

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: P894895

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-LVR-UNV-L840
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

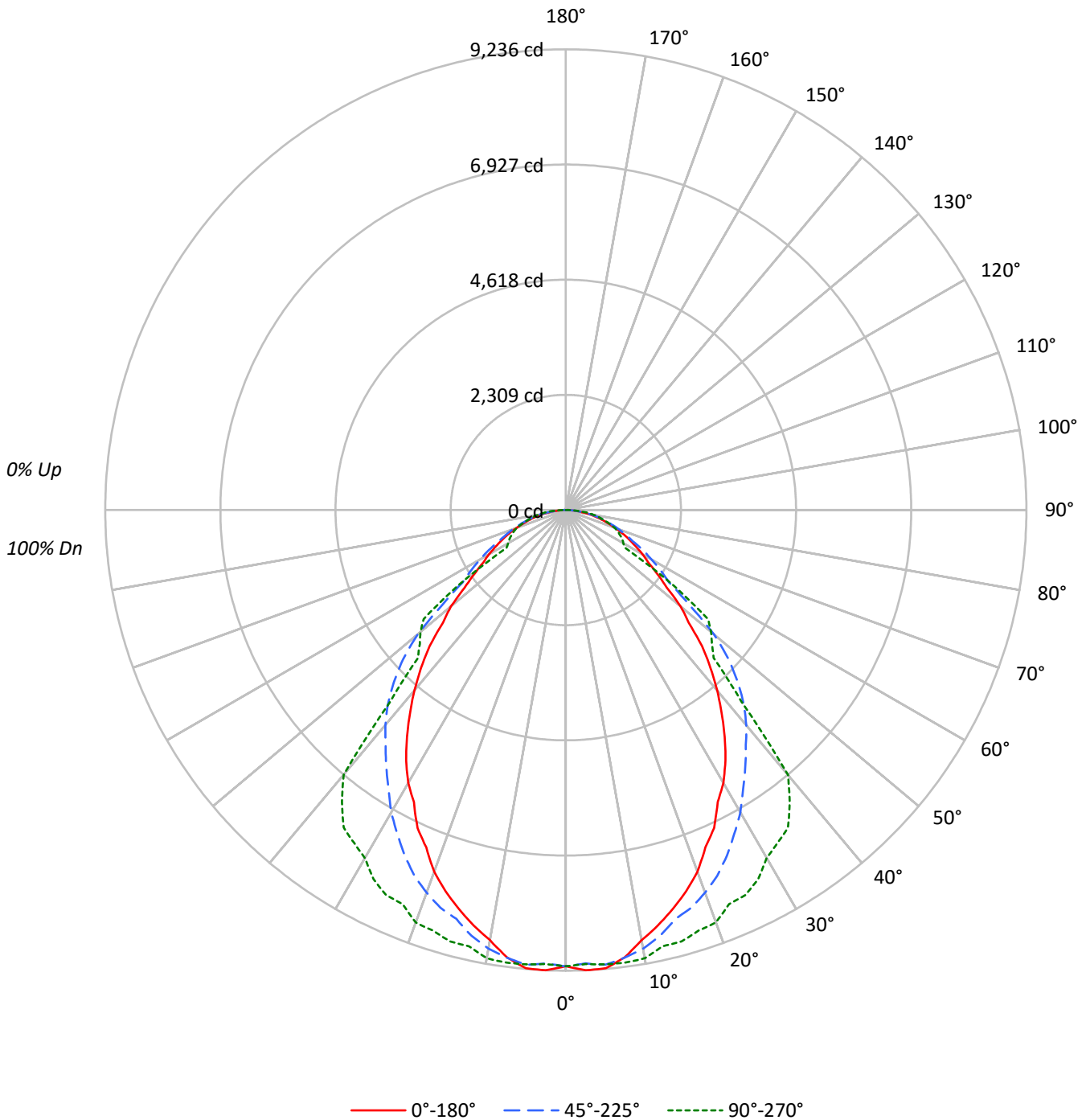
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19147.0 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
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

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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	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32455	32455	32455
5°	32847	32589	32570
10°	31553	32172	32878
15°	30423	31173	32900
20°	29142	30826	33230
25°	27534	29921	33349
30°	25876	28671	33008
35°	24063	27193	33651
40°	21862	26068	32090
45°	19370	24466	21042
50°	16579	21383	20997
55°	13892	15604	16335
60°	12639	14088	9455
65°	11841	12473	10104
70°	10897	11816	10813
75°	10238	11085	11011
80°	9550	10484	11802
85°	8203	8749	12575

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 24466 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	869.2	4.5
10°-20°	2432.0	12.7
20°-30°	3544.5	18.5
30°-40°	4054.9	21.2
40°-50°	3468.8	18.1
50°-60°	2287.5	11.9
60°-70°	1382.9	7.2
70°-80°	846.0	4.4
80°-90°	261.3	1.4
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°	6845.7	35.8
0°-40°	10900.6	56.9
0°-60°	16656.8	87.0
0°-90°	19147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9147	9147	9147	9147	9147	
5°	9222	9214	9150	9131	9144	864
15°	8282	8379	8486	9029	8956	2328
25°	7033	7140	7643	8296	8518	3217
35°	5555	5835	6278	7264	7769	3461
45°	3860	4158	4876	4556	4193	2955
55°	2246	2372	2522	2990	2641	2043
65°	1410	1445	1486	1327	1204	1394
75°	747	766	809	846	803	788
85°	202	199	215	255	309	229
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9147.1	9147.1	9147.1	9147.1	9147.1
2.5°	9235.8	9208.9	9098.8	9203.6	9109.5
5°	9222.4	9214.3	9149.8	9131.0	9144.5
7.5°	9045.1	9063.9	9053.1	9254.6	9152.5
10°	8757.6	8795.2	8929.5	9211.6	9125.6
12.5°	8532.0	8561.5	8741.5	9160.6	8959.1
15°	8282.1	8378.8	8486.3	9028.9	8956.4
17.5°	8013.5	8104.8	8360.0	8851.6	8843.6
20°	7718.0	7887.2	8163.9	8620.6	8800.6
22.5°	7317.7	7546.1	7935.6	8515.8	8550.8
25°	7033.0	7140.4	7642.8	8295.6	8518.5
27.5°	6600.4	6804.6	7317.7	7978.6	8346.6
30°	6315.7	6484.9	6998.0	7793.2	8056.5
32.5°	5958.4	6159.9	6619.3	7591.7	7908.7
35°	5555.4	5834.8	6278.1	7264.0	7769.0
37.5°	5131.0	5407.7	5931.5	6992.7	7374.1
40°	4720.0	4956.4	5628.0	6667.6	6928.2
42.5°	4298.2	4553.4	5281.4	6025.6	5211.6
45°	3860.3	4158.5	4875.8	4556.1	4193.4
47.5°	3341.9	3707.2	4427.2	3661.5	3973.2
50°	3003.4	3202.2	3873.8	3452.0	3803.9
52.5°	2554.8	2823.4	3110.8	3223.7	3594.4
55°	2245.8	2372.1	2522.5	2989.9	2640.7
57.5°	1961.1	2073.9	2248.5	2108.8	1407.7
60°	1781.1	1832.1	1985.2	1507.1	1332.4
62.5°	1576.9	1627.9	1740.8	1407.7	1278.7
65°	1410.4	1445.3	1485.6	1327.1	1203.5
67.5°	1233.1	1251.9	1294.8	1225.0	1131.0
70°	1050.4	1077.2	1139.0	1120.2	1042.3
72.5°	889.2	913.4	967.1	994.0	921.4
75°	746.8	765.6	808.6	846.2	803.2
77.5°	593.7	612.5	668.9	709.2	690.4
80°	467.4	470.1	513.1	553.4	577.6
82.5°	327.7	333.1	365.3	408.3	456.7
85°	201.5	198.8	214.9	255.2	308.9
87.5°	77.9	75.2	88.7	107.5	158.5
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	19.92	21.40	20.28	21.71	22.02	19.59	21.07	19.96	21.39	21.70
	3H	21.48	22.80	21.85	23.13	23.49	21.21	22.54	21.59	22.86	23.23
	4H	22.08	23.32	22.48	23.67	24.05	21.96	23.20	22.36	23.55	23.93
	6H	22.53	23.68	22.95	24.05	24.44	22.63	23.77	23.04	24.14	24.53
	8H	22.69	23.78	23.11	24.17	24.57	22.91	24.00	23.33	24.39	24.79
	12H	22.78	23.83	23.22	24.21	24.64	23.13	24.17	23.56	24.55	24.98
4H	2H	20.51	21.75	20.91	22.10	22.48	20.26	21.50	20.66	21.85	22.22
	3H	22.30	23.33	22.71	23.73	24.13	22.14	23.17	22.55	23.57	23.97
	4H	23.03	23.95	23.46	24.37	24.81	23.04	23.96	23.47	24.38	24.82
	6H	23.61	24.41	24.07	24.86	25.32	23.84	24.65	24.30	25.09	25.55
	8H	23.81	24.56	24.27	25.00	25.47	24.17	24.92	24.63	25.37	25.84
	12H	23.94	24.62	24.43	25.10	25.57	24.44	25.12	24.93	25.59	26.07
8H	4H	23.35	24.10	23.81	24.54	25.01	23.36	24.11	23.82	24.55	25.02
	6H	24.06	24.68	24.55	25.17	25.65	24.31	24.93	24.80	25.42	25.90
	8H	24.33	24.89	24.84	25.40	25.89	24.72	25.28	25.24	25.79	26.28
	12H	24.54	25.03	25.05	25.53	26.09	25.09	25.59	25.60	26.08	26.65
12H	4H	23.39	24.06	23.87	24.54	25.01	23.38	24.05	23.86	24.53	25.01
	6H	24.13	24.69	24.64	25.20	25.69	24.36	24.92	24.87	25.43	25.92
	8H	24.46	24.95	24.97	25.45	26.01	24.84	25.33	25.35	25.83	26.39