

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: P854213

Luminaire Tested: SQ2-PR1-100U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854213
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-100U-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

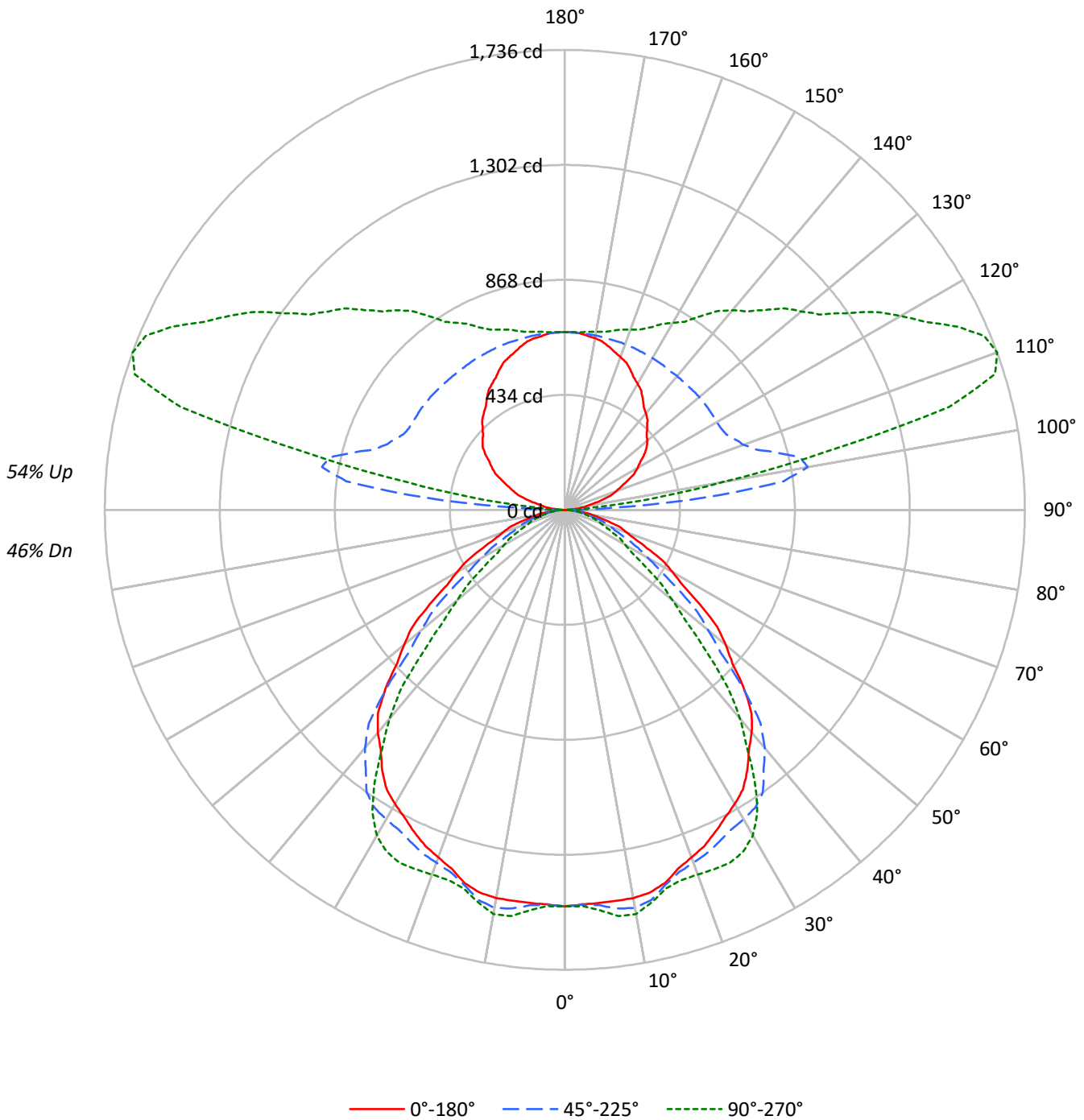
Lumens per Lamp: N/A
Luminaire Lumens: 7775.5 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 59.3
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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	98	93	90	87	89	86	83	80	72	70	68	59	58	56	48	47	46	40
2	89	82	76	72	82	76	71	67	64	60	57	53	50	48	43	41	39	35
3	82	73	66	60	75	67	61	56	57	52	49	47	44	41	38	36	34	30
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26
5	69	58	50	44	63	54	47	42	46	40	36	38	34	31	31	28	26	23
6	64	52	44	39	58	48	41	36	41	36	32	35	31	28	28	26	23	20
7	59	47	39	34	54	44	37	32	37	32	28	32	27	24	26	23	21	18
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	16
9	51	39	32	27	47	36	30	25	31	26	23	27	23	20	22	19	17	15
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	15	13

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	1.9
10°-20°	418.5	5.4
20°-30°	646.9	8.3
30°-40°	778.0	10.0
40°-50°	698.6	9.0
50°-60°	468.0	6.0
60°-70°	272.2	3.5
70°-80°	139.8	1.8
80°-90°	35.7	0.5
90°-100°	280.0	3.6
100°-110°	847.0	10.9
110°-120°	826.8	10.6
120°-130°	675.6	8.7
130°-140°	551.5	7.1
140°-150°	429.3	5.5
150°-160°	309.5	4.0
160°-170°	189.5	2.4
170°-180°	64.0	0.8
0°-30°	1209.9	15.6
0°-40°	1987.9	25.6
0°-60°	3154.5	40.6
0°-90°	3602.2	46.3
90°-120°	1953.8	25.1
90°-150°	3610.3	46.4
90°-180°	4173.0	53.7
0°-180°	7775.5	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	2	13	7	6	3
95°	35	110	528	195	123	41
105°	147	207	832	1579	1501	155
115°	262	312	673	1392	1635	259
125°	366	406	663	1099	1294	325
135°	439	485	659	948	1066	340
145°	513	551	659	815	892	321
155°	584	604	663	731	759	269
165°	639	646	666	692	700	180
175°	668	668	670	675	673	63
180°	670	670	670	670	670	



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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	10.2	6.2	5.1	4.9
90°	0.0	2.1	12.6	7.3	6.3
92.5°	11.8	47.6	171.0	56.7	40.8
95°	34.7	109.9	528.4	195.2	123.2
97.5°	67.2	139.8	832.9	551.1	335.6
100°	87.4	158.4	930.6	899.6	604.2
102.5°	110.1	178.7	910.3	1261.8	1005.9
105°	147.4	207.1	831.6	1579.3	1501.1
107.5°	182.7	239.8	755.8	1610.7	1701.3
110°	206.3	260.9	717.9	1571.2	1735.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	229.1	282.0	695.2	1504.8	1713.1
115°	262.1	312.5	672.7	1391.9	1634.8
117.5°	295.0	342.7	664.7	1286.1	1534.8
120°	316.9	362.1	662.1	1224.4	1463.2
122.5°	337.1	379.9	662.1	1170.1	1390.8
125°	366.3	406.5	663.2	1099.2	1293.7
127.5°	390.1	431.7	662.1	1045.7	1211.6
130°	405.3	448.5	662.1	1015.0	1165.3
132.5°	418.8	462.8	661.3	987.0	1125.7
135°	439.0	485.3	659.0	948.0	1066.3
137.5°	461.5	505.5	659.0	906.3	1016.0
140°	475.8	519.0	659.0	879.2	983.2
142.5°	490.1	531.7	658.1	854.5	945.3
145°	512.6	550.7	659.0	815.4	891.6
147.5°	535.2	567.5	660.2	783.2	841.7
150°	549.5	579.3	661.1	765.4	814.8
152.5°	563.0	589.5	661.9	750.0	790.3
155°	584.2	603.8	663.2	731.2	759.0
157.5°	602.8	618.6	664.4	717.3	736.7
160°	613.7	627.1	665.3	708.8	723.2
162.5°	624.7	634.7	666.1	701.1	713.1
165°	639.0	646.2	666.3	691.8	700.0
167.5°	651.2	654.9	667.6	684.5	688.0
170°	657.9	660.0	668.4	681.1	682.1
172.5°	662.1	663.4	668.4	677.7	677.9
175°	668.4	668.4	669.5	674.7	672.7
177.5°	671.4	670.6	669.7	672.2	670.5
180°	670.5	670.5	670.5	670.5	670.5



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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	17.49	18.29	18.49	19.29	20.61	14.22	15.01	15.21	16.01	17.34
	3H	18.72	19.43	19.73	20.44	21.79	15.28	15.99	16.28	17.00	18.34
	4H	19.17	19.84	20.19	20.85	22.21	15.67	16.34	16.69	17.36	18.71
	6H	19.48	20.10	20.51	21.12	22.48	16.00	16.62	17.03	17.64	19.00
	8H	19.56	20.15	20.60	21.18	22.55	16.09	16.67	17.12	17.71	19.07
	12H	19.59	20.15	20.63	21.17	22.56	16.09	16.65	17.13	17.68	19.06
4H	2H	17.56	18.23	18.59	19.24	20.60	14.78	15.45	15.80	16.46	17.82
	3H	19.03	19.58	20.06	20.62	21.99	16.04	16.59	17.07	17.63	19.00
	4H	19.62	20.13	20.66	21.16	22.55	16.54	17.05	17.58	18.08	19.47
	6H	20.07	20.50	21.12	21.56	22.95	16.97	17.41	18.02	18.47	19.85
	8H	20.20	20.61	21.25	21.66	23.06	17.09	17.50	18.15	18.55	19.95
	12H	20.25	20.62	21.32	21.68	23.09	17.11	17.48	18.18	18.54	19.95
8H	4H	19.64	20.05	20.69	21.10	22.50	16.84	17.25	17.89	18.30	19.70
	6H	20.19	20.52	21.26	21.61	23.01	17.38	17.71	18.45	18.80	20.20
	8H	20.39	20.68	21.47	21.76	23.17	17.56	17.85	18.64	18.93	20.35
	12H	20.49	20.75	21.57	21.82	23.28	17.62	17.88	18.71	18.95	20.41
12H	4H	19.60	19.96	20.67	21.03	22.43	16.86	17.22	17.92	18.29	19.69
	6H	20.17	20.47	21.26	21.54	22.96	17.43	17.73	18.52	18.81	20.22
	8H	20.38	20.64	21.47	21.71	23.17	17.64	17.90	18.72	18.97	20.43