011.7	4059.3	4055.0
10°	4026.8	4000.8	3966.2	3994.3	4013.8
12.5°	3981.4	3959.7	3935.9	3966.2	3979.2
15°	3922.9	3899.1	3883.9	3912.1	3929.4
17.5°	3847.1	3840.6	3842.8	3845.0	3873.1
20°	3749.7	3754.0	3760.5	3799.5	3808.2
22.5°	3650.1	3673.9	3656.6	3717.2	3712.9
25°	3546.2	3578.7	3572.2	3613.3	3632.8
27.5°	3453.1	3455.3	3494.2	3552.7	3546.2
30°	3329.7	3366.5	3362.2	3433.6	3433.6
32.5°	3204.1	3258.3	3275.6	3338.4	3360.0
35°	3100.2	3111.0	3139.2	3230.1	3282.1
37.5°	2931.4	2983.3	3028.8	3147.9	3167.3
40°	2788.5	2840.4	2922.7	3061.3	3050.4
42.5°	2665.1	2719.2	2779.8	2940.0	2979.0
45°	2515.7	2587.1	2665.1	2840.4	2857.7
47.5°	2394.4	2450.7	2552.5	2712.7	2734.3
50°	2223.4	2314.3	2424.8	2610.9	2643.4
52.5°	2071.9	2149.8	2290.5	2483.2	2556.8
55°	1937.6	2000.4	2184.4	2362.0	2431.2
57.5°	1773.1	1859.7	2052.4	2249.4	2312.2
60°	1628.0	1712.5	1898.7	2123.8	2173.6
62.5°	1474.3	1573.9	1775.3	1993.9	2050.2
65°	1318.5	1418.0	1647.5	1868.4	1922.5
67.5°	1149.6	1273.0	1506.8	1736.3	1792.6
70°	991.6	1125.8	1376.9	1606.4	1662.7
72.5°	848.7	993.7	1249.2	1485.2	1545.8
75°	695.0	855.2	1121.4	1353.1	1415.9
77.5°	545.6	718.8	989.4	1223.2	1296.8
80°	400.5	591.0	874.6	1099.8	1177.7
82.5°	281.4	476.3	768.6	989.4	1060.8
85°	171.0	374.5	656.0	876.8	959.1
87.5°	75.8	290.1	567.2	785.9	859.5
90°	6.5	227.3	500.1	714.4	792.4
92.5°	13.0	231.7	497.9	705.8	783.7
95°	19.5	238.1	500.1	705.8	779.4
97.5°	28.1	246.8	504.4	705.8	777.2
100°	41.1	251.1	506.6	705.8	777.2
102.5°	54.1	257.6	504.4	695.0	768.6
105°	69.3	262.0	508.8	697.1	762.1
107.5°	84.4	266.3	508.8	686.3	759.9
110°	99.6	272.8	504.4	679.8	751.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	112.6	279.3	502.3	666.8	736.1
115°	125.6	283.6	497.9	662.5	727.4
117.5°	138.6	285.8	495.8	651.7	714.4
120°	149.4	290.1	491.4	638.7	707.9
122.5°	162.4	292.3	485.0	625.7	695.0
125°	179.7	292.3	482.8	614.8	671.1
127.5°	188.4	294.4	474.1	601.9	660.3
130°	197.0	287.9	469.8	586.7	643.0
132.5°	203.5	285.8	459.0	571.5	621.3
135°	207.8	281.4	448.1	556.4	601.9
137.5°	214.3	274.9	433.0	545.6	588.9
140°	218.7	270.6	411.3	523.9	567.2
142.5°	223.0	264.1	389.7	504.4	545.6
145°	225.2	259.8	368.0	489.3	523.9
147.5°	231.7	253.3	355.1	469.8	500.1
150°	229.5	249.0	335.6	446.0	476.3
152.5°	236.0	255.5	318.2	413.5	456.8
155°	246.8	259.8	300.9	378.9	428.7
157.5°	257.6	268.5	287.9	348.6	407.0
160°	272.8	272.8	272.8	324.7	389.7
162.5°	281.4	281.4	274.9	296.6	365.9
165°	294.4	285.8	277.1	274.9	344.2
167.5°	307.4	290.1	281.4	266.3	329.1
170°	309.6	296.6	279.3	251.1	318.2
172.5°	318.2	303.1	277.1	238.1	246.8
175°	324.7	311.8	279.3	231.7	140.7
177.5°	322.6	311.8	285.8	231.7	136.4
180°	268.5	268.5	268.5	268.5	268.5



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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	17.03	18.35	17.64	18.98	19.70	19.62	20.94	20.23	21.57	22.29
	3H	18.46	19.66	19.08	20.30	21.05	22.02	23.22	22.64	23.86	24.61
	4H	18.92	20.07	19.57	20.72	21.48	23.16	24.30	23.80	24.95	25.71
	6H	19.19	20.25	19.85	20.91	21.69	24.32	25.38	24.97	26.04	26.82
	8H	19.24	20.26	19.91	20.94	21.72	24.90	25.91	25.57	26.60	27.38
	12H	19.26	20.23	19.93	20.91	21.72	25.53	26.50	26.21	27.18	27.99
4H	2H	17.91	19.06	18.56	19.71	20.47	19.96	21.10	20.61	21.75	22.51
	3H	19.57	20.54	20.23	21.22	22.01	22.57	23.54	23.23	24.23	25.01
	4H	20.15	21.04	20.82	21.73	22.54	23.87	24.76	24.55	25.45	26.26
	6H	20.52	21.30	21.22	22.02	22.84	25.20	25.98	25.89	26.70	27.52
	8H	20.61	21.35	21.31	22.06	22.90	25.88	26.61	26.58	27.33	28.16
	12H	20.65	21.32	21.38	22.06	22.90	26.62	27.28	27.34	28.02	28.86
8H	4H	20.79	21.52	21.49	22.24	23.07	24.02	24.76	24.72	25.47	26.31
	6H	21.32	21.94	22.05	22.70	23.53	25.49	26.11	26.22	26.87	27.71
	8H	21.49	22.05	22.23	22.80	23.66	26.29	26.85	27.03	27.61	28.46
	12H	21.59	22.09	22.34	22.84	23.75	27.19	27.69	27.94	28.44	29.35
12H	4H	20.95	21.62	21.67	22.36	23.20	24.01	24.68	24.73	25.42	26.26
	6H	21.58	22.13	22.32	22.89	23.74	25.51	26.07	26.25	26.83	27.68
	8H	21.82	22.32	22.57	23.07	23.98	26.36	26.86	27.11	27.61	28.52