

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: P894882

Luminaire Tested: 8TMB-20HL-FLT-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894882
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-FLT-UNV-L935
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

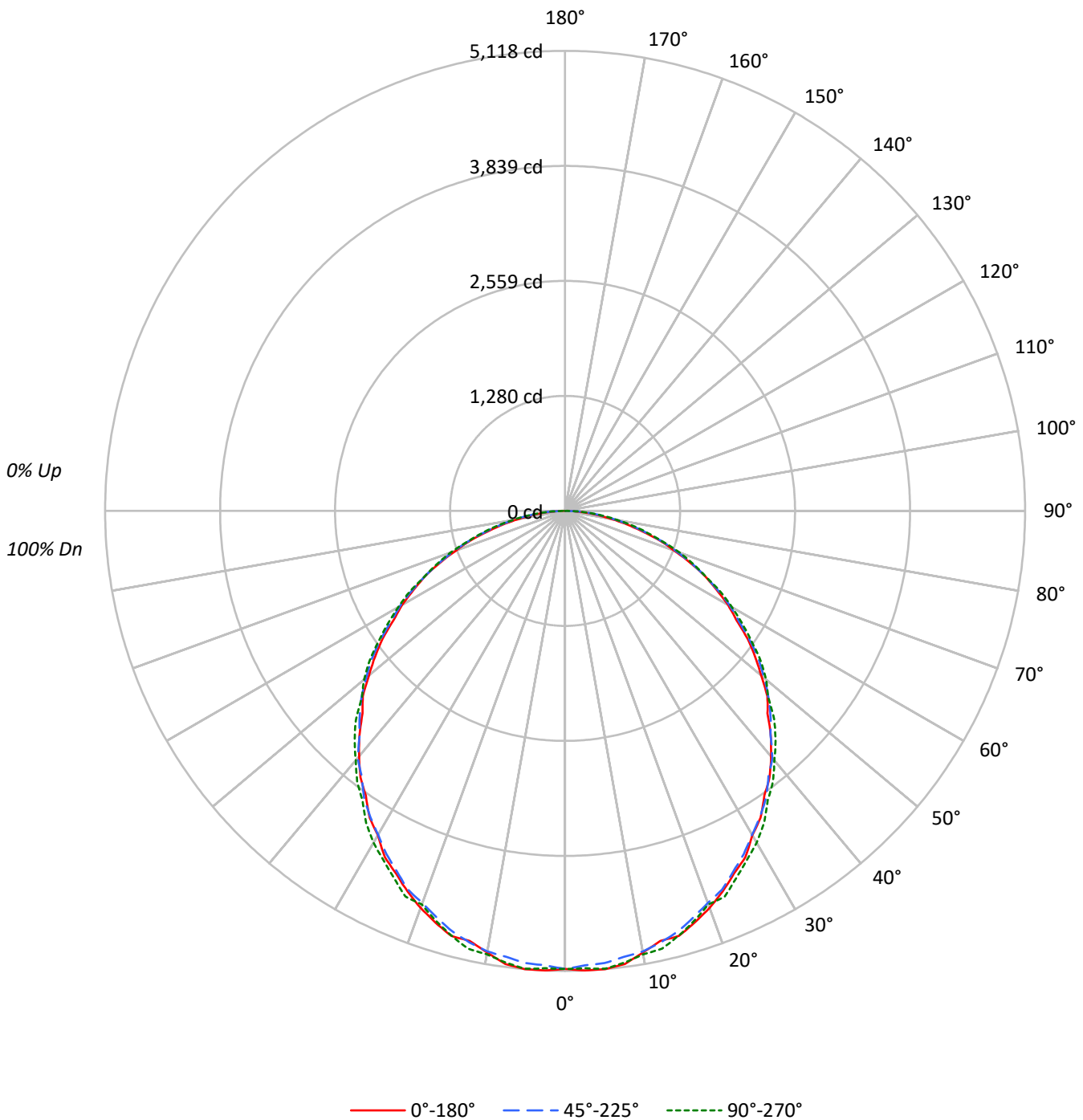
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14119.1 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 145
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.79
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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18080	18080	18080
5°	18227	17984	18212
10°	17978	17930	18050
15°	17982	17796	17966
20°	17744	17528	17595
25°	17424	17329	17640
30°	17071	17044	17468
35°	16742	16885	17028
40°	16516	16618	16781
45°	15982	16225	16523
50°	15722	15953	16111
55°	15332	15522	15686
60°	14855	15073	15214
65°	14414	14470	14470
70°	13404	13724	14066
75°	12342	12825	13096
80°	10885	11829	12233
85°	9766	10931	11737

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.3	3.4
10°-20°	1374.6	9.7
20°-30°	2061.7	14.6
30°-40°	2448.6	17.3
40°-50°	2507.1	17.8
50°-60°	2246.2	15.9
60°-70°	1706.3	12.1
70°-80°	993.9	7.0
80°-90°	298.5	2.1
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°	3918.5	27.8
0°-40°	6367.2	45.1
0°-60°	11120.4	78.8
0°-90°	14119.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14119.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5096	5096	5096	5096	5096	
5°	5118	5098	5049	5080	5113	485
15°	4895	4928	4845	4864	4891	1374
25°	4451	4490	4426	4484	4506	2054
35°	3865	3951	3898	3914	3931	2429
45°	3185	3264	3234	3260	3293	2477
55°	2478	2516	2509	2538	2536	2208
65°	1717	1717	1724	1746	1724	1686
75°	900	916	936	964	955	958
85°	240	244	268	286	288	269
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5095.6	5095.6	5095.6	5095.6	5095.6
2.5°	5117.6	5093.4	5060.4	5071.4	5093.4
5°	5117.6	5097.8	5049.4	5080.2	5113.2
7.5°	5084.6	5111.0	5005.4	5005.4	5067.0
10°	4989.9	5040.6	4976.7	4970.1	5009.8
12.5°	4899.7	4992.2	4917.3	4939.3	4987.7
15°	4895.3	4928.3	4844.7	4864.5	4890.9
17.5°	4800.7	4833.7	4743.4	4780.8	4780.8
20°	4699.4	4706.0	4642.2	4723.6	4659.8
22.5°	4582.7	4651.0	4562.9	4589.3	4644.4
25°	4450.7	4490.3	4426.5	4483.7	4505.7
27.5°	4342.8	4391.2	4303.2	4371.4	4378.0
30°	4166.7	4219.6	4160.1	4204.1	4263.6
32.5°	4047.9	4065.5	4034.7	4100.7	4118.3
35°	3865.2	3951.0	3898.2	3913.6	3931.2
37.5°	3737.5	3763.9	3717.7	3770.5	3799.1
40°	3565.8	3605.4	3587.8	3596.6	3623.1
42.5°	3387.5	3429.4	3383.1	3447.0	3466.8
45°	3185.0	3264.3	3233.5	3259.9	3292.9
47.5°	3053.0	3079.4	3070.6	3086.0	3064.0
50°	2848.3	2874.7	2890.1	2909.9	2918.7
52.5°	2665.6	2685.4	2714.0	2725.0	2744.8
55°	2478.5	2515.9	2509.3	2537.9	2535.7
57.5°	2260.6	2315.6	2298.0	2339.8	2339.8
60°	2093.3	2102.1	2124.1	2143.9	2143.9
62.5°	1899.6	1910.6	1921.6	1939.2	1952.4
65°	1716.9	1716.9	1723.5	1745.5	1723.5
67.5°	1505.6	1496.8	1518.8	1545.2	1543.0
70°	1292.1	1303.1	1322.9	1355.9	1355.9
72.5°	1109.4	1109.4	1131.4	1149.0	1146.8
75°	900.3	915.7	935.5	964.1	955.3
77.5°	713.2	724.2	757.2	783.6	785.8
80°	532.7	543.7	578.9	605.3	598.7
82.5°	372.0	387.4	420.4	440.2	438.0
85°	239.9	244.3	268.5	286.1	288.3
87.5°	110.1	118.9	136.5	143.1	143.1
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	21.59	23.23	21.95	23.54	23.85	21.69	23.33	22.06	23.64	23.96
	3H	23.37	24.85	23.74	25.18	25.54	23.53	25.01	23.91	25.34	25.70
	4H	24.03	25.43	24.43	25.78	26.15	24.23	25.62	24.62	25.97	26.35
	6H	24.51	25.80	24.92	26.17	26.56	24.78	26.07	25.19	26.44	26.83
	8H	24.65	25.89	25.08	26.28	26.68	24.97	26.20	25.39	26.59	26.99
	12H	24.76	25.95	25.19	26.33	26.76	25.11	26.30	25.54	26.68	27.11
4H	2H	22.23	23.63	22.63	23.98	24.35	22.31	23.71	22.71	24.06	24.43
	3H	24.23	25.41	24.64	25.80	26.20	24.38	25.55	24.79	25.95	26.35
	4H	25.03	26.09	25.46	26.50	26.94	25.22	26.28	25.65	26.69	27.13
	6H	25.63	26.56	26.08	27.00	27.45	25.90	26.83	26.36	27.27	27.73
	8H	25.82	26.69	26.28	27.13	27.60	26.15	27.02	26.61	27.46	27.93
	12H	25.97	26.76	26.45	27.23	27.70	26.35	27.13	26.83	27.61	28.07
8H	4H	25.36	26.23	25.82	26.67	27.14	25.53	26.40	25.99	26.84	27.31
	6H	26.09	26.81	26.58	27.30	27.77	26.35	27.08	26.85	27.56	28.04
	8H	26.36	27.01	26.87	27.51	28.00	26.68	27.34	27.19	27.84	28.33
	12H	26.58	27.16	27.09	27.65	28.21	26.97	27.55	27.48	28.04	28.60
12H	4H	25.40	26.19	25.88	26.66	27.13	25.56	26.35	26.04	26.82	27.29
	6H	26.16	26.81	26.67	27.32	27.80	26.41	27.06	26.92	27.57	28.05
	8H	26.49	27.07	27.00	27.56	28.12	26.81	27.38	27.31	27.87	28.43