

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: P894879

Luminaire Tested: 8TMB-20HL-FLT-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894879
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-L840
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

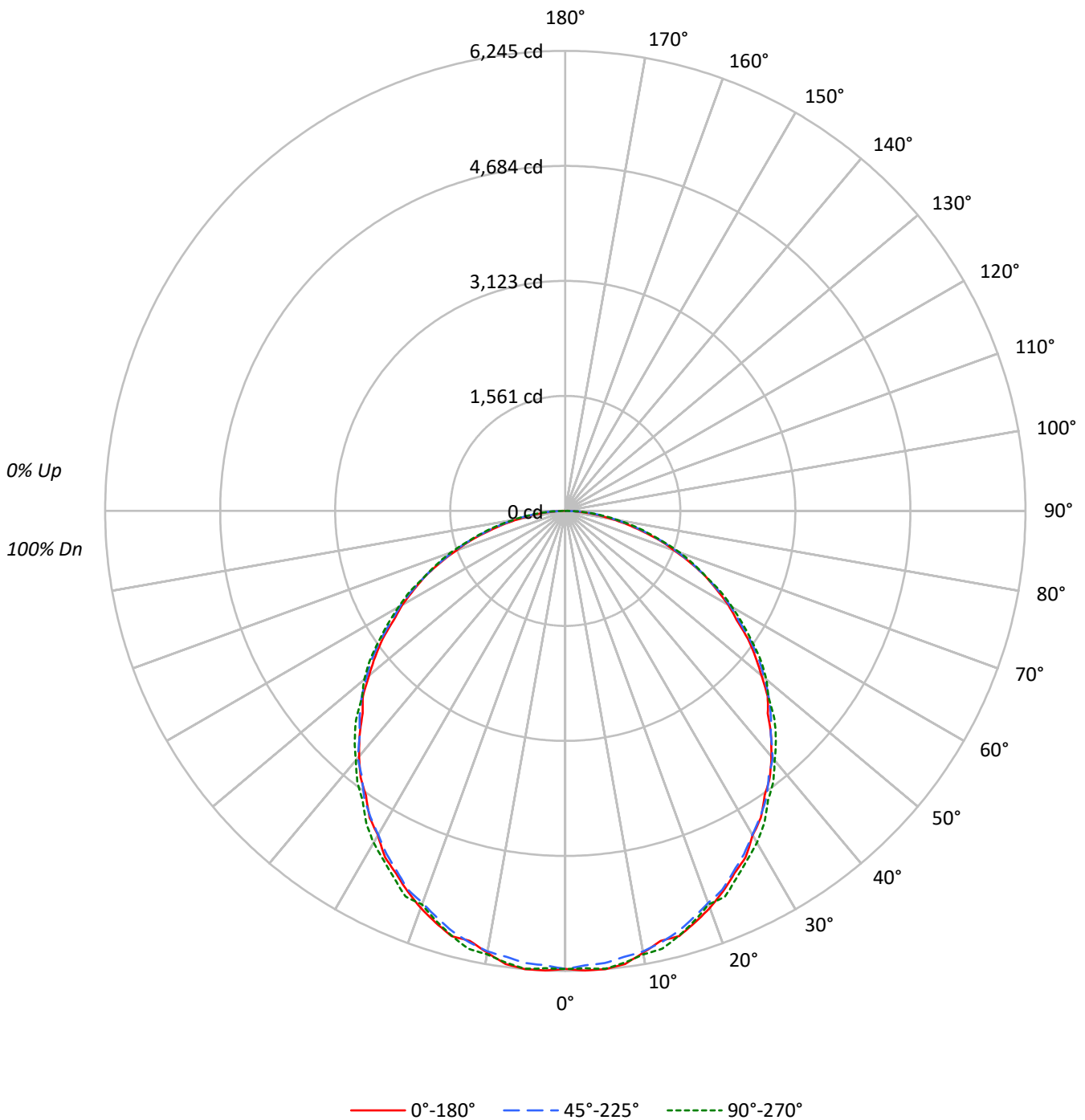
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17229.0 lumens
Efficiency: N/A
Efficacy: 118.8 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°	22062	22062	22062
5°	22242	21946	22223
10°	21938	21880	22025
15°	21943	21716	21923
20°	21653	21389	21470
25°	21262	21147	21525
30°	20831	20799	21316
35°	20430	20604	20779
40°	20154	20278	20477
45°	19502	19799	20163
50°	19185	19467	19660
55°	18709	18941	19141
60°	18127	18394	18565
65°	17590	17657	17657
70°	16357	16747	17165
75°	15061	15649	15981
80°	13281	14434	14928
85°	11920	13341	14326

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20163 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	588.5	3.4
10°-20°	1677.3	9.7
20°-30°	2515.8	14.6
30°-40°	2988.0	17.3
40°-50°	3059.3	17.8
50°-60°	2740.9	15.9
60°-70°	2082.2	12.1
70°-80°	1212.8	7.0
80°-90°	364.2	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°	4781.7	27.8
0°-40°	7769.7	45.1
0°-60°	13569.9	78.8
0°-90°	17229.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17229.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6218	6218	6218	6218	6218	
5°	6245	6221	6162	6199	6240	591
15°	5974	6014	5912	5936	5968	1677
25°	5431	5479	5402	5471	5498	2506
35°	4717	4821	4757	4776	4797	2965
45°	3887	3983	3946	3978	4018	3023
55°	3024	3070	3062	3097	3094	2695
65°	2095	2095	2103	2130	2103	2057
75°	1099	1117	1142	1176	1166	1170
85°	293	298	328	349	352	328
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6218.0	6218.0	6218.0	6218.0	6218.0
2.5°	6244.9	6215.3	6175.0	6188.5	6215.3
5°	6244.9	6220.7	6161.6	6199.2	6239.5
7.5°	6204.6	6236.8	6107.9	6107.9	6183.1
10°	6089.1	6150.9	6073.0	6064.9	6113.3
12.5°	5979.0	6091.8	6000.5	6027.3	6086.4
15°	5973.6	6013.9	5911.8	5936.0	5968.2
17.5°	5858.1	5898.4	5788.3	5833.9	5833.9
20°	5734.5	5742.6	5664.7	5764.1	5686.2
22.5°	5592.2	5675.4	5568.0	5600.2	5667.4
25°	5431.0	5479.4	5401.5	5471.3	5498.2
27.5°	5299.4	5358.5	5251.1	5334.3	5342.4
30°	5084.5	5149.0	5076.5	5130.2	5202.7
32.5°	4939.5	4961.0	4923.4	5004.0	5025.4
35°	4716.6	4821.3	4756.8	4775.7	4797.1
37.5°	4560.8	4593.0	4536.6	4601.1	4636.0
40°	4351.3	4399.6	4378.1	4388.9	4421.1
42.5°	4133.7	4184.7	4128.3	4206.2	4230.4
45°	3886.6	3983.3	3945.7	3977.9	4018.2
47.5°	3725.4	3757.7	3746.9	3765.7	3738.9
50°	3475.6	3507.9	3526.7	3550.8	3561.6
52.5°	3252.7	3276.9	3311.8	3325.2	3349.4
55°	3024.4	3070.1	3062.0	3096.9	3094.2
57.5°	2758.5	2825.6	2804.2	2855.2	2855.2
60°	2554.4	2565.1	2592.0	2616.1	2616.1
62.5°	2318.0	2331.4	2344.8	2366.3	2382.5
65°	2095.1	2095.1	2103.1	2130.0	2103.1
67.5°	1837.2	1826.5	1853.3	1885.5	1882.9
70°	1576.7	1590.1	1614.3	1654.6	1654.6
72.5°	1353.7	1353.7	1380.6	1402.1	1399.4
75°	1098.6	1117.4	1141.5	1176.5	1165.7
77.5°	870.3	883.7	924.0	956.2	958.9
80°	650.0	663.4	706.4	738.6	730.6
82.5°	453.9	472.7	513.0	537.2	534.5
85°	292.8	298.1	327.7	349.2	351.9
87.5°	134.3	145.0	166.5	174.6	174.6
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	22.28	23.92	22.64	24.23	24.54	22.38	24.02	22.75	24.34	24.65
	3H	24.06	25.54	24.43	25.87	26.23	24.22	25.70	24.60	26.03	26.39
	4H	24.72	26.12	25.12	26.47	26.84	24.92	26.32	25.32	26.66	27.04
	6H	25.20	26.49	25.61	26.86	27.25	25.47	26.76	25.88	27.13	27.52
	8H	25.35	26.58	25.77	26.97	27.37	25.66	26.90	26.08	27.28	27.68
	12H	25.45	26.64	25.88	27.02	27.45	25.80	26.99	26.23	27.37	27.80
4H	2H	22.92	24.32	23.32	24.67	25.04	23.01	24.40	23.40	24.75	25.13
	3H	24.93	26.10	25.33	26.50	26.90	25.07	26.24	25.48	26.64	27.04
	4H	25.72	26.78	26.15	27.19	27.63	25.91	26.97	26.34	27.38	27.82
	6H	26.32	27.25	26.77	27.69	28.14	26.60	27.53	27.05	27.97	28.42
	8H	26.51	27.38	26.97	27.83	28.29	26.84	27.71	27.30	28.15	28.62
	12H	26.67	27.45	27.15	27.92	28.39	27.04	27.82	27.52	28.30	28.77
8H	4H	26.05	26.92	26.51	27.37	27.83	26.22	27.09	26.68	27.53	28.00
	6H	26.78	27.50	27.27	27.99	28.46	27.04	27.77	27.54	28.26	28.73
	8H	27.05	27.70	27.56	28.21	28.69	27.38	28.03	27.88	28.53	29.02
	12H	27.28	27.85	27.78	28.34	28.90	27.67	28.24	28.17	28.73	29.29
12H	4H	26.10	26.88	26.58	27.35	27.82	26.25	27.04	26.73	27.51	27.98
	6H	26.85	27.50	27.36	28.01	28.49	27.10	27.75	27.61	28.26	28.75
	8H	27.18	27.76	27.69	28.25	28.81	27.50	28.07	28.00	28.56	29.12