

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: P853846

Luminaire Tested: SQ2-FB-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853846
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-050U-125D-935-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

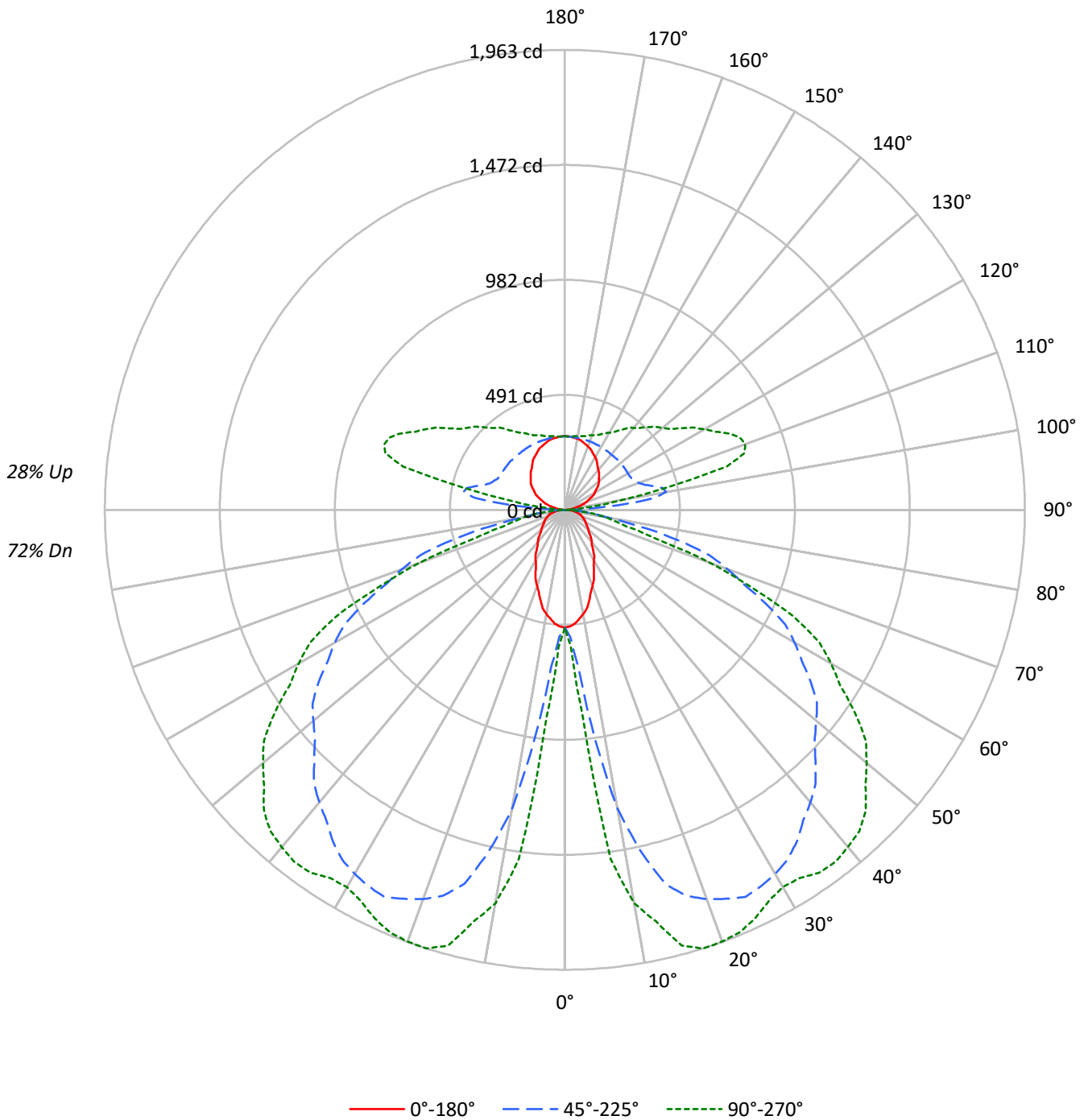
Lumens per Lamp: N/A
Luminaire Lumens: 6914.1 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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																	
RC	80									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	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	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72											
1	102	98	94	90	97	93	89	86	83	81	78	75	73	71	67	65	64	64	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60										
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	53	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49									
3	84	74	66	60	79	70	63	57	63	58	53	57	52	49	51	47	44	44	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41									
4	77	65	57	50	72	62	54	48	56	50	44	50	45	41	45	41	37	37	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34									
5	70	58	49	42	66	55	47	41	50	43	38	45	39	35	40	36	32	32	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29									
6	64	51	43	36	61	49	41	35	44	38	33	40	34	30	36	31	28	28	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25								
7	59	46	38	32	56	44	36	31	40	33	28	36	31	26	33	28	24	24	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22								
8	55	42	33	28	52	40	32	27	36	30	25	33	27	23	30	25	21	21	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19								
9	51	38	30	25	48	36	29	24	33	27	22	30	25	21	27	23	19	19	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17								
10	48	35	27	22	45	33	26	21	30	24	20	28	22	19	25	20	17	17	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15								

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	1.2
10°-20°	384.2	5.6
20°-30°	675.9	9.8
30°-40°	874.9	12.7
40°-50°	964.9	14.0
50°-60°	900.9	13.0
60°-70°	696.3	10.1
70°-80°	321.2	4.6
80°-90°	61.7	0.9
90°-100°	125.1	1.8
100°-110°	396.7	5.7
110°-120°	389.0	5.6
120°-130°	316.5	4.6
130°-140°	258.1	3.7
140°-150°	201.2	2.9
150°-160°	145.0	2.1
160°-170°	88.6	1.3
170°-180°	29.9	0.4
0°-30°	1144.2	16.5
0°-40°	2019.1	29.2
0°-60°	3885.0	56.2
0°-90°	4964.2	71.8
90°-120°	910.7	13.2
90°-150°	1686.5	24.4
90°-180°	1950.0	28.2
0°-180°	6914.1	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	1	3	3	3	2
95°	17	51	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	



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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	17.4	10.3	10.3	10.3
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0



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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	16.12	17.26	16.86	18.03	18.94	24.86	26.00	25.59	26.76	27.68
	3H	16.87	17.90	17.62	18.67	19.62	26.50	27.53	27.25	28.30	29.25
	4H	17.18	18.15	17.95	18.94	19.90	26.69	27.66	27.46	28.45	29.41
	6H	17.42	18.31	18.20	19.10	20.08	26.79	27.69	27.58	28.48	29.46
	8H	17.48	18.34	18.28	19.15	20.13	26.81	27.66	27.60	28.47	29.45
	12H	17.52	18.33	18.32	19.14	20.15	26.79	27.60	27.59	28.41	29.41
4H	2H	20.55	21.52	21.33	22.31	23.27	25.33	26.30	26.11	27.09	28.05
	3H	21.51	22.32	22.30	23.14	24.12	27.19	27.99	27.97	28.81	29.79
	4H	21.81	22.54	22.61	23.36	24.37	27.44	28.17	28.24	28.99	30.00
	6H	21.96	22.59	22.78	23.44	24.45	27.60	28.24	28.42	29.08	30.09
	8H	21.99	22.58	22.81	23.42	24.44	27.63	28.23	28.46	29.06	30.09
	12H	21.99	22.53	22.84	23.39	24.42	27.62	28.15	28.46	29.01	30.04
8H	4H	23.01	23.60	23.83	24.44	25.47	27.58	28.17	28.40	29.01	30.04
	6H	23.26	23.75	24.11	24.63	25.66	27.80	28.29	28.65	29.17	30.20
	8H	23.33	23.77	24.20	24.64	25.69	27.86	28.30	28.73	29.17	30.22
	12H	23.37	23.76	24.24	24.62	25.72	27.87	28.25	28.74	29.12	30.22
12H	4H	23.04	23.57	23.88	24.43	25.46	27.54	28.08	28.39	28.94	29.97
	6H	23.36	23.79	24.22	24.67	25.71	27.78	28.22	28.65	29.10	30.14
	8H	23.47	23.86	24.34	24.72	25.82	27.86	28.25	28.73	29.11	30.21