

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: P1584648

Luminaire Tested: 14CZSP-A-49HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1584648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 14CZSP-A-49HE-L945-S
Description: 1x4 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

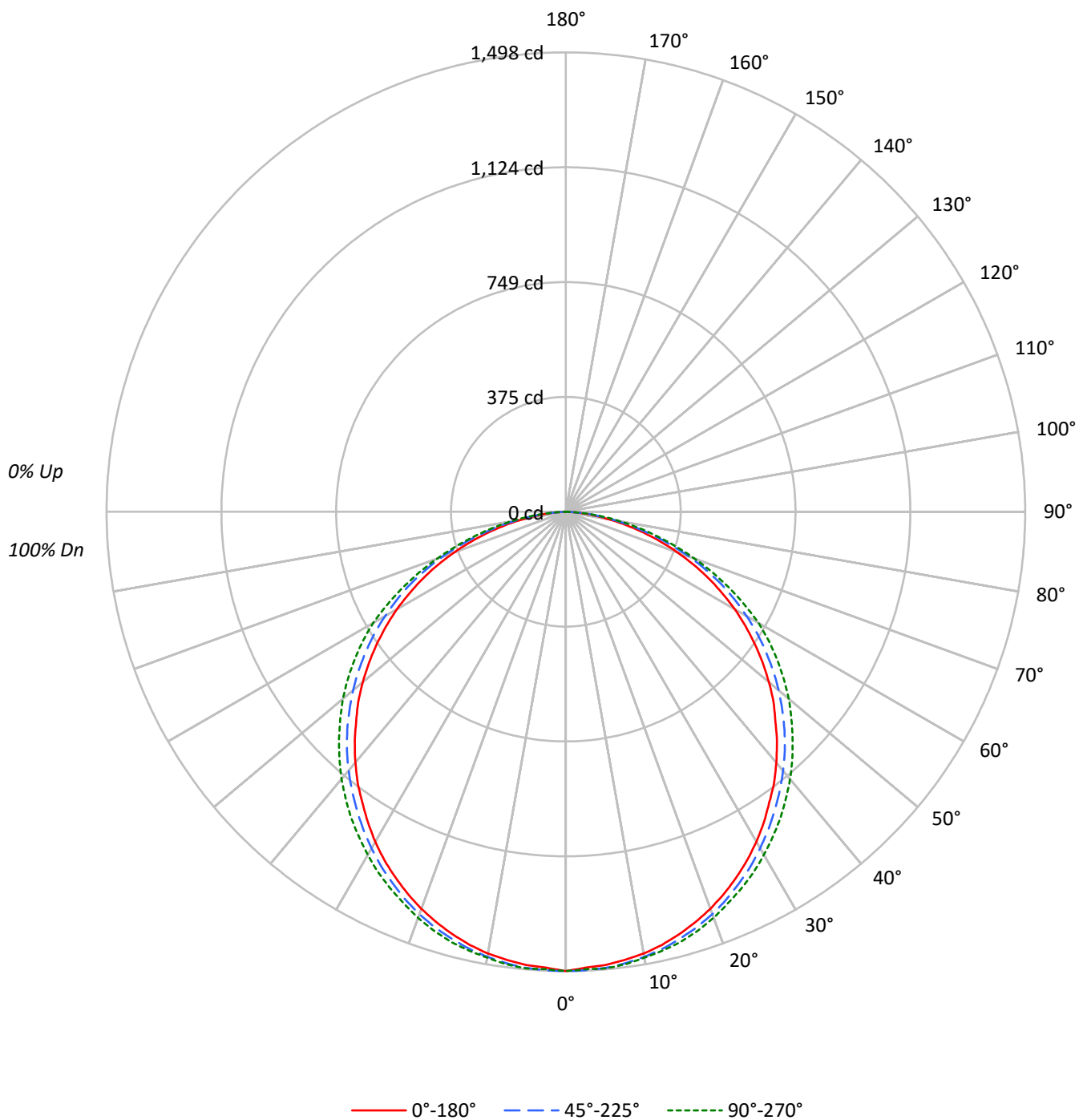
Lumens per Lamp: N/A
Luminaire Lumens: 4330.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.38
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33.1
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	109	104	100	96	106	102	98	94	97	94	91		93	91	88		90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75		82	77	73		79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63		72	66	62		69	65	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	58	52		62	56	52	50
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	35		47	40	35		46	40	35	33
8	60	46	38	32	59	46	38	32	44	37	32		43	36	31		42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5047	5047	5047
5°	5019	5051	5055
10°	5005	5042	5053
15°	4976	5027	5062
20°	4941	5007	5053
25°	4891	4969	5038
30°	4836	4930	5027
35°	4758	4887	5018
40°	4696	4847	5004
45°	4607	4805	4984
50°	4530	4748	4975
55°	4422	4680	4942
60°	4287	4587	4892
65°	4096	4462	4691
70°	3818	4214	4402
75°	3410	3800	4016
80°	2794	3204	3512
85°	1871	2339	2614

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4984 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.3
10°-20°	406.7	9.4
20°-30°	615.8	14.2
30°-40°	743.6	17.2
40°-50°	777.1	17.9
50°-60°	712.1	16.4
60°-70°	549.7	12.7
70°-80°	309.2	7.1
80°-90°	74.0	1.7
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°	1164.3	26.9
0°-40°	1907.9	44.1
0°-60°	3397.1	78.5
0°-90°	4330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1484	1495	1493	1495	1495	141
15°	1426	1438	1441	1447	1451	402
25°	1316	1327	1336	1344	1355	606
35°	1157	1171	1188	1204	1220	725
45°	967	986	1008	1029	1046	747
55°	753	772	797	822	841	672
65°	514	536	560	582	588	508
75°	262	286	292	304	308	278
85°	48	55	60	66	68	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1497.8	1497.8	1497.8	1497.8	1497.8
2.5°	1487.6	1499.0	1496.5	1500.3	1493.3
5°	1483.7	1494.6	1493.3	1494.6	1494.6
7.5°	1474.2	1485.6	1485.0	1486.9	1488.2
10°	1462.7	1473.5	1473.5	1475.4	1476.7
12.5°	1446.8	1458.2	1459.5	1462.7	1465.2
15°	1426.4	1437.8	1441.0	1446.8	1451.2
17.5°	1403.4	1415.5	1420.6	1426.4	1432.1
20°	1377.9	1388.8	1396.4	1400.9	1409.2
22.5°	1348.0	1360.1	1368.4	1372.8	1381.8
25°	1315.5	1326.9	1336.5	1343.5	1355.0
27.5°	1281.1	1292.5	1304.0	1312.3	1325.7
30°	1242.8	1254.9	1267.0	1279.8	1291.9
32.5°	1201.4	1215.4	1228.8	1242.8	1256.2
35°	1156.8	1171.4	1188.0	1203.9	1219.9
37.5°	1115.3	1128.7	1145.9	1163.1	1179.1
40°	1067.5	1082.2	1102.0	1121.1	1137.7
42.5°	1019.1	1035.0	1056.7	1075.2	1093.0
45°	966.8	986.0	1008.3	1028.7	1045.9
47.5°	918.4	935.0	957.3	979.6	997.4
50°	864.2	882.7	905.7	929.2	949.0
52.5°	809.4	828.5	852.1	875.7	896.1
55°	752.7	772.5	796.7	821.5	841.3
57.5°	694.7	715.7	740.6	765.4	785.2
60°	636.1	657.1	680.7	708.1	725.9
62.5°	574.9	598.5	620.8	646.3	657.1
65°	513.7	536.0	559.6	581.9	588.3
67.5°	451.2	474.2	495.2	509.9	518.2
70°	387.5	412.4	427.7	441.7	446.8
72.5°	324.4	349.3	358.2	371.6	376.7
75°	261.9	286.2	291.9	304.0	308.5
77.5°	201.4	223.7	225.6	239.6	243.5
80°	144.0	161.9	165.1	178.5	181.0
82.5°	92.4	105.2	109.6	121.1	124.9
85°	48.4	55.4	60.5	66.3	67.6
87.5°	15.9	19.8	16.6	17.2	15.9
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	17.34	18.99	17.70	19.30	19.61	17.88	19.53	18.24	19.84	20.15
	3H	19.11	20.61	19.49	20.93	21.29	19.73	21.23	20.11	21.55	21.91
	4H	19.74	21.15	20.14	21.49	21.87	20.40	21.81	20.80	22.16	22.53
	6H	20.15	21.45	20.56	21.82	22.21	20.88	22.18	21.29	22.55	22.94
	8H	20.25	21.50	20.67	21.89	22.28	21.02	22.27	21.45	22.66	23.06
	12H	20.30	21.49	20.73	21.88	22.30	21.11	22.30	21.54	22.68	23.11
4H	2H	18.06	19.47	18.46	19.82	20.19	18.48	19.89	18.88	20.24	20.61
	3H	20.06	21.24	20.46	21.63	22.03	20.55	21.74	20.96	22.13	22.53
	4H	20.81	21.88	21.24	22.29	22.73	21.35	22.42	21.78	22.83	23.27
	6H	21.34	22.27	21.79	22.71	23.17	21.95	22.89	22.41	23.33	23.78
	8H	21.48	22.35	21.94	22.80	23.26	22.14	23.02	22.60	23.46	23.93
	12H	21.56	22.34	22.04	22.82	23.29	22.27	23.05	22.75	23.53	23.99
8H	4H	21.15	22.02	21.61	22.47	22.93	21.63	22.50	22.09	22.94	23.41
	6H	21.79	22.52	22.28	23.00	23.48	22.34	23.07	22.83	23.55	24.03
	8H	21.99	22.64	22.50	23.15	23.63	22.60	23.25	23.11	23.75	24.24
	12H	22.12	22.69	22.63	23.18	23.74	22.78	23.35	23.28	23.84	24.40
12H	4H	21.19	21.97	21.67	22.45	22.92	21.65	22.44	22.13	22.91	23.38
	6H	21.85	22.50	22.35	23.00	23.49	22.38	23.03	22.88	23.53	24.02
	8H	22.10	22.67	22.60	23.16	23.72	22.68	23.26	23.19	23.75	24.31