

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: P894923

Luminaire Tested: 8TMB-20HL-RFLW-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894923
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-20HL-RFLW-UNV-L940
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 4000K
Light Source: -
Ballast/Driver: -

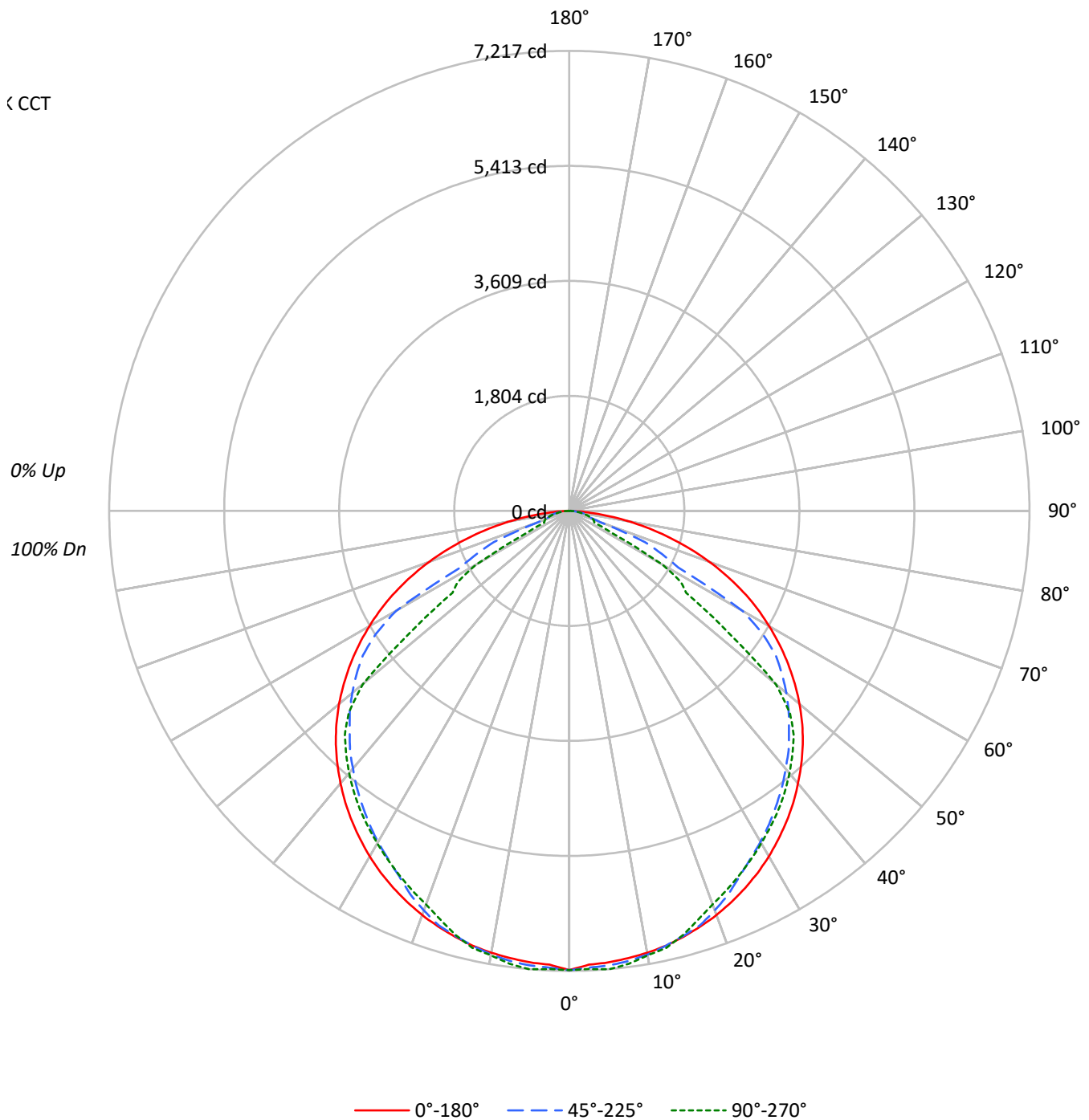
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18779.0 lumens
Efficiency: N/A
Efficacy: 129.5 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): 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	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°	46645	46645	46645
5°	46217	46520	46910
10°	46285	46459	46547
15°	46385	46282	46177
20°	46503	45967	45264
25°	46630	45155	45059
30°	46807	44848	45031
35°	46976	44677	45221
40°	47174	44622	45410
45°	47427	44601	45597
50°	47498	44770	42601
55°	47290	44633	25262
60°	46889	40680	21906
65°	46121	24591	6633
70°	44297	9750	7607
75°	41044	7999	7776
80°	35512	8443	7283
85°	25231	7920	6925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 47498 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	682.3	3.6
10°-20°	1954.0	10.4
20°-30°	2952.9	15.7
30°-40°	3602.8	19.2
40°-50°	3811.1	20.3
50°-60°	3156.6	16.8
60°-70°	1754.7	9.3
70°-80°	711.3	3.8
80°-90°	153.3	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°	5589.2	29.8
0°-40°	9192.0	48.9
0°-60°	16159.6	86.1
0°-90°	18779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7203	7203	7203	7203	7203	
5°	7110	7237	7157	7168	7217	676
15°	6919	7026	6904	6899	6888	1954
25°	6526	6573	6320	6280	6306	3010
35°	5942	5869	5652	5674	5720	3720
45°	5179	4912	4870	4930	4979	3992
55°	4189	3905	3954	2713	2238	3742
65°	3010	2759	1605	539	433	2968
75°	1640	915	320	315	311	1732
85°	340	113	107	98	93	426
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7203.4	7203.4	7203.4	7203.4	7203.4
2.5°	7125.7	7250.0	7172.3	7187.8	7194.5
5°	7110.1	7236.6	7156.7	7167.8	7216.7
7.5°	7076.8	7205.6	7121.2	7127.9	7165.6
10°	7039.1	7156.7	7065.7	7054.6	7079.0
12.5°	6988.0	7094.6	6988.0	6992.5	7023.5
15°	6919.2	7025.8	6903.7	6899.2	6888.1
17.5°	6837.1	6937.0	6817.1	6746.1	6721.6
20°	6748.3	6826.0	6670.6	6561.8	6568.5
22.5°	6641.7	6708.3	6513.0	6413.1	6442.0
25°	6526.3	6572.9	6319.9	6279.9	6306.5
27.5°	6399.8	6435.3	6153.4	6144.5	6166.7
30°	6259.9	6273.2	5998.0	5993.5	6022.4
32.5°	6104.5	6082.3	5831.5	5835.9	5873.7
35°	5942.5	5869.2	5651.7	5673.9	5720.5
37.5°	5771.6	5640.6	5474.1	5503.0	5554.0
40°	5580.7	5403.1	5278.8	5323.2	5372.0
42.5°	5385.3	5154.4	5090.1	5132.2	5178.9
45°	5178.9	4912.5	4870.3	4930.2	4979.1
47.5°	4954.7	4675.0	4668.3	4714.9	4692.7
50°	4714.9	4428.6	4444.1	4381.9	4228.8
52.5°	4457.4	4173.3	4204.4	3935.8	3181.0
55°	4188.8	3904.7	3953.5	2712.6	2237.6
57.5°	3913.6	3629.4	3598.3	2075.5	2073.3
60°	3620.5	3349.7	3141.1	1833.6	1691.5
62.5°	3325.3	3058.9	1929.0	1380.7	776.9
65°	3010.1	2759.3	1604.9	539.4	432.9
67.5°	2679.3	2455.1	1285.3	406.2	421.8
70°	2339.7	2139.9	515.0	392.9	401.8
72.5°	1993.4	1651.6	341.9	364.1	364.1
75°	1640.5	914.6	319.7	315.2	310.8
77.5°	1289.7	612.7	279.7	259.7	253.1
80°	952.3	219.8	226.4	202.0	195.3
82.5°	630.4	170.9	162.0	146.5	142.1
85°	339.6	113.2	106.6	97.7	93.2
87.5°	122.1	57.7	57.7	46.6	42.2
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	26.03	27.60	26.39	27.91	28.23	22.02	23.59	22.38	23.90	24.22
	3H	28.03	29.44	28.41	29.77	30.13	22.15	23.56	22.53	23.88	24.25
	4H	28.65	29.97	29.05	30.31	30.69	22.27	23.59	22.67	23.94	24.31
	6H	29.05	30.26	29.46	30.63	31.02	22.38	23.59	22.79	23.96	24.35
	8H	29.17	30.33	29.59	30.71	31.12	22.41	23.57	22.84	23.96	24.36
	12H	29.24	30.35	29.67	30.73	31.16	22.43	23.54	22.86	23.93	24.35
4H	2H	26.16	27.48	26.56	27.82	28.20	22.74	24.06	23.14	24.41	24.79
	3H	28.32	29.41	28.73	29.81	30.21	22.94	24.03	23.35	24.43	24.83
	4H	28.97	29.95	29.40	30.36	30.80	23.10	24.07	23.53	24.49	24.93
	6H	29.42	30.27	29.87	30.71	31.17	23.26	24.11	23.72	24.55	25.01
	8H	29.56	30.35	30.02	30.80	31.26	23.31	24.11	23.78	24.55	25.02
	12H	29.66	30.37	30.14	30.85	31.32	23.36	24.07	23.84	24.55	25.02
8H	4H	28.91	29.70	29.37	30.14	30.61	23.37	24.16	23.83	24.60	25.07
	6H	29.35	30.01	29.85	30.50	30.97	23.58	24.23	24.07	24.72	25.20
	8H	29.50	30.09	30.01	30.60	31.08	23.66	24.25	24.17	24.76	25.24
	12H	29.63	30.15	30.14	30.64	31.21	23.74	24.27	24.25	24.76	25.32
12H	4H	28.88	29.59	29.36	30.07	30.54	23.38	24.09	23.86	24.57	25.04
	6H	29.31	29.90	29.82	30.41	30.90	23.59	24.18	24.10	24.69	25.18
	8H	29.48	30.00	29.99	30.50	31.06	23.72	24.24	24.22	24.73	25.29