

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-835-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-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

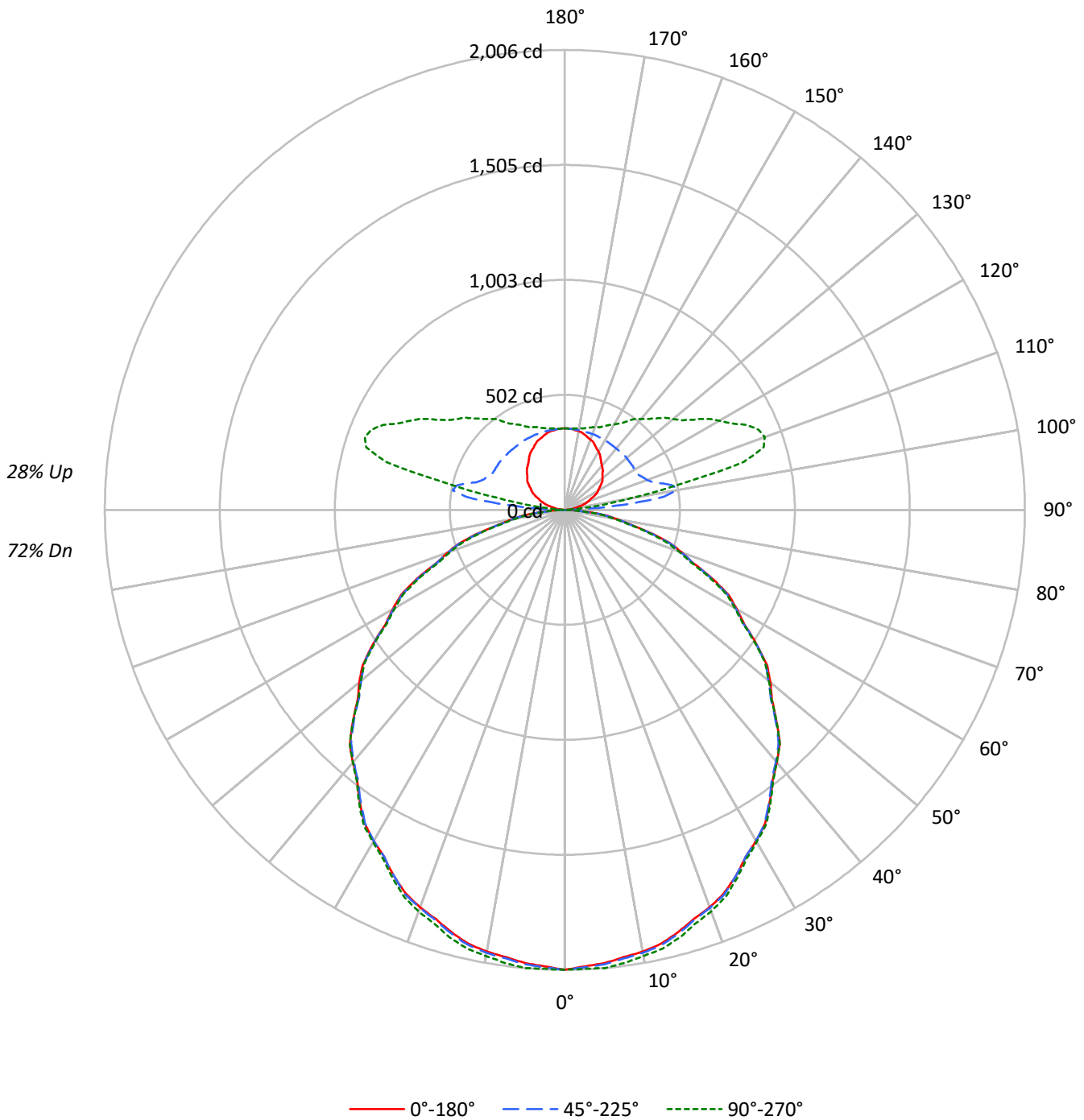
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7838.4 lumens
Efficiency: N/A
Efficacy: 122.5 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°	32389	32389	32389
5°	32157	32246	32512
10°	32083	32172	32396
15°	31886	31978	32298
20°	31696	31746	32027
25°	31404	31404	31600
30°	31083	31083	31183
35°	30705	30597	30813
40°	30300	30184	30300
45°	29830	29707	29830
50°	29381	29107	29175
55°	28696	28620	28468
60°	27978	27800	27622
65°	27148	26835	26521
70°	25549	25416	24902
75°	24036	23531	22845
80°	21348	20837	20074
85°	17210	15709	14672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 30013 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.6	2.4
10°-20°	541.8	6.9
20°-30°	815.2	10.4
30°-40°	975.4	12.4
40°-50°	1006.4	12.8
50°-60°	907.9	11.6
60°-70°	692.8	8.8
70°-80°	398.3	5.1
80°-90°	104.4	1.3
90°-100°	141.5	1.8
100°-110°	448.9	5.7
110°-120°	440.2	5.6
120°-130°	358.2	4.6
130°-140°	292.1	3.7
140°-150°	227.7	2.9
150°-160°	164.1	2.1
160°-170°	100.2	1.3
170°-180°	33.8	0.4
0°-30°	1546.6	19.7
0°-40°	2522.0	32.2
0°-60°	4436.3	56.6
0°-90°	5631.8	71.8
90°-120°	1030.6	13.1
90°-150°	1908.6	24.3
90°-180°	2207.0	28.2
0°-180°	7838.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1984	2011	1990	1993	2006	188
15°	1908	1932	1913	1922	1932	538
25°	1763	1782	1763	1766	1774	812
35°	1558	1568	1552	1558	1563	974
45°	1306	1314	1301	1304	1306	1008
55°	1019	1025	1017	1011	1011	911
65°	711	708	702	697	694	699
75°	385	383	377	369	366	406
85°	93	88	85	77	79	108
90°	0	1	3	3	3	4
95°	19	57	257	95	61	22
105°	78	110	442	843	808	82
115°	140	166	358	743	874	138
125°	193	216	352	582	686	172
135°	234	256	350	501	564	180
145°	273	293	350	432	470	171
155°	311	322	351	386	401	143
165°	339	342	352	366	369	96
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°	2006.0	2006.0	2006.0	2006.0	2006.0
2.5°	1992.9	2016.4	1997.3	2001.7	2003.8
5°	1984.1	2010.9	1989.6	1992.6	2006.0
7.5°	1967.7	1996.6	1973.3	1978.5	1993.4
10°	1956.9	1983.6	1962.3	1965.2	1976.0
12.5°	1939.3	1966.0	1944.8	1950.0	1960.6
15°	1907.6	1931.6	1913.1	1921.6	1932.2
17.5°	1871.0	1896.7	1876.0	1883.2	1892.4
20°	1844.7	1866.1	1847.6	1850.5	1864.0
22.5°	1812.0	1833.4	1816.9	1817.7	1828.9
25°	1762.8	1781.5	1762.8	1765.7	1773.8
27.5°	1706.4	1722.5	1706.4	1709.4	1716.3
30°	1667.2	1683.1	1667.2	1669.9	1672.6
32.5°	1623.4	1637.3	1621.2	1624.2	1631.1
35°	1557.8	1568.5	1552.3	1558.0	1563.3
37.5°	1487.8	1495.8	1482.4	1485.2	1490.1
40°	1437.6	1445.6	1432.1	1434.8	1437.6
42.5°	1387.3	1393.2	1379.6	1382.4	1387.3
45°	1306.4	1314.4	1301.0	1303.7	1306.4
47.5°	1224.3	1229.2	1217.8	1215.7	1220.6
50°	1169.7	1172.4	1158.8	1158.8	1161.5
52.5°	1110.7	1113.3	1104.2	1099.9	1102.5
55°	1019.4	1024.7	1016.7	1011.3	1011.3
57.5°	927.6	932.4	922.1	919.4	918.8
60°	866.4	869.0	860.9	858.1	855.4
62.5°	805.2	805.6	797.5	794.7	792.1
65°	710.6	707.9	702.4	696.9	694.2
67.5°	604.5	607.3	601.8	593.1	593.1
70°	541.2	543.8	538.4	527.5	527.5
72.5°	479.9	478.4	475.0	466.1	461.8
75°	385.3	382.7	377.2	368.9	366.2
77.5°	290.8	288.1	285.3	275.0	277.1
80°	229.6	226.9	224.1	215.9	215.9
82.5°	175.0	170.1	167.3	159.1	159.1
85°	92.9	87.6	84.8	76.6	79.2
87.5°	26.3	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	26.4	18.6
95°	19.0	57.3	257.0	95.3	61.4
97.5°	35.3	74.2	435.4	272.1	166.9
100°	47.0	84.1	496.1	452.3	293.9
102.5°	59.4	94.8	485.4	664.3	508.5
105°	78.2	109.9	442.5	842.9	807.9
107.5°	97.0	126.3	401.6	861.5	908.7
110°	109.5	137.9	381.0	840.0	927.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	122.0	148.7	369.4	803.0	914.0
115°	139.6	165.9	357.6	742.7	873.9
117.5°	156.8	181.7	352.9	684.7	816.8
120°	167.6	191.7	351.9	648.8	776.7
122.5°	178.4	201.5	351.9	619.9	739.1
125°	193.3	216.3	351.9	582.4	686.1
127.5°	206.5	228.6	351.9	553.2	641.7
130°	214.6	237.5	351.9	536.0	615.7
132.5°	222.6	245.6	351.2	522.4	594.2
135°	233.6	256.4	349.8	501.0	564.4
137.5°	244.3	268.3	349.6	480.4	537.1
140°	251.5	275.4	348.7	466.0	517.4
142.5°	260.4	283.5	349.6	451.6	499.5
145°	272.6	293.4	349.8	432.2	470.4
147.5°	285.0	302.6	350.0	415.1	446.3
150°	293.9	308.0	350.9	405.1	430.3
152.5°	301.0	313.5	350.9	397.0	417.7
155°	310.6	321.6	350.9	385.9	401.2
157.5°	320.9	328.4	351.9	379.1	389.5
160°	326.3	332.8	351.9	374.6	383.3
162.5°	331.7	336.4	351.9	371.0	377.1
165°	338.6	341.9	351.9	365.5	368.8
167.5°	345.0	345.9	353.1	361.7	364.5
170°	348.7	348.7	353.1	359.9	360.9
172.5°	350.5	351.3	353.1	358.1	358.3
175°	354.2	353.2	354.2	356.5	355.3
177.5°	355.3	354.4	354.4	356.2	354.4
180°	355.3	355.3	355.3	355.3	355.3

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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	22.97	22.59	23.73	24.65	21.77	22.89	22.51	23.65	24.57
	3H	23.65	24.66	24.40	25.43	26.38	23.53	24.54	24.29	25.31	26.26
	4H	24.32	25.27	25.09	26.05	27.02	24.17	25.12	24.94	25.90	26.86
	6H	24.80	25.68	25.59	26.47	27.45	24.62	25.49	25.40	26.29	27.26
	8H	24.95	25.78	25.74	26.60	27.57	24.75	25.58	25.54	26.39	27.37
	12H	25.03	25.83	25.83	26.63	27.64	24.81	25.61	25.61	26.41	27.42
4H	2H	22.43	23.38	23.21	24.17	25.13	22.37	23.32	23.15	24.10	25.07
	3H	24.44	25.24	25.23	26.06	27.03	24.33	25.13	25.12	25.95	26.93
	4H	25.24	25.97	26.05	26.78	27.79	25.10	25.82	25.90	26.64	27.65
	6H	25.85	26.47	26.67	27.32	28.33	25.67	26.29	26.49	27.14	28.15
	8H	26.04	26.63	26.87	27.46	28.49	25.84	26.43	26.66	27.26	28.29
	12H	26.16	26.68	27.00	27.54	28.57	25.93	26.46	26.77	27.31	28.35
8H	4H	25.51	26.10	26.34	26.93	27.96	25.38	25.97	26.21	26.81	27.83
	6H	26.24	26.73	27.09	27.61	28.63	26.07	26.56	26.93	27.44	28.47
	8H	26.51	26.94	27.37	27.82	28.86	26.32	26.75	27.18	27.62	28.67
	12H	26.69	27.07	27.56	27.94	29.04	26.46	26.84	27.33	27.71	28.81
12H	4H	25.52	26.05	26.36	26.90	27.94	25.40	25.92	26.24	26.78	27.81
	6H	26.29	26.72	27.15	27.59	28.64	26.13	26.56	26.99	27.43	28.48
	8H	26.59	26.97	27.46	27.84	28.94	26.40	26.79	27.27	27.65	28.75