

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: P855102

Luminaire Tested: SQ2-PR1-100U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855102  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100U-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

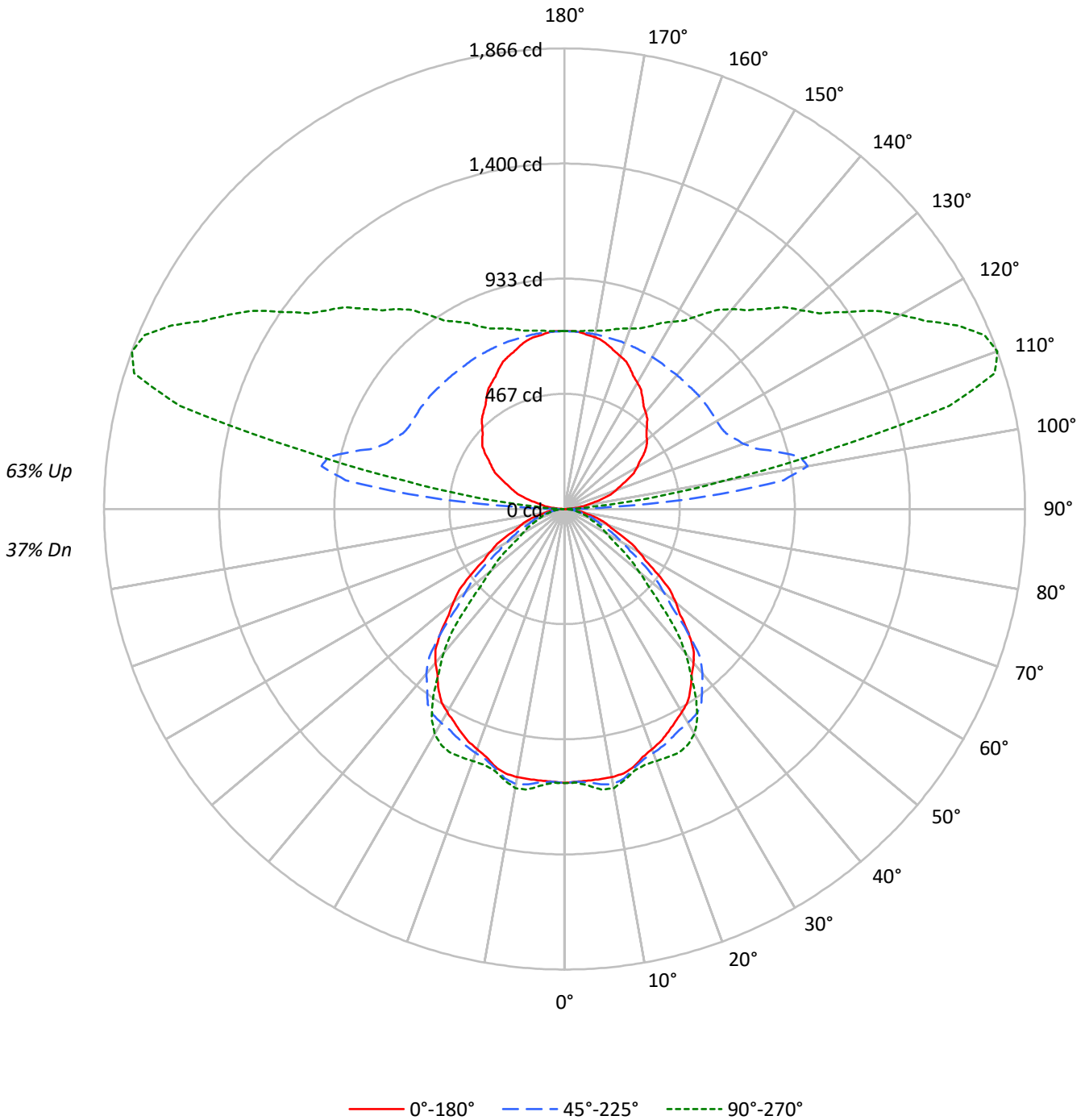
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7157.2 lumens  
Efficiency: N/A  
Efficacy: 142.0 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	91	88	84	86	83	80	77	67	65	63	53	52	51	40	39	38	32
2	87	80	75	70	79	73	68	64	60	56	53	47	45	43	36	34	33	28
3	80	71	64	58	72	65	59	54	53	49	45	42	39	37	32	30	29	24
4	73	63	55	50	66	58	51	46	47	43	39	38	34	32	29	27	25	21
5	67	56	48	43	61	51	45	40	42	37	34	34	30	28	26	24	22	18
6	62	50	43	37	56	46	39	35	38	33	29	31	27	24	24	21	19	16
7	57	46	38	33	52	42	35	30	35	30	26	28	24	22	22	19	17	15
8	53	41	34	29	48	38	31	27	32	27	23	26	22	19	20	18	16	13
9	49	38	30	26	45	35	28	24	29	24	21	24	20	17	19	16	14	12
10	46	34	28	23	42	32	26	21	27	22	19	22	18	16	17	15	13	11

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

	0°	45°	90°
0°	17925	17925	17925
5°	17901	18011	18232
10°	18090	18554	18831
15°	18084	18178	18330
20°	17792	18063	18667
25°	17742	18246	19434
30°	17723	18651	19621
35°	17554	19048	18268
40°	17150	18341	16075
45°	16228	16098	12714
50°	14752	13162	9864
55°	12966	10832	7676
60°	11218	8661	6323
65°	9685	7179	5536
70°	8710	6359	4914
75°	7979	5508	4517
80°	6946	4417	4417
85°	5039	3983	2093

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 17543 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	1.5
10°-20°	310.3	4.3
20°-30°	479.7	6.7
30°-40°	577.0	8.1
40°-50°	518.1	7.2
50°-60°	347.1	4.8
60°-70°	201.9	2.8
70°-80°	103.7	1.4
80°-90°	26.9	0.4
90°-100°	301.0	4.2
100°-110°	910.3	12.7
110°-120°	888.6	12.4
120°-130°	726.1	10.1
130°-140°	592.7	8.3
140°-150°	461.4	6.4
150°-160°	332.6	4.6
160°-170°	203.6	2.8
170°-180°	68.8	1.0
0°-30°	897.3	12.5
0°-40°	1474.3	20.6
0°-60°	2339.5	32.7
0°-90°	2672.0	37.3
90°-120°	2099.9	29.3
90°-150°	3880.2	54.2
90°-180°	4485.0	62.7
0°-180°	7157.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1104	1123	1111	1114	1125	105
15°	1082	1126	1088	1091	1097	304
25°	996	1036	1024	1062	1091	459
35°	891	898	966	948	927	555
45°	711	768	705	594	557	544
55°	461	478	385	297	273	414
65°	254	259	188	152	145	256
75°	128	125	88	75	72	136
85°	27	22	22	15	11	34
90°	0	2	14	8	7	3
95°	37	118	568	210	132	44
105°	158	223	894	1697	1613	166
115°	282	336	723	1496	1757	279
125°	394	437	713	1181	1390	350
135°	472	522	708	1019	1146	365
145°	551	592	708	876	958	345
155°	628	649	713	786	816	289
165°	687	694	716	744	752	194
175°	718	718	720	725	723	68
180°	721	721	721	721	721	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1110.2	1110.2	1110.2	1110.2	1110.2
2.5°	1105.6	1118.9	1106.5	1107.6	1110.2
5°	1104.5	1123.3	1111.3	1113.8	1124.9
7.5°	1104.3	1131.1	1125.3	1132.2	1146.8
10°	1103.4	1135.5	1131.7	1133.1	1148.6
12.5°	1097.9	1135.4	1118.1	1116.7	1125.1
15°	1081.9	1126.1	1087.5	1091.0	1096.6
17.5°	1053.6	1099.9	1063.1	1075.5	1086.4
20°	1035.5	1080.9	1051.3	1067.6	1086.4
22.5°	1019.2	1064.6	1040.5	1063.2	1089.1
25°	995.9	1035.7	1024.2	1062.2	1090.9
27.5°	971.4	994.8	1008.5	1059.5	1079.6
30°	950.6	966.1	1000.4	1044.8	1052.4
32.5°	928.0	937.2	989.5	1012.6	1002.7
35°	890.6	898.4	966.4	947.9	926.8
37.5°	846.3	862.2	914.6	861.1	837.0
40°	813.7	840.3	870.2	790.5	762.7
42.5°	773.8	816.4	811.4	709.7	675.8
45°	710.7	768.3	705.0	594.3	556.8
47.5°	636.2	695.3	591.9	493.1	457.9
50°	587.3	634.9	524.0	431.4	392.7
52.5°	537.5	571.8	466.0	373.6	338.4
55°	460.6	478.2	384.8	297.1	272.7
57.5°	390.0	401.3	314.4	239.9	222.0
60°	347.4	355.1	268.2	210.1	195.8
62.5°	308.5	314.5	231.1	184.9	174.0
65°	253.5	259.0	187.9	152.5	144.9
67.5°	209.8	212.6	154.6	126.9	119.5
70°	184.5	185.6	134.7	109.7	104.1
72.5°	161.8	160.2	115.7	95.2	91.4
75°	127.9	124.6	88.3	74.7	72.4
77.5°	95.5	92.0	62.0	57.5	57.5
80°	74.7	70.3	47.5	47.5	47.5
82.5°	55.7	49.5	36.7	36.7	35.8
85°	27.2	21.6	21.5	14.6	11.3
87.5°	7.2	7.7	5.4	4.3	4.1
90°	0.0	2.3	13.6	7.9	6.8
92.5°	12.7	51.2	183.8	60.9	43.9
95°	37.3	118.0	568.0	209.8	132.4
97.5°	72.2	150.3	895.1	592.3	360.7
100°	93.9	170.2	1000.2	966.9	649.3
102.5°	118.4	192.0	978.4	1356.2	1081.1
105°	158.4	222.6	893.8	1697.4	1613.3
107.5°	196.5	257.7	812.3	1731.1	1828.5
110°	221.7	280.4	771.6	1688.7	1865.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	246.1	303.1	747.1	1617.3	1841.2
115°	281.7	335.9	722.9	1495.9	1757.0
117.5°	317.0	368.4	714.3	1382.2	1649.5
120°	340.5	389.2	711.6	1315.9	1572.6
122.5°	362.2	408.3	711.6	1257.6	1494.7
125°	393.7	436.8	712.7	1181.3	1390.5
127.5°	419.3	464.0	711.6	1123.9	1302.2
130°	435.6	482.1	711.6	1090.9	1252.4
132.5°	450.1	497.4	710.7	1060.7	1209.9
135°	471.8	521.6	708.2	1018.8	1146.0
137.5°	496.0	543.3	708.2	974.0	1091.9
140°	511.4	557.8	708.2	944.9	1056.7
142.5°	526.8	571.5	707.3	918.3	1016.0
145°	551.0	591.9	708.2	876.4	958.3
147.5°	575.2	610.0	709.6	841.8	904.7
150°	590.6	622.6	710.5	822.6	875.7
152.5°	605.1	633.6	711.4	806.1	849.4
155°	628.0	648.9	712.7	785.8	815.7
157.5°	647.8	664.9	714.1	770.9	791.7
160°	659.5	674.0	715.0	761.7	777.2
162.5°	671.3	682.2	715.9	753.6	766.4
165°	686.7	694.5	716.1	743.5	752.3
167.5°	699.8	703.9	717.5	735.7	739.4
170°	707.1	709.3	718.4	732.0	733.1
172.5°	711.6	712.9	718.4	728.3	728.6
175°	718.4	718.4	719.5	725.2	722.9
177.5°	721.5	720.6	719.7	722.5	720.6
180°	720.6	720.6	720.6	720.6	720.6



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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	15.49	16.22	16.56	17.29	18.73	12.22	12.95	13.28	14.01	15.46
	3H	16.72	17.37	17.79	18.44	19.90	13.27	13.93	14.35	15.00	16.46
	4H	17.16	17.78	18.25	18.85	20.32	13.67	14.29	14.75	15.36	16.83
	6H	17.47	18.04	18.57	19.12	20.60	13.99	14.56	15.09	15.64	17.12
	8H	17.55	18.09	18.65	19.18	20.66	14.07	14.61	15.17	15.71	17.18
	12H	17.58	18.09	18.68	19.18	20.67	14.08	14.59	15.18	15.68	17.17
4H	2H	15.55	16.17	16.65	17.25	18.72	12.77	13.39	13.86	14.46	15.93
	3H	17.02	17.53	18.12	18.63	20.11	14.03	14.54	15.13	15.64	17.12
	4H	17.60	18.07	18.71	19.17	20.67	14.53	15.00	15.63	16.09	17.59
	6H	18.05	18.45	19.16	19.57	21.06	14.96	15.36	16.07	16.47	17.97
	8H	18.18	18.56	19.29	19.66	21.17	15.08	15.45	16.19	16.56	18.07
	12H	18.23	18.57	19.36	19.69	21.20	15.09	15.43	16.22	16.55	18.07
8H	4H	17.62	18.00	18.73	19.10	20.62	14.82	15.20	15.94	16.31	17.82
	6H	18.17	18.48	19.30	19.63	21.13	15.35	15.66	16.49	16.81	18.32
	8H	18.37	18.64	19.50	19.77	21.29	15.54	15.81	16.68	16.94	18.47
	12H	18.46	18.70	19.61	19.83	21.39	15.60	15.83	16.74	16.96	18.52
12H	4H	17.57	17.91	18.70	19.03	20.55	14.83	15.17	15.96	16.29	17.81
	6H	18.15	18.42	19.29	19.55	21.08	15.41	15.69	16.55	16.81	18.34
	8H	18.36	18.60	19.50	19.72	21.29	15.62	15.85	16.76	16.98	18.54