

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: P1586460

Luminaire Tested: 22CZSP-49HE-L850-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586460
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-49HE-L850-S
Description: 2x2 CZSP LED Luminaire, 5000K CCT and 4500 lumens, 80CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

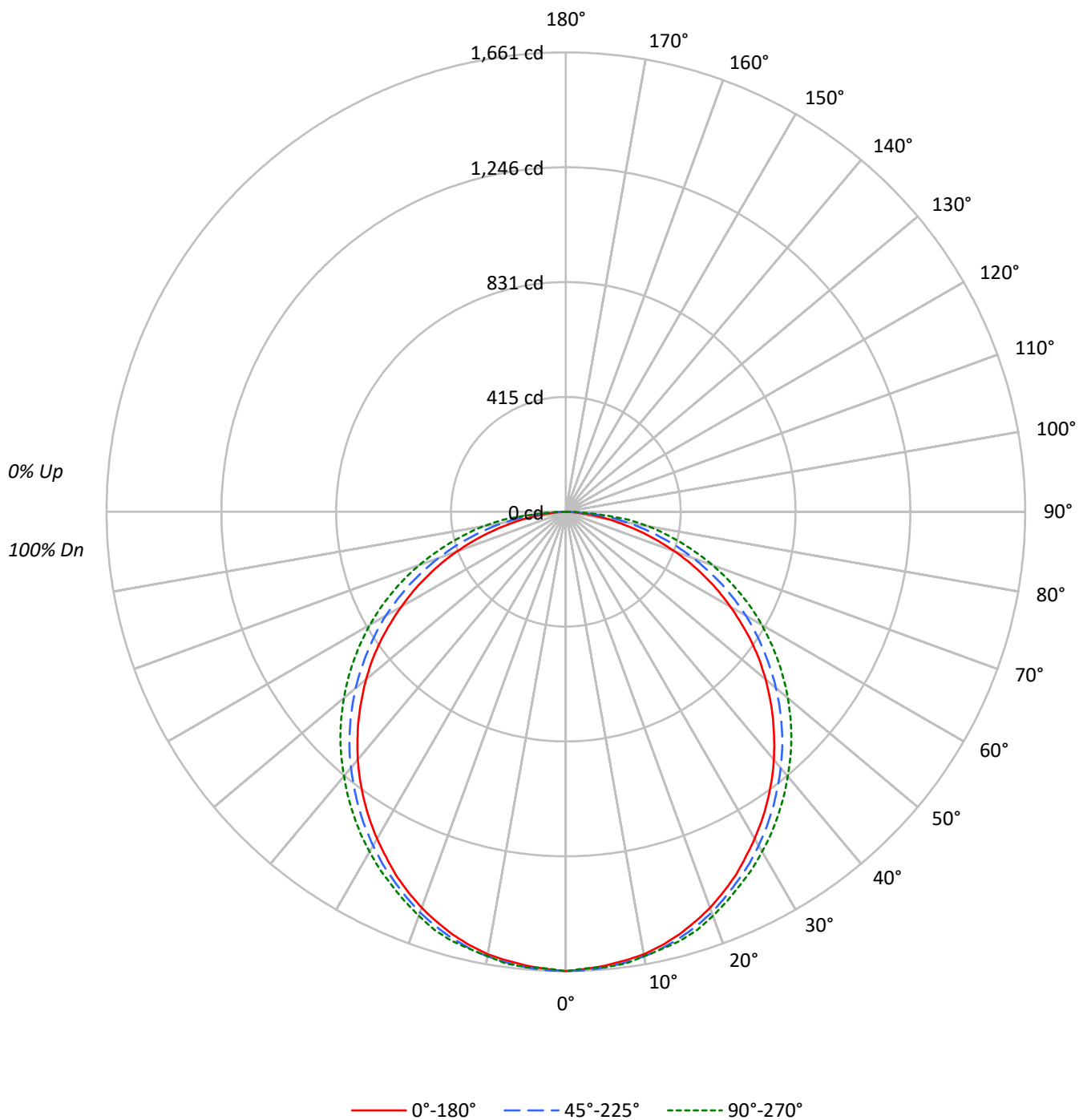
Lumens per Lamp: N/A
Luminaire Lumens: 4849.0 lumens
Efficiency: N/A
Efficacy: 150.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

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: P1586460

CATALOG NUMBER: 22CZSP-49HE-L850-S

Luminous Intensity Polar Plot



TEST NUMBER: P1586460

CATALOG NUMBER: 22CZSP-49HE-L850-S

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5201	5201	5201
5°	5177	5197	5194
10°	5166	5190	5186
15°	5129	5170	5201
20°	5077	5137	5180
25°	5014	5084	5147
30°	4936	5040	5132
35°	4865	4990	5117
40°	4784	4941	5102
45°	4693	4891	5108
50°	4592	4831	5105
55°	4473	4763	5112
60°	4304	4711	5124
65°	4107	4620	5140
70°	3829	4491	5163
75°	3412	4312	5213
80°	2820	4106	5467
85°	1836	3708	4778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5640 cd/sqm

TEST NUMBER: P1586460

CATALOG NUMBER: 22CZSP-49HE-L850-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.1	3.2
10°-20°	449.8	9.3
20°-30°	678.3	14.0
30°-40°	817.0	16.8
40°-50°	853.3	17.6
50°-60°	783.6	16.2
60°-70°	617.2	12.7
70°-80°	378.7	7.8
80°-90°	113.9	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°	1285.2	26.5
0°-40°	2102.2	43.4
0°-60°	3739.2	77.1
0°-90°	4849.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4849.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1661	1661	1661	1661	1661	
5°	1647	1649	1654	1659	1652	157
15°	1582	1585	1595	1604	1604	446
25°	1451	1454	1472	1490	1490	668
35°	1273	1279	1306	1332	1338	796
45°	1060	1072	1104	1143	1153	817
55°	819	834	872	921	936	731
65°	554	574	624	676	694	548
75°	282	304	356	413	431	299
85°	51	70	103	131	133	67
90°	0	0	0	0	0	

TEST NUMBER: P1586460

CATALOG NUMBER: 22CZSP-49HE-L850-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1660.9	1660.9	1660.9	1660.9	1660.9
2.5°	1654.5	1657.7	1658.8	1659.8	1652.4
5°	1647.1	1649.2	1653.5	1658.8	1652.4
7.5°	1636.4	1638.6	1643.9	1651.3	1648.1
10°	1624.7	1625.8	1632.2	1637.5	1631.1
12.5°	1605.6	1608.8	1616.2	1620.5	1618.4
15°	1582.2	1585.4	1594.9	1604.5	1604.5
17.5°	1554.5	1558.8	1570.5	1583.2	1584.3
20°	1523.7	1526.8	1541.7	1554.5	1554.5
22.5°	1488.5	1492.8	1507.7	1521.5	1523.7
25°	1451.3	1454.5	1471.5	1489.6	1489.6
27.5°	1407.7	1414.1	1435.3	1453.4	1457.7
30°	1365.1	1370.4	1393.8	1416.2	1419.4
32.5°	1320.4	1326.8	1351.3	1375.8	1381.1
35°	1272.6	1278.9	1305.5	1332.1	1338.5
37.5°	1222.5	1230.0	1257.7	1288.5	1294.9
40°	1170.4	1178.9	1208.7	1241.7	1248.1
42.5°	1115.1	1126.8	1158.7	1192.7	1202.3
45°	1059.7	1071.5	1104.4	1142.7	1153.4
47.5°	1001.2	1015.1	1049.1	1089.5	1101.2
50°	942.7	956.5	991.7	1035.3	1048.0
52.5°	883.1	897.0	933.1	978.9	992.7
55°	819.3	834.2	872.5	921.4	936.3
57.5°	753.3	772.5	812.9	862.9	877.8
60°	687.3	706.5	752.3	801.2	818.2
62.5°	622.4	640.5	687.3	739.5	757.6
65°	554.3	573.5	623.5	675.6	693.7
67.5°	487.3	506.5	556.5	610.7	629.9
70°	418.2	439.4	490.5	544.8	563.9
72.5°	349.0	371.3	423.5	478.8	496.9
75°	282.0	304.3	356.4	412.8	430.9
77.5°	216.0	240.5	291.5	349.0	366.0
80°	156.4	179.8	227.7	284.1	303.2
82.5°	100.0	120.2	168.1	221.3	235.1
85°	51.1	70.2	103.2	130.9	133.0
87.5°	16.0	22.3	34.0	51.1	52.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1586460
CATALOG NUMBER: 22CZSP-49HE-L850-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	17.21	18.87	17.57	19.18	19.50	18.04	19.70	18.40	20.01	20.33
	3H	18.96	20.47	19.34	20.80	21.16	20.15	21.66	20.53	21.99	22.35
	4H	19.58	21.00	19.98	21.35	21.73	21.04	22.46	21.44	22.81	23.19
	6H	19.99	21.31	20.40	21.68	22.07	21.82	23.14	22.23	23.51	23.90
	8H	20.10	21.36	20.52	21.75	22.15	22.14	23.41	22.57	23.79	24.19
	12H	20.15	21.36	20.58	21.74	22.17	22.35	23.57	22.78	23.95	24.37
4H	2H	17.98	19.40	18.38	19.75	20.12	18.62	20.05	19.02	20.39	20.77
	3H	19.96	21.15	20.36	21.55	21.95	20.98	22.18	21.39	22.57	22.97
	4H	20.69	21.78	21.12	22.19	22.63	22.03	23.12	22.46	23.53	23.97
	6H	21.22	22.17	21.67	22.61	23.07	22.98	23.94	23.44	24.38	24.83
	8H	21.37	22.26	21.83	22.70	23.16	23.38	24.27	23.84	24.71	25.18
	12H	21.45	22.25	21.93	22.73	23.20	23.66	24.46	24.14	24.94	25.40
8H	4H	21.15	22.04	21.61	22.48	22.95	22.32	23.21	22.78	23.65	24.12
	6H	21.81	22.56	22.30	23.04	23.52	23.43	24.18	23.92	24.66	25.14
	8H	22.02	22.69	22.53	23.20	23.68	23.94	24.61	24.45	25.12	25.60
	12H	22.16	22.75	22.67	23.24	23.80	24.33	24.92	24.84	25.41	25.97
12H	4H	21.24	22.04	21.72	22.52	22.99	22.35	23.15	22.82	23.62	24.09
	6H	21.94	22.61	22.45	23.12	23.60	23.48	24.15	23.99	24.65	25.14
	8H	22.22	22.81	22.73	23.30	23.86	24.06	24.65	24.56	25.14	25.70