

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: P1588489

Luminaire Tested: 24CZSP-65VHE-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-776-5)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-65VHE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 7000 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

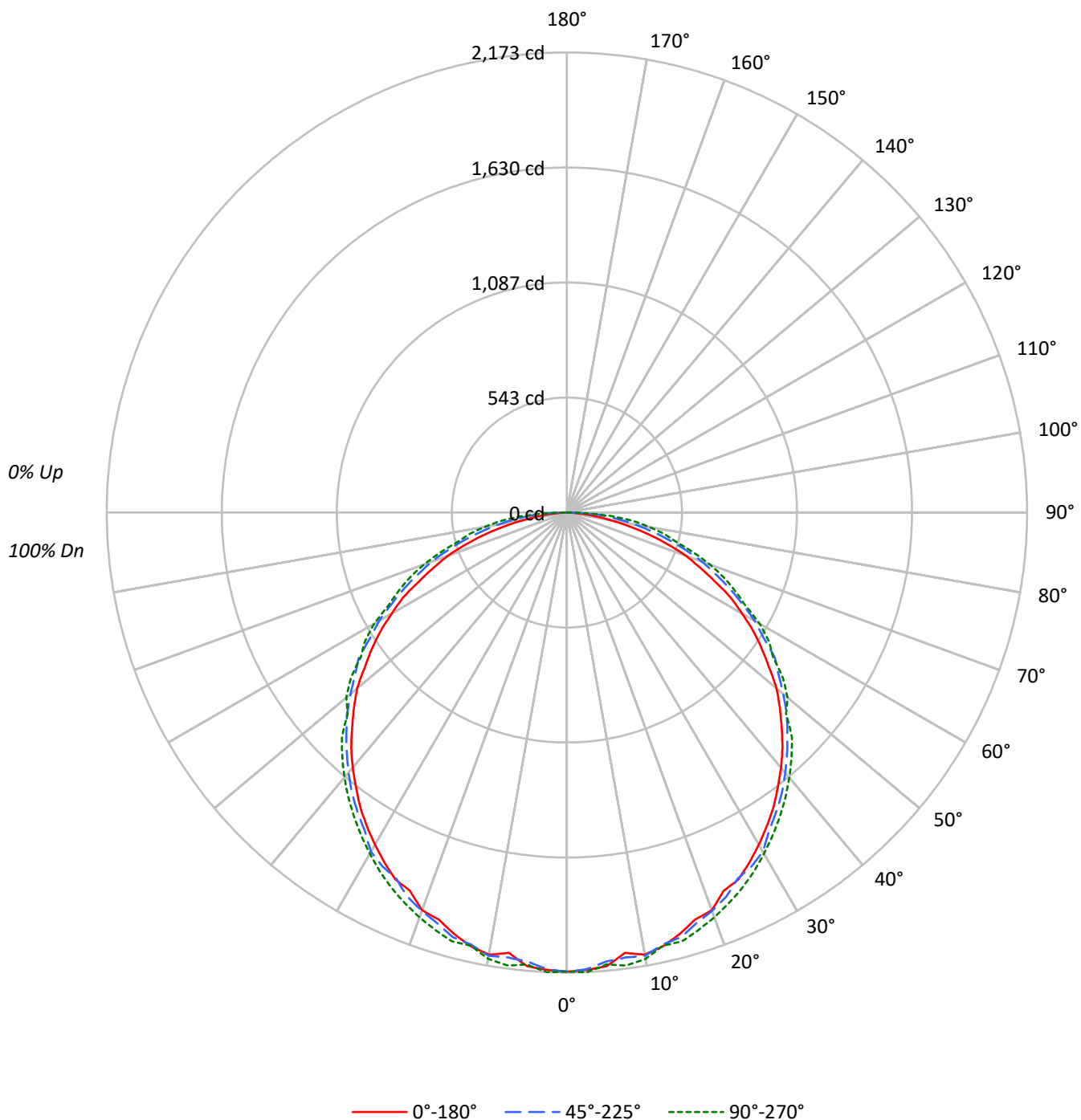
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6474.0 lumens
Efficiency: N/A
Efficacy: 129.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.39
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 50.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	108	103	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61		71	65	60		68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52		63	56	51		61	55	51	48
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	69	55	46	40	67	54	46	39	53	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35		46	39	34		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		42	36	31		41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28		39	32	28		38	32	27	26
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3322	3322	3322
5°	3307	3273	3295
10°	3297	3306	3329
15°	3267	3293	3326
20°	3259	3265	3316
25°	3233	3224	3308
30°	3204	3273	3291
35°	3180	3224	3277
40°	3145	3207	3267
45°	3105	3190	3254
50°	3080	3177	3240
55°	3002	3205	3172
60°	2926	3137	3218
65°	2795	3069	3174
70°	2679	3042	3220
75°	2373	2952	3155
80°	1873	2883	3490
85°	1146	3082	3980

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3980 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.8	3.2
10°-20°	585.0	9.0
20°-30°	891.4	13.8
30°-40°	1085.0	16.8
40°-50°	1137.6	17.6
50°-60°	1053.8	16.3
60°-70°	831.0	12.8
70°-80°	514.1	7.9
80°-90°	171.2	2.6
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°	1681.2	26.0
0°-40°	2766.2	42.7
0°-60°	4957.6	76.6
0°-90°	6474.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6474.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2169	2169	2169	2169	2169	
5°	2151	2150	2129	2176	2143	203
15°	2060	2071	2077	2062	2097	581
25°	1913	1924	1908	1961	1957	879
35°	1701	1717	1724	1757	1753	1063
45°	1434	1460	1472	1489	1502	1108
55°	1124	1158	1200	1211	1188	1006
65°	771	801	847	879	876	767
75°	401	433	499	537	533	423
85°	65	111	175	213	226	88
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2168.7	2168.7	2168.7	2168.7	2168.7
2.5°	2162.5	2175.7	2159.0	2173.1	2173.1
5°	2151.1	2150.2	2129.0	2175.7	2143.1
7.5°	2098.2	2135.2	2120.2	2177.5	2158.1
10°	2120.2	2110.5	2125.5	2164.3	2140.5
12.5°	2098.2	2114.0	2090.3	2070.9	2095.5
15°	2060.3	2070.9	2077.0	2062.1	2097.3
17.5°	2015.4	2055.0	2033.9	2026.8	2067.3
20°	1999.5	2001.3	2003.0	2039.1	2034.7
22.5°	1934.3	1969.5	1965.1	1994.2	1997.7
25°	1913.1	1923.7	1907.8	1960.7	1957.2
27.5°	1864.7	1887.6	1884.9	1902.6	1912.2
30°	1811.8	1834.7	1850.6	1831.2	1861.1
32.5°	1757.2	1795.9	1778.3	1814.4	1808.3
35°	1700.8	1716.6	1724.5	1757.2	1752.7
37.5°	1635.5	1662.9	1667.3	1716.6	1695.5
40°	1573.0	1600.3	1603.8	1632.9	1633.8
42.5°	1506.9	1520.1	1538.6	1572.1	1569.5
45°	1433.7	1460.2	1472.5	1489.3	1502.5
47.5°	1363.2	1391.4	1407.3	1434.6	1403.8
50°	1292.8	1313.0	1333.3	1362.4	1359.7
52.5°	1203.7	1249.6	1259.3	1275.1	1285.7
55°	1124.4	1157.9	1200.2	1210.8	1187.9
57.5°	1044.2	1069.8	1100.6	1133.2	1130.6
60°	955.2	986.1	1024.0	1048.7	1050.4
62.5°	874.2	895.3	931.5	967.6	949.1
65°	771.1	801.0	846.9	878.6	875.9
67.5°	679.4	712.0	758.7	800.1	801.9
70°	598.3	616.0	679.4	711.1	719.1
72.5°	498.8	529.6	586.0	621.3	624.8
75°	401.0	432.7	498.8	536.7	533.1
77.5°	301.4	347.2	411.5	456.5	471.5
80°	212.4	253.8	326.9	371.0	395.7
82.5°	133.9	177.1	248.5	303.1	318.1
85°	65.2	111.0	175.4	213.3	226.5
87.5°	16.7	45.8	81.1	99.6	107.5
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	15.97	17.64	16.34	17.96	18.27	16.40	18.07	16.77	18.39	18.70
	3H	17.77	19.29	18.15	19.61	19.97	18.48	19.99	18.85	20.32	20.68
	4H	18.42	19.85	18.82	20.20	20.57	19.32	20.75	19.72	21.10	21.47
	6H	18.83	20.16	19.24	20.52	20.91	20.11	21.44	20.52	21.80	22.19
	8H	18.93	20.20	19.35	20.59	20.99	20.45	21.72	20.88	22.11	22.51
	12H	18.98	20.20	19.40	20.58	21.01	20.75	21.97	21.18	22.35	22.78
4H	2H	16.71	18.14	17.11	18.49	18.87	17.05	18.48	17.44	18.82	19.20
	3H	18.75	19.95	19.16	20.35	20.75	19.36	20.57	19.77	20.96	21.36
	4H	19.52	20.61	19.95	21.03	21.46	20.37	21.46	20.80	21.87	22.31
	6H	20.05	21.02	20.51	21.45	21.91	21.32	22.28	21.77	22.72	23.17
	8H	20.20	21.10	20.66	21.54	22.00	21.74	22.64	22.20	23.08	23.55
	12H	20.28	21.09	20.76	21.57	22.03	22.12	22.93	22.60	23.41	23.87
8H	4H	19.97	20.87	20.43	21.31	21.77	20.70	21.61	21.16	22.05	22.51
	6H	20.65	21.40	21.14	21.89	22.36	21.82	22.57	22.31	23.06	23.53
	8H	20.87	21.54	21.37	22.05	22.53	22.37	23.04	22.87	23.55	24.03
	12H	21.01	21.61	21.52	22.10	22.66	22.89	23.48	23.39	23.97	24.53
12H	4H	20.05	20.86	20.53	21.34	21.81	20.74	21.55	21.22	22.02	22.49
	6H	20.78	21.46	21.29	21.96	22.45	21.89	22.56	22.39	23.07	23.55
	8H	21.08	21.68	21.58	22.17	22.72	22.51	23.11	23.01	23.60	24.16