

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: P894725

Luminaire Tested: 8TMB-16HL-RFLW-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894725
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-16HL-RFLW-UNV-L830
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3000K
Light Source: -
Ballast/Driver: -

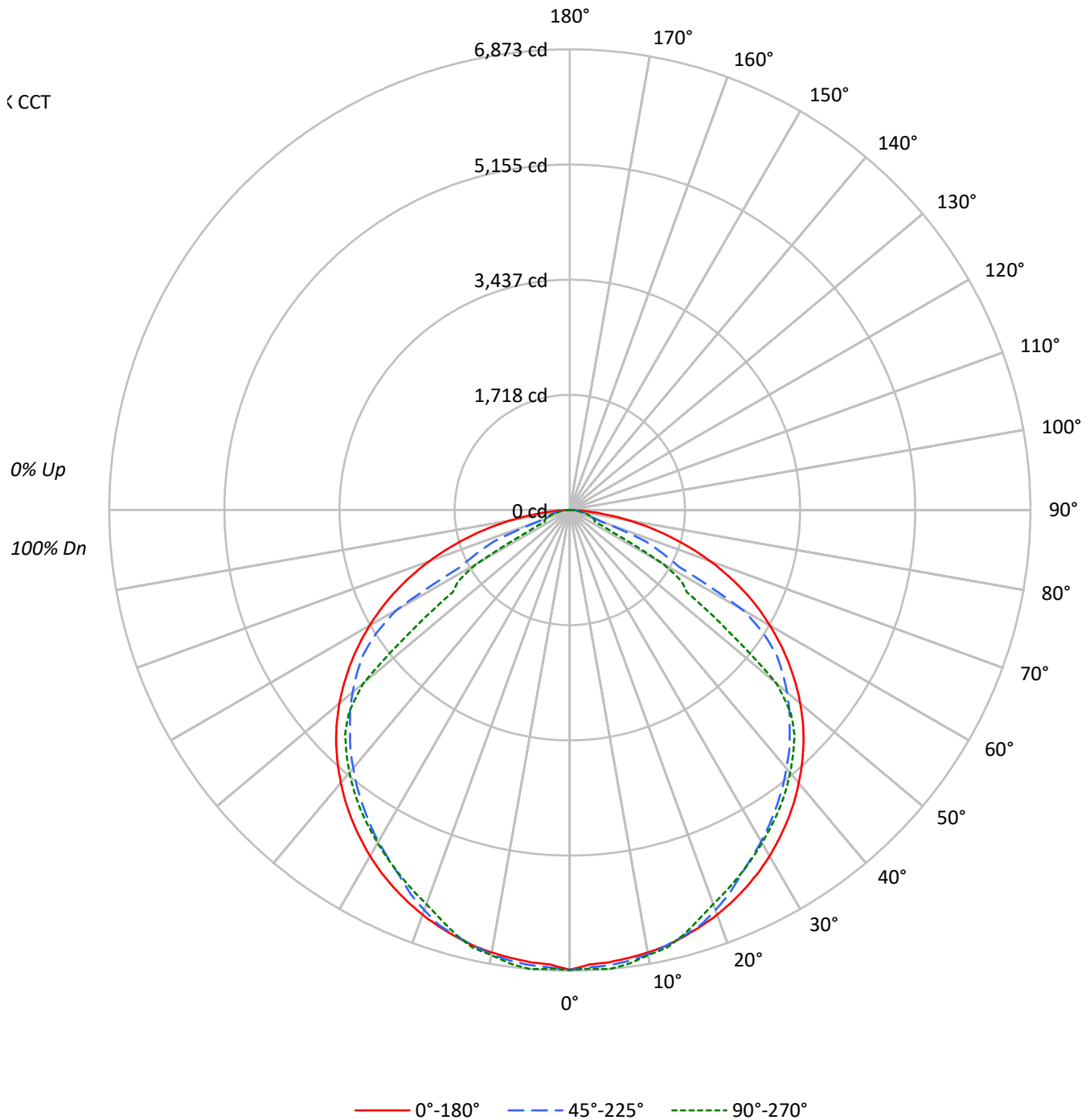
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17884.0 lumens
Efficiency: N/A
Efficacy: 154.4 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): 115.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44422	44422	44422
5°	44015	44303	44674
10°	44078	44245	44329
15°	44175	44075	43977
20°	44287	43777	43106
25°	44408	43003	42912
30°	44576	42711	42885
35°	44737	42547	43066
40°	44926	42495	43246
45°	45166	42475	43424
50°	45234	42636	40570
55°	45036	42506	24057
60°	44655	38741	20863
65°	43923	23418	6316
70°	42186	9287	7244
75°	39088	7616	7406
80°	33819	8040	6936
85°	24028	7541	6598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 45234 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	649.8	3.6
10°-20°	1860.9	10.4
20°-30°	2812.1	15.7
30°-40°	3431.1	19.2
40°-50°	3629.4	20.3
50°-60°	3006.1	16.8
60°-70°	1671.1	9.3
70°-80°	677.4	3.8
80°-90°	146.0	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°	5322.8	29.8
0°-40°	8753.9	48.9
0°-60°	15389.4	86.1
0°-90°	17884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6860	6860	6860	6860	6860	
5°	6771	6892	6816	6826	6873	644
15°	6589	6691	6575	6570	6560	1861
25°	6215	6260	6019	5981	6006	2867
35°	5659	5590	5382	5404	5448	3543
45°	4932	4678	4638	4695	4742	3802
55°	3989	3719	3765	2583	2131	3564
65°	2867	2628	1528	514	412	2827
75°	1562	871	304	300	296	1650
85°	323	108	102	93	89	406
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6860.0	6860.0	6860.0	6860.0	6860.0
2.5°	6786.1	6904.4	6830.4	6845.2	6851.6
5°	6771.3	6891.8	6815.6	6826.2	6872.7
7.5°	6739.5	6862.2	6781.8	6788.2	6824.1
10°	6703.6	6815.6	6729.0	6718.4	6741.7
12.5°	6655.0	6756.5	6655.0	6659.2	6688.8
15°	6589.4	6690.9	6574.6	6570.4	6559.9
17.5°	6511.2	6606.4	6492.2	6424.6	6401.3
20°	6426.7	6500.7	6352.7	6249.1	6255.4
22.5°	6325.2	6388.6	6202.6	6107.4	6134.9
25°	6215.3	6259.7	6018.7	5980.6	6006.0
27.5°	6094.8	6128.6	5860.1	5851.6	5872.8
30°	5961.6	5974.3	5712.1	5707.9	5735.4
32.5°	5813.6	5792.5	5553.6	5557.8	5593.7
35°	5659.3	5589.5	5382.3	5403.5	5447.9
37.5°	5496.5	5371.8	5213.2	5240.7	5289.3
40°	5314.7	5145.6	5027.2	5069.5	5116.0
42.5°	5128.6	4908.8	4847.5	4887.6	4932.0
45°	4932.0	4678.4	4638.2	4695.3	4741.8
47.5°	4718.5	4452.2	4445.8	4490.2	4469.1
50°	4490.2	4217.5	4232.3	4173.1	4027.2
52.5°	4245.0	3974.4	4004.0	3748.2	3029.4
55°	3989.2	3718.6	3765.1	2583.4	2130.9
57.5°	3727.0	3456.4	3426.9	1976.6	1974.5
60°	3448.0	3190.1	2991.4	1746.2	1610.9
62.5°	3166.8	2913.1	1837.1	1314.9	739.9
65°	2866.6	2627.7	1528.4	513.7	412.2
67.5°	2551.6	2338.1	1224.0	386.9	401.7
70°	2228.2	2037.9	490.5	374.2	382.6
72.5°	1898.4	1572.8	325.6	346.7	346.7
75°	1562.3	871.0	304.4	300.2	296.0
77.5°	1228.3	583.5	266.4	247.3	241.0
80°	906.9	209.3	215.6	192.4	186.0
82.5°	600.4	162.8	154.3	139.5	135.3
85°	323.4	107.8	101.5	93.0	88.8
87.5°	116.3	55.0	55.0	44.4	40.2
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	25.86	27.43	26.22	27.74	28.06	21.85	23.42	22.21	23.73	24.05
	3H	27.86	29.27	28.24	29.60	29.96	21.98	23.39	22.36	23.72	24.08
	4H	28.48	29.80	28.88	30.14	30.52	22.10	23.42	22.50	23.77	24.14
	6H	28.88	30.09	29.29	30.46	30.85	22.21	23.42	22.62	23.79	24.18
	8H	29.00	30.16	29.42	30.55	30.95	22.24	23.40	22.67	23.79	24.19
	12H	29.07	30.18	29.50	30.56	30.99	22.26	23.37	22.69	23.76	24.19
4H	2H	25.99	27.31	26.39	27.66	28.03	22.57	23.89	22.97	24.24	24.62
	3H	28.15	29.24	28.56	29.64	30.04	22.77	23.86	23.18	24.26	24.66
	4H	28.80	29.78	29.23	30.19	30.63	22.93	23.90	23.36	24.32	24.76
	6H	29.25	30.10	29.70	30.54	31.00	23.09	23.94	23.55	24.38	24.84
	8H	29.39	30.18	29.85	30.63	31.09	23.14	23.94	23.61	24.38	24.85
	12H	29.49	30.20	29.97	30.68	31.15	23.19	23.90	23.67	24.38	24.85
8H	4H	28.74	29.53	29.20	29.98	30.44	23.20	23.99	23.66	24.44	24.90
	6H	29.18	29.84	29.68	30.33	30.80	23.41	24.06	23.90	24.55	25.03
	8H	29.33	29.92	29.84	30.43	30.92	23.49	24.08	24.00	24.59	25.07
	12H	29.46	29.98	29.97	30.48	31.04	23.57	24.10	24.08	24.59	25.15
12H	4H	28.71	29.42	29.19	29.90	30.37	23.21	23.92	23.69	24.40	24.87
	6H	29.14	29.73	29.65	30.24	30.73	23.42	24.01	23.94	24.52	25.01
	8H	29.31	29.83	29.82	30.33	30.89	23.55	24.07	24.05	24.56	25.12