

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: P894639

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894639
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-14HL-RND-UNV-L840
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

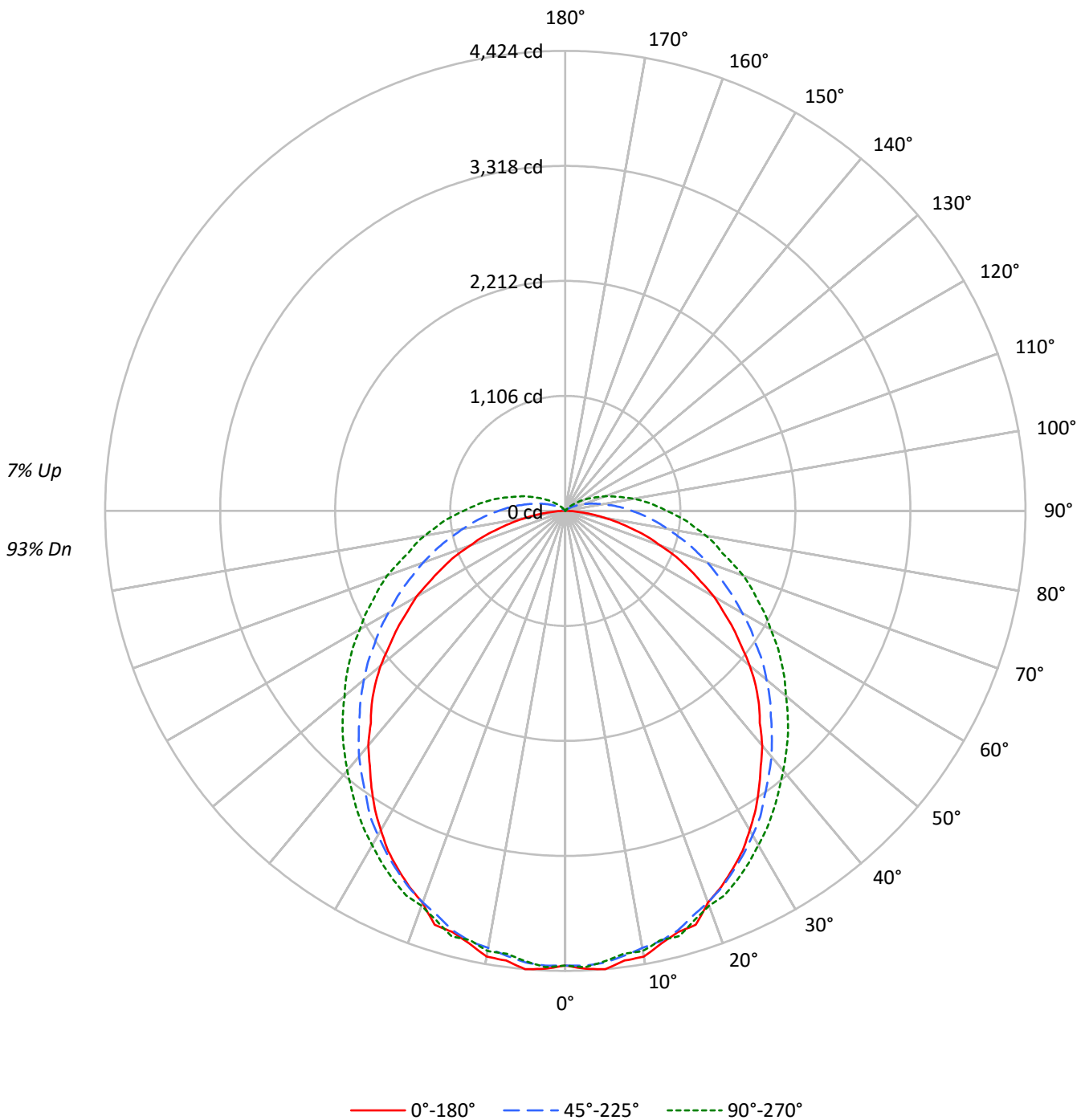
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14400.0 lumens
Efficiency: N/A
Efficacy: 139.0 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): 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				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°	15511	15511	15511
5°	15756	15528	15485
10°	15679	15376	15484
15°	15397	15346	15552
20°	15140	15125	15253
25°	14892	14954	15322
30°	14527	14757	15207
35°	14068	14475	15151
40°	13644	14283	15099
45°	13216	14029	15193
50°	12784	13942	15289
55°	12198	13844	15686
60°	11722	13936	16179
65°	10947	14305	17160
70°	10062	15104	18900
75°	9130	16724	21412
80°	7846	20431	28073
85°	6351	33053	48034

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 87.5°
 Luminance: 87192 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.5	2.9
10°-20°	1179.9	8.2
20°-30°	1768.2	12.3
30°-40°	2101.2	14.6
40°-50°	2175.3	15.1
50°-60°	2015.9	14.0
60°-70°	1678.3	11.7
70°-80°	1245.6	8.7
80°-90°	823.9	5.7
90°-100°	501.4	3.5
100°-110°	281.1	2.0
110°-120°	138.4	1.0
120°-130°	56.3	0.4
130°-140°	16.3	0.1
140°-150°	2.3	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3362.6	23.4
0°-40°	5463.8	37.9
0°-60°	9655.1	67.0
0°-90°	13402.9	93.1
90°-120°	920.9	6.4
90°-150°	995.9	6.9
90°-180°	997.0	6.9
0°-180°	14400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4372	4372	4372	4372	4372	
5°	4424	4376	4360	4382	4348	418
15°	4192	4176	4178	4184	4234	1187
25°	3804	3800	3820	3894	3914	1751
35°	3248	3272	3342	3448	3498	2032
45°	2634	2672	2796	2970	3028	2029
55°	1972	2056	2238	2462	2536	1763
65°	1304	1426	1704	1954	2044	1295
75°	666	868	1220	1482	1562	713
85°	156	438	812	1100	1180	175
90°	8	284	642	898	978	12
95°	2	176	498	742	824	2
105°	2	58	270	458	522	2
115°	2	14	126	252	302	2
125°	2	4	46	116	148	2
135°	4	2	12	38	52	2
145°	4	2	0	4	6	3
155°	4	4	0	0	0	2
165°	6	4	0	0	0	1
175°	6	4	0	0	0	1
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4371.7	4371.7	4371.7	4371.7	4371.7
2.5°	4407.7	4385.7	4377.7	4367.7	4391.7
5°	4423.7	4375.7	4359.7	4381.7	4347.7
7.5°	4361.7	4349.7	4315.7	4327.7	4295.7
10°	4351.7	4285.7	4267.7	4307.7	4297.7
12.5°	4261.7	4205.7	4237.7	4265.7	4227.7
15°	4191.7	4175.7	4177.7	4183.7	4233.7
17.5°	4173.7	4101.7	4081.7	4131.7	4127.7
20°	4009.7	3995.7	4005.7	4071.7	4039.7
22.5°	3913.7	3869.8	3923.7	3987.7	4001.7
25°	3803.8	3799.8	3819.8	3893.7	3913.7
27.5°	3687.8	3661.8	3715.8	3801.8	3817.8
30°	3545.8	3535.8	3601.8	3675.8	3711.8
32.5°	3405.8	3411.8	3487.8	3549.8	3611.8
35°	3247.8	3271.8	3341.8	3447.8	3497.8
37.5°	3087.8	3117.8	3211.8	3333.8	3375.8
40°	2945.8	2951.8	3083.8	3207.8	3259.8
42.5°	2767.8	2827.8	2939.8	3103.8	3143.8
45°	2633.8	2671.8	2795.8	2969.8	3027.8
47.5°	2481.8	2525.8	2667.8	2837.8	2899.8
50°	2315.9	2355.8	2525.8	2719.8	2769.8
52.5°	2131.9	2213.9	2391.8	2591.8	2657.8
55°	1971.9	2055.9	2237.9	2461.8	2535.8
57.5°	1799.9	1883.9	2111.9	2319.9	2415.8
60°	1651.9	1731.9	1963.9	2221.9	2279.9
62.5°	1467.9	1581.9	1833.9	2087.9	2169.9
65°	1303.9	1425.9	1703.9	1953.9	2043.9
67.5°	1153.9	1279.9	1569.9	1837.9	1935.9
70°	969.9	1135.9	1455.9	1719.9	1821.9
72.5°	833.9	999.9	1333.9	1595.9	1687.9
75°	666.0	867.9	1219.9	1481.9	1561.9
77.5°	526.0	744.0	1101.9	1395.9	1475.9
80°	384.0	632.0	999.9	1281.9	1373.9
82.5°	262.0	528.0	905.9	1175.9	1263.9
85°	156.0	438.0	811.9	1099.9	1179.9
87.5°	68.0	358.0	726.0	989.9	1071.9
90°	8.0	284.0	642.0	897.9	977.9
92.5°	2.0	228.0	568.0	815.9	893.9
95°	2.0	176.0	498.0	742.0	823.9
97.5°	2.0	136.0	428.0	666.0	744.0
100°	2.0	104.0	370.0	586.0	670.0
102.5°	2.0	78.0	314.0	520.0	592.0
105°	2.0	58.0	270.0	458.0	522.0
107.5°	2.0	42.0	226.0	400.0	464.0
110°	2.0	30.0	190.0	346.0	410.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	22.0	154.0	298.0	352.0
115°	2.0	14.0	126.0	252.0	302.0
117.5°	2.0	10.0	100.0	212.0	260.0
120°	2.0	8.0	80.0	176.0	218.0
122.5°	2.0	6.0	62.0	144.0	184.0
125°	2.0	4.0	46.0	116.0	148.0
127.5°	2.0	4.0	34.0	92.0	120.0
130°	2.0	2.0	24.0	70.0	94.0
132.5°	2.0	2.0	16.0	52.0	70.0
135°	4.0	2.0	12.0	38.0	52.0
137.5°	4.0	2.0	8.0	26.0	36.0
140°	4.0	2.0	4.0	16.0	22.0
142.5°	4.0	2.0	2.0	8.0	12.0
145°	4.0	2.0	0.0	4.0	6.0
147.5°	4.0	2.0	0.0	2.0	2.0
150°	4.0	2.0	0.0	0.0	0.0
152.5°	4.0	2.0	0.0	0.0	0.0
155°	4.0	4.0	0.0	0.0	0.0
157.5°	4.0	4.0	0.0	0.0	0.0
160°	4.0	4.0	0.0	0.0	0.0
162.5°	4.0	4.0	0.0	0.0	0.0
165°	6.0	4.0	0.0	0.0	0.0
167.5°	6.0	4.0	0.0	0.0	0.0
170°	6.0	4.0	0.0	0.0	0.0
172.5°	6.0	4.0	0.0	0.0	0.0
175°	6.0	4.0	0.0	0.0	0.0
177.5°	6.0	4.0	0.0	0.0	0.0
180°	2.0	2.0	2.0	2.0	2.0



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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	19.75	21.29	20.22	21.75	22.23	21.33	22.87	21.80	23.32	23.80
	3H	21.52	22.92	22.00	23.39	23.91	23.91	25.32	24.40	25.78	26.31
	4H	22.17	23.51	22.68	23.99	24.52	25.17	26.50	25.67	26.98	27.52
	6H	22.65	23.89	23.17	24.39	24.94	26.55	27.79	27.07	28.29	28.84
	8H	22.80	23.99	23.33	24.51	25.07	27.28	28.47	27.81	28.99	29.55
	12H	22.90	24.04	23.43	24.55	25.14	28.13	29.27	28.66	29.78	30.37
4H	2H	20.71	22.04	21.21	22.52	23.06	21.90	23.23	22.40	23.71	24.25
	3H	22.75	23.89	23.27	24.41	24.97	24.77	25.90	25.28	26.43	26.99
	4H	23.56	24.60	24.10	25.14	25.73	26.25	27.29	26.78	27.82	28.41
	6H	24.21	25.13	24.77	25.70	26.30	27.87	28.79	28.42	29.35	29.95
	8H	24.44	25.31	25.00	25.87	26.49	28.72	29.59	29.28	30.15	30.77
	12H	24.61	25.40	25.19	25.99	26.61	29.71	30.50	30.29	31.09	31.71
8H	4H	24.41	25.28	24.97	25.84	26.46	26.62	27.48	27.18	28.04	28.66
	6H	25.34	26.07	25.93	26.68	27.30	28.49	29.23	29.09	29.83	30.46
	8H	25.72	26.38	26.32	27.00	27.63	29.56	30.22	30.16	30.83	31.47
	12H	26.04	26.63	26.64	27.24	27.94	30.81	31.41	31.42	32.01	32.71
12H	4H	24.67	25.46	25.26	26.05	26.68	26.66	27.45	27.24	28.04	28.66
	6H	25.76	26.43	26.36	27.04	27.68	28.61	29.27	29.21	29.89	30.52
	8H	26.30	26.89	26.90	27.50	28.20	29.78	30.37	30.39	30.98	31.68