

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: P894889

Luminaire Tested: 8TMB-20HL-FLTU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894889
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-L930
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 30
Light Source: -
Ballast/Driver: -

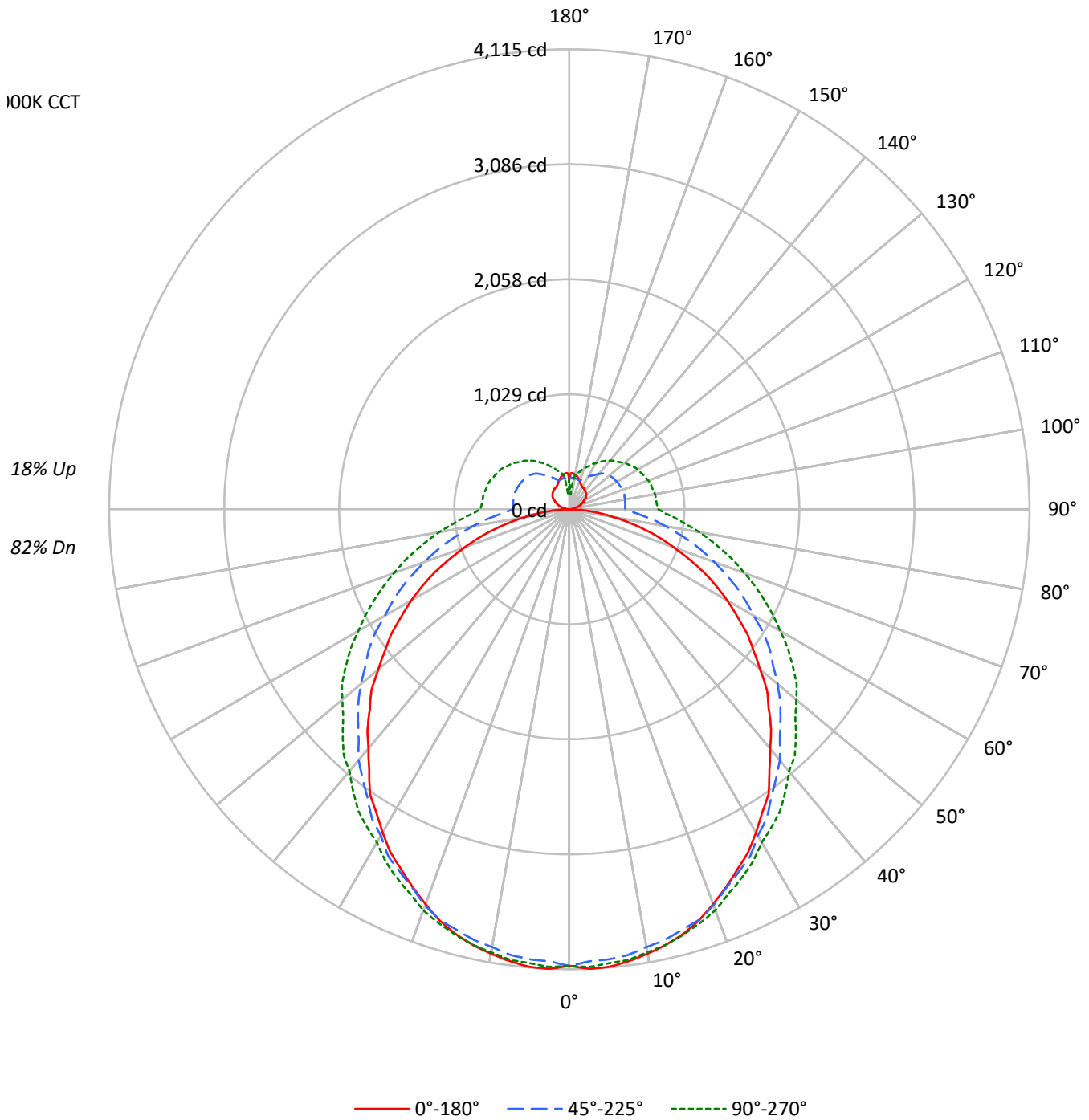
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15355.0 lumens
Efficiency: N/A
Efficacy: 105.9 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): 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°	14492	14492	14492
5°	14599	13899	13852
10°	14477	13368	13219
15°	14345	12898	12616
20°	14059	12401	12017
25°	13749	11787	11355
30°	13472	11187	10713
35°	13219	10614	10299
40°	12669	10122	9702
45°	12332	9535	9286
50°	11932	9042	8849
55°	11583	8575	8458
60°	11080	7931	7933
65°	10507	7413	7439
70°	9621	6769	6901
75°	8702	6128	6390
80°	7146	5426	5873
85°	5374	4747	5389

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.9	2.5
10°-20°	1104.8	7.2
20°-30°	1659.5	10.8
30°-40°	1989.0	13.0
40°-50°	2085.3	13.6
50°-60°	1956.2	12.7
60°-70°	1624.8	10.6
70°-80°	1161.7	7.6
80°-90°	689.0	4.5
90°-100°	505.4	3.3
100°-110°	497.9	3.2
110°-120°	464.5	3.0
120°-130°	407.6	2.7
130°-140°	328.2	2.1
140°-150°	235.6	1.5
150°-160°	149.7	1.0
160°-170°	83.0	0.5
170°-180°	26.1	0.2
0°-30°	3151.1	20.5
0°-40°	5140.1	33.5
0°-60°	9181.5	59.8
0°-90°	12657.0	82.4
90°-120°	1467.8	9.6
90°-150°	2439.2	15.9
90°-180°	2698.0	17.6
0°-180°	15355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4084	4084	4084	4084	4084	
5°	4108	4100	4041	4060	4076	390
15°	3932	3908	3893	3922	3939	1107
25°	3555	3587	3581	3622	3642	1640
35°	3108	3119	3147	3238	3290	1929
45°	2522	2593	2672	2847	2865	1951
55°	1942	2005	2190	2368	2437	1728
65°	1322	1422	1652	1873	1927	1302
75°	697	857	1124	1356	1419	736
85°	171	375	658	879	961	188
90°	6	228	501	716	794	14
95°	20	239	501	708	781	20
105°	69	263	510	699	764	74
115°	126	284	499	664	729	124
125°	180	293	484	616	673	158
135°	208	282	449	558	603	162
145°	226	260	369	490	525	142
155°	247	260	302	380	430	114
165°	295	286	278	276	345	83
175°	326	312	280	232	141	30
180°	269	269	269	269	269	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4084.3	4084.3	4084.3	4084.3	4084.3
2.5°	4114.7	4082.1	4047.4	4099.5	4097.3
5°	4108.2	4099.5	4040.9	4060.4	4075.6
7.5°	4077.8	4056.1	4021.4	4069.1	4064.8
10°	4036.6	4010.5	3975.8	4004.0	4023.5
12.5°	3991.0	3969.3	3945.4	3975.8	3988.8
15°	3932.4	3908.5	3893.3	3921.5	3938.9
17.5°	3856.4	3849.9	3852.1	3854.3	3882.5
20°	3758.8	3763.1	3769.6	3808.7	3817.4
22.5°	3658.9	3682.8	3665.4	3726.2	3721.9
25°	3554.8	3587.3	3580.8	3622.0	3641.6
27.5°	3461.5	3463.6	3502.7	3561.3	3554.8
30°	3337.7	3374.6	3370.3	3441.9	3441.9
32.5°	3211.9	3266.1	3283.5	3346.4	3368.1
35°	3107.7	3118.6	3146.8	3237.9	3290.0
37.5°	2938.4	2990.5	3036.1	3155.5	3175.0
40°	2795.2	2847.3	2929.8	3068.6	3057.8
42.5°	2671.5	2725.8	2786.5	2947.1	2986.2
45°	2521.8	2593.4	2671.5	2847.3	2864.6
47.5°	2400.2	2456.7	2558.7	2719.2	2740.9
50°	2228.8	2319.9	2430.6	2617.2	2649.8
52.5°	2076.9	2155.0	2296.1	2489.2	2563.0
55°	1942.3	2005.3	2189.7	2367.7	2437.1
57.5°	1777.4	1864.2	2057.3	2254.8	2317.8
60°	1632.0	1716.6	1903.3	2129.0	2178.9
62.5°	1477.9	1577.7	1779.6	1998.7	2055.2
65°	1321.6	1421.5	1651.5	1872.9	1927.1
67.5°	1152.4	1276.1	1510.5	1740.5	1796.9
70°	993.9	1128.5	1380.2	1610.3	1666.7
72.5°	850.7	996.1	1252.2	1488.7	1549.5
75°	696.6	857.2	1124.2	1356.4	1419.3
77.5°	546.9	720.5	991.8	1226.2	1299.9
80°	401.5	592.5	876.8	1102.5	1180.6
82.5°	282.1	477.4	770.4	991.8	1063.4
85°	171.4	375.4	657.6	878.9	961.4
87.5°	76.0	290.8	568.6	787.8	861.6
90°	6.5	227.9	501.3	716.2	794.3
92.5°	13.0	232.2	499.1	707.5	785.6
95°	19.5	238.7	501.3	707.5	781.3
97.5°	28.2	247.4	505.7	707.5	779.1
100°	41.2	251.7	507.8	707.5	779.1
102.5°	54.3	258.3	505.7	696.6	770.4
105°	69.4	262.6	510.0	698.8	763.9
107.5°	84.6	266.9	510.0	687.9	761.7
110°	99.8	273.4	505.7	681.4	753.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	112.8	280.0	503.5	668.4	737.9
115°	125.9	284.3	499.1	664.1	729.2
117.5°	138.9	286.5	497.0	653.2	716.2
120°	149.7	290.8	492.6	640.2	709.7
122.5°	162.8	293.0	486.1	627.2	696.6
125°	180.1	293.0	484.0	616.3	672.8
127.5°	188.8	295.1	475.3	603.3	661.9
130°	197.5	288.6	470.9	588.1	644.5
132.5°	204.0	286.5	460.1	572.9	622.8
135°	208.3	282.1	449.2	557.7	603.3
137.5°	214.8	275.6	434.0	546.9	590.3
140°	219.2	271.3	412.3	525.2	568.6
142.5°	223.5	264.8	390.6	505.7	546.9
145°	225.7	260.4	368.9	490.5	525.2
147.5°	232.2	253.9	355.9	470.9	501.3
150°	230.0	249.6	336.4	447.1	477.4
152.5°	236.6	256.1	319.0	414.5	457.9
155°	247.4	260.4	301.7	379.8	429.7
157.5°	258.3	269.1	288.6	349.4	408.0
160°	273.4	273.4	273.4	325.5	390.6
162.5°	282.1	282.1	275.6	297.3	366.8
165°	295.1	286.5	277.8	275.6	345.1
167.5°	308.2	290.8	282.1	266.9	329.9
170°	310.3	297.3	280.0	251.7	319.0
172.5°	319.0	303.8	277.8	238.7	247.4
175°	325.5	312.5	280.0	232.2	141.1
177.5°	323.4	312.5	286.5	232.2	136.7
180°	269.1	269.1	269.1	269.1	269.1



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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	17.04	18.36	17.65	18.99	19.70	19.63	20.95	20.24	21.58	22.30
	3H	18.47	19.67	19.09	20.31	21.06	22.03	23.23	22.65	23.87	24.62
	4H	18.93	20.07	19.58	20.72	21.49	23.17	24.31	23.81	24.96	25.72
	6H	19.20	20.26	19.86	20.92	21.70	24.32	25.39	24.98	26.05	26.82
	8H	19.25	20.27	19.92	20.95	21.73	24.91	25.92	25.58	26.61	27.39
	12H	19.27	20.24	19.94	20.91	21.73	25.54	26.51	26.22	27.19	28.00
4H	2H	17.92	19.06	18.57	19.71	20.48	19.97	21.11	20.61	21.76	22.52
	3H	19.58	20.55	20.23	21.23	22.02	22.58	23.55	23.24	24.24	25.02
	4H	20.16	21.05	20.83	21.74	22.55	23.88	24.77	24.56	25.46	26.27
	6H	20.53	21.31	21.23	22.03	22.85	25.21	25.99	25.90	26.71	27.53
	8H	20.62	21.36	21.32	22.07	22.90	25.88	26.62	26.58	27.33	28.17
	12H	20.66	21.33	21.38	22.07	22.91	26.63	27.29	27.35	28.03	28.87
8H	4H	20.80	21.53	21.49	22.24	23.08	24.03	24.76	24.73	25.48	26.31
	6H	21.33	21.95	22.06	22.70	23.54	25.50	26.12	26.23	26.88	27.71
	8H	21.50	22.06	22.24	22.81	23.66	26.30	26.86	27.04	27.62	28.47
	12H	21.60	22.10	22.35	22.85	23.76	27.20	27.70	27.94	28.44	29.35
12H	4H	20.96	21.63	21.68	22.36	23.20	24.02	24.69	24.74	25.43	26.27
	6H	21.58	22.14	22.32	22.90	23.75	25.52	26.08	26.26	26.84	27.69
	8H	21.83	22.33	22.57	23.07	23.98	26.37	26.87	27.11	27.61	28.53