

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: P853708

Luminaire Tested: SQ2-F-100U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853708
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-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

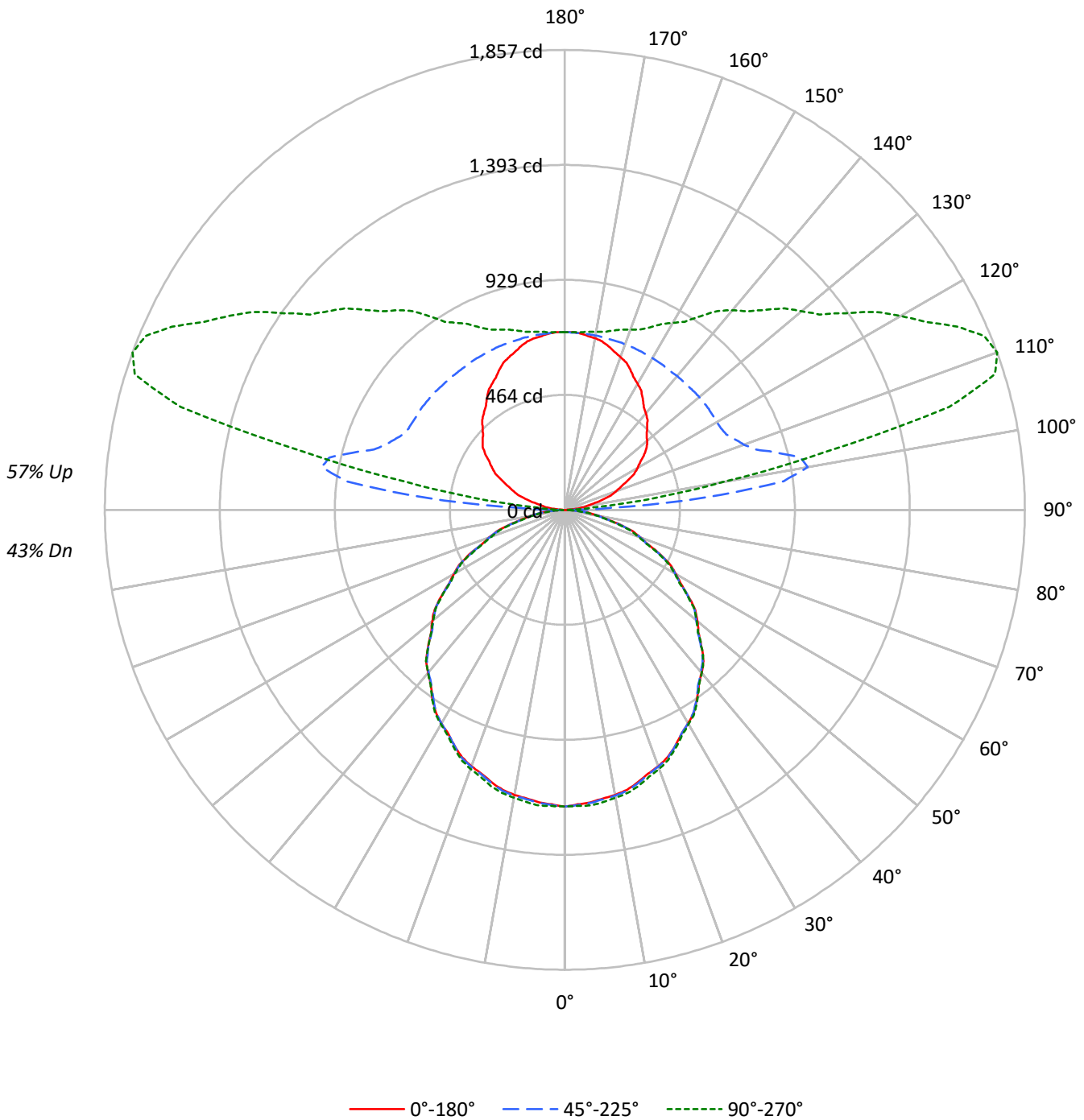
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7829.8 lumens
Efficiency: N/A
Efficacy: 132.0 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°	19346	19346	19346
5°	19209	19263	19420
10°	19164	19218	19351
15°	19047	19102	19293
20°	18933	18962	19129
25°	18759	18759	18875
30°	18567	18567	18627
35°	18343	18277	18404
40°	18099	18029	18099
45°	17817	17744	17817
50°	17550	17384	17427
55°	17140	17095	17005
60°	16711	16604	16498
65°	16218	16027	15840
70°	15257	15182	14875
75°	14361	14055	13649
80°	12757	12450	11994
85°	10282	9374	8762

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17927 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	1.4
10°-20°	323.6	4.1
20°-30°	486.9	6.2
30°-40°	582.6	7.4
40°-50°	601.1	7.7
50°-60°	542.3	6.9
60°-70°	413.8	5.3
70°-80°	237.9	3.0
80°-90°	63.4	0.8
90°-100°	299.6	3.8
100°-110°	906.1	11.6
110°-120°	884.6	11.3
120°-130°	722.8	9.2
130°-140°	590.0	7.5
140°-150°	459.3	5.9
150°-160°	331.1	4.2
160°-170°	202.7	2.6
170°-180°	68.4	0.9
0°-30°	923.8	11.8
0°-40°	1506.5	19.2
0°-60°	2649.9	33.8
0°-90°	3365.0	43.0
90°-120°	2090.4	26.7
90°-150°	3862.5	49.3
90°-180°	4465.0	57.0
0°-180°	7829.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1185	1201	1188	1190	1198	113
15°	1140	1154	1143	1148	1154	321
25°	1053	1064	1053	1055	1060	485
35°	931	937	927	931	934	582
45°	780	785	777	779	780	602
55°	609	612	607	604	604	544
65°	424	423	420	416	415	417
75°	230	229	225	220	219	243
85°	56	52	51	46	47	64
90°	0	2	14	8	7	4
95°	37	118	565	209	132	44
105°	158	222	890	1690	1606	166
115°	280	334	720	1489	1749	277
125°	392	435	710	1176	1384	348
135°	470	519	705	1014	1141	364
145°	548	589	705	872	954	343
155°	625	646	710	782	812	288
165°	684	691	713	740	749	193
175°	715	715	716	722	720	68
180°	717	717	717	717	717	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.2	1198.2	1198.2	1198.2	1198.2
2.5°	1190.4	1204.4	1193.0	1195.7	1197.0
5°	1185.2	1201.1	1188.5	1190.3	1198.2
7.5°	1175.3	1192.7	1178.6	1181.8	1190.7
10°	1168.9	1184.9	1172.2	1173.9	1180.3
12.5°	1158.4	1174.4	1161.7	1164.8	1171.2
15°	1139.5	1153.8	1142.8	1147.8	1154.2
17.5°	1117.6	1132.9	1120.6	1124.9	1130.3
20°	1101.9	1114.7	1103.6	1105.4	1113.3
22.5°	1082.3	1095.1	1085.3	1085.7	1092.5
25°	1053.0	1064.1	1053.0	1054.7	1059.5
27.5°	1019.3	1028.9	1019.3	1021.1	1025.2
30°	995.9	1005.4	995.9	997.4	999.1
32.5°	969.7	978.0	968.4	970.2	974.2
35°	930.6	936.9	927.3	930.6	933.7
37.5°	888.7	893.6	885.4	887.1	890.1
40°	858.7	863.5	855.4	857.1	858.7
42.5°	828.6	832.2	824.1	825.8	828.6
45°	780.3	785.1	777.1	778.7	780.3
47.5°	731.4	734.2	727.4	726.2	729.1
50°	698.7	700.3	692.1	692.2	693.8
52.5°	663.5	665.1	659.5	656.9	658.5
55°	608.9	612.1	607.3	604.1	604.1
57.5°	554.1	556.9	550.8	549.2	548.9
60°	517.5	519.1	514.2	512.5	510.9
62.5°	481.0	481.3	476.3	474.7	473.1
65°	424.5	422.9	419.5	416.2	414.6
67.5°	361.1	362.7	359.5	354.2	354.2
70°	323.2	324.8	321.6	315.1	315.1
72.5°	286.7	285.7	283.7	278.5	275.9
75°	230.2	228.6	225.3	220.3	218.8
77.5°	173.7	172.1	170.4	164.2	165.6
80°	137.2	135.6	133.9	129.0	129.0
82.5°	104.5	101.6	99.9	95.1	95.1
85°	55.5	52.3	50.6	45.7	47.3
87.5°	15.6	14.8	15.7	12.0	11.8
90°	0.0	2.2	13.5	7.8	6.8
92.5°	12.6	50.9	182.9	60.7	43.7
95°	37.1	117.6	565.4	208.9	131.7
97.5°	71.9	149.6	891.1	589.6	359.1
100°	93.5	169.4	995.5	962.5	646.4
102.5°	117.8	191.1	973.9	1350.0	1076.2
105°	157.6	221.6	889.7	1689.7	1605.9
107.5°	195.6	256.5	808.6	1723.3	1820.2
110°	220.8	279.1	768.1	1681.0	1857.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	245.1	301.7	743.7	1609.9	1832.8
115°	280.4	334.4	719.6	1489.2	1749.0
117.5°	315.5	366.7	711.1	1376.0	1642.0
120°	338.9	387.5	708.4	1309.9	1565.4
122.5°	360.7	406.4	708.4	1251.8	1487.9
125°	391.9	434.9	709.6	1176.0	1384.1
127.5°	417.4	461.8	708.4	1118.8	1296.2
130°	433.5	479.8	708.4	1085.9	1246.8
132.5°	448.0	495.1	707.5	1056.0	1204.3
135°	469.6	519.2	705.0	1014.2	1140.8
137.5°	493.7	540.8	705.0	969.6	1087.0
140°	509.0	555.3	705.0	940.6	1051.9
142.5°	524.4	568.9	704.1	914.2	1011.4
145°	548.5	589.3	705.0	872.4	953.9
147.5°	572.5	607.1	706.4	838.0	900.5
150°	587.9	619.8	707.3	818.9	871.7
152.5°	602.3	630.7	708.2	802.3	845.6
155°	625.0	646.0	709.6	782.2	812.0
157.5°	644.8	661.8	710.9	767.4	788.1
160°	656.6	670.9	711.8	758.3	773.7
162.5°	668.2	679.1	712.6	750.1	762.9
165°	683.6	691.3	712.8	740.1	748.9
167.5°	696.7	700.6	714.2	732.3	736.0
170°	703.9	706.0	715.1	728.7	729.8
172.5°	708.4	709.7	715.1	725.1	725.3
175°	715.1	715.1	716.2	721.9	719.6
177.5°	718.3	717.4	716.5	719.2	717.4
180°	717.4	717.4	717.4	717.4	717.4



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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	17.58	18.39	18.59	19.41	20.78	17.50	18.31	18.51	19.33	20.70
	3H	19.35	20.08	20.38	21.11	22.50	19.23	19.96	20.26	20.99	22.38
	4H	20.01	20.70	21.05	21.74	23.13	19.86	20.55	20.89	21.58	22.98
	6H	20.48	21.11	21.52	22.15	23.56	20.29	20.93	21.34	21.97	23.37
	8H	20.61	21.22	21.67	22.27	23.68	20.41	21.02	21.46	22.07	23.47
	12H	20.69	21.26	21.74	22.31	23.74	20.46	21.04	21.52	22.09	23.51
4H	2H	18.12	18.81	19.16	19.85	21.24	18.06	18.75	19.10	19.78	21.18
	3H	20.10	20.68	21.16	21.74	23.15	20.00	20.57	21.05	21.64	23.04
	4H	20.89	21.42	21.95	22.47	23.91	20.75	21.28	21.81	22.33	23.76
	6H	21.48	21.93	22.55	23.01	24.44	21.30	21.75	22.37	22.83	24.26
	8H	21.67	22.09	22.73	23.16	24.60	21.46	21.89	22.53	22.96	24.40
	12H	21.77	22.15	22.85	23.23	24.68	21.54	21.92	22.62	23.01	24.45
8H	4H	21.14	21.56	22.20	22.63	24.07	21.01	21.43	22.08	22.50	23.94
	6H	21.85	22.20	22.94	23.31	24.75	21.69	22.04	22.78	23.15	24.59
	8H	22.12	22.43	23.22	23.52	24.98	21.93	22.23	23.02	23.33	24.79
	12H	22.28	22.55	23.39	23.65	25.14	22.06	22.33	23.16	23.42	24.91
12H	4H	21.13	21.51	22.21	22.59	24.04	21.01	21.39	22.09	22.47	23.92
	6H	21.89	22.20	22.99	23.30	24.75	21.74	22.04	22.83	23.14	24.60
	8H	22.18	22.46	23.29	23.55	25.04	22.00	22.27	23.10	23.36	24.86