

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: P894883

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894883
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-L940
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

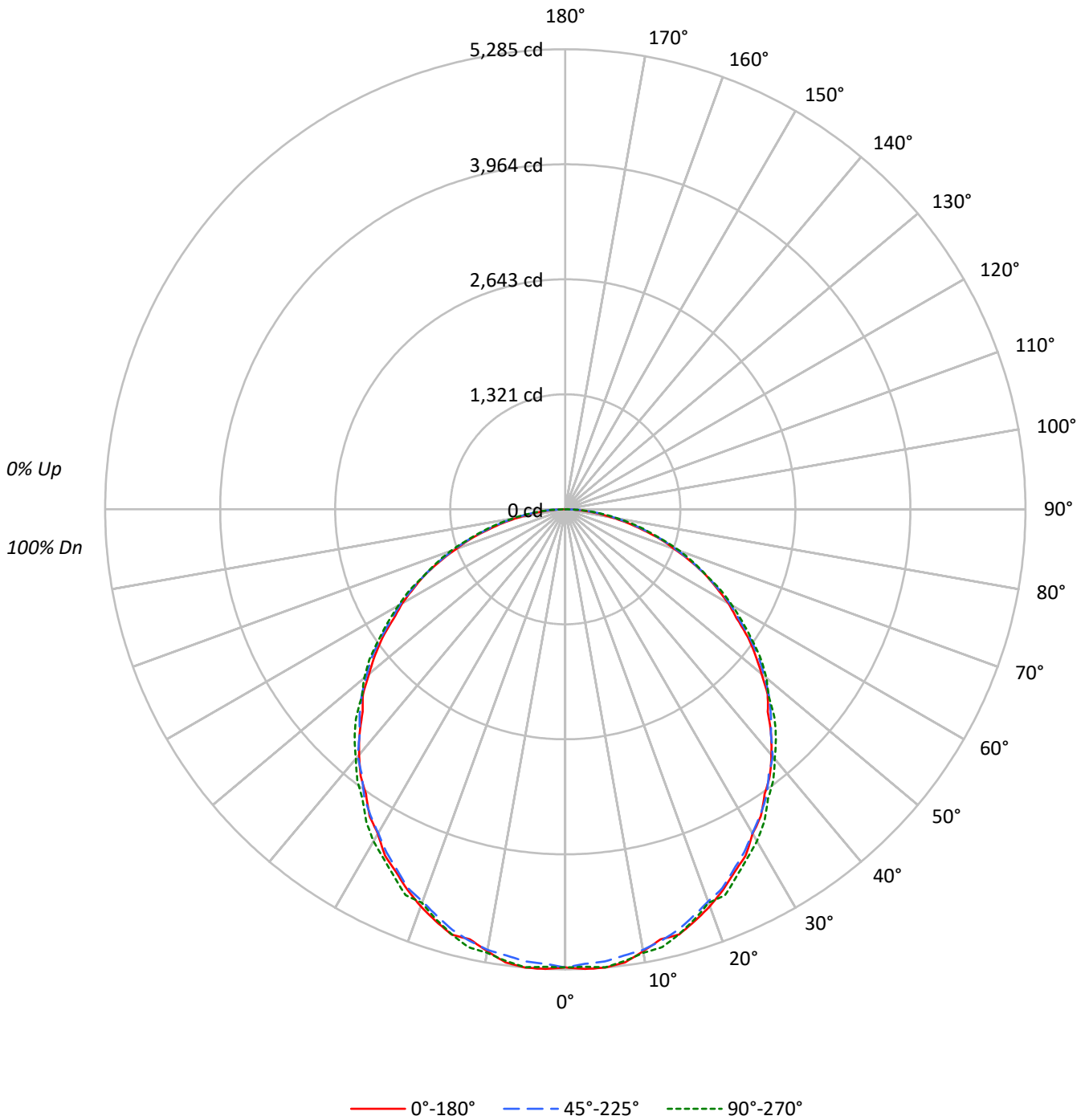
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14582.0 lumens
Efficiency: N/A
Efficacy: 100.6 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 (A_{in}): 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

TEST NUMBER: P894883
CATALOG NUMBER: 8TMB-20HL-FLT-UNV-L940

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	100	100	100	100
1	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70	70	70	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	59	59	59	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50	50	50	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43	43	43	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38	38	38	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33	33	33	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	30	30	30	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24	24	24	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18673	18673	18673
5°	18825	18574	18809
10°	18568	18518	18641
15°	18571	18379	18555
20°	18326	18103	18172
25°	17995	17898	18218
30°	17631	17603	18041
35°	17291	17439	17586
40°	17058	17163	17332
45°	16506	16757	17065
50°	16238	16476	16639
55°	15834	16032	16200
60°	15341	15567	15713
65°	14887	14944	14944
70°	13843	14174	14528
75°	12747	13246	13525
80°	11240	12217	12634
85°	10088	11289	12124

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17065 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	498.1	3.4
10°-20°	1419.6	9.7
20°-30°	2129.3	14.6
30°-40°	2528.9	17.3
40°-50°	2589.3	17.8
50°-60°	2319.8	15.9
60°-70°	1762.3	12.1
70°-80°	1026.4	7.0
80°-90°	308.3	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°	4047.0	27.8
0°-40°	6576.0	45.1
0°-60°	11485.0	78.8
0°-90°	14582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14582.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5263	5263	5263	5263	5263	
5°	5285	5265	5215	5247	5281	500
15°	5056	5090	5004	5024	5051	1419
25°	4597	4638	4572	4631	4654	2121
35°	3992	4081	4026	4042	4060	2509
45°	3290	3371	3340	3367	3401	2558
55°	2560	2598	2592	2621	2619	2281
65°	1773	1773	1780	1803	1780	1741
75°	930	946	966	996	987	990
85°	248	252	277	296	298	278
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5262.7	5262.7	5262.7	5262.7	5262.7
2.5°	5285.4	5260.4	5226.3	5237.7	5260.4
5°	5285.4	5265.0	5215.0	5246.8	5280.9
7.5°	5251.3	5278.6	5169.5	5169.5	5233.1
10°	5153.6	5205.9	5139.9	5133.1	5174.0
12.5°	5060.4	5155.9	5078.6	5101.3	5151.3
15°	5055.8	5089.9	5003.5	5024.0	5051.3
17.5°	4958.1	4992.2	4899.0	4937.6	4937.6
20°	4853.5	4860.3	4794.4	4878.5	4812.6
22.5°	4733.0	4803.5	4712.6	4739.8	4796.7
25°	4596.6	4637.5	4571.6	4630.7	4653.5
27.5°	4485.2	4535.2	4444.3	4514.8	4521.6
30°	4303.4	4357.9	4296.5	4342.0	4403.4
32.5°	4180.6	4198.8	4167.0	4235.2	4253.4
35°	3991.9	4080.6	4026.0	4041.9	4060.1
37.5°	3860.1	3887.4	3839.6	3894.2	3923.7
40°	3682.8	3723.7	3705.5	3714.6	3741.9
42.5°	3498.6	3541.8	3494.1	3560.0	3580.5
45°	3289.5	3371.3	3339.5	3366.8	3400.9
47.5°	3153.1	3180.4	3171.3	3187.2	3164.4
50°	2941.7	2968.9	2984.9	3005.3	3014.4
52.5°	2753.0	2773.4	2803.0	2814.4	2834.8
55°	2559.7	2598.4	2591.6	2621.1	2618.8
57.5°	2334.7	2391.5	2373.3	2416.5	2416.5
60°	2161.9	2171.0	2193.7	2214.2	2214.2
62.5°	1961.9	1973.2	1984.6	2002.8	2016.4
65°	1773.2	1773.2	1780.0	1802.7	1780.0
67.5°	1554.9	1545.8	1568.6	1595.9	1593.6
70°	1334.4	1345.8	1366.3	1400.4	1400.4
72.5°	1145.7	1145.7	1168.5	1186.7	1184.4
75°	929.8	945.7	966.2	995.7	986.6
77.5°	736.6	747.9	782.0	809.3	811.6
80°	550.1	561.5	597.9	625.2	618.3
82.5°	384.2	400.1	434.2	454.7	452.4
85°	247.8	252.3	277.3	295.5	297.8
87.5°	113.7	122.8	140.9	147.8	147.8
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	21.70	23.34	22.06	23.65	23.97	21.80	23.44	22.17	23.76	24.07
	3H	23.48	24.96	23.86	25.29	25.65	23.64	25.12	24.02	25.45	25.81
	4H	24.14	25.54	24.54	25.89	26.26	24.34	25.74	24.74	26.08	26.46
	6H	24.62	25.91	25.03	26.28	26.67	24.89	26.18	25.30	26.55	26.94
	8H	24.77	26.00	25.19	26.39	26.79	25.08	26.32	25.50	26.71	27.10
	12H	24.87	26.06	25.30	26.44	26.87	25.22	26.41	25.65	26.79	27.22
4H	2H	22.34	23.74	22.74	24.09	24.46	22.43	23.82	22.82	24.17	24.55
	3H	24.35	25.52	24.75	25.92	26.32	24.49	25.66	24.90	26.06	26.46
	4H	25.14	26.20	25.57	26.61	27.05	25.33	26.39	25.76	26.80	27.24
	6H	25.74	26.67	26.19	27.11	27.56	26.02	26.95	26.47	27.39	27.84
	8H	25.93	26.80	26.39	27.25	27.71	26.26	27.13	26.72	27.57	28.04
	12H	26.09	26.87	26.57	27.34	27.81	26.46	27.24	26.94	27.72	28.19
8H	4H	25.47	26.34	25.93	26.79	27.25	25.64	26.51	26.10	26.95	27.42
	6H	26.20	26.92	26.69	27.41	27.88	26.46	27.19	26.96	27.68	28.15
	8H	26.47	27.12	26.98	27.63	28.11	26.80	27.45	27.31	27.95	28.44
	12H	26.70	27.27	27.20	27.76	28.32	27.09	27.66	27.59	28.15	28.71
12H	4H	25.52	26.30	26.00	26.77	27.24	25.67	26.46	26.15	26.93	27.40
	6H	26.27	26.92	26.78	27.43	27.91	26.52	27.18	27.03	27.68	28.17
	8H	26.60	27.18	27.11	27.67	28.23	26.92	27.50	27.43	27.99	28.55