

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: P854224

Luminaire Tested: SQ2-PR1-125U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854224  
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-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

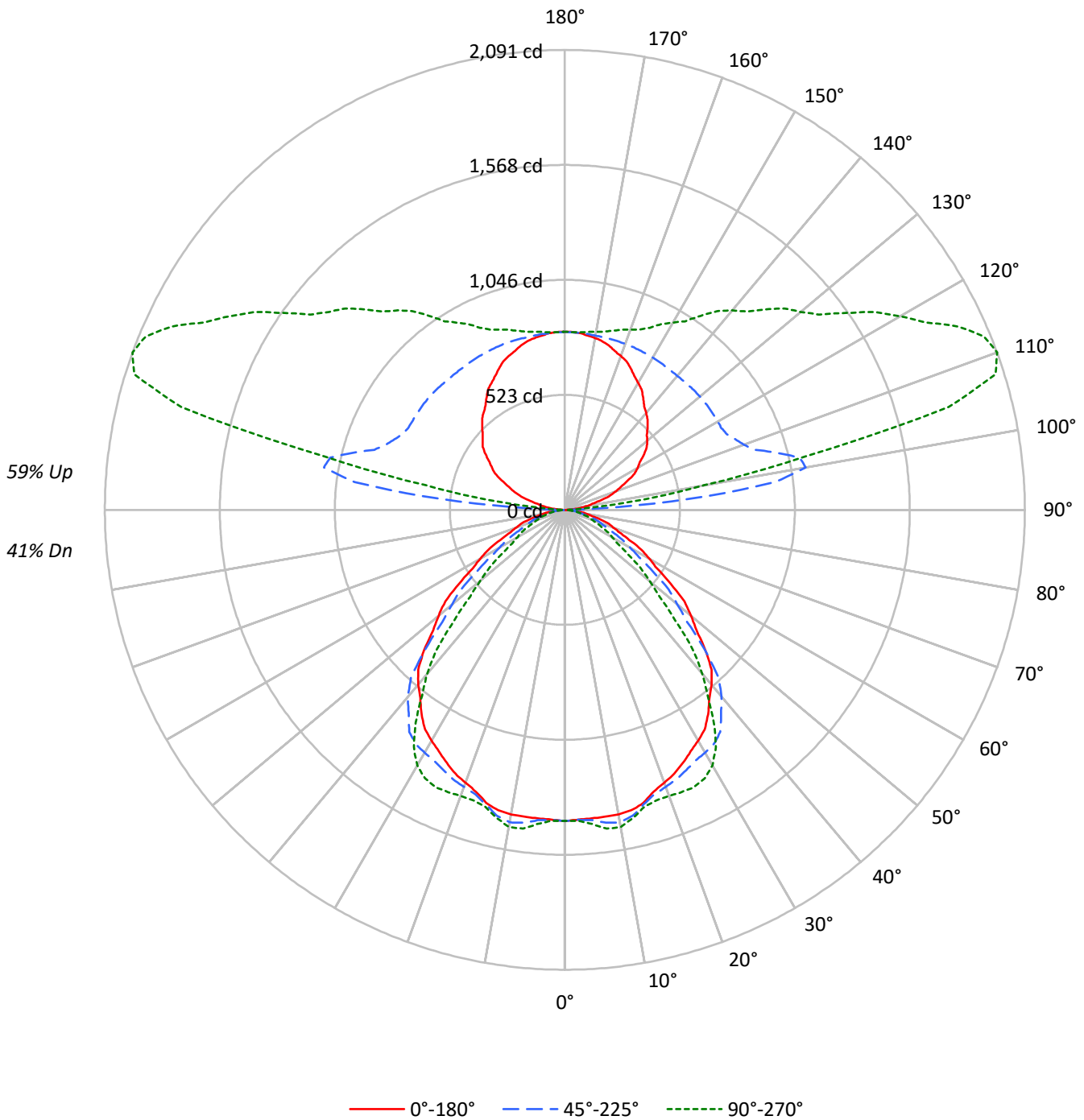
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8397.9 lumens  
Efficiency: N/A  
Efficacy: 119.0 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

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

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

	0°	45°	90°
0°	22850	22850	22850
5°	22820	22960	23240
10°	23059	23651	24005
15°	23052	23173	23366
20°	22680	23027	23795
25°	22616	23257	24773
30°	22592	23774	25012
35°	22377	24283	23288
40°	21861	23381	20493
45°	20685	20521	16205
50°	18806	16777	12574
55°	16527	13807	9788
60°	14302	11041	8060
65°	12344	9150	7056
70°	11098	8105	6264
75°	10168	7018	5758
80°	8852	5635	5635
85°	6410	5076	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 22361 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.7	1.6
10°-20°	395.6	4.7
20°-30°	611.5	7.3
30°-40°	735.5	8.8
40°-50°	660.4	7.9
50°-60°	442.5	5.3
60°-70°	257.4	3.1
70°-80°	132.2	1.6
80°-90°	33.5	0.4
90°-100°	309.5	3.7
100°-110°	1007.8	12.0
110°-120°	996.9	11.9
120°-130°	814.6	9.7
130°-140°	665.8	7.9
140°-150°	518.6	6.2
150°-160°	373.8	4.5
160°-170°	228.5	2.7
170°-180°	77.1	0.9
0°-30°	1143.8	13.6
0°-40°	1879.3	22.4
0°-60°	2982.2	35.5
0°-90°	3405.3	40.5
90°-120°	2314.2	27.6
90°-150°	4313.2	51.4
90°-180°	4993.0	59.5
0°-180°	8397.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1415	1415	1415	1415	1415	
5°	1408	1432	1417	1420	1434	134
15°	1379	1436	1386	1391	1398	387
25°	1270	1320	1306	1354	1391	585
35°	1135	1145	1232	1208	1182	708
45°	906	979	899	758	710	693
55°	587	610	490	379	348	528
65°	323	330	240	194	185	327
75°	163	159	112	95	92	173
85°	35	28	27	19	14	43
90°	0	3	7	6	6	3
95°	42	127	567	202	124	49
105°	171	247	998	1907	1806	183
115°	316	378	813	1676	1972	313
125°	440	490	802	1323	1560	392
135°	532	587	798	1142	1288	411
145°	621	667	796	984	1077	389
155°	709	732	801	881	914	326
165°	773	780	803	833	843	218
175°	806	806	806	812	810	76
180°	809	809	809	809	809	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1415.2	1415.2	1415.2	1415.2	1415.2
2.5°	1409.4	1426.3	1410.6	1411.8	1415.2
5°	1408.0	1431.9	1416.6	1419.8	1433.9
7.5°	1407.7	1441.8	1434.5	1443.3	1461.9
10°	1406.5	1447.4	1442.6	1444.5	1464.2
12.5°	1399.6	1447.3	1425.3	1423.5	1434.2
15°	1379.1	1435.5	1386.3	1390.8	1397.9
17.5°	1343.0	1402.0	1355.2	1371.1	1384.9
20°	1320.0	1377.8	1340.2	1360.9	1384.9
22.5°	1299.2	1357.0	1326.3	1355.3	1388.3
25°	1269.5	1320.2	1305.5	1354.0	1390.6
27.5°	1238.3	1268.2	1285.6	1350.6	1376.2
30°	1211.8	1231.5	1275.2	1331.7	1341.6
32.5°	1182.9	1194.8	1261.4	1290.8	1278.1
35°	1135.3	1145.2	1232.0	1208.3	1181.5
37.5°	1078.8	1099.1	1165.9	1097.7	1066.9
40°	1037.2	1071.1	1109.3	1007.6	972.3
42.5°	986.4	1040.6	1034.3	904.7	861.5
45°	905.9	979.3	898.7	757.7	709.7
47.5°	811.0	886.3	754.5	628.5	583.7
50°	748.7	809.4	667.9	549.9	500.6
52.5°	685.2	729.0	594.1	476.2	431.3
55°	587.1	609.7	490.5	378.7	347.7
57.5°	497.1	511.5	400.7	305.9	283.0
60°	442.9	452.7	341.9	267.9	249.6
62.5°	393.2	400.9	294.6	235.7	221.9
65°	323.1	330.2	239.5	194.5	184.7
67.5°	267.5	271.1	197.1	161.6	152.3
70°	235.1	236.6	171.7	139.8	132.7
72.5°	206.3	204.3	147.4	121.4	116.6
75°	163.0	158.8	112.5	95.1	92.3
77.5°	121.8	117.2	79.1	73.3	73.3
80°	95.2	89.6	60.6	60.6	60.6
82.5°	71.0	63.1	46.7	46.7	45.6
85°	34.6	27.6	27.4	18.7	14.4
87.5°	9.2	9.8	4.9	4.7	4.7
90°	0.0	2.9	7.0	6.0	6.0
92.5°	14.3	51.5	164.6	54.3	41.8
95°	41.8	127.4	567.3	202.3	124.4
97.5°	78.6	165.8	962.9	586.4	357.9
100°	102.5	188.2	1111.8	991.4	643.0
102.5°	129.6	212.1	1093.5	1466.7	1115.2
105°	171.2	247.1	998.3	1906.7	1805.5
107.5°	216.2	287.6	907.9	1944.9	2052.2
110°	248.8	314.0	864.9	1897.5	2091.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	275.9	340.3	837.9	1812.0	2061.7
115°	316.5	377.8	813.2	1675.9	1971.7
117.5°	358.3	413.6	803.6	1551.2	1845.7
120°	382.2	436.7	801.2	1474.6	1759.7
122.5°	405.3	459.0	802.0	1408.1	1673.7
125°	439.9	490.5	802.2	1323.2	1559.7
127.5°	469.6	521.4	802.0	1259.6	1456.8
130°	488.7	541.3	801.2	1223.3	1399.4
132.5°	505.4	560.3	800.4	1189.6	1354.8
135°	531.5	587.0	798.3	1142.0	1288.0
137.5°	557.0	612.8	796.1	1093.6	1223.3
140°	575.3	628.8	795.3	1060.8	1183.4
142.5°	592.8	644.0	795.3	1029.5	1138.9
145°	621.1	666.8	796.3	983.5	1076.9
147.5°	648.6	688.3	797.7	944.4	1016.6
150°	666.9	701.9	799.2	921.1	982.4
152.5°	685.2	714.0	800.0	903.3	952.1
155°	708.7	732.0	801.2	880.6	913.7
157.5°	731.0	747.7	802.4	863.9	887.0
160°	744.5	758.1	803.2	853.4	871.9
162.5°	756.4	767.0	803.2	844.6	858.4
165°	773.4	780.2	803.2	833.3	843.0
167.5°	785.3	789.6	803.4	824.8	829.9
170°	793.3	795.2	804.2	819.2	821.1
172.5°	798.9	800.0	805.8	816.0	815.6
175°	806.2	806.2	806.2	812.1	810.2
177.5°	809.2	808.4	807.6	811.5	808.4
180°	809.2	809.2	809.2	809.2	809.2

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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	16.70	17.45	17.74	18.49	19.90	13.42	14.18	14.47	15.22	16.62
	3H	17.92	18.59	18.98	19.65	21.07	14.48	15.15	15.53	16.20	17.63
	4H	18.37	19.01	19.43	20.06	21.49	14.88	15.51	15.94	16.56	17.99
	6H	18.68	19.27	19.75	20.32	21.76	15.20	15.78	16.27	16.84	18.28
	8H	18.76	19.32	19.84	20.39	21.82	15.28	15.84	16.36	16.91	18.35
	12H	18.79	19.31	19.87	20.38	21.84	15.29	15.82	16.37	16.88	18.34
4H	2H	16.76	17.40	17.83	18.45	19.88	13.98	14.61	15.05	15.67	17.10
	3H	18.22	18.75	19.30	19.83	21.27	15.23	15.76	16.31	16.84	18.29
	4H	18.82	19.30	19.90	20.37	21.83	15.74	16.22	16.82	17.29	18.75
	6H	19.26	19.68	20.35	20.77	22.23	16.17	16.58	17.26	17.67	19.13
	8H	19.39	19.78	20.48	20.87	22.34	16.29	16.67	17.38	17.76	19.23
	12H	19.44	19.79	20.55	20.89	22.37	16.30	16.65	17.41	17.75	19.23
8H	4H	18.83	19.22	19.93	20.31	21.78	16.03	16.42	17.13	17.51	18.98
	6H	19.38	19.70	20.49	20.83	22.30	16.57	16.88	17.68	18.01	19.48
	8H	19.58	19.86	20.70	20.97	22.46	16.75	17.03	17.87	18.14	19.63
	12H	19.68	19.92	20.80	21.03	22.56	16.81	17.06	17.93	18.16	19.69
12H	4H	18.79	19.14	19.90	20.24	21.71	16.05	16.39	17.15	17.50	18.97
	6H	19.37	19.64	20.49	20.76	22.25	16.63	16.91	17.75	18.02	19.51
	8H	19.57	19.82	20.70	20.93	22.45	16.83	17.08	17.95	18.18	19.71