

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: P894733

Luminaire Tested: 8TMB-16HL-RND-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-16HL-RND-UNV-L830
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

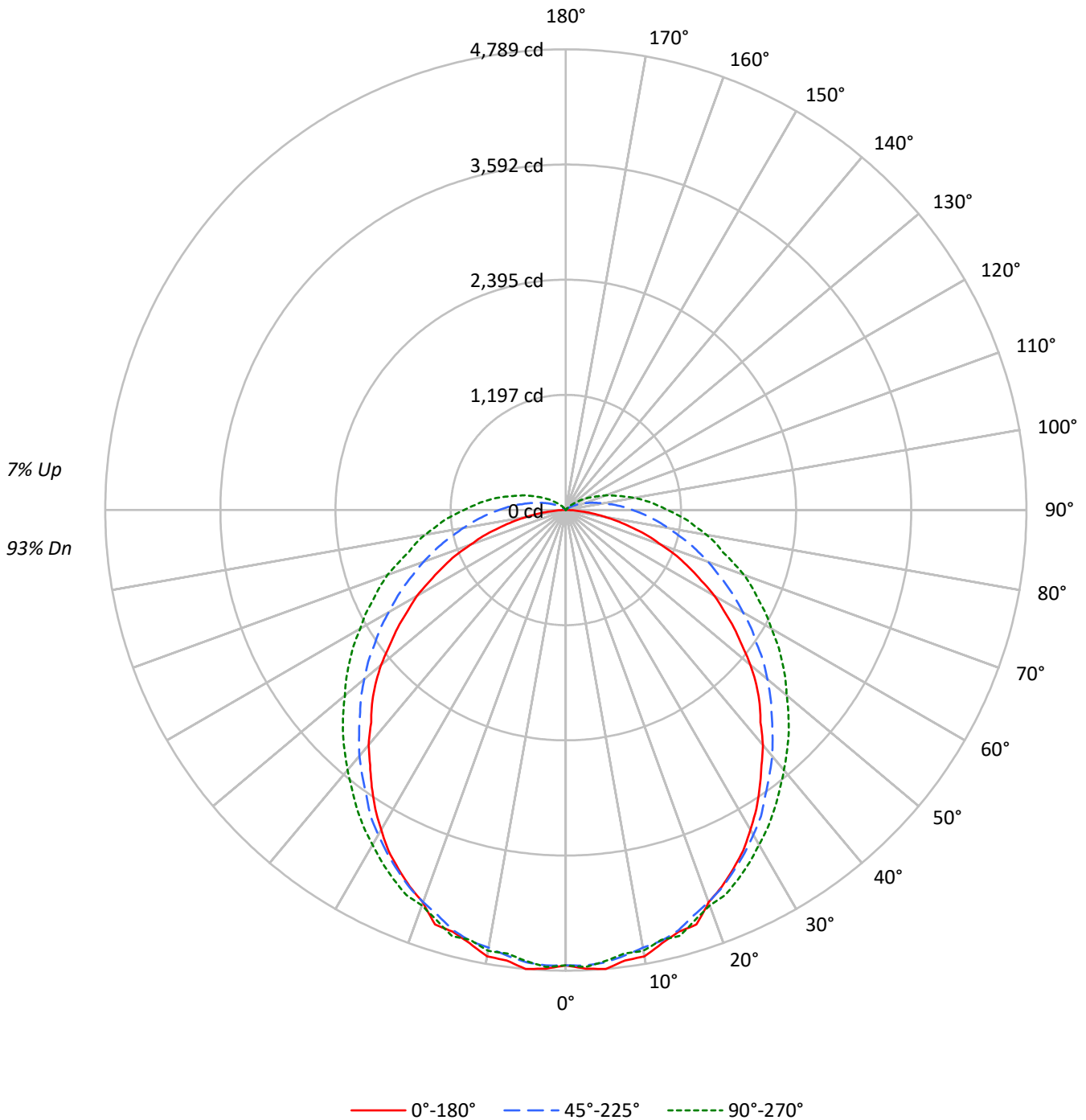
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15589.0 lumens
Efficiency: N/A
Efficacy: 134.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: 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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CATALOG NUMBER: 8TMB-16HL-RND-UNV-L830

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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16792	16792	16792
5°	17057	16810	16764
10°	16973	16646	16763
15°	16669	16613	16836
20°	16390	16374	16513
25°	16121	16189	16587
30°	15726	15975	16463
35°	15229	15670	16402
40°	14771	15463	16345
45°	14307	15187	16447
50°	13839	15094	16551
55°	13205	14986	16982
60°	12690	15087	17514
65°	11851	15487	18576
70°	10893	16351	20461
75°	9883	18104	23180
80°	8494	22119	30392
85°	6876	35784	51999

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 94391 cd/sqm



TEST NUMBER: P894733
 CATALOG NUMBER: 8TMB-16HL-RND-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	448.7	2.9
10°-20°	1277.3	8.2
20°-30°	1914.2	12.3
30°-40°	2274.7	14.6
40°-50°	2355.0	15.1
50°-60°	2182.3	14.0
60°-70°	1816.9	11.7
70°-80°	1348.5	8.7
80°-90°	891.9	5.7
90°-100°	542.8	3.5
100°-110°	304.3	2.0
110°-120°	149.8	1.0
120°-130°	61.0	0.4
130°-140°	17.7	0.1
140°-150°	2.5	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3640.2	23.4
0°-40°	5915.0	37.9
0°-60°	10452.3	67.0
0°-90°	14509.6	93.1
90°-120°	996.9	6.4
90°-150°	1078.1	6.9
90°-180°	1079.0	6.9
0°-180°	15589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4733	4733	4733	4733	4733	
5°	4789	4737	4720	4744	4707	453
15°	4538	4520	4523	4529	4583	1285
25°	4118	4114	4135	4215	4237	1895
35°	3516	3542	3618	3732	3787	2200
45°	2851	2892	3027	3215	3278	2197
55°	2135	2226	2423	2665	2745	1909
65°	1412	1544	1845	2115	2213	1402
75°	721	940	1321	1604	1691	771
85°	169	474	879	1191	1277	190
90°	9	307	695	972	1059	13
95°	2	190	539	803	892	2
105°	2	63	292	496	565	2
115°	2	15	136	273	327	2
125°	2	4	50	126	160	2
135°	4	2	13	41	56	3
145°	4	2	0	4	6	3
155°	4	4	0	0	0	2
165°	6	4	0	0	0	2
175°	6	4	0	0	0	1
180°	2	2	2	2	2	



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CATALOG NUMBER: 8TMB-16HL-RND-UNV-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4732.7	4732.7	4732.7	4732.7	4732.7
2.5°	4771.7	4747.8	4739.2	4728.4	4754.3
5°	4789.0	4737.0	4719.7	4743.5	4706.7
7.5°	4721.9	4708.9	4672.1	4685.1	4650.4
10°	4711.0	4639.6	4620.1	4663.4	4652.6
12.5°	4613.6	4553.0	4587.6	4617.9	4576.8
15°	4537.8	4520.5	4522.7	4529.2	4583.3
17.5°	4518.4	4440.4	4418.8	4472.9	4468.6
20°	4340.8	4325.7	4336.5	4407.9	4373.3
22.5°	4236.9	4189.3	4247.7	4317.0	4332.2
25°	4117.8	4113.5	4135.1	4215.3	4236.9
27.5°	3992.3	3964.1	4022.6	4115.7	4133.0
30°	3838.5	3827.7	3899.2	3979.3	4018.2
32.5°	3687.0	3693.5	3775.8	3842.9	3910.0
35°	3516.0	3541.9	3617.7	3732.5	3786.6
37.5°	3342.8	3375.2	3477.0	3609.1	3654.5
40°	3189.0	3195.5	3338.4	3472.7	3528.9
42.5°	2996.4	3061.3	3182.5	3360.1	3403.4
45°	2851.3	2892.4	3026.7	3215.0	3277.8
47.5°	2686.8	2734.4	2888.1	3072.1	3139.2
50°	2507.1	2550.4	2734.4	2944.4	2998.5
52.5°	2307.9	2396.7	2589.3	2805.8	2877.3
55°	2134.7	2225.6	2422.6	2665.1	2745.2
57.5°	1948.5	2039.4	2286.2	2511.4	2615.3
60°	1788.3	1874.9	2126.0	2405.3	2468.1
62.5°	1589.1	1712.5	1985.3	2260.3	2349.0
65°	1411.6	1543.6	1844.6	2115.2	2212.6
67.5°	1249.2	1385.6	1699.5	1989.6	2095.7
70°	1050.0	1229.7	1576.1	1861.9	1972.3
72.5°	902.8	1082.5	1444.1	1727.7	1827.3
75°	720.9	939.6	1320.6	1604.3	1690.9
77.5°	569.4	805.4	1192.9	1511.2	1597.8
80°	415.7	684.1	1082.5	1387.8	1487.4
82.5°	283.6	571.6	980.7	1273.0	1368.3
85°	168.9	474.1	879.0	1190.7	1277.3
87.5°	73.6	387.5	785.9	1071.7	1160.4
90°	8.7	307.4	695.0	972.1	1058.7
92.5°	2.2	246.8	614.9	883.3	967.8
95°	2.2	190.5	539.1	803.2	892.0
97.5°	2.2	147.2	463.3	720.9	805.4
100°	2.2	112.6	400.5	634.3	725.3
102.5°	2.2	84.4	339.9	562.9	640.8
105°	2.2	62.8	292.3	495.8	565.1
107.5°	2.2	45.5	244.6	433.0	502.3
110°	2.2	32.5	205.7	374.5	443.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.2	23.8	166.7	322.6	381.0
115°	2.2	15.2	136.4	272.8	326.9
117.5°	2.2	10.8	108.2	229.5	281.4
120°	2.2	8.7	86.6	190.5	236.0
122.5°	2.2	6.5	67.1	155.9	199.2
125°	2.2	4.3	49.8	125.6	160.2
127.5°	2.2	4.3	36.8	99.6	129.9
130°	2.2	2.2	26.0	75.8	101.8
132.5°	2.2	2.2	17.3	56.3	75.8
135°	4.3	2.2	13.0	41.1	56.3
137.5°	4.3	2.2	8.7	28.1	39.0
140°	4.3	2.2	4.3	17.3	23.8
142.5°	4.3	2.2	2.2	8.7	13.0
145°	4.3	2.2	0.0	4.3	6.5
147.5°	4.3	2.2	0.0	2.2	2.2
150°	4.3	2.2	0.0	0.0	0.0
152.5°	4.3	2.2	0.0	0.0	0.0
155°	4.3	4.3	0.0	0.0	0.0
157.5°	4.3	4.3	0.0	0.0	0.0
160°	4.3	4.3	0.0	0.0	0.0
162.5°	4.3	4.3	0.0	0.0	0.0
165°	6.5	4.3	0.0	0.0	0.0
167.5°	6.5	4.3	0.0	0.0	0.0
170°	6.5	4.3	0.0	0.0	0.0
172.5°	6.5	4.3	0.0	0.0	0.0
175°	6.5	4.3	0.0	0.0	0.0
177.5°	6.5	4.3	0.0	0.0	0.0
180°	2.2	2.2	2.2	2.2	2.2



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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	20.03	21.57	20.50	22.02	22.51	21.60	23.14	22.07	23.60	24.08
	3H	21.79	23.20	22.27	23.66	24.19	24.19	25.59	24.67	26.06	26.58
	4H	22.45	23.78	22.95	24.26	24.80	25.45	26.78	25.95	27.26	27.80
	6H	22.93	24.17	23.44	24.66	25.22	26.83	28.07	27.34	28.57	29.12
	8H	23.08	24.27	23.60	24.79	25.34	27.56	28.75	28.09	29.27	29.83
	12H	23.18	24.32	23.71	24.83	25.42	28.40	29.54	28.94	30.06	30.65
4H	2H	20.99	22.32	21.49	22.80	23.34	22.18	23.51	22.68	23.99	24.53
	3H	23.03	24.16	23.54	24.69	25.25	25.04	26.18	25.56	26.70	27.26
	4H	23.84	24.88	24.37	25.42	26.01	26.52	27.56	27.06	28.10	28.69
	6H	24.49	25.41	25.04	25.97	26.58	28.14	29.06	28.70	29.62	30.23
	8H	24.72	25.58	25.28	26.14	26.76	29.00	29.86	29.56	30.43	31.04
	12H	24.88	25.67	25.47	26.26	26.89	29.99	30.78	30.57	31.37	31.99
8H	4H	24.69	25.55	25.25	26.11	26.73	26.89	27.76	27.45	28.32	28.94
	6H	25.61	26.35	26.20	26.95	27.58	28.77	29.51	29.36	30.11	30.73
	8H	25.99	26.66	26.60	27.27	27.91	29.83	30.50	30.44	31.11	31.75
	12H	26.31	26.91	26.92	27.51	28.21	31.09	31.68	31.69	32.28	32.99
12H	4H	24.95	25.74	25.53	26.33	26.95	26.94	27.72	27.52	28.31	28.94
	6H	26.03	26.70	26.64	27.32	27.95	28.88	29.55	29.49	30.16	30.80
	8H	26.57	27.17	27.18	27.77	28.48	30.06	30.65	30.66	31.25	31.96