

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: P854044

Luminaire Tested: SQ2-PH1-100U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854044
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-075D-935-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

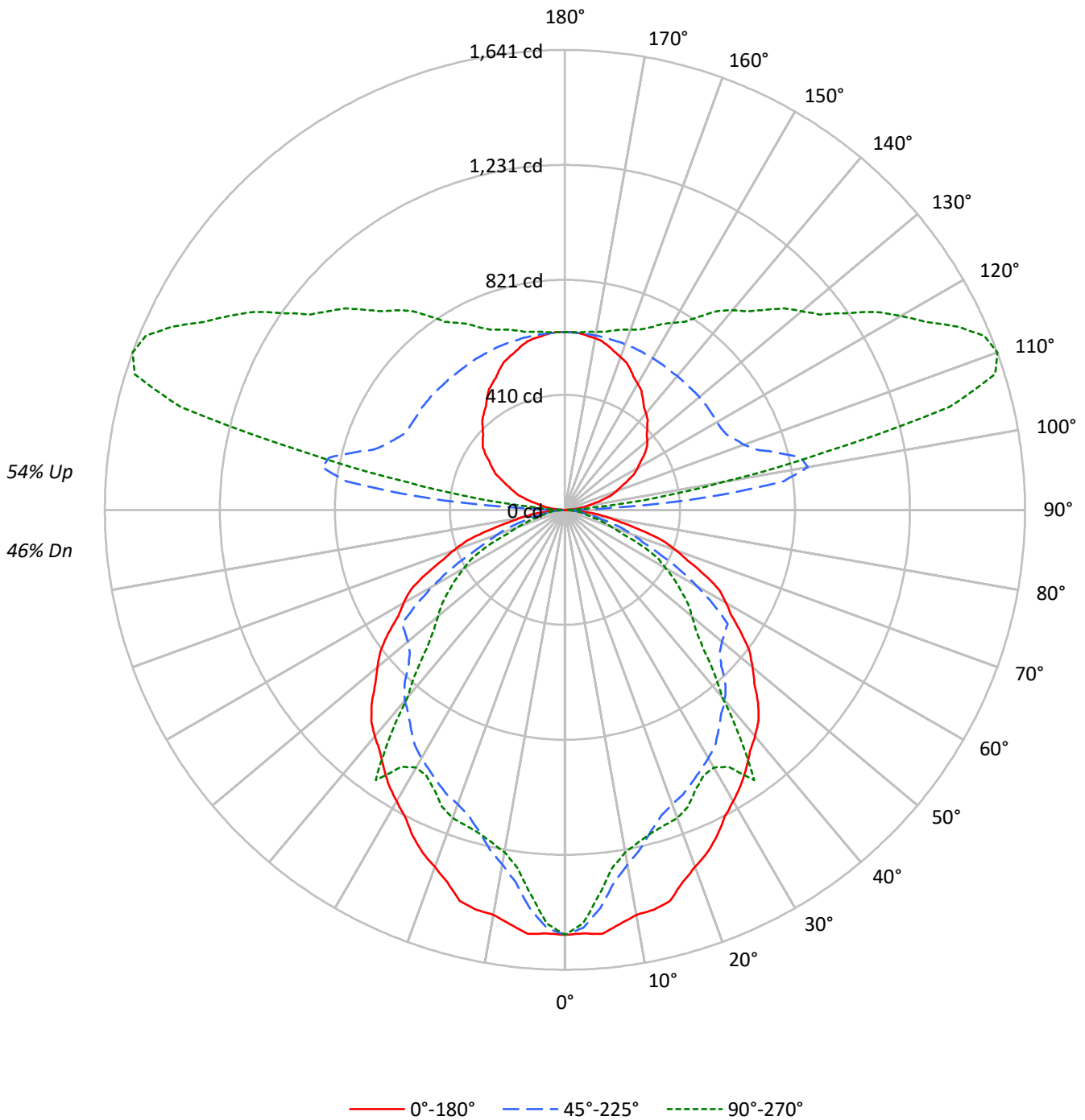
Lumens per Lamp: N/A
Luminaire Lumens: 7300.0 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	93	89	86	89	85	82	79	71	69	67	59	57	55	47	46	45	39
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	39	38	33
3	81	71	64	59	74	66	60	55	55	51	47	46	42	39	37	34	32	28
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16
8	54	41	34	28	49	38	32	27	33	27	24	27	23	20	22	19	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24480	24480	24480
5°	24619	23148	22374
10°	24053	21072	20340
15°	24162	19821	19941
20°	23299	19210	20101
25°	22873	19121	19634
30°	22376	19069	19794
35°	22208	18851	23201
40°	22226	18729	18396
45°	22233	18018	15844
50°	21923	18372	14858
55°	21644	19938	14252
60°	21429	17470	13369
65°	21054	14162	11629
70°	19884	12052	8308
75°	17729	9089	6301
80°	14486	5904	5904
85°	9077	5354	4001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22233 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	1.8
10°-20°	350.9	4.8
20°-30°	514.5	7.0
30°-40°	623.1	8.5
40°-50°	612.8	8.4
50°-60°	533.4	7.3
60°-70°	370.8	5.1
70°-80°	175.8	2.4
80°-90°	39.9	0.5
90°-100°	264.7	3.6
100°-110°	800.7	11.0
110°-120°	781.7	10.7
120°-130°	638.8	8.7
130°-140°	521.4	7.1
140°-150°	405.9	5.6
150°-160°	292.6	4.0
160°-170°	179.1	2.5
170°-180°	60.5	0.8
0°-30°	998.9	13.7
0°-40°	1622.0	22.2
0°-60°	2768.2	37.9
0°-90°	3354.7	46.0
90°-120°	1847.1	25.3
90°-150°	3413.2	46.8
90°-180°	3945.0	54.0
0°-180°	7300.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1519	1518	1428	1383	1380	143
15°	1446	1288	1186	1178	1193	403
25°	1284	1092	1073	1106	1102	590
35°	1127	911	956	1039	1177	706
45°	974	721	789	817	694	748
55°	769	562	708	511	506	687
65°	551	386	371	304	304	541
75°	284	197	146	104	101	301
85°	49	32	29	23	22	66
90°	0	2	12	7	6	3
95°	33	104	500	185	116	39
105°	139	196	786	1493	1419	146
115°	248	296	636	1316	1546	245
125°	346	384	627	1039	1223	308
135°	415	459	623	896	1008	321
145°	485	521	623	771	843	304
155°	552	571	627	691	718	254
165°	604	611	630	654	662	170
175°	632	632	633	638	636	60
180°	634	634	634	634	634	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1516.2	1516.2	1516.2	1516.2	1516.2
2.5°	1512.7	1528.5	1493.1	1479.2	1476.9
5°	1519.0	1517.6	1428.2	1383.4	1380.5
7.5°	1491.3	1447.6	1340.7	1291.3	1289.1
10°	1467.1	1400.8	1285.3	1240.6	1240.6
12.5°	1461.3	1356.7	1240.3	1207.3	1214.1
15°	1445.5	1287.5	1185.8	1177.5	1193.0
17.5°	1393.0	1222.8	1143.4	1162.3	1180.3
20°	1356.0	1188.2	1118.0	1153.0	1169.9
22.5°	1324.9	1154.8	1099.5	1137.8	1146.9
25°	1283.9	1092.1	1073.3	1106.4	1102.1
27.5°	1234.8	1034.6	1047.0	1067.3	1069.8
30°	1200.2	999.9	1022.8	1043.4	1061.7
32.5°	1166.8	959.7	996.2	1045.1	1087.1
35°	1126.7	910.8	956.4	1038.9	1177.1
37.5°	1084.5	853.2	916.3	985.7	1029.7
40°	1054.5	811.9	888.6	974.3	872.8
42.5°	1022.2	779.6	847.1	957.7	786.2
45°	973.7	721.3	789.1	816.6	693.9
47.5°	916.6	676.0	749.9	681.0	633.0
50°	872.8	645.7	731.4	622.5	591.5
52.5°	830.1	614.3	718.7	574.2	553.4
55°	768.9	561.5	708.3	510.6	506.3
57.5°	704.0	507.9	626.4	455.2	462.5
60°	663.6	473.2	541.0	422.5	414.0
62.5°	620.9	439.5	461.3	380.9	372.5
65°	551.1	386.0	370.7	304.4	304.4
67.5°	474.3	330.4	300.3	249.1	215.2
70°	421.2	294.3	255.3	198.6	176.0
72.5°	364.7	255.8	209.2	162.7	136.8
75°	284.2	196.7	145.7	103.8	101.0
77.5°	205.4	141.7	98.1	77.0	77.3
80°	155.8	107.8	63.5	62.1	63.5
82.5°	109.6	74.1	47.3	49.3	49.6
85°	49.0	32.1	28.9	23.0	21.6
87.5°	10.4	9.6	8.2	7.2	7.0
90°	0.0	1.9	11.9	6.9	6.0
92.5°	11.1	45.0	161.6	53.6	38.6
95°	32.8	103.9	499.6	184.6	116.4
97.5°	63.5	132.2	787.4	521.0	317.3
100°	82.6	149.7	879.7	850.5	571.2
102.5°	104.1	168.9	860.6	1192.9	951.0
105°	139.3	195.8	786.2	1493.1	1419.1
107.5°	172.8	226.7	714.5	1522.8	1608.4
110°	195.1	246.6	678.7	1485.4	1641.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	216.6	266.6	657.2	1422.6	1619.6
115°	247.8	295.5	635.9	1315.9	1545.5
117.5°	278.8	324.0	628.4	1215.9	1451.0
120°	299.5	342.4	626.0	1157.5	1383.3
122.5°	318.7	359.1	626.0	1106.2	1314.8
125°	346.3	384.3	627.0	1039.2	1223.1
127.5°	368.8	408.1	626.0	988.6	1145.4
130°	383.1	424.0	626.0	959.6	1101.7
132.5°	395.9	437.5	625.2	933.1	1064.2
135°	415.0	458.8	623.0	896.2	1008.1
137.5°	436.3	477.9	623.0	856.8	960.5
140°	449.8	490.7	623.0	831.2	929.5
142.5°	463.4	502.7	622.2	807.8	893.7
145°	484.7	520.7	623.0	770.9	842.9
147.5°	505.9	536.5	624.2	740.5	795.7
150°	519.5	547.7	625.0	723.6	770.3
152.5°	532.2	557.3	625.8	709.0	747.2
155°	552.3	570.8	627.0	691.2	717.5
157.5°	569.8	584.8	628.2	678.1	696.4
160°	580.2	592.8	629.0	670.1	683.7
162.5°	590.5	600.1	629.7	662.8	674.1
165°	604.1	610.9	629.9	654.0	661.8
167.5°	615.6	619.1	631.1	647.1	650.4
170°	622.0	623.9	631.9	643.9	644.9
172.5°	626.0	627.1	631.9	640.7	640.9
175°	631.9	631.9	632.9	637.9	635.9
177.5°	634.7	633.9	633.1	635.5	633.9
180°	633.9	633.9	633.9	633.9	633.9



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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	18.05	18.87	19.04	19.87	21.20	16.72	17.54	17.72	18.55	19.88
	3H	20.07	20.81	21.08	21.82	23.17	17.76	18.49	18.76	19.50	20.85
	4H	20.80	21.50	21.82	22.51	23.87	17.97	18.66	18.98	19.68	21.03
	6H	21.29	21.92	22.31	22.94	24.31	18.11	18.75	19.14	19.77	21.14
	8H	21.41	22.02	22.44	23.05	24.42	18.14	18.75	19.17	19.78	21.15
	12H	21.45	22.03	22.49	23.06	24.45	18.14	18.71	19.17	19.74	21.13
4H	2H	18.42	19.12	19.44	20.13	21.49	17.36	18.05	18.38	19.07	20.43
	3H	20.52	21.10	21.56	22.15	23.52	18.54	19.11	19.57	20.16	21.53
	4H	21.34	21.86	22.38	22.90	24.29	18.81	19.34	19.85	20.37	21.77
	6H	21.92	22.37	22.97	23.43	24.82	19.02	19.47	20.06	20.53	21.92
	8H	22.09	22.51	23.14	23.56	24.97	19.07	19.49	20.12	20.55	21.95
	12H	22.15	22.54	23.22	23.60	25.01	19.08	19.46	20.14	20.53	21.94
8H	4H	21.35	21.77	22.40	22.83	24.23	19.02	19.45	20.07	20.50	21.90
	6H	22.00	22.35	23.07	23.44	24.85	19.29	19.64	20.37	20.74	22.14
	8H	22.23	22.53	23.31	23.61	25.03	19.40	19.70	20.48	20.78	22.20
	12H	22.34	22.61	23.42	23.68	25.14	19.44	19.71	20.52	20.78	22.24
12H	4H	21.30	21.68	22.37	22.75	24.16	19.02	19.40	20.09	20.47	21.88
	6H	21.97	22.28	23.06	23.36	24.78	19.32	19.63	20.40	20.71	22.13
	8H	22.21	22.47	23.29	23.55	25.01	19.44	19.71	20.52	20.78	22.24