

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: P894742

Luminaire Tested: 8TMB-16HL-RNDU-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894742
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-16HL-RNDU-UNV-L835
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

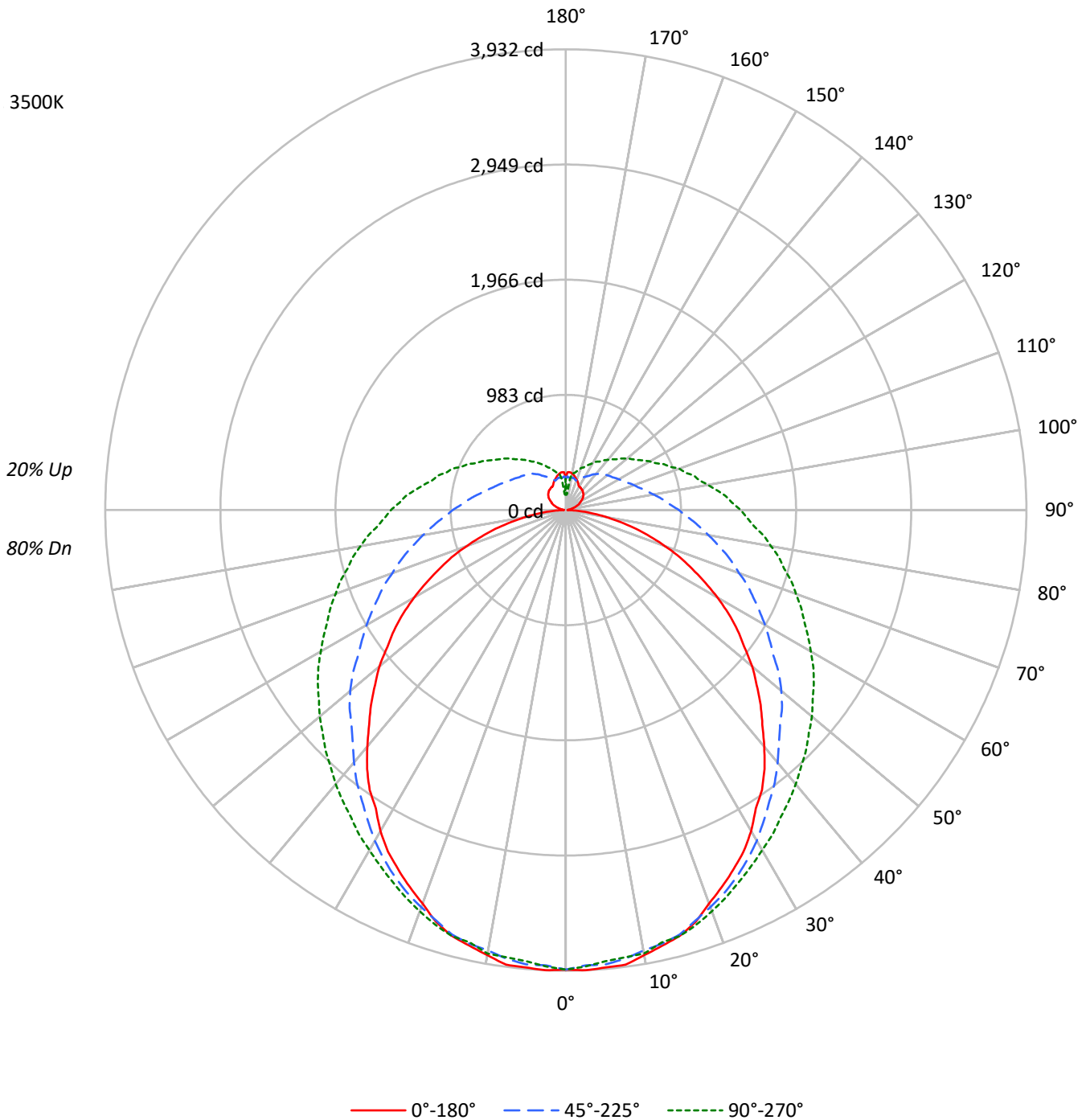
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16491.0 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
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 (Ain): 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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	83	83	83	80
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	65	65	65	61
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	53	53	53	49
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	44	44	44	41
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	37	37	37	34
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	32	32	32	29
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	28	28	28	26
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	25	25	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	22	22	22	20
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	20	20	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13919	13919	13919
5°	13924	13387	13139
10°	13833	12835	12629
15°	13726	12429	12059
20°	13368	11866	11472
25°	13094	11368	10919
30°	12769	10821	10434
35°	12412	10227	10014
40°	11943	9718	9690
45°	11501	9232	9402
50°	11123	8938	9158
55°	10677	8471	8969
60°	10144	8182	8795
65°	9471	7927	8663
70°	8728	7726	8658
75°	7756	7666	8683
80°	6325	7657	8851
85°	4540	7871	9051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11501 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.4	2.3
10°-20°	1061.2	6.4
20°-30°	1593.4	9.7
30°-40°	1913.4	11.6
40°-50°	2023.9	12.3
50°-60°	1950.4	11.8
60°-70°	1730.4	10.5
70°-80°	1419.1	8.6
80°-90°	1098.3	6.7
90°-100°	856.9	5.2
100°-110°	682.2	4.1
110°-120°	545.2	3.3
120°-130°	430.0	2.6
130°-140°	328.1	2.0
140°-150°	230.7	1.4
150°-160°	147.5	0.9
160°-170°	82.7	0.5
170°-180°	26.2	0.2
0°-30°	3025.9	18.3
0°-40°	4939.4	30.0
0°-60°	8913.7	54.1
0°-90°	13161.5	79.8
90°-120°	2084.2	12.6
90°-150°	3073.1	18.6
90°-180°	3329.0	20.2
0°-180°	16491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3923	3923	3923	3923	3923	
5°	3918	3929	3892	3921	3866	373
15°	3763	3765	3752	3776	3765	1057
25°	3385	3440	3453	3513	3502	1559
35°	2918	2962	3032	3157	3199	1819
45°	2352	2422	2587	2832	2900	1814
55°	1790	1880	2163	2457	2584	1597
65°	1191	1356	1766	2132	2244	1184
75°	621	893	1406	1786	1928	657
85°	145	544	1090	1483	1615	163
90°	15	432	965	1343	1492	15
95°	20	358	854	1226	1371	20
105°	66	290	682	1003	1132	70
115°	127	283	566	818	924	123
125°	178	287	487	671	744	156
135°	208	279	437	568	612	162
145°	226	257	360	476	505	142
155°	250	263	296	373	417	115
165°	296	290	279	272	338	83
175°	325	314	279	228	145	31
180°	266	266	266	266	266	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3922.8	3922.8	3922.8	3922.8	3922.8
2.5°	3931.6	3944.8	3889.9	3922.8	3898.7
5°	3918.4	3929.4	3892.1	3920.6	3865.8
7.5°	3914.0	3909.7	3863.6	3900.9	3850.4
10°	3857.0	3872.4	3817.5	3868.0	3843.8
12.5°	3808.7	3839.5	3791.2	3830.7	3780.2
15°	3762.7	3764.9	3751.7	3775.8	3764.9
17.5°	3685.9	3705.6	3674.9	3729.8	3710.0
20°	3574.0	3635.4	3606.9	3657.4	3644.2
22.5°	3481.8	3512.6	3536.7	3593.7	3576.2
25°	3385.3	3440.2	3453.3	3512.6	3501.6
27.5°	3286.6	3310.7	3361.2	3424.8	3427.0
30°	3163.7	3190.0	3260.2	3332.6	3352.4
32.5°	3018.9	3102.3	3144.0	3253.7	3284.4
35°	2918.0	2961.9	3032.1	3157.1	3198.8
37.5°	2786.3	2836.8	2931.1	3078.1	3128.6
40°	2635.0	2709.6	2812.7	2994.8	3054.0
42.5°	2483.6	2571.3	2692.0	2904.8	2972.8
45°	2351.9	2422.1	2586.7	2832.4	2900.4
47.5°	2209.3	2294.9	2503.3	2738.1	2814.9
50°	2077.7	2165.5	2402.4	2650.3	2742.5
52.5°	1919.7	2020.6	2292.7	2549.4	2656.9
55°	1790.3	1880.2	2163.3	2457.3	2584.5
57.5°	1647.7	1748.6	2062.3	2389.2	2505.5
60°	1494.1	1621.3	1963.6	2303.7	2415.6
62.5°	1342.7	1494.1	1862.7	2220.3	2330.0
65°	1191.3	1355.9	1766.1	2132.5	2244.4
67.5°	1055.3	1233.0	1678.4	2036.0	2174.2
70°	901.7	1114.5	1575.3	1946.1	2090.9
72.5°	756.9	1007.0	1491.9	1873.7	2018.5
75°	620.9	892.9	1406.3	1785.9	1928.5
77.5°	484.9	785.4	1316.4	1706.9	1862.7
80°	355.4	697.7	1237.4	1630.1	1779.3
82.5°	245.7	620.9	1160.6	1566.5	1706.9
85°	144.8	544.1	1090.4	1483.1	1614.8
87.5°	65.8	482.7	1018.0	1419.5	1548.9
90°	15.4	432.2	965.3	1342.7	1491.9
92.5°	15.4	392.7	901.7	1285.7	1421.7
95°	19.7	357.6	853.5	1226.4	1371.2
97.5°	26.3	331.3	809.6	1171.6	1298.8
100°	37.3	313.7	761.3	1108.0	1233.0
102.5°	50.5	300.6	717.4	1050.9	1167.2
105°	65.8	289.6	682.3	1002.6	1132.1
107.5°	81.2	285.2	647.2	956.6	1066.3
110°	96.5	283.0	620.9	908.3	1031.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	111.9	280.8	592.4	864.4	963.2
115°	127.3	283.0	566.0	818.4	923.7
117.5°	136.0	283.0	541.9	778.9	866.6
120°	149.2	285.2	524.4	737.2	829.3
122.5°	162.4	285.2	506.8	706.5	787.6
125°	177.7	287.4	487.1	671.4	743.8
127.5°	186.5	287.4	476.1	647.2	713.0
130°	195.3	285.2	460.7	616.5	684.5
132.5°	204.0	280.8	452.0	588.0	651.6
135°	208.4	278.6	436.6	568.2	612.1
137.5°	215.0	272.1	421.2	539.7	588.0
140°	221.6	269.9	399.3	517.8	559.5
142.5°	221.6	263.3	383.9	498.0	535.3
145°	226.0	256.7	359.8	476.1	504.6
147.5°	230.4	254.5	342.3	454.2	489.3
150°	230.4	252.3	326.9	430.0	462.9
152.5°	234.8	254.5	311.5	408.1	438.8
155°	250.1	263.3	296.2	373.0	416.9
157.5°	263.3	272.1	280.8	346.6	392.7
160°	274.2	278.6	267.7	320.3	381.8
162.5°	283.0	285.2	269.9	296.2	357.6
165°	296.2	289.6	278.6	272.1	337.9
167.5°	307.2	294.0	283.0	265.5	322.5
170°	315.9	302.8	278.6	250.1	315.9
172.5°	322.5	305.0	280.8	234.8	265.5
175°	324.7	313.7	278.6	228.2	144.8
177.5°	322.5	315.9	287.4	226.0	129.4
180°	265.5	265.5	265.5	265.5	265.5



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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	16.22	17.53	16.86	18.19	18.96	19.70	21.02	20.34	21.68	22.45
	3H	17.67	18.87	18.32	19.54	20.34	22.58	23.78	23.23	24.45	25.25
	4H	18.14	19.28	18.81	19.96	20.77	24.06	25.20	24.73	25.88	26.69
	6H	18.41	19.48	19.10	20.17	21.00	25.67	26.73	26.35	27.43	28.25
	8H	18.47	19.49	19.17	20.21	21.04	26.53	27.55	27.22	28.26	29.09
	12H	18.49	19.47	19.19	20.18	21.04	27.47	28.45	28.18	29.16	30.02
4H	2H	17.37	18.51	18.04	19.20	20.01	20.04	21.18	20.71	21.86	22.67
	3H	19.07	20.05	19.76	20.77	21.60	23.14	24.12	23.83	24.84	25.67
	4H	19.67	20.57	20.37	21.29	22.15	24.81	25.71	25.51	26.43	27.29
	6H	20.08	20.88	20.80	21.62	22.49	26.61	27.41	27.33	28.16	29.03
	8H	20.19	20.94	20.91	21.69	22.57	27.59	28.34	28.31	29.08	29.96
	12H	20.25	20.93	20.99	21.70	22.59	28.66	29.35	29.40	30.11	31.00
8H	4H	20.72	21.47	21.44	22.22	23.10	24.98	25.74	25.71	26.48	27.36
	6H	21.36	22.01	22.12	22.79	23.67	26.97	27.61	27.72	28.39	29.28
	8H	21.59	22.17	22.35	22.96	23.85	28.09	28.67	28.85	29.45	30.35
	12H	21.74	22.26	22.51	23.03	23.99	29.35	29.87	30.12	30.64	31.60
12H	4H	21.06	21.75	21.81	22.51	23.40	24.98	25.66	25.72	26.43	27.32
	6H	21.87	22.45	22.63	23.23	24.13	27.00	27.58	27.76	28.36	29.26
	8H	22.21	22.73	22.98	23.51	24.46	28.18	28.70	28.95	29.48	30.43