

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: P853882

Luminaire Tested: SQ2-FB-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853882
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-100U-125D-935-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

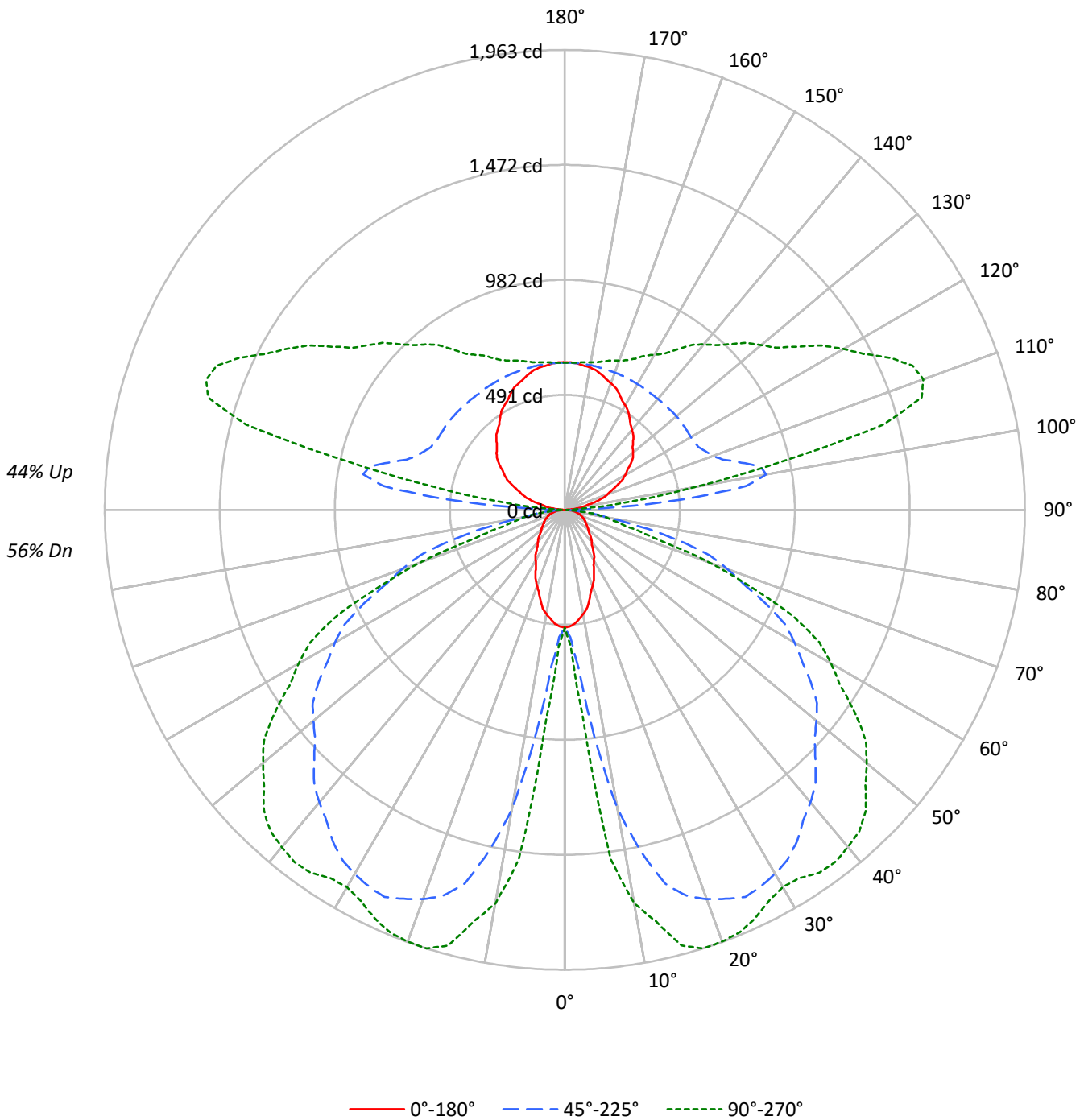
Lumens per Lamp: N/A
Luminaire Lumens: 8878.8 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	94	90	87	92	88	84	81	76	73	71	64	63	61	54	53	52	47
2	90	82	76	70	83	76	71	66	66	62	58	56	53	50	47	45	43	38
3	82	72	64	58	75	67	60	55	58	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	32	29	26	23
6	62	50	41	35	58	46	39	33	40	34	30	35	30	26	29	25	22	20
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	26	23	20	17
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15
9	49	37	29	24	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	31	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8110	8110	8110
5°	7906	10960	14365
10°	7404	21223	27953
15°	6701	27612	32174
20°	5935	30374	33694
25°	5248	32484	34247
30°	4639	33454	34670
35°	4141	34036	37272
40°	3766	34360	39601
45°	3473	34520	41468
50°	3275	35183	42222
55°	3195	36099	42556
60°	3274	36577	42347
65°	3415	36076	41150
70°	3536	34886	31124
75°	3918	31335	17174
80°	4045	16169	15946
85°	4020	11189	6706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 42942 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	0.9
10°-20°	384.2	4.3
20°-30°	675.9	7.6
30°-40°	874.9	9.9
40°-50°	964.9	10.9
50°-60°	900.9	10.1
60°-70°	696.3	7.8
70°-80°	321.2	3.6
80°-90°	62.4	0.7
90°-100°	262.6	3.0
100°-110°	794.4	8.9
110°-120°	775.4	8.7
120°-130°	633.7	7.1
130°-140°	517.2	5.8
140°-150°	402.6	4.5
150°-160°	290.3	3.3
160°-170°	177.7	2.0
170°-180°	60.0	0.7
0°-30°	1144.2	12.9
0°-40°	2019.1	22.7
0°-60°	3885.0	43.8
0°-90°	4964.9	55.9
90°-120°	1832.4	20.6
90°-150°	3386.0	38.1
90°-180°	3914.0	44.1
0°-180°	8878.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	488	559	676	825	886	45
15°	401	790	1652	1849	1925	112
25°	295	1062	1823	1904	1922	135
35°	210	1025	1727	1787	1891	132
45°	152	785	1512	1736	1816	118
55°	114	468	1282	1474	1512	102
65°	89	264	944	1058	1077	88
75°	63	162	502	271	275	64
85°	22	48	60	41	36	23
90°	0	2	12	7	6	3
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	502.3	502.3	502.3	502.3	502.3
2.5°	498.5	519.2	542.9	570.2	581.5
5°	487.8	558.7	676.2	824.9	886.3
7.5°	469.0	613.0	983.4	1381.3	1504.1
10°	451.6	652.3	1294.5	1638.9	1705.0
12.5°	432.3	704.8	1489.6	1731.7	1799.7
15°	400.9	790.5	1651.9	1849.2	1924.8
17.5°	368.5	887.1	1727.2	1921.9	1963.0
20°	345.4	954.6	1767.8	1935.0	1961.0
22.5°	324.1	1005.1	1796.8	1923.5	1951.4
25°	294.6	1062.1	1823.4	1903.5	1922.4
27.5°	266.1	1077.0	1811.8	1864.4	1882.8
30°	248.8	1072.9	1794.4	1833.6	1859.6
32.5°	233.3	1061.2	1769.3	1807.3	1863.5
35°	210.1	1024.8	1726.8	1787.1	1891.0
37.5°	190.3	966.3	1670.7	1794.2	1894.4
40°	178.7	922.6	1630.2	1793.9	1878.9
42.5°	167.1	871.3	1583.8	1774.6	1859.6
45°	152.1	785.0	1511.8	1735.8	1816.1
47.5°	138.1	687.9	1445.2	1682.2	1740.8
50°	130.4	621.6	1400.7	1633.7	1680.9
52.5°	122.7	557.2	1356.3	1575.6	1619.1
55°	113.5	467.7	1282.4	1474.0	1511.8
57.5°	105.3	391.0	1198.4	1361.8	1392.5
60°	101.4	349.4	1132.7	1280.7	1311.4
62.5°	95.6	311.5	1059.2	1195.6	1224.4
65°	89.4	264.1	944.3	1058.2	1077.1
67.5°	80.7	229.0	822.1	891.8	856.4
70°	74.9	211.8	739.0	760.8	659.3
72.5°	71.0	192.9	648.2	590.7	398.5
75°	62.8	162.0	502.3	270.6	275.3
77.5°	51.2	125.3	330.4	207.8	212.0
80°	43.5	102.5	173.9	169.1	171.5
82.5°	35.7	79.7	119.8	124.5	121.2
85°	21.7	47.7	60.4	40.9	36.2
87.5°	7.7	17.6	12.0	11.0	10.8
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9



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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	14.86	15.81	15.76	16.73	17.91	23.60	24.54	24.49	25.47	26.65
	3H	15.60	16.45	16.51	17.38	18.59	25.23	26.08	26.14	27.01	28.21
	4H	15.90	16.71	16.83	17.64	18.86	25.41	26.21	26.34	27.15	28.37
	6H	16.12	16.86	17.06	17.81	19.04	25.50	26.24	26.44	27.18	28.41
	8H	16.18	16.89	17.13	17.85	19.08	25.51	26.21	26.45	27.17	28.40
	12H	16.21	16.89	17.17	17.84	19.10	25.48	26.15	26.43	27.11	28.36
4H	2H	19.27	20.07	20.20	21.01	22.23	24.05	24.85	24.98	25.79	27.01
	3H	20.21	20.88	21.15	21.85	23.08	25.88	26.55	26.83	27.52	28.75
	4H	20.50	21.11	21.45	22.07	23.33	26.13	26.74	27.08	27.70	28.96
	6H	20.64	21.16	21.60	22.15	23.40	26.28	26.80	27.24	27.79	29.04
	8H	20.66	21.15	21.63	22.13	23.40	26.30	26.80	27.27	27.78	29.05
	12H	20.65	21.10	21.64	22.09	23.37	26.28	26.73	27.27	27.72	29.00
8H	4H	21.68	22.17	22.65	23.15	24.42	26.25	26.74	27.22	27.72	28.99
	6H	21.92	22.33	22.92	23.35	24.62	26.46	26.87	27.46	27.89	29.16
	8H	21.99	22.35	23.00	23.36	24.65	26.52	26.88	27.53	27.89	29.18
	12H	22.02	22.34	23.03	23.34	24.67	26.52	26.84	27.53	27.84	29.17
12H	4H	21.70	22.15	22.69	23.14	24.42	26.21	26.65	27.20	27.65	28.92
	6H	22.02	22.38	23.02	23.39	24.67	26.44	26.80	27.45	27.81	29.10
	8H	22.13	22.44	23.13	23.44	24.78	26.52	26.83	27.52	27.83	29.17