

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: P1588586

Luminaire Tested: 24CZSP-A-37HE-L940-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588586
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-L940-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 3500 lumens, 90CRI, Smooth Lens, Air Vented Housing
Light Source: -
Ballast/Driver: -

Summary

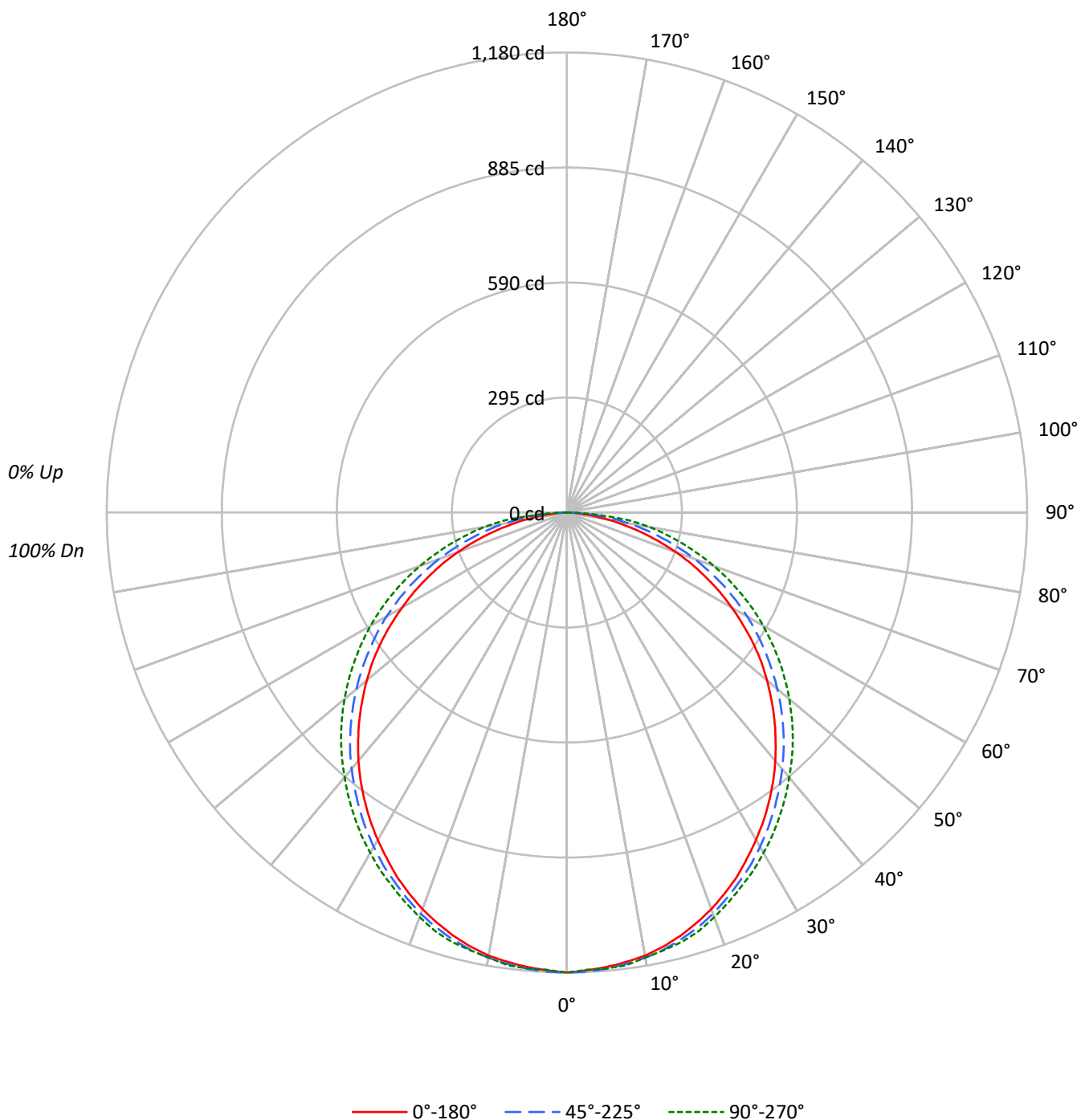
Lumens per Lamp: N/A
Luminaire Lumens: 3445.0 lumens
Efficiency: N/A
Efficacy: 139.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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			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°	1807	1807	1807
5°	1799	1806	1805
10°	1795	1803	1802
15°	1782	1797	1807
20°	1764	1785	1800
25°	1743	1767	1788
30°	1715	1751	1783
35°	1690	1734	1778
40°	1662	1717	1773
45°	1631	1700	1775
50°	1596	1679	1774
55°	1554	1655	1776
60°	1496	1637	1781
65°	1427	1605	1786
70°	1330	1561	1794
75°	1185	1498	1812
80°	980	1427	1900
85°	638	1288	1661

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1961 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	3.2
10°-20°	319.6	9.3
20°-30°	481.9	14.0
30°-40°	580.5	16.8
40°-50°	606.2	17.6
50°-60°	556.7	16.2
60°-70°	438.5	12.7
70°-80°	269.0	7.8
80°-90°	81.0	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°	913.1	26.5
0°-40°	1493.6	43.4
0°-60°	2656.5	77.1
0°-90°	3445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1170	1172	1175	1178	1174	111
15°	1124	1126	1133	1140	1140	317
25°	1031	1033	1045	1058	1058	475
35°	904	909	928	946	951	565
45°	753	761	785	812	819	580
55°	582	593	620	655	665	520
65°	394	407	443	480	493	390
75°	200	216	253	293	306	212
85°	36	50	73	93	94	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1175.5	1177.7	1178.5	1179.2	1174.0
5°	1170.2	1171.7	1174.7	1178.5	1174.0
7.5°	1162.6	1164.1	1167.9	1173.2	1170.9
10°	1154.3	1155.1	1159.6	1163.4	1158.8
12.5°	1140.7	1143.0	1148.3	1151.3	1149.8
15°	1124.1	1126.3	1133.1	1139.9	1139.9
17.5°	1104.4	1107.4	1115.8	1124.8	1125.6
20°	1082.5	1084.8	1095.3	1104.4	1104.4
22.5°	1057.5	1060.6	1071.2	1081.0	1082.5
25°	1031.1	1033.4	1045.4	1058.3	1058.3
27.5°	1000.1	1004.6	1019.7	1032.6	1035.6
30°	969.9	973.6	990.3	1006.1	1008.4
32.5°	938.1	942.6	960.0	977.4	981.2
35°	904.1	908.6	927.5	946.4	951.0
37.5°	868.6	873.9	893.5	915.4	920.0
40°	831.5	837.6	858.7	882.2	886.7
42.5°	792.2	800.5	823.2	847.4	854.2
45°	752.9	761.2	784.7	811.9	819.4
47.5°	711.3	721.2	745.3	774.1	782.4
50°	669.8	679.6	704.5	735.5	744.6
52.5°	627.4	637.2	662.9	695.5	705.3
55°	582.1	592.6	619.9	654.6	665.2
57.5°	535.2	548.8	577.5	613.1	623.6
60°	488.3	501.9	534.4	569.2	581.3
62.5°	442.2	455.1	488.3	525.4	538.2
65°	393.8	407.4	443.0	480.0	492.9
67.5°	346.2	359.8	395.4	433.9	447.5
70°	297.1	312.2	348.5	387.0	400.6
72.5°	247.9	263.8	300.9	340.2	353.0
75°	200.3	216.2	253.2	293.3	306.2
77.5°	153.5	170.8	207.1	247.9	260.0
80°	111.1	127.8	161.8	201.8	215.4
82.5°	71.1	85.4	119.4	157.2	167.1
85°	36.3	49.9	73.3	93.0	94.5
87.5°	11.3	15.9	24.2	36.3	37.0
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	13.53	15.20	13.90	15.51	15.82	14.36	16.03	14.73	16.34	16.66
	3H	15.29	16.80	15.67	17.12	17.48	16.48	17.99	16.86	18.31	18.67
	4H	15.91	17.33	16.31	17.68	18.05	17.37	18.79	17.77	19.14	19.51
	6H	16.32	17.64	16.73	18.00	18.39	18.15	19.47	18.56	19.84	20.23
	8H	16.43	17.69	16.85	18.08	18.48	18.47	19.73	18.89	20.12	20.52
	12H	16.48	17.69	16.91	18.07	18.50	18.68	19.89	19.11	20.27	20.70
4H	2H	14.31	15.73	14.70	16.08	16.45	14.95	16.38	15.35	16.72	17.10
	3H	16.28	17.48	16.69	17.88	18.28	17.31	18.51	17.72	18.90	19.30
	4H	17.02	18.11	17.45	18.52	18.95	18.36	19.45	18.79	19.86	20.29
	6H	17.55	18.50	18.00	18.94	19.39	19.31	20.26	19.76	20.70	21.16
	8H	17.70	18.59	18.15	19.03	19.49	19.71	20.60	20.17	21.04	21.51
	12H	17.78	18.58	18.26	19.06	19.53	19.99	20.79	20.46	21.26	21.73
8H	4H	17.48	18.37	17.94	18.81	19.28	18.65	19.54	19.11	19.98	20.45
	6H	18.14	18.88	18.63	19.37	19.85	19.76	20.50	20.25	20.99	21.46
	8H	18.35	19.02	18.86	19.52	20.01	20.27	20.94	20.78	21.45	21.93
	12H	18.49	19.08	19.00	19.57	20.13	20.66	21.25	21.16	21.74	22.30
12H	4H	17.57	18.37	18.05	18.85	19.31	18.67	19.48	19.15	19.95	20.42
	6H	18.27	18.94	18.78	19.45	19.93	19.81	20.48	20.31	20.98	21.47
	8H	18.55	19.14	19.06	19.63	20.19	20.39	20.98	20.89	21.47	22.03