

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: P1589716

Luminaire Tested: 24CZSP-SB-37HE-L840-S

Issue Date: 9/3/2026

Test Information

Test Method: LM-79-2019
Report Number: P1589716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)
Test Lab: INNOVATION CENTER
Issue Date: 9/3/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24CZSP-SB-37HE-L840-S
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 3500 lumens, 80CRI, Smooth Lens, SB housing
Light Source: -
Ballast/Driver: -

Summary

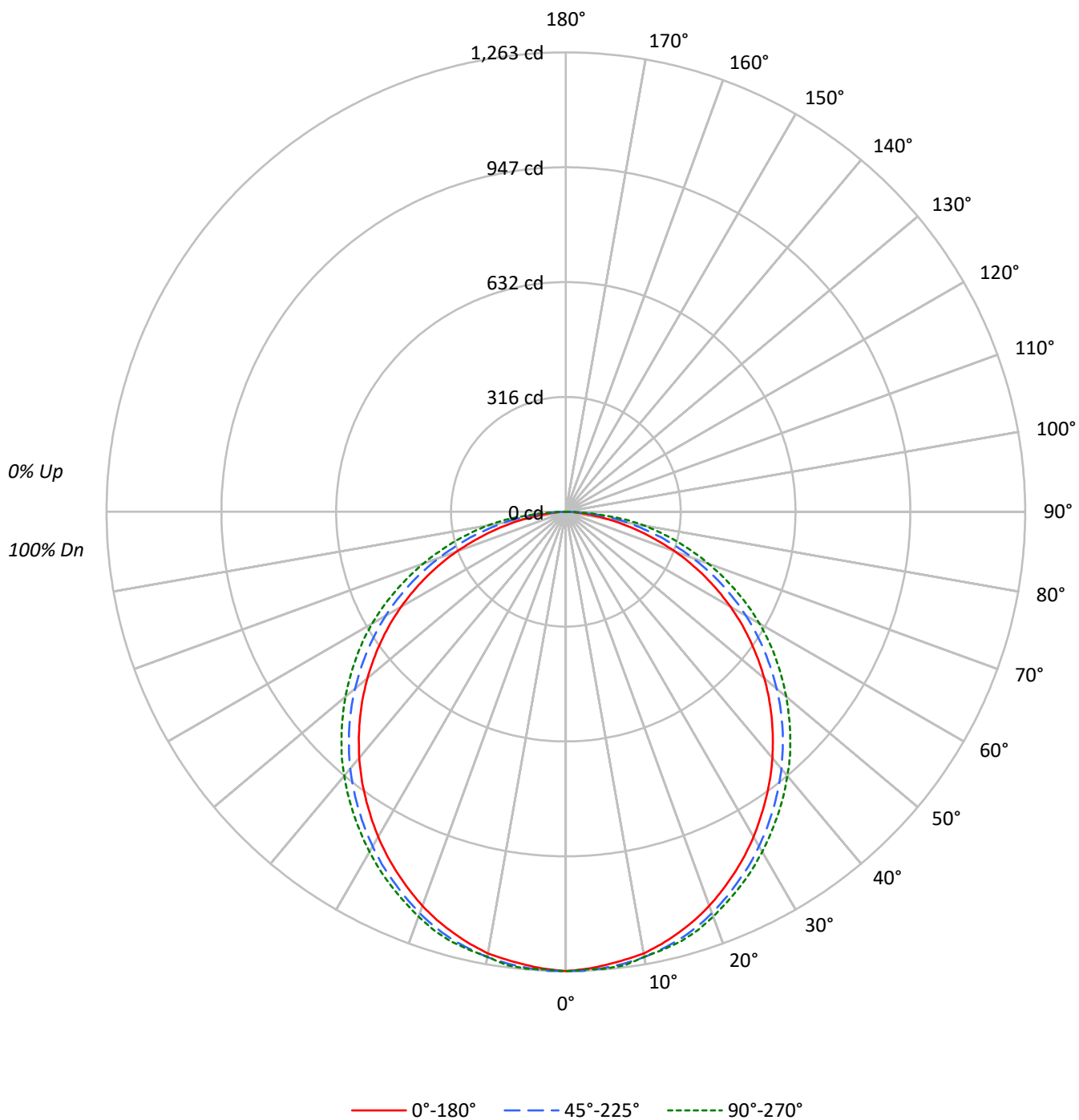
Lumens per Lamp: N/A
Luminaire Lumens: 3674.0 lumens
Efficiency: N/A
Efficacy: 148.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

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

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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	94	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	66	61		69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53		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	45	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	33
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1934	1934	1934
5°	1924	1935	1938
10°	1918	1933	1932
15°	1900	1928	1939
20°	1879	1914	1931
25°	1853	1895	1919
30°	1826	1879	1909
35°	1796	1861	1900
40°	1767	1844	1895
45°	1734	1825	1890
50°	1697	1802	1885
55°	1655	1779	1883
60°	1603	1753	1884
65°	1530	1716	1873
70°	1430	1664	1869
75°	1268	1600	1875
80°	1032	1520	1931
85°	666	1402	1666

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 1957 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	3.3
10°-20°	342.3	9.3
20°-30°	516.0	14.0
30°-40°	620.9	16.9
40°-50°	647.7	17.6
50°-60°	593.7	16.2
60°-70°	466.2	12.7
70°-80°	283.7	7.7
80°-90°	83.9	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°	977.8	26.6
0°-40°	1598.8	43.5
0°-60°	2840.1	77.3
0°-90°	3674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1263	1263	1263	1263	1263	
5°	1251	1259	1258	1257	1261	119
15°	1198	1210	1216	1217	1223	338
25°	1096	1111	1122	1129	1136	505
35°	960	975	995	1009	1016	601
45°	801	817	842	862	873	617
55°	620	635	666	693	705	554
65°	422	438	473	505	517	417
75°	214	234	270	303	317	227
85°	38	54	80	89	95	49
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1263.0	1263.0	1263.0	1263.0	1263.0
2.5°	1258.3	1264.6	1263.0	1257.5	1259.8
5°	1251.1	1259.0	1258.3	1256.7	1260.6
7.5°	1242.4	1251.1	1251.9	1251.9	1256.7
10°	1233.0	1241.7	1243.2	1240.9	1242.4
12.5°	1217.2	1227.4	1230.6	1230.6	1233.0
15°	1198.2	1210.0	1215.6	1217.2	1222.7
17.5°	1177.6	1190.3	1197.4	1201.3	1206.1
20°	1153.1	1166.6	1174.5	1179.2	1184.7
22.5°	1125.5	1140.5	1149.2	1153.9	1160.2
25°	1096.2	1111.2	1121.5	1128.6	1135.7
27.5°	1065.4	1079.6	1093.9	1102.6	1108.9
30°	1032.2	1047.2	1062.2	1073.3	1079.6
32.5°	996.6	1012.5	1029.8	1041.7	1048.8
35°	960.3	975.3	995.1	1009.3	1016.4
37.5°	923.1	938.9	959.5	974.5	983.2
40°	883.6	900.2	922.3	938.9	947.6
42.5°	842.5	858.3	882.8	901.8	912.1
45°	800.6	817.2	842.5	862.3	872.6
47.5°	757.2	773.0	800.6	823.6	832.2
50°	712.1	727.1	756.4	780.9	791.1
52.5°	666.3	682.1	711.3	737.4	748.5
55°	619.6	635.4	666.3	693.1	705.0
57.5°	572.2	588.0	619.6	647.3	661.5
60°	523.2	539.0	572.2	600.7	614.9
62.5°	472.6	489.2	523.2	552.5	567.5
65°	422.1	437.9	473.4	505.0	516.9
67.5°	371.5	387.3	422.1	453.7	467.9
70°	319.3	337.5	371.5	404.7	417.3
72.5°	264.8	285.3	319.3	354.1	366.7
75°	214.2	233.9	270.3	302.7	316.9
77.5°	164.4	185.7	219.7	252.9	267.1
80°	117.0	137.5	172.3	203.9	218.9
82.5°	74.3	92.5	127.2	155.7	166.8
85°	37.9	53.7	79.8	89.3	94.8
87.5°	11.1	19.0	28.5	35.6	39.5
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	13.79	15.45	14.16	15.77	16.08	14.53	16.19	14.89	16.50	16.82
	3H	15.56	17.07	15.94	17.39	17.75	16.61	18.11	16.98	18.44	18.80
	4H	16.18	17.60	16.58	17.95	18.32	17.47	18.89	17.87	19.24	19.61
	6H	16.59	17.91	17.00	18.27	18.66	18.22	19.53	18.63	19.90	20.29
	8H	16.69	17.95	17.12	18.34	18.74	18.51	19.77	18.93	20.16	20.56
	12H	16.74	17.95	17.17	18.33	18.76	18.70	19.91	19.13	20.29	20.72
4H	2H	14.56	15.98	14.96	16.33	16.70	15.13	16.55	15.53	16.90	17.27
	3H	16.55	17.75	16.96	18.14	18.54	17.44	18.64	17.85	19.04	19.44
	4H	17.29	18.38	17.72	18.79	19.22	18.46	19.55	18.89	19.96	20.39
	6H	17.82	18.77	18.28	19.21	19.67	19.37	20.32	19.82	20.76	21.21
	8H	17.96	18.85	18.42	19.30	19.76	19.74	20.62	20.19	21.07	21.53
	12H	18.04	18.85	18.52	19.32	19.79	19.99	20.79	20.47	21.26	21.73
8H	4H	17.74	18.63	18.20	19.07	19.53	18.76	19.65	19.22	20.09	20.56
	6H	18.40	19.14	18.89	19.63	20.11	19.82	20.56	20.31	21.05	21.52
	8H	18.61	19.28	19.12	19.78	20.27	20.29	20.96	20.80	21.46	21.95
	12H	18.75	19.34	19.25	19.83	20.39	20.64	21.23	21.15	21.72	22.28
12H	4H	17.82	18.62	18.30	19.10	19.56	18.79	19.59	19.27	20.06	20.53
	6H	18.53	19.19	19.03	19.70	20.18	19.87	20.54	20.38	21.04	21.53
	8H	18.80	19.39	19.31	19.88	20.44	20.41	21.00	20.91	21.49	22.04