

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: P1588248

Luminaire Tested: 24CZSP-37HE-L945-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1588248
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-37HE-L945-S
Description: 2x4 CZSP LED Luminaire, 4500K CCT and 3500 lumens, 90CRI, Smooth Lens
Light Source: -
Ballast/Driver: -

Summary

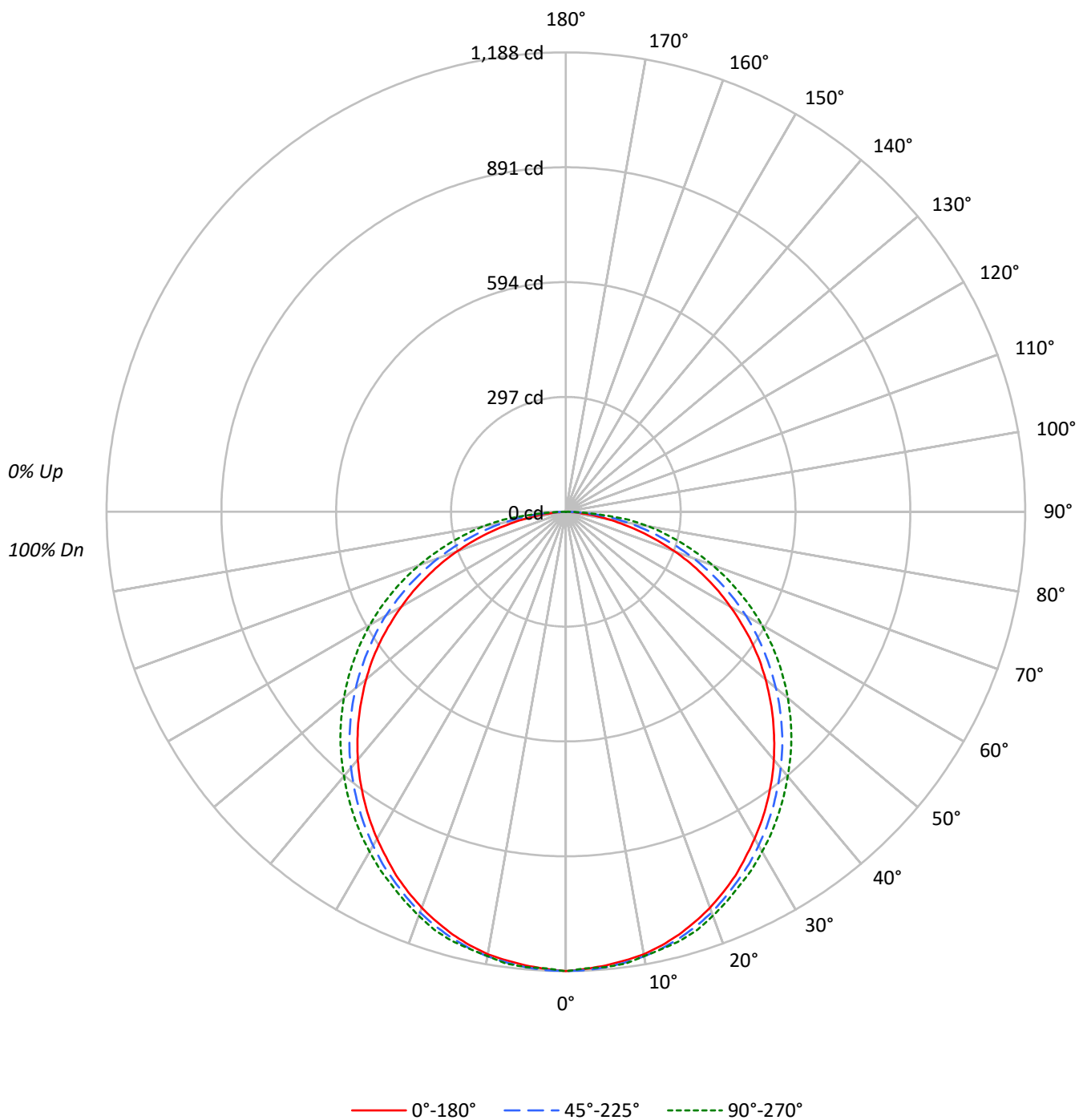
Lumens per Lamp: N/A
Luminaire Lumens: 3468.0 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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	50	30	10
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°	1819	1819	1819
5°	1811	1818	1817
10°	1807	1815	1814
15°	1794	1809	1820
20°	1776	1797	1812
25°	1754	1779	1800
30°	1727	1763	1795
35°	1702	1746	1790
40°	1674	1728	1785
45°	1642	1711	1787
50°	1606	1690	1786
55°	1565	1666	1788
60°	1506	1648	1793
65°	1437	1616	1798
70°	1339	1571	1806
75°	1194	1508	1824
80°	987	1436	1913
85°	641	1297	1671

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1974 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	3.2
10°-20°	321.7	9.3
20°-30°	485.2	14.0
30°-40°	584.3	16.8
40°-50°	610.3	17.6
50°-60°	560.5	16.2
60°-70°	441.4	12.7
70°-80°	270.8	7.8
80°-90°	81.5	2.3
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°	919.2	26.5
0°-40°	1503.5	43.4
0°-60°	2674.3	77.1
0°-90°	3468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1178	1180	1183	1186	1182	112
15°	1132	1134	1141	1148	1148	319
25°	1038	1040	1052	1065	1065	478
35°	910	915	934	953	957	569
45°	758	766	790	817	825	584
55°	586	597	624	659	670	523
65°	396	410	446	483	496	392
75°	202	218	255	295	308	214
85°	36	50	74	94	95	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.9	1187.9	1187.9	1187.9	1187.9
2.5°	1183.3	1185.6	1186.4	1187.1	1181.8
5°	1178.0	1179.5	1182.6	1186.4	1181.8
7.5°	1170.4	1171.9	1175.7	1181.0	1178.8
10°	1162.0	1162.8	1167.3	1171.1	1166.6
12.5°	1148.3	1150.6	1155.9	1159.0	1157.4
15°	1131.6	1133.9	1140.7	1147.6	1147.6
17.5°	1111.8	1114.8	1123.2	1132.3	1133.1
20°	1089.7	1092.0	1102.7	1111.8	1111.8
22.5°	1064.6	1067.6	1078.3	1088.2	1089.7
25°	1038.0	1040.3	1052.4	1065.4	1065.4
27.5°	1006.8	1011.3	1026.6	1039.5	1042.5
30°	976.3	980.1	996.9	1012.9	1015.1
32.5°	944.4	948.9	966.4	983.9	987.7
35°	910.1	914.7	933.7	952.7	957.3
37.5°	874.4	879.7	899.5	921.5	926.1
40°	837.1	843.2	864.5	888.1	892.6
42.5°	797.5	805.9	828.7	853.1	859.9
45°	757.9	766.3	789.9	817.3	824.9
47.5°	716.1	726.0	750.3	779.2	787.6
50°	674.2	684.1	709.2	740.4	749.6
52.5°	631.6	641.5	667.4	700.1	710.0
55°	586.0	596.6	624.0	659.0	669.7
57.5°	538.8	552.5	581.4	617.2	627.8
60°	491.6	505.3	538.0	573.0	585.2
62.5°	445.2	458.1	491.6	528.9	541.8
65°	396.5	410.2	445.9	483.2	496.2
67.5°	348.5	362.2	398.0	436.8	450.5
70°	299.1	314.3	350.8	389.6	403.3
72.5°	249.6	265.6	302.9	342.4	355.4
75°	201.7	217.6	254.9	295.3	308.2
77.5°	154.5	172.0	208.5	249.6	261.8
80°	111.9	128.6	162.8	203.2	216.9
82.5°	71.5	86.0	120.2	158.3	168.2
85°	36.5	50.2	73.8	93.6	95.1
87.5°	11.4	16.0	24.4	36.5	37.3
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	13.56	15.22	13.92	15.53	15.85	14.39	16.05	14.75	16.36	16.68
	3H	15.31	16.82	15.69	17.15	17.51	16.50	18.01	16.88	18.34	18.70
	4H	15.93	17.35	16.33	17.70	18.08	17.39	18.82	17.79	19.16	19.54
	6H	16.34	17.66	16.75	18.03	18.42	18.17	19.50	18.58	19.86	20.25
	8H	16.45	17.71	16.87	18.10	18.50	18.49	19.76	18.92	20.15	20.54
	12H	16.50	17.71	16.93	18.09	18.52	18.71	19.92	19.13	20.30	20.73
4H	2H	14.33	15.75	14.73	16.10	16.47	14.98	16.40	15.37	16.75	17.12
	3H	16.31	17.50	16.72	17.90	18.30	17.33	18.53	17.74	18.93	19.32
	4H	17.04	18.13	17.47	18.54	18.98	18.38	19.47	18.81	19.88	20.32
	6H	17.57	18.52	18.02	18.96	19.42	19.34	20.29	19.79	20.73	21.18
	8H	17.72	18.61	18.18	19.05	19.52	19.73	20.62	20.19	21.07	21.53
	12H	17.80	18.61	18.28	19.08	19.55	20.01	20.81	20.49	21.29	21.76
8H	4H	17.50	18.39	17.96	18.84	19.30	18.67	19.56	19.13	20.01	20.47
	6H	18.16	18.91	18.66	19.39	19.87	19.78	20.53	20.28	21.01	21.49
	8H	18.37	19.04	18.88	19.55	20.03	20.30	20.96	20.80	21.47	21.95
	12H	18.51	19.11	19.02	19.59	20.15	20.68	21.27	21.19	21.76	22.32
12H	4H	17.59	18.40	18.07	18.87	19.34	18.70	19.50	19.18	19.97	20.44
	6H	18.30	18.97	18.80	19.47	19.95	19.83	20.50	20.34	21.01	21.49
	8H	18.57	19.17	19.08	19.65	20.21	20.41	21.00	20.91	21.49	22.05