

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: P853663

Luminaire Tested: SQ2-F-025U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

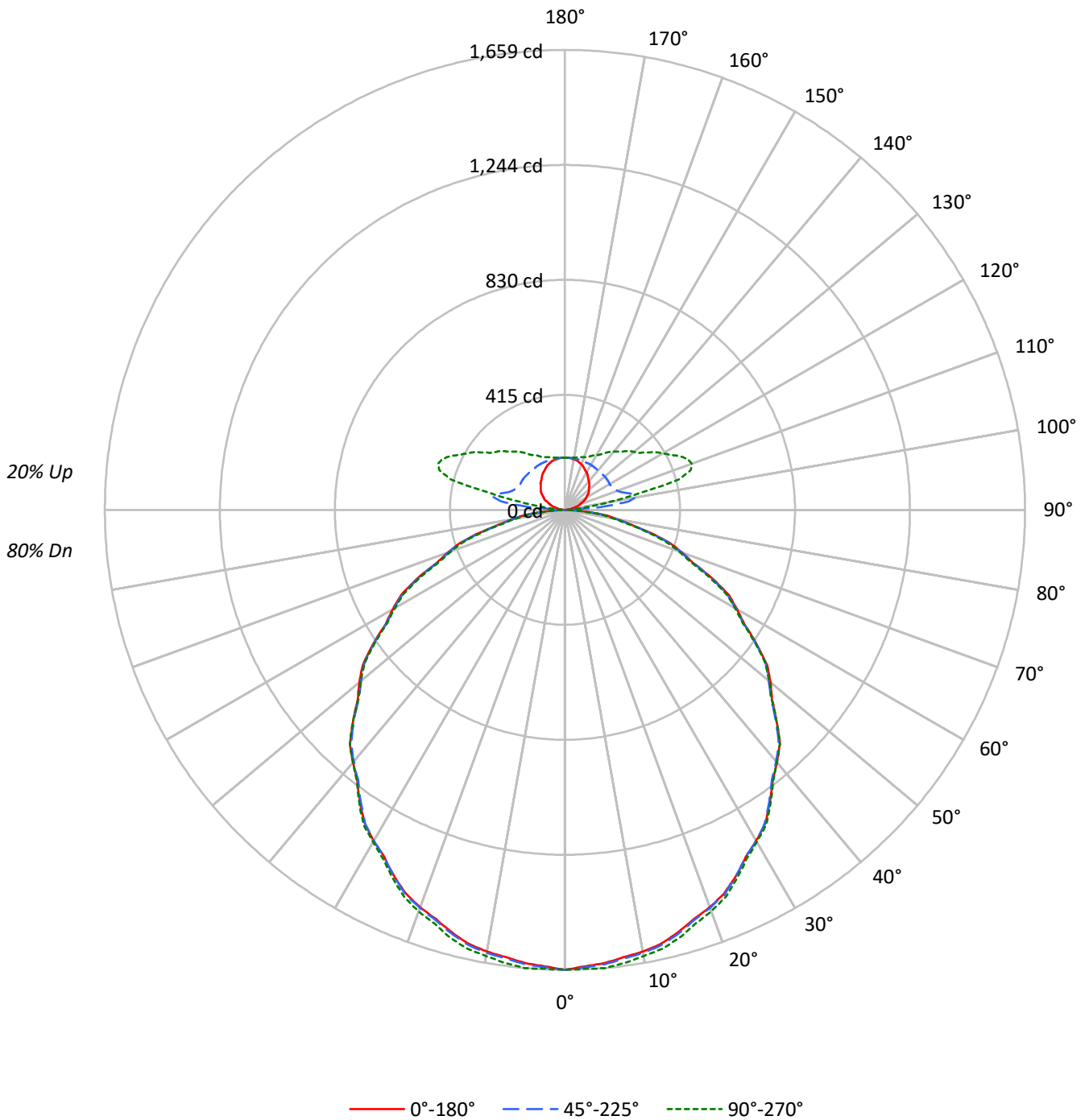
Test Method: LM-79-2019  
Report Number: P853663  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-025U-100D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5826.8 lumens  
Efficiency: N/A  
Efficacy: 129.5 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): 45  
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	84	80	
1	104	100	95	92	100	95	92	88	88	85	82	80	78	76	74	72	70	70	67	
2	95	87	80	75	90	83	77	72	76	72	67	70	66	63	64	61	59	56	56	
3	86	76	68	62	82	73	66	60	67	61	57	62	57	53	57	53	50	47	47	
4	79	67	59	52	75	65	57	51	60	53	48	55	50	45	51	46	43	40	40	
5	73	60	51	45	69	58	50	44	53	47	41	49	44	39	46	41	37	34	34	
6	67	54	45	39	64	52	44	38	48	41	36	45	39	34	41	36	33	30	30	
7	62	49	40	34	59	47	39	34	44	37	32	41	35	30	38	33	29	27	27	
8	58	44	36	31	55	43	35	30	40	33	29	37	31	27	35	30	26	24	24	
9	54	41	33	27	51	39	32	27	37	30	26	34	29	24	32	27	23	21	21	
10	50	37	30	25	48	36	29	24	34	28	23	32	26	22	30	25	21	19	19	

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

	0°	45°	90°
0°	26788	26788	26788
5°	26597	26669	26890
10°	26534	26607	26793
15°	26372	26449	26713
20°	26215	26254	26488
25°	25972	25972	26135
30°	25706	25706	25790
35°	25395	25306	25484
40°	25058	24963	25058
45°	24669	24567	24669
50°	24300	24074	24129
55°	23736	23668	23541
60°	23137	22995	22846
65°	22453	22197	21933
70°	21125	21021	20592
75°	19881	19463	18896
80°	17648	17229	16597
85°	14227	12968	12134

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 24822 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.8	2.7
10°-20°	448.1	7.7
20°-30°	674.2	11.6
30°-40°	806.7	13.8
40°-50°	832.3	14.3
50°-60°	750.9	12.9
60°-70°	573.0	9.8
70°-80°	329.4	5.7
80°-90°	86.4	1.5
90°-100°	76.2	1.3
100°-110°	237.1	4.1
110°-120°	231.9	4.0
120°-130°	189.3	3.2
130°-140°	154.9	2.7
140°-150°	120.9	2.1
150°-160°	87.2	1.5
160°-170°	53.3	0.9
170°-180°	18.0	0.3
0°-30°	1279.1	22.0
0°-40°	2085.8	35.8
0°-60°	3669.0	63.0
0°-90°	4657.9	79.9
90°-120°	545.2	9.4
90°-150°	1010.4	17.3
90°-180°	1169.0	20.1
0°-180°	5826.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1659	1659	1659	1659	1659	
5°	1641	1663	1646	1648	1659	156
15°	1578	1598	1582	1589	1598	445
25°	1458	1473	1458	1460	1467	671
35°	1288	1297	1284	1288	1293	806
45°	1080	1087	1076	1078	1080	834
55°	843	848	841	836	836	754
65°	588	586	581	576	574	578
75°	319	316	312	305	303	336
85°	77	72	70	63	66	89
90°	0	1	4	4	4	3
95°	10	31	140	52	34	12
105°	42	58	233	446	425	44
115°	74	88	190	391	458	73
125°	103	114	187	307	360	91
135°	124	137	186	265	298	96
145°	144	156	186	229	250	91
155°	165	171	187	206	213	76
165°	182	182	188	194	196	51
175°	188	188	188	190	188	18
180°	188	188	188	188	188	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1659.1	1659.1	1659.1	1659.1	1659.1
2.5°	1648.2	1667.7	1651.8	1655.6	1657.3
5°	1641.0	1663.1	1645.5	1648.0	1659.1
7.5°	1627.5	1651.4	1632.0	1636.3	1648.7
10°	1618.4	1640.5	1622.9	1625.4	1634.2
12.5°	1603.9	1626.1	1608.5	1612.7	1621.5
15°	1577.7	1597.6	1582.3	1589.3	1598.1
17.5°	1547.4	1568.6	1551.5	1557.6	1565.0
20°	1525.7	1543.5	1528.0	1530.5	1541.6
22.5°	1498.6	1516.3	1502.7	1503.4	1512.6
25°	1457.9	1473.4	1457.9	1460.4	1467.0
27.5°	1411.4	1424.6	1411.4	1413.7	1419.5
30°	1378.8	1392.1	1378.8	1381.1	1383.3
32.5°	1342.7	1354.2	1340.8	1343.2	1349.0
35°	1288.4	1297.2	1283.9	1288.5	1292.9
37.5°	1230.5	1237.2	1226.0	1228.3	1232.3
40°	1188.9	1195.6	1184.4	1186.7	1188.9
42.5°	1147.3	1152.2	1141.0	1143.4	1147.3
45°	1080.4	1087.1	1075.9	1078.2	1080.4
47.5°	1012.6	1016.6	1007.3	1005.5	1009.5
50°	967.4	969.6	958.4	958.4	960.6
52.5°	918.6	920.8	913.2	909.6	911.8
55°	843.2	847.5	840.8	836.3	836.3
57.5°	767.2	771.1	762.6	760.4	760.0
60°	716.5	718.7	712.1	709.7	707.5
62.5°	665.9	666.4	659.6	657.3	655.1
65°	587.7	585.5	581.0	576.3	574.1
67.5°	500.0	502.2	497.7	490.5	490.5
70°	447.5	449.7	445.3	436.2	436.2
72.5°	396.9	395.5	392.9	385.5	382.0
75°	318.7	316.5	312.0	305.1	302.9
77.5°	240.5	238.3	236.0	227.5	229.2
80°	189.8	187.6	185.3	178.5	178.5
82.5°	144.6	140.7	138.3	131.6	131.6
85°	76.8	72.5	70.0	63.4	65.5
87.5°	21.7	20.2	18.8	15.2	15.2
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	12.9	44.2	14.5	11.8
95°	10.4	30.8	139.8	51.6	33.6
97.5°	19.0	40.0	231.6	144.2	90.8
100°	25.4	44.6	261.2	244.3	162.9
102.5°	31.9	50.2	255.6	348.8	273.9
105°	41.6	58.5	233.4	445.5	425.3
107.5°	51.3	67.1	212.1	453.0	475.4
110°	57.8	73.5	201.0	442.4	486.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	64.2	79.1	195.6	423.3	479.1
115°	74.0	87.5	189.5	390.9	457.5
117.5°	83.4	95.8	186.9	360.0	428.2
120°	88.9	101.4	186.0	342.4	407.9
122.5°	94.5	107.0	186.9	327.5	387.5
125°	102.8	114.1	187.2	307.4	360.5
127.5°	109.5	121.1	187.2	292.4	337.6
130°	113.3	125.6	187.2	284.0	324.7
132.5°	117.8	130.3	186.2	276.5	314.5
135°	123.6	137.2	186.0	265.4	298.1
137.5°	130.3	142.8	186.0	254.2	284.0
140°	134.0	146.5	186.0	246.7	273.9
142.5°	138.7	150.2	186.0	239.3	263.6
145°	144.4	155.7	186.0	229.2	249.6
147.5°	151.4	161.1	187.2	219.9	236.0
150°	155.9	163.9	187.2	215.2	227.6
152.5°	159.7	166.7	187.2	210.6	221.2
155°	165.3	170.8	187.2	205.8	212.6
157.5°	170.7	175.0	187.2	201.6	205.9
160°	174.5	177.8	187.2	198.8	202.2
162.5°	177.3	179.7	187.2	197.0	199.4
165°	181.5	182.5	188.3	194.2	196.4
167.5°	183.9	184.1	187.2	192.5	193.7
170°	184.8	186.0	187.2	190.7	191.8
172.5°	186.7	186.9	188.1	189.7	190.0
175°	188.3	188.3	188.3	189.5	188.3
177.5°	188.3	188.3	188.3	188.3	188.3
180°	188.3	188.3	188.3	188.3	188.3

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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	21.79	23.02	22.43	23.69	24.45	21.71	22.94	22.35	23.61	24.37
	3H	23.59	24.71	24.25	25.38	26.18	23.47	24.59	24.13	25.26	26.06
	4H	24.27	25.32	24.95	26.00	26.82	24.12	25.17	24.80	25.85	26.67
	6H	24.76	25.73	25.45	26.42	27.25	24.57	25.54	25.26	26.24	27.07
	8H	24.90	25.83	25.61	26.55	27.38	24.70	25.63	25.41	26.35	27.18
	12H	24.99	25.88	25.70	26.59	27.45	24.77	25.65	25.48	26.36	27.22
4H	2H	22.38	23.43	23.06	24.12	24.93	22.32	23.37	23.00	24.05	24.87
	3H	24.40	25.28	25.10	26.00	26.84	24.29	25.17	24.99	25.89	26.73
	4H	25.21	26.00	25.92	26.73	27.59	25.06	25.86	25.77	26.59	27.45
	6H	25.82	26.51	26.55	27.26	28.13	25.64	26.33	26.37	27.08	27.95
	8H	26.01	26.66	26.75	27.41	28.29	25.81	26.46	26.55	27.21	28.09
	12H	26.13	26.72	26.89	27.49	28.38	25.91	26.49	26.66	27.26	28.15
8H	4H	25.48	26.13	26.22	26.88	27.76	25.36	26.01	26.09	26.75	27.64
	6H	26.22	26.76	26.98	27.55	28.43	26.05	26.59	26.82	27.38	28.27
	8H	26.49	26.97	27.27	27.76	28.66	26.30	26.78	27.07	27.57	28.47
	12H	26.67	27.10	27.45	27.88	28.84	26.45	26.87	27.23	27.65	28.61
12H	4H	25.49	26.08	26.25	26.85	27.74	25.37	25.96	26.13	26.73	27.62
	6H	26.26	26.74	27.04	27.54	28.44	26.10	26.59	26.88	27.38	28.28
	8H	26.57	27.00	27.36	27.78	28.74	26.39	26.81	27.17	27.59	28.55