

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: P1586706

Luminaire Tested: 22CZSP-A-49HE-L940-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586706
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22CZSP-A-49HE-L940-S
Description: 2x2 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

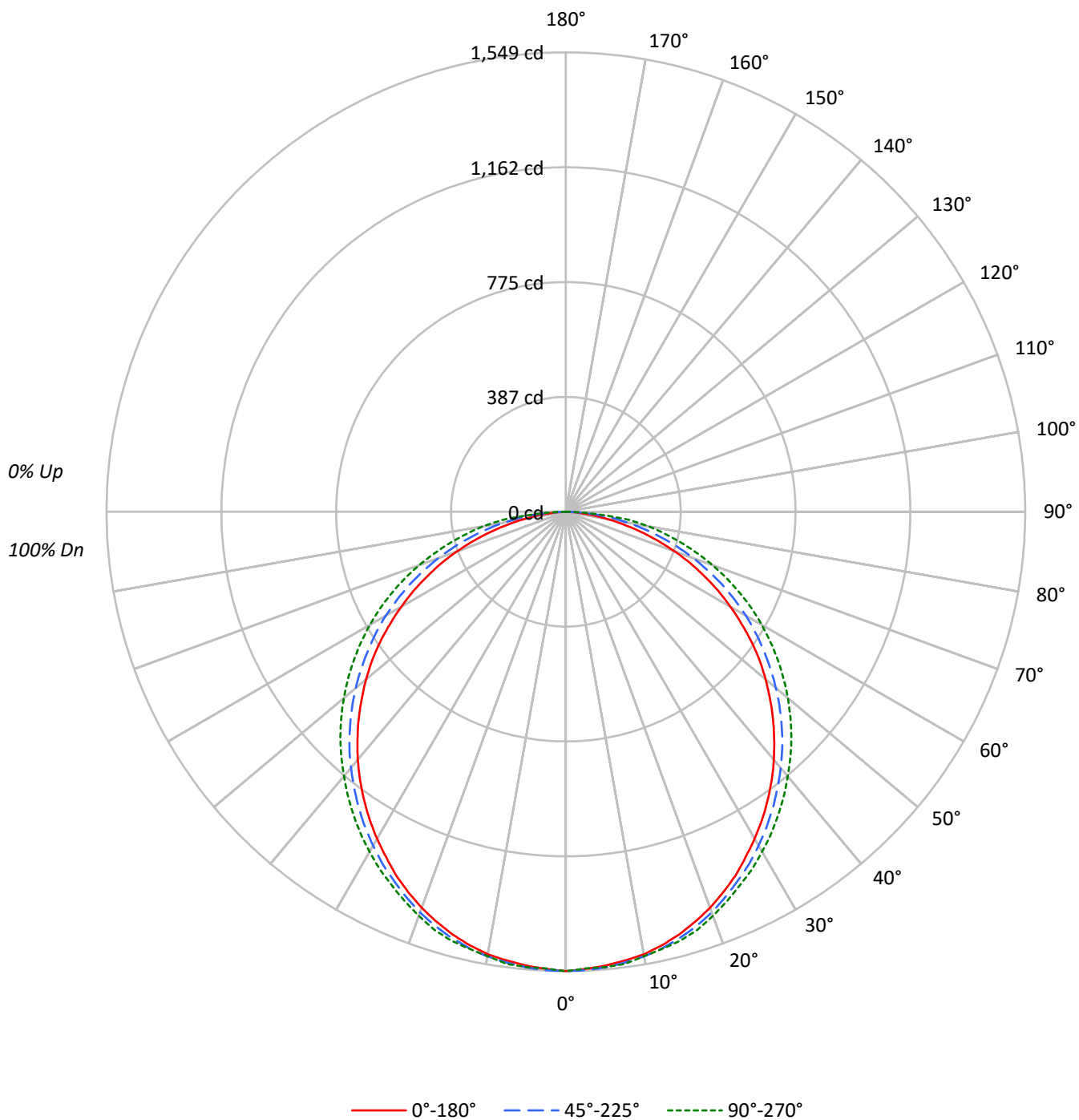
Lumens per Lamp: N/A
Luminaire Lumens: 4522.0 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

Input Watts (W): 32.2
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

TEST NUMBER: P1586706

CATALOG NUMBER: 22CZSP-A-49HE-L940-S

Luminous Intensity Polar Plot



TEST NUMBER: P1586706

CATALOG NUMBER: 22CZSP-A-49HE-L940-S

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	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62		71	65	61		69	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		37	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4850	4850	4850
5°	4828	4847	4844
10°	4818	4840	4837
15°	4783	4822	4851
20°	4735	4791	4831
25°	4676	4741	4800
30°	4603	4700	4786
35°	4536	4654	4772
40°	4462	4608	4758
45°	4377	4561	4763
50°	4283	4505	4761
55°	4171	4442	4767
60°	4014	4393	4778
65°	3831	4309	4793
70°	3571	4188	4815
75°	3181	4022	4862
80°	2631	3828	5100
85°	1710	3456	4455

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5261 cd/sqm

TEST NUMBER: P1586706

CATALOG NUMBER: 22CZSP-A-49HE-L940-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.5	3.2
10°-20°	419.5	9.3
20°-30°	632.6	14.0
30°-40°	761.9	16.8
40°-50°	795.8	17.6
50°-60°	730.8	16.2
60°-70°	575.6	12.7
70°-80°	353.1	7.8
80°-90°	106.3	2.3
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°	1198.5	26.5
0°-40°	1960.5	43.4
0°-60°	3487.0	77.1
0°-90°	4522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1549	1549	1549	1549	1549	
5°	1536	1538	1542	1547	1541	146
15°	1476	1478	1487	1496	1496	416
25°	1353	1356	1372	1389	1389	623
35°	1187	1193	1218	1242	1248	742
45°	988	999	1030	1066	1076	762
55°	764	778	814	859	873	682
65°	517	535	582	630	647	511
75°	263	284	332	385	402	279
85°	48	66	96	122	124	62
90°	0	0	0	0	0	



TEST NUMBER: P1586706

CATALOG NUMBER: 22CZSP-A-49HE-L940-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1548.9	1548.9	1548.9	1548.9	1548.9
2.5°	1543.0	1545.9	1546.9	1547.9	1541.0
5°	1536.0	1538.0	1542.0	1546.9	1541.0
7.5°	1526.1	1528.1	1533.0	1540.0	1537.0
10°	1515.2	1516.2	1522.1	1527.1	1521.1
12.5°	1497.3	1500.3	1507.2	1511.2	1509.2
15°	1475.5	1478.5	1487.4	1496.3	1496.3
17.5°	1449.7	1453.6	1464.6	1476.5	1477.5
20°	1420.9	1423.9	1437.8	1449.7	1449.7
22.5°	1388.2	1392.1	1406.0	1418.9	1420.9
25°	1353.4	1356.4	1372.3	1389.2	1389.2
27.5°	1312.7	1318.7	1338.5	1355.4	1359.4
30°	1273.1	1278.0	1299.9	1320.7	1323.7
32.5°	1231.4	1237.3	1260.2	1283.0	1287.9
35°	1186.7	1192.7	1217.5	1242.3	1248.3
37.5°	1140.1	1147.0	1172.8	1201.6	1207.6
40°	1091.5	1099.4	1127.2	1158.0	1163.9
42.5°	1039.9	1050.8	1080.6	1112.3	1121.2
45°	988.3	999.2	1030.0	1065.7	1075.6
47.5°	933.7	946.6	978.4	1016.1	1027.0
50°	879.1	892.0	924.8	965.5	977.4
52.5°	823.6	836.5	870.2	912.9	925.8
55°	764.0	777.9	813.6	859.3	873.2
57.5°	702.5	720.4	758.1	804.7	818.6
60°	641.0	658.9	701.5	747.2	763.0
62.5°	580.5	597.3	641.0	689.6	706.5
65°	517.0	534.8	581.5	630.1	646.9
67.5°	454.5	472.3	518.9	569.6	587.4
70°	390.0	409.8	457.4	508.0	525.9
72.5°	325.5	346.3	394.9	446.5	463.4
75°	262.9	283.8	332.4	385.0	401.9
77.5°	201.4	224.2	271.9	325.5	341.3
80°	145.9	167.7	212.3	264.9	282.8
82.5°	93.3	112.1	156.8	206.4	219.3
85°	47.6	65.5	96.2	122.0	124.0
87.5°	14.9	20.8	31.8	47.6	48.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1586706

CATALOG NUMBER: 22CZSP-A-49HE-L940-S

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	16.96	18.63	17.33	18.94	19.25	17.79	19.46	18.16	19.77	20.08
	3H	18.72	20.23	19.10	20.55	20.91	19.91	21.42	20.29	21.74	22.10
	4H	19.34	20.76	19.74	21.11	21.48	20.80	22.22	21.20	22.57	22.94
	6H	19.75	21.07	20.16	21.43	21.82	21.58	22.90	21.99	23.27	23.66
	8H	19.86	21.12	20.28	21.51	21.91	21.90	23.16	22.32	23.55	23.95
	12H	19.91	21.12	20.34	21.50	21.93	22.11	23.32	22.54	23.70	24.13
4H	2H	17.74	19.16	18.13	19.51	19.88	18.38	19.80	18.78	20.15	20.53
	3H	19.71	20.91	20.12	21.31	21.71	20.74	21.94	21.15	22.33	22.73
	4H	20.45	21.54	20.88	21.95	22.38	21.79	22.88	22.22	23.29	23.72
	6H	20.98	21.93	21.43	22.37	22.82	22.74	23.69	23.19	24.13	24.59
	8H	21.12	22.02	21.58	22.46	22.92	23.14	24.03	23.60	24.47	24.94
	12H	21.21	22.01	21.69	22.49	22.95	23.42	24.22	23.89	24.69	25.16
8H	4H	20.91	21.80	21.37	22.24	22.71	22.08	22.97	22.54	23.41	23.88
	6H	21.57	22.31	22.06	22.80	23.27	23.19	23.93	23.68	24.42	24.89
	8H	21.78	22.45	22.29	22.95	23.44	23.70	24.37	24.21	24.88	25.36
	12H	21.92	22.51	22.43	23.00	23.56	24.09	24.68	24.59	25.17	25.73
12H	4H	21.00	21.80	21.48	22.28	22.74	22.10	22.91	22.58	23.38	23.85
	6H	21.70	22.37	22.21	22.88	23.36	23.24	23.91	23.74	24.41	24.90
	8H	21.98	22.57	22.49	23.06	23.62	23.82	24.41	24.32	24.90	25.46