

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: P894890

Luminaire Tested: 8TMB-20HL-FLTU-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894890
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-20HL-FLTU-UNV-L935
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 35
Light Source: -
Ballast/Driver: -

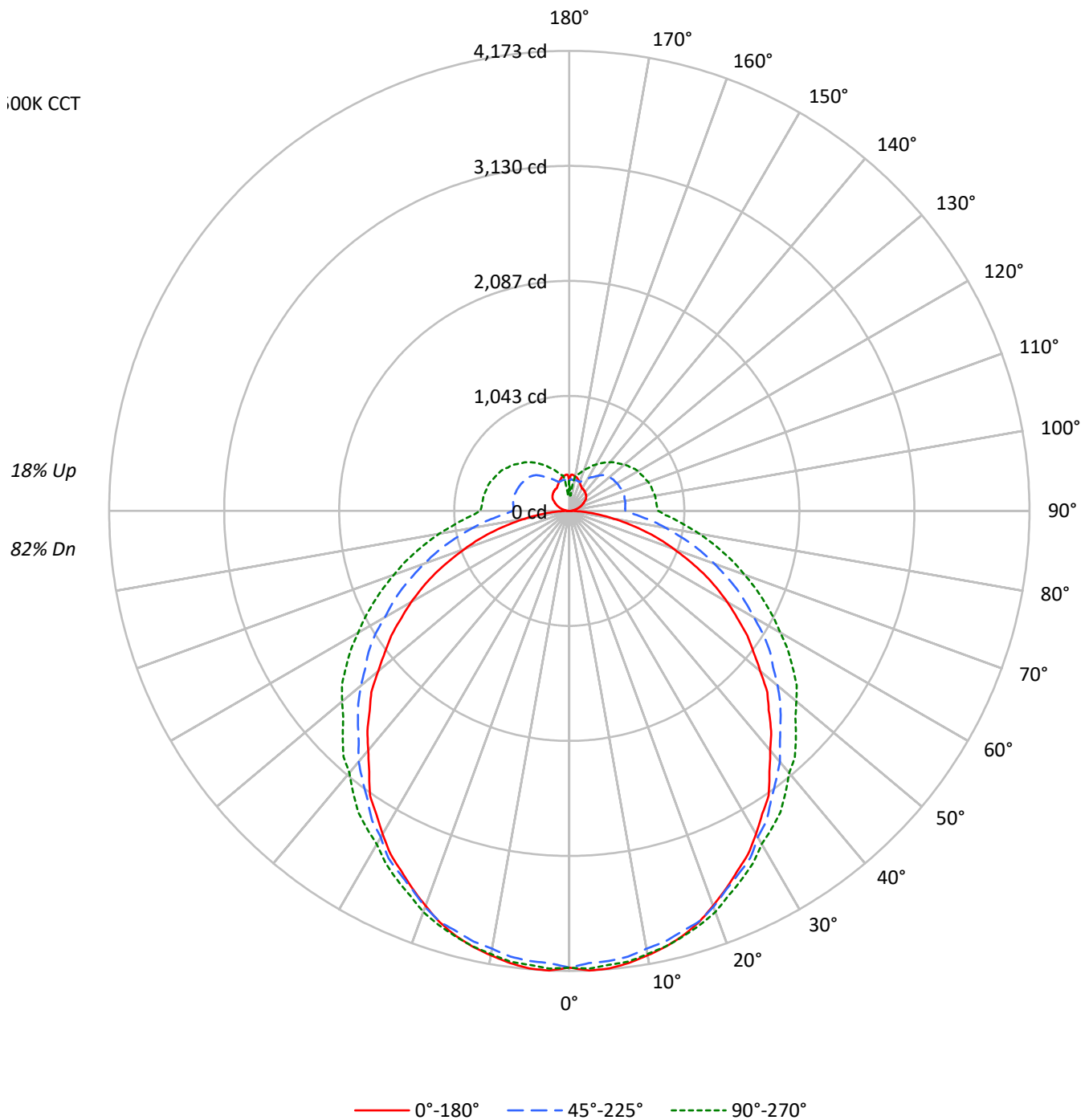
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15574.0 lumens
Efficiency: N/A
Efficacy: 107.4 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): 145
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.79
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°	14698	14698	14698
5°	14807	14097	14049
10°	14683	13558	13408
15°	14549	13082	12796
20°	14260	12578	12189
25°	13946	11956	11517
30°	13664	11346	10865
35°	13408	10765	10446
40°	12850	10267	9841
45°	12508	9671	9419
50°	12102	9172	8975
55°	11748	8697	8578
60°	11238	8044	8046
65°	10658	7519	7545
70°	9758	6866	7000
75°	8827	6215	6481
80°	7247	5503	5957
85°	5452	4814	5466

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12508 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.4	2.5
10°-20°	1120.5	7.2
20°-30°	1683.2	10.8
30°-40°	2017.3	13.0
40°-50°	2115.0	13.6
50°-60°	1984.1	12.7
60°-70°	1647.9	10.6
70°-80°	1178.3	7.6
80°-90°	698.8	4.5
90°-100°	512.6	3.3
100°-110°	505.0	3.2
110°-120°	471.1	3.0
120°-130°	413.4	2.7
130°-140°	332.9	2.1
140°-150°	238.9	1.5
150°-160°	151.8	1.0
160°-170°	84.2	0.5
170°-180°	26.5	0.2
0°-30°	3196.1	20.5
0°-40°	5213.4	33.5
0°-60°	9312.5	59.8
0°-90°	12837.5	82.4
90°-120°	1488.8	9.6
90°-150°	2474.0	15.9
90°-180°	2737.0	17.6
0°-180°	15574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4142	4142	4142	4142	4142	
5°	4167	4158	4098	4118	4134	395
15°	3988	3964	3949	3978	3995	1123
25°	3606	3638	3632	3674	3694	1664
35°	3152	3163	3192	3284	3337	1956
45°	2558	2630	2710	2888	2906	1978
55°	1970	2034	2221	2401	2472	1753
65°	1340	1442	1675	1900	1955	1321
75°	707	870	1140	1376	1440	747
85°	174	381	667	892	975	191
90°	7	231	508	726	806	14
95°	20	242	508	718	792	21
105°	70	266	517	709	775	75
115°	128	288	506	674	740	126
125°	183	297	491	625	682	160
135°	211	286	456	566	612	164
145°	229	264	374	498	533	144
155°	251	264	306	385	436	116
165°	299	291	282	280	350	84
175°	330	317	284	236	143	31
180°	273	273	273	273	273	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4142.5	4142.5	4142.5	4142.5	4142.5
2.5°	4173.4	4140.3	4105.1	4158.0	4155.8
5°	4166.8	4158.0	4098.5	4118.3	4133.7
7.5°	4135.9	4113.9	4078.7	4127.1	4122.7
10°	4094.1	4067.7	4032.5	4061.1	4080.9
12.5°	4047.9	4025.9	4001.7	4032.5	4045.7
15°	3988.5	3964.3	3948.8	3977.5	3995.1
17.5°	3911.4	3904.8	3907.0	3909.2	3937.8
20°	3812.4	3816.8	3823.4	3863.0	3871.8
22.5°	3711.1	3735.3	3717.7	3779.4	3775.0
25°	3605.5	3638.5	3631.9	3673.7	3693.5
27.5°	3510.8	3513.0	3552.6	3612.1	3605.5
30°	3385.4	3422.8	3418.4	3491.0	3491.0
32.5°	3257.7	3312.7	3330.3	3394.2	3416.2
35°	3152.0	3163.0	3191.7	3284.1	3336.9
37.5°	2980.3	3033.2	3079.4	3200.5	3220.3
40°	2835.1	2887.9	2971.5	3112.4	3101.4
42.5°	2709.6	2764.6	2826.3	2989.1	3028.8
45°	2557.7	2630.4	2709.6	2887.9	2905.5
47.5°	2434.5	2491.7	2595.1	2758.0	2780.0
50°	2260.6	2353.0	2465.3	2654.6	2687.6
52.5°	2106.5	2185.7	2328.8	2524.7	2599.5
55°	1970.0	2033.9	2221.0	2401.4	2471.9
57.5°	1802.7	1890.8	2086.7	2287.0	2350.8
60°	1655.3	1741.1	1930.4	2159.3	2209.9
62.5°	1499.0	1600.2	1804.9	2027.3	2084.5
65°	1340.5	1441.7	1675.1	1899.6	1954.6
67.5°	1168.8	1294.3	1532.0	1765.3	1822.5
70°	1008.1	1144.6	1399.9	1633.2	1690.5
72.5°	862.8	1010.3	1270.1	1510.0	1571.6
75°	706.6	869.5	1140.2	1375.7	1439.5
77.5°	554.7	730.8	1005.9	1243.6	1318.5
80°	407.2	600.9	889.3	1118.2	1197.4
82.5°	286.1	484.3	781.4	1005.9	1078.6
85°	173.9	380.8	666.9	891.5	975.1
87.5°	77.0	295.0	576.7	799.0	873.9
90°	6.6	231.1	508.5	726.4	805.6
92.5°	13.2	235.5	506.3	717.6	796.8
95°	19.8	242.1	508.5	717.6	792.4
97.5°	28.6	250.9	512.9	717.6	790.2
100°	41.8	255.3	515.1	717.6	790.2
102.5°	55.0	261.9	512.9	706.6	781.4
105°	70.4	266.3	517.3	708.8	774.8
107.5°	85.8	270.7	517.3	697.8	772.6
110°	101.3	277.3	512.9	691.2	763.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.5	283.9	510.7	678.0	748.4
115°	127.7	288.3	506.3	673.5	739.6
117.5°	140.9	290.6	504.1	662.5	726.4
120°	151.9	295.0	499.7	649.3	719.8
122.5°	165.1	297.2	493.1	636.1	706.6
125°	182.7	297.2	490.9	625.1	682.4
127.5°	191.5	299.4	482.0	611.9	671.3
130°	200.3	292.8	477.6	596.5	653.7
132.5°	206.9	290.6	466.6	581.1	631.7
135°	211.3	286.1	455.6	565.7	611.9
137.5°	217.9	279.5	440.2	554.7	598.7
140°	222.3	275.1	418.2	532.7	576.7
142.5°	226.7	268.5	396.2	512.9	554.7
145°	228.9	264.1	374.2	497.5	532.7
147.5°	235.5	257.5	361.0	477.6	508.5
150°	233.3	253.1	341.2	453.4	484.3
152.5°	239.9	259.7	323.6	420.4	464.4
155°	250.9	264.1	306.0	385.2	435.8
157.5°	261.9	272.9	292.8	354.4	413.8
160°	277.3	277.3	277.3	330.2	396.2
162.5°	286.1	286.1	279.5	301.6	372.0
165°	299.4	290.6	281.7	279.5	350.0
167.5°	312.6	295.0	286.1	270.7	334.6
170°	314.8	301.6	283.9	255.3	323.6
172.5°	323.6	308.2	281.7	242.1	250.9
175°	330.2	317.0	283.9	235.5	143.1
177.5°	328.0	317.0	290.6	235.5	138.7
180°	272.9	272.9	272.9	272.9	272.9



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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	17.09	18.41	17.70	19.04	19.75	19.68	21.00	20.29	21.63	22.34
	3H	18.52	19.72	19.14	20.36	21.11	22.08	23.28	22.70	23.92	24.67
	4H	18.98	20.12	19.63	20.77	21.54	23.22	24.36	23.86	25.01	25.77
	6H	19.25	20.31	19.90	20.97	21.75	24.37	25.44	25.03	26.10	26.87
	8H	19.30	20.32	19.97	21.00	21.78	24.96	25.97	25.62	26.65	27.44
	12H	19.32	20.29	19.99	20.96	21.77	25.59	26.56	26.27	27.24	28.05
4H	2H	17.97	19.11	18.62	19.76	20.53	20.02	21.16	20.66	21.81	22.57
	3H	19.62	20.59	20.28	21.28	22.06	22.63	23.60	23.29	24.29	25.07
	4H	20.21	21.09	20.88	21.79	22.60	23.93	24.82	24.61	25.51	26.32
	6H	20.58	21.36	21.27	22.08	22.90	25.26	26.04	25.95	26.76	27.58
	8H	20.67	21.40	21.37	22.12	22.95	25.93	26.67	26.63	27.38	28.22
	12H	20.71	21.38	21.43	22.12	22.96	26.68	27.34	27.40	28.08	28.92
8H	4H	20.84	21.58	21.54	22.29	23.13	24.08	24.81	24.78	25.53	26.36
	6H	21.38	22.00	22.11	22.75	23.59	25.55	26.17	26.28	26.93	27.76
	8H	21.55	22.10	22.29	22.86	23.71	26.35	26.91	27.09	27.66	28.52
	12H	21.65	22.15	22.40	22.90	23.81	27.25	27.74	27.99	28.49	29.40
12H	4H	21.01	21.67	21.73	22.41	23.25	24.07	24.74	24.79	25.48	26.32
	6H	21.63	22.19	22.37	22.95	23.80	25.57	26.13	26.31	26.89	27.74
	8H	21.88	22.38	22.62	23.12	24.03	26.42	26.92	27.16	27.66	28.57