

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: P853657

Luminaire Tested: SQ2-F-025U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

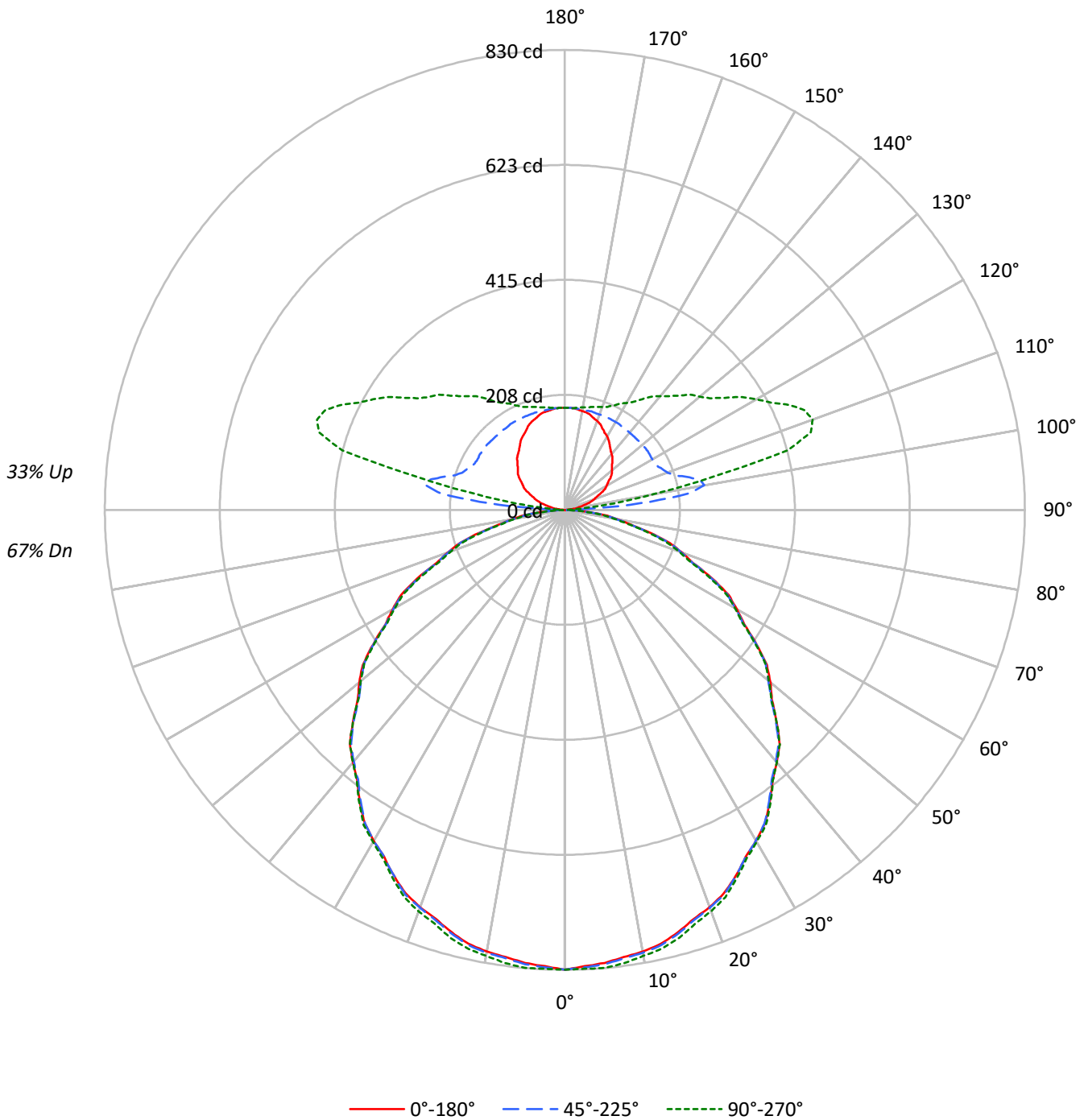
Test Method: LM-79-2019  
Report Number: P853657  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-025U-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3473.5 lumens  
Efficiency: N/A  
Efficacy: 137.8 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-Direct  
  
Input Watts (W): 25.2  
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	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67		
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	62	60	56		
2	92	84	78	73	87	80	74	69	71	66	63	63	59	56	55	53	50	47		
3	84	74	66	60	79	70	63	58	62	57	52	55	51	47	49	46	43	39		
4	77	65	57	51	72	62	55	49	55	49	45	49	44	41	44	40	37	33		
5	70	58	50	44	66	55	48	42	50	43	38	44	39	35	39	35	32	29		
6	65	52	44	38	61	50	42	36	45	38	33	40	35	31	35	31	28	25		
7	60	47	39	33	56	45	37	32	40	34	30	36	31	27	32	28	25	22		
8	56	43	35	29	52	41	33	28	37	31	26	33	28	24	30	25	22	20		
9	52	39	32	26	49	37	30	25	34	28	24	31	25	22	27	23	20	18		
10	49	36	29	24	46	34	27	23	31	25	21	28	23	20	25	21	18	16		

**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	2.3
10°-20°	224.2	6.5
20°-30°	337.2	9.7
30°-40°	403.5	11.6
40°-50°	416.3	12.0
50°-60°	375.6	10.8
60°-70°	286.6	8.3
70°-80°	164.8	4.7
80°-90°	43.4	1.3
90°-100°	74.5	2.1
100°-110°	231.9	6.7
110°-120°	226.9	6.5
120°-130°	185.2	5.3
130°-140°	151.5	4.4
140°-150°	118.3	3.4
150°-160°	85.3	2.5
160°-170°	52.2	1.5
170°-180°	17.6	0.5
0°-30°	639.8	18.4
0°-40°	1043.4	30.0
0°-60°	1835.3	52.8
0°-90°	2330.1	67.1
90°-120°	533.3	15.4
90°-150°	988.3	28.5
90°-180°	1143.0	32.9
0°-180°	3473.5	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	1	3	3	3	2
95°	10	30	137	50	33	12
105°	41	57	228	436	416	43
115°	72	86	185	382	448	71
125°	101	112	183	301	353	89
135°	121	134	182	260	292	94
145°	141	152	182	224	244	89
155°	162	167	183	201	208	75
165°	177	178	184	190	192	50
175°	184	184	184	185	184	17
180°	184	184	184	184	184	

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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	10.2	9.7	7.9	7.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.7	43.2	14.1	11.5
95°	10.2	30.1	136.8	50.4	32.8
97.5°	18.5	39.1	226.5	141.0	88.9
100°	24.9	43.6	255.4	238.9	159.4
102.5°	31.2	49.1	250.0	341.2	267.8
105°	40.7	57.3	228.3	435.9	416.0
107.5°	50.2	65.7	207.5	443.1	465.0
110°	56.5	72.0	196.6	432.7	475.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.9	77.4	191.2	414.0	468.7
115°	72.4	85.6	185.3	382.4	447.6
117.5°	81.6	93.7	182.8	352.1	418.9
120°	87.1	99.2	181.9	334.9	399.0
122.5°	92.5	104.6	182.8	320.3	379.1
125°	100.6	111.6	183.1	300.8	352.6
127.5°	107.2	118.4	183.1	286.1	330.3
130°	110.8	122.9	183.1	277.8	317.6
132.5°	115.3	127.4	182.1	270.6	307.6
135°	121.0	134.2	181.9	259.6	291.6
137.5°	127.5	139.6	181.9	248.6	277.8
140°	131.2	143.3	181.9	241.4	267.8
142.5°	135.7	146.9	181.9	234.0	257.9
145°	141.3	152.3	181.9	224.2	244.1
147.5°	148.1	157.6	183.1	215.2	230.8
150°	152.6	160.3	183.1	210.5	222.6
152.5°	156.3	163.0	183.1	205.9	216.3
155°	161.7	167.1	183.1	201.4	207.9
157.5°	167.1	171.3	183.1	197.2	201.4
160°	170.7	174.0	183.1	194.5	197.7
162.5°	173.3	175.8	183.1	192.7	195.0
165°	177.4	178.5	184.2	189.9	192.1
167.5°	179.9	180.1	183.1	188.4	189.4
170°	180.8	181.9	183.1	186.6	187.6
172.5°	182.6	182.8	184.0	185.7	185.8
175°	184.2	184.2	184.2	185.3	184.2
177.5°	184.2	184.2	184.2	184.2	184.2
180°	184.2	184.2	184.2	184.2	184.2

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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	18.42	19.48	19.21	20.29	21.30	18.34	19.40	19.13	20.21	21.22
	3H	20.22	21.16	21.02	21.99	23.02	20.10	21.04	20.90	21.87	22.90
	4H	20.88	21.78	21.71	22.61	23.66	20.73	21.63	21.55	22.46	23.50
	6H	21.36	22.19	22.20	23.03	24.09	21.18	22.00	22.01	22.85	23.90
	8H	21.51	22.30	22.35	23.16	24.21	21.30	22.09	22.15	22.95	24.01
	12H	21.59	22.34	22.44	23.19	24.28	21.36	22.12	22.21	22.97	24.05
4H	2H	18.99	19.89	19.82	20.73	21.77	18.93	19.83	19.76	20.66	21.71
	3H	21.00	21.75	21.84	22.62	23.68	20.89	21.64	21.73	22.51	23.57
	4H	21.80	22.48	22.65	23.35	24.43	21.65	22.34	22.51	23.20	24.29
	6H	22.40	22.99	23.27	23.88	24.97	22.22	22.81	23.09	23.70	24.79
	8H	22.59	23.14	23.46	24.03	25.13	22.39	22.94	23.26	23.83	24.93
	12H	22.70	23.20	23.59	24.10	25.21	22.47	22.97	23.37	23.88	24.99
8H	4H	22.06	22.61	22.93	23.50	24.60	21.93	22.49	22.81	23.37	24.47
	6H	22.79	23.24	23.69	24.17	25.27	22.62	23.08	23.52	24.00	25.11
	8H	23.06	23.46	23.97	24.38	25.50	22.86	23.27	23.77	24.19	25.31
	12H	23.23	23.59	24.15	24.50	25.67	23.01	23.36	23.92	24.28	25.45
12H	4H	22.06	22.56	22.96	23.47	24.58	21.94	22.44	22.83	23.35	24.45
	6H	22.83	23.24	23.74	24.16	25.28	22.67	23.08	23.58	24.00	25.12
	8H	23.13	23.49	24.05	24.40	25.58	22.95	23.31	23.86	24.22	25.39