

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: P1586696

Luminaire Tested: 22CZSP-A-49HE-L840-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1586696
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-L840-S
Description: 2x2 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

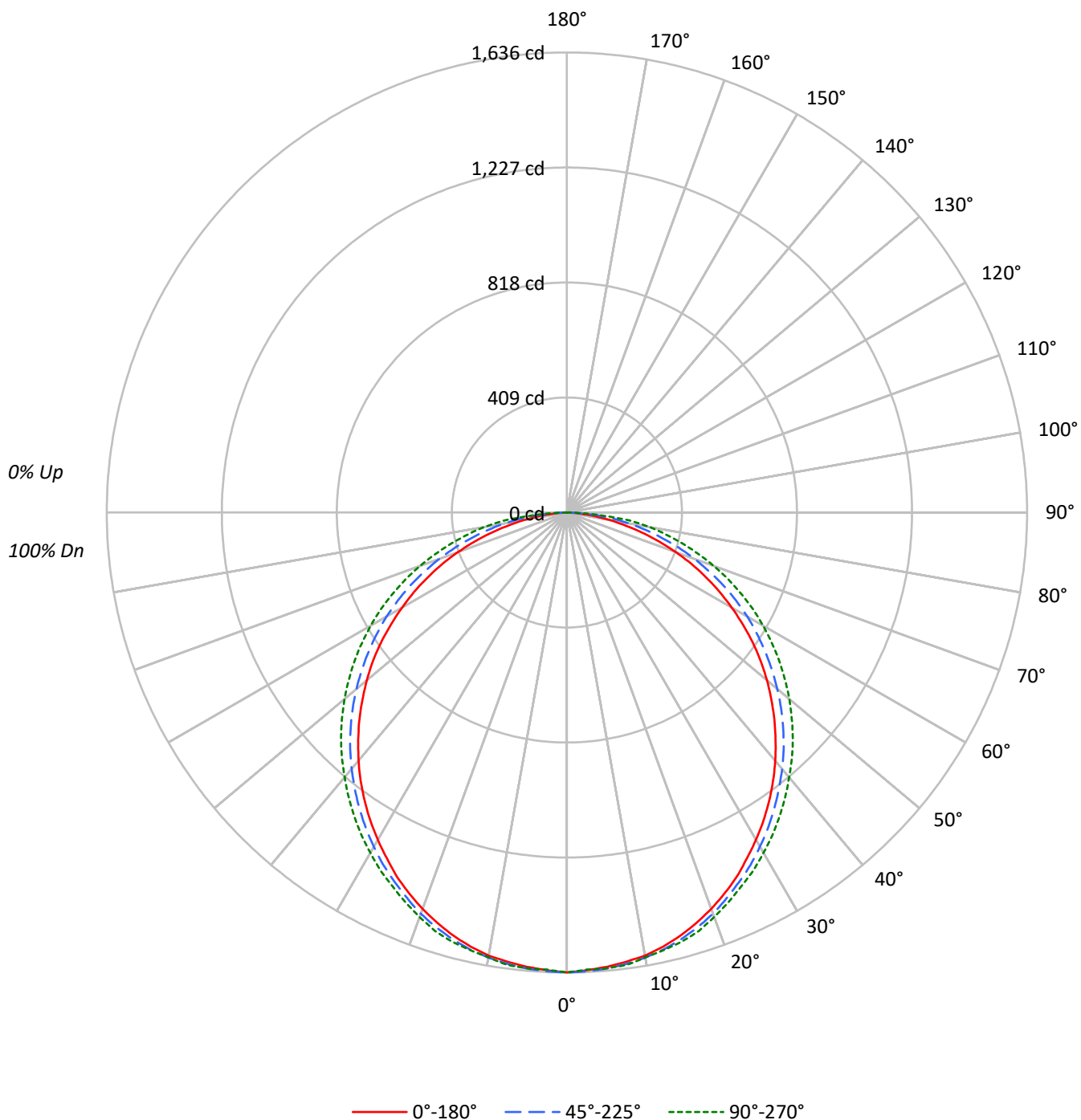
Lumens per Lamp: N/A
Luminaire Lumens: 4775.0 lumens
Efficiency: N/A
Efficacy: 148.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')
CIE Type: Direct

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: P1586696

CATALOG NUMBER: 22CZSP-A-49HE-L840-S

Luminous Intensity Polar Plot



TEST NUMBER: P1586696

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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	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°	5122	5122	5122
5°	5098	5118	5115
10°	5087	5111	5107
15°	5051	5092	5122
20°	5000	5059	5101
25°	4938	5007	5068
30°	4861	4963	5054
35°	4790	4914	5039
40°	4711	4866	5024
45°	4621	4816	5030
50°	4522	4757	5028
55°	4405	4691	5033
60°	4239	4639	5046
65°	4045	4549	5061
70°	3770	4422	5084
75°	3360	4247	5133
80°	2777	4043	5385
85°	1807	3650	4707

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5556 cd/sqm

TEST NUMBER: P1586696

CATALOG NUMBER: 22CZSP-A-49HE-L840-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	3.2
10°-20°	442.9	9.3
20°-30°	668.0	14.0
30°-40°	804.6	16.8
40°-50°	840.3	17.6
50°-60°	771.7	16.2
60°-70°	607.8	12.7
70°-80°	372.9	7.8
80°-90°	112.2	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°	1265.6	26.5
0°-40°	2070.2	43.4
0°-60°	3682.1	77.1
0°-90°	4775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1636	1636	1636	1636	1636	
5°	1622	1624	1628	1634	1627	154
15°	1558	1561	1571	1580	1580	439
25°	1429	1432	1449	1467	1467	658
35°	1253	1259	1286	1312	1318	784
45°	1044	1055	1088	1125	1136	805
55°	807	821	859	907	922	720
65°	546	565	614	665	683	540
75°	278	300	351	406	424	294
85°	50	69	102	129	131	66
90°	0	0	0	0	0	

TEST NUMBER: P1586696

CATALOG NUMBER: 22CZSP-A-49HE-L840-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1635.6	1635.6	1635.6	1635.6	1635.6
2.5°	1629.3	1632.4	1633.5	1634.5	1627.2
5°	1621.9	1624.0	1628.2	1633.5	1627.2
7.5°	1611.5	1613.6	1618.8	1626.1	1623.0
10°	1599.9	1601.0	1607.3	1612.5	1606.2
12.5°	1581.1	1584.2	1591.6	1595.7	1593.7
15°	1558.0	1561.2	1570.6	1580.0	1580.0
17.5°	1530.8	1535.0	1546.5	1559.1	1560.1
20°	1500.4	1503.5	1518.2	1530.8	1530.8
22.5°	1465.8	1470.0	1484.7	1498.3	1500.4
25°	1429.2	1432.3	1449.1	1466.9	1466.9
27.5°	1386.2	1392.5	1413.4	1431.3	1435.4
30°	1344.3	1349.5	1372.6	1394.6	1397.7
32.5°	1300.3	1306.6	1330.7	1354.8	1360.0
35°	1253.1	1259.4	1285.6	1311.8	1318.1
37.5°	1203.9	1211.2	1238.5	1268.8	1275.1
40°	1152.5	1160.9	1190.3	1222.7	1229.0
42.5°	1098.1	1109.6	1141.0	1174.5	1184.0
45°	1043.6	1055.1	1087.6	1125.3	1135.8
47.5°	985.9	999.6	1033.1	1072.9	1084.4
50°	928.3	941.9	976.5	1019.5	1032.1
52.5°	869.6	883.3	918.9	963.9	977.6
55°	806.8	821.4	859.2	907.4	922.0
57.5°	741.8	760.7	800.5	849.7	864.4
60°	676.9	695.7	740.8	789.0	805.7
62.5°	612.9	630.8	676.9	728.2	746.0
65°	545.9	564.7	614.0	665.3	683.1
67.5°	479.9	498.7	548.0	601.4	620.3
70°	411.8	432.7	483.0	536.5	555.3
72.5°	343.7	365.7	417.0	471.5	489.3
75°	277.7	299.7	351.0	406.5	424.3
77.5°	212.7	236.8	287.1	343.7	360.4
80°	154.0	177.1	224.2	279.8	298.6
82.5°	98.5	118.4	165.5	217.9	231.6
85°	50.3	69.2	101.6	128.9	131.0
87.5°	15.7	22.0	33.5	50.3	51.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1586696

CATALOG NUMBER: 22CZSP-A-49HE-L840-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	17.15	18.82	17.52	19.13	19.44	17.98	19.65	18.35	19.96	20.27
	3H	18.91	20.42	19.29	20.74	21.10	20.10	21.61	20.48	21.93	22.29
	4H	19.53	20.95	19.93	21.30	21.67	20.99	22.41	21.39	22.76	23.13
	6H	19.94	21.26	20.35	21.62	22.01	21.77	23.09	22.18	23.45	23.84
	8H	20.05	21.31	20.47	21.70	22.10	22.09	23.35	22.51	23.74	24.14
	12H	20.10	21.31	20.53	21.69	22.12	22.30	23.51	22.73	23.89	24.32
4H	2H	17.93	19.35	18.32	19.69	20.07	18.57	19.99	18.97	20.34	20.72
	3H	19.90	21.10	20.31	21.50	21.90	20.93	22.12	21.34	22.52	22.92
	4H	20.64	21.73	21.07	22.14	22.57	21.98	23.06	22.41	23.48	23.91
	6H	21.17	22.12	21.62	22.56	23.01	22.93	23.88	23.38	24.32	24.78
	8H	21.31	22.21	21.77	22.65	23.11	23.33	24.22	23.79	24.66	25.13
	12H	21.40	22.20	21.88	22.68	23.14	23.60	24.41	24.08	24.88	25.35
8H	4H	21.10	21.99	21.56	22.43	22.90	22.27	23.16	22.73	23.60	24.07
	6H	21.76	22.50	22.25	22.99	23.46	23.38	24.12	23.87	24.61	25.08
	8H	21.97	22.64	22.48	23.14	23.63	23.89	24.56	24.40	25.06	25.55
	12H	22.11	22.70	22.61	23.19	23.75	24.28	24.87	24.78	25.36	25.92
12H	4H	21.19	21.99	21.67	22.47	22.93	22.29	23.10	22.77	23.57	24.04
	6H	21.89	22.56	22.40	23.07	23.55	23.43	24.10	23.93	24.60	25.09
	8H	22.17	22.76	22.67	23.25	23.81	24.00	24.60	24.51	25.09	25.64