

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: CORELITE

Report Number: P853678

Luminaire Tested: SQ2-F-050U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853678
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-050U-125D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

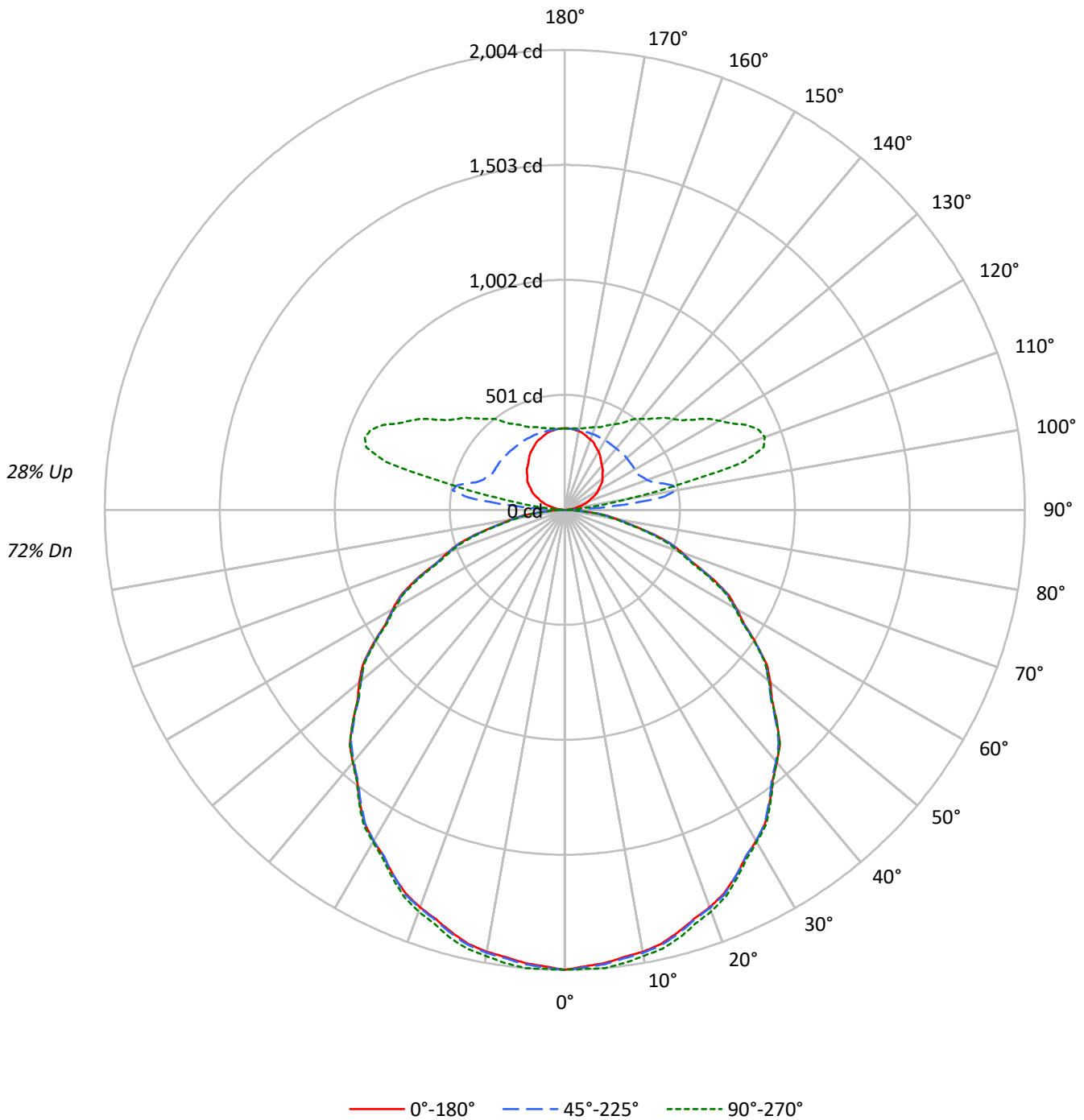
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7831.4 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
Input Voltage (V): 120
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	0	
RCR																						
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	76	76	72	
1	102	98	94	90	97	93	89	86	84	81	78	75	73	71	67	65	64	64	64	64	60	
2	93	85	79	73	88	81	75	70	73	68	64	66	62	59	59	56	54	54	54	54	50	
3	85	75	67	61	80	71	64	59	64	59	54	58	53	50	52	48	45	45	45	45	42	
4	78	66	58	51	73	63	55	50	57	51	46	51	46	42	46	42	39	39	39	39	36	
5	71	59	50	44	67	56	48	43	51	45	40	46	41	37	42	37	34	34	34	34	31	
6	66	53	44	38	62	51	43	37	46	39	35	42	36	32	38	33	30	30	30	30	27	
7	61	48	39	34	57	46	38	33	42	35	30	38	32	28	34	30	26	26	26	26	24	
8	56	44	35	30	53	42	34	29	38	32	27	35	29	25	32	27	24	24	24	24	21	
9	53	40	32	27	50	38	31	26	35	29	24	32	27	23	29	25	21	21	21	21	19	
10	49	37	29	24	47	35	28	23	32	26	22	30	24	21	27	22	19	19	19	19	17	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32359	32359	32359
5°	32130	32217	32483
10°	32054	32142	32367
15°	31858	31950	32269
20°	31668	31716	31998
25°	31376	31376	31572
30°	31055	31055	31155
35°	30677	30569	30786
40°	30273	30157	30273
45°	29803	29679	29803
50°	29353	29082	29150
55°	28670	28594	28439
60°	27952	27774	27600
65°	27121	26812	26495
70°	25525	25398	24878
75°	24017	23506	22826
80°	21330	20818	20056
85°	17191	15691	14653

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 29985 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.5	2.4
10°-20°	541.3	6.9
20°-30°	814.4	10.4
30°-40°	974.5	12.4
40°-50°	1005.5	12.8
50°-60°	907.1	11.6
60°-70°	692.2	8.8
70°-80°	398.0	5.1
80°-90°	104.3	1.3
90°-100°	141.4	1.8
100°-110°	448.5	5.7
110°-120°	439.8	5.6
120°-130°	357.9	4.6
130°-140°	291.8	3.7
140°-150°	227.5	2.9
150°-160°	163.9	2.1
160°-170°	100.1	1.3
170°-180°	33.8	0.4
0°-30°	1545.2	19.7
0°-40°	2519.7	32.2
0°-60°	4432.3	56.6
0°-90°	5626.7	71.8
90°-120°	1029.7	13.1
90°-150°	1906.8	24.3
90°-180°	2205.0	28.2
0°-180°	7831.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2004	2004	2004	2004	2004	
5°	1982	2009	1988	1991	2004	188
15°	1906	1930	1911	1920	1930	538
25°	1761	1780	1761	1764	1772	811
35°	1556	1567	1551	1557	1562	973
45°	1305	1313	1300	1302	1305	1007
55°	1018	1024	1016	1010	1010	911
65°	710	707	702	696	694	698
75°	385	382	377	369	366	406
85°	93	88	85	76	79	107
90°	0	1	3	3	3	4
95°	19	57	257	95	61	22
105°	78	110	442	842	807	82
115°	140	166	357	742	873	138
125°	193	216	352	582	686	172
135°	233	256	350	500	564	180
145°	272	293	350	432	470	171
155°	310	321	351	386	401	143
165°	338	342	352	365	368	95
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2004.2	2004.2	2004.2	2004.2	2004.2
2.5°	1991.1	2014.6	1995.5	1999.9	2002.0
5°	1982.4	2009.0	1987.8	1990.8	2004.2
7.5°	1966.0	1994.8	1971.5	1976.7	1991.6
10°	1955.1	1981.8	1960.5	1963.5	1974.2
12.5°	1937.6	1964.3	1943.0	1948.2	1958.8
15°	1905.9	1929.9	1911.4	1919.8	1930.5
17.5°	1869.3	1895.0	1874.3	1881.5	1890.7
20°	1843.1	1864.4	1845.9	1848.8	1862.3
22.5°	1810.4	1831.8	1815.2	1816.0	1827.2
25°	1761.2	1779.9	1761.2	1764.1	1772.2
27.5°	1704.9	1721.0	1704.9	1707.8	1714.7
30°	1665.7	1681.6	1665.7	1668.4	1671.1
32.5°	1621.9	1635.8	1619.8	1622.7	1629.6
35°	1556.4	1567.1	1550.9	1556.6	1561.9
37.5°	1486.5	1494.5	1481.0	1483.9	1488.7
40°	1436.3	1444.3	1430.8	1433.5	1436.3
42.5°	1386.1	1391.9	1378.4	1381.2	1386.1
45°	1305.2	1313.2	1299.8	1302.5	1305.2
47.5°	1223.2	1228.1	1216.7	1214.6	1219.5
50°	1168.6	1171.3	1157.8	1157.8	1160.5
52.5°	1109.7	1112.3	1103.2	1098.9	1101.5
55°	1018.5	1023.8	1015.8	1010.3	1010.3
57.5°	926.8	931.5	921.2	918.5	918.0
60°	865.6	868.2	860.1	857.4	854.7
62.5°	804.5	804.9	796.8	793.9	791.3
65°	709.9	707.2	701.8	696.2	693.5
67.5°	604.0	606.7	601.3	592.6	592.6
70°	540.7	543.3	538.0	527.0	527.0
72.5°	479.5	477.9	474.5	465.7	461.4
75°	385.0	382.4	376.8	368.6	365.9
77.5°	290.6	287.9	285.0	274.7	276.9
80°	229.4	226.7	223.9	215.7	215.7
82.5°	174.8	169.9	167.1	159.0	159.0
85°	92.8	87.5	84.7	76.5	79.1
87.5°	26.2	24.3	22.5	18.1	18.1
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.3	18.5
95°	19.0	57.2	256.8	95.2	61.4
97.5°	35.3	74.2	435.0	271.8	166.8
100°	46.9	84.0	495.7	451.9	293.6
102.5°	59.4	94.7	484.9	663.7	508.0
105°	78.1	109.8	442.1	842.1	807.2
107.5°	96.9	126.2	401.3	860.8	907.9
110°	109.4	137.8	380.7	839.3	926.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	121.9	148.6	369.0	802.3	913.2
115°	139.5	165.8	357.3	742.0	873.1
117.5°	156.7	181.6	352.5	684.0	816.1
120°	167.4	191.5	351.6	648.2	776.0
122.5°	178.2	201.4	351.6	619.4	738.4
125°	193.1	216.1	351.6	581.8	685.5
127.5°	206.3	228.4	351.6	552.7	641.1
130°	214.4	237.3	351.6	535.5	615.2
132.5°	222.4	245.3	350.8	521.9	593.7
135°	233.4	256.2	349.5	500.5	563.9
137.5°	244.1	268.1	349.3	480.0	536.6
140°	251.2	275.2	348.4	465.6	516.9
142.5°	260.2	283.2	349.3	451.2	499.1
145°	272.4	293.2	349.5	431.8	470.0
147.5°	284.7	302.3	349.7	414.7	445.9
150°	293.6	307.8	350.6	404.8	429.9
152.5°	300.8	313.2	350.6	396.6	417.3
155°	310.4	321.3	350.6	385.5	400.8
157.5°	320.7	328.1	351.6	378.8	389.2
160°	326.0	332.5	351.6	374.2	382.9
162.5°	331.4	336.1	351.6	370.6	376.7
165°	338.3	341.6	351.6	365.2	368.5
167.5°	344.7	345.6	352.8	361.4	364.2
170°	348.4	348.4	352.8	359.5	360.6
172.5°	350.2	351.0	352.8	357.7	358.0
175°	353.9	352.9	353.9	356.2	355.0
177.5°	355.0	354.1	354.1	355.9	354.1
180°	355.0	355.0	355.0	355.0	355.0



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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	21.85	22.96	22.59	23.73	24.65	21.77	22.89	22.51	23.65	24.57
	3H	23.65	24.65	24.40	25.43	26.38	23.53	24.53	24.28	25.31	26.26
	4H	24.32	25.27	25.09	26.05	27.01	24.16	25.11	24.94	25.90	26.86
	6H	24.80	25.68	25.59	26.47	27.45	24.61	25.49	25.40	26.28	27.26
	8H	24.95	25.78	25.74	26.59	27.57	24.74	25.58	25.54	26.39	27.37
	12H	25.03	25.83	25.83	26.63	27.64	24.80	25.60	25.61	26.41	27.41
4H	2H	22.43	23.38	23.21	24.16	25.12	22.37	23.32	23.14	24.10	25.06
	3H	24.44	25.23	25.23	26.05	27.03	24.33	25.13	25.12	25.94	26.92
	4H	25.24	25.96	26.04	26.78	27.79	25.10	25.82	25.90	26.64	27.64
	6H	25.84	26.47	26.66	27.31	28.33	25.66	26.29	26.48	27.13	28.15
	8H	26.04	26.62	26.86	27.46	28.49	25.84	26.42	26.66	27.26	28.29
	12H	26.15	26.68	27.00	27.54	28.57	25.92	26.45	26.77	27.31	28.34
8H	4H	25.51	26.09	26.33	26.93	27.96	25.38	25.97	26.21	26.81	27.83
	6H	26.24	26.72	27.09	27.60	28.63	26.07	26.56	26.92	27.44	28.46
	8H	26.51	26.94	27.37	27.81	28.86	26.31	26.75	27.18	27.62	28.66
	12H	26.69	27.07	27.55	27.93	29.03	26.46	26.84	27.33	27.71	28.80
12H	4H	25.51	26.04	26.36	26.90	27.93	25.39	25.92	26.24	26.78	27.81
	6H	26.28	26.72	27.15	27.59	28.63	26.12	26.56	26.99	27.43	28.47
	8H	26.59	26.97	27.46	27.84	28.93	26.40	26.78	27.27	27.65	28.75