

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: P894748

Luminaire Tested: 8TMB-16HL-RNDU-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894748
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-L950
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, CCT
Light Source: -
Ballast/Driver: -

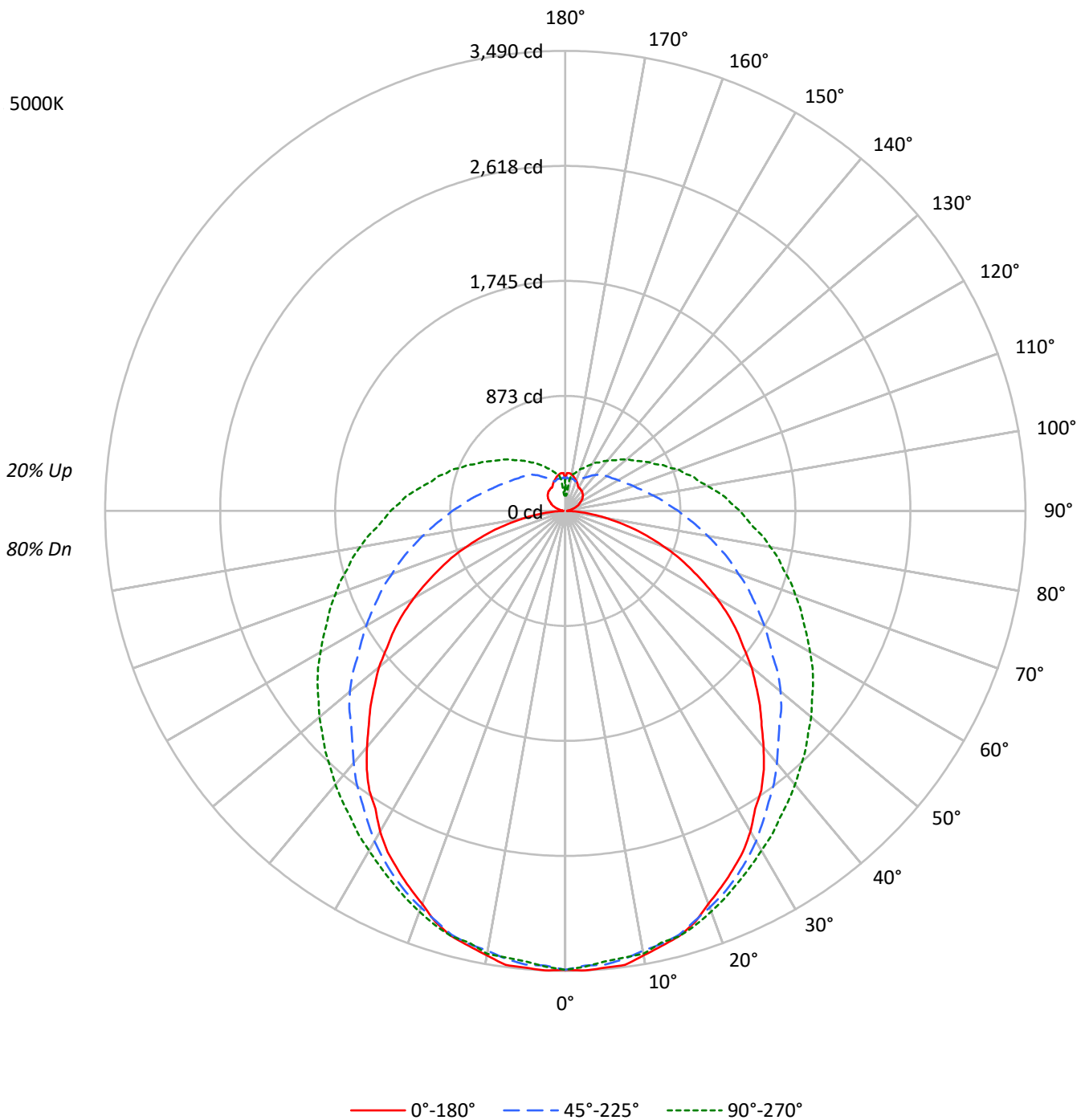
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14637.0 lumens
Efficiency: N/A
Efficacy: 126.4 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 (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-RNDU-UNV-L950

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°	12354	12354	12354
5°	12359	11882	11662
10°	12278	11392	11209
15°	12182	11032	10703
20°	11865	10532	10182
25°	11622	10090	9691
30°	11334	9605	9261
35°	11017	9077	8888
40°	10600	8625	8601
45°	10208	8194	8345
50°	9872	7933	8128
55°	9476	7519	7961
60°	9003	7262	7806
65°	8407	7036	7689
70°	7747	6857	7684
75°	6884	6804	7706
80°	5615	6796	7856
85°	4029	6986	8033

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10208 cd/sqm



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 CATALOG NUMBER: 8TMB-16HL-RNDU-UNV-L950

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.6	2.3
10°-20°	941.9	6.4
20°-30°	1414.3	9.7
30°-40°	1698.3	11.6
40°-50°	1796.4	12.3
50°-60°	1731.2	11.8
60°-70°	1535.9	10.5
70°-80°	1259.6	8.6
80°-90°	974.9	6.7
90°-100°	760.5	5.2
100°-110°	605.5	4.1
110°-120°	483.9	3.3
120°-130°	381.7	2.6
130°-140°	291.2	2.0
140°-150°	204.8	1.4
150°-160°	130.9	0.9
160°-170°	73.4	0.5
170°-180°	23.3	0.2
0°-30°	2685.7	18.3
0°-40°	4384.1	30.0
0°-60°	7911.6	54.1
0°-90°	11681.9	79.8
90°-120°	1849.9	12.6
90°-150°	2727.6	18.6
90°-180°	2955.0	20.2
0°-180°	14637.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3482	3482	3482	3482	3482	
5°	3478	3488	3454	3480	3431	331
15°	3340	3342	3330	3351	3342	938
25°	3005	3053	3065	3118	3108	1384
35°	2590	2629	2691	2802	2839	1615
45°	2088	2150	2296	2514	2574	1610
55°	1589	1669	1920	2181	2294	1418
65°	1057	1203	1568	1893	1992	1051
75°	551	793	1248	1585	1712	583
85°	128	483	968	1316	1433	145
90°	14	384	857	1192	1324	14
95°	18	317	758	1088	1217	17
105°	58	257	606	890	1005	62
115°	113	251	502	726	820	109
125°	158	255	432	596	660	139
135°	185	247	388	504	543	143
145°	201	228	319	423	448	126
155°	222	234	263	331	370	102
165°	263	257	247	242	300	74
175°	288	278	247	202	128	27
180°	236	236	236	236	236	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3481.8	3481.8	3481.8	3481.8	3481.8
2.5°	3489.6	3501.3	3452.6	3481.8	3460.4
5°	3477.9	3487.6	3454.5	3479.9	3431.2
7.5°	3474.0	3470.1	3429.2	3462.3	3417.5
10°	3423.4	3437.0	3388.3	3433.1	3411.7
12.5°	3380.5	3407.8	3365.0	3400.0	3355.2
15°	3339.6	3341.6	3329.9	3351.3	3341.6
17.5°	3271.5	3289.0	3261.8	3310.4	3292.9
20°	3172.2	3226.7	3201.4	3246.2	3234.5
22.5°	3090.4	3117.7	3139.1	3189.7	3174.1
25°	3004.7	3053.4	3065.1	3117.7	3107.9
27.5°	2917.1	2938.5	2983.3	3039.8	3041.7
30°	2808.0	2831.4	2893.7	2958.0	2975.5
32.5°	2679.5	2753.5	2790.5	2887.9	2915.1
35°	2589.9	2628.9	2691.2	2802.2	2839.2
37.5°	2473.1	2517.9	2601.6	2732.1	2776.9
40°	2338.7	2404.9	2496.5	2658.1	2710.7
42.5°	2204.4	2282.3	2389.4	2578.2	2638.6
45°	2087.5	2149.8	2295.9	2514.0	2574.4
47.5°	1960.9	2036.9	2221.9	2430.3	2498.4
50°	1844.1	1922.0	2132.3	2352.4	2434.1
52.5°	1703.9	1793.5	2034.9	2262.8	2358.2
55°	1589.0	1668.9	1920.1	2181.0	2293.9
57.5°	1462.4	1552.0	1830.5	2120.6	2223.8
60°	1326.1	1439.1	1742.8	2044.7	2144.0
62.5°	1191.8	1326.1	1653.3	1970.7	2068.0
65°	1057.4	1203.4	1567.6	1892.8	1992.1
67.5°	936.7	1094.4	1489.7	1807.1	1929.8
70°	800.3	989.2	1398.2	1727.3	1855.8
72.5°	671.8	893.8	1324.2	1663.0	1791.5
75°	551.1	792.6	1248.2	1585.1	1711.7
77.5°	430.4	697.1	1168.4	1515.0	1653.3
80°	315.5	619.2	1098.3	1446.9	1579.3
82.5°	218.1	551.1	1030.1	1390.4	1515.0
85°	128.5	482.9	967.8	1316.4	1433.2
87.5°	58.4	428.4	903.6	1259.9	1374.8
90°	13.6	383.6	856.8	1191.8	1324.2
92.5°	13.6	348.6	800.3	1141.1	1261.9
95°	17.5	317.4	757.5	1088.5	1217.1
97.5°	23.4	294.0	718.6	1039.9	1152.8
100°	33.1	278.5	675.7	983.4	1094.4
102.5°	44.8	266.8	636.8	932.8	1036.0
105°	58.4	257.0	605.6	889.9	1004.8
107.5°	72.1	253.2	574.5	849.0	946.4
110°	85.7	251.2	551.1	806.2	915.2



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 CATALOG NUMBER: 8TMB-16HL-RNDU-UNV-L950

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	99.3	249.3	525.8	767.2	854.9
115°	112.9	251.2	502.4	726.3	819.8
117.5°	120.7	251.2	481.0	691.3	769.2
120°	132.4	253.2	465.4	654.3	736.1
122.5°	144.1	253.2	449.8	627.0	699.1
125°	157.7	255.1	432.3	595.9	660.1
127.5°	165.5	255.1	422.6	574.5	632.9
130°	173.3	253.2	408.9	547.2	607.6
132.5°	181.1	249.3	401.1	521.9	578.4
135°	185.0	247.3	387.5	504.4	543.3
137.5°	190.8	241.5	373.9	479.0	521.9
140°	196.7	239.5	354.4	459.6	496.6
142.5°	196.7	233.7	340.8	442.0	475.1
145°	200.6	227.8	319.4	422.6	447.9
147.5°	204.5	225.9	303.8	403.1	434.3
150°	204.5	223.9	290.2	381.7	410.9
152.5°	208.4	225.9	276.5	362.2	389.5
155°	222.0	233.7	262.9	331.0	370.0
157.5°	233.7	241.5	249.3	307.7	348.6
160°	243.4	247.3	237.6	284.3	338.8
162.5°	251.2	253.2	239.5	262.9	317.4
165°	262.9	257.0	247.3	241.5	299.9
167.5°	272.6	260.9	251.2	235.6	286.3
170°	280.4	268.7	247.3	222.0	280.4
172.5°	286.3	270.7	249.3	208.4	235.6
175°	288.2	278.5	247.3	202.5	128.5
177.5°	286.3	280.4	255.1	200.6	114.9
180°	235.6	235.6	235.6	235.6	235.6



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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	15.80	17.12	16.44	17.78	18.55	19.29	20.60	19.93	21.27	22.03
	3H	17.25	18.45	17.90	19.12	19.92	22.16	23.36	22.81	24.03	24.83
	4H	17.72	18.86	18.39	19.55	20.36	23.64	24.78	24.31	25.47	26.28
	6H	18.00	19.06	18.68	19.76	20.59	25.25	26.32	25.94	27.01	27.84
	8H	18.06	19.08	18.75	19.80	20.62	26.11	27.13	26.81	27.85	28.68
	12H	18.08	19.06	18.78	19.77	20.63	27.06	28.04	27.76	28.75	29.61
4H	2H	16.95	18.10	17.63	18.78	19.59	19.62	20.77	20.30	21.45	22.26
	3H	18.66	19.64	19.34	20.36	21.19	22.73	23.71	23.41	24.43	25.26
	4H	19.25	20.16	19.96	20.88	21.74	24.39	25.29	25.09	26.02	26.88
	6H	19.66	20.46	20.38	21.21	22.07	26.20	27.00	26.92	27.75	28.61
	8H	19.77	20.53	20.50	21.27	22.15	27.17	27.92	27.90	28.67	29.55
	12H	19.83	20.52	20.58	21.29	22.17	28.24	28.93	28.99	29.70	30.59
8H	4H	20.30	21.06	21.03	21.80	22.68	24.57	25.32	25.29	26.07	26.95
	6H	20.95	21.59	21.70	22.38	23.26	26.55	27.20	27.31	27.98	28.86
	8H	21.18	21.76	21.94	22.54	23.44	27.67	28.25	28.44	29.04	29.93
	12H	21.32	21.84	22.09	22.62	23.57	28.93	29.45	29.70	30.23	31.18
12H	4H	20.65	21.33	21.39	22.10	22.99	24.56	25.25	25.31	26.02	26.90
	6H	21.45	22.03	22.22	22.82	23.71	26.58	27.17	27.35	27.95	28.85
	8H	21.80	22.32	22.57	23.10	24.05	27.76	28.28	28.53	29.06	30.01