

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: P853877

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853877
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-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

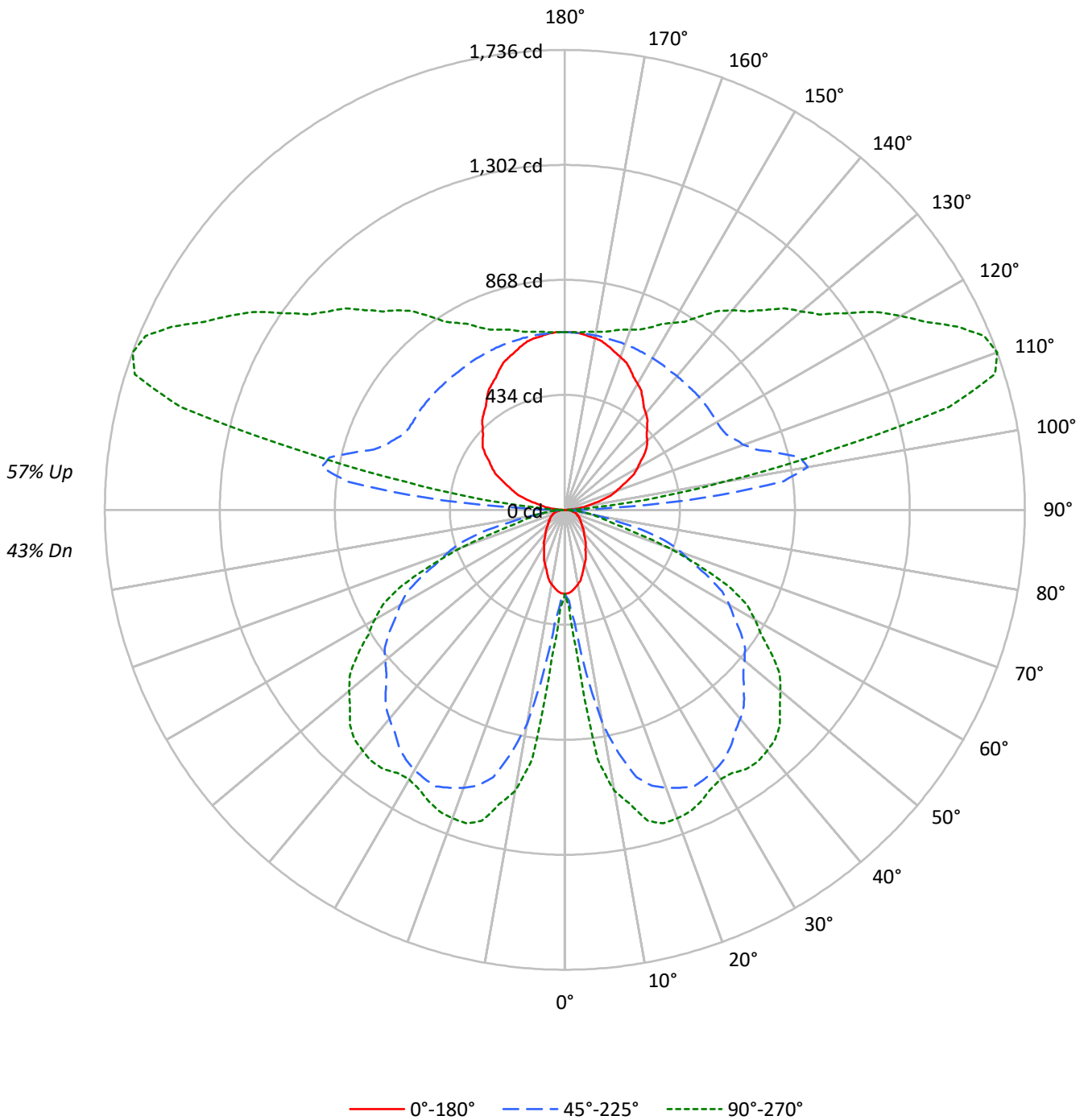
Lumens per Lamp: N/A
Luminaire Lumens: 7310.7 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	73	68	79	73	68	63	60	56	53	49	46	44	38	36	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	47	66	56	49	44	47	41	37	38	34	31	29	27	24	21
5	66	54	46	40	60	50	43	37	41	36	32	34	29	26	26	23	21	18
6	61	48	40	34	55	44	37	32	37	31	27	30	26	23	24	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	19	16	14	12
9	48	36	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5125	5125	5125
5°	4995	6925	9076
10°	4677	13409	17662
15°	4234	17446	20329
20°	3749	19192	21289
25°	3317	20525	21638
30°	2931	21138	21906
35°	2618	21504	23550
40°	2380	21709	25022
45°	2194	21811	26202
50°	2070	22230	26676
55°	2018	22809	26888
60°	2070	23111	26757
65°	2159	22793	26002
70°	2233	22041	19667
75°	2477	19800	10855
80°	2557	10219	10070
85°	2538	7058	4242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 27132 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.2	0.7
10°-20°	242.7	3.3
20°-30°	427.1	5.8
30°-40°	552.8	7.6
40°-50°	609.7	8.3
50°-60°	569.2	7.8
60°-70°	440.0	6.0
70°-80°	202.9	2.8
80°-90°	39.9	0.5
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°	723.0	9.9
0°-40°	1275.7	17.5
0°-60°	2454.6	33.6
0°-90°	3137.5	42.9
90°-120°	1953.8	26.7
90°-150°	3610.3	49.4
90°-180°	4173.0	57.1
0°-180°	7310.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	317	317	317	317	317	
5°	308	353	427	521	560	29
15°	253	500	1044	1168	1216	71
25°	186	671	1152	1203	1215	86
35°	133	648	1091	1129	1195	84
45°	96	496	955	1097	1148	75
55°	72	296	810	931	955	65
65°	56	167	597	669	681	55
75°	40	102	317	171	174	41
85°	14	30	38	26	23	14
90°	0	2	13	7	6	2
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°	317.4	317.4	317.4	317.4	317.4
2.5°	314.9	328.1	343.0	360.3	367.4
5°	308.2	353.0	427.3	521.2	560.0
7.5°	296.3	387.3	621.4	872.8	950.3
10°	285.3	412.2	817.9	1035.5	1077.3
12.5°	273.1	445.3	941.2	1094.1	1137.1
15°	253.3	499.5	1043.7	1168.4	1216.2
17.5°	232.9	560.5	1091.3	1214.3	1240.3
20°	218.2	603.1	1117.0	1222.6	1239.0
22.5°	204.8	635.1	1135.3	1215.3	1232.9
25°	186.2	671.1	1152.1	1202.7	1214.6
27.5°	168.2	680.5	1144.7	1178.0	1189.6
30°	157.2	677.9	1133.8	1158.5	1175.0
32.5°	147.4	670.5	1117.9	1141.9	1177.4
35°	132.8	647.5	1091.0	1129.1	1194.8
37.5°	120.2	610.5	1055.6	1133.7	1196.9
40°	112.9	582.9	1030.0	1133.4	1187.2
42.5°	105.6	550.5	1000.7	1121.2	1175.0
45°	96.1	496.0	955.2	1096.8	1147.5
47.5°	87.3	434.6	913.1	1062.9	1099.9
50°	82.4	392.7	885.0	1032.2	1062.0
52.5°	77.5	352.0	857.0	995.5	1023.0
55°	71.7	295.5	810.3	931.3	955.2
57.5°	66.5	247.1	757.2	860.4	879.8
60°	64.1	220.7	715.7	809.2	828.6
62.5°	60.4	196.8	669.3	755.4	773.6
65°	56.5	166.9	596.6	668.6	680.6
67.5°	51.0	144.7	519.4	563.5	541.1
70°	47.3	133.8	466.9	480.7	416.6
72.5°	44.9	121.8	409.6	373.2	251.8
75°	39.7	102.3	317.4	171.0	174.0
77.5°	32.3	79.2	208.7	131.3	134.0
80°	27.5	64.8	109.9	106.8	108.3
82.5°	22.6	50.3	75.7	78.7	76.6
85°	13.7	30.1	38.1	25.9	22.9
87.5°	4.9	11.3	8.6	7.6	7.4
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	12.05	12.88	13.06	13.90	15.27	20.79	21.61	21.80	22.64	24.00
	3H	12.78	13.52	13.80	14.55	15.94	22.41	23.15	23.43	24.18	25.57
	4H	13.08	13.78	14.11	14.81	16.21	22.59	23.29	23.62	24.32	25.72
	6H	13.29	13.94	14.34	14.98	16.38	22.67	23.32	23.72	24.36	25.76
	8H	13.35	13.96	14.40	15.02	16.42	22.68	23.29	23.72	24.34	25.75
	12H	13.38	13.96	14.43	15.01	16.44	22.65	23.23	23.70	24.28	25.71
4H	2H	16.45	17.15	17.49	18.18	19.58	21.23	21.93	22.27	22.96	24.36
	3H	17.38	17.96	18.43	19.02	20.43	23.05	23.63	24.10	24.70	26.10
	4H	17.66	18.19	18.71	19.25	20.68	23.29	23.82	24.34	24.87	26.30
	6H	17.79	18.25	18.85	19.32	20.75	23.43	23.89	24.50	24.97	26.39
	8H	17.81	18.24	18.87	19.31	20.75	23.45	23.88	24.52	24.95	26.39
	12H	17.80	18.18	18.88	19.27	20.71	23.43	23.81	24.51	24.90	26.34
8H	4H	18.83	19.26	19.90	20.33	21.77	23.40	23.83	24.47	24.90	26.34
	6H	19.07	19.42	20.16	20.53	21.97	23.60	23.96	24.70	25.07	26.51
	8H	19.14	19.45	20.23	20.54	22.00	23.67	23.97	24.76	25.07	26.53
	12H	19.16	19.43	20.26	20.52	22.02	23.66	23.93	24.76	25.02	26.52
12H	4H	18.85	19.23	19.93	20.32	21.76	23.35	23.74	24.44	24.82	26.27
	6H	19.16	19.47	20.26	20.56	22.02	23.59	23.90	24.68	24.99	26.45
	8H	19.26	19.53	20.36	20.62	22.12	23.65	23.92	24.75	25.02	26.51