

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: P854242

Luminaire Tested: SQ2-PR1-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854242  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-150U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

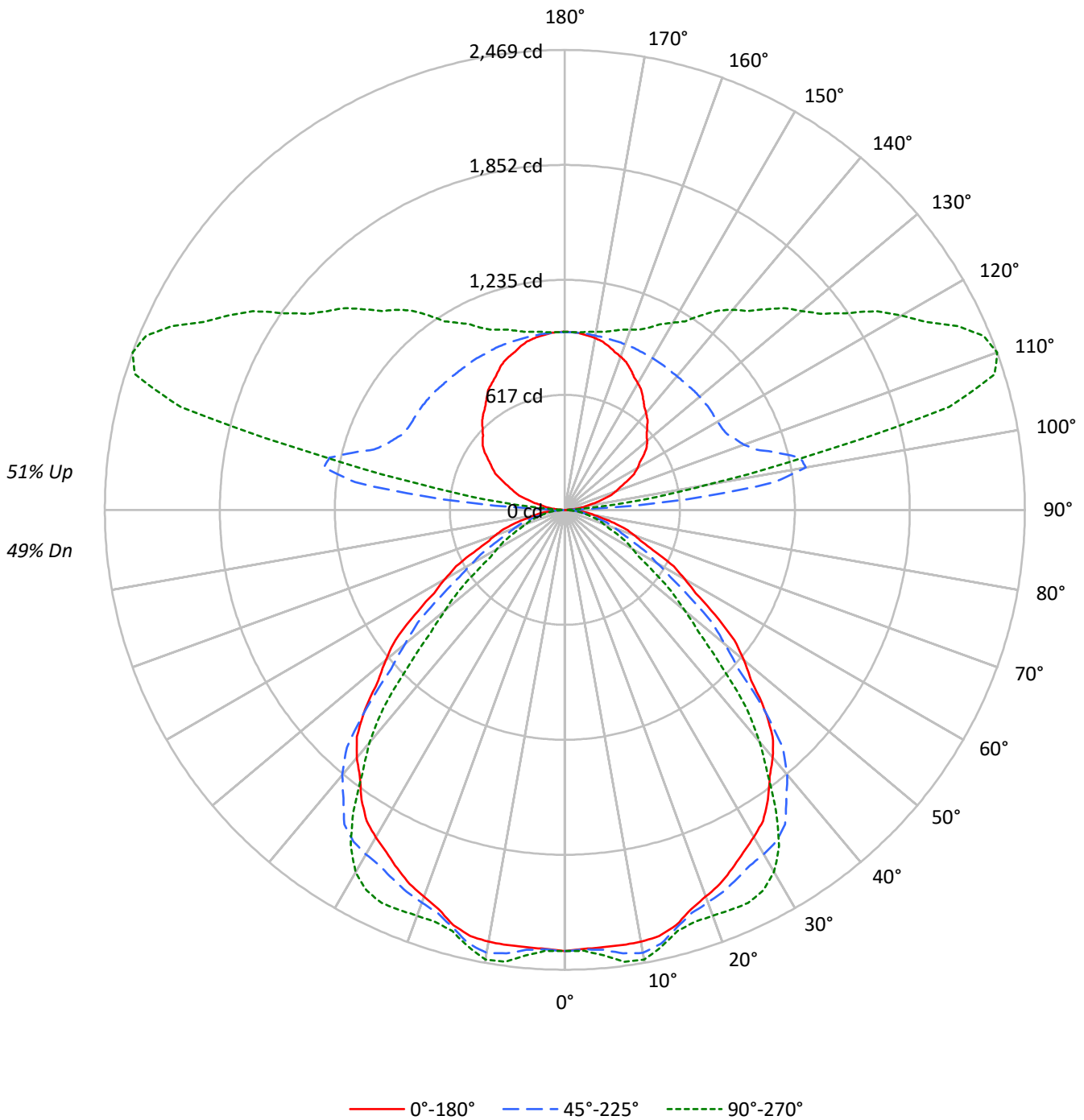
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11595.1 lumens  
Efficiency: N/A  
Efficacy: 109.6 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): 105.8  
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	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	55	55	55	49
1	98	94	91	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	83	77	72	83	77	72	67	65	62	58	55	52	50	45	43	41	37
3	82	73	66	61	76	68	62	57	58	53	50	49	45	43	40	38	36	32
4	76	65	58	52	70	61	54	49	52	47	43	44	40	37	36	33	31	28
5	70	58	51	45	64	54	47	42	47	41	37	39	35	32	33	30	28	24
6	64	53	45	39	59	49	42	37	42	37	33	36	32	29	30	27	24	22
7	59	47	40	34	55	44	37	33	38	33	29	33	28	25	27	24	22	19
8	55	43	36	30	51	40	34	29	35	30	26	30	26	23	25	22	20	17
9	51	39	32	27	47	37	30	26	32	27	23	28	23	20	23	20	18	16
10	48	36	29	24	44	34	28	23	30	24	21	25	21	19	22	18	16	14

**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	2.0
10°-20°	662.3	5.7
20°-30°	1023.8	8.8
30°-40°	1231.4	10.6
40°-50°	1105.7	9.5
50°-60°	740.7	6.4
60°-70°	430.9	3.7
70°-80°	221.3	1.9
80°-90°	55.7	0.5
90°-100°	363.9	3.1
100°-110°	1191.6	10.3
110°-120°	1178.0	10.2
120°-130°	963.0	8.3
130°-140°	785.9	6.8
140°-150°	611.6	5.3
150°-160°	440.4	3.8
160°-170°	269.4	2.3
170°-180°	91.0	0.8
0°-30°	1914.9	16.5
0°-40°	3146.2	27.1
0°-60°	4992.6	43.1
0°-90°	5700.4	49.2
90°-120°	2733.5	23.6
90°-150°	5093.9	43.9
90°-180°	5895.0	50.8
0°-180°	11595.1	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°	1	3	8	7	8	5
95°	51	148	662	236	153	58
105°	207	295	1183	2247	2135	218
115°	373	446	961	1986	2331	368
125°	519	579	947	1566	1839	462
135°	625	692	939	1351	1522	484
145°	731	785	937	1162	1273	458
155°	833	861	943	1039	1080	384
165°	910	918	947	984	994	256
175°	951	951	952	959	957	90
180°	955	955	955	955	955	

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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°	15.7	16.0	7.4	7.2	7.4
90°	1.0	2.9	7.9	6.9	7.9
92.5°	16.7	60.8	186.9	60.8	48.7
95°	51.0	148.0	661.6	235.7	153.1
97.5°	92.7	195.2	1135.1	686.6	425.6
100°	121.7	219.6	1313.3	1172.8	777.4
102.5°	154.7	250.3	1293.7	1728.1	1339.6
105°	207.1	295.4	1182.8	2247.2	2134.9
107.5°	258.7	339.7	1074.6	2295.7	2419.1
110°	292.5	371.2	1022.8	2239.2	2468.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	324.7	401.1	991.4	2141.0	2434.8
115°	373.0	445.9	960.9	1985.7	2331.2
117.5°	419.9	488.0	949.4	1833.1	2183.9
120°	450.5	514.8	946.2	1744.1	2085.8
122.5°	478.0	540.8	946.2	1667.4	1984.5
125°	519.2	578.7	947.2	1565.9	1839.4
127.5°	554.2	614.8	946.0	1491.1	1729.1
130°	576.2	637.6	945.2	1445.8	1660.8
132.5°	595.8	658.8	942.9	1406.9	1601.9
135°	625.2	691.5	939.3	1350.6	1522.4
137.5°	656.3	721.9	937.2	1291.9	1447.2
140°	678.3	741.6	936.4	1254.8	1401.7
142.5°	700.2	759.7	936.4	1215.2	1348.3
145°	731.3	785.0	937.4	1161.7	1273.1
147.5°	763.8	808.6	938.8	1115.2	1199.3
150°	784.3	823.6	940.3	1088.2	1159.2
152.5°	804.7	839.4	941.1	1065.9	1124.7
155°	833.3	861.2	943.3	1039.4	1079.7
157.5°	859.1	879.2	945.4	1018.5	1047.7
160°	875.5	891.9	946.2	1006.6	1029.6
162.5°	889.7	902.9	946.2	997.0	1013.9
165°	909.9	918.5	947.2	983.8	994.3
167.5°	927.0	931.2	948.4	973.4	979.2
170°	936.4	938.3	949.2	967.9	969.8
172.5°	943.5	944.6	951.5	963.9	964.3
175°	951.1	951.1	952.1	958.9	957.0
177.5°	955.0	954.3	953.5	958.1	955.0
180°	955.0	955.0	955.0	955.0	955.0

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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	19.36	20.18	20.34	21.16	22.44	16.09	16.90	17.06	17.88	19.17
	3H	20.59	21.32	21.58	22.31	23.62	17.15	17.88	18.13	18.87	20.18
	4H	21.04	21.73	22.04	22.72	24.04	17.55	18.23	18.55	19.23	20.55
	6H	21.36	21.99	22.36	22.99	24.32	17.88	18.51	18.88	19.51	20.84
	8H	21.44	22.04	22.45	23.05	24.38	17.96	18.56	18.97	19.58	20.90
	12H	21.47	22.04	22.48	23.04	24.39	17.97	18.54	18.99	19.55	20.90
4H	2H	19.43	20.12	20.44	21.12	22.43	16.65	17.34	17.65	18.33	19.65
	3H	20.90	21.47	21.92	22.49	23.83	17.91	18.48	18.93	19.50	20.84
	4H	21.50	22.02	22.52	23.03	24.38	18.42	18.94	19.44	19.95	21.31
	6H	21.95	22.39	22.98	23.43	24.78	18.85	19.30	19.88	20.33	21.69
	8H	22.08	22.49	23.11	23.53	24.89	18.97	19.39	20.00	20.42	21.79
	12H	22.13	22.50	23.18	23.55	24.92	18.99	19.37	20.04	20.41	21.78
8H	4H	21.52	21.94	22.55	22.97	24.33	18.72	19.14	19.75	20.17	21.53
	6H	22.07	22.41	23.12	23.48	24.85	19.25	19.60	20.31	20.67	22.03
	8H	22.26	22.57	23.33	23.62	25.01	19.44	19.74	20.50	20.80	22.18
	12H	22.37	22.63	23.43	23.69	25.11	19.50	19.77	20.56	20.82	22.24
12H	4H	21.47	21.85	22.52	22.90	24.27	18.73	19.11	19.78	20.16	21.53
	6H	22.05	22.35	23.11	23.41	24.79	19.31	19.62	20.38	20.67	22.06
	8H	22.26	22.53	23.33	23.58	25.01	19.52	19.79	20.58	20.84	22.26