

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: P854218

Luminaire Tested: SQ2-PR1-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854218  
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-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

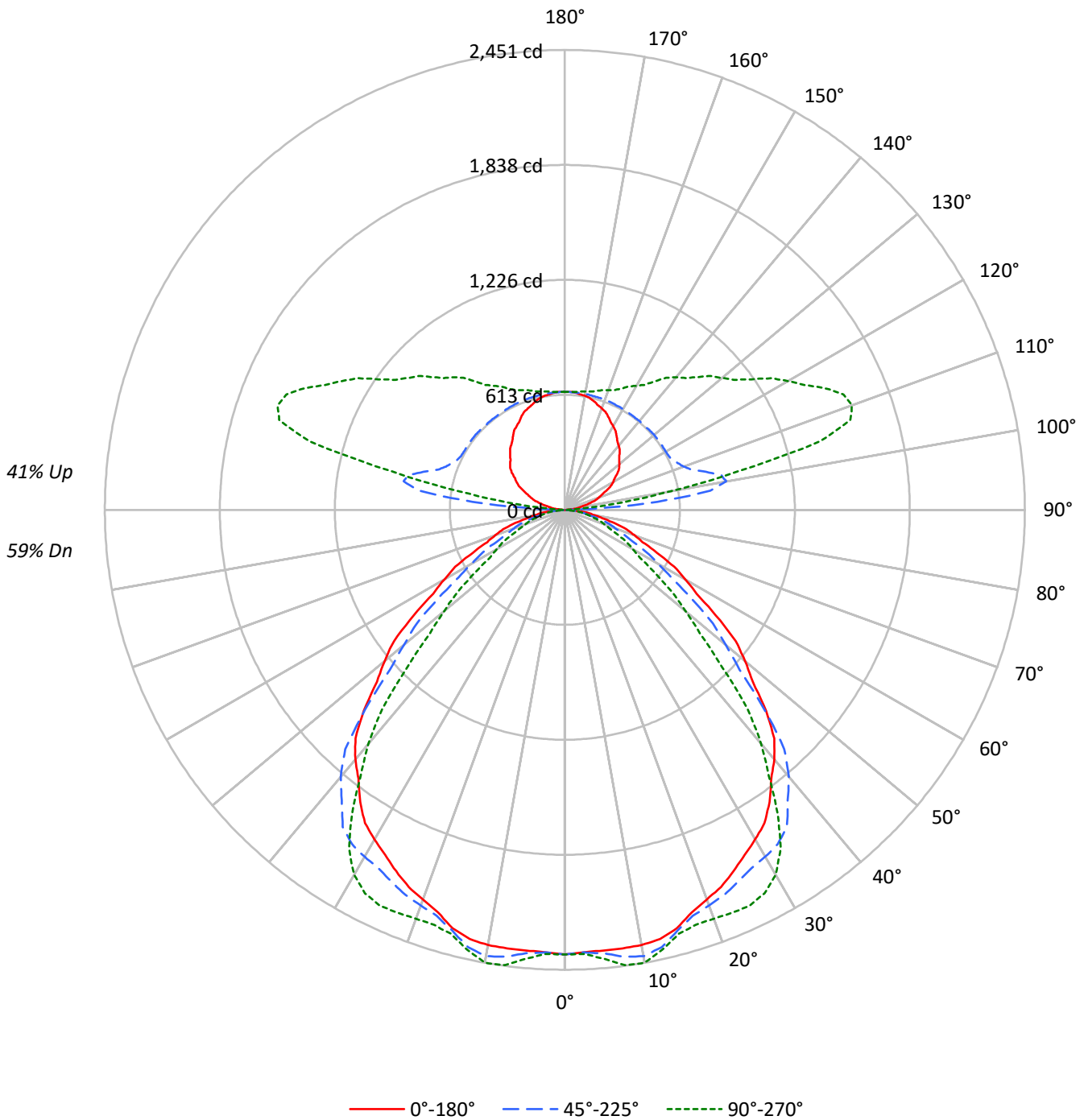
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9614.4 lumens  
Efficiency: N/A  
Efficacy: 117.5 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: General Diffuse  
  
Input Watts (W): 81.8  
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59		
1	101	97	93	90	94	90	87	84	79	76	74	68	66	65	58	57	56	51		
2	92	85	79	74	86	80	75	70	70	66	63	61	58	55	52	50	48	44		
3	85	75	68	63	79	71	65	60	62	57	54	54	51	48	47	44	42	38		
4	78	67	60	54	72	63	56	51	56	50	46	49	45	41	42	39	37	33		
5	72	60	52	46	67	57	50	44	50	45	40	44	40	36	38	35	32	29		
6	66	54	46	41	62	51	44	39	45	40	35	40	36	32	35	31	29	26		
7	61	49	41	36	57	47	39	34	41	36	31	37	32	29	32	28	26	23		
8	57	45	37	32	53	42	35	31	38	32	28	34	29	26	30	26	23	21		
9	53	41	34	29	50	39	32	27	35	29	25	31	26	23	27	24	21	19		
10	50	38	31	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17		

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

	0°	45°	90°
0°	38253	38253	38253
5°	38203	38438	38908
10°	38605	39595	40189
15°	38593	38795	39117
20°	37969	38550	39837
25°	37860	38936	41475
30°	37820	39802	41874
35°	37462	40653	38985
40°	36598	39144	34307
45°	34632	34356	27131
50°	31483	28087	21049
55°	27668	23113	16383
60°	23941	18484	13491
65°	20669	15316	11809
70°	18586	13567	10489
75°	17024	11753	9644
80°	14821	9428	9428
85°	10745	8503	4483

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 37434 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.8	2.4
10°-20°	662.3	6.9
20°-30°	1023.8	10.6
30°-40°	1231.4	12.8
40°-50°	1105.7	11.5
50°-60°	740.7	7.7
60°-70°	430.9	4.5
70°-80°	221.3	2.3
80°-90°	55.7	0.6
90°-100°	262.6	2.7
100°-110°	794.4	8.3
110°-120°	775.4	8.1
120°-130°	633.7	6.6
130°-140°	517.2	5.4
140°-150°	402.6	4.2
150°-160°	290.3	3.0
160°-170°	177.7	1.8
170°-180°	60.0	0.6
0°-30°	1914.9	19.9
0°-40°	3146.2	32.7
0°-60°	4992.6	51.9
0°-90°	5700.5	59.3
90°-120°	1832.4	19.1
90°-150°	3386.0	35.2
90°-180°	3914.0	40.7
0°-180°	9614.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2369	2369	2369	2369	2369	
5°	2357	2397	2372	2377	2401	225
15°	2309	2403	2321	2328	2340	648
25°	2125	2210	2186	2267	2328	980
35°	1901	1917	2062	2023	1978	1185
45°	1517	1639	1505	1268	1188	1160
55°	983	1021	821	634	582	883
65°	541	553	401	326	309	547
75°	273	266	188	159	155	290
85°	58	46	46	31	24	72
90°	0	2	12	7	6	4
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2369.2	2369.2	2369.2	2369.2	2369.2
2.5°	2359.5	2387.8	2361.4	2363.5	2369.2
5°	2357.1	2397.2	2371.6	2377.0	2400.6
7.5°	2356.6	2413.8	2401.5	2416.2	2447.4
10°	2354.7	2423.2	2415.1	2418.2	2451.3
12.5°	2343.1	2422.9	2386.1	2383.1	2401.0
15°	2308.8	2403.2	2320.9	2328.4	2340.2
17.5°	2248.4	2347.1	2268.7	2295.3	2318.5
20°	2209.8	2306.6	2243.6	2278.3	2318.5
22.5°	2175.0	2271.8	2220.4	2269.0	2324.3
25°	2125.2	2210.3	2185.6	2266.7	2328.1
27.5°	2073.1	2123.1	2152.3	2261.0	2304.0
30°	2028.6	2061.7	2134.9	2229.5	2246.0
32.5°	1980.3	2000.2	2111.7	2161.0	2139.7
35°	1900.6	1917.2	2062.5	2022.8	1977.9
37.5°	1806.0	1840.0	1951.8	1837.7	1786.2
40°	1736.4	1793.1	1857.2	1686.8	1627.7
42.5°	1651.4	1742.1	1731.6	1514.5	1442.3
45°	1516.7	1639.4	1504.6	1268.5	1188.2
47.5°	1357.7	1483.8	1263.1	1052.2	977.1
50°	1253.4	1355.0	1118.2	920.7	838.0
52.5°	1147.2	1220.4	994.5	797.2	722.1
55°	982.9	1020.7	821.1	634.0	582.0
57.5°	832.2	856.3	670.9	512.1	473.8
60°	741.4	758.0	572.4	448.5	417.8
62.5°	658.3	671.1	493.2	394.6	371.4
65°	541.0	552.8	400.9	325.7	309.1
67.5°	447.8	453.9	329.9	270.6	255.0
70°	393.7	396.0	287.4	234.0	222.2
72.5°	345.4	342.0	246.8	203.2	195.1
75°	272.9	265.8	188.4	159.3	154.6
77.5°	203.8	196.3	132.3	122.7	122.7
80°	159.4	149.9	101.4	101.4	101.4
82.5°	118.8	105.6	78.2	78.2	76.3
85°	58.0	46.2	45.9	31.2	24.2
87.5°	15.5	15.8	8.2	7.2	7.0
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9

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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	20.27	21.17	21.15	22.07	23.20	16.99	17.90	17.88	18.79	19.93
	3H	21.51	22.31	22.40	23.22	24.38	18.06	18.87	18.96	19.77	20.94
	4H	21.96	22.72	22.87	23.63	24.80	18.47	19.22	19.38	20.14	21.31
	6H	22.28	22.98	23.20	23.89	25.08	18.80	19.50	19.72	20.41	21.60
	8H	22.36	23.03	23.29	23.96	25.14	18.89	19.55	19.82	20.48	21.67
	12H	22.39	23.02	23.33	23.95	25.16	18.90	19.53	19.83	20.45	21.66
4H	2H	20.35	21.11	21.27	22.02	23.19	17.57	18.33	18.48	19.24	20.41
	3H	21.83	22.46	22.76	23.40	24.59	18.84	19.47	19.76	20.41	21.60
	4H	22.43	23.00	23.36	23.93	25.15	19.35	19.92	20.28	20.86	22.07
	6H	22.88	23.37	23.83	24.33	25.55	19.78	20.28	20.73	21.24	22.45
	8H	23.01	23.47	23.96	24.43	25.65	19.91	20.37	20.86	21.32	22.55
	12H	23.07	23.48	24.04	24.45	25.68	19.93	20.34	20.90	21.32	22.55
8H	4H	22.45	22.91	23.41	23.87	25.09	19.66	20.11	20.61	21.07	22.29
	6H	23.00	23.38	23.98	24.38	25.60	20.19	20.57	21.17	21.57	22.79
	8H	23.20	23.54	24.19	24.52	25.77	20.38	20.71	21.36	21.70	22.94
	12H	23.31	23.60	24.30	24.58	25.87	20.44	20.74	21.43	21.72	23.01
12H	4H	22.41	22.83	23.38	23.80	25.03	19.67	20.09	20.64	21.06	22.29
	6H	22.99	23.33	23.98	24.31	25.55	20.25	20.59	21.24	21.57	22.82
	8H	23.20	23.50	24.19	24.48	25.77	20.46	20.76	21.45	21.74	23.03