

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: P854297

Luminaire Tested: SQ2-PW1-100U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854297
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100U-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

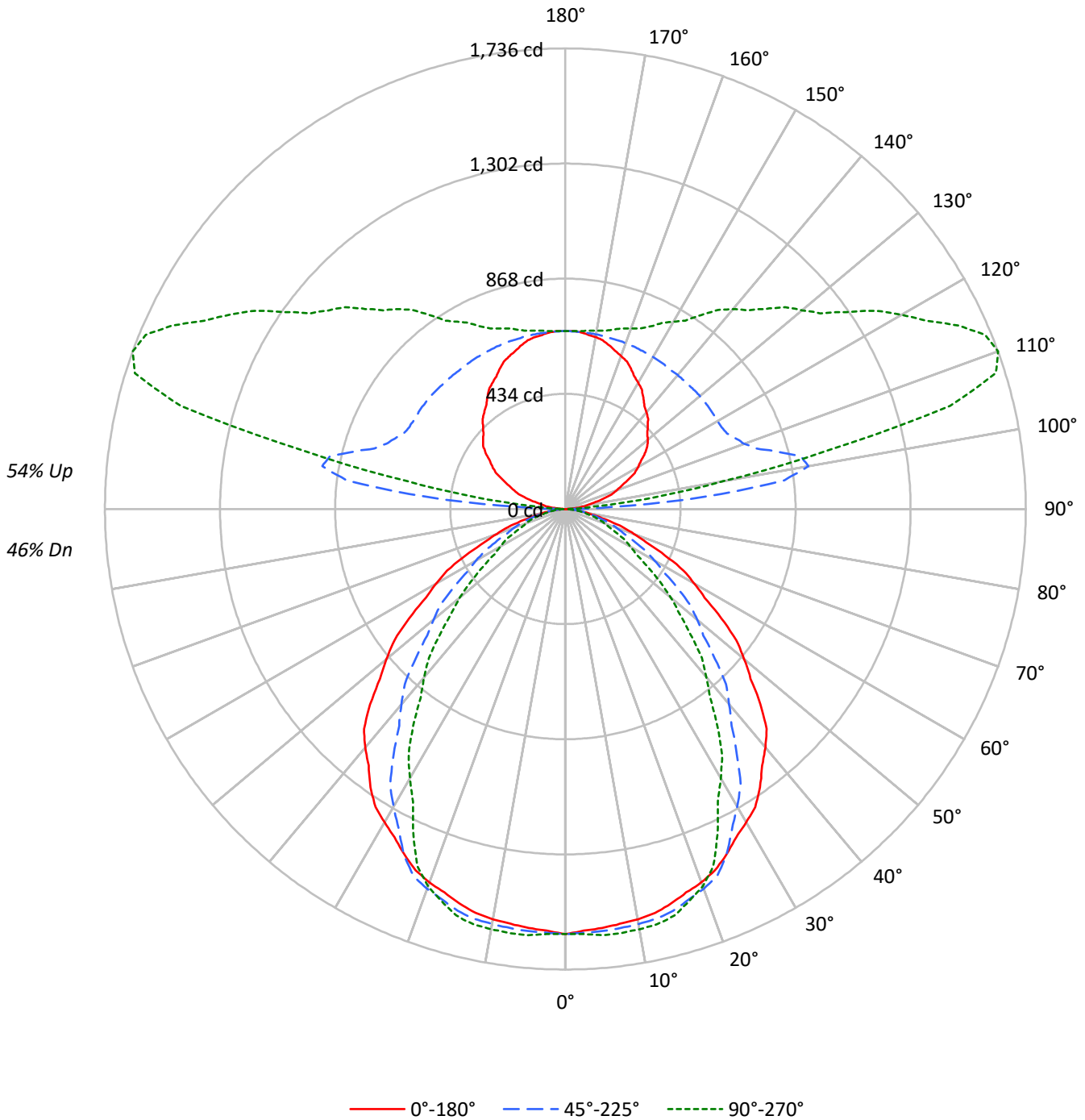
Lumens per Lamp: N/A
Luminaire Lumens: 7729.5 lumens
Efficiency: N/A
Efficacy: 130.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46				
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	45	40				
2	89	82	76	71	82	76	71	66	64	60	57	52	50	48	42	40	39	34				
3	82	73	66	60	75	67	61	56	57	52	48	47	44	41	38	36	34	30				
4	75	65	57	51	69	60	53	48	51	46	42	42	38	35	34	32	30	26				
5	69	58	50	44	63	53	47	41	45	40	36	38	34	31	31	28	26	23				
6	64	52	44	39	58	48	41	36	41	36	32	34	30	27	28	25	23	20				
7	59	47	39	34	54	44	37	32	37	32	28	31	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	34	27	23	29	24	20	25	21	18	21	18	15	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25869	25869	25869
5°	25695	25893	26141
10°	25743	26043	26368
15°	25737	26220	26527
20°	25747	26192	26008
25°	25607	25634	24166
30°	25434	24153	21848
35°	25233	22227	19730
40°	24732	20261	17431
45°	23763	18224	15225
50°	22117	16289	13031
55°	20231	14390	10567
60°	18132	12516	9116
65°	15855	10785	8103
70°	12968	9578	7345
75°	10087	8284	6756
80°	7522	7094	5960
85°	5094	5372	3390

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.6	2.0
10°-20°	442.0	5.7
20°-30°	650.5	8.4
30°-40°	711.2	9.2
40°-50°	638.0	8.3
50°-60°	476.0	6.2
60°-70°	300.8	3.9
70°-80°	149.0	1.9
80°-90°	36.1	0.5
90°-100°	280.0	3.6
100°-110°	847.0	11.0
110°-120°	826.8	10.7
120°-130°	675.6	8.7
130°-140°	551.5	7.1
140°-150°	429.3	5.6
150°-160°	309.5	4.0
160°-170°	189.5	2.5
170°-180°	64.0	0.8
0°-30°	1245.1	16.1
0°-40°	1956.4	25.3
0°-60°	3070.4	39.7
0°-90°	3556.2	46.0
90°-120°	1953.8	25.3
90°-150°	3610.3	46.7
90°-180°	4173.0	54.0
0°-180°	7729.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1611	1598	1600	1613	151
15°	1540	1570	1569	1580	1587	435
25°	1437	1469	1439	1379	1356	662
35°	1280	1267	1128	1029	1001	798
45°	1041	957	798	698	667	798
55°	719	650	511	401	375	642
65°	415	381	282	227	212	411
75°	162	174	133	111	108	178
85°	28	35	29	20	18	35
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°	1602.2	1602.2	1602.2	1602.2	1602.2
2.5°	1591.2	1611.5	1598.6	1599.9	1603.4
5°	1585.4	1610.8	1597.6	1599.5	1612.9
7.5°	1577.5	1603.2	1593.4	1598.8	1612.0
10°	1570.2	1597.0	1588.5	1596.4	1608.3
12.5°	1560.4	1588.5	1582.4	1591.5	1603.4
15°	1539.7	1569.5	1568.6	1579.5	1587.0
17.5°	1515.5	1545.4	1543.9	1546.8	1550.3
20°	1498.5	1528.3	1524.4	1513.7	1513.7
22.5°	1474.0	1506.3	1496.3	1467.1	1457.6
25°	1437.4	1468.7	1438.9	1378.9	1356.5
27.5°	1394.7	1420.1	1360.2	1275.0	1243.9
30°	1364.2	1383.6	1295.5	1201.7	1171.9
32.5°	1332.4	1339.9	1229.6	1132.1	1099.9
35°	1280.2	1266.8	1127.7	1029.4	1001.0
37.5°	1218.6	1178.6	1029.7	926.7	895.4
40°	1173.4	1116.7	961.3	858.4	827.0
42.5°	1123.4	1052.4	896.6	793.7	761.1
45°	1040.7	957.1	798.1	698.2	666.8
47.5°	947.6	864.6	705.9	609.1	582.3
50°	880.5	799.9	648.5	551.6	518.8
52.5°	812.1	739.9	592.4	492.8	448.0
55°	718.7	650.1	511.2	400.7	375.4
57.5°	622.6	563.2	437.6	337.4	316.5
60°	561.5	509.3	387.6	303.2	282.3
62.5°	502.9	456.7	338.8	271.5	254.2
65°	415.0	380.7	282.3	227.0	212.1
67.5°	329.6	310.5	234.7	186.2	176.4
70°	274.7	268.7	202.9	163.1	155.6
72.5°	227.1	229.4	172.4	141.2	136.1
75°	161.7	173.7	132.8	111.3	108.3
77.5°	110.2	128.1	98.3	82.3	80.0
80°	80.9	98.8	76.3	64.1	64.1
82.5°	56.5	70.8	54.3	48.2	48.2
85°	27.5	34.9	29.0	19.8	18.3
87.5°	7.3	11.3	7.4	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	17.97	18.76	18.97	19.77	21.10	14.46	15.25	15.46	16.25	17.58
	3H	19.29	20.00	20.30	21.01	22.36	15.66	16.37	16.67	17.38	18.73
	4H	19.66	20.33	20.68	21.34	22.70	16.10	16.77	17.12	17.79	19.15
	6H	19.86	20.47	20.89	21.50	22.87	16.41	17.03	17.45	18.05	19.42
	8H	19.89	20.48	20.93	21.51	22.88	16.49	17.07	17.53	18.11	19.48
	12H	19.88	20.44	20.93	21.47	22.86	16.50	17.05	17.54	18.08	19.47
4H	2H	18.07	18.74	19.09	19.75	21.11	15.13	15.80	16.16	16.82	18.18
	3H	19.60	20.16	20.64	21.21	22.58	16.51	17.07	17.55	18.11	19.49
	4H	20.11	20.62	21.15	21.66	23.05	17.06	17.56	18.10	18.60	20.00
	6H	20.44	20.87	21.49	21.93	23.33	17.46	17.89	18.51	18.95	20.34
	8H	20.52	20.92	21.57	21.98	23.38	17.56	17.97	18.61	19.02	20.43
	12H	20.53	20.90	21.60	21.96	23.37	17.58	17.95	18.65	19.01	20.43
8H	4H	20.14	20.55	21.20	21.60	23.01	17.38	17.79	18.43	18.84	20.24
	6H	20.58	20.91	21.65	22.01	23.41	17.88	18.22	18.96	19.31	20.71
	8H	20.72	21.02	21.81	22.10	23.52	18.04	18.34	19.13	19.42	20.84
	12H	20.79	21.05	21.87	22.12	23.58	18.10	18.36	19.19	19.44	20.90
12H	4H	20.10	20.47	21.17	21.53	22.95	17.39	17.76	18.46	18.83	20.24
	6H	20.57	20.86	21.65	21.94	23.36	17.95	18.24	19.03	19.32	20.74
	8H	20.73	20.99	21.82	22.06	23.52	18.13	18.39	19.22	19.46	20.93