

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: P854002

Luminaire Tested: SQ2-PH1-025U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854002  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-025U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

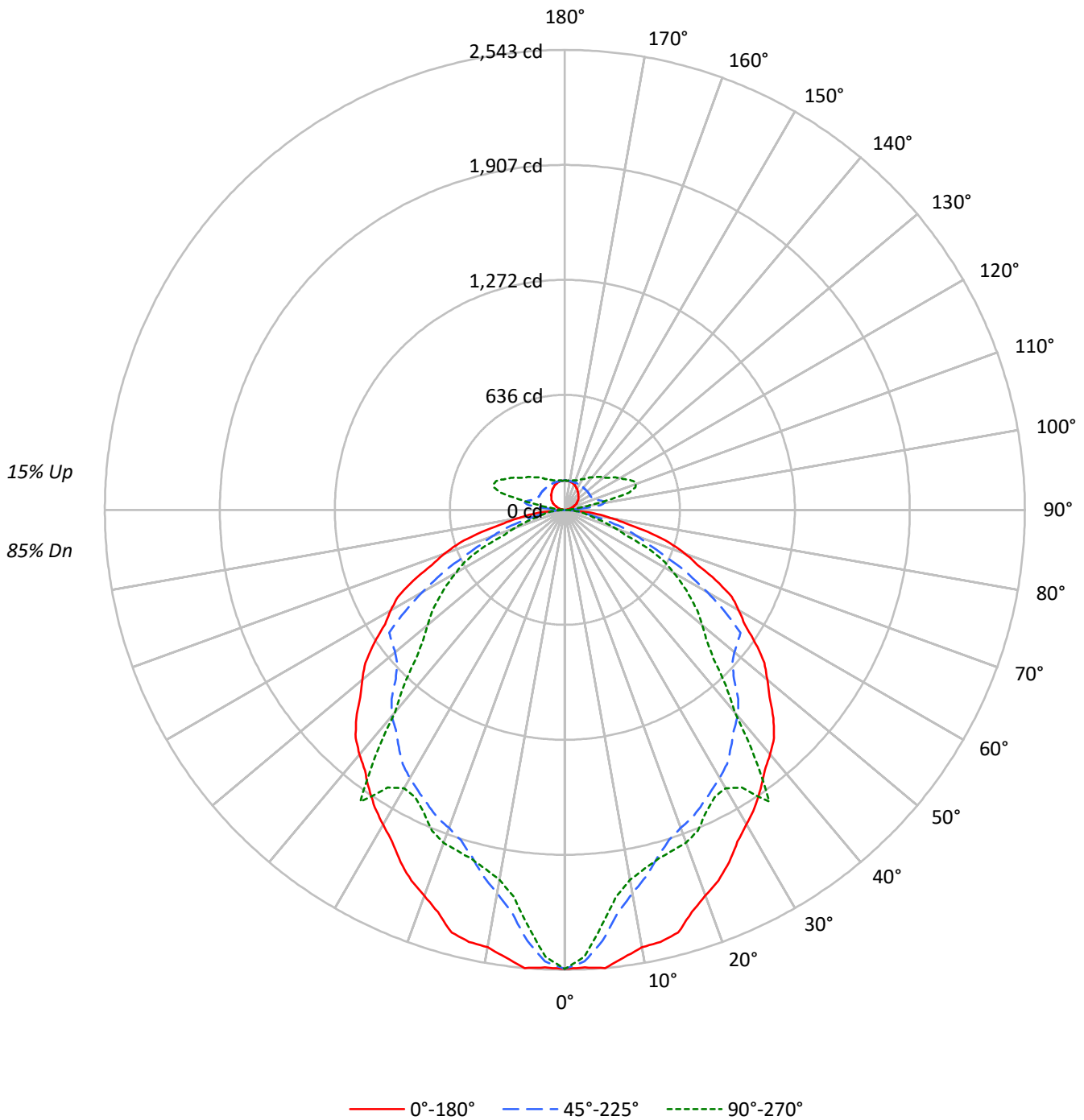
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6619.4 lumens  
Efficiency: N/A  
Efficacy: 117.0 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: Semi-Direct

Input Watts (W): 56.6  
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										
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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85																				
1	106	102	98	94	102	98	94	91	91	88	86	84	82	80	79	77	75	72																				
2	97	89	83	77	93	86	80	75	80	75	71	75	71	67	69	66	64	61																				
3	88	79	71	65	85	76	69	63	71	65	60	66	61	57	62	58	55	52																				
4	81	70	61	55	78	67	60	54	63	57	52	59	54	49	55	51	47	45																				
5	75	62	54	48	72	60	53	47	57	50	45	53	47	43	50	45	41	39																				
6	69	56	48	42	66	55	47	41	51	44	39	48	42	38	45	40	36	34																				
7	64	51	43	37	61	50	42	36	47	40	35	44	38	34	41	36	32	30																				
8	60	47	38	33	57	45	38	32	43	36	31	40	34	30	38	33	29	27																				
9	56	43	35	30	53	42	34	29	39	33	28	37	31	27	35	30	26	24																				
10	52	39	32	27	50	38	31	26	36	30	26	34	29	25	33	28	24	22																				

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

	0°	45°	90°
0°	40981	40981	40981
5°	41217	38751	37459
10°	40268	35279	34051
15°	40450	33183	33386
20°	39007	32160	33653
25°	38291	32010	32870
30°	37461	31923	33139
35°	37178	31560	38843
40°	37209	31356	30795
45°	37223	30163	26524
50°	36701	30755	24872
55°	36234	33380	23862
60°	35873	29243	22381
65°	35247	23713	19469
70°	33291	20181	13907
75°	29682	15215	10549
80°	24249	9884	9884
85°	15209	8948	6706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 37223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	223.3	3.4
10°-20°	587.5	8.9
20°-30°	861.4	13.0
30°-40°	1043.2	15.8
40°-50°	1025.8	15.5
50°-60°	893.0	13.5
60°-70°	620.8	9.4
70°-80°	294.4	4.4
80°-90°	65.3	1.0
90°-100°	65.5	1.0
100°-110°	203.8	3.1
110°-120°	199.3	3.0
120°-130°	162.7	2.5
130°-140°	133.1	2.0
140°-150°	103.9	1.6
150°-160°	75.0	1.1
160°-170°	45.9	0.7
170°-180°	15.5	0.2
0°-30°	1672.2	25.3
0°-40°	2715.4	41.0
0°-60°	4634.2	70.0
0°-90°	5614.7	84.8
90°-120°	468.6	7.1
90°-150°	868.4	13.1
90°-180°	1005.0	15.2
0°-180°	6619.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2538	2538	2538	2538	2538	
5°	2543	2541	2391	2316	2311	239
15°	2420	2155	1985	1971	1997	675
25°	2149	1828	1797	1852	1845	988
35°	1886	1525	1601	1739	1971	1181
45°	1630	1208	1321	1367	1162	1253
55°	1287	940	1186	855	848	1150
65°	923	646	621	510	510	907
75°	476	329	244	174	169	504
85°	82	54	48	39	36	110
90°	0	1	3	3	3	3
95°	9	26	120	44	29	10
105°	36	50	201	383	366	38
115°	64	75	163	336	393	63
125°	88	98	161	264	310	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	183	65
165°	156	157	162	167	169	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2538.2	2538.2	2538.2	2538.2	2538.2
2.5°	2532.4	2558.9	2499.6	2476.3	2472.5
5°	2543.1	2540.7	2390.9	2315.9	2311.2
7.5°	2496.7	2423.5	2244.6	2161.9	2158.1
10°	2456.1	2345.1	2151.8	2076.9	2076.9
12.5°	2446.5	2271.2	2076.5	2021.2	2032.5
15°	2419.9	2155.4	1985.2	1971.3	1997.3
17.5°	2332.0	2047.2	1914.2	1945.8	1976.0
20°	2270.2	1989.1	1871.7	1930.3	1958.6
22.5°	2218.0	1933.2	1840.8	1904.9	1920.0
25°	2149.4	1828.3	1796.8	1852.2	1845.1
27.5°	2067.3	1732.0	1752.8	1786.8	1791.0
30°	2009.3	1674.0	1712.3	1746.8	1777.5
32.5°	1953.3	1606.6	1667.8	1749.6	1820.0
35°	1886.2	1524.9	1601.2	1739.3	1970.7
37.5°	1815.6	1428.4	1534.0	1650.2	1723.9
40°	1765.4	1359.2	1487.7	1631.1	1461.1
42.5°	1711.3	1305.1	1418.1	1603.3	1316.2
45°	1630.2	1207.5	1321.0	1367.1	1161.6
47.5°	1534.5	1131.7	1255.3	1140.0	1059.7
50°	1461.1	1080.9	1224.4	1042.1	990.2
52.5°	1389.6	1028.3	1203.2	961.4	926.4
55°	1287.2	940.1	1185.8	854.8	847.7
57.5°	1178.5	850.3	1048.6	762.0	774.3
60°	1110.9	792.1	905.6	707.3	693.1
62.5°	1039.4	735.8	772.3	637.7	623.6
65°	922.6	646.3	620.7	509.6	509.6
67.5°	794.1	553.2	502.8	417.0	360.3
70°	705.2	492.7	427.5	332.4	294.6
72.5°	610.5	428.2	350.2	272.4	228.9
75°	475.8	329.4	243.9	173.8	169.1
77.5°	343.9	237.2	164.2	129.0	129.4
80°	260.8	180.5	106.3	103.9	106.3
82.5°	183.5	124.0	79.2	82.6	83.1
85°	82.1	53.8	48.3	38.6	36.2
87.5°	17.4	15.7	10.3	10.3	10.3
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.5	10.1
95°	8.9	26.4	120.2	44.3	28.8
97.5°	16.3	34.3	199.0	123.9	78.1
100°	21.8	38.4	224.4	209.9	140.0
102.5°	27.4	43.1	219.7	299.8	235.4
105°	35.8	50.3	200.6	382.9	365.5
107.5°	44.1	57.7	182.3	389.3	408.6
110°	49.7	63.2	172.8	380.2	418.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.2	68.0	168.0	363.8	411.7
115°	63.6	75.2	162.9	336.0	393.3
117.5°	71.7	82.4	160.7	309.4	368.0
120°	76.5	87.2	159.9	294.2	350.6
122.5°	81.2	91.9	160.7	281.4	333.1
125°	88.4	98.1	160.9	264.2	309.8
127.5°	94.1	104.1	160.9	251.3	290.2
130°	97.3	108.0	160.9	244.1	279.1
132.5°	101.3	112.0	160.1	237.7	270.3
135°	106.3	117.9	159.9	228.1	256.2
137.5°	112.0	122.7	159.9	218.5	244.1
140°	115.2	125.9	159.9	212.1	235.4
142.5°	119.2	129.1	159.9	205.7	226.6
145°	124.1	133.8	159.9	197.0	214.5
147.5°	130.1	138.4	160.9	189.0	202.8
150°	134.1	140.9	160.9	185.0	195.6
152.5°	137.2	143.3	160.9	181.0	190.1
155°	142.0	146.9	160.9	176.9	182.7
157.5°	146.8	150.5	160.9	173.3	177.0
160°	150.0	152.9	160.9	170.9	173.8
162.5°	152.3	154.5	160.9	169.3	171.4
165°	155.9	156.9	161.9	166.9	168.8
167.5°	158.1	158.3	160.9	165.5	166.4
170°	158.9	159.9	160.9	163.9	164.9
172.5°	160.5	160.7	161.7	163.1	163.3
175°	161.9	161.9	161.9	162.8	161.9
177.5°	161.9	161.9	161.9	161.9	161.9
180°	161.9	161.9	161.9	161.9	161.9

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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	23.00	24.28	23.59	24.87	25.54	21.67	22.95	22.26	23.54	24.21
	3H	25.05	26.20	25.66	26.81	27.51	22.74	23.88	23.34	24.49	25.19
	4H	25.80	26.88	26.43	27.50	28.22	22.97	24.05	23.59	24.67	25.39
	6H	26.31	27.31	26.95	27.94	28.67	23.13	24.13	23.77	24.76	25.50
	8H	26.45	27.40	27.09	28.05	28.79	23.18	24.13	23.83	24.78	25.52
	12H	26.51	27.41	27.16	28.06	28.82	23.19	24.10	23.84	24.74	25.51
4H	2H	23.42	24.50	24.05	25.12	25.84	22.36	23.44	22.99	24.06	24.78
	3H	25.57	26.47	26.21	27.13	27.86	23.58	24.48	24.22	25.14	25.88
	4H	26.40	27.21	27.06	27.88	28.65	23.87	24.69	24.53	25.35	26.12
	6H	27.01	27.71	27.69	28.40	29.19	24.10	24.81	24.78	25.50	26.28
	8H	27.19	27.85	27.87	28.53	29.33	24.17	24.83	24.85	25.52	26.31
	12H	27.27	27.87	27.98	28.58	29.38	24.20	24.79	24.90	25.50	26.30
8H	4H	26.45	27.11	27.13	27.80	28.59	24.12	24.78	24.80	25.47	26.26
	6H	27.12	27.66	27.83	28.39	29.19	24.41	24.95	25.12	25.69	26.48
	8H	27.35	27.83	28.07	28.57	29.38	24.52	25.00	25.24	25.74	26.55
	12H	27.48	27.91	28.21	28.63	29.51	24.58	25.01	25.31	25.73	26.61
12H	4H	26.42	27.01	27.12	27.73	28.52	24.14	24.73	24.84	25.44	26.24
	6H	27.10	27.58	27.82	28.32	29.13	24.44	24.93	25.17	25.66	26.48
	8H	27.35	27.78	28.07	28.50	29.37	24.58	25.01	25.31	25.73	26.60