

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: P854005

Luminaire Tested: SQ2-PH1-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854005  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-050U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

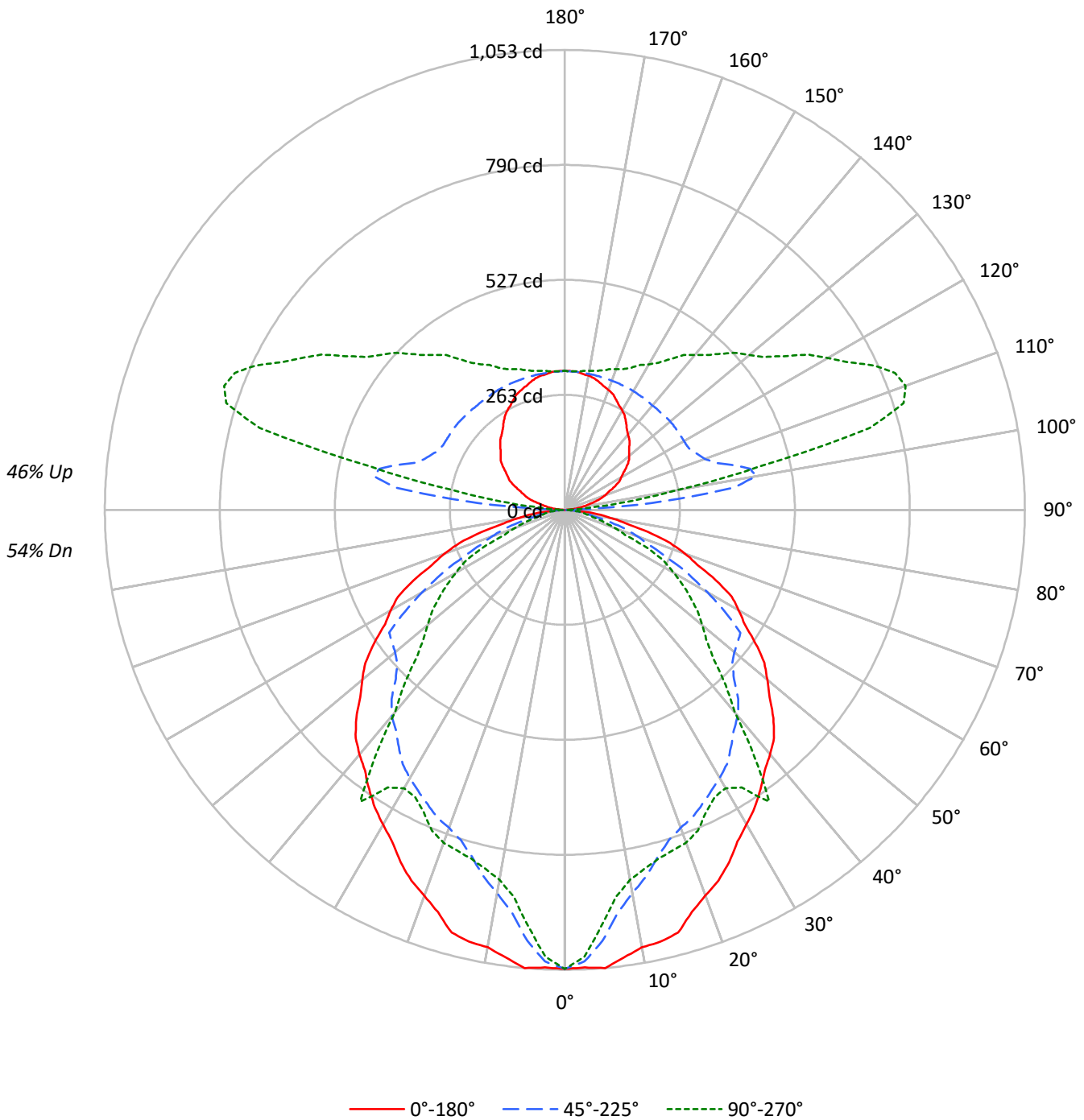
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4299.8 lumens  
Efficiency: N/A  
Efficacy: 131.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 32.6  
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	0	
RCR																						
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54				
1	99	95	91	87	92	88	85	82	75	73	71	64	62	61	53	52	51	46				
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39				
3	82	73	66	60	76	68	62	56	59	54	50	50	46	43	42	39	37	33				
4	75	65	57	51	70	60	53	48	52	47	42	45	40	37	37	34	32	28				
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	30	28	25				
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	31	27	25	22				
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19				
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17				
9	51	39	31	26	47	36	30	25	32	26	23	28	23	20	24	20	18	16				
10	48	36	28	24	44	34	27	22	29	24	20	26	21	18	22	19	16	14				

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

	0°	45°	90°
0°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15413 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.5	2.2
10°-20°	243.3	5.7
20°-30°	356.7	8.3
30°-40°	431.9	10.0
40°-50°	424.8	9.9
50°-60°	369.8	8.6
60°-70°	257.1	6.0
70°-80°	121.9	2.8
80°-90°	27.3	0.6
90°-100°	126.6	2.9
100°-110°	401.7	9.3
110°-120°	393.9	9.2
120°-130°	320.5	7.5
130°-140°	261.3	6.1
140°-150°	203.8	4.7
150°-160°	146.8	3.4
160°-170°	89.7	2.1
170°-180°	30.3	0.7
0°-30°	692.4	16.1
0°-40°	1124.4	26.1
0°-60°	1918.9	44.6
0°-90°	2325.1	54.1
90°-120°	922.2	21.4
90°-150°	1707.8	39.7
90°-180°	1975.0	45.9
0°-180°	4299.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	892	822	816	827	279
25°	890	757	744	767	764	409
35°	781	631	663	720	816	489
45°	675	500	547	566	481	519
55°	533	389	491	354	351	476
65°	382	268	257	211	211	375
75°	197	136	101	72	70	209
85°	34	22	20	16	15	46
90°	0	1	3	3	3	2
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051.0	1051.0	1051.0	1051.0	1051.0
2.5°	1048.6	1059.6	1035.0	1025.4	1023.8
5°	1053.0	1052.0	990.0	959.0	957.0
7.5°	1033.8	1003.5	929.4	895.2	893.6
10°	1017.0	971.1	891.0	860.0	860.0
12.5°	1013.0	940.5	859.8	836.9	841.6
15°	1002.0	892.5	822.0	816.3	827.0
17.5°	965.6	847.7	792.6	805.7	818.2
20°	940.0	823.7	775.0	799.3	811.0
22.5°	918.4	800.5	762.2	788.7	795.0
25°	890.0	757.0	744.0	766.9	764.0
27.5°	856.0	717.2	725.8	739.8	741.6
30°	832.0	693.2	709.0	723.3	736.0
32.5°	808.8	665.3	690.6	724.5	753.6
35°	781.0	631.4	663.0	720.2	816.0
37.5°	751.8	591.4	635.2	683.3	713.8
40°	731.0	562.8	616.0	675.4	605.0
42.5°	708.6	540.4	587.2	663.9	545.0
45°	675.0	500.0	547.0	566.1	481.0
47.5°	635.4	468.6	519.8	472.0	438.8
50°	605.0	447.6	507.0	431.5	410.0
52.5°	575.4	425.8	498.2	398.1	383.6
55°	533.0	389.3	491.0	353.9	351.0
57.5°	488.0	352.1	434.2	315.5	320.6
60°	460.0	328.0	375.0	292.9	287.0
62.5°	430.4	304.7	319.8	264.1	258.2
65°	382.0	267.6	257.0	211.0	211.0
67.5°	328.8	229.1	208.2	172.7	149.2
70°	292.0	204.0	177.0	137.6	122.0
72.5°	252.8	177.3	145.0	112.8	94.8
75°	197.0	136.4	101.0	72.0	70.0
77.5°	142.4	98.2	68.0	53.4	53.6
80°	108.0	74.8	44.0	43.0	44.0
82.5°	76.0	51.4	32.8	34.2	34.4
85°	34.0	22.3	20.0	16.0	15.0
87.5°	7.2	6.6	4.6	4.6	4.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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	17.54	18.43	18.46	19.37	20.58	16.21	17.10	17.13	18.04	19.25
	3H	19.56	20.36	20.50	21.31	22.55	17.24	18.04	18.18	18.99	20.23
	4H	20.30	21.05	21.24	22.00	23.25	17.46	18.21	18.41	19.17	20.41
	6H	20.78	21.48	21.74	22.44	23.69	17.61	18.30	18.57	19.26	20.52
	8H	20.91	21.57	21.88	22.54	23.80	17.64	18.30	18.61	19.28	20.53
	12H	20.95	21.58	21.93	22.55	23.83	17.64	18.27	18.61	19.24	20.52
4H	2H	17.91	18.67	18.87	19.62	20.87	16.85	17.61	17.81	18.56	19.81
	3H	20.02	20.65	20.99	21.63	22.89	18.04	18.66	19.00	19.65	20.91
	4H	20.84	21.41	21.81	22.39	23.67	18.31	18.88	19.29	19.86	21.15
	6H	21.43	21.92	22.41	22.92	24.20	18.52	19.01	19.51	20.02	21.30
	8H	21.60	22.06	22.59	23.05	24.35	18.58	19.04	19.57	20.03	21.33
	12H	21.67	22.08	22.67	23.09	24.39	18.59	19.00	19.60	20.01	21.32
8H	4H	20.86	21.32	21.85	22.31	23.61	18.53	18.99	19.52	19.98	21.28
	6H	21.51	21.89	22.53	22.93	24.22	18.80	19.18	19.82	20.22	21.51
	8H	21.74	22.07	22.76	23.10	24.41	18.91	19.24	19.93	20.26	21.58
	12H	21.85	22.15	22.88	23.17	24.52	18.95	19.25	19.98	20.26	21.62
12H	4H	20.81	21.23	21.82	22.24	23.54	18.53	18.94	19.54	19.95	21.26
	6H	21.49	21.82	22.51	22.84	24.16	18.83	19.17	19.86	20.19	21.51
	8H	21.72	22.01	22.75	23.03	24.39	18.95	19.25	19.98	20.26	21.62