

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: P1588241

Luminaire Tested: 24CZSP-37HE-L850

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588241
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-37HE-L850
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 3500 lumens, 80CRI, Ribbed Lens
Light Source: -
Ballast/Driver: -

Summary

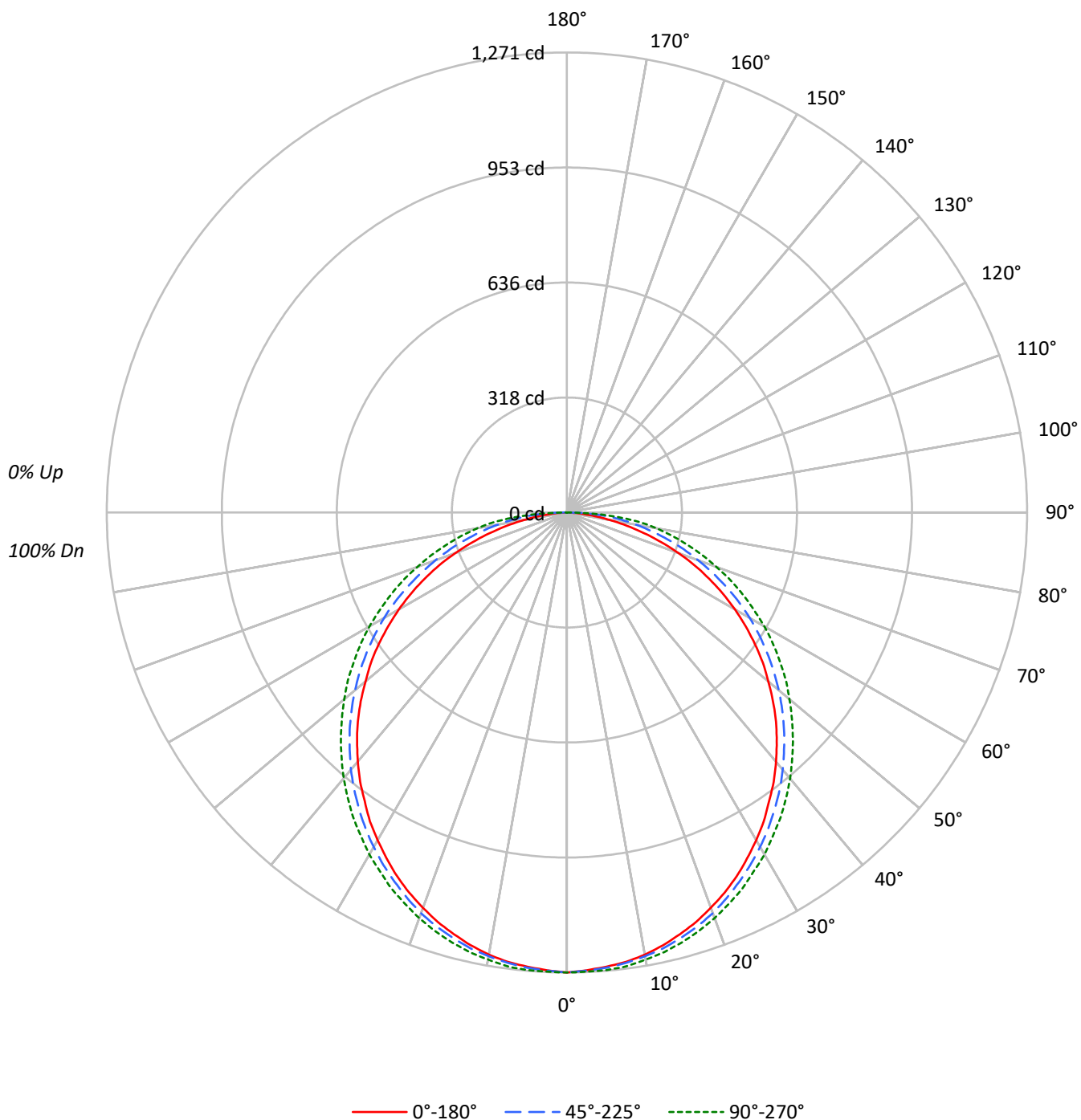
Lumens per Lamp: N/A
Luminaire Lumens: 3770.0 lumens
Efficiency: N/A
Efficacy: 152.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 24.7
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: P1588241

CATALOG NUMBER: 24CZSP-37HE-L850

Luminous Intensity Polar Plot



TEST NUMBER: P1588241

CATALOG NUMBER: 24CZSP-37HE-L850

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°	1947	1947	1947
5°	1936	1941	1951
10°	1929	1936	1951
15°	1913	1929	1949
20°	1895	1920	1944
25°	1875	1903	1938
30°	1849	1888	1930
35°	1820	1871	1924
40°	1796	1855	1917
45°	1770	1837	1912
50°	1730	1820	1912
55°	1694	1803	1917
60°	1643	1787	1930
65°	1573	1758	1944
70°	1472	1729	1967
75°	1309	1704	2032
80°	1077	1712	2209
85°	733	1907	2439

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 85°

Luminance: 2439 cd/sqm

TEST NUMBER: P1588241

CATALOG NUMBER: 24CZSP-37HE-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	3.2
10°-20°	344.4	9.1
20°-30°	520.7	13.8
30°-40°	628.4	16.7
40°-50°	657.1	17.4
50°-60°	606.2	16.1
60°-70°	482.1	12.8
70°-80°	304.2	8.1
80°-90°	106.7	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°	985.4	26.1
0°-40°	1613.8	42.8
0°-60°	2877.1	76.3
0°-90°	3770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1271	1271	1271	1271	1271	
5°	1259	1269	1262	1266	1269	120
15°	1206	1220	1217	1226	1229	340
25°	1109	1126	1126	1140	1147	511
35°	974	994	1001	1020	1029	610
45°	817	835	848	873	883	629
55°	634	653	675	707	718	567
65°	434	454	485	526	536	429
75°	221	246	288	331	343	235
85°	42	69	108	135	139	53
90°	0	0	0	0	0	

TEST NUMBER: P1588241

CATALOG NUMBER: 24CZSP-37HE-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1270.9	1270.9	1270.9	1270.9	1270.9
2.5°	1265.7	1274.0	1266.7	1270.9	1269.8
5°	1259.4	1268.8	1262.5	1265.7	1268.8
7.5°	1252.1	1262.5	1255.2	1260.4	1264.6
10°	1240.6	1251.1	1244.8	1251.1	1254.2
12.5°	1225.0	1237.5	1233.3	1240.6	1243.8
15°	1206.2	1219.8	1216.6	1226.0	1229.1
17.5°	1186.4	1201.0	1198.9	1209.3	1212.4
20°	1162.4	1179.1	1178.0	1188.4	1192.6
22.5°	1137.3	1154.0	1153.0	1164.5	1169.7
25°	1109.2	1125.8	1125.8	1140.5	1146.7
27.5°	1077.8	1096.6	1097.7	1112.3	1117.5
30°	1045.5	1064.3	1067.4	1083.1	1091.4
32.5°	1012.1	1029.9	1035.1	1052.8	1059.1
35°	973.5	994.4	1000.6	1020.5	1028.8
37.5°	938.0	956.8	965.2	986.0	994.4
40°	898.4	918.2	927.6	950.6	958.9
42.5°	857.7	877.5	887.9	913.0	921.3
45°	817.0	834.7	848.3	873.3	882.7
47.5°	772.1	792.0	806.6	833.7	843.1
50°	726.2	747.1	763.8	793.0	802.4
52.5°	682.4	701.2	720.0	752.3	762.7
55°	634.4	653.2	675.1	707.4	717.9
57.5°	585.4	604.1	629.2	663.6	675.1
60°	536.3	555.1	583.3	618.7	630.2
62.5°	485.2	504.0	535.3	571.8	582.2
65°	434.1	453.9	485.2	525.9	536.3
67.5°	381.9	401.7	435.1	477.9	489.4
70°	328.7	350.6	386.1	428.8	439.3
72.5°	273.4	298.4	338.1	379.8	392.3
75°	221.2	246.2	288.0	330.8	343.3
77.5°	170.1	198.2	240.0	284.9	298.4
80°	122.1	150.3	194.1	237.9	250.4
82.5°	78.3	107.5	151.3	193.0	203.5
85°	41.7	68.9	108.5	134.6	138.8
87.5°	13.6	35.5	49.0	64.7	65.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1588241

CATALOG NUMBER: 24CZSP-37HE-L850

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	13.87	15.54	14.24	15.86	16.17	14.59	16.26	14.96	16.58	16.89
	3H	15.66	17.17	16.03	17.50	17.86	16.76	18.28	17.14	18.60	18.96
	4H	16.29	17.72	16.69	18.07	18.44	17.69	19.12	18.09	19.47	19.85
	6H	16.71	18.04	17.12	18.41	18.80	18.55	19.88	18.96	20.25	20.64
	8H	16.82	18.10	17.25	18.49	18.88	18.93	20.20	19.35	20.59	20.99
	12H	16.88	18.10	17.31	18.48	18.91	19.24	20.46	19.67	20.84	21.27
4H	2H	14.64	16.07	15.03	16.41	16.79	15.20	16.63	15.59	16.98	17.35
	3H	16.66	17.87	17.07	18.26	18.66	17.61	18.82	18.02	19.21	19.61
	4H	17.42	18.52	17.85	18.93	19.36	18.71	19.81	19.14	20.22	20.66
	6H	17.97	18.94	18.43	19.38	19.83	19.75	20.72	20.20	21.16	21.61
	8H	18.13	19.04	18.59	19.48	19.94	20.22	21.12	20.67	21.56	22.03
	12H	18.23	19.05	18.71	19.52	19.99	20.61	21.43	21.09	21.90	22.37
8H	4H	17.91	18.81	18.37	19.25	19.72	19.03	19.93	19.49	20.37	20.84
	6H	18.62	19.37	19.11	19.86	20.33	20.25	21.00	20.74	21.49	21.96
	8H	18.86	19.54	19.37	20.04	20.53	20.84	21.52	21.35	22.03	22.51
	12H	19.03	19.63	19.53	20.12	20.68	21.39	21.99	21.89	22.48	23.04
12H	4H	18.01	18.83	18.49	19.30	19.77	19.06	19.88	19.54	20.35	20.82
	6H	18.78	19.46	19.28	19.96	20.45	20.31	20.99	20.82	21.49	21.98
	8H	19.10	19.71	19.61	20.19	20.75	20.99	21.59	21.49	22.08	22.64