

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: P894840

Luminaire Tested: 8TMB-18HL-RNDU-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894840
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-18HL-RNDU-UNV-L850
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

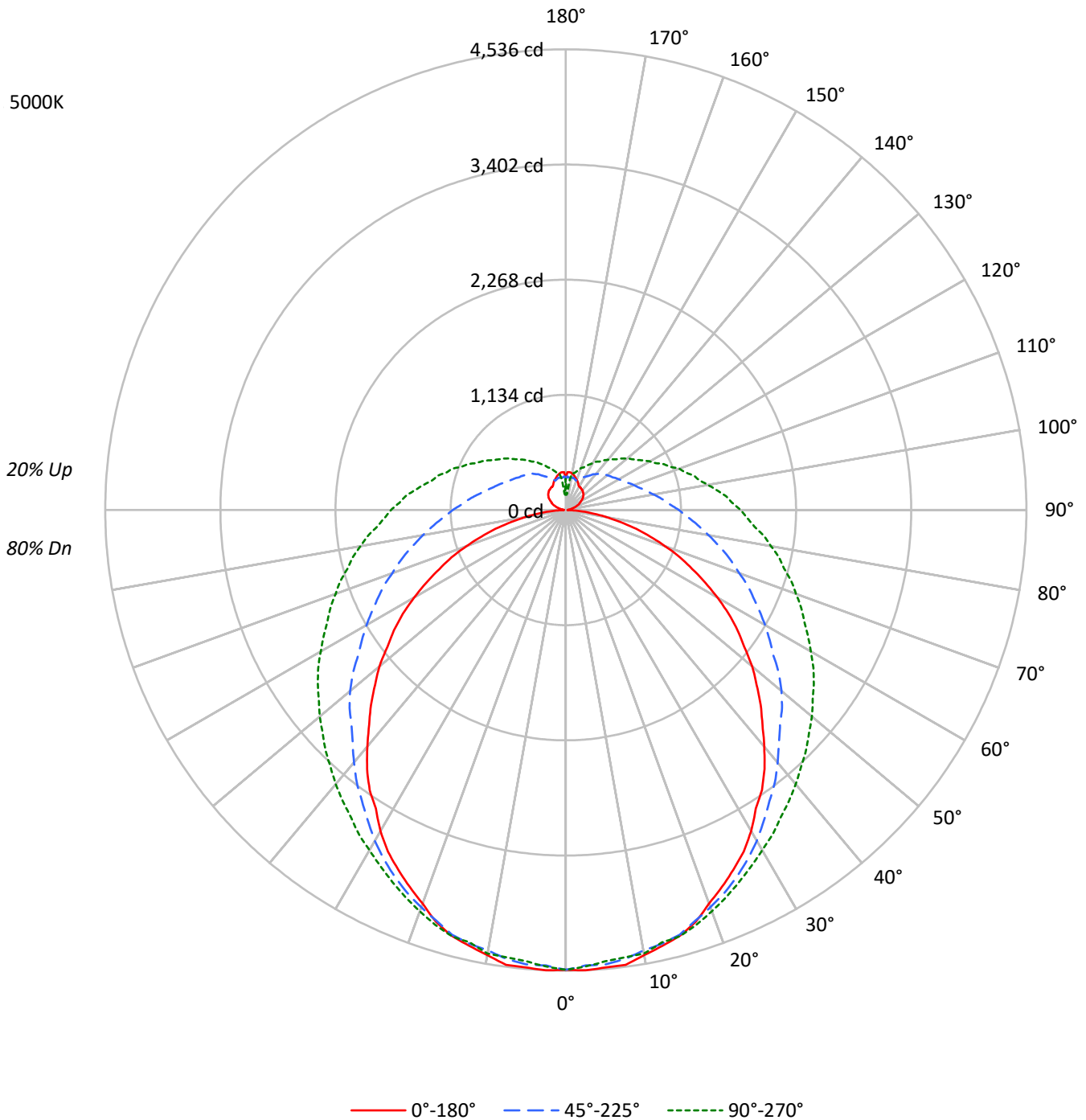
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19027.0 lumens
Efficiency: N/A
Efficacy: 141.1 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): 134.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.62
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°	16059	16059	16059
5°	16066	15446	15159
10°	15960	14809	14571
15°	15836	14341	13913
20°	15424	13691	13236
25°	15107	13116	12598
30°	14733	12485	12039
35°	14321	11799	11553
40°	13780	11212	11180
45°	13270	10652	10848
50°	12833	10312	10566
55°	12318	9774	10348
60°	11704	9440	10147
65°	10928	9146	9996
70°	10071	8914	9989
75°	8949	8845	10018
80°	7299	8835	10212
85°	5239	9082	10443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13270 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.5	2.3
10°-20°	1224.3	6.4
20°-30°	1838.4	9.7
30°-40°	2207.7	11.6
40°-50°	2335.1	12.3
50°-60°	2250.4	11.8
60°-70°	1996.5	10.5
70°-80°	1637.3	8.6
80°-90°	1267.3	6.7
90°-100°	988.6	5.2
100°-110°	787.1	4.1
110°-120°	629.0	3.3
120°-130°	496.1	2.6
130°-140°	378.6	2.0
140°-150°	266.2	1.4
150°-160°	170.2	0.9
160°-170°	95.4	0.5
170°-180°	30.2	0.2
0°-30°	3491.3	18.3
0°-40°	5698.9	30.0
0°-60°	10284.4	54.1
0°-90°	15185.5	79.8
90°-120°	2404.8	12.6
90°-150°	3545.7	18.6
90°-180°	3841.0	20.2
0°-180°	19027.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4526	4526	4526	4526	4526	
5°	4521	4534	4491	4524	4460	430
15°	4341	4344	4329	4356	4344	1220
25°	3906	3969	3984	4053	4040	1799
35°	3367	3417	3498	3643	3691	2099
45°	2714	2795	2984	3268	3346	2093
55°	2066	2169	2496	2835	2982	1843
65°	1374	1564	2038	2460	2590	1366
75°	716	1030	1623	2060	2225	758
85°	167	628	1258	1711	1863	189
90°	18	499	1114	1549	1721	18
95°	23	413	985	1415	1582	23
105°	76	334	787	1157	1306	80
115°	147	326	653	944	1066	142
125°	205	332	562	775	858	180
135°	240	322	504	656	706	186
145°	261	296	415	549	582	164
155°	289	304	342	430	481	133
165°	342	334	322	314	390	96
175°	375	362	322	263	167	35
180°	306	306	306	306	306	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4526.1	4526.1	4526.1	4526.1	4526.1
2.5°	4536.2	4551.4	4488.1	4526.1	4498.2
5°	4521.0	4533.7	4490.6	4523.5	4460.3
7.5°	4516.0	4510.9	4457.7	4500.8	4442.5
10°	4450.1	4467.9	4404.6	4462.8	4435.0
12.5°	4394.4	4429.9	4374.2	4419.8	4361.5
15°	4341.3	4343.8	4328.6	4356.5	4343.8
17.5°	4252.7	4275.5	4240.0	4303.3	4280.5
20°	4123.6	4194.5	4161.6	4219.8	4204.6
22.5°	4017.3	4052.7	4080.6	4146.4	4126.1
25°	3905.9	3969.2	3984.4	4052.7	4040.1
27.5°	3792.0	3819.8	3878.1	3951.5	3954.0
30°	3650.2	3680.6	3761.6	3845.1	3867.9
32.5°	3483.2	3579.3	3627.4	3754.0	3789.5
35°	3366.7	3417.3	3498.3	3642.6	3690.7
37.5°	3214.8	3273.1	3381.9	3551.5	3609.7
40°	3040.2	3126.2	3245.2	3455.3	3523.7
42.5°	2865.5	2966.8	3106.0	3351.5	3430.0
45°	2713.6	2794.6	2984.5	3268.0	3346.5
47.5°	2549.1	2647.8	2888.3	3159.1	3247.7
50°	2397.2	2498.5	2771.8	3057.9	3164.2
52.5°	2214.9	2331.4	2645.3	2941.4	3065.5
55°	2065.6	2169.4	2495.9	2835.1	2981.9
57.5°	1901.1	2017.5	2379.5	2756.7	2890.8
60°	1723.9	1870.7	2265.6	2657.9	2787.0
62.5°	1549.2	1723.9	2149.1	2561.7	2688.3
65°	1374.5	1564.4	2037.7	2460.5	2589.6
67.5°	1217.6	1422.6	1936.5	2349.1	2508.6
70°	1040.4	1285.9	1817.5	2245.3	2412.4
72.5°	873.3	1161.9	1721.3	2161.8	2328.9
75°	716.4	1030.3	1622.6	2060.5	2225.1
77.5°	559.4	906.2	1518.8	1969.4	2149.1
80°	410.1	805.0	1427.7	1880.8	2052.9
82.5°	283.5	716.4	1339.1	1807.4	1969.4
85°	167.1	627.8	1258.1	1711.2	1863.1
87.5°	75.9	556.9	1174.6	1637.8	1787.1
90°	17.7	498.7	1113.8	1549.2	1721.3
92.5°	17.7	453.1	1040.4	1483.4	1640.3
95°	22.8	412.6	984.7	1415.0	1582.1
97.5°	30.4	382.2	934.1	1351.7	1498.6
100°	43.0	362.0	878.4	1278.3	1422.6
102.5°	58.2	346.8	827.8	1212.5	1346.7
105°	75.9	334.1	787.3	1156.8	1306.2
107.5°	93.7	329.1	746.8	1103.7	1230.2
110°	111.4	326.5	716.4	1048.0	1189.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	129.1	324.0	683.5	997.4	1111.3
115°	146.8	326.5	653.1	944.2	1065.7
117.5°	156.9	326.5	625.2	898.6	999.9
120°	172.1	329.1	605.0	850.5	956.9
122.5°	187.3	329.1	584.7	815.1	908.8
125°	205.0	331.6	562.0	774.6	858.1
127.5°	215.2	331.6	549.3	746.8	822.7
130°	225.3	329.1	531.6	711.3	789.8
132.5°	235.4	324.0	521.5	678.4	751.8
135°	240.5	321.5	503.7	655.6	706.3
137.5°	248.1	313.9	486.0	622.7	678.4
140°	255.7	311.4	460.7	597.4	645.5
142.5°	255.7	303.8	443.0	574.6	617.7
145°	260.7	296.2	415.1	549.3	582.2
147.5°	265.8	293.6	394.9	524.0	564.5
150°	265.8	291.1	377.2	496.1	534.1
152.5°	270.9	293.6	359.5	470.8	506.3
155°	288.6	303.8	341.7	430.3	481.0
157.5°	303.8	313.9	324.0	400.0	453.1
160°	316.4	321.5	308.8	369.6	440.5
162.5°	326.5	329.1	311.4	341.7	412.6
165°	341.7	334.1	321.5	313.9	389.8
167.5°	354.4	339.2	326.5	306.3	372.1
170°	364.5	349.3	321.5	288.6	364.5
172.5°	372.1	351.9	324.0	270.9	306.3
175°	374.6	362.0	321.5	263.3	167.1
177.5°	372.1	364.5	331.6	260.7	149.4
180°	306.3	306.3	306.3	306.3	306.3



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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	16.71	18.03	17.35	18.69	19.46	20.20	21.51	20.84	22.18	22.94
	3H	18.16	19.36	18.82	20.04	20.84	23.07	24.27	23.73	24.95	25.75
	4H	18.63	19.78	19.30	20.46	21.27	24.55	25.70	25.22	26.38	27.19
	6H	18.91	19.98	19.60	20.67	21.50	26.17	27.23	26.85	27.92	28.75
	8H	18.97	19.99	19.67	20.71	21.54	27.03	28.05	27.72	28.76	29.59
	12H	18.99	19.97	19.69	20.68	21.54	27.97	28.95	28.67	29.66	30.52
4H	2H	17.87	19.01	18.54	19.69	20.50	20.53	21.68	21.21	22.36	23.17
	3H	19.57	20.55	20.25	21.27	22.10	23.64	24.62	24.32	25.34	26.17
	4H	20.17	21.07	20.87	21.79	22.65	25.30	26.21	26.01	26.93	27.79
	6H	20.57	21.37	21.29	22.12	22.99	27.11	27.91	27.83	28.66	29.52
	8H	20.69	21.44	21.41	22.18	23.06	28.08	28.84	28.81	29.58	30.46
	12H	20.74	21.43	21.49	22.20	23.08	29.16	29.84	29.90	30.61	31.50
8H	4H	21.22	21.97	21.94	22.71	23.59	25.48	26.23	26.20	26.98	27.86
	6H	21.86	22.50	22.61	23.29	24.17	27.46	28.11	28.22	28.89	29.77
	8H	22.09	22.67	22.85	23.45	24.35	28.58	29.16	29.35	29.95	30.84
	12H	22.24	22.75	23.00	23.53	24.48	29.84	30.36	30.61	31.14	32.09
12H	4H	21.56	22.24	22.30	23.01	23.90	25.47	26.16	26.22	26.93	27.82
	6H	22.36	22.94	23.13	23.73	24.63	27.50	28.08	28.26	28.86	29.76
	8H	22.71	23.23	23.48	24.01	24.96	28.68	29.19	29.44	29.97	30.92