

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: P853711

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853711
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-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

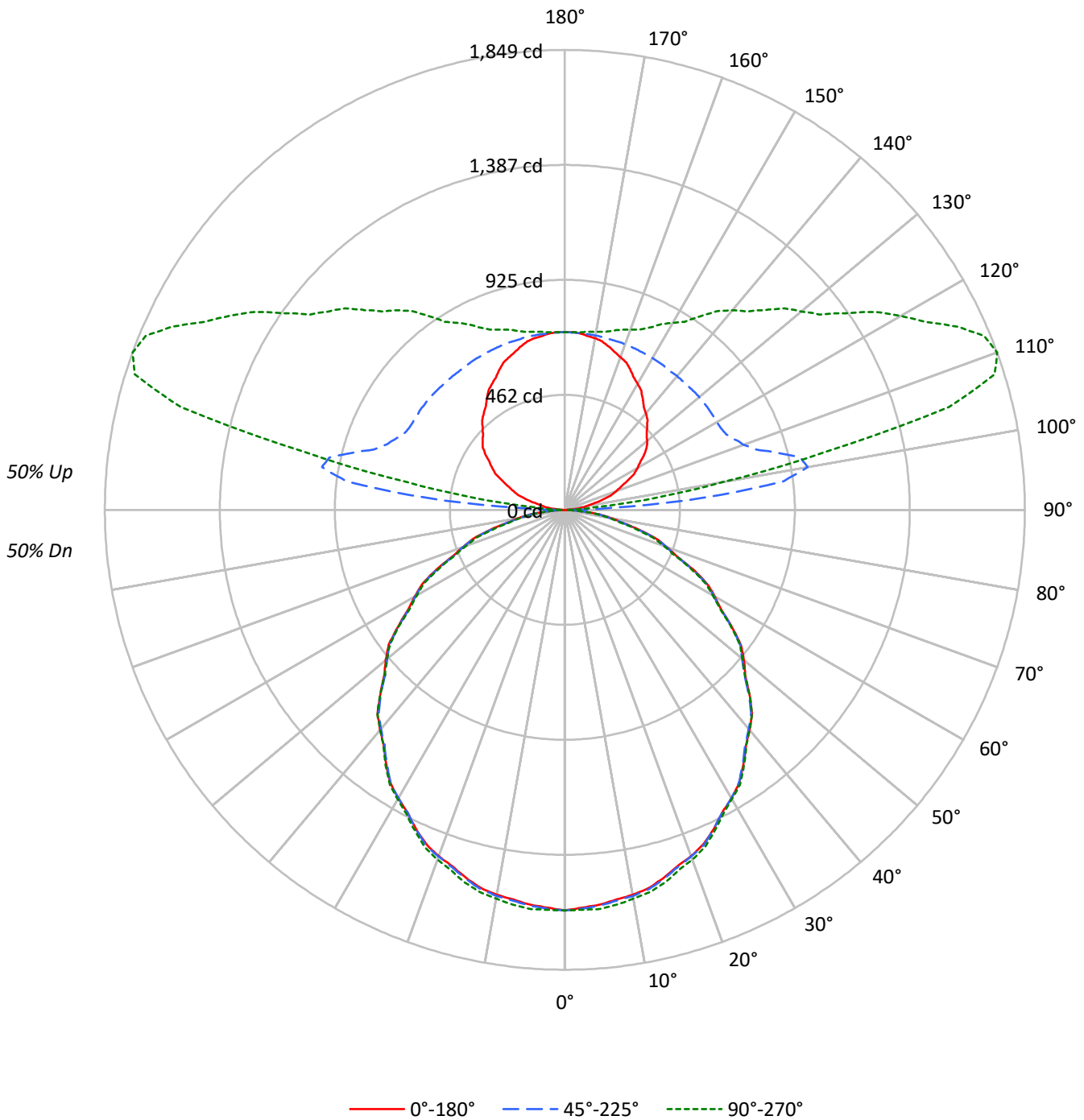
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8968.6 lumens
Efficiency: N/A
Efficacy: 127.8 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): 70.2
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50
1	98	93	89	86	90	86	83	80	73	71	68	61	59	58	50	49	47	42
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	44	42	40	35
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	36	34	30
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	28	25	22
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	32	53	42	35	30	36	30	26	31	26	23	25	22	19	17
8	54	41	33	28	49	38	31	26	33	27	23	28	24	20	23	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	16	13
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26011	26011	26011
5°	25827	25898	26110
10°	25765	25838	26017
15°	25608	25683	25941
20°	25457	25493	25722
25°	25221	25221	25377
30°	24962	24962	25044
35°	24660	24575	24746
40°	24333	24241	24333
45°	23957	23857	23957
50°	23596	23378	23431
55°	23049	22984	22860
60°	22465	22326	22184
65°	21803	21551	21299
70°	20516	20412	19997
75°	19307	18896	18347
80°	17136	16727	16123
85°	13820	12597	11782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24103 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	1.7
10°-20°	435.1	4.9
20°-30°	654.7	7.3
30°-40°	783.4	8.7
40°-50°	808.2	9.0
50°-60°	729.1	8.1
60°-70°	556.4	6.2
70°-80°	319.9	3.6
80°-90°	84.7	0.9
90°-100°	298.3	3.3
100°-110°	902.1	10.1
110°-120°	880.6	9.8
120°-130°	719.6	8.0
130°-140°	587.4	6.5
140°-150°	457.2	5.1
150°-160°	329.6	3.7
160°-170°	201.8	2.2
170°-180°	68.1	0.8
0°-30°	1242.1	13.8
0°-40°	2025.5	22.6
0°-60°	3562.9	39.7
0°-90°	4523.9	50.4
90°-120°	2081.0	23.2
90°-150°	3845.2	42.9
90°-180°	4445.0	49.6
0°-180°	8968.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1611	1611	1611	1611	1611	
5°	1594	1615	1598	1600	1611	151
15°	1532	1551	1536	1543	1552	432
25°	1416	1431	1416	1418	1424	652
35°	1251	1260	1247	1251	1256	782
45°	1049	1056	1045	1047	1049	809
55°	819	823	816	812	812	732
65°	571	568	564	560	558	561
75°	310	307	303	296	294	326
85°	75	70	68	62	64	86
90°	0	2	14	8	7	5
95°	37	117	563	208	131	44
105°	157	221	886	1682	1599	165
115°	279	333	716	1482	1741	276
125°	390	433	706	1171	1378	347
135°	468	517	702	1010	1136	362
145°	546	586	702	868	950	342
155°	622	643	706	779	808	286
165°	681	688	710	737	746	192
175°	712	712	713	719	716	68
180°	714	714	714	714	714	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1611.0	1611.0	1611.0	1611.0	1611.0
2.5°	1600.5	1619.4	1604.0	1607.6	1609.3
5°	1593.5	1615.0	1597.9	1600.3	1611.0
7.5°	1580.4	1603.6	1584.8	1589.0	1601.0
10°	1571.5	1593.0	1576.0	1578.3	1586.9
12.5°	1557.5	1579.0	1561.9	1566.0	1574.6
15°	1532.0	1551.4	1536.5	1543.2	1551.9
17.5°	1502.6	1523.2	1506.6	1512.5	1519.7
20°	1481.6	1498.8	1483.7	1486.2	1497.0
22.5°	1455.2	1472.4	1459.2	1459.8	1468.8
25°	1415.7	1430.8	1415.7	1418.1	1424.5
27.5°	1370.6	1383.3	1370.6	1372.8	1378.4
30°	1338.9	1351.8	1338.9	1341.1	1343.3
32.5°	1303.8	1315.0	1302.0	1304.4	1309.9
35°	1251.1	1259.7	1246.8	1251.2	1255.5
37.5°	1194.9	1201.4	1190.5	1192.8	1196.6
40°	1154.5	1161.0	1150.1	1152.4	1154.5
42.5°	1114.1	1118.9	1108.0	1110.3	1114.1
45°	1049.2	1055.6	1044.8	1047.0	1049.2
47.5°	983.3	987.2	978.1	976.4	980.2
50°	939.4	941.5	930.7	930.7	932.8
52.5°	892.0	894.1	886.8	883.3	885.4
55°	818.8	822.9	816.5	812.1	812.1
57.5°	745.0	748.8	740.6	738.4	738.0
60°	695.7	697.9	691.4	689.2	687.0
62.5°	646.6	647.1	640.5	638.3	636.1
65°	570.7	568.5	564.1	559.6	557.5
67.5°	485.5	487.6	483.3	476.3	476.3
70°	434.6	436.7	432.4	423.6	423.6
72.5°	385.4	384.1	381.5	374.4	371.0
75°	309.5	307.4	302.9	296.3	294.1
77.5°	233.6	231.4	229.2	220.9	222.6
80°	184.3	182.2	179.9	173.4	173.4
82.5°	140.4	136.6	134.3	127.8	127.8
85°	74.6	70.4	68.0	61.6	63.6
87.5°	21.0	19.8	20.3	15.6	15.4
90°	0.0	2.2	13.5	7.8	6.7
92.5°	12.6	50.7	182.1	60.4	43.5
95°	37.0	117.0	562.8	207.9	131.2
97.5°	71.5	148.9	887.0	587.0	357.4
100°	93.0	168.7	991.1	958.2	643.6
102.5°	117.2	190.2	969.6	1343.9	1071.3
105°	157.0	220.6	885.8	1682.1	1598.7
107.5°	194.6	255.3	805.0	1715.5	1812.0
110°	219.8	277.8	764.7	1673.4	1848.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.0	300.3	740.4	1602.7	1824.6
115°	279.2	332.8	716.5	1482.4	1741.2
117.5°	314.1	365.0	707.9	1369.8	1634.6
120°	337.5	385.7	705.1	1304.0	1558.4
122.5°	359.0	404.6	705.1	1246.2	1481.2
125°	390.2	432.9	706.3	1170.7	1377.9
127.5°	415.5	459.8	705.1	1113.7	1290.4
130°	431.6	477.7	705.1	1081.1	1241.1
132.5°	446.0	493.0	704.3	1051.2	1199.0
135°	467.5	516.8	701.9	1009.7	1135.7
137.5°	491.5	538.4	701.9	965.3	1082.1
140°	506.8	552.8	701.9	936.5	1047.1
142.5°	522.0	566.3	701.0	910.1	1006.7
145°	546.0	586.5	701.9	868.4	949.6
147.5°	570.0	604.4	703.2	834.1	896.5
150°	585.2	617.0	704.1	815.1	867.8
152.5°	599.6	627.8	704.9	798.7	841.7
155°	622.2	643.0	706.3	778.7	808.3
157.5°	642.0	658.9	707.6	764.0	784.6
160°	653.6	667.9	708.5	754.8	770.2
162.5°	665.3	676.1	709.4	746.8	759.5
165°	680.6	688.2	709.7	736.8	745.5
167.5°	693.5	697.4	711.0	729.0	732.8
170°	700.7	702.9	711.9	725.4	726.5
172.5°	705.1	706.5	711.9	721.8	722.0
175°	711.9	711.9	713.1	718.6	716.5
177.5°	715.1	714.2	713.3	715.9	714.2
180°	714.2	714.2	714.2	714.2	714.2



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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	19.33	20.21	20.28	21.17	22.44	19.25	20.13	20.20	21.10	22.36
	3H	21.11	21.90	22.07	22.88	24.16	20.99	21.78	21.95	22.76	24.04
	4H	21.77	22.52	22.75	23.50	24.79	21.62	22.36	22.59	23.34	24.64
	6H	22.24	22.93	23.23	23.91	25.22	22.06	22.74	23.04	23.73	25.04
	8H	22.38	23.03	23.37	24.04	25.34	22.18	22.83	23.17	23.84	25.14
	12H	22.45	23.08	23.45	24.07	25.40	22.23	22.85	23.23	23.85	25.18
4H	2H	19.88	20.63	20.86	21.61	22.90	19.82	20.57	20.80	21.55	22.84
	3H	21.87	22.49	22.86	23.50	24.81	21.76	22.39	22.75	23.40	24.71
	4H	22.66	23.23	23.66	24.24	25.57	22.52	23.09	23.52	24.09	25.42
	6H	23.25	23.74	24.26	24.77	26.10	23.07	23.56	24.08	24.59	25.92
	8H	23.44	23.90	24.45	24.92	26.26	23.24	23.70	24.25	24.72	26.06
	12H	23.54	23.96	24.58	24.99	26.34	23.32	23.73	24.35	24.77	26.12
8H	4H	22.91	23.37	23.92	24.39	25.73	22.78	23.24	23.80	24.26	25.61
	6H	23.63	24.01	24.67	25.07	26.41	23.46	23.84	24.50	24.90	26.25
	8H	23.90	24.23	24.94	25.28	26.64	23.70	24.04	24.75	25.09	26.45
	12H	24.06	24.36	25.11	25.40	26.81	23.84	24.13	24.89	25.17	26.58
12H	4H	22.90	23.32	23.94	24.35	25.71	22.78	23.20	23.82	24.23	25.58
	6H	23.67	24.01	24.72	25.05	26.42	23.51	23.85	24.56	24.90	26.26
	8H	23.97	24.26	25.02	25.30	26.71	23.78	24.07	24.83	25.12	26.52