

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: P1588578

Luminaire Tested: 24CZSP-A-37HE-L845-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588578
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: 24CZSP-A-37HE-L845-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 80CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

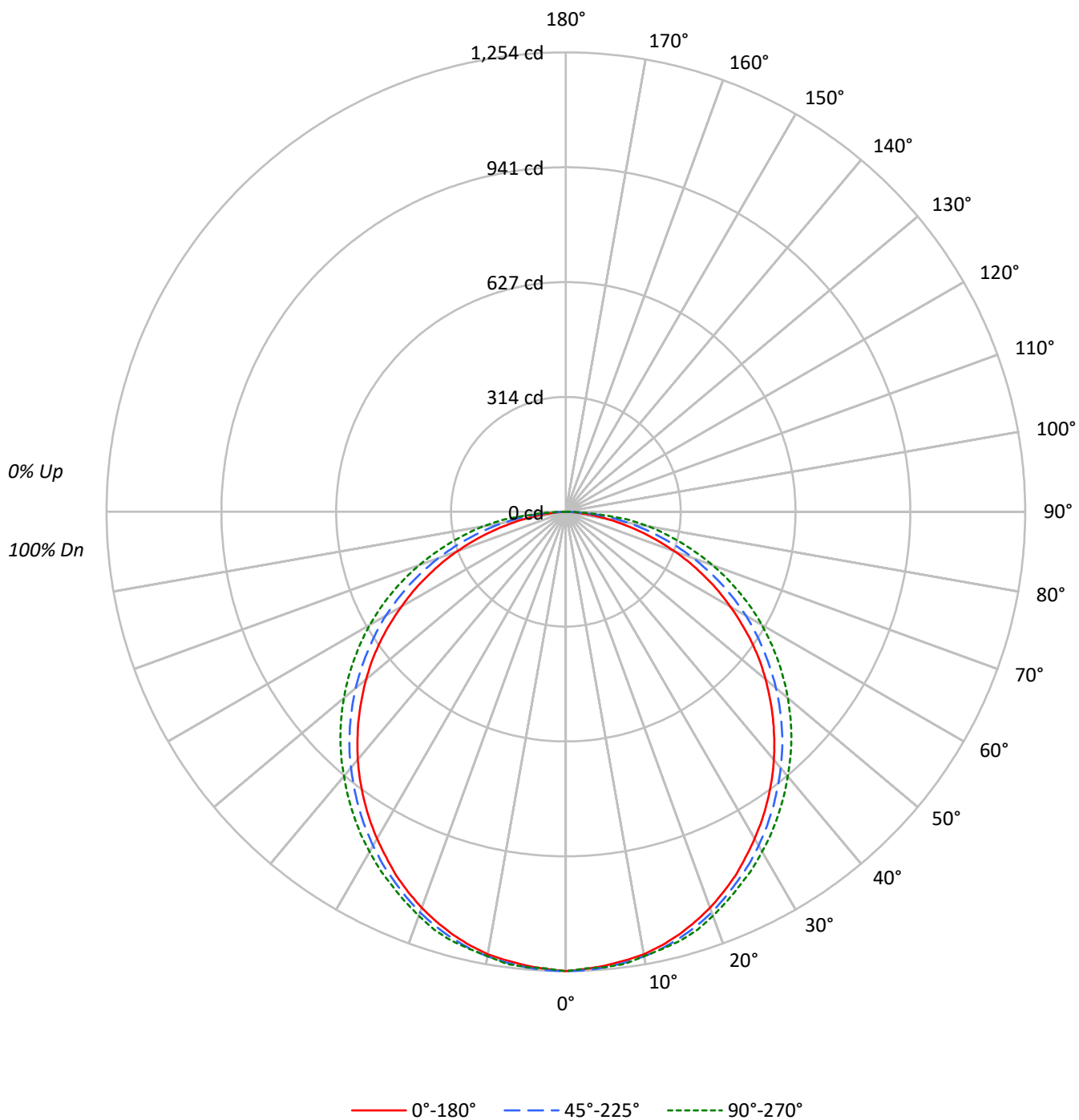
Lumens per Lamp: N/A
Luminaire Lumens: 3661.0 lumens
Efficiency: N/A
Efficacy: 148.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

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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
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°	1921	1921	1921
5°	1912	1919	1918
10°	1908	1917	1915
15°	1894	1909	1921
20°	1875	1897	1913
25°	1852	1878	1901
30°	1823	1861	1895
35°	1796	1843	1890
40°	1767	1825	1884
45°	1733	1806	1886
50°	1696	1784	1885
55°	1652	1759	1888
60°	1590	1740	1892
65°	1517	1706	1898
70°	1414	1658	1907
75°	1260	1592	1925
80°	1042	1516	2019
85°	678	1369	1764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2083 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	3.2
10°-20°	339.6	9.3
20°-30°	512.2	14.0
30°-40°	616.9	16.8
40°-50°	644.2	17.6
50°-60°	591.7	16.2
60°-70°	466.0	12.7
70°-80°	285.9	7.8
80°-90°	86.0	2.4
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°	970.3	26.5
0°-40°	1587.2	43.4
0°-60°	2823.1	77.1
0°-90°	3661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1254	1254	1254	1254	1254	
5°	1244	1245	1248	1252	1248	118
15°	1194	1197	1204	1211	1211	337
25°	1096	1098	1111	1125	1125	504
35°	961	966	986	1006	1011	601
45°	800	809	834	863	871	617
55°	619	630	659	696	707	552
65°	418	433	471	510	524	414
75°	213	230	269	312	325	226
85°	39	53	78	99	100	50
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1254.0	1254.0	1254.0	1254.0	1254.0
2.5°	1249.2	1251.6	1252.4	1253.2	1247.6
5°	1243.5	1245.2	1248.4	1252.4	1247.6
7.5°	1235.5	1237.1	1241.1	1246.8	1244.4
10°	1226.7	1227.5	1232.3	1236.3	1231.5
12.5°	1212.2	1214.6	1220.3	1223.5	1221.9
15°	1194.5	1197.0	1204.2	1211.4	1211.4
17.5°	1173.7	1176.9	1185.7	1195.3	1196.2
20°	1150.4	1152.8	1164.0	1173.7	1173.7
22.5°	1123.9	1127.1	1138.3	1148.8	1150.4
25°	1095.7	1098.1	1111.0	1124.7	1124.7
27.5°	1062.8	1067.6	1083.7	1097.3	1100.6
30°	1030.7	1034.7	1052.4	1069.2	1071.6
32.5°	996.9	1001.7	1020.2	1038.7	1042.7
35°	960.8	965.6	985.7	1005.8	1010.6
37.5°	923.0	928.6	949.5	972.8	977.6
40°	883.7	890.1	912.6	937.5	942.3
42.5°	841.9	850.7	874.8	900.5	907.8
45°	800.1	808.9	833.9	862.8	870.8
47.5°	755.9	766.4	792.1	822.6	831.4
50°	711.7	722.2	748.7	781.6	791.3
52.5°	666.8	677.2	704.5	739.1	749.5
55°	618.6	629.8	658.7	695.7	706.9
57.5°	568.8	583.2	613.7	651.5	662.7
60°	518.9	533.4	568.0	604.9	617.8
62.5°	469.9	483.6	518.9	558.3	572.0
65°	418.5	433.0	470.7	510.1	523.8
67.5°	367.9	382.4	420.1	461.1	475.6
70°	315.7	331.8	370.3	411.3	425.8
72.5°	263.5	280.4	319.7	361.5	375.2
75°	212.9	229.8	269.1	311.7	325.3
77.5°	163.1	181.6	220.1	263.5	276.3
80°	118.1	135.8	171.9	214.5	228.9
82.5°	75.5	90.8	126.9	167.1	177.5
85°	38.6	53.0	77.9	98.8	100.4
87.5°	12.0	16.9	25.7	38.6	39.4
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	13.75	15.41	14.11	15.72	16.04	14.58	16.24	14.94	16.55	16.87
	3H	15.50	17.01	15.88	17.33	17.69	16.69	18.20	17.07	18.53	18.89
	4H	16.12	17.54	16.52	17.89	18.26	17.58	19.00	17.98	19.35	19.73
	6H	16.53	17.85	16.94	18.22	18.61	18.36	19.68	18.77	20.05	20.44
	8H	16.64	17.90	17.06	18.29	18.69	18.68	19.94	19.11	20.33	20.73
	12H	16.69	17.90	17.12	18.28	18.71	18.89	20.10	19.32	20.49	20.91
4H	2H	14.52	15.94	14.91	16.29	16.66	15.16	16.59	15.56	16.93	17.31
	3H	16.49	17.69	16.90	18.09	18.49	17.52	18.72	17.93	19.11	19.51
	4H	17.23	18.32	17.66	18.73	19.17	18.57	19.66	19.00	20.07	20.50
	6H	17.76	18.71	18.21	19.15	19.61	19.52	20.48	19.98	20.91	21.37
	8H	17.91	18.80	18.37	19.24	19.70	19.92	20.81	20.38	21.25	21.72
	12H	17.99	18.79	18.47	19.27	19.74	20.20	21.00	20.68	21.47	21.94
8H	4H	17.69	18.58	18.15	19.02	19.49	18.86	19.75	19.32	20.19	20.66
	6H	18.35	19.10	18.84	19.58	20.06	19.97	20.72	20.46	21.20	21.68
	8H	18.56	19.23	19.07	19.74	20.22	20.48	21.15	20.99	21.66	22.14
	12H	18.70	19.29	19.21	19.78	20.34	20.87	21.46	21.37	21.95	22.51
12H	4H	17.78	18.58	18.26	19.06	19.53	18.88	19.69	19.36	20.16	20.63
	6H	18.48	19.15	18.99	19.66	20.14	20.02	20.69	20.53	21.19	21.68
	8H	18.76	19.35	19.27	19.84	20.40	20.60	21.19	21.10	21.68	22.24