

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: P853709

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853709
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-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

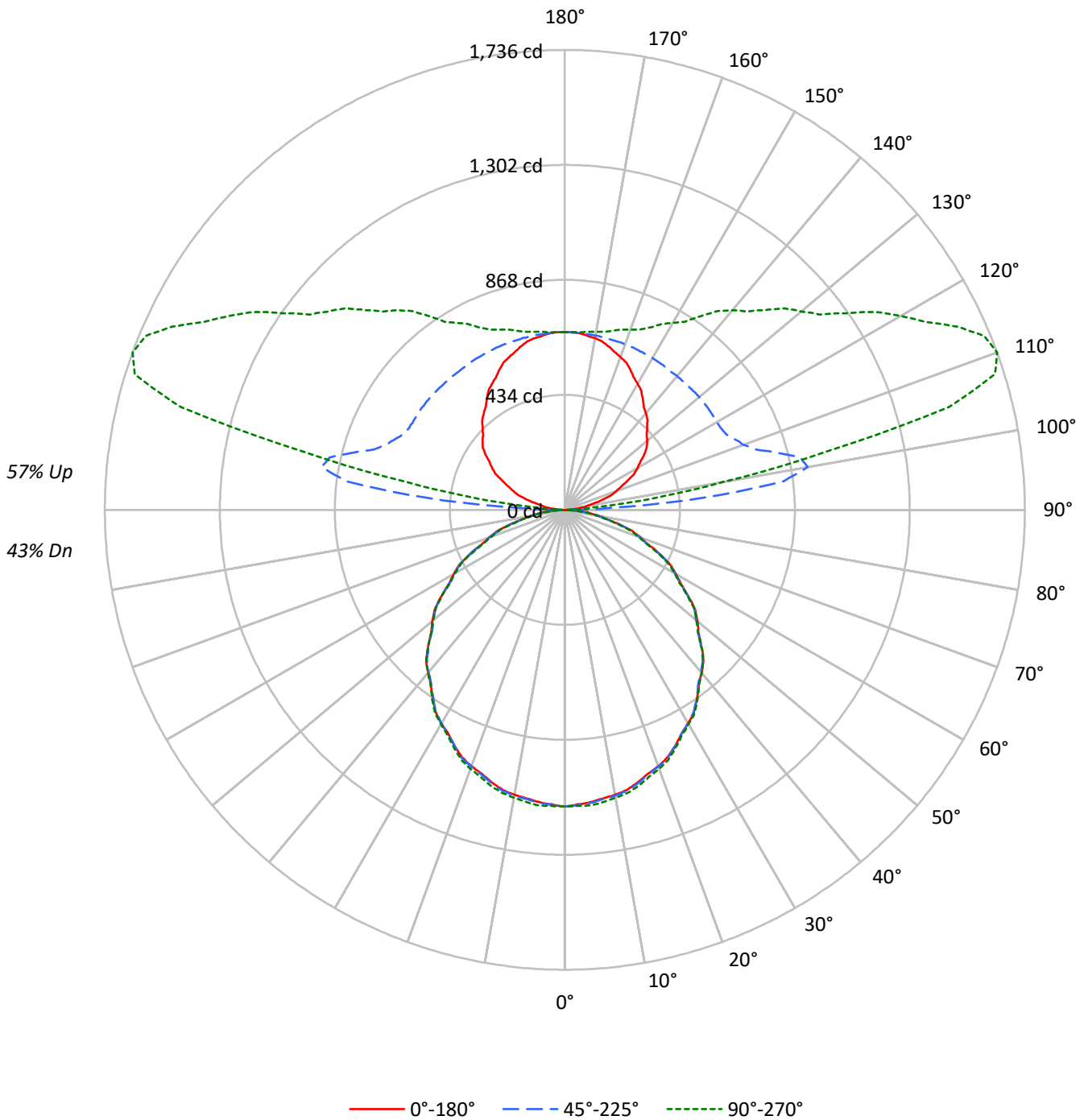
Lumens per Lamp: N/A
Luminaire Lumens: 7318.5 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	44	43	42	36
2	87	80	74	69	80	73	68	63	61	57	53	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	27	25	21
5	67	55	47	41	61	51	43	38	42	37	33	34	30	27	27	24	22	19
6	61	49	41	35	56	45	38	33	38	32	28	31	27	24	24	22	19	16
7	57	44	36	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	52	40	33	27	48	37	30	25	31	26	22	26	22	19	20	17	15	13
9	49	37	29	24	45	34	27	23	29	23	20	24	20	17	19	16	14	11
10	46	34	26	22	42	31	25	20	26	21	18	22	18	15	17	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18083	18083	18083
5°	17955	18005	18152
10°	17911	17962	18087
15°	17804	17854	18033
20°	17698	17723	17881
25°	17533	17533	17642
30°	17353	17353	17411
35°	17144	17083	17203
40°	16916	16853	16916
45°	16655	16584	16655
50°	16405	16252	16289
55°	16023	15978	15893
60°	15619	15523	15423
65°	15156	14984	14808
70°	14261	14191	13903
75°	13425	13138	12757
80°	11920	11632	11204
85°	9615	8762	8207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 16758 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	1.4
10°-20°	302.5	4.1
20°-30°	455.1	6.2
30°-40°	544.6	7.4
40°-50°	561.9	7.7
50°-60°	506.9	6.9
60°-70°	386.8	5.3
70°-80°	222.4	3.0
80°-90°	59.2	0.8
90°-100°	280.0	3.8
100°-110°	847.0	11.6
110°-120°	826.8	11.3
120°-130°	675.6	9.2
130°-140°	551.5	7.5
140°-150°	429.3	5.9
150°-160°	309.5	4.2
160°-170°	189.5	2.6
170°-180°	64.0	0.9
0°-30°	863.5	11.8
0°-40°	1408.1	19.2
0°-60°	2476.9	33.8
0°-90°	3145.3	43.0
90°-120°	1953.8	26.7
90°-150°	3610.3	49.3
90°-180°	4173.0	57.0
0°-180°	7318.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1108	1123	1111	1113	1120	105
15°	1065	1078	1068	1073	1079	300
25°	984	995	984	986	990	453
35°	870	876	867	870	873	544
45°	729	734	726	728	729	563
55°	569	572	568	565	565	509
65°	397	395	392	389	388	390
75°	215	214	211	206	204	227
85°	52	49	47	43	44	60
90°	0	2	13	7	6	4
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°	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1112.7	1125.8	1115.1	1117.6	1118.8
5°	1107.8	1122.7	1110.9	1112.6	1120.0
7.5°	1098.6	1114.8	1101.7	1104.6	1113.0
10°	1092.5	1107.5	1095.6	1097.3	1103.2
12.5°	1082.8	1097.7	1085.8	1088.7	1094.7
15°	1065.1	1078.5	1068.1	1072.8	1078.8
17.5°	1044.6	1059.0	1047.4	1051.5	1056.5
20°	1030.0	1041.9	1031.5	1033.2	1040.7
22.5°	1011.7	1023.6	1014.4	1014.9	1021.1
25°	984.2	994.6	984.2	985.8	990.3
27.5°	952.8	961.7	952.8	954.4	958.3
30°	930.8	939.8	930.8	932.4	933.9
32.5°	906.4	914.1	905.2	906.8	910.7
35°	869.8	875.7	866.7	869.8	872.8
37.5°	830.7	835.2	827.6	829.2	831.9
40°	802.6	807.1	799.6	801.1	802.6
42.5°	774.5	777.8	770.3	771.9	774.5
45°	729.4	733.9	726.3	727.9	729.4
47.5°	683.6	686.3	679.9	678.8	681.5
50°	653.1	654.6	647.0	647.0	648.5
52.5°	620.1	621.6	616.5	614.1	615.5
55°	569.2	572.1	567.6	564.6	564.6
57.5°	517.9	520.6	514.8	513.3	513.0
60°	483.7	485.2	480.7	479.1	477.6
62.5°	449.5	449.8	445.3	443.7	442.2
65°	396.7	395.2	392.2	389.1	387.6
67.5°	337.5	339.0	336.0	331.1	331.1
70°	302.1	303.6	300.6	294.5	294.5
72.5°	267.9	267.1	265.2	260.3	257.9
75°	215.2	213.7	210.6	206.0	204.5
77.5°	162.4	160.9	159.3	153.5	154.7
80°	128.2	126.7	125.1	120.5	120.5
82.5°	97.7	95.0	93.4	88.8	88.8
85°	51.9	48.9	47.3	42.8	44.3
87.5°	14.6	13.9	14.7	11.2	11.0
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	17.34	18.15	18.36	19.18	20.54	17.26	18.07	18.28	19.10	20.47
	3H	19.12	19.85	20.14	20.88	22.27	19.00	19.73	20.02	20.76	22.15
	4H	19.78	20.47	20.81	21.50	22.90	19.62	20.31	20.66	21.35	22.74
	6H	20.24	20.88	21.29	21.92	23.32	20.06	20.69	21.10	21.73	23.14
	8H	20.38	20.98	21.43	22.04	23.44	20.18	20.78	21.23	21.84	23.24
	12H	20.45	21.03	21.51	22.08	23.50	20.23	20.80	21.28	21.85	23.28
4H	2H	17.89	18.58	18.93	19.61	21.01	17.83	18.52	18.87	19.55	20.95
	3H	19.87	20.45	20.92	21.51	22.92	19.76	20.34	20.81	21.40	22.81
	4H	20.66	21.19	21.72	22.24	23.67	20.52	21.04	21.57	22.10	23.53
	6H	21.25	21.70	22.31	22.78	24.20	21.06	21.52	22.13	22.60	24.02
	8H	21.43	21.86	22.50	22.93	24.37	21.23	21.65	22.30	22.72	24.16
	12H	21.53	21.91	22.62	23.00	24.45	21.30	21.69	22.39	22.77	24.22
8H	4H	20.90	21.33	21.97	22.40	23.84	20.78	21.20	21.84	22.27	23.71
	6H	21.62	21.97	22.71	23.08	24.52	21.45	21.80	22.54	22.91	24.35
	8H	21.88	22.19	22.98	23.29	24.74	21.69	22.00	22.79	23.09	24.55
	12H	22.05	22.32	23.15	23.41	24.91	21.82	22.09	22.92	23.18	24.68
12H	4H	20.89	21.28	21.98	22.36	23.81	20.77	21.16	21.86	22.24	23.69
	6H	21.66	21.97	22.76	23.06	24.52	21.50	21.81	22.60	22.90	24.36
	8H	21.95	22.22	23.05	23.31	24.81	21.76	22.03	22.86	23.12	24.62