

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: P894838

Luminaire Tested: 8TMB-18HL-RNDU-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894838
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-18HL-RNDU-UNV-L835
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

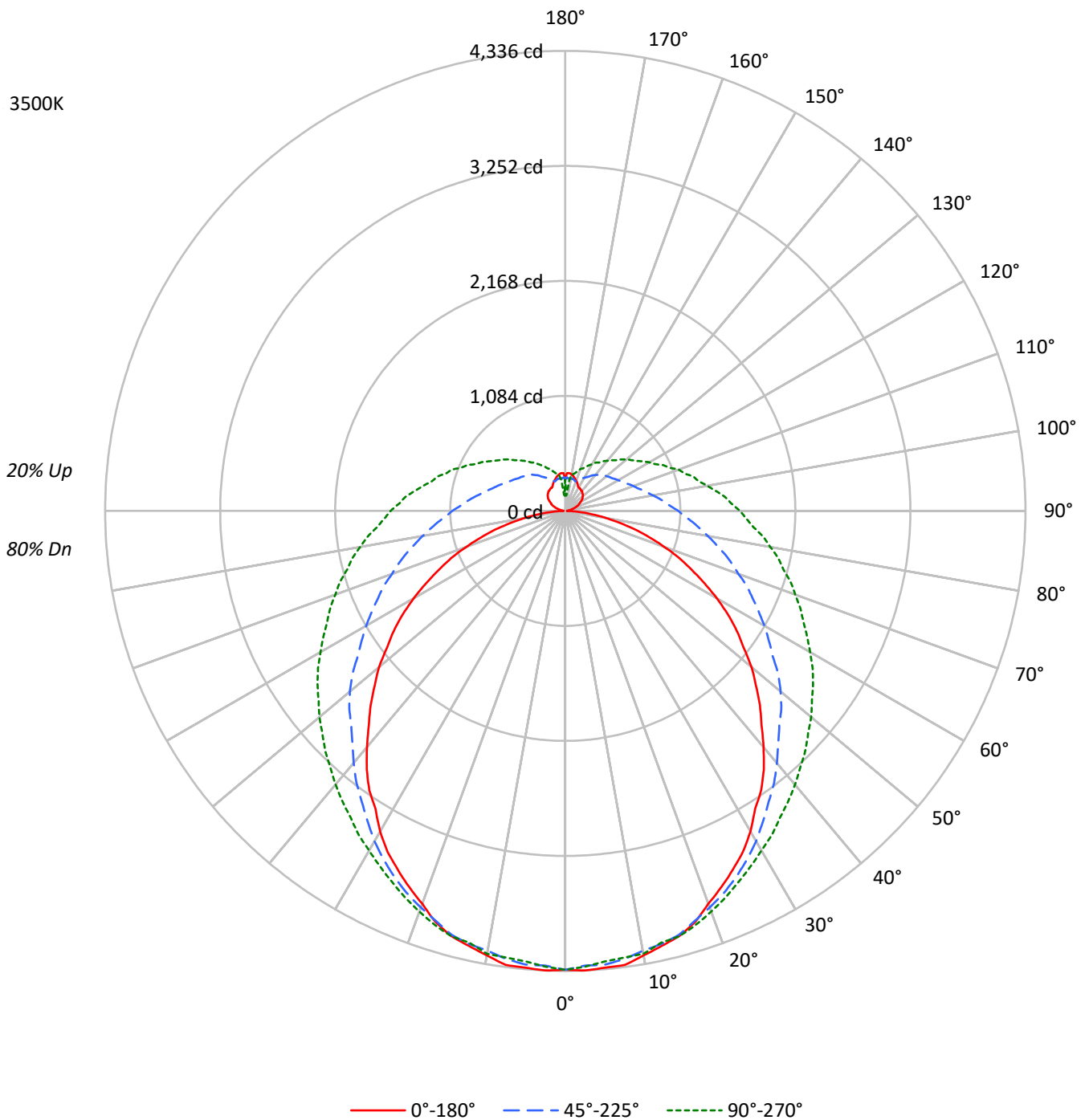
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18185.0 lumens
Efficiency: N/A
Efficacy: 134.9 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): 134.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.62
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°	15349	15349	15349
5°	15355	14762	14489
10°	15254	14154	13926
15°	15135	13706	13298
20°	14741	13085	12650
25°	14439	12535	12040
30°	14081	11933	11506
35°	13687	11277	11042
40°	13170	10716	10685
45°	12683	10180	10368
50°	12265	9856	10099
55°	11773	9341	9890
60°	11186	9022	9698
65°	10444	8742	9553
70°	9625	8520	9547
75°	8553	8454	9574
80°	6975	8443	9761
85°	5007	8680	9981

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12683 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.5	2.3
10°-20°	1170.2	6.4
20°-30°	1757.1	9.7
30°-40°	2110.0	11.6
40°-50°	2231.8	12.3
50°-60°	2150.8	11.8
60°-70°	1908.2	10.5
70°-80°	1564.9	8.6
80°-90°	1211.2	6.7
90°-100°	944.9	5.2
100°-110°	752.3	4.1
110°-120°	601.2	3.3
120°-130°	474.2	2.6
130°-140°	361.8	2.0
140°-150°	254.4	1.4
150°-160°	162.7	0.9
160°-170°	91.1	0.5
170°-180°	28.9	0.2
0°-30°	3336.8	18.3
0°-40°	5446.7	30.0
0°-60°	9829.3	54.1
0°-90°	14513.6	79.8
90°-120°	2298.4	12.6
90°-150°	3388.8	18.6
90°-180°	3671.0	20.2
0°-180°	18185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4326	4326	4326	4326	4326	
5°	4321	4333	4292	4323	4263	411
15°	4149	4152	4137	4164	4152	1166
25°	3733	3794	3808	3873	3861	1720
35°	3218	3266	3344	3481	3527	2006
45°	2594	2671	2852	3123	3198	2001
55°	1974	2073	2386	2710	2850	1761
65°	1314	1495	1948	2352	2475	1306
75°	685	985	1551	1969	2127	724
85°	160	600	1202	1636	1781	180
90°	17	477	1064	1481	1645	17
95°	22	394	941	1352	1512	22
105°	73	319	752	1106	1248	77
115°	140	312	624	902	1018	136
125°	196	317	537	740	820	172
135°	230	307	481	627	675	178
145°	249	283	397	525	556	156
155°	276	290	327	411	460	127
165°	327	319	307	300	373	92
175°	358	346	307	252	160	34
180°	293	293	293	293	293	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4325.8	4325.8	4325.8	4325.8	4325.8
2.5°	4335.5	4350.0	4289.5	4325.8	4299.2
5°	4320.9	4333.0	4291.9	4323.4	4262.9
7.5°	4316.1	4311.3	4260.5	4301.6	4245.9
10°	4253.2	4270.1	4209.7	4265.3	4238.7
12.5°	4200.0	4233.9	4180.6	4224.2	4168.5
15°	4149.2	4151.6	4137.1	4163.7	4151.6
17.5°	4064.5	4086.3	4052.4	4112.9	4091.1
20°	3941.1	4008.9	3977.4	4033.0	4018.5
22.5°	3839.5	3873.4	3900.0	3962.9	3943.5
25°	3733.0	3793.5	3808.0	3873.4	3861.3
27.5°	3624.2	3650.8	3706.4	3776.6	3779.0
30°	3488.7	3517.7	3595.1	3675.0	3696.8
32.5°	3329.0	3421.0	3466.9	3587.9	3621.8
35°	3217.7	3266.1	3343.5	3481.4	3527.4
37.5°	3072.6	3128.2	3232.2	3394.3	3450.0
40°	2905.6	2987.9	3101.6	3302.4	3367.7
42.5°	2738.7	2835.5	2968.5	3203.2	3278.2
45°	2593.5	2671.0	2852.4	3123.4	3198.4
47.5°	2436.3	2530.6	2760.5	3019.3	3104.0
50°	2291.1	2387.9	2649.2	2922.6	3024.2
52.5°	2116.9	2228.2	2528.2	2811.3	2929.8
55°	1974.2	2073.4	2385.5	2709.7	2850.0
57.5°	1816.9	1928.2	2274.2	2634.7	2762.9
60°	1647.6	1787.9	2165.3	2540.3	2663.7
62.5°	1480.6	1647.6	2054.0	2448.4	2569.3
65°	1313.7	1495.2	1947.6	2351.6	2475.0
67.5°	1163.7	1359.7	1850.8	2245.2	2397.6
70°	994.4	1229.0	1737.1	2146.0	2305.6
72.5°	834.7	1110.5	1645.2	2066.1	2225.8
75°	684.7	984.7	1550.8	1969.3	2126.6
77.5°	534.7	866.1	1451.6	1882.3	2054.0
80°	391.9	769.4	1364.5	1797.6	1962.1
82.5°	271.0	684.7	1279.8	1727.4	1882.3
85°	159.7	600.0	1202.4	1635.5	1780.6
87.5°	72.6	532.3	1122.6	1565.3	1708.1
90°	16.9	476.6	1064.5	1480.6	1645.2
92.5°	16.9	433.1	994.4	1417.7	1567.7
95°	21.8	394.4	941.1	1352.4	1512.1
97.5°	29.0	365.3	892.7	1291.9	1432.3
100°	41.1	346.0	839.5	1221.8	1359.7
102.5°	55.6	331.5	791.1	1158.9	1287.1
105°	72.6	319.4	752.4	1105.6	1248.4
107.5°	89.5	314.5	713.7	1054.8	1175.8
110°	106.5	312.1	684.7	1001.6	1137.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.4	309.7	653.2	953.2	1062.1
115°	140.3	312.1	624.2	902.4	1018.5
117.5°	150.0	312.1	597.6	858.9	955.6
120°	164.5	314.5	578.2	812.9	914.5
122.5°	179.0	314.5	558.9	779.0	868.5
125°	196.0	316.9	537.1	740.3	820.2
127.5°	205.6	316.9	525.0	713.7	786.3
130°	215.3	314.5	508.1	679.8	754.8
132.5°	225.0	309.7	498.4	648.4	718.5
135°	229.8	307.3	481.4	626.6	675.0
137.5°	237.1	300.0	464.5	595.2	648.4
140°	244.4	297.6	440.3	571.0	616.9
142.5°	244.4	290.3	423.4	549.2	590.3
145°	249.2	283.1	396.8	525.0	556.4
147.5°	254.0	280.6	377.4	500.8	539.5
150°	254.0	278.2	360.5	474.2	510.5
152.5°	258.9	280.6	343.5	450.0	483.9
155°	275.8	290.3	326.6	411.3	459.7
157.5°	290.3	300.0	309.7	382.3	433.1
160°	302.4	307.3	295.2	353.2	421.0
162.5°	312.1	314.5	297.6	326.6	394.4
165°	326.6	319.4	307.3	300.0	372.6
167.5°	338.7	324.2	312.1	292.7	355.6
170°	348.4	333.9	307.3	275.8	348.4
172.5°	355.6	336.3	309.7	258.9	292.7
175°	358.1	346.0	307.3	251.6	159.7
177.5°	355.6	348.4	316.9	249.2	142.7
180°	292.7	292.7	292.7	292.7	292.7



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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	16.56	17.87	17.20	18.53	19.30	20.04	21.36	20.68	22.02	22.79
	3H	18.01	19.21	18.66	19.88	20.68	22.92	24.12	23.57	24.79	25.59
	4H	18.48	19.62	19.15	20.30	21.11	24.40	25.54	25.07	26.22	27.03
	6H	18.75	19.82	19.44	20.51	21.34	26.01	27.07	26.69	27.77	28.59
	8H	18.81	19.83	19.51	20.55	21.38	26.87	27.89	27.56	28.60	29.43
	12H	18.83	19.81	19.53	20.52	21.38	27.81	28.79	28.52	29.50	30.36
4H	2H	17.71	18.85	18.38	19.54	20.35	20.38	21.52	21.05	22.20	23.01
	3H	19.41	20.39	20.10	21.11	21.94	23.48	24.46	24.17	25.18	26.01
	4H	20.01	20.91	20.71	21.63	22.49	25.15	26.05	25.85	26.77	27.63
	6H	20.42	21.22	21.14	21.96	22.83	26.95	27.75	27.67	28.50	29.37
	8H	20.53	21.28	21.25	22.03	22.91	27.93	28.68	28.65	29.42	30.30
	12H	20.59	21.27	21.33	22.04	22.93	29.00	29.69	29.74	30.45	31.34
8H	4H	21.06	21.81	21.78	22.56	23.44	25.32	26.08	26.05	26.82	27.70
	6H	21.70	22.35	22.46	23.13	24.01	27.31	27.95	28.06	28.73	29.62
	8H	21.93	22.51	22.69	23.30	24.19	28.43	29.01	29.19	29.79	30.69
	12H	22.08	22.60	22.85	23.37	24.33	29.69	30.21	30.45	30.98	31.94
12H	4H	21.40	22.09	22.15	22.85	23.74	25.32	26.00	26.06	26.77	27.66
	6H	22.21	22.79	22.97	23.57	24.47	27.34	27.92	28.10	28.70	29.60
	8H	22.55	23.07	23.32	23.85	24.80	28.52	29.04	29.29	29.81	30.77