

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: P854210

Luminaire Tested: SQ2-PR1-100U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854210  
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-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

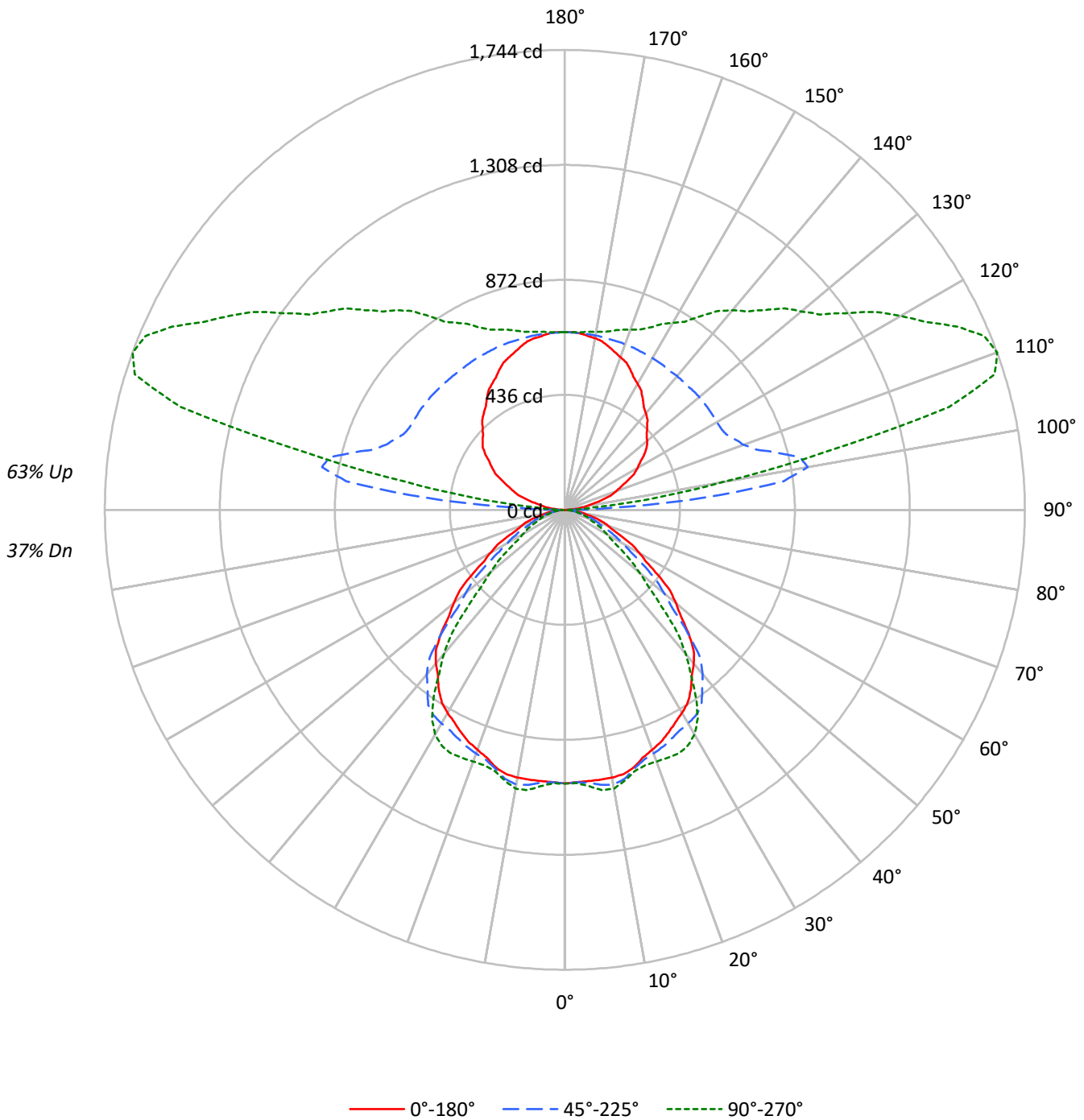
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6689.9 lumens  
Efficiency: N/A  
Efficacy: 132.7 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°	16755	16755	16755
5°	16733	16835	17041
10°	16908	17343	17602
15°	16903	16991	17133
20°	16631	16885	17448
25°	16582	17054	18166
30°	16565	17434	18340
35°	16409	17804	17075
40°	16029	17144	15026
45°	15168	15047	11883
50°	13790	12303	9218
55°	12118	10123	7175
60°	10485	8096	5909
65°	9051	6709	5173
70°	8139	5943	4593
75°	7455	5147	4223
80°	6490	4128	4128
85°	4705	3724	1964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16397 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.5
10°-20°	290.1	4.3
20°-30°	448.4	6.7
30°-40°	539.3	8.1
40°-50°	484.3	7.2
50°-60°	324.4	4.8
60°-70°	188.7	2.8
70°-80°	96.9	1.4
80°-90°	25.1	0.4
90°-100°	281.3	4.2
100°-110°	850.9	12.7
110°-120°	830.6	12.4
120°-130°	678.7	10.1
130°-140°	554.0	8.3
140°-150°	431.3	6.4
150°-160°	310.9	4.6
160°-170°	190.3	2.8
170°-180°	64.3	1.0
0°-30°	838.7	12.5
0°-40°	1378.0	20.6
0°-60°	2186.7	32.7
0°-90°	2497.5	37.3
90°-120°	1962.8	29.3
90°-150°	3626.9	54.2
90°-180°	4192.0	62.7
0°-180°	6689.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1032	1050	1039	1041	1051	99
15°	1011	1053	1016	1020	1025	284
25°	931	968	957	993	1020	429
35°	832	840	903	886	866	519
45°	664	718	659	556	520	508
55°	430	447	360	278	255	387
65°	237	242	176	143	135	240
75°	120	116	82	70	68	127
85°	25	20	20	14	11	31
90°	0	2	13	7	6	3
95°	35	110	531	196	124	41
105°	148	208	835	1587	1508	155
115°	263	314	676	1398	1642	260
125°	368	408	666	1104	1300	327
135°	441	488	662	952	1071	341
145°	515	553	662	819	896	323
155°	587	606	666	734	762	270
165°	642	649	669	695	703	181
175°	672	672	673	678	676	64
180°	674	674	674	674	674	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1037.7	1037.7	1037.7	1037.7	1037.7
2.5°	1033.4	1045.9	1034.3	1035.2	1037.7
5°	1032.4	1050.0	1038.7	1041.1	1051.4
7.5°	1032.2	1057.2	1051.9	1058.3	1071.9
10°	1031.3	1061.3	1057.8	1059.2	1073.6
12.5°	1026.3	1061.2	1045.1	1043.8	1051.6
15°	1011.2	1052.6	1016.5	1019.8	1025.0
17.5°	984.8	1028.0	993.7	1005.3	1015.5
20°	967.9	1010.3	982.7	997.9	1015.5
22.5°	952.6	995.0	972.5	993.8	1018.0
25°	930.8	968.1	957.3	992.8	1019.7
27.5°	908.0	929.9	942.7	990.3	1009.1
30°	888.5	903.0	935.1	976.5	983.7
32.5°	867.4	876.1	924.9	946.5	937.2
35°	832.5	839.7	903.3	886.0	866.3
37.5°	791.0	805.9	854.9	804.9	782.3
40°	760.5	785.4	813.4	738.8	712.9
42.5°	723.3	763.0	758.4	663.4	631.7
45°	664.3	718.1	659.0	555.6	520.4
47.5°	594.7	649.9	553.2	460.9	428.0
50°	549.0	593.5	489.8	403.2	367.0
52.5°	502.4	534.5	435.6	349.2	316.3
55°	430.5	447.1	359.6	277.7	254.9
57.5°	364.5	375.1	293.9	224.3	207.5
60°	324.7	332.0	250.7	196.4	183.0
62.5°	288.3	293.9	216.0	172.8	162.7
65°	236.9	242.1	175.6	142.6	135.4
67.5°	196.1	198.8	144.5	118.5	111.7
70°	172.4	173.5	125.9	102.5	97.3
72.5°	151.3	149.8	108.1	89.0	85.5
75°	119.5	116.4	82.5	69.8	67.7
77.5°	89.3	86.0	58.0	53.7	53.7
80°	69.8	65.7	44.4	44.4	44.4
82.5°	52.0	46.3	34.3	34.3	33.4
85°	25.4	20.2	20.1	13.7	10.6
87.5°	6.8	7.2	5.1	4.0	3.8
90°	0.0	2.1	12.7	7.4	6.3
92.5°	11.8	47.8	171.7	57.0	41.0
95°	34.9	110.4	530.9	196.1	123.7
97.5°	67.5	140.5	836.7	553.6	337.1
100°	87.8	159.1	934.8	903.8	607.0
102.5°	110.6	179.5	914.5	1267.6	1010.5
105°	148.0	208.0	835.4	1586.6	1508.0
107.5°	183.6	240.9	759.3	1618.1	1709.1
110°	207.3	262.1	721.2	1578.4	1743.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	230.1	283.3	698.4	1511.7	1721.0
115°	263.3	314.0	675.7	1398.3	1642.3
117.5°	296.3	344.3	667.7	1292.0	1541.8
120°	318.3	363.8	665.2	1230.0	1469.9
122.5°	338.6	381.6	665.2	1175.5	1397.1
125°	368.0	408.3	666.2	1104.2	1299.6
127.5°	391.9	433.7	665.2	1050.5	1217.2
130°	407.1	450.6	665.2	1019.7	1170.6
132.5°	420.7	464.9	664.3	991.5	1130.9
135°	441.0	487.5	662.0	952.3	1071.2
137.5°	463.6	507.9	662.0	910.5	1020.7
140°	478.0	521.4	662.0	883.3	987.7
142.5°	492.4	534.1	661.1	858.4	949.6
145°	515.0	553.3	662.0	819.2	895.7
147.5°	537.6	570.1	663.3	786.8	845.6
150°	552.0	582.0	664.1	768.9	818.5
152.5°	565.5	592.2	664.9	753.4	794.0
155°	586.9	606.5	666.2	734.5	762.4
157.5°	605.5	621.4	667.5	720.6	740.0
160°	616.5	630.0	668.3	712.0	726.5
162.5°	627.5	637.6	669.2	704.3	716.3
165°	641.9	649.1	669.4	695.0	703.2
167.5°	654.2	657.9	670.7	687.7	691.2
170°	660.9	663.0	671.5	684.2	685.3
172.5°	665.2	666.4	671.5	680.8	681.0
175°	671.5	671.5	672.6	677.8	675.7
177.5°	674.5	673.6	672.8	675.3	673.6
180°	673.6	673.6	673.6	673.6	673.6

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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	15.26	15.99	16.33	17.05	18.50	11.98	12.71	13.05	13.78	15.22
	3H	16.48	17.13	17.56	18.21	19.67	13.04	13.69	14.12	14.76	16.23
	4H	16.93	17.55	18.01	18.62	20.09	13.43	14.05	14.52	15.12	16.59
	6H	17.24	17.81	18.33	18.88	20.36	13.76	14.33	14.85	15.40	16.88
	8H	17.32	17.86	18.42	18.95	20.42	13.84	14.38	14.94	15.47	16.95
	12H	17.34	17.85	18.45	18.94	20.44	13.84	14.36	14.95	15.44	16.94
4H	2H	15.32	15.94	16.41	17.01	18.48	12.54	13.15	13.63	14.23	15.70
	3H	16.78	17.29	17.88	18.39	19.88	13.79	14.30	14.89	15.40	16.89
	4H	17.37	17.84	18.47	18.93	20.43	14.29	14.76	15.40	15.85	17.36
	6H	17.82	18.22	18.93	19.33	20.83	14.72	15.12	15.83	16.24	17.73
	8H	17.95	18.32	19.06	19.43	20.94	14.84	15.22	15.95	16.32	17.83
	12H	17.99	18.33	19.12	19.45	20.97	14.86	15.20	15.98	16.31	17.83
8H	4H	17.39	17.76	18.50	18.87	20.38	14.59	14.96	15.70	16.07	17.58
	6H	17.93	18.24	19.07	19.39	20.90	15.12	15.43	16.25	16.58	18.09
	8H	18.13	18.40	19.27	19.53	21.06	15.30	15.57	16.44	16.70	18.23
	12H	18.23	18.47	19.37	19.59	21.16	15.36	15.60	16.50	16.73	18.29
12H	4H	17.34	17.68	18.47	18.80	20.31	14.60	14.94	15.73	16.06	17.57
	6H	17.92	18.19	19.06	19.32	20.85	15.18	15.45	16.32	16.58	18.11
	8H	18.12	18.36	19.27	19.49	21.05	15.38	15.62	16.52	16.74	18.31