

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: P853688

Luminaire Tested: SQ2-F-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853688
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-075U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

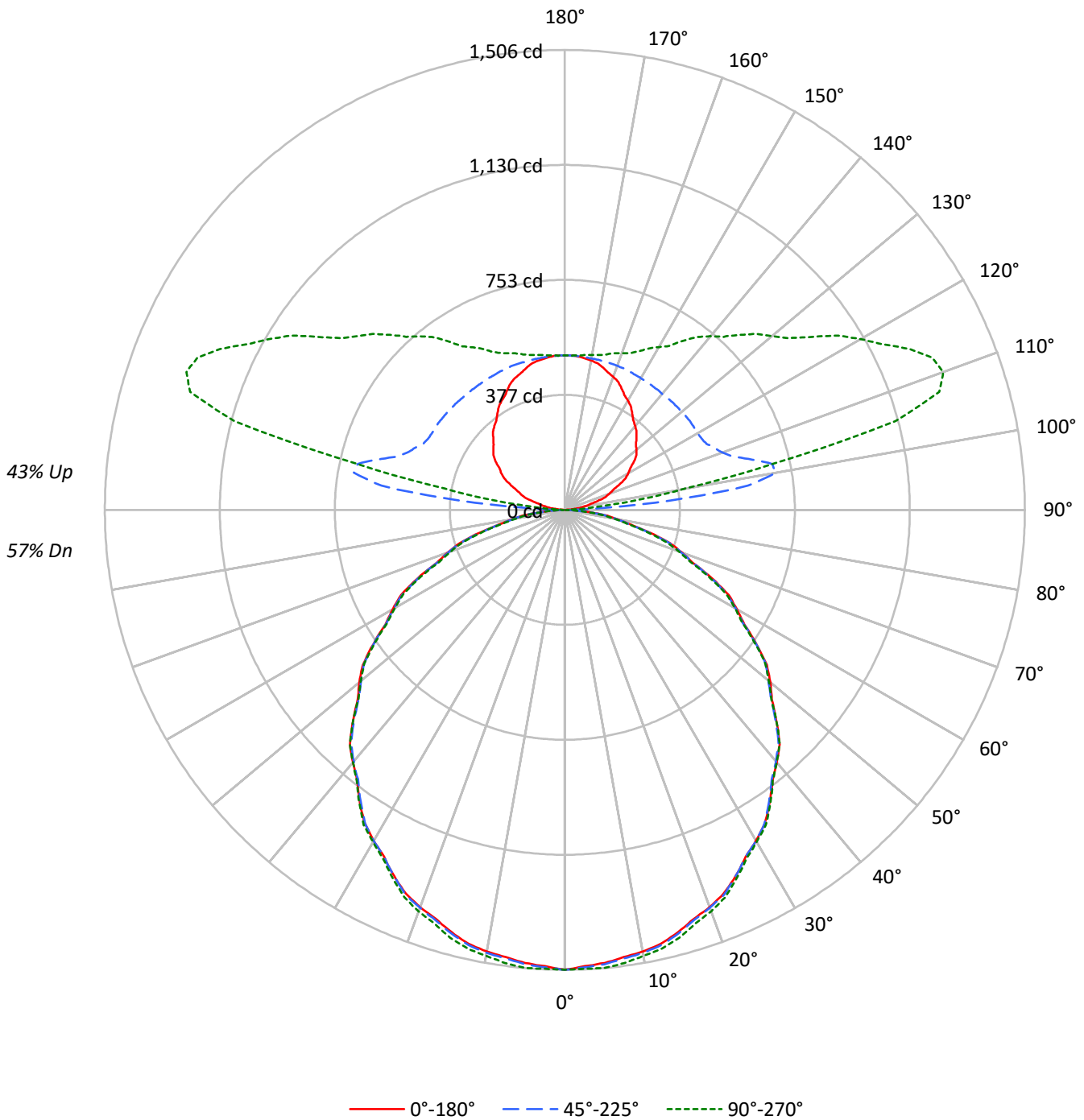
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7362.0 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.9
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									
RC	80									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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57				57															
1	99	95	91	87	92	88	85	82	76	74	72	66	64	62	55	54	53	48				48															
2	90	83	76	71	84	77	72	67	67	63	59	57	54	51	49	46	44	40				40															
3	82	72	65	59	76	68	61	56	59	54	49	51	47	43	43	40	37	34				34															
4	75	64	56	50	70	60	53	47	52	46	42	45	41	37	38	35	32	29				29															
5	69	57	49	43	64	53	46	40	47	41	36	40	36	32	34	31	28	25				25															
6	63	51	43	37	59	48	40	35	42	36	31	36	32	28	31	27	24	22				22															
7	59	46	38	32	54	43	36	31	38	32	28	33	28	25	28	25	22	19				19															
8	54	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19	17				17															
9	51	38	31	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15				15															
10	47	35	28	23	44	33	26	22	29	24	20	26	21	18	22	19	16	14				14															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24314	24314	24314
5°	24141	24208	24407
10°	24082	24150	24319
15°	23936	24005	24246
20°	23794	23830	24041
25°	23575	23575	23721
30°	23332	23332	23409
35°	23049	22969	23130
40°	22744	22658	22744
45°	22393	22299	22393
50°	22057	21851	21901
55°	21540	21484	21368
60°	21003	20870	20734
65°	20378	20145	19908
70°	19176	19081	18694
75°	18047	17661	17149
80°	16020	15639	15072
85°	12931	11782	11023

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	1.9
10°-20°	406.7	5.5
20°-30°	611.9	8.3
30°-40°	732.2	9.9
40°-50°	755.5	10.3
50°-60°	681.5	9.3
60°-70°	520.1	7.1
70°-80°	299.0	4.1
80°-90°	78.5	1.1
90°-100°	191.4	2.6
100°-110°	634.6	8.6
110°-120°	629.9	8.6
120°-130°	513.0	7.0
130°-140°	417.0	5.7
140°-150°	323.8	4.4
150°-160°	233.3	3.2
160°-170°	142.9	1.9
170°-180°	48.3	0.7
0°-30°	1161.0	15.8
0°-40°	1893.2	25.7
0°-60°	3330.2	45.2
0°-90°	4227.8	57.4
90°-120°	1456.0	19.8
90°-150°	2709.8	36.8
90°-180°	3134.0	42.6
0°-180°	7362.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1490	1510	1494	1496	1506	141
15°	1432	1450	1436	1442	1450	404
25°	1323	1337	1323	1326	1332	609
35°	1169	1177	1165	1170	1174	731
45°	981	987	977	979	981	757
55°	765	769	763	759	759	684
65°	533	531	527	523	521	524
75°	289	287	283	277	275	305
85°	70	66	64	58	60	81
90°	0	1	3	4	4	4
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1505.9	1505.9	1505.9	1505.9	1505.9
2.5°	1496.0	1513.7	1499.3	1502.6	1504.2
5°	1489.5	1509.5	1493.6	1495.8	1505.9
7.5°	1477.1	1498.8	1481.2	1485.2	1496.4
10°	1468.9	1489.0	1473.0	1475.3	1483.3
12.5°	1455.8	1475.9	1459.9	1463.8	1471.8
15°	1432.0	1450.1	1436.1	1442.5	1450.5
17.5°	1404.5	1423.8	1408.2	1413.7	1420.5
20°	1384.8	1400.9	1386.9	1389.2	1399.2
22.5°	1360.2	1376.3	1363.9	1364.5	1372.9
25°	1323.3	1337.3	1323.3	1325.5	1331.5
27.5°	1281.0	1293.0	1281.0	1283.2	1288.4
30°	1251.5	1263.5	1251.5	1253.6	1255.6
32.5°	1218.6	1229.1	1217.0	1219.2	1224.4
35°	1169.4	1177.4	1165.3	1169.5	1173.5
37.5°	1116.9	1122.9	1112.8	1114.9	1118.5
40°	1079.1	1085.2	1075.0	1077.1	1079.1
42.5°	1041.4	1045.8	1035.6	1037.8	1041.4
45°	980.7	986.7	976.6	978.7	980.7
47.5°	919.1	922.7	914.2	912.6	916.2
50°	878.1	880.1	869.9	869.9	871.9
52.5°	833.8	835.8	828.8	825.6	827.6
55°	765.2	769.3	763.2	759.1	759.1
57.5°	696.3	699.9	692.2	690.1	689.7
60°	650.4	652.4	646.3	644.2	642.1
62.5°	604.4	604.8	598.7	596.6	594.6
65°	533.4	531.4	527.3	523.1	521.1
67.5°	453.8	455.8	451.8	445.2	445.2
70°	406.2	408.2	404.2	396.0	396.0
72.5°	360.3	359.1	356.6	349.9	346.7
75°	289.3	287.3	283.1	276.9	274.9
77.5°	218.3	216.3	214.2	206.4	208.0
80°	172.3	170.3	168.2	162.1	162.1
82.5°	131.3	127.7	125.6	119.4	119.4
85°	69.8	65.7	63.6	57.5	59.5
87.5°	19.7	18.3	17.0	14.0	14.0
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2



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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	19.71	20.66	20.60	21.57	22.73	19.63	20.58	20.52	21.49	22.65
	3H	21.50	22.35	22.40	23.27	24.45	21.38	22.23	22.28	23.15	24.33
	4H	22.16	22.96	23.08	23.89	25.08	22.01	22.81	22.92	23.74	24.93
	6H	22.63	23.37	23.56	24.31	25.51	22.45	23.19	23.38	24.12	25.33
	8H	22.77	23.48	23.71	24.43	25.64	22.57	23.28	23.51	24.23	25.43
	12H	22.85	23.52	23.79	24.47	25.70	22.63	23.30	23.57	24.24	25.48
4H	2H	20.27	21.08	21.19	22.00	23.20	20.21	21.01	21.13	21.94	23.13
	3H	22.27	22.94	23.20	23.89	25.10	22.16	22.83	23.09	23.79	25.00
	4H	23.06	23.67	24.00	24.62	25.86	22.92	23.53	23.86	24.48	25.72
	6H	23.65	24.18	24.61	25.16	26.39	23.47	24.00	24.43	24.98	26.21
	8H	23.84	24.34	24.80	25.31	26.56	23.64	24.14	24.60	25.11	26.35
	12H	23.95	24.40	24.93	25.38	26.64	23.72	24.17	24.70	25.16	26.41
8H	4H	23.31	23.81	24.27	24.78	26.03	23.19	23.68	24.15	24.65	25.90
	6H	24.04	24.45	25.02	25.45	26.70	23.87	24.28	24.85	25.29	26.54
	8H	24.30	24.67	25.30	25.66	26.93	24.11	24.47	25.10	25.47	26.74
	12H	24.48	24.79	25.47	25.79	27.10	24.25	24.57	25.24	25.56	26.87
12H	4H	23.31	23.76	24.29	24.74	26.00	23.19	23.64	24.17	24.62	25.88
	6H	24.08	24.44	25.07	25.44	26.71	23.92	24.28	24.91	25.28	26.55
	8H	24.38	24.70	25.37	25.69	27.00	24.19	24.51	25.19	25.50	26.81