

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: P894839

Luminaire Tested: 8TMB-18HL-RNDU-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894839
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-L840
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT
Light Source: -
Ballast/Driver: -

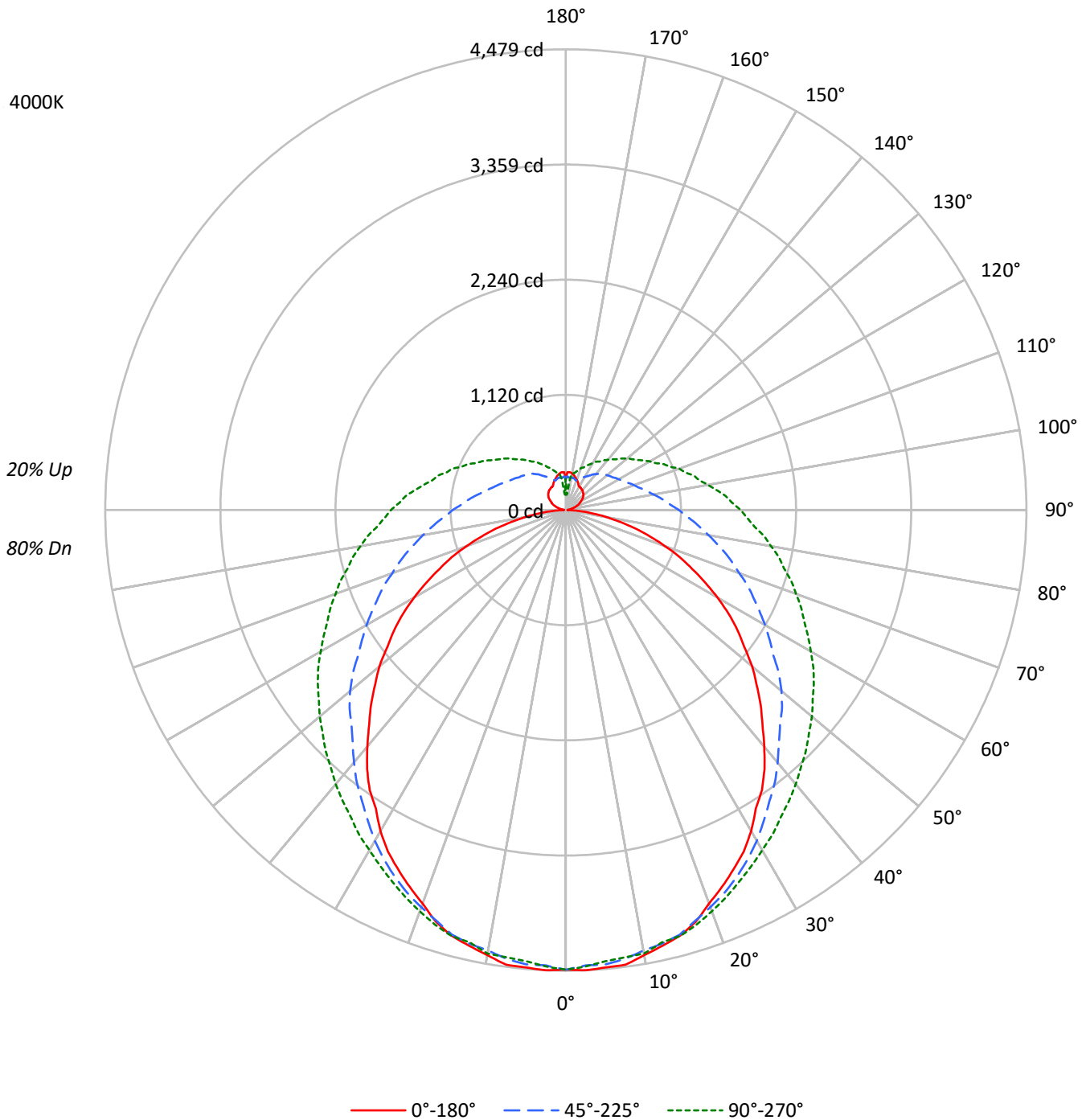
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18787.0 lumens
Efficiency: N/A
Efficacy: 139.4 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): 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
RCR																				
0	114	114	114	114	109	109	109	109	100	100	100	91	91	91	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	61
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	53	53	49
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	44	44	41
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	37	37	34
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	32	32	29
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	28	28	26
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	25	25	23
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	22	22	20
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	20	20	18
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15857	15857	15857
5°	15863	15251	14968
10°	15758	14622	14387
15°	15636	14160	13738
20°	15229	13518	13069
25°	14917	12950	12439
30°	14547	12328	11887
35°	14140	11650	11408
40°	13606	11071	11039
45°	13103	10517	10711
50°	12671	10182	10433
55°	12163	9650	10218
60°	11556	9321	10019
65°	10790	9031	9870
70°	9944	8802	9863
75°	8835	8733	9891
80°	7206	8723	10083
85°	5173	8967	10311

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13103 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.1	2.3
10°-20°	1208.9	6.4
20°-30°	1815.2	9.7
30°-40°	2179.8	11.6
40°-50°	2305.7	12.3
50°-60°	2222.0	11.8
60°-70°	1971.3	10.5
70°-80°	1616.7	8.6
80°-90°	1251.3	6.7
90°-100°	976.2	5.2
100°-110°	777.2	4.1
110°-120°	621.1	3.3
120°-130°	489.9	2.6
130°-140°	373.8	2.0
140°-150°	262.8	1.4
150°-160°	168.0	0.9
160°-170°	94.2	0.5
170°-180°	29.8	0.2
0°-30°	3447.2	18.3
0°-40°	5627.1	30.0
0°-60°	10154.7	54.1
0°-90°	14994.0	79.8
90°-120°	2374.4	12.6
90°-150°	3500.9	18.6
90°-180°	3793.0	20.2
0°-180°	18787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4469	4469	4469	4469	4469	
5°	4464	4476	4434	4466	4404	425
15°	4286	4289	4274	4302	4289	1204
25°	3857	3919	3934	4002	3989	1776
35°	3324	3374	3454	3597	3644	2072
45°	2679	2759	2947	3227	3304	2067
55°	2040	2142	2464	2799	2944	1820
65°	1357	1545	2012	2430	2557	1349
75°	707	1017	1602	2034	2197	748
85°	165	620	1242	1690	1840	186
90°	18	492	1100	1530	1700	17
95°	22	407	972	1397	1562	22
105°	75	330	777	1142	1290	79
115°	145	322	645	932	1052	140
125°	202	327	555	765	847	178
135°	237	317	497	647	697	184
145°	257	292	410	542	575	162
155°	285	300	337	425	475	131
165°	337	330	317	310	385	95
175°	370	357	317	260	165	35
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4469.0	4469.0	4469.0	4469.0	4469.0
2.5°	4479.0	4494.0	4431.5	4469.0	4441.5
5°	4464.0	4476.5	4434.0	4466.5	4404.0
7.5°	4459.0	4454.0	4401.5	4444.0	4386.5
10°	4394.0	4411.5	4349.0	4406.5	4379.0
12.5°	4339.0	4374.0	4319.0	4364.0	4306.5
15°	4286.5	4289.0	4274.0	4301.5	4289.0
17.5°	4199.1	4221.5	4186.6	4249.0	4226.5
20°	4071.6	4141.6	4109.1	4166.6	4151.6
22.5°	3966.6	4001.6	4029.1	4094.1	4074.1
25°	3856.6	3919.1	3934.1	4001.6	3989.1
27.5°	3744.2	3771.6	3829.1	3901.6	3904.1
30°	3604.2	3634.2	3714.2	3796.6	3819.1
32.5°	3439.2	3534.2	3581.7	3706.7	3741.7
35°	3324.2	3374.2	3454.2	3596.7	3644.2
37.5°	3174.3	3231.8	3339.2	3506.7	3564.2
40°	3001.8	3086.8	3204.3	3411.7	3479.2
42.5°	2829.4	2929.3	3066.8	3309.3	3386.7
45°	2679.4	2759.4	2946.8	3226.8	3304.3
47.5°	2516.9	2614.4	2851.9	3119.3	3206.8
50°	2367.0	2466.9	2736.9	3019.3	3124.3
52.5°	2187.0	2302.0	2611.9	2904.3	3026.8
55°	2039.5	2142.0	2464.4	2799.4	2944.3
57.5°	1877.1	1992.0	2349.5	2721.9	2854.4
60°	1702.1	1847.1	2237.0	2624.4	2751.9
62.5°	1529.7	1702.1	2122.0	2529.4	2654.4
65°	1357.2	1544.7	2012.0	2429.5	2556.9
67.5°	1202.2	1404.7	1912.1	2319.5	2476.9
70°	1027.3	1269.7	1794.6	2217.0	2382.0
72.5°	862.3	1147.2	1699.6	2134.5	2299.5
75°	707.3	1017.3	1602.1	2034.5	2197.0
77.5°	552.4	894.8	1499.7	1944.6	2122.0
80°	404.9	794.8	1409.7	1857.1	2027.0
82.5°	279.9	707.3	1322.2	1784.6	1944.6
85°	165.0	619.9	1242.2	1689.6	1839.6
87.5°	75.0	549.9	1159.7	1617.1	1764.6
90°	17.5	492.4	1099.8	1529.7	1699.6
92.5°	17.5	447.4	1027.3	1464.7	1619.6
95°	22.5	407.4	972.3	1397.2	1562.1
97.5°	30.0	377.4	922.3	1334.7	1479.7
100°	42.5	357.4	867.3	1262.2	1404.7
102.5°	57.5	342.4	817.3	1197.2	1329.7
105°	75.0	329.9	777.3	1142.2	1289.7
107.5°	92.5	324.9	737.3	1089.8	1214.7
110°	110.0	322.4	707.3	1034.8	1174.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	127.5	319.9	674.8	984.8	1097.3
115°	145.0	322.4	644.9	932.3	1052.3
117.5°	155.0	322.4	617.4	887.3	987.3
120°	170.0	324.9	597.4	839.8	944.8
122.5°	185.0	324.9	577.4	804.8	897.3
125°	202.5	327.4	554.9	764.8	847.3
127.5°	212.5	327.4	542.4	737.3	812.3
130°	222.4	324.9	524.9	702.3	779.8
132.5°	232.4	319.9	514.9	669.8	742.3
135°	237.4	317.4	497.4	647.4	697.3
137.5°	244.9	309.9	479.9	614.9	669.8
140°	252.4	307.4	454.9	589.9	637.4
142.5°	252.4	299.9	437.4	567.4	609.9
145°	257.4	292.4	409.9	542.4	574.9
147.5°	262.4	289.9	389.9	517.4	557.4
150°	262.4	287.4	372.4	489.9	527.4
152.5°	267.4	289.9	354.9	464.9	499.9
155°	284.9	299.9	337.4	424.9	474.9
157.5°	299.9	309.9	319.9	394.9	447.4
160°	312.4	317.4	304.9	364.9	434.9
162.5°	322.4	324.9	307.4	337.4	407.4
165°	337.4	329.9	317.4	309.9	384.9
167.5°	349.9	334.9	322.4	302.4	367.4
170°	359.9	344.9	317.4	284.9	359.9
172.5°	367.4	347.4	319.9	267.4	302.4
175°	369.9	357.4	317.4	259.9	165.0
177.5°	367.4	359.9	327.4	257.4	147.5
180°	302.4	302.4	302.4	302.4	302.4



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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	16.67	17.98	17.31	18.65	19.41	20.16	21.47	20.80	22.13	22.90
	3H	18.12	19.32	18.77	19.99	20.79	23.03	24.23	23.68	24.90	25.70
	4H	18.59	19.73	19.26	20.42	21.23	24.51	25.65	25.18	26.34	27.15
	6H	18.87	19.93	19.55	20.63	21.45	26.12	27.19	26.81	27.88	28.71
	8H	18.93	19.95	19.62	20.66	21.49	26.98	28.00	27.68	28.72	29.55
	12H	18.95	19.92	19.65	20.63	21.49	27.93	28.91	28.63	29.62	30.48
4H	2H	17.82	18.96	18.50	19.65	20.46	20.49	21.63	21.16	22.32	23.13
	3H	19.52	20.50	20.21	21.22	22.05	23.59	24.57	24.28	25.29	26.12
	4H	20.12	21.02	20.82	21.75	22.61	25.26	26.16	25.96	26.88	27.74
	6H	20.53	21.33	21.25	22.08	22.94	27.07	27.87	27.79	28.61	29.48
	8H	20.64	21.39	21.37	22.14	23.02	28.04	28.79	28.76	29.54	30.42
	12H	20.70	21.38	21.44	22.15	23.04	29.11	29.80	29.86	30.57	31.45
8H	4H	21.17	21.92	21.90	22.67	23.55	25.44	26.19	26.16	26.93	27.81
	6H	21.82	22.46	22.57	23.24	24.13	27.42	28.06	28.17	28.85	29.73
	8H	22.04	22.62	22.81	23.41	24.30	28.54	29.12	29.30	29.90	30.80
	12H	22.19	22.71	22.96	23.49	24.44	29.80	30.32	30.57	31.10	32.05
12H	4H	21.51	22.20	22.26	22.97	23.85	25.43	26.12	26.18	26.88	27.77
	6H	22.32	22.90	23.08	23.69	24.58	27.45	28.03	28.22	28.82	29.71
	8H	22.67	23.19	23.44	23.96	24.92	28.63	29.15	29.40	29.93	30.88