

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: P854312

Luminaire Tested: SQ2-PW1-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854312  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-125U-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

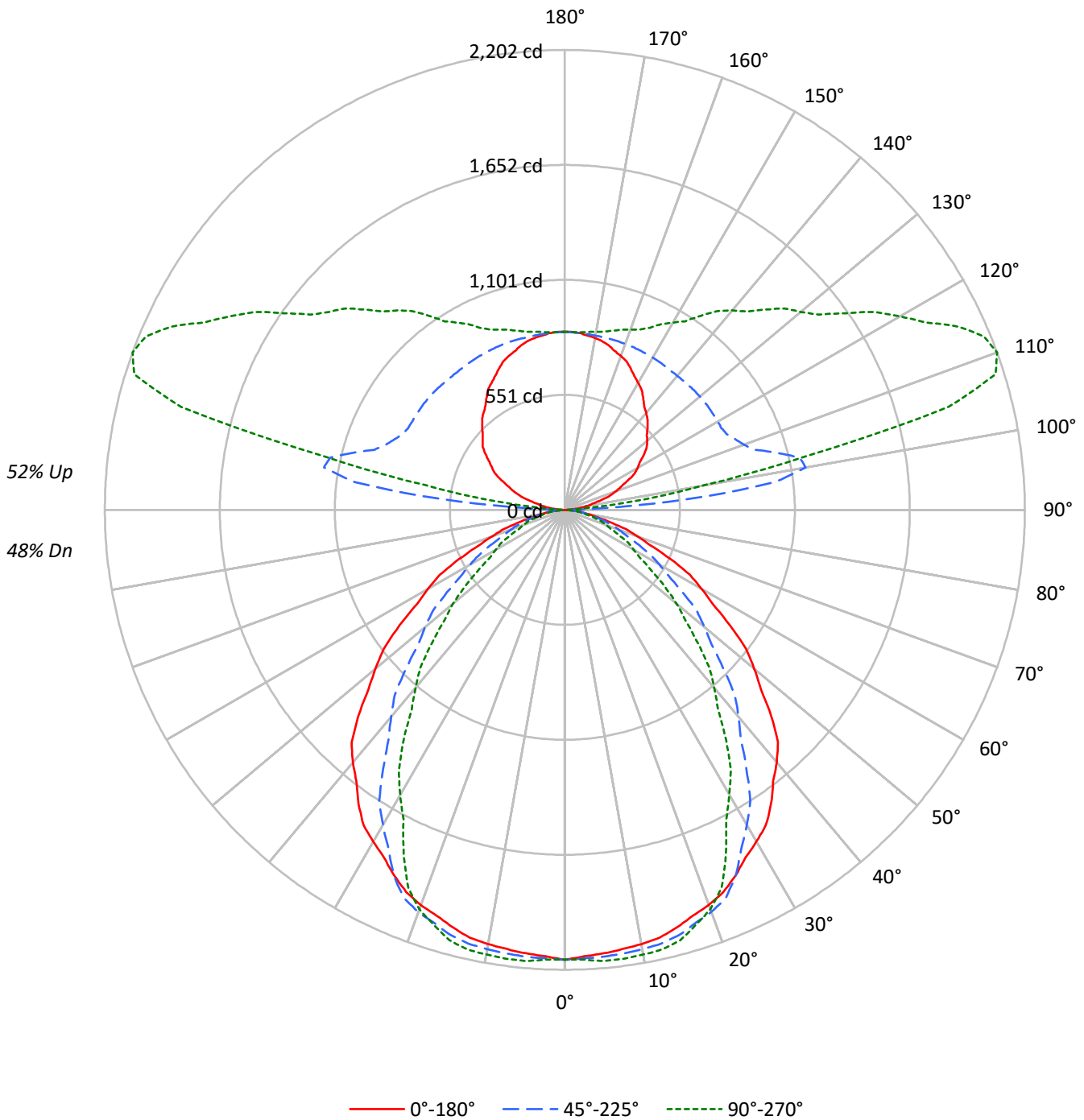
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10038.0 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 81.5  
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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48				48
1	98	94	90	87	90	86	83	80	73	71	68	60	59	57	49	48	47	41				41
2	90	82	77	72	82	76	71	67	64	61	58	53	51	49	43	42	40	35				35
3	82	73	66	60	75	67	61	57	57	53	49	48	44	42	39	37	35	31				31
4	75	65	57	52	69	60	53	48	51	46	42	43	39	36	35	33	30	27				27
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	29	27	24				24
6	64	52	44	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21				21
7	59	47	40	34	54	44	37	32	38	32	29	32	28	25	27	24	21	19				19
8	55	43	35	30	51	40	33	29	35	29	26	29	25	22	25	22	19	17				17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15				15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14				14

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

	0°	45°	90°
0°	34781	34781	34781
5°	34548	34814	35148
10°	34611	35015	35452
15°	34603	35254	35666
20°	34617	35216	34969
25°	34429	34467	32493
30°	34194	32473	29375
35°	33928	29883	26528
40°	33253	27242	23438
45°	31949	24501	20473
50°	29735	21901	17520
55°	27201	19347	14207
60°	24380	16827	12255
65°	21318	14499	10896
70°	17434	12883	9880
75°	13568	11135	9089
80°	10107	9540	8015
85°	6836	7225	4557

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 31949 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.1	2.0
10°-20°	594.3	5.9
20°-30°	874.6	8.7
30°-40°	956.3	9.5
40°-50°	857.9	8.5
50°-60°	639.9	6.4
60°-70°	404.4	4.0
70°-80°	200.3	2.0
80°-90°	47.8	0.5
90°-100°	325.9	3.2
100°-110°	1061.2	10.6
110°-120°	1049.7	10.5
120°-130°	857.8	8.5
130°-140°	701.1	7.0
140°-150°	546.1	5.4
150°-160°	393.6	3.9
160°-170°	240.6	2.4
170°-180°	81.2	0.8
0°-30°	1674.1	16.7
0°-40°	2630.4	26.2
0°-60°	4128.1	41.1
0°-90°	4780.7	47.6
90°-120°	2436.8	24.3
90°-150°	4541.8	45.2
90°-180°	5257.0	52.4
0°-180°	10038.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2154	2154	2154	2154	2154	
5°	2132	2166	2148	2150	2169	203
15°	2070	2110	2109	2124	2134	584
25°	1933	1975	1935	1854	1824	890
35°	1721	1703	1516	1384	1346	1074
45°	1399	1287	1073	939	897	1073
55°	966	874	687	539	505	863
65°	558	512	380	305	285	553
75°	218	234	178	150	146	240
85°	37	47	39	27	25	47
90°	0	3	7	6	6	3
95°	44	134	597	213	131	51
105°	180	260	1051	2008	1901	192
115°	333	398	856	1765	2076	330
125°	463	516	845	1393	1642	412
135°	560	618	841	1202	1356	432
145°	654	702	838	1036	1134	409
155°	746	771	844	927	962	344
165°	814	822	846	878	888	229
175°	849	849	849	855	853	81
180°	852	852	852	852	852	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2154.2	2154.2	2154.2	2154.2	2154.2
2.5°	2139.4	2166.7	2149.3	2151.0	2155.8
5°	2131.6	2165.7	2148.0	2150.5	2168.6
7.5°	2121.0	2155.5	2142.3	2149.7	2167.3
10°	2111.1	2147.2	2135.7	2146.4	2162.4
12.5°	2098.0	2135.7	2127.5	2139.8	2155.8
15°	2070.1	2110.2	2109.1	2123.6	2133.7
17.5°	2037.7	2077.8	2075.8	2079.6	2084.4
20°	2014.7	2054.8	2049.6	2035.2	2035.2
22.5°	1981.9	2025.2	2011.8	1972.5	1959.7
25°	1932.6	1974.7	1934.7	1854.0	1823.9
27.5°	1875.2	1909.3	1828.8	1714.2	1672.5
30°	1834.1	1860.2	1741.8	1615.8	1575.6
32.5°	1791.5	1801.5	1653.2	1522.1	1478.8
35°	1721.3	1703.2	1516.1	1384.0	1345.9
37.5°	1638.4	1584.7	1384.4	1246.0	1203.9
40°	1577.7	1501.5	1292.5	1154.1	1112.0
42.5°	1510.4	1414.9	1205.5	1067.1	1023.3
45°	1399.2	1286.9	1073.0	938.7	896.6
47.5°	1274.1	1162.5	949.1	819.0	782.9
50°	1183.8	1075.5	871.9	741.7	697.5
52.5°	1091.9	994.8	796.4	662.5	602.4
55°	966.3	874.0	687.3	538.8	504.7
57.5°	837.1	757.2	588.4	453.6	425.5
60°	755.0	684.8	521.1	407.6	379.5
62.5°	676.2	614.0	455.5	365.1	341.8
65°	558.0	511.9	379.5	305.2	285.2
67.5°	443.1	417.5	315.5	250.4	237.2
70°	369.3	361.3	272.9	219.3	209.3
72.5°	305.3	308.5	231.8	189.8	183.0
75°	217.5	233.5	178.5	149.7	145.7
77.5°	148.1	172.2	132.1	110.7	107.5
80°	108.7	132.8	102.6	86.2	86.2
82.5°	75.9	95.2	73.0	64.8	64.8
85°	36.9	47.0	39.0	26.6	24.6
87.5°	9.8	15.3	8.0	6.2	6.2
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.1	54.2	173.4	57.1	44.0
95°	44.0	134.2	597.4	213.0	131.0
97.5°	82.8	174.6	1013.9	617.5	376.9
100°	108.0	198.1	1170.7	1043.9	677.1
102.5°	136.5	223.4	1151.4	1544.4	1174.3
105°	180.3	260.2	1051.2	2007.8	1901.2
107.5°	227.6	302.9	956.1	2048.0	2160.9
110°	262.0	330.7	910.8	1998.1	2202.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	290.5	358.4	882.3	1908.0	2171.0
115°	333.3	397.9	856.3	1764.7	2076.3
117.5°	377.3	435.5	846.2	1633.5	1943.6
120°	402.5	459.9	843.7	1552.7	1853.0
122.5°	426.8	483.3	844.5	1482.7	1762.5
125°	463.3	516.5	844.8	1393.3	1642.3
127.5°	494.5	549.0	844.5	1326.4	1534.0
130°	514.6	569.9	843.7	1288.1	1473.6
132.5°	532.2	590.0	842.9	1252.6	1426.7
135°	559.7	618.1	840.6	1202.5	1356.2
137.5°	586.5	645.3	838.3	1151.6	1288.1
140°	605.8	662.2	837.4	1117.0	1246.2
142.5°	624.2	678.1	837.4	1084.0	1199.2
145°	654.0	702.2	838.5	1035.6	1134.0
147.5°	682.9	724.7	839.9	994.5	1070.5
150°	702.2	739.1	841.6	969.9	1034.5
152.5°	721.5	751.8	842.5	951.2	1002.6
155°	746.2	770.8	843.7	927.3	962.1
157.5°	769.7	787.3	845.0	909.7	934.1
160°	784.0	798.3	845.8	898.7	918.1
162.5°	796.5	807.6	845.8	889.3	903.9
165°	814.4	821.5	845.8	877.5	887.7
167.5°	826.9	831.4	846.0	868.6	873.9
170°	835.3	837.4	846.9	862.6	864.7
172.5°	841.2	842.4	848.5	859.2	858.8
175°	848.9	848.9	848.9	855.2	853.1
177.5°	852.1	851.3	850.4	854.5	851.3
180°	852.1	852.1	852.1	852.1	852.1

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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	19.16	19.96	20.14	20.96	22.26	15.64	16.45	16.63	17.44	18.75
	3H	20.48	21.20	21.47	22.20	23.53	16.85	17.56	17.84	18.57	19.90
	4H	20.85	21.53	21.86	22.53	23.87	17.29	17.97	18.30	18.98	20.31
	6H	21.05	21.67	22.07	22.68	24.03	17.61	18.23	18.62	19.24	20.59
	8H	21.08	21.67	22.11	22.70	24.05	17.68	18.27	18.70	19.30	20.64
	12H	21.07	21.64	22.10	22.66	24.03	17.69	18.25	18.72	19.27	20.64
4H	2H	19.26	19.93	20.27	20.94	22.28	16.32	17.00	17.34	18.01	19.34
	3H	20.80	21.36	21.82	22.39	23.74	17.70	18.27	18.73	19.30	20.65
	4H	21.30	21.82	22.33	22.84	24.22	18.25	18.76	19.28	19.79	21.16
	6H	21.63	22.07	22.67	23.12	24.49	18.65	19.09	19.69	20.14	21.51
	8H	21.71	22.12	22.75	23.16	24.55	18.75	19.17	19.80	20.21	21.59
	12H	21.72	22.09	22.78	23.15	24.54	18.77	19.15	19.83	20.20	21.59
8H	4H	21.34	21.75	22.38	22.79	24.18	18.57	18.98	19.61	20.03	21.41
	6H	21.77	22.11	22.84	23.19	24.58	19.07	19.42	20.14	20.50	21.88
	8H	21.92	22.21	22.99	23.28	24.68	19.24	19.54	20.31	20.61	22.01
	12H	21.98	22.24	23.06	23.31	24.75	19.30	19.56	20.37	20.62	22.07
12H	4H	21.29	21.67	22.35	22.72	24.11	18.58	18.96	19.64	20.01	21.40
	6H	21.76	22.06	22.83	23.13	24.53	19.14	19.44	20.21	20.51	21.91
	8H	21.92	22.18	23.00	23.25	24.69	19.32	19.59	20.40	20.65	22.09