

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: P855028

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855028  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-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: -

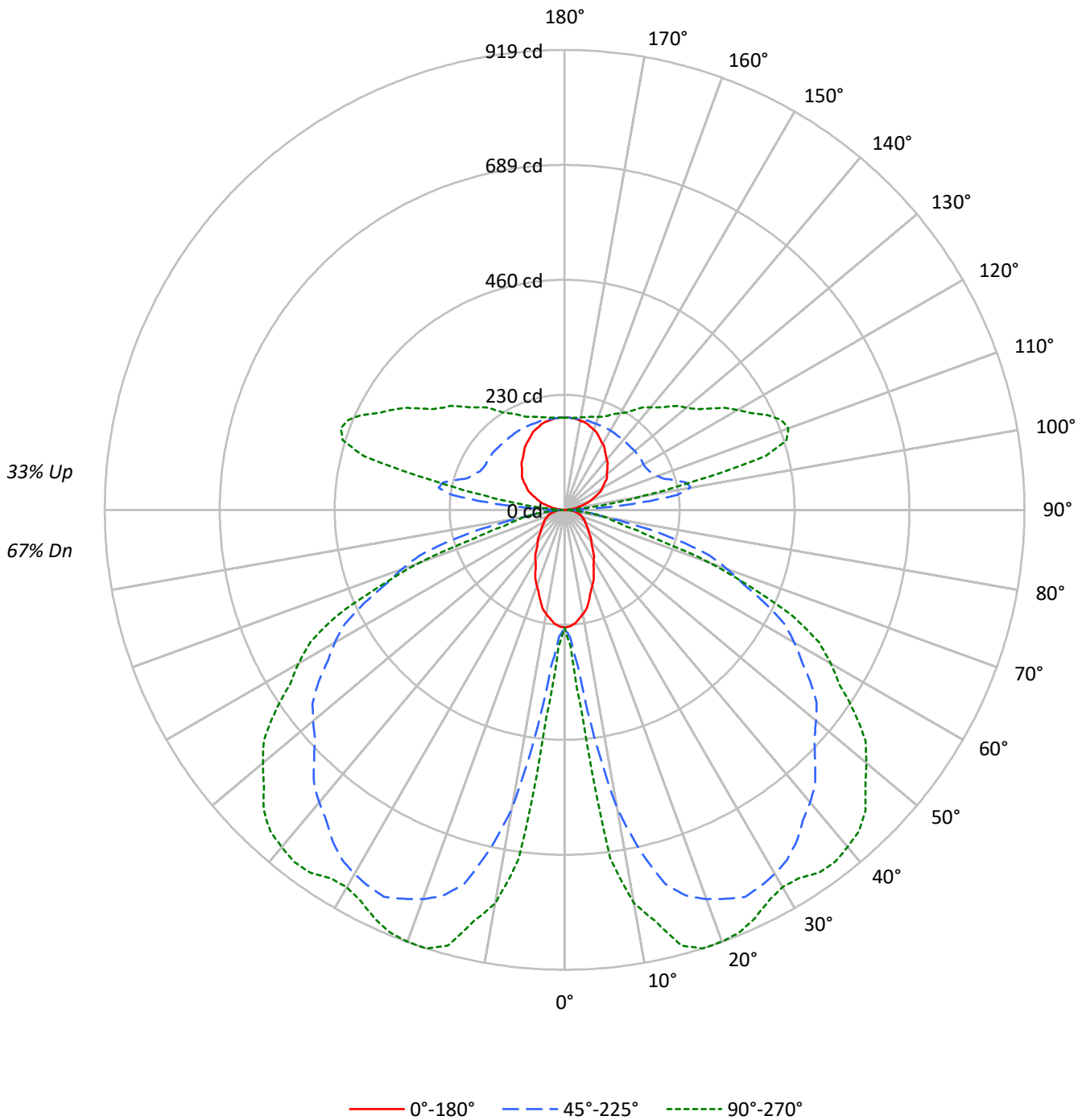
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3467.8 lumens  
Efficiency: N/A  
Efficacy: 137.6 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): 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										
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	50	30	10	0														
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	77	72	86	79	74	69	71	66	62	62	59	56	55	52	50	46																				
3	83	73	65	59	78	69	62	57	62	56	51	55	50	47	48	45	42	38																				
4	76	64	56	50	71	61	53	47	54	48	43	48	43	39	42	39	35	32																				
5	70	57	48	42	65	54	46	40	48	42	37	43	38	34	38	34	30	27																				
6	64	51	42	36	60	48	40	35	43	37	32	38	33	29	34	30	26	24																				
7	59	46	37	31	55	43	36	30	39	32	28	35	29	25	31	26	23	20																				
8	54	41	33	27	51	39	32	26	35	29	24	32	26	22	28	24	20	18																				
9	51	38	30	24	48	36	28	23	32	26	22	29	24	20	26	21	18	16																				
10	47	34	27	22	44	33	26	21	30	23	19	27	21	18	24	19	16	14																				

**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	1.1
10°-20°	179.9	5.2
20°-30°	316.4	9.1
30°-40°	409.6	11.8
40°-50°	451.7	13.0
50°-60°	421.8	12.2
60°-70°	326.0	9.4
70°-80°	150.4	4.3
80°-90°	29.2	0.8
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°	535.7	15.4
0°-40°	945.3	27.3
0°-60°	1818.8	52.4
0°-90°	2324.4	67.0
90°-120°	533.3	15.4
90°-150°	988.3	28.5
90°-180°	1143.0	33.0
0°-180°	3467.8	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	1	3	3	3	1
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°	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	8.3	5.2	5.2	5.2
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	13.12	14.20	13.91	15.02	16.02	21.86	22.94	22.65	23.75	24.76
	3H	13.87	14.84	14.67	15.66	16.70	23.50	24.47	24.30	25.29	26.32
	4H	14.18	15.09	15.00	15.93	16.97	23.69	24.60	24.51	25.44	26.48
	6H	14.41	15.25	15.24	16.09	17.15	23.78	24.63	24.62	25.47	26.53
	8H	14.47	15.28	15.31	16.14	17.20	23.80	24.60	24.64	25.46	26.52
	12H	14.51	15.28	15.36	16.13	17.22	23.77	24.54	24.62	25.40	26.48
4H	2H	17.55	18.46	18.37	19.30	20.34	22.33	23.24	23.15	24.08	25.12
	3H	18.50	19.26	19.34	20.13	21.19	24.17	24.94	25.01	25.80	26.86
	4H	18.79	19.49	19.65	20.35	21.44	24.42	25.12	25.27	25.98	27.07
	6H	18.94	19.54	19.81	20.43	21.52	24.58	25.18	25.45	26.07	27.16
	8H	18.97	19.53	19.84	20.41	21.51	24.61	25.17	25.48	26.06	27.16
	12H	18.97	19.47	19.86	20.38	21.49	24.60	25.10	25.49	26.00	27.11
8H	4H	19.99	20.55	20.86	21.43	22.54	24.56	25.12	25.43	26.00	27.11
	6H	20.24	20.70	21.13	21.62	22.73	24.77	25.24	25.67	26.16	27.27
	8H	20.31	20.72	21.22	21.64	22.76	24.84	25.25	25.75	26.17	27.29
	12H	20.35	20.71	21.26	21.62	22.79	24.84	25.20	25.75	26.11	27.29
12H	4H	20.02	20.52	20.91	21.43	22.53	24.52	25.03	25.41	25.93	27.04
	6H	20.33	20.74	21.24	21.66	22.78	24.76	25.17	25.67	26.09	27.21
	8H	20.45	20.81	21.36	21.72	22.89	24.84	25.20	25.75	26.11	27.28