

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: P1588657

Luminaire Tested: 24CZSP-A-49HE-L840

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2603-711-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-A-49HE-L840
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 4500 lumens, 80CRI, Ribbed Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

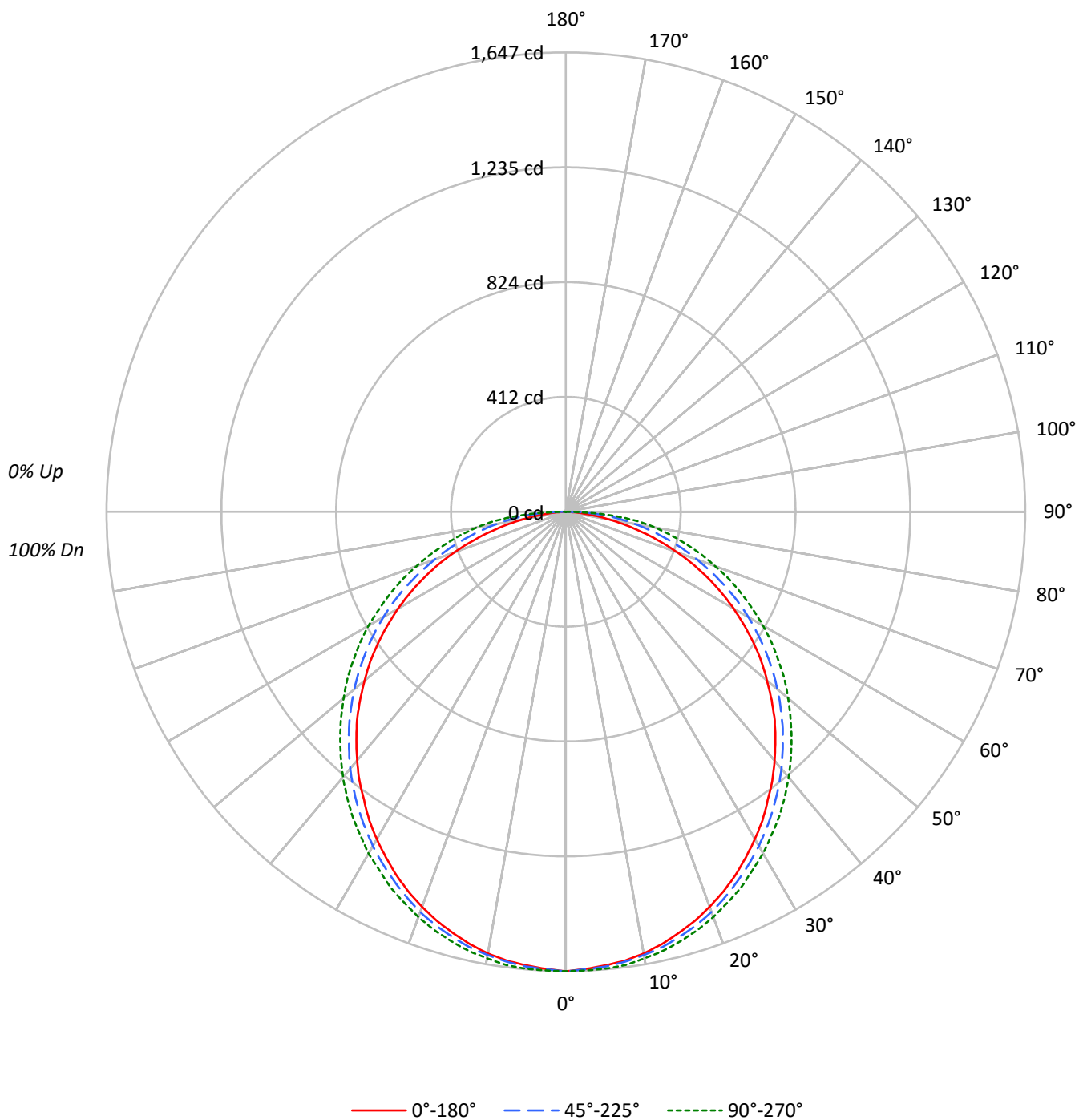
Lumens per Lamp: N/A
Luminaire Lumens: 4887.0 lumens
Efficiency: N/A
Efficacy: 146.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P1588657

CATALOG NUMBER: 24CZSP-A-49HE-L840

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	108	103	98	94	105	101	97	93	96	93	90		92	90	87		89	87	85	82
2	98	89	82	76	95	87	81	75	84	78	73		81	76	72		77	74	70	68
3	89	78	70	63	87	77	69	62	74	67	61		71	65	60		68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52		63	56	51		61	55	51	48
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	69	55	46	40	67	54	46	39	53	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35		46	39	34		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		42	36	31		41	35	30	29
9	56	42	34	28	54	41	33	28	40	33	28		39	32	28		38	32	27	26
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2523	2523	2523
5°	2510	2516	2529
10°	2501	2510	2529
15°	2479	2501	2526
20°	2456	2489	2520
25°	2430	2466	2512
30°	2397	2447	2502
35°	2359	2425	2494
40°	2328	2404	2485
45°	2294	2382	2479
50°	2243	2359	2478
55°	2196	2337	2485
60°	2130	2316	2502
65°	2039	2279	2519
70°	1908	2241	2550
75°	1697	2209	2633
80°	1396	2219	2863
85°	951	2473	3161

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 3161 cd/sqm

TEST NUMBER: P1588657

CATALOG NUMBER: 24CZSP-A-49HE-L840

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.9	3.2
10°-20°	446.4	9.1
20°-30°	675.0	13.8
30°-40°	814.6	16.7
40°-50°	851.7	17.4
50°-60°	785.8	16.1
60°-70°	624.9	12.8
70°-80°	394.4	8.1
80°-90°	138.3	2.8
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°	1277.4	26.1
0°-40°	2091.9	42.8
0°-60°	3729.5	76.3
0°-90°	4887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1632	1645	1637	1641	1645	155
15°	1564	1581	1577	1589	1593	441
25°	1438	1459	1459	1478	1486	662
35°	1262	1289	1297	1323	1334	791
45°	1059	1082	1100	1132	1144	816
55°	822	847	875	917	931	734
65°	563	588	629	682	695	556
75°	287	319	373	429	445	304
85°	54	89	141	174	180	69
90°	0	0	0	0	0	

TEST NUMBER: P1588657

CATALOG NUMBER: 24CZSP-A-49HE-L840

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.4	1647.4	1647.4	1647.4	1647.4
2.5°	1640.7	1651.5	1642.0	1647.4	1646.1
5°	1632.5	1644.7	1636.6	1640.7	1644.7
7.5°	1623.1	1636.6	1627.1	1633.9	1639.3
10°	1608.2	1621.7	1613.6	1621.7	1625.8
12.5°	1587.9	1604.1	1598.7	1608.2	1612.3
15°	1563.6	1581.1	1577.1	1589.3	1593.3
17.5°	1537.9	1556.8	1554.1	1567.6	1571.7
20°	1506.8	1528.4	1527.0	1540.6	1546.0
22.5°	1474.3	1495.9	1494.6	1509.5	1516.2
25°	1437.8	1459.4	1459.4	1478.4	1486.5
27.5°	1397.2	1421.5	1422.9	1441.8	1448.6
30°	1355.3	1379.6	1383.7	1404.0	1414.8
32.5°	1312.0	1335.0	1341.7	1364.7	1372.9
35°	1261.9	1289.0	1297.1	1322.8	1333.6
37.5°	1216.0	1240.3	1251.1	1278.2	1289.0
40°	1164.6	1190.3	1202.4	1232.2	1243.0
42.5°	1111.8	1137.5	1151.0	1183.5	1194.3
45°	1059.1	1082.1	1099.6	1132.1	1144.3
47.5°	1000.9	1026.6	1045.5	1080.7	1092.9
50°	941.4	968.4	990.1	1027.9	1040.1
52.5°	884.6	908.9	933.3	975.2	988.7
55°	822.4	846.7	875.1	917.0	930.6
57.5°	758.8	783.1	815.6	860.2	875.1
60°	695.2	719.6	756.1	802.1	816.9
62.5°	628.9	653.3	693.9	741.2	754.7
65°	562.7	588.4	628.9	681.7	695.2
67.5°	495.0	520.7	564.0	619.5	634.4
70°	426.1	454.5	500.4	555.9	569.4
72.5°	354.4	386.8	438.2	492.3	508.6
75°	286.7	319.2	373.3	428.8	445.0
77.5°	220.5	257.0	311.1	369.3	386.8
80°	158.3	194.8	251.6	308.4	324.6
82.5°	101.4	139.3	196.1	250.2	263.8
85°	54.1	89.3	140.7	174.5	179.9
87.5°	17.6	46.0	63.6	83.9	85.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588657

CATALOG NUMBER: 24CZSP-A-49HE-L840

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	14.77	16.44	15.14	16.76	17.07	15.49	17.16	15.86	17.48	17.79
	3H	16.56	18.08	16.94	18.40	18.76	17.66	19.18	18.04	19.50	19.86
	4H	17.19	18.62	17.59	18.97	19.34	18.59	20.03	18.99	20.37	20.75
	6H	17.61	18.94	18.02	19.31	19.70	19.45	20.78	19.86	21.15	21.54
	8H	17.73	19.00	18.15	19.39	19.78	19.83	21.10	20.25	21.49	21.89
	12H	17.78	19.01	18.21	19.39	19.81	20.14	21.36	20.57	21.74	22.17
4H	2H	15.54	16.97	15.93	17.32	17.69	16.10	17.53	16.49	17.88	18.25
	3H	17.56	18.77	17.97	19.16	19.56	18.51	19.72	18.92	20.11	20.51
	4H	18.32	19.42	18.75	19.83	20.27	19.61	20.71	20.04	21.12	21.56
	6H	18.88	19.84	19.33	20.28	20.73	20.65	21.62	21.11	22.06	22.51
	8H	19.03	19.94	19.49	20.38	20.84	21.12	22.02	21.58	22.46	22.93
	12H	19.13	19.95	19.61	20.42	20.89	21.51	22.33	21.99	22.80	23.27
8H	4H	18.81	19.71	19.27	20.15	20.62	19.93	20.83	20.39	21.27	21.74
	6H	19.52	20.27	20.01	20.76	21.23	21.15	21.90	21.64	22.39	22.86
	8H	19.76	20.44	20.27	20.94	21.43	21.74	22.42	22.25	22.93	23.41
	12H	19.93	20.53	20.44	21.02	21.58	22.29	22.89	22.79	23.38	23.94
12H	4H	18.91	19.73	19.39	20.20	20.67	19.96	20.78	20.44	21.25	21.72
	6H	19.68	20.36	20.19	20.86	21.35	21.21	21.89	21.72	22.40	22.88
	8H	20.00	20.61	20.51	21.10	21.65	21.89	22.49	22.39	22.98	23.54