

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: P894823

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894823
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-18HL-RFLW-UNV-L840
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

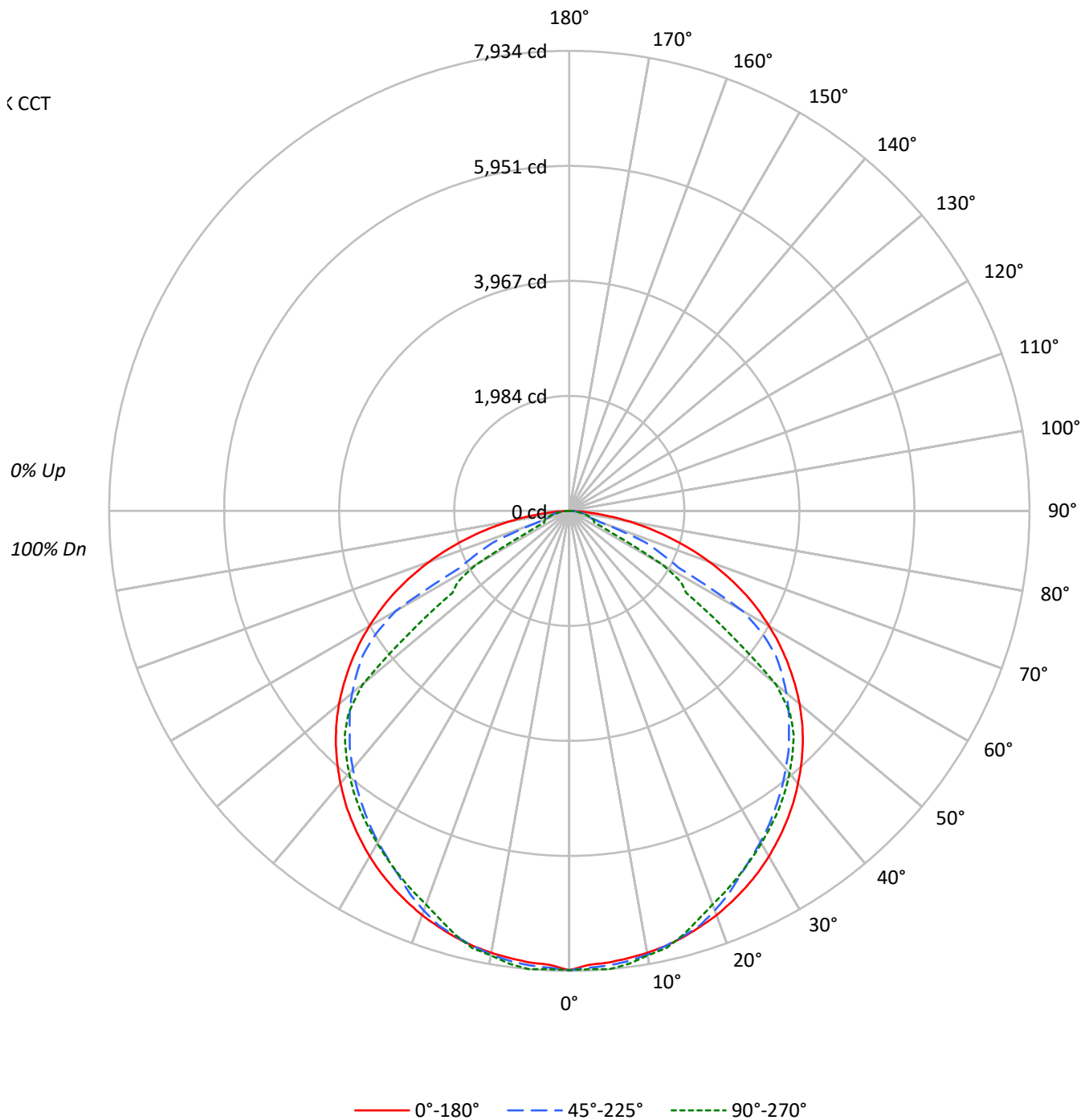
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20647.0 lumens
Efficiency: N/A
Efficacy: 153.2 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 134.8
Input Voltage (V): 120
Input Current (Ain): 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	51285	51285	51285
5°	50815	51147	51576
10°	50889	51081	51177
15°	51000	50885	50770
20°	51129	50540	49766
25°	51268	49646	49542
30°	51463	49309	49510
35°	51649	49121	49719
40°	51867	49061	49927
45°	52144	49037	50133
50°	52223	49224	46838
55°	51994	49074	27775
60°	51554	44726	24086
65°	50709	27038	7292
70°	48703	10720	8365
75°	45125	8794	8549
80°	39043	9282	8010
85°	27743	8708	7615

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 52223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	750.2	3.6
10°-20°	2148.4	10.4
20°-30°	3246.6	15.7
30°-40°	3961.2	19.2
40°-50°	4190.2	20.3
50°-60°	3470.6	16.8
60°-70°	1929.3	9.3
70°-80°	782.1	3.8
80°-90°	168.6	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	6145.1	29.8
0°-40°	10106.3	48.9
0°-60°	17767.0	86.1
0°-90°	20647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7920	7920	7920	7920	7920	
5°	7817	7956	7869	7881	7934	744
15°	7608	7725	7590	7586	7573	2149
25°	7176	7227	6948	6905	6934	3310
35°	6534	6453	6214	6238	6290	4090
45°	5694	5401	5355	5421	5474	4389
55°	4606	4293	4347	2982	2460	4115
65°	3310	3034	1765	593	476	3264
75°	1804	1006	352	347	342	1904
85°	373	124	117	107	102	469
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7919.9	7919.9	7919.9	7919.9	7919.9
2.5°	7834.5	7971.1	7885.7	7902.8	7910.1
5°	7817.4	7956.5	7868.6	7880.8	7934.5
7.5°	7780.8	7922.3	7829.6	7836.9	7878.4
10°	7739.3	7868.6	7768.6	7756.4	7783.2
12.5°	7683.1	7800.3	7683.1	7688.0	7722.2
15°	7607.5	7724.6	7590.4	7585.5	7573.3
17.5°	7517.2	7627.0	7495.2	7417.1	7390.3
20°	7419.6	7505.0	7334.1	7214.5	7221.9
22.5°	7302.4	7375.6	7160.8	7051.0	7082.7
25°	7175.5	7226.7	6948.5	6904.6	6933.9
27.5°	7036.4	7075.4	6765.5	6755.7	6780.1
30°	6882.6	6897.3	6594.6	6589.7	6621.5
32.5°	6711.8	6687.4	6411.6	6416.5	6457.9
35°	6533.6	6453.1	6213.9	6238.3	6289.5
37.5°	6345.7	6201.7	6018.6	6050.4	6106.5
40°	6135.8	5940.5	5803.9	5852.7	5906.4
42.5°	5921.0	5667.2	5596.4	5642.8	5694.0
45°	5694.0	5401.1	5354.8	5420.7	5474.4
47.5°	5447.5	5140.0	5132.7	5183.9	5159.5
50°	5183.9	4869.1	4886.2	4817.8	4649.4
52.5°	4900.8	4588.4	4622.6	4327.3	3497.4
55°	4605.5	4293.1	4346.8	2982.5	2460.2
57.5°	4302.9	3990.5	3956.3	2282.0	2279.6
60°	3980.7	3682.9	3453.5	2016.0	1859.8
62.5°	3656.1	3363.2	2120.9	1518.1	854.2
65°	3309.5	3033.7	1764.6	593.1	475.9
67.5°	2945.9	2699.4	1413.1	446.6	463.7
70°	2572.4	2352.8	566.2	432.0	441.8
72.5°	2191.7	1815.8	375.9	400.3	400.3
75°	1803.6	1005.5	351.5	346.6	341.7
77.5°	1418.0	673.6	307.5	285.6	278.2
80°	1047.0	241.6	248.9	222.1	214.8
82.5°	693.1	187.9	178.2	161.1	156.2
85°	373.4	124.5	117.2	107.4	102.5
87.5°	134.2	63.5	63.5	51.3	46.4
90°	0.0	0.0	0.0	0.0	0.0



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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	26.36	27.93	26.72	28.24	28.56	22.35	23.92	22.71	24.23	24.55
	3H	28.36	29.77	28.74	30.10	30.46	22.48	23.89	22.86	24.21	24.58
	4H	28.98	30.30	29.38	30.64	31.02	22.60	23.92	23.00	24.27	24.64
	6H	29.38	30.59	29.79	30.96	31.35	22.71	23.92	23.12	24.29	24.68
	8H	29.50	30.66	29.92	31.04	31.44	22.74	23.90	23.17	24.29	24.69
	12H	29.57	30.68	30.00	31.06	31.49	22.76	23.87	23.19	24.26	24.68
4H	2H	26.49	27.81	26.89	28.15	28.53	23.07	24.39	23.47	24.74	25.12
	3H	28.65	29.74	29.06	30.13	30.54	23.27	24.36	23.68	24.76	25.16
	4H	29.30	30.28	29.73	30.69	31.13	23.43	24.40	23.86	24.82	25.26
	6H	29.75	30.60	30.20	31.04	31.50	23.59	24.44	24.05	24.88	25.34
	8H	29.89	30.68	30.35	31.12	31.59	23.64	24.44	24.11	24.88	25.35
	12H	29.99	30.70	30.47	31.18	31.65	23.69	24.40	24.17	24.88	25.35
8H	4H	29.24	30.03	29.70	30.47	30.94	23.70	24.49	24.16	24.93	25.40
	6H	29.68	30.34	30.18	30.83	31.30	23.90	24.56	24.40	25.05	25.53
	8H	29.83	30.42	30.34	30.93	31.41	23.99	24.58	24.50	25.09	25.57
	12H	29.96	30.48	30.47	30.97	31.54	24.07	24.60	24.58	25.09	25.65
12H	4H	29.21	29.92	29.69	30.40	30.87	23.71	24.42	24.19	24.90	25.37
	6H	29.64	30.23	30.15	30.74	31.23	23.92	24.51	24.43	25.02	25.51
	8H	29.81	30.33	30.32	30.82	31.39	24.05	24.57	24.55	25.06	25.62