

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: P894745

Luminaire Tested: 8TMB-16HL-RNDU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894745
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-L930
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, CCT
Light Source: -
Ballast/Driver: -

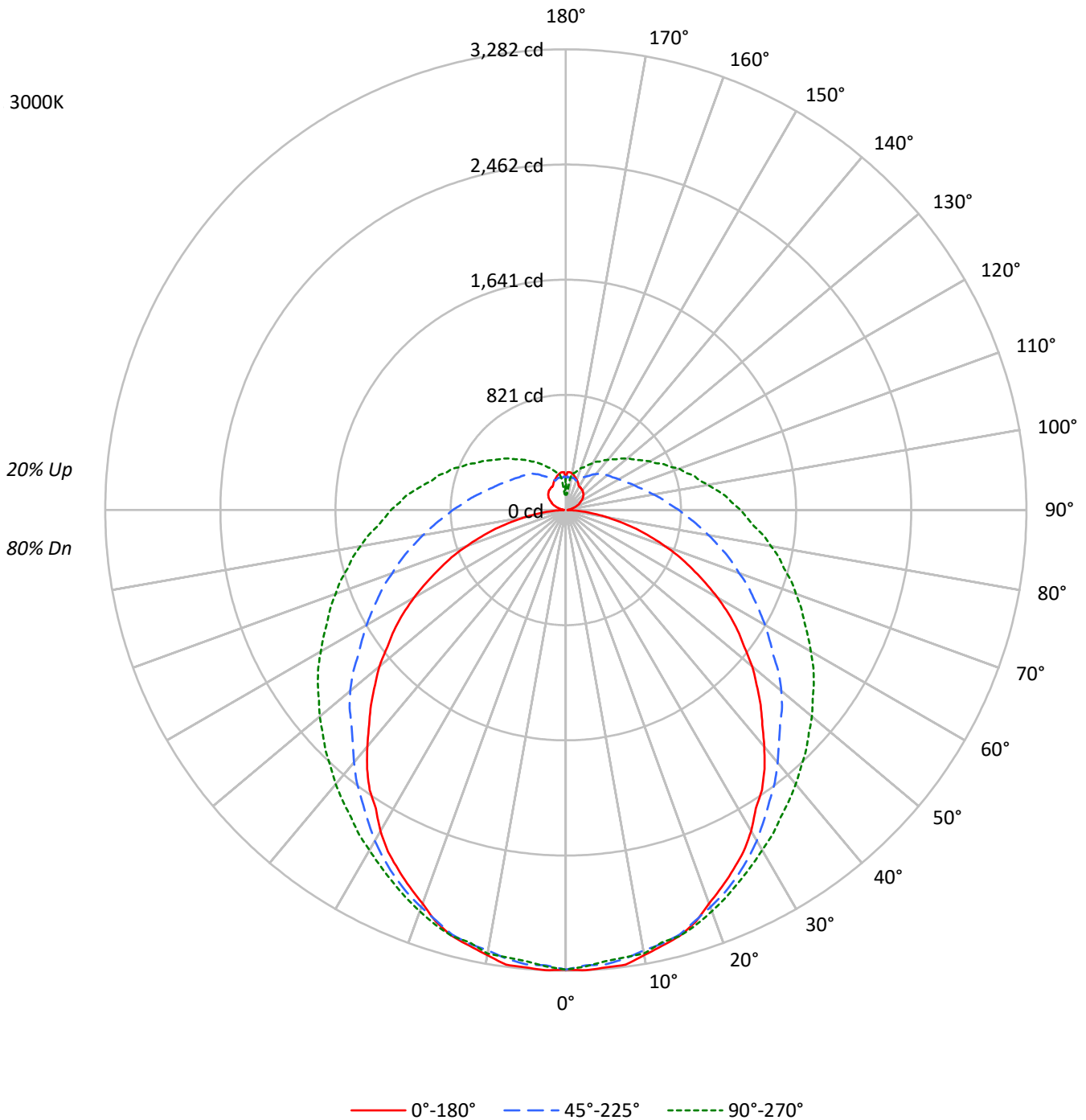
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13765.0 lumens
Efficiency: N/A
Efficacy: 118.9 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): 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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80		
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	61		
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	49		
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41		
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34		
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29		
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	26		
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23		
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20		
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	18		
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11618	11618	11618
5°	11623	11174	10967
10°	11546	10714	10541
15°	11457	10375	10066
20°	11158	9905	9576
25°	10929	9489	9114
30°	10658	9032	8709
35°	10360	8536	8358
40°	9969	8111	8088
45°	9600	7706	7848
50°	9284	7460	7644
55°	8911	7071	7487
60°	8467	6829	7341
65°	7906	6617	7231
70°	7286	6449	7226
75°	6474	6399	7247
80°	5281	6392	7388
85°	3791	6570	7555

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.0	2.3
10°-20°	885.7	6.4
20°-30°	1330.0	9.7
30°-40°	1597.1	11.6
40°-50°	1689.3	12.3
50°-60°	1628.0	11.8
60°-70°	1444.4	10.5
70°-80°	1184.5	8.6
80°-90°	916.8	6.7
90°-100°	715.2	5.2
100°-110°	569.4	4.1
110°-120°	455.1	3.3
120°-130°	358.9	2.6
130°-140°	273.9	2.0
140°-150°	192.6	1.4
150°-160°	123.1	0.9
160°-170°	69.0	0.5
170°-180°	21.9	0.2
0°-30°	2525.7	18.3
0°-40°	4122.9	30.0
0°-60°	7440.2	54.1
0°-90°	10985.9	79.8
90°-120°	1739.7	12.6
90°-150°	2565.1	18.6
90°-180°	2779.0	20.2
0°-180°	13765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3274	3274	3274	3274	3274	
5°	3271	3280	3249	3272	3227	311
15°	3141	3142	3132	3152	3142	882
25°	2826	2872	2882	2932	2923	1302
35°	2436	2472	2531	2635	2670	1518
45°	1963	2022	2159	2364	2421	1514
55°	1494	1569	1806	2051	2157	1333
65°	994	1132	1474	1780	1873	989
75°	518	745	1174	1491	1610	548
85°	121	454	910	1238	1348	136
90°	13	361	806	1121	1245	13
95°	16	298	712	1024	1145	16
105°	55	242	570	837	945	58
115°	106	236	472	683	771	103
125°	148	240	406	560	621	130
135°	174	233	364	474	511	135
145°	189	214	300	397	421	118
155°	209	220	247	311	348	96
165°	247	242	233	227	282	69
175°	271	262	233	190	121	25
180°	222	222	222	222	222	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3274.4	3274.4	3274.4	3274.4	3274.4
2.5°	3281.7	3292.7	3246.9	3274.4	3254.2
5°	3270.7	3279.9	3248.7	3272.5	3226.8
7.5°	3267.0	3263.4	3224.9	3256.1	3213.9
10°	3219.4	3232.3	3186.5	3228.6	3208.4
12.5°	3179.1	3204.8	3164.5	3197.5	3155.3
15°	3140.7	3142.5	3131.5	3151.7	3142.5
17.5°	3076.6	3093.1	3067.4	3113.2	3096.7
20°	2983.2	3034.5	3010.7	3052.8	3041.8
22.5°	2906.3	2931.9	2952.1	2999.7	2985.0
25°	2825.7	2871.5	2882.5	2931.9	2922.8
27.5°	2743.3	2763.4	2805.6	2858.7	2860.5
30°	2640.7	2662.7	2721.3	2781.8	2798.2
32.5°	2519.9	2589.5	2624.3	2715.8	2741.5
35°	2435.6	2472.3	2530.9	2635.2	2670.0
37.5°	2325.8	2367.9	2446.6	2569.3	2611.4
40°	2199.4	2261.7	2347.7	2499.7	2549.2
42.5°	2073.0	2146.3	2247.0	2424.6	2481.4
45°	1963.2	2021.8	2159.1	2364.2	2421.0
47.5°	1844.1	1915.5	2089.5	2285.5	2349.6
50°	1734.2	1807.5	2005.3	2212.2	2289.1
52.5°	1602.4	1686.6	1913.7	2128.0	2217.7
55°	1494.3	1569.4	1805.7	2051.1	2157.3
57.5°	1375.3	1459.5	1721.4	1994.3	2091.4
60°	1247.1	1353.3	1639.0	1922.9	2016.3
62.5°	1120.8	1247.1	1554.8	1853.3	1944.8
65°	994.4	1131.7	1474.2	1780.0	1873.4
67.5°	880.9	1029.2	1400.9	1699.5	1814.8
70°	752.7	930.3	1314.9	1624.4	1745.2
72.5°	631.8	840.6	1245.3	1563.9	1684.8
75°	518.3	745.3	1173.9	1490.7	1609.7
77.5°	404.7	655.6	1098.8	1424.8	1554.8
80°	296.7	582.4	1032.9	1360.7	1485.2
82.5°	205.1	518.3	968.8	1307.6	1424.8
85°	120.9	454.2	910.2	1238.0	1347.8
87.5°	54.9	402.9	849.7	1184.9	1292.9
90°	12.8	360.8	805.8	1120.8	1245.3
92.5°	12.8	327.8	752.7	1073.1	1186.7
95°	16.5	298.5	712.4	1023.7	1144.6
97.5°	22.0	276.5	675.8	977.9	1084.1
100°	31.1	261.9	635.5	924.8	1029.2
102.5°	42.1	250.9	598.8	877.2	974.3
105°	54.9	241.7	569.5	836.9	945.0
107.5°	67.8	238.1	540.2	798.4	890.0
110°	80.6	236.2	518.3	758.2	860.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	93.4	234.4	494.5	721.5	803.9
115°	106.2	236.2	472.5	683.1	771.0
117.5°	113.5	236.2	452.3	650.1	723.4
120°	124.5	238.1	437.7	615.3	692.2
122.5°	135.5	238.1	423.0	589.7	657.4
125°	148.3	239.9	406.5	560.4	620.8
127.5°	155.7	239.9	397.4	540.2	595.2
130°	163.0	238.1	384.6	514.6	571.4
132.5°	170.3	234.4	377.2	490.8	543.9
135°	174.0	232.6	364.4	474.3	510.9
137.5°	179.5	227.1	351.6	450.5	490.8
140°	185.0	225.3	333.3	432.2	467.0
142.5°	185.0	219.8	320.5	415.7	446.8
145°	188.6	214.3	300.3	397.4	421.2
147.5°	192.3	212.4	285.7	379.1	408.4
150°	192.3	210.6	272.9	358.9	386.4
152.5°	195.9	212.4	260.0	340.6	366.3
155°	208.8	219.8	247.2	311.3	347.9
157.5°	219.8	227.1	234.4	289.3	327.8
160°	228.9	232.6	223.4	267.4	318.6
162.5°	236.2	238.1	225.3	247.2	298.5
165°	247.2	241.7	232.6	227.1	282.0
167.5°	256.4	245.4	236.2	221.6	269.2
170°	263.7	252.7	232.6	208.8	263.7
172.5°	269.2	254.6	234.4	195.9	221.6
175°	271.0	261.9	232.6	190.5	120.9
177.5°	269.2	263.7	239.9	188.6	108.0
180°	221.6	221.6	221.6	221.6	221.6



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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	15.59	16.90	16.23	17.57	18.33	19.08	20.39	19.72	21.05	21.82
	3H	17.04	18.24	17.69	18.91	19.71	21.95	23.15	22.60	23.82	24.62
	4H	17.51	18.65	18.18	19.34	20.15	23.43	24.57	24.10	25.25	26.07
	6H	17.79	18.85	18.47	19.55	20.37	25.04	26.11	25.73	26.80	27.63
	8H	17.85	18.87	18.54	19.58	20.41	25.90	26.92	26.60	27.64	28.47
	12H	17.86	18.84	18.57	19.55	20.41	26.85	27.83	27.55	28.53	29.39
4H	2H	16.74	17.88	17.41	18.57	19.38	19.41	20.55	20.08	21.24	22.05
	3H	18.44	19.42	19.13	20.14	20.97	22.51	23.49	23.20	24.21	25.04
	4H	19.04	19.94	19.74	20.67	21.53	24.18	25.08	24.88	25.80	26.66
	6H	19.45	20.25	20.17	21.00	21.86	25.99	26.79	26.71	27.53	28.40
	8H	19.56	20.31	20.28	21.06	21.94	26.96	27.71	27.68	28.46	29.34
	12H	19.62	20.30	20.36	21.07	21.96	28.03	28.72	28.78	29.49	30.37
8H	4H	20.09	20.84	20.81	21.59	22.47	24.36	25.11	25.08	25.85	26.73
	6H	20.74	21.38	21.49	22.16	23.05	26.34	26.98	27.09	27.77	28.65
	8H	20.96	21.54	21.73	22.33	23.22	27.46	28.04	28.22	28.82	29.72
	12H	21.11	21.63	21.88	22.41	23.36	28.72	29.24	29.49	30.02	30.97
12H	4H	20.43	21.12	21.18	21.89	22.77	24.35	25.04	25.10	25.80	26.69
	6H	21.24	21.82	22.00	22.60	23.50	26.37	26.95	27.13	27.74	28.63
	8H	21.59	22.11	22.35	22.88	23.84	27.55	28.07	28.32	28.85	29.80