

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: P854225

Luminaire Tested: SQ2-PR1-125U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

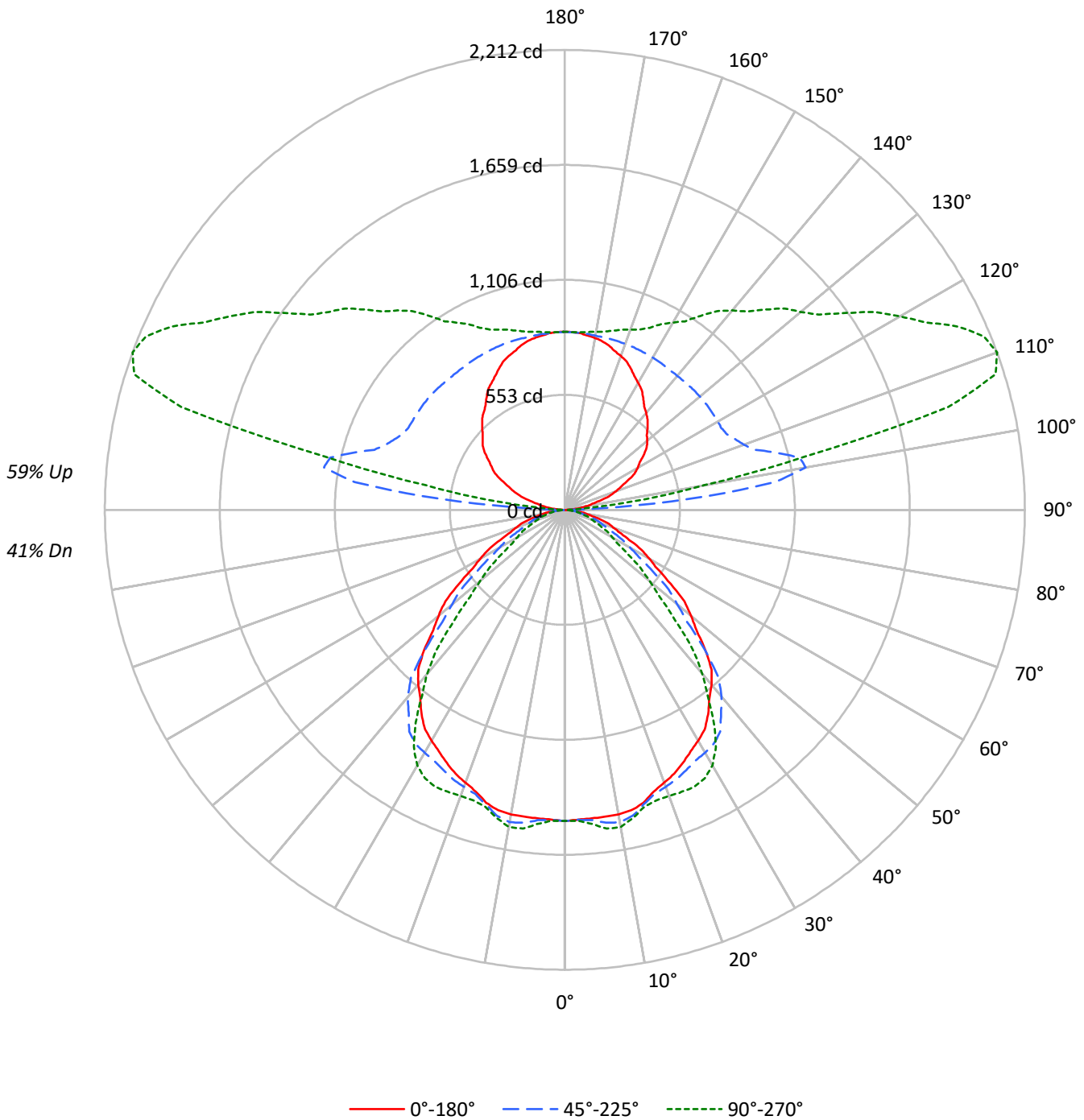
Test Method: LM-79-2019  
Report Number: P854225  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-125U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8883.0 lumens  
Efficiency: N/A  
Efficacy: 125.8 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): 70.6  
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

TEST NUMBER: P854225  
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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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	41				41
1	96	92	88	85	88	84	81	78	69	67	65	55	54	53	43	42	41				35	
2	88	81	75	70	80	74	69	65	61	58	55	49	47	45	38	37	35				30	
3	81	72	65	59	73	66	60	55	54	50	46	44	41	38	34	32	31				26	
4	74	64	56	50	67	58	52	47	49	44	40	39	36	33	31	29	27				23	
5	68	57	49	43	62	52	45	40	44	38	35	35	32	29	28	25	23				20	
6	63	51	43	38	57	47	40	35	39	34	30	32	28	26	25	23	21				18	
7	58	46	38	33	53	42	36	31	36	31	27	29	25	23	23	21	19				16	
8	54	42	34	29	49	39	32	27	33	27	24	27	23	20	21	19	17				14	
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15				13	
10	47	35	28	23	43	32	26	22	27	23	19	23	19	16	18	16	14				12	

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

	0°	45°	90°
0°	24169	24169	24169
5°	24138	24285	24584
10°	24392	25017	25392
15°	24384	24511	24715
20°	23990	24357	25170
25°	23922	24602	26206
30°	23897	25148	26457
35°	23670	25685	24632
40°	23123	24732	21678
45°	21882	21706	17141
50°	19891	17746	13300
55°	17481	14604	10351
60°	15129	11677	8525
65°	13058	9677	7461
70°	11740	8573	6628
75°	10755	7424	6095
80°	9363	5960	5960
85°	6780	5372	2834

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 23653 cd/sqm



TEST NUMBER: P854225

CATALOG NUMBER: SQ2-PR1-125U-075D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.6	1.6
10°-20°	418.5	4.7
20°-30°	646.9	7.3
30°-40°	778.0	8.8
40°-50°	698.6	7.9
50°-60°	468.0	5.3
60°-70°	272.2	3.1
70°-80°	139.8	1.6
80°-90°	35.4	0.4
90°-100°	327.4	3.7
100°-110°	1066.0	12.0
110°-120°	1054.5	11.9
120°-130°	861.7	9.7
130°-140°	704.3	7.9
140°-150°	548.6	6.2
150°-160°	395.4	4.5
160°-170°	241.7	2.7
170°-180°	81.5	0.9
0°-30°	1209.9	13.6
0°-40°	1987.9	22.4
0°-60°	3154.5	35.5
0°-90°	3602.0	40.5
90°-120°	2447.9	27.6
90°-150°	4562.4	51.4
90°-180°	5281.0	59.5
0°-180°	8883.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1497	1497	1497	1497	1497	
5°	1489	1515	1498	1502	1517	142
15°	1459	1518	1466	1471	1479	410
25°	1343	1396	1381	1432	1471	619
35°	1201	1211	1303	1278	1250	749
45°	958	1036	951	802	751	733
55°	621	645	519	401	368	558
65°	342	349	253	206	195	346
75°	172	168	119	101	98	183
85°	37	29	29	20	15	45
90°	0	3	7	6	6	3
95°	44	135	600	214	132	51
105°	181	261	1056	2017	1910	193
115°	335	400	860	1773	2086	331
125°	465	519	849	1400	1650	414
135°	562	621	844	1208	1362	434
145°	657	705	842	1040	1139	411
155°	750	774	848	932	966	345
165°	818	825	850	881	892	230
175°	853	853	853	859	857	81
180°	856	856	856	856	856	



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CATALOG NUMBER: SQ2-PR1-125U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1490.8	1508.7	1492.0	1493.3	1496.9
5°	1489.3	1514.7	1498.4	1501.8	1516.8
7.5°	1489.0	1525.1	1517.4	1526.7	1546.4
10°	1487.8	1531.0	1525.9	1527.9	1548.8
12.5°	1480.4	1530.9	1507.6	1505.7	1517.1
15°	1458.8	1518.5	1466.4	1471.1	1478.6
17.5°	1420.6	1483.0	1433.4	1450.3	1464.9
20°	1396.2	1457.4	1417.6	1439.5	1464.9
22.5°	1374.2	1435.4	1402.9	1433.6	1468.5
25°	1342.8	1396.5	1381.0	1432.2	1471.0
27.5°	1309.8	1341.5	1359.9	1428.6	1455.7
30°	1281.8	1302.7	1348.9	1408.7	1419.1
32.5°	1251.2	1263.8	1334.3	1365.4	1352.0
35°	1200.9	1211.3	1303.1	1278.1	1249.7
37.5°	1141.1	1162.6	1233.2	1161.1	1128.6
40°	1097.1	1132.9	1173.4	1065.8	1028.5
42.5°	1043.4	1100.7	1094.1	956.9	911.3
45°	958.3	1035.9	950.6	801.5	750.7
47.5°	857.9	937.5	798.1	664.8	617.4
50°	791.9	856.1	706.5	581.7	529.5
52.5°	724.8	771.1	628.4	503.7	456.2
55°	621.0	644.9	518.8	400.6	367.7
57.5°	525.8	541.0	423.9	323.6	299.4
60°	468.5	478.9	361.6	283.4	264.0
62.5°	416.0	424.0	311.6	249.3	234.7
65°	341.8	349.3	253.3	205.8	195.3
67.5°	282.9	286.8	208.4	171.0	161.1
70°	248.7	250.2	181.6	147.8	140.4
72.5°	218.2	216.1	155.9	128.4	123.3
75°	172.4	168.0	119.0	100.6	97.7
77.5°	128.8	124.0	83.6	77.5	77.5
80°	100.7	94.7	64.1	64.1	64.1
82.5°	75.1	66.7	49.4	49.4	48.2
85°	36.6	29.2	29.0	19.7	15.3
87.5°	9.8	10.4	5.1	4.9	4.9
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.5	174.1	57.4	44.2
95°	44.2	134.8	600.1	214.0	131.6
97.5°	83.2	175.4	1018.5	620.3	378.6
100°	108.4	199.0	1176.0	1048.7	680.1
102.5°	137.1	224.4	1156.6	1551.4	1179.6
105°	181.1	261.4	1056.0	2016.9	1909.8
107.5°	228.7	304.2	960.4	2057.3	2170.7
110°	263.2	332.2	914.9	2007.1	2212.0



TEST NUMBER: P854225

CATALOG NUMBER: SQ2-PR1-125U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	291.8	360.0	886.3	1916.7	2180.8
115°	334.8	399.7	860.2	1772.7	2085.6
117.5°	379.0	437.5	850.1	1640.9	1952.4
120°	404.3	461.9	847.5	1559.8	1861.4
122.5°	428.7	485.5	848.4	1489.4	1770.4
125°	465.3	518.9	848.6	1399.6	1649.8
127.5°	496.7	551.5	848.4	1332.4	1540.9
130°	516.9	572.5	847.5	1293.9	1480.3
132.5°	534.6	592.7	846.7	1258.3	1433.1
135°	562.2	620.9	844.4	1207.9	1362.4
137.5°	589.2	648.3	842.0	1156.8	1293.9
140°	608.5	665.2	841.2	1122.1	1251.8
142.5°	627.1	681.2	841.2	1088.9	1204.6
145°	657.0	705.3	842.3	1040.3	1139.2
147.5°	686.0	728.0	843.7	999.0	1075.4
150°	705.4	742.5	845.4	974.3	1039.1
152.5°	724.8	755.2	846.3	955.5	1007.1
155°	749.6	774.3	847.5	931.5	966.5
157.5°	773.2	790.9	848.8	913.8	938.3
160°	787.5	801.9	849.6	902.7	922.3
162.5°	800.1	811.3	849.6	893.3	908.0
165°	818.0	825.3	849.6	881.4	891.7
167.5°	830.7	835.2	849.8	872.5	877.8
170°	839.1	841.2	850.7	866.5	868.6
172.5°	845.0	846.2	852.4	863.1	862.7
175°	852.8	852.8	852.8	859.1	857.0
177.5°	855.9	855.1	854.3	858.4	855.1
180°	855.9	855.9	855.9	855.9	855.9



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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	16.89	17.65	17.94	18.69	20.09	13.62	14.37	14.66	15.41	16.82
	3H	18.12	18.79	19.17	19.84	21.26	14.68	15.35	15.73	16.40	17.82
	4H	18.57	19.20	19.63	20.25	21.68	15.07	15.71	16.13	16.76	18.19
	6H	18.88	19.46	19.95	20.52	21.96	15.40	15.98	16.47	17.04	18.48
	8H	18.96	19.51	20.03	20.58	22.02	15.48	16.03	16.56	17.11	18.54
	12H	18.98	19.51	20.06	20.57	22.03	15.48	16.01	16.57	17.08	18.54
4H	2H	16.96	17.59	18.03	18.65	20.08	14.17	14.81	15.24	15.86	17.29
	3H	18.42	18.95	19.50	20.03	21.47	15.43	15.96	16.51	17.04	18.48
	4H	19.01	19.49	20.09	20.56	22.03	15.93	16.41	17.01	17.49	18.95
	6H	19.46	19.87	20.55	20.97	22.42	16.36	16.77	17.45	17.87	19.33
	8H	19.59	19.97	20.68	21.06	22.53	16.48	16.87	17.57	17.96	19.43
	12H	19.64	19.98	20.74	21.09	22.56	16.50	16.85	17.61	17.95	19.43
8H	4H	19.03	19.41	20.12	20.50	21.97	16.23	16.62	17.32	17.70	19.18
	6H	19.57	19.89	20.69	21.02	22.49	16.76	17.08	17.87	18.21	19.68
	8H	19.77	20.05	20.89	21.16	22.65	16.95	17.23	18.07	18.34	19.83
	12H	19.87	20.12	20.99	21.22	22.75	17.01	17.25	18.13	18.36	19.89
12H	4H	18.98	19.33	20.09	20.43	21.91	16.24	16.59	17.35	17.69	19.17
	6H	19.56	19.84	20.68	20.95	22.44	16.82	17.10	17.94	18.21	19.70
	8H	19.77	20.01	20.89	21.12	22.65	17.02	17.27	18.15	18.38	19.91