

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: P1588429

Luminaire Tested: 24CZSP-60VHE-L945

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588429
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-60VHE-L945
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 6000 lumens, 90CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

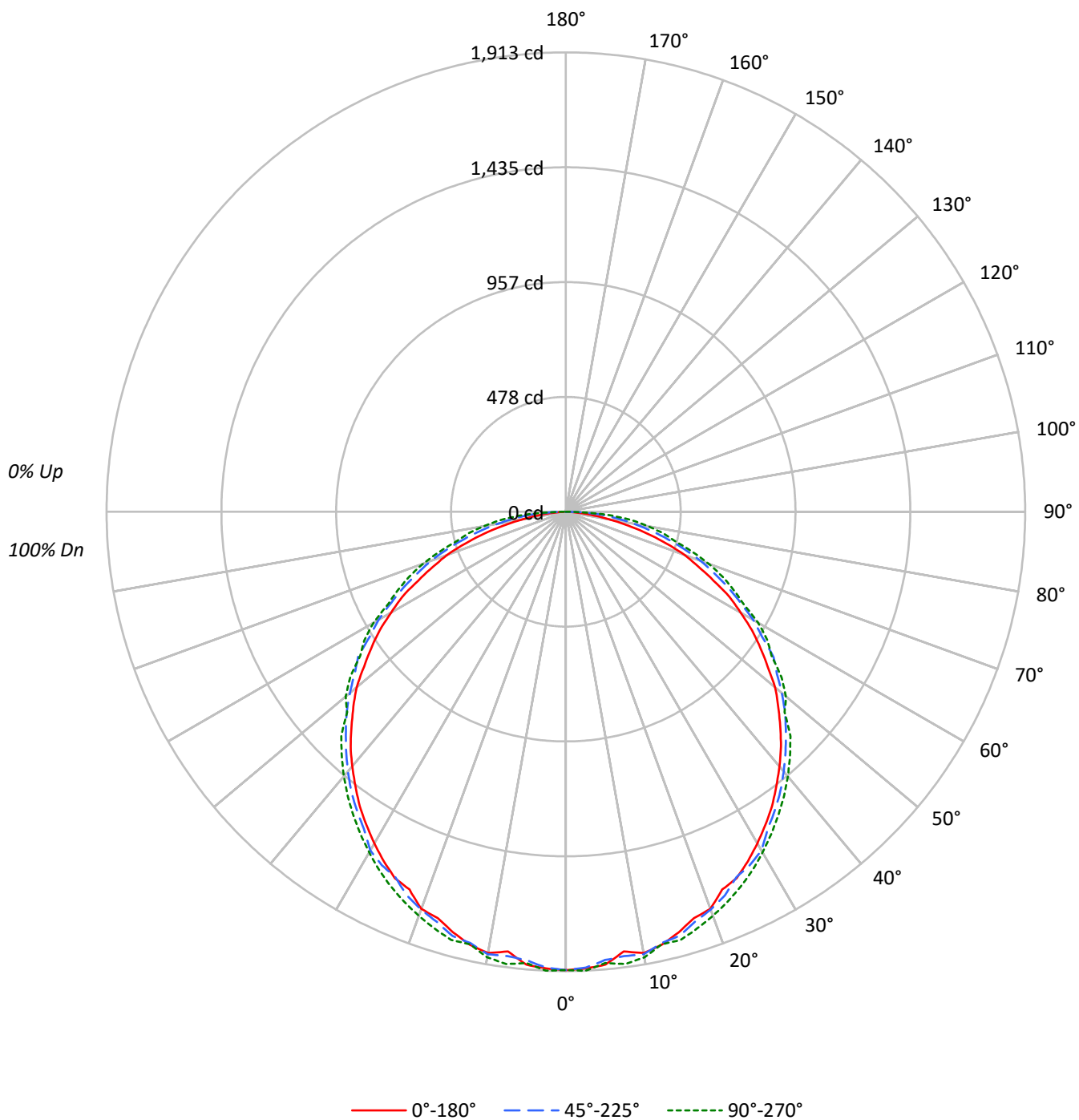
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5698.0 lumens
Efficiency: N/A
Efficacy: 131.0 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): 43.5
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	108	103	99	95	105	101	97	93	97	93	90		93	90	87		89
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78
3	89	78	70	63	87	77	69	62	74	67	61		71	65	60		68
4	81	69	60	53	79	68	59	53	65	58	52		63	56	51		61
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	69	55	46	40	67	54	46	39	53	45	39		51	44	39		49
7	64	50	41	35	62	49	41	35	48	40	35		46	39	34		45
8	60	46	37	31	58	45	37	31	44	36	31		42	36	31		41
9	56	42	34	28	54	41	33	28	40	33	28		39	32	28		38
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2923	2923	2923
5°	2911	2881	2900
10°	2902	2909	2930
15°	2875	2899	2927
20°	2868	2873	2919
25°	2846	2838	2911
30°	2820	2880	2897
35°	2799	2838	2884
40°	2768	2822	2875
45°	2733	2807	2864
50°	2711	2796	2851
55°	2643	2821	2792
60°	2575	2761	2832
65°	2459	2701	2794
70°	2358	2678	2834
75°	2088	2598	2777
80°	1649	2538	3071
85°	1009	2712	3502

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3502 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.3	3.2
10°-20°	514.9	9.0
20°-30°	784.5	13.8
30°-40°	954.9	16.8
40°-50°	1001.3	17.6
50°-60°	927.5	16.3
60°-70°	731.4	12.8
70°-80°	452.5	7.9
80°-90°	150.7	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°	1479.7	26.0
0°-40°	2434.6	42.7
0°-60°	4363.4	76.6
0°-90°	5698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5698.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1909	1909	1909	1909	1909	
5°	1893	1892	1874	1915	1886	179
15°	1813	1823	1828	1815	1846	512
25°	1684	1693	1679	1726	1723	774
35°	1497	1511	1518	1546	1543	935
45°	1262	1285	1296	1311	1322	975
55°	990	1019	1056	1066	1046	885
65°	679	705	745	773	771	675
75°	353	381	439	472	469	373
85°	57	98	154	188	199	77
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1908.7	1908.7	1908.7	1908.7	1908.7
2.5°	1903.3	1914.9	1900.2	1912.6	1912.6
5°	1893.2	1892.4	1873.8	1914.9	1886.2
7.5°	1846.7	1879.3	1866.1	1916.5	1899.4
10°	1866.1	1857.5	1870.7	1904.9	1883.9
12.5°	1846.7	1860.7	1839.7	1822.6	1844.4
15°	1813.3	1822.6	1828.1	1814.9	1845.9
17.5°	1773.8	1808.7	1790.1	1783.9	1819.5
20°	1759.8	1761.4	1762.9	1794.7	1790.8
22.5°	1702.4	1733.5	1729.6	1755.2	1758.3
25°	1683.8	1693.1	1679.2	1725.7	1722.6
27.5°	1641.2	1661.3	1659.0	1674.5	1683.0
30°	1594.6	1614.8	1628.7	1611.7	1638.1
32.5°	1546.5	1580.7	1565.1	1596.9	1591.5
35°	1496.9	1510.9	1517.8	1546.5	1542.7
37.5°	1439.5	1463.5	1467.4	1510.9	1492.2
40°	1384.4	1408.5	1411.6	1437.2	1438.0
42.5°	1326.3	1337.9	1354.2	1383.7	1381.3
45°	1261.9	1285.2	1296.0	1310.8	1322.4
47.5°	1199.8	1224.7	1238.6	1262.7	1235.5
50°	1137.8	1155.6	1173.5	1199.1	1196.7
52.5°	1059.5	1099.8	1108.3	1122.3	1131.6
55°	989.7	1019.1	1056.4	1065.7	1045.5
57.5°	919.1	941.6	968.7	997.4	995.1
60°	840.7	867.9	901.2	923.0	924.5
62.5°	769.4	788.0	819.8	851.6	835.3
65°	678.6	705.0	745.3	773.3	770.9
67.5°	598.0	626.7	667.8	704.2	705.8
70°	526.6	542.1	598.0	625.9	632.9
72.5°	439.0	466.1	515.8	546.8	549.9
75°	352.9	380.8	439.0	472.3	469.2
77.5°	265.3	305.6	362.2	401.8	414.9
80°	186.9	223.4	287.7	326.5	348.2
82.5°	117.9	155.9	218.7	266.8	280.0
85°	57.4	97.7	154.3	187.7	199.3
87.5°	14.7	40.3	71.4	87.6	94.6
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	15.53	17.20	15.90	17.52	17.83	15.96	17.63	16.33	17.95	18.26
	3H	17.33	18.85	17.71	19.17	19.53	18.03	19.55	18.41	19.88	20.23
	4H	17.97	19.41	18.37	19.75	20.13	18.88	20.31	19.27	20.65	21.03
	6H	18.38	19.71	18.79	20.08	20.47	19.66	20.99	20.07	21.36	21.75
	8H	18.49	19.76	18.91	20.15	20.54	20.01	21.28	20.43	21.67	22.07
	12H	18.53	19.75	18.96	20.13	20.56	20.31	21.53	20.74	21.91	22.34
4H	2H	16.27	17.70	16.67	18.05	18.42	16.60	18.03	17.00	18.38	18.76
	3H	18.30	19.51	18.71	19.91	20.31	18.92	20.12	19.32	20.52	20.92
	4H	19.07	20.17	19.51	20.58	21.02	19.92	21.02	20.35	21.43	21.86
	6H	19.61	20.57	20.06	21.01	21.46	20.87	21.83	21.33	22.27	22.73
	8H	19.75	20.66	20.21	21.10	21.56	21.30	22.20	21.76	22.64	23.10
	12H	19.84	20.65	20.31	21.12	21.59	21.68	22.49	22.16	22.96	23.43
8H	4H	19.52	20.43	19.98	20.87	21.33	20.26	21.16	20.72	21.60	22.07
	6H	20.20	20.96	20.70	21.44	21.92	21.38	22.13	21.87	22.62	23.09
	8H	20.42	21.10	20.93	21.60	22.09	21.92	22.60	22.43	23.10	23.59
	12H	20.57	21.17	21.07	21.66	22.22	22.44	23.04	22.95	23.53	24.09
12H	4H	19.61	20.42	20.09	20.89	21.36	20.29	21.11	20.77	21.58	22.05
	6H	20.34	21.02	20.84	21.52	22.00	21.44	22.12	21.95	22.62	23.11
	8H	20.63	21.23	21.14	21.72	22.28	22.07	22.67	22.57	23.16	23.71