

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: P894922

Luminaire Tested: 8TMB-20HL-RFLW-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894922
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-L935
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3500K
Light Source: -
Ballast/Driver: -

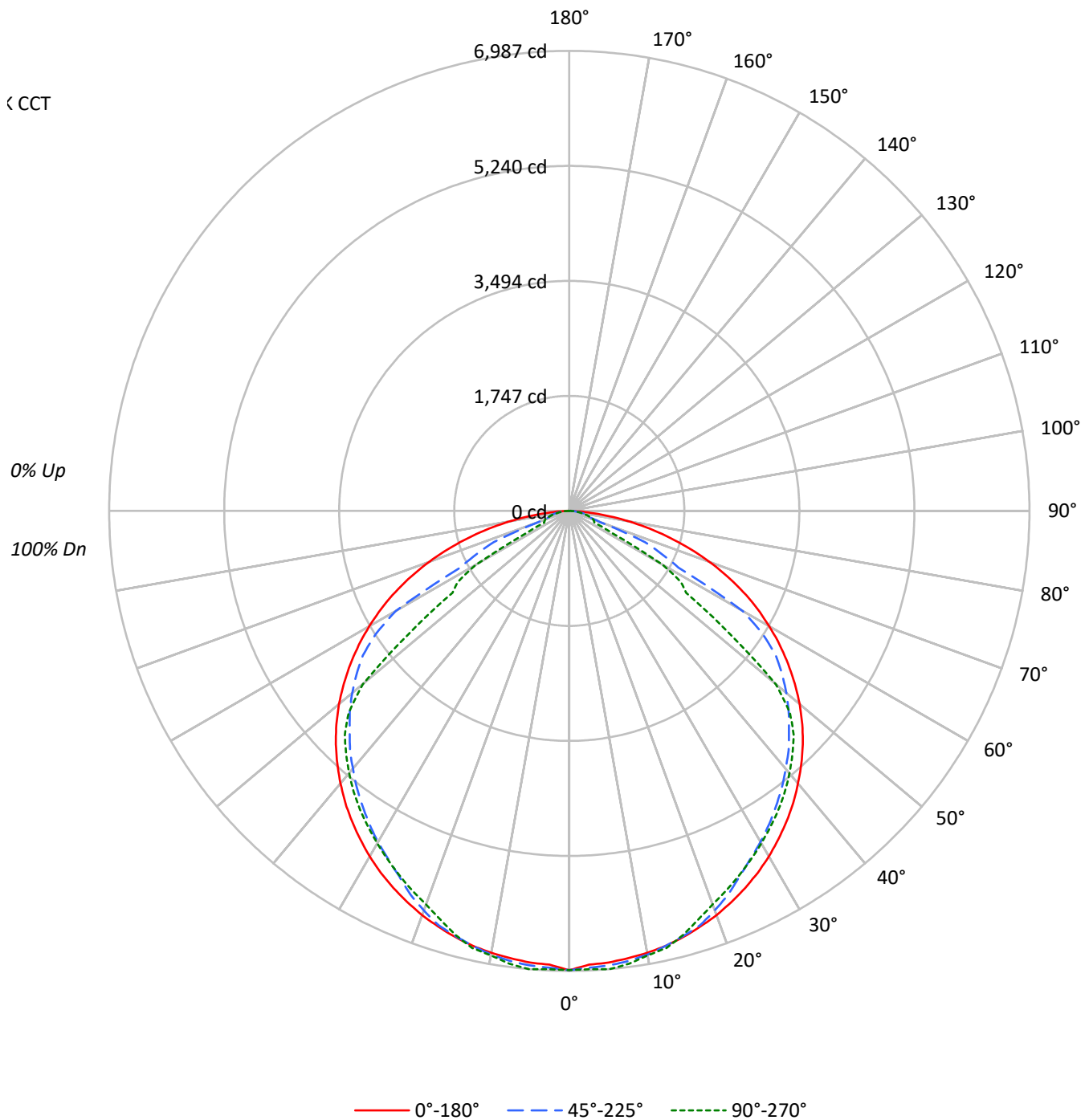
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18182.0 lumens
Efficiency: N/A
Efficacy: 125.4 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 (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	100			100	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86	
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	73			73	
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62			62	
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54			54	
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47			47	
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41			41	
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36			36	
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32			32	
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29			29	
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26			26	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45162	45162	45162
5°	44748	45041	45418
10°	44813	44983	45067
15°	44911	44810	44710
20°	45025	44506	43825
25°	45147	43719	43627
30°	45319	43422	43599
35°	45483	43257	43783
40°	45674	43203	43966
45°	45918	43183	44147
50°	45988	43346	41246
55°	45787	43214	24459
60°	45398	39386	21210
65°	44655	23809	6422
70°	42889	9440	7365
75°	39738	7743	7528
80°	34382	8174	7052
85°	24429	7667	6709

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 45988 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	660.6	3.6
10°-20°	1891.9	10.4
20°-30°	2859.0	15.7
30°-40°	3488.2	19.2
40°-50°	3689.9	20.3
50°-60°	3056.2	16.8
60°-70°	1699.0	9.3
70°-80°	688.7	3.8
80°-90°	148.5	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°	5411.5	29.8
0°-40°	8899.7	48.9
0°-60°	15645.8	86.1
0°-90°	18182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18182.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6974	6974	6974	6974	6974	
5°	6884	7007	6929	6940	6987	655
15°	6699	6802	6684	6680	6669	1892
25°	6319	6364	6119	6080	6106	2915
35°	5754	5683	5472	5494	5539	3602
45°	5014	4756	4716	4774	4821	3865
55°	4056	3780	3828	2626	2166	3623
65°	2914	2672	1554	522	419	2874
75°	1588	886	310	305	301	1677
85°	329	110	103	95	90	413
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6974.4	6974.4	6974.4	6974.4	6974.4
2.5°	6899.1	7019.5	6944.3	6959.3	6965.8
5°	6884.1	7006.6	6929.2	6940.0	6987.2
7.5°	6851.8	6976.5	6894.8	6901.3	6937.8
10°	6815.3	6929.2	6841.1	6830.4	6854.0
12.5°	6765.9	6869.0	6765.9	6770.2	6800.3
15°	6699.2	6802.4	6684.2	6679.9	6669.2
17.5°	6619.7	6716.4	6600.4	6531.6	6508.0
20°	6533.8	6609.0	6458.5	6353.2	6359.7
22.5°	6430.6	6495.1	6305.9	6209.2	6237.2
25°	6318.8	6364.0	6118.9	6080.3	6106.1
27.5°	6196.3	6230.7	5957.8	5949.2	5970.6
30°	6060.9	6073.8	5807.3	5803.0	5830.9
32.5°	5910.5	5889.0	5646.1	5650.4	5686.9
35°	5753.6	5682.6	5472.0	5493.5	5538.6
37.5°	5588.1	5461.3	5300.1	5328.0	5377.5
40°	5403.2	5231.3	5110.9	5153.9	5201.2
42.5°	5214.1	4990.6	4928.3	4969.1	5014.2
45°	5014.2	4756.3	4715.5	4773.5	4820.8
47.5°	4797.2	4526.3	4519.9	4565.0	4543.5
50°	4565.0	4287.8	4302.8	4242.6	4094.3
52.5°	4315.7	4040.6	4070.7	3810.6	3079.9
55°	4055.7	3780.5	3827.8	2626.4	2166.5
57.5°	3789.1	3514.0	3484.0	2009.6	2007.4
60°	3505.4	3243.2	3041.2	1775.3	1637.7
62.5°	3219.6	2961.7	1867.7	1336.8	752.2
65°	2914.4	2671.5	1553.9	522.3	419.1
67.5°	2594.2	2377.1	1244.4	393.3	408.4
70°	2265.3	2071.9	498.6	380.4	389.0
72.5°	1930.0	1599.1	331.0	352.5	352.5
75°	1588.3	885.5	309.5	305.2	300.9
77.5°	1248.7	593.2	270.8	251.5	245.0
80°	922.0	212.8	219.2	195.6	189.1
82.5°	610.4	165.5	156.9	141.9	137.6
85°	328.8	109.6	103.2	94.6	90.3
87.5°	118.2	55.9	55.9	45.1	40.8
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	25.92	27.49	26.28	27.80	28.12	21.91	23.48	22.27	23.79	24.11
	3H	27.92	29.33	28.30	29.66	30.02	22.04	23.45	22.42	23.77	24.13
	4H	28.53	29.85	28.93	30.20	30.58	22.16	23.48	22.56	23.82	24.20
	6H	28.93	30.15	29.35	30.52	30.91	22.26	23.48	22.68	23.85	24.24
	8H	29.05	30.21	29.48	30.60	31.00	22.30	23.46	22.72	23.85	24.25
	12H	29.12	30.23	29.55	30.62	31.04	22.32	23.43	22.75	23.81	24.24
4H	2H	26.05	27.36	26.44	27.71	28.09	22.63	23.95	23.03	24.30	24.68
	3H	28.21	29.29	28.62	29.69	30.09	22.83	23.92	23.24	24.32	24.72
	4H	28.86	29.84	29.29	30.25	30.69	22.98	23.96	23.42	24.38	24.81
	6H	29.31	30.15	29.76	30.60	31.06	23.15	24.00	23.61	24.44	24.90
	8H	29.45	30.24	29.91	30.68	31.15	23.20	23.99	23.66	24.44	24.90
	12H	29.55	30.26	30.03	30.74	31.21	23.25	23.96	23.73	24.43	24.91
8H	4H	28.80	29.59	29.26	30.03	30.50	23.26	24.05	23.72	24.49	24.96
	6H	29.24	29.89	29.73	30.38	30.86	23.46	24.12	23.96	24.61	25.09
	8H	29.39	29.98	29.90	30.48	30.97	23.55	24.14	24.06	24.64	25.13
	12H	29.52	30.04	30.03	30.53	31.10	23.63	24.15	24.14	24.65	25.21
12H	4H	28.77	29.48	29.25	29.96	30.43	23.27	23.98	23.75	24.46	24.93
	6H	29.20	29.79	29.71	30.30	30.78	23.48	24.07	23.99	24.58	25.07
	8H	29.37	29.89	29.88	30.38	30.95	23.60	24.13	24.11	24.62	25.18