

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: P853705

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853705
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-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: -

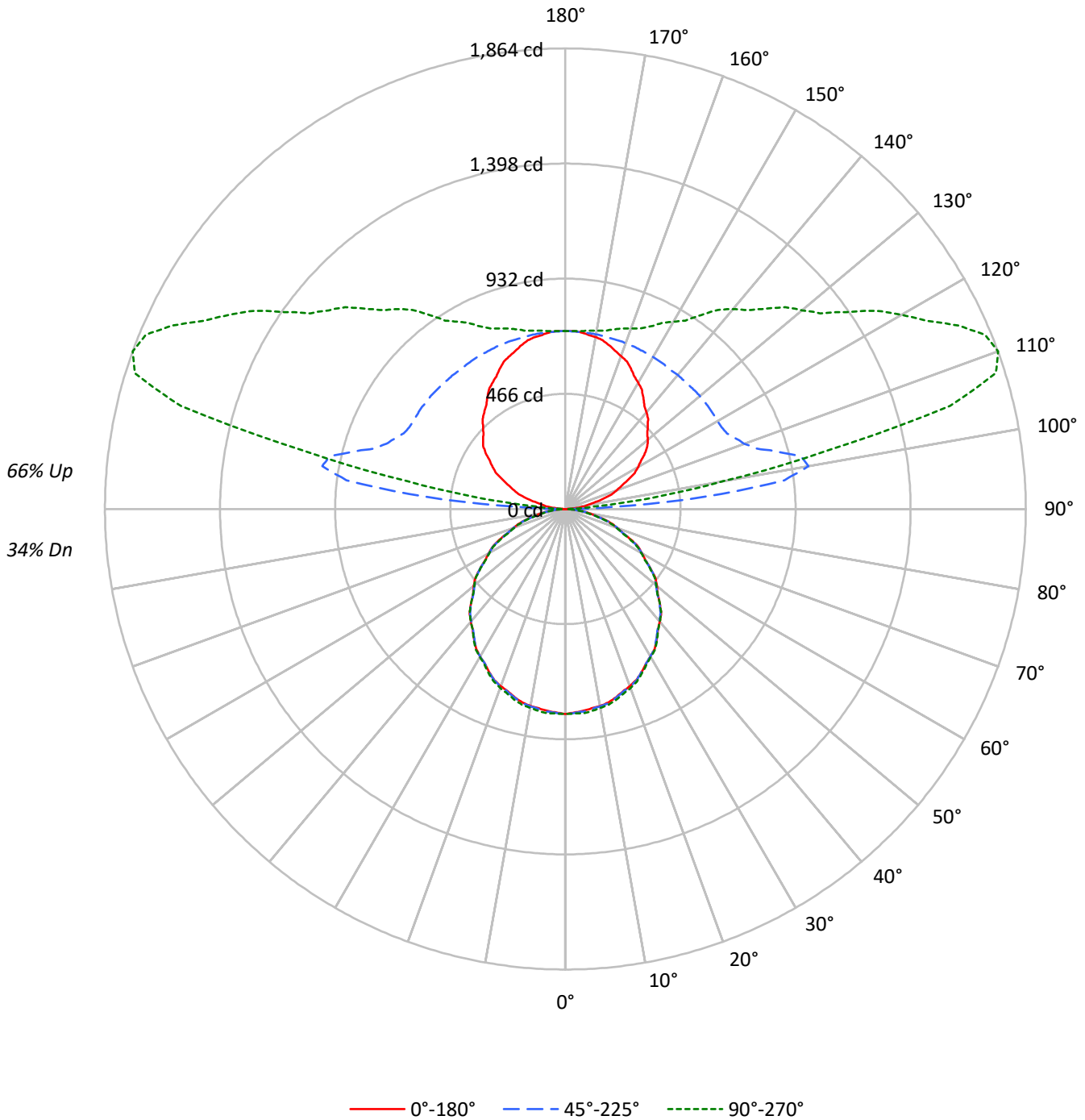
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6812.1 lumens
Efficiency: N/A
Efficacy: 135.2 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-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	86	78	72	67	77	71	66	61	57	53	50	44	42	39	32	31	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	40	34	31	31	27	24	23	20	18	15
6	60	48	40	35	54	44	37	32	35	30	26	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	19	16	14	11
8	51	39	32	26	46	36	29	24	29	24	20	23	19	17	17	15	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	15	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13399	13399	13399
5°	13303	13340	13451
10°	13272	13309	13403
15°	13192	13230	13362
20°	13113	13132	13249
25°	12992	12992	13073
30°	12858	12858	12901
35°	12703	12658	12747
40°	12534	12488	12534
45°	12339	12289	12339
50°	12155	12042	12069
55°	11871	11840	11775
60°	11573	11502	11428
65°	11232	11102	10972
70°	10570	10513	10301
75°	9944	9732	9451
80°	8833	8619	8303
85°	7114	6484	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	1.2
10°-20°	224.2	3.3
20°-30°	337.2	5.0
30°-40°	403.5	5.9
40°-50°	416.3	6.1
50°-60°	375.6	5.5
60°-70°	286.6	4.2
70°-80°	164.8	2.4
80°-90°	44.3	0.6
90°-100°	300.7	4.4
100°-110°	909.5	13.4
110°-120°	887.8	13.0
120°-130°	725.5	10.6
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°	639.8	9.4
0°-40°	1043.4	15.3
0°-60°	1835.3	26.9
0°-90°	2330.9	34.2
90°-120°	2098.0	30.8
90°-150°	3876.7	56.9
90°-180°	4481.0	65.8
0°-180°	6812.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	821	832	823	824	830	78
15°	789	799	792	795	799	223
25°	729	737	729	730	734	336
35°	644	649	642	644	647	403
45°	540	544	538	539	540	417
55°	422	424	421	418	418	377
65°	294	293	291	288	287	289
75°	159	158	156	153	152	168
85°	38	36	35	32	33	45
90°	0	2	14	8	7	3
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°	829.9	829.9	829.9	829.9	829.9
2.5°	824.5	834.2	826.3	828.1	829.0
5°	820.8	831.9	823.1	824.4	829.9
7.5°	814.1	826.0	816.3	818.5	824.7
10°	809.5	820.6	811.8	813.0	817.5
12.5°	802.3	813.4	804.6	806.7	811.1
15°	789.2	799.1	791.5	795.0	799.4
17.5°	774.0	784.7	776.1	779.1	782.9
20°	763.2	772.0	764.3	765.6	771.1
22.5°	749.6	758.4	751.7	752.0	756.6
25°	729.3	737.0	729.3	730.5	733.8
27.5°	706.0	712.6	706.0	707.2	710.0
30°	689.7	696.4	689.7	690.8	692.0
32.5°	671.6	677.4	670.7	671.9	674.8
35°	644.5	648.9	642.2	644.5	646.7
37.5°	615.5	618.8	613.3	614.4	616.4
40°	594.7	598.0	592.5	593.6	594.7
42.5°	573.9	576.4	570.7	571.9	573.9
45°	540.4	543.7	538.2	539.3	540.4
47.5°	506.5	508.6	503.8	502.9	504.9
50°	483.9	485.0	479.4	479.4	480.5
52.5°	459.5	460.6	456.8	455.0	456.1
55°	421.7	424.0	420.6	418.3	418.3
57.5°	383.7	385.8	381.5	380.3	380.1
60°	358.4	359.5	356.2	355.0	353.9
62.5°	333.1	333.3	329.9	328.8	327.7
65°	294.0	292.8	290.6	288.3	287.2
67.5°	250.1	251.2	249.0	245.3	245.3
70°	223.9	225.0	222.7	218.2	218.2
72.5°	198.5	197.9	196.5	192.9	191.1
75°	159.4	158.3	156.0	152.6	151.5
77.5°	120.3	119.2	118.0	113.7	114.6
80°	95.0	93.8	92.7	89.3	89.3
82.5°	72.4	70.3	69.2	65.8	65.8
85°	38.4	36.2	35.0	31.7	32.8
87.5°	10.9	10.4	11.8	8.8	8.6
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	15.32	16.06	16.40	17.15	18.63	15.24	15.99	16.32	17.07	18.55
	3H	17.09	17.76	18.18	18.85	20.35	16.97	17.64	18.06	18.73	20.23
	4H	17.75	18.38	18.85	19.47	20.97	17.59	18.23	18.69	19.32	20.82
	6H	18.21	18.79	19.32	19.89	21.40	18.02	18.61	19.13	19.70	21.22
	8H	18.34	18.90	19.46	20.01	21.52	18.14	18.70	19.25	19.81	21.31
	12H	18.41	18.94	19.53	20.04	21.58	18.19	18.72	19.31	19.82	21.35
4H	2H	15.86	16.49	16.97	17.58	19.08	15.80	16.43	16.90	17.52	19.02
	3H	17.84	18.36	18.95	19.48	21.00	17.73	18.25	18.84	19.37	20.89
	4H	18.62	19.10	19.74	20.21	21.75	18.48	18.96	19.59	20.07	21.60
	6H	19.20	19.62	20.33	20.75	22.28	19.02	19.44	20.15	20.57	22.10
	8H	19.39	19.77	20.51	20.90	22.44	19.19	19.57	20.31	20.70	22.24
	12H	19.48	19.83	20.63	20.97	22.52	19.26	19.61	20.40	20.74	22.29
8H	4H	18.86	19.24	19.98	20.37	21.91	18.73	19.12	19.86	20.24	21.79
	6H	19.57	19.89	20.72	21.05	22.60	19.40	19.72	20.55	20.89	22.43
	8H	19.83	20.11	20.99	21.26	22.82	19.64	19.92	20.79	21.07	22.63
	12H	20.00	20.24	21.15	21.38	22.98	19.77	20.02	20.93	21.16	22.75
12H	4H	18.84	19.20	19.99	20.33	21.88	18.72	19.08	19.87	20.21	21.76
	6H	19.61	19.89	20.76	21.04	22.60	19.45	19.73	20.60	20.88	22.44
	8H	19.90	20.14	21.05	21.29	22.88	19.71	19.96	20.87	21.10	22.70