

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: P894647

Luminaire Tested: 8TMB-14HL-RNDU-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894647
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-14HL-RNDU-UNV-L840
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

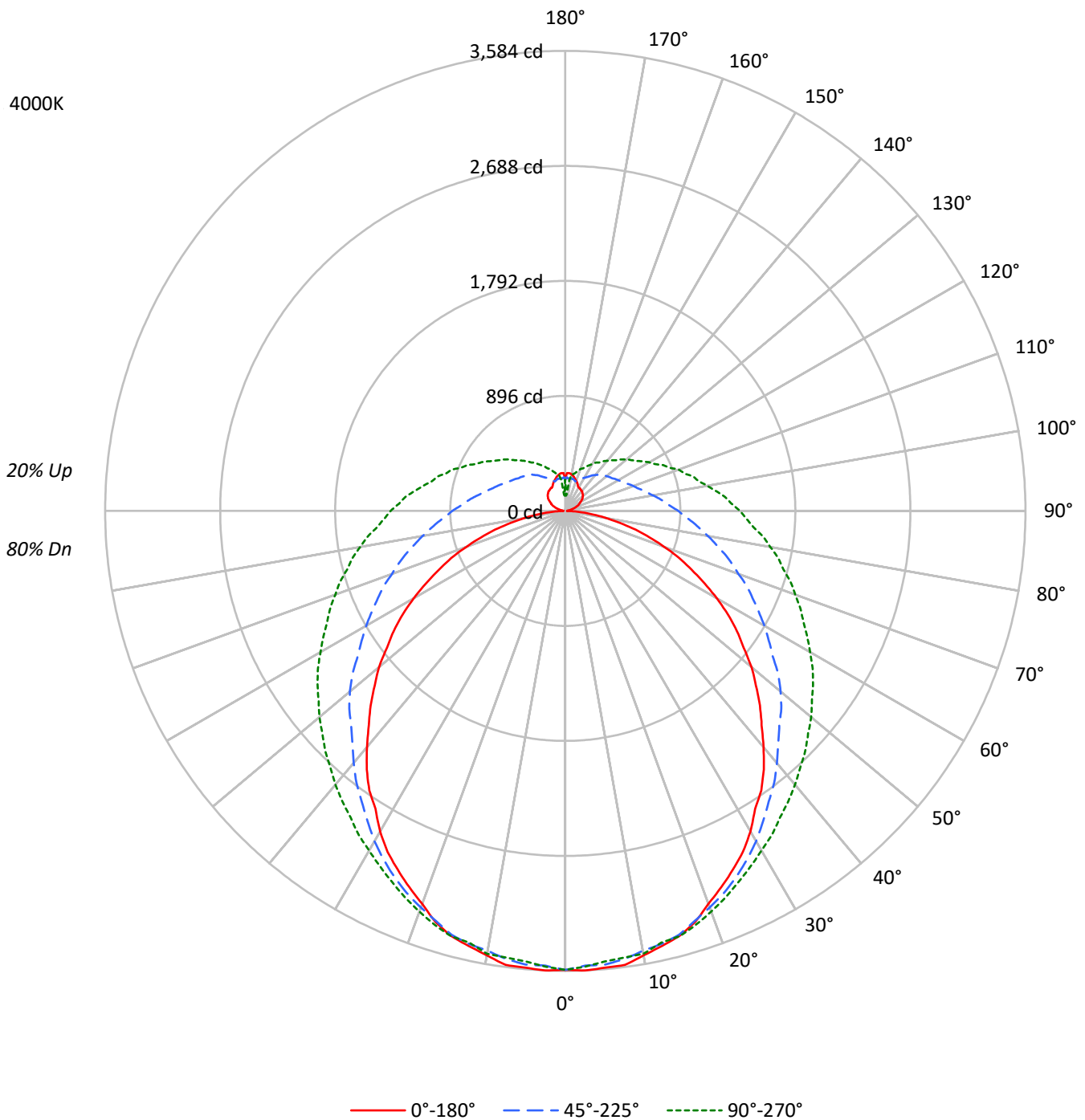
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15032.1 lumens
Efficiency: N/A
Efficacy: 145.1 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): 103.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 5.03
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°	12687	12687	12687
5°	12693	12203	11977
10°	12609	11700	11512
15°	12511	11330	10992
20°	12185	10816	10457
25°	11935	10362	9953
30°	11640	9864	9511
35°	11314	9322	9128
40°	10886	8858	8833
45°	10484	8415	8570
50°	10139	8147	8348
55°	9732	7722	8175
60°	9246	7458	8017
65°	8633	7226	7897
70°	7956	7042	7892
75°	7070	6988	7914
80°	5766	6979	8068
85°	4139	7175	8250

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.5	2.3
10°-20°	967.3	6.4
20°-30°	1452.4	9.7
30°-40°	1744.1	11.6
40°-50°	1844.8	12.3
50°-60°	1777.9	11.8
60°-70°	1577.3	10.5
70°-80°	1293.6	8.6
80°-90°	1001.2	6.7
90°-100°	781.1	5.2
100°-110°	621.8	4.1
110°-120°	497.0	3.3
120°-130°	392.0	2.6
130°-140°	299.1	2.0
140°-150°	210.3	1.4
150°-160°	134.5	0.9
160°-170°	75.3	0.5
170°-180°	23.9	0.2
0°-30°	2758.2	18.3
0°-40°	4502.4	30.0
0°-60°	8125.1	54.1
0°-90°	11997.1	79.8
90°-120°	1899.9	12.6
90°-150°	2801.3	18.6
90°-180°	3035.0	20.2
0°-180°	15032.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3576	3576	3576	3576	3576	
5°	3572	3582	3548	3574	3524	340
15°	3430	3432	3420	3442	3432	964
25°	3086	3136	3148	3202	3192	1421
35°	2660	2700	2764	2878	2916	1658
45°	2144	2208	2358	2582	2644	1654
55°	1632	1714	1972	2240	2356	1456
65°	1086	1236	1610	1944	2046	1079
75°	566	814	1282	1628	1758	599
85°	132	496	994	1352	1472	149
90°	14	394	880	1224	1360	14
95°	18	326	778	1118	1250	18
105°	60	264	622	914	1032	64
115°	116	258	516	746	842	112
125°	162	262	444	612	678	143
135°	190	254	398	518	558	147
145°	206	234	328	434	460	129
155°	228	240	270	340	380	105
165°	270	264	254	248	308	76
175°	296	286	254	208	132	28
180°	242	242	242	242	242	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3575.8	3575.8	3575.8	3575.8	3575.8
2.5°	3583.8	3595.8	3545.8	3575.8	3553.8
5°	3571.8	3581.8	3547.8	3573.8	3523.8
7.5°	3567.8	3563.8	3521.8	3555.8	3509.8
10°	3515.8	3529.8	3479.8	3525.8	3503.8
12.5°	3471.8	3499.8	3455.8	3491.8	3445.8
15°	3429.8	3431.8	3419.8	3441.8	3431.8
17.5°	3359.8	3377.8	3349.8	3399.8	3381.8
20°	3257.8	3313.8	3287.8	3333.8	3321.8
22.5°	3173.8	3201.8	3223.8	3275.8	3259.8
25°	3085.8	3135.8	3147.8	3201.8	3191.8
27.5°	2995.8	3017.8	3063.8	3121.8	3123.8
30°	2883.8	2907.8	2971.8	3037.8	3055.8
32.5°	2751.8	2827.8	2865.8	2965.8	2993.8
35°	2659.8	2699.8	2763.8	2877.8	2915.8
37.5°	2539.8	2585.8	2671.8	2805.8	2851.8
40°	2401.8	2469.8	2563.8	2729.8	2783.8
42.5°	2263.8	2343.8	2453.8	2647.8	2709.8
45°	2143.9	2207.9	2357.8	2581.8	2643.8
47.5°	2013.9	2091.9	2281.8	2495.8	2565.8
50°	1893.9	1973.9	2189.9	2415.8	2499.8
52.5°	1749.9	1841.9	2089.9	2323.8	2421.8
55°	1631.9	1713.9	1971.9	2239.9	2355.8
57.5°	1501.9	1593.9	1879.9	2177.9	2283.8
60°	1361.9	1477.9	1789.9	2099.9	2201.9
62.5°	1223.9	1361.9	1697.9	2023.9	2123.9
65°	1085.9	1235.9	1609.9	1943.9	2045.9
67.5°	961.9	1123.9	1529.9	1855.9	1981.9
70°	821.9	1015.9	1435.9	1773.9	1905.9
72.5°	690.0	917.9	1359.9	1707.9	1839.9
75°	566.0	813.9	1281.9	1627.9	1757.9
77.5°	442.0	716.0	1199.9	1555.9	1697.9
80°	324.0	636.0	1127.9	1485.9	1621.9
82.5°	224.0	566.0	1057.9	1427.9	1555.9
85°	132.0	496.0	993.9	1351.9	1471.9
87.5°	60.0	440.0	927.9	1293.9	1411.9
90°	14.0	394.0	879.9	1223.9	1359.9
92.5°	14.0	358.0	821.9	1171.9	1295.9
95°	18.0	326.0	777.9	1117.9	1249.9
97.5°	24.0	302.0	738.0	1067.9	1183.9
100°	34.0	286.0	694.0	1009.9	1123.9
102.5°	46.0	274.0	654.0	957.9	1063.9
105°	60.0	264.0	622.0	913.9	1031.9
107.5°	74.0	260.0	590.0	871.9	971.9
110°	88.0	258.0	566.0	827.9	939.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	102.0	256.0	540.0	787.9	877.9
115°	116.0	258.0	516.0	746.0	841.9
117.5°	124.0	258.0	494.0	710.0	789.9
120°	136.0	260.0	478.0	672.0	755.9
122.5°	148.0	260.0	462.0	644.0	718.0
125°	162.0	262.0	444.0	612.0	678.0
127.5°	170.0	262.0	434.0	590.0	650.0
130°	178.0	260.0	420.0	562.0	624.0
132.5°	186.0	256.0	412.0	536.0	594.0
135°	190.0	254.0	398.0	518.0	558.0
137.5°	196.0	248.0	384.0	492.0	536.0
140°	202.0	246.0	364.0	472.0	510.0
142.5°	202.0	240.0	350.0	454.0	488.0
145°	206.0	234.0	328.0	434.0	460.0
147.5°	210.0	232.0	312.0	414.0	446.0
150°	210.0	230.0	298.0	392.0	422.0
152.5°	214.0	232.0	284.0	372.0	400.0
155°	228.0	240.0	270.0	340.0	380.0
157.5°	240.0	248.0	256.0	316.0	358.0
160°	250.0	254.0	244.0	292.0	348.0
162.5°	258.0	260.0	246.0	270.0	326.0
165°	270.0	264.0	254.0	248.0	308.0
167.5°	280.0	268.0	258.0	242.0	294.0
170°	288.0	276.0	254.0	228.0	288.0
172.5°	294.0	278.0	256.0	214.0	242.0
175°	296.0	286.0	254.0	208.0	132.0
177.5°	294.0	288.0	262.0	206.0	118.0
180°	242.0	242.0	242.0	242.0	242.0



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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	15.90	17.21	16.54	17.87	18.64	19.38	20.70	20.02	21.36	22.13
	3H	17.34	18.55	18.00	19.22	20.02	22.25	23.45	22.91	24.13	24.93
	4H	17.81	18.96	18.49	19.64	20.45	23.73	24.88	24.41	25.56	26.37
	6H	18.09	19.16	18.78	19.85	20.68	25.35	26.41	26.03	27.11	27.93
	8H	18.15	19.17	18.85	19.89	20.72	26.21	27.23	26.90	27.94	28.77
	12H	18.17	19.15	18.87	19.86	20.72	27.15	28.13	27.86	28.84	29.70
4H	2H	17.05	18.19	17.72	18.87	19.68	19.72	20.86	20.39	21.54	22.35
	3H	18.75	19.73	19.44	20.45	21.28	22.82	23.80	23.51	24.52	25.35
	4H	19.35	20.25	20.05	20.97	21.83	24.48	25.39	25.19	26.11	26.97
	6H	19.76	20.55	20.47	21.30	22.17	26.29	27.09	27.01	27.84	28.70
	8H	19.87	20.62	20.59	21.37	22.25	27.26	28.02	27.99	28.76	29.64
	12H	19.92	20.61	20.67	21.38	22.26	28.34	29.02	29.08	29.79	30.68
8H	4H	20.40	21.15	21.12	21.90	22.78	24.66	25.41	25.38	26.16	27.04
	6H	21.04	21.68	21.80	22.47	23.35	26.65	27.29	27.40	28.07	28.95
	8H	21.27	21.85	22.03	22.63	23.53	27.76	28.34	28.53	29.13	30.03
	12H	21.42	21.94	22.18	22.71	23.67	29.03	29.54	29.79	30.32	31.27
12H	4H	20.74	21.42	21.48	22.19	23.08	24.66	25.34	25.40	26.11	27.00
	6H	21.54	22.13	22.31	22.91	23.81	26.68	27.26	27.44	28.04	28.94
	8H	21.89	22.41	22.66	23.19	24.14	27.86	28.38	28.63	29.15	30.11