

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: P853714

Luminaire Tested: SQ2-F-100U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853714
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-100U-125D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

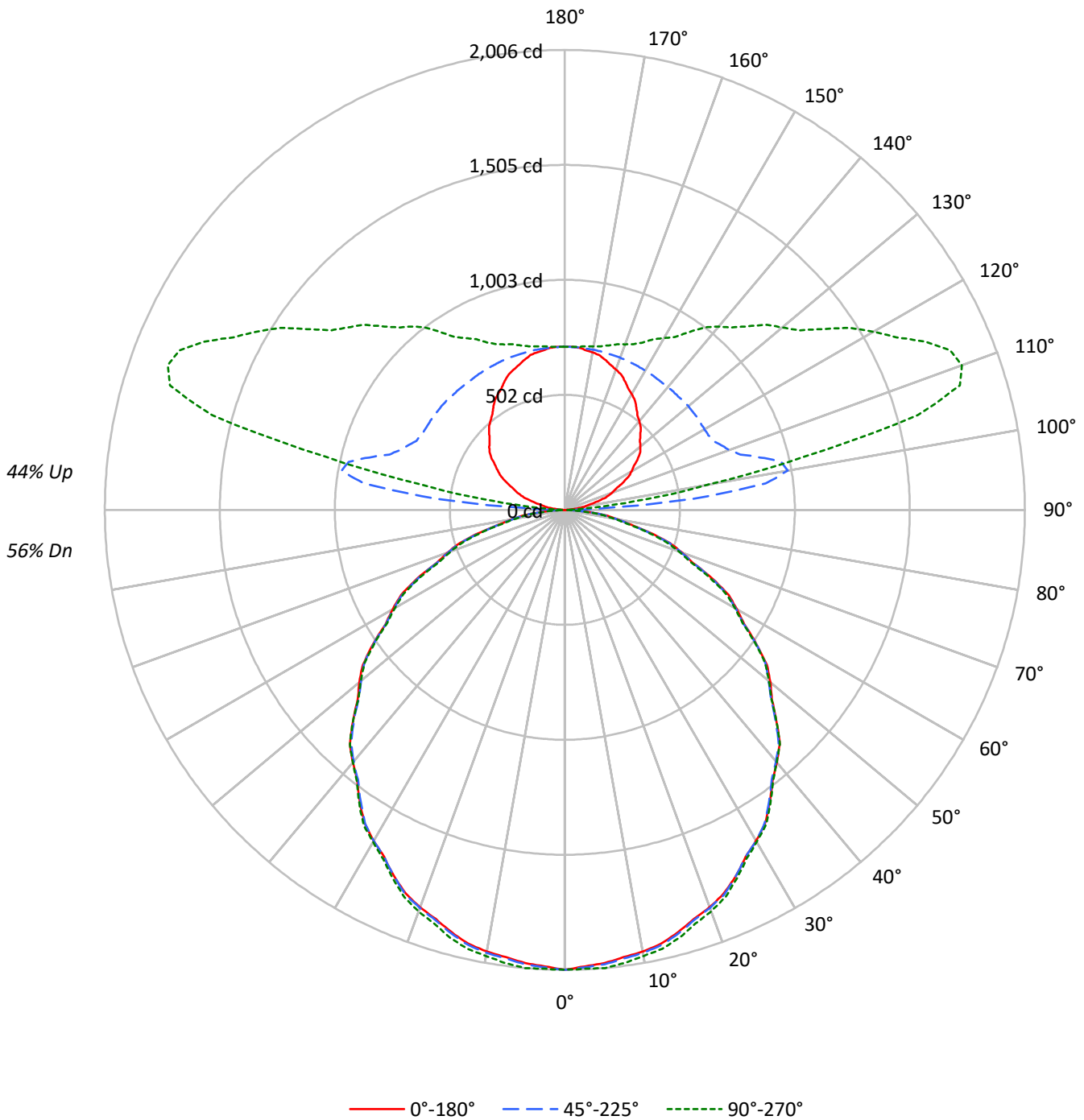
Lumens per Lamp: N/A
Luminaire Lumens: 10061.9 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.8
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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	81	76	73	71	65	63	61	54	53	52	47
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	69	60	52	47	52	46	42	44	40	36	37	34	31	28
5	69	57	49	42	64	53	46	40	46	40	36	40	35	31	34	30	27	24
6	63	51	43	37	59	48	40	35	42	36	31	36	31	27	30	27	24	21
7	58	46	38	32	54	43	36	31	38	32	27	33	28	24	28	24	21	19
8	54	42	34	28	50	39	32	27	34	28	24	30	25	22	25	22	19	17
9	51	38	30	25	47	36	29	24	31	26	22	27	23	19	23	20	17	15
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	22	18	15	14

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	1.9
10°-20°	541.8	5.4
20°-30°	815.2	8.1
30°-40°	975.4	9.7
40°-50°	1006.4	10.0
50°-60°	907.9	9.0
60°-70°	692.8	6.9
70°-80°	398.3	4.0
80°-90°	105.2	1.0
90°-100°	297.2	3.0
100°-110°	898.9	8.9
110°-120°	877.5	8.7
120°-130°	717.1	7.1
130°-140°	585.3	5.8
140°-150°	455.7	4.5
150°-160°	328.5	3.3
160°-170°	201.1	2.0
170°-180°	67.9	0.7
0°-30°	1546.6	15.4
0°-40°	2522.0	25.1
0°-60°	4436.3	44.1
0°-90°	5632.6	56.0
90°-120°	2073.7	20.6
90°-150°	3831.8	38.1
90°-180°	4429.0	44.0
0°-180°	10061.9	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	2	13	8	7	5
95°	37	117	561	207	131	44
105°	156	220	883	1676	1593	164
115°	278	332	714	1477	1735	275
125°	389	431	704	1167	1373	345
135°	466	515	699	1006	1132	361
145°	544	584	699	866	946	341
155°	620	641	704	776	806	285
165°	678	686	707	734	743	191
175°	709	709	711	716	714	67
180°	712	712	712	712	712	



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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	24.6	24.6	19.0	18.8
90°	0.0	2.2	13.4	7.8	6.7
92.5°	12.6	50.6	181.4	60.2	43.3
95°	36.9	116.6	560.9	207.2	130.7
97.5°	71.3	148.4	883.9	585.0	356.1
100°	92.7	168.1	987.6	954.8	641.3
102.5°	116.9	189.7	966.2	1339.2	1067.6
105°	156.4	219.8	882.6	1676.2	1593.2
107.5°	194.0	254.5	802.2	1709.6	1805.7
110°	219.0	276.9	761.9	1667.5	1842.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.1	299.2	737.8	1597.1	1818.2
115°	278.2	331.7	714.0	1477.3	1735.1
117.5°	313.0	363.7	705.5	1365.0	1628.9
120°	336.3	384.3	702.8	1299.5	1553.0
122.5°	357.7	403.2	702.8	1241.9	1476.1
125°	388.8	431.4	703.9	1166.6	1373.0
127.5°	414.1	458.2	702.8	1109.8	1285.9
130°	430.1	476.0	702.8	1077.3	1236.8
132.5°	444.4	491.1	701.9	1047.6	1194.8
135°	465.9	515.0	699.4	1006.2	1131.8
137.5°	489.8	536.5	699.4	961.9	1078.4
140°	504.9	550.9	699.4	933.2	1043.5
142.5°	520.2	564.4	698.5	906.9	1003.3
145°	544.1	584.5	699.4	865.5	946.3
147.5°	568.0	602.3	700.7	831.3	893.3
150°	583.3	614.8	701.6	812.3	864.7
152.5°	597.5	625.7	702.5	796.0	838.8
155°	620.0	640.9	703.9	776.1	805.5
157.5°	639.7	656.6	705.3	761.3	781.9
160°	651.4	665.5	706.0	752.2	767.5
162.5°	662.9	673.7	707.0	744.2	756.9
165°	678.2	685.8	707.2	734.2	742.9
167.5°	691.1	695.1	708.5	726.5	730.3
170°	698.2	700.5	709.4	722.9	723.9
172.5°	702.8	704.0	709.4	719.3	719.5
175°	709.4	709.4	710.6	716.1	714.0
177.5°	712.6	711.7	710.8	713.4	711.7
180°	711.7	711.7	711.7	711.7	711.7



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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	20.58	21.51	21.48	22.44	23.62	20.51	21.44	21.41	22.36	23.54
	3H	22.37	23.20	23.28	24.14	25.34	22.25	23.09	23.16	24.02	25.22
	4H	23.03	23.82	23.96	24.76	25.97	22.88	23.67	23.81	24.61	25.82
	6H	23.50	24.23	24.44	25.18	26.41	23.32	24.05	24.26	24.99	26.22
	8H	23.64	24.34	24.59	25.30	26.53	23.44	24.14	24.39	25.10	26.32
	12H	23.72	24.38	24.67	25.34	26.59	23.50	24.16	24.45	25.11	26.37
4H	2H	21.14	21.93	22.08	22.87	24.09	21.08	21.87	22.01	22.81	24.02
	3H	23.14	23.80	24.08	24.76	26.00	23.03	23.69	23.97	24.66	25.89
	4H	23.93	24.53	24.88	25.49	26.75	23.79	24.39	24.74	25.35	26.61
	6H	24.52	25.04	25.49	26.03	27.28	24.34	24.86	25.31	25.85	27.10
	8H	24.71	25.20	25.68	26.18	27.45	24.51	25.00	25.48	25.98	27.25
	12H	24.82	25.26	25.81	26.25	27.53	24.59	25.03	25.58	26.03	27.30
8H	4H	24.18	24.67	25.15	25.65	26.92	24.06	24.54	25.03	25.52	26.79
	6H	24.90	25.31	25.90	26.33	27.59	24.74	25.14	25.73	26.16	27.43
	8H	25.17	25.53	26.17	26.54	27.82	24.98	25.33	25.98	26.34	27.63
	12H	25.34	25.66	26.35	26.66	27.99	25.11	25.43	26.12	26.43	27.76
12H	4H	24.18	24.62	25.17	25.61	26.89	24.06	24.50	25.05	25.49	26.77
	6H	24.95	25.30	25.95	26.31	27.60	24.79	25.14	25.79	26.15	27.44
	8H	25.24	25.56	26.25	26.56	27.89	25.06	25.37	26.06	26.37	27.70