

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: P894743

Luminaire Tested: 8TMB-16HL-RNDU-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894743
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-L840
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

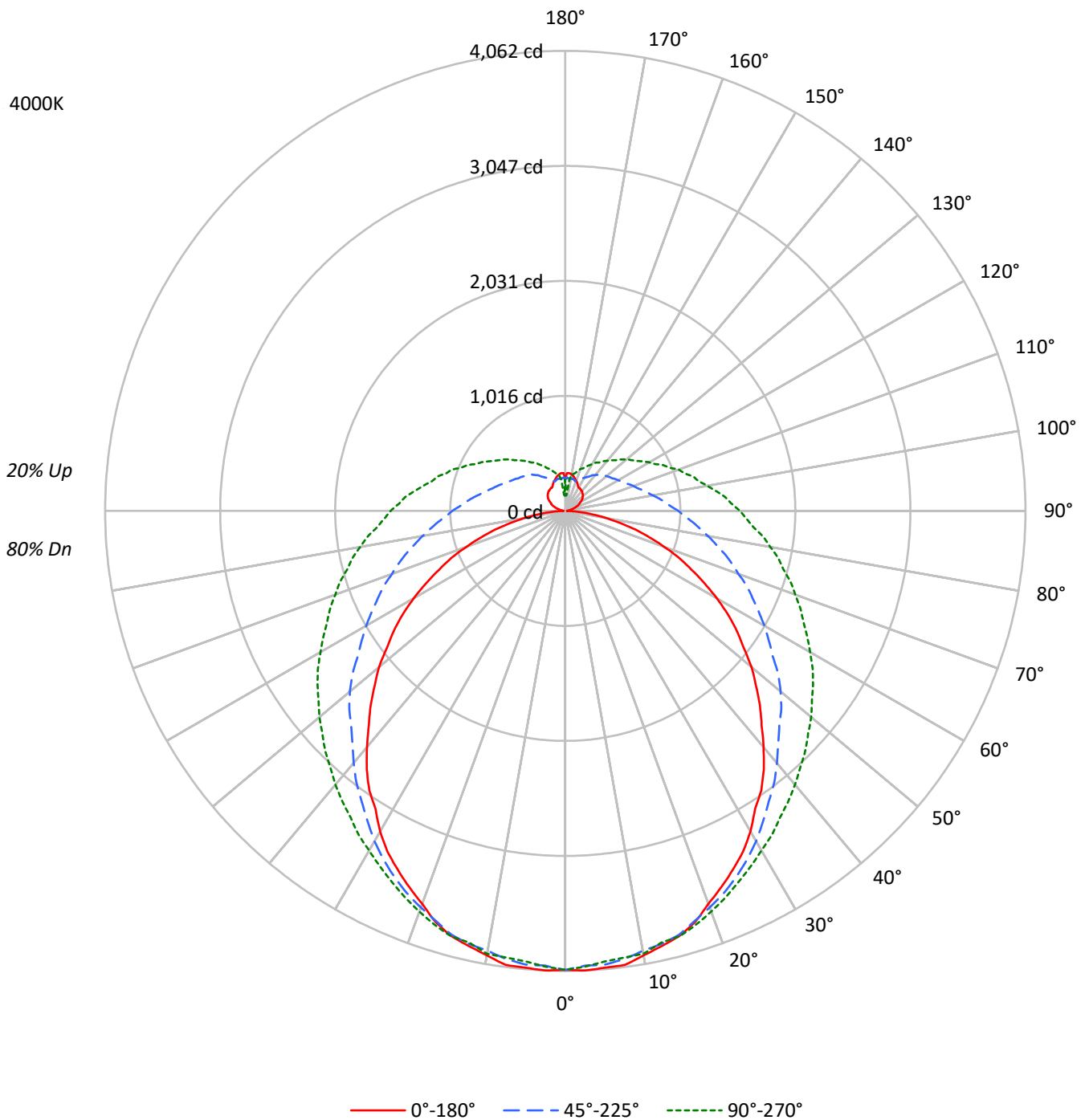
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17037.0 lumens
Efficiency: N/A
Efficacy: 147.1 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 (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	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°	14380	14380	14380
5°	14386	13830	13574
10°	14291	13260	13047
15°	14180	12841	12458
20°	13810	12259	11852
25°	13527	11744	11280
30°	13192	11180	10780
35°	12823	10565	10345
40°	12338	10040	10011
45°	11882	9538	9714
50°	11491	9233	9461
55°	11030	8752	9266
60°	10480	8453	9086
65°	9785	8190	8950
70°	9018	7981	8944
75°	8013	7920	8970
80°	6535	7911	9144
85°	4690	8132	9351

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	383.7	2.3
10°-20°	1096.3	6.4
20°-30°	1646.2	9.7
30°-40°	1976.8	11.6
40°-50°	2090.9	12.3
50°-60°	2015.0	11.8
60°-70°	1787.7	10.5
70°-80°	1466.1	8.6
80°-90°	1134.7	6.7
90°-100°	885.3	5.2
100°-110°	704.8	4.1
110°-120°	563.2	3.3
120°-130°	444.2	2.6
130°-140°	339.0	2.0
140°-150°	238.4	1.4
150°-160°	152.4	0.9
160°-170°	85.4	0.5
170°-180°	27.1	0.2
0°-30°	3126.1	18.3
0°-40°	5102.9	30.0
0°-60°	9208.8	54.1
0°-90°	13597.3	79.8
90°-120°	2153.3	12.6
90°-150°	3174.9	18.6
90°-180°	3440.0	20.2
0°-180°	17037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4053	4053	4053	4053	4053	
5°	4048	4060	4021	4050	3994	385
15°	3887	3890	3876	3901	3890	1092
25°	3497	3554	3568	3629	3618	1611
35°	3015	3060	3132	3262	3305	1879
45°	2430	2502	2672	2926	2996	1874
55°	1850	1942	2235	2539	2670	1650
65°	1231	1401	1825	2203	2319	1224
75°	642	922	1453	1845	1992	679
85°	150	562	1126	1532	1668	169
90°	16	446	997	1387	1541	16
95°	20	370	882	1267	1417	20
105°	68	299	705	1036	1170	72
115°	132	292	585	845	954	127
125°	184	297	503	694	768	162
135°	215	288	451	587	632	167
145°	234	265	372	492	521	147
155°	258	272	306	385	431	119
165°	306	299	288	281	349	86
175°	336	324	288	236	150	32
180°	274	274	274	274	274	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4052.7	4052.7	4052.7	4052.7	4052.7
2.5°	4061.8	4075.4	4018.7	4052.7	4027.8
5°	4048.2	4059.5	4021.0	4050.4	3993.8
7.5°	4043.6	4039.1	3991.5	4030.0	3977.9
10°	3984.7	4000.6	3943.9	3996.0	3971.1
12.5°	3934.8	3966.6	3916.7	3957.5	3905.4
15°	3887.2	3889.5	3875.9	3900.8	3889.5
17.5°	3807.9	3828.3	3796.6	3853.2	3832.8
20°	3692.3	3755.8	3726.3	3778.4	3764.8
22.5°	3597.1	3628.8	3653.8	3712.7	3694.6
25°	3497.4	3554.1	3567.7	3628.8	3617.5
27.5°	3395.4	3420.3	3472.5	3538.2	3540.5
30°	3268.5	3295.7	3368.2	3443.0	3463.4
32.5°	3118.9	3205.0	3248.1	3361.4	3393.1
35°	3014.6	3059.9	3132.5	3261.7	3304.7
37.5°	2878.6	2930.7	3028.2	3180.1	3232.2
40°	2722.2	2799.3	2905.8	3093.9	3155.1
42.5°	2565.8	2656.5	2781.1	3001.0	3071.3
45°	2429.8	2502.3	2672.3	2926.2	2996.5
47.5°	2282.5	2370.9	2586.2	2828.7	2908.1
50°	2146.5	2237.1	2481.9	2738.1	2833.3
52.5°	1983.3	2087.6	2368.6	2633.8	2744.9
55°	1849.6	1942.5	2234.9	2538.6	2670.1
57.5°	1702.2	1806.5	2130.6	2468.3	2588.5
60°	1543.6	1675.0	2028.6	2379.9	2495.5
62.5°	1387.2	1543.6	1924.4	2293.8	2407.1
65°	1230.8	1400.8	1824.6	2203.1	2318.7
67.5°	1090.2	1273.8	1734.0	2103.4	2246.2
70°	931.6	1151.4	1627.4	2010.5	2160.1
72.5°	782.0	1040.4	1541.3	1935.7	2085.3
75°	641.5	922.5	1452.9	1845.0	1992.4
77.5°	500.9	811.4	1360.0	1763.4	1924.4
80°	367.2	720.8	1278.4	1684.1	1838.2
82.5°	253.9	641.5	1199.0	1618.4	1763.4
85°	149.6	562.1	1126.5	1532.2	1668.2
87.5°	68.0	498.7	1051.7	1466.5	1600.2
90°	15.9	446.5	997.3	1387.2	1541.3
92.5°	15.9	405.7	931.6	1328.2	1468.8
95°	20.4	369.5	881.7	1267.0	1416.6
97.5°	27.2	342.3	836.4	1210.4	1341.8
100°	38.5	324.1	786.5	1144.6	1273.8
102.5°	52.1	310.5	741.2	1085.7	1205.8
105°	68.0	299.2	704.9	1035.8	1169.6
107.5°	83.9	294.7	668.7	988.2	1101.6
110°	99.7	292.4	641.5	938.4	1065.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.6	290.1	612.0	893.0	995.0
115°	131.5	292.4	584.8	845.4	954.2
117.5°	140.5	292.4	559.9	804.6	895.3
120°	154.1	294.7	541.7	761.6	856.8
122.5°	167.7	294.7	523.6	729.8	813.7
125°	183.6	296.9	503.2	693.6	768.4
127.5°	192.7	296.9	491.9	668.7	736.6
130°	201.7	294.7	476.0	636.9	707.2
132.5°	210.8	290.1	466.9	607.5	673.2
135°	215.3	287.9	451.1	587.1	632.4
137.5°	222.1	281.1	435.2	557.6	607.5
140°	228.9	278.8	412.5	534.9	578.0
142.5°	228.9	272.0	396.7	514.5	553.1
145°	233.5	265.2	371.7	491.9	521.3
147.5°	238.0	262.9	353.6	469.2	505.5
150°	238.0	260.7	337.7	444.3	478.3
152.5°	242.5	262.9	321.9	421.6	453.3
155°	258.4	272.0	306.0	385.3	430.7
157.5°	272.0	281.1	290.1	358.1	405.7
160°	283.3	287.9	276.5	330.9	394.4
162.5°	292.4	294.7	278.8	306.0	369.5
165°	306.0	299.2	287.9	281.1	349.1
167.5°	317.3	303.7	292.4	274.3	333.2
170°	326.4	312.8	287.9	258.4	326.4
172.5°	333.2	315.1	290.1	242.5	274.3
175°	335.5	324.1	287.9	235.7	149.6
177.5°	333.2	326.4	296.9	233.5	133.7
180°	274.3	274.3	274.3	274.3	274.3



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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	16.33	17.64	16.97	18.31	19.07	19.82	21.13	20.46	21.79	22.56
	3H	17.78	18.98	18.43	19.65	20.45	22.69	23.89	23.34	24.56	25.36
	4H	18.25	19.39	18.92	20.08	20.89	24.17	25.31	24.84	26.00	26.81
	6H	18.53	19.59	19.21	20.29	21.11	25.78	26.85	26.47	27.54	28.37
	8H	18.59	19.61	19.28	20.32	21.15	26.64	27.66	27.34	28.38	29.21
	12H	18.61	19.58	19.31	20.29	21.15	27.59	28.57	28.29	29.28	30.14
4H	2H	17.48	18.62	18.16	19.31	20.12	20.15	21.29	20.82	21.98	22.79
	3H	19.18	20.16	19.87	20.88	21.71	23.25	24.23	23.94	24.95	25.78
	4H	19.78	20.68	20.48	21.41	22.27	24.92	25.82	25.62	26.54	27.40
	6H	20.19	20.99	20.91	21.74	22.60	26.73	27.53	27.45	28.27	29.14
	8H	20.30	21.05	21.03	21.80	22.68	27.70	28.45	28.42	29.20	30.08
	12H	20.36	21.05	21.10	21.81	22.70	28.77	29.46	29.52	30.23	31.11
8H	4H	20.83	21.58	21.56	22.33	23.21	25.10	25.85	25.82	26.59	27.47
	6H	21.48	22.12	22.23	22.90	23.79	27.08	27.72	27.83	28.51	29.39
	8H	21.70	22.28	22.47	23.07	23.96	28.20	28.78	28.96	29.56	30.46
	12H	21.85	22.37	22.62	23.15	24.10	29.46	29.98	30.23	30.76	31.71
12H	4H	21.17	21.86	21.92	22.63	23.51	25.09	25.78	25.84	26.55	27.43
	6H	21.98	22.56	22.74	23.35	24.24	27.11	27.69	27.88	28.48	29.37
	8H	22.33	22.85	23.10	23.62	24.58	28.29	28.81	29.06	29.59	30.54