

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: P894915

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894915
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-LVRF-UNV-L940
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 4000K (C)
Light Source: -
Ballast/Driver: -

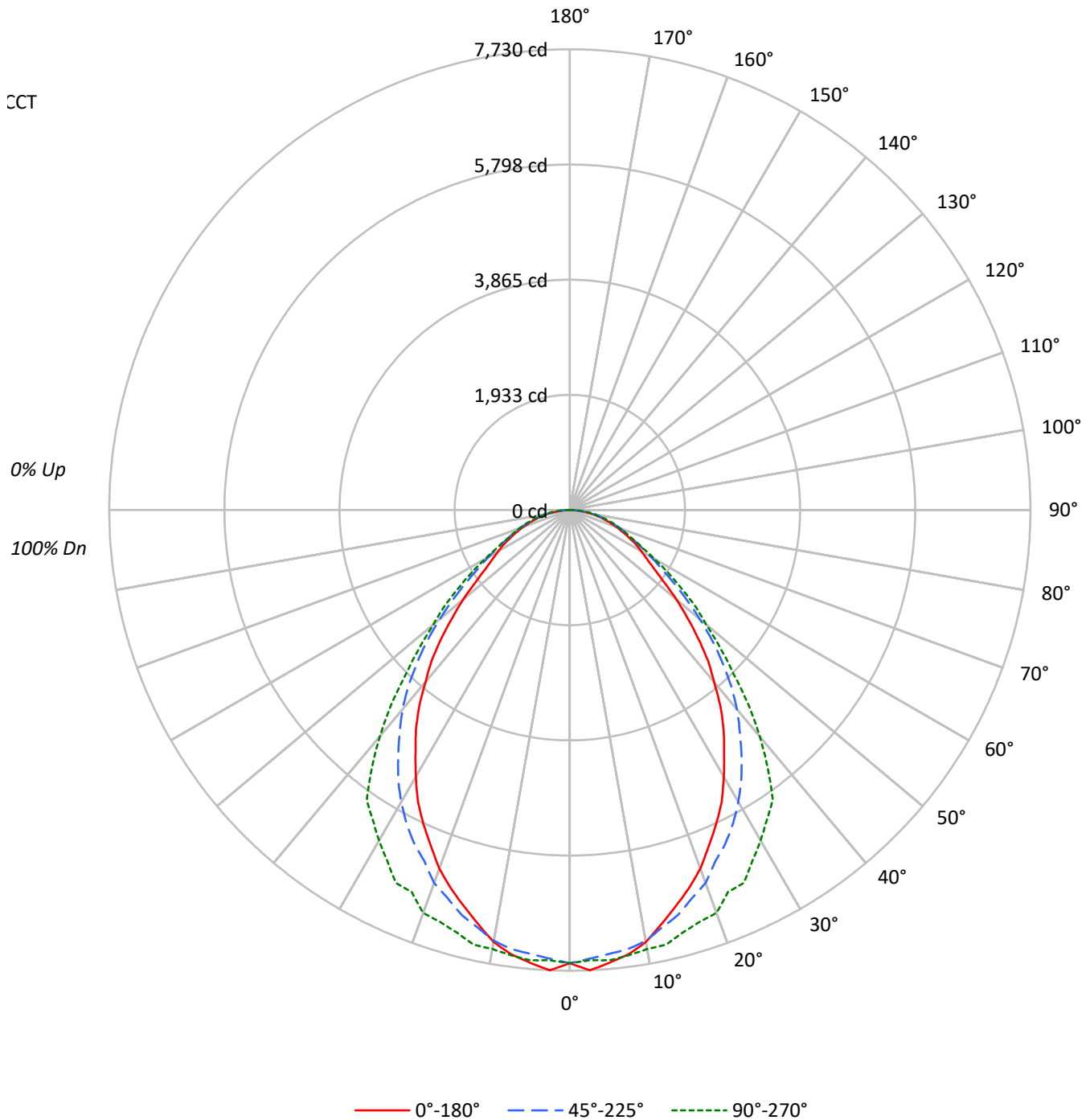
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15419.0 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26982	26982	26982
5°	27158	26632	27012
10°	26522	26440	26948
15°	25270	25830	26948
20°	24173	25143	27169
25°	22758	24182	27030
30°	21171	23174	26238
35°	19498	21753	25731
40°	17438	20218	22976
45°	15286	18184	19484
50°	12901	15711	16490
55°	10702	13150	14063
60°	9841	11180	11600
65°	9219	9830	9906
70°	8585	9316	9245
75°	8010	8696	9007
80°	7478	8083	8641
85°	6294	6847	9534

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 19484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	717.8	4.7
10°-20°	2002.2	13.0
20°-30°	2883.5	18.7
30°-40°	3183.4	20.6
40°-50°	2731.6	17.7
50°-60°	1860.8	12.1
60°-70°	1170.6	7.6
70°-80°	666.5	4.3
80°-90°	202.6	1.3
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°	5603.5	36.3
0°-40°	8786.9	57.0
0°-60°	13379.3	86.8
0°-90°	15419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7605	7605	7605	7605	7605	
5°	7625	7596	7477	7634	7584	720
15°	6879	6952	7032	7350	7336	1937
25°	5813	5929	6177	6675	6904	2670
35°	4501	4676	5022	5570	5940	2800
45°	3046	3249	3624	3842	3883	2347
55°	1730	1837	2126	2228	2273	1589
65°	1098	1116	1171	1228	1180	1091
75°	584	589	634	662	657	623
85°	155	159	168	200	234	178
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7604.6	7604.6	7604.6	7604.6	7604.6
2.5°	7729.6	7650.1	7536.4	7645.5	7561.4
5°	7625.1	7595.5	7477.3	7634.2	7584.1
7.5°	7518.2	7454.6	7434.1	7602.3	7536.4
10°	7361.3	7325.0	7338.6	7554.6	7479.6
12.5°	7113.5	7138.6	7170.4	7445.5	7468.2
15°	6879.4	6952.1	7031.7	7350.0	7336.3
17.5°	6649.8	6749.8	6824.8	7234.0	7245.4
20°	6402.0	6458.8	6658.9	7054.4	7195.4
22.5°	6095.0	6206.4	6379.2	6872.6	6936.2
25°	5813.1	5929.1	6176.9	6674.8	6904.4
27.5°	5517.6	5624.5	5931.4	6440.6	6636.1
30°	5167.5	5310.7	5656.3	6174.6	6404.2
32.5°	4817.4	5026.5	5358.5	5890.4	6156.4
35°	4501.4	4676.4	5022.0	5569.9	5940.5
37.5°	4151.3	4335.4	4685.5	5219.8	5456.2
40°	3764.8	3962.6	4365.0	4796.9	4960.6
42.5°	3432.9	3603.4	4008.0	4312.7	4442.3
45°	3046.4	3248.7	3623.8	3842.1	3883.0
47.5°	2673.5	2905.4	3241.9	3344.2	3423.8
50°	2337.1	2519.0	2846.3	2910.0	2987.3
52.5°	1993.8	2187.0	2473.5	2537.1	2650.8
55°	1730.1	1836.9	2125.7	2228.0	2273.4
57.5°	1536.8	1605.0	1809.6	1939.2	1952.9
60°	1386.8	1420.9	1575.5	1673.2	1634.6
62.5°	1248.1	1275.4	1352.7	1427.7	1377.7
65°	1098.1	1116.3	1170.8	1227.6	1179.9
67.5°	957.1	977.6	1027.6	1068.5	1027.6
70°	827.5	843.4	898.0	916.2	891.2
72.5°	707.0	713.9	759.3	791.2	775.2
75°	584.3	588.8	634.3	661.6	657.0
77.5°	472.9	479.7	518.3	543.3	529.7
80°	366.0	370.6	395.6	432.0	422.9
82.5°	256.9	266.0	281.9	313.7	338.7
85°	154.6	159.1	168.2	200.1	234.2
87.5°	59.1	63.7	68.2	84.1	111.4
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	18.90	20.38	19.27	20.70	21.01	20.26	21.74	20.63	22.06	22.37
	3H	20.48	21.81	20.86	22.14	22.50	21.55	22.87	21.93	23.20	23.57
	4H	21.09	22.33	21.49	22.68	23.06	22.10	23.34	22.50	23.69	24.07
	6H	21.56	22.71	21.97	23.07	23.46	22.56	23.70	22.97	24.07	24.46
	8H	21.71	22.81	22.14	23.20	23.60	22.74	23.83	23.17	24.22	24.62
	12H	21.81	22.86	22.24	23.24	23.67	22.90	23.94	23.33	24.32	24.75
4H	2H	19.52	20.76	19.92	21.11	21.49	20.63	21.87	21.03	22.22	22.60
	3H	21.32	22.35	21.73	22.75	23.15	22.19	23.22	22.60	23.62	24.02
	4H	22.04	22.97	22.48	23.39	23.83	22.89	23.82	23.32	24.23	24.67
	6H	22.64	23.45	23.10	23.89	24.35	23.50	24.30	23.96	24.75	25.21
	8H	22.84	23.60	23.31	24.04	24.51	23.75	24.50	24.21	24.94	25.41
	12H	22.98	23.65	23.47	24.13	24.60	23.96	24.63	24.44	25.11	25.58
8H	4H	22.37	23.12	22.83	23.57	24.04	23.12	23.88	23.59	24.32	24.79
	6H	23.09	23.72	23.59	24.21	24.69	23.87	24.49	24.37	24.98	25.46
	8H	23.37	23.93	23.89	24.44	24.93	24.20	24.76	24.71	25.27	25.76
	12H	23.58	24.08	24.09	24.57	25.14	24.51	25.00	25.02	25.49	26.06
12H	4H	22.41	23.08	22.89	23.56	24.03	23.14	23.81	23.62	24.29	24.76
	6H	23.16	23.72	23.68	24.23	24.72	23.91	24.47	24.42	24.98	25.47
	8H	23.50	23.99	24.01	24.49	25.05	24.29	24.79	24.81	25.28	25.85