

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: P855015

Luminaire Tested: SQ2-FB-100U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855015  
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-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

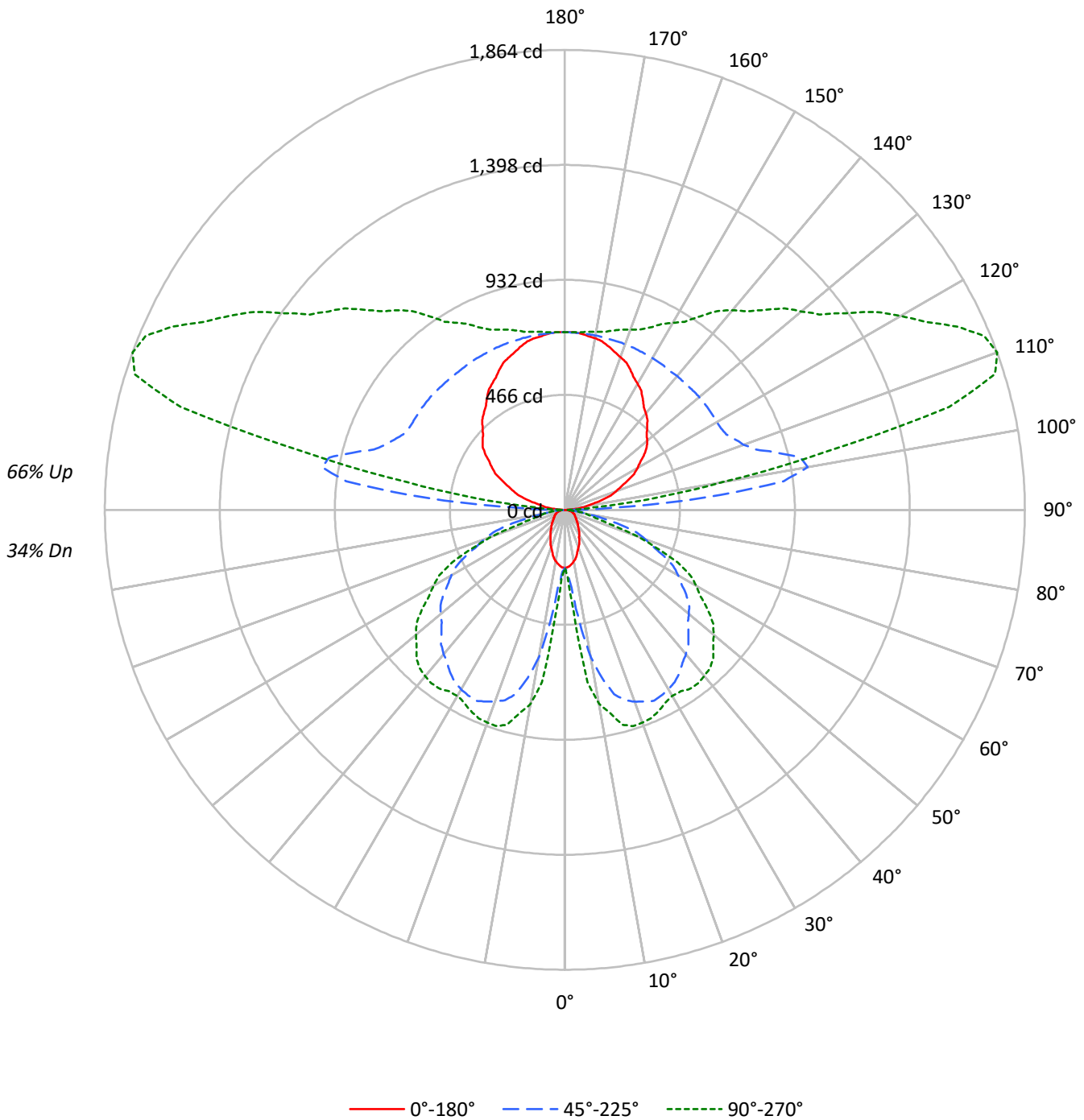
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6806.4 lumens  
Efficiency: N/A  
Efficacy: 135.0 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-Indirect  
  
Input Watts (W): 50.4  
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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	85	78	72	67	77	71	65	61	57	53	50	44	41	39	32	30	29	23
3	78	68	61	55	70	62	56	51	50	45	41	38	35	33	28	26	24	19
4	71	60	52	46	64	54	48	42	44	39	35	34	30	28	25	22	21	16
5	65	53	45	39	58	48	41	36	39	34	30	30	26	24	22	20	18	14
6	59	47	39	34	53	43	36	31	35	29	26	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	16	16	14	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3798	3798	3798
5°	3702	5131	6724
10°	3466	9935	13086
15°	3137	12928	15062
20°	2778	14220	15775
25°	2457	15207	16033
30°	2172	15662	16231
35°	1940	15934	17450
40°	1764	16086	18539
45°	1626	16162	19413
50°	1535	16473	19766
55°	1495	16901	19924
60°	1534	17124	19824
65°	1597	16890	19266
70°	1652	16334	14573
75°	1834	14672	8041
80°	1897	7569	7466
85°	1890	5243	3149

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 20104 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.4	0.6
10°-20°	179.9	2.6
20°-30°	316.4	4.6
30°-40°	409.6	6.0
40°-50°	451.7	6.6
50°-60°	421.8	6.2
60°-70°	326.0	4.8
70°-80°	150.4	2.2
80°-90°	30.0	0.4
90°-100°	300.7	4.4
100°-110°	909.5	13.4
110°-120°	887.8	13.0
120°-130°	725.5	10.7
130°-140°	592.2	8.7
140°-150°	461.0	6.8
150°-160°	332.3	4.9
160°-170°	203.4	3.0
170°-180°	68.7	1.0
0°-30°	535.7	7.9
0°-40°	945.3	13.9
0°-60°	1818.8	26.7
0°-90°	2325.2	34.2
90°-120°	2098.0	30.8
90°-150°	3876.7	57.0
90°-180°	4481.0	65.8
0°-180°	6806.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	235	235	235	235	235	
5°	228	262	317	386	415	21
15°	188	370	773	866	901	52
25°	138	497	854	891	900	63
35°	98	480	808	837	885	62
45°	71	368	708	813	850	55
55°	53	219	600	690	708	48
65°	42	124	442	495	504	41
75°	29	76	235	127	129	30
85°	10	22	28	19	17	11
90°	0	2	14	8	7	2
95°	37	118	568	210	132	44
105°	158	222	893	1696	1612	166
115°	281	336	722	1495	1755	278
125°	393	436	712	1180	1389	349
135°	471	521	708	1018	1145	365
145°	550	591	708	876	957	345
155°	627	648	712	785	815	289
165°	686	694	716	743	752	193
175°	718	718	719	724	722	68
180°	720	720	720	720	720	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	235.2	235.2	235.2	235.2	235.2
2.5°	233.4	243.1	254.2	266.9	272.3
5°	228.4	261.5	316.6	386.2	414.9
7.5°	219.6	287.0	460.4	646.7	704.2
10°	211.4	305.4	606.0	767.3	798.2
12.5°	202.4	329.9	697.4	810.7	842.6
15°	187.7	370.1	773.4	865.7	901.1
17.5°	172.5	415.3	808.6	899.8	919.0
20°	161.7	446.9	827.6	906.0	918.1
22.5°	151.7	470.6	841.2	900.6	913.6
25°	137.9	497.3	853.6	891.2	900.0
27.5°	124.6	504.3	848.2	872.9	881.4
30°	116.5	502.2	840.1	858.5	870.6
32.5°	109.2	496.8	828.3	846.1	872.4
35°	98.4	479.7	808.4	836.7	885.3
37.5°	89.1	452.4	782.2	840.0	886.9
40°	83.7	431.9	763.2	839.8	879.6
42.5°	78.2	407.9	741.5	830.8	870.6
45°	71.2	367.5	707.8	812.7	850.2
47.5°	64.7	322.0	676.6	787.6	815.0
50°	61.1	291.0	655.8	764.8	786.9
52.5°	57.4	260.8	635.0	737.6	758.0
55°	53.1	219.0	600.4	690.1	707.8
57.5°	49.3	183.1	561.0	637.6	651.9
60°	47.5	163.6	530.3	599.6	613.9
62.5°	44.8	145.9	495.9	559.8	573.2
65°	41.8	123.7	442.1	495.4	504.3
67.5°	37.8	107.2	384.9	417.5	400.9
70°	35.0	99.2	346.0	356.2	308.7
72.5°	33.2	90.3	303.5	276.6	186.6
75°	29.4	75.9	235.2	126.6	128.9
77.5°	24.0	58.7	154.7	97.2	99.3
80°	20.4	47.9	81.4	79.1	80.3
82.5°	16.7	37.3	56.1	58.3	56.8
85°	10.2	22.4	28.3	19.2	17.0
87.5°	3.6	8.5	7.2	6.1	5.9
90°	0.0	2.3	13.6	7.9	6.8
92.5°	12.7	51.1	183.6	60.8	43.9
95°	37.3	117.9	567.5	209.6	132.3
97.5°	72.1	150.1	894.3	591.8	360.3
100°	93.8	170.0	999.3	966.0	648.8
102.5°	118.3	191.9	977.6	1355.0	1080.1
105°	158.3	222.4	893.0	1695.9	1611.8
107.5°	196.3	257.4	811.6	1729.5	1826.9
110°	221.5	280.2	770.9	1687.1	1864.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	245.9	302.8	746.5	1615.8	1839.6
115°	281.4	335.6	722.3	1494.6	1755.4
117.5°	316.7	368.0	713.7	1381.0	1648.0
120°	340.2	388.8	710.9	1314.7	1571.1
122.5°	361.9	407.9	710.9	1256.5	1493.4
125°	393.4	436.4	712.1	1180.3	1389.2
127.5°	418.9	463.6	710.9	1122.8	1301.0
130°	435.2	481.7	710.9	1089.9	1251.3
132.5°	449.7	496.9	710.0	1059.8	1208.8
135°	471.4	521.1	707.6	1017.9	1145.0
137.5°	495.6	542.8	707.6	973.1	1091.0
140°	510.9	557.3	707.6	944.1	1055.8
142.5°	526.3	571.0	706.7	917.5	1015.1
145°	550.5	591.3	707.6	875.6	957.4
147.5°	574.7	609.4	708.9	841.1	903.8
150°	590.1	622.1	709.8	821.9	874.9
152.5°	604.6	633.0	710.7	805.4	848.7
155°	627.4	648.3	712.1	785.1	815.0
157.5°	647.2	664.3	713.4	770.2	791.0
160°	658.9	673.4	714.3	761.0	776.5
162.5°	670.7	681.6	715.2	752.9	765.7
165°	686.1	693.9	715.5	742.8	751.7
167.5°	699.2	703.3	716.8	735.0	738.8
170°	706.4	708.7	717.7	731.3	732.4
172.5°	710.9	712.3	717.7	727.7	727.9
175°	717.7	717.7	718.9	724.5	722.3
177.5°	720.9	720.0	719.1	721.8	720.0
180°	720.0	720.0	720.0	720.0	720.0



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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	10.04	10.79	11.12	11.87	13.35	18.77	19.53	19.85	20.61	22.09
	3H	10.76	11.43	11.85	12.52	14.02	20.39	21.06	21.47	22.15	23.65
	4H	11.05	11.69	12.15	12.78	14.29	20.56	21.20	21.66	22.29	23.79
	6H	11.26	11.85	12.37	12.95	14.46	20.64	21.23	21.75	22.32	23.84
	8H	11.32	11.88	12.43	12.99	14.50	20.64	21.20	21.75	22.31	23.82
	12H	11.34	11.88	12.46	12.98	14.51	20.61	21.14	21.73	22.25	23.78
4H	2H	14.42	15.06	15.53	16.15	17.65	19.20	19.84	20.31	20.93	22.43
	3H	15.34	15.88	16.46	16.99	18.51	21.02	21.55	22.13	22.67	24.18
	4H	15.62	16.11	16.74	17.22	18.75	21.25	21.74	22.37	22.85	24.38
	6H	15.75	16.17	16.87	17.30	18.82	21.39	21.81	22.51	22.94	24.47
	8H	15.77	16.16	16.89	17.28	18.82	21.41	21.80	22.53	22.92	24.47
	12H	15.75	16.11	16.89	17.24	18.79	21.38	21.73	22.52	22.87	24.42
8H	4H	16.79	17.18	17.91	18.30	19.85	21.36	21.75	22.48	22.87	24.42
	6H	17.02	17.34	18.17	18.51	20.05	21.56	21.88	22.70	23.04	24.59
	8H	17.09	17.37	18.24	18.51	20.08	21.62	21.90	22.77	23.04	24.61
	12H	17.11	17.36	18.27	18.50	20.10	21.61	21.85	22.76	22.99	24.59
12H	4H	16.80	17.15	17.94	18.29	19.84	21.30	21.66	22.45	22.79	24.34
	6H	17.11	17.39	18.26	18.54	20.10	21.54	21.82	22.69	22.97	24.53
	8H	17.21	17.46	18.37	18.60	20.20	21.60	21.85	22.76	22.99	24.59