

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-830-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-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

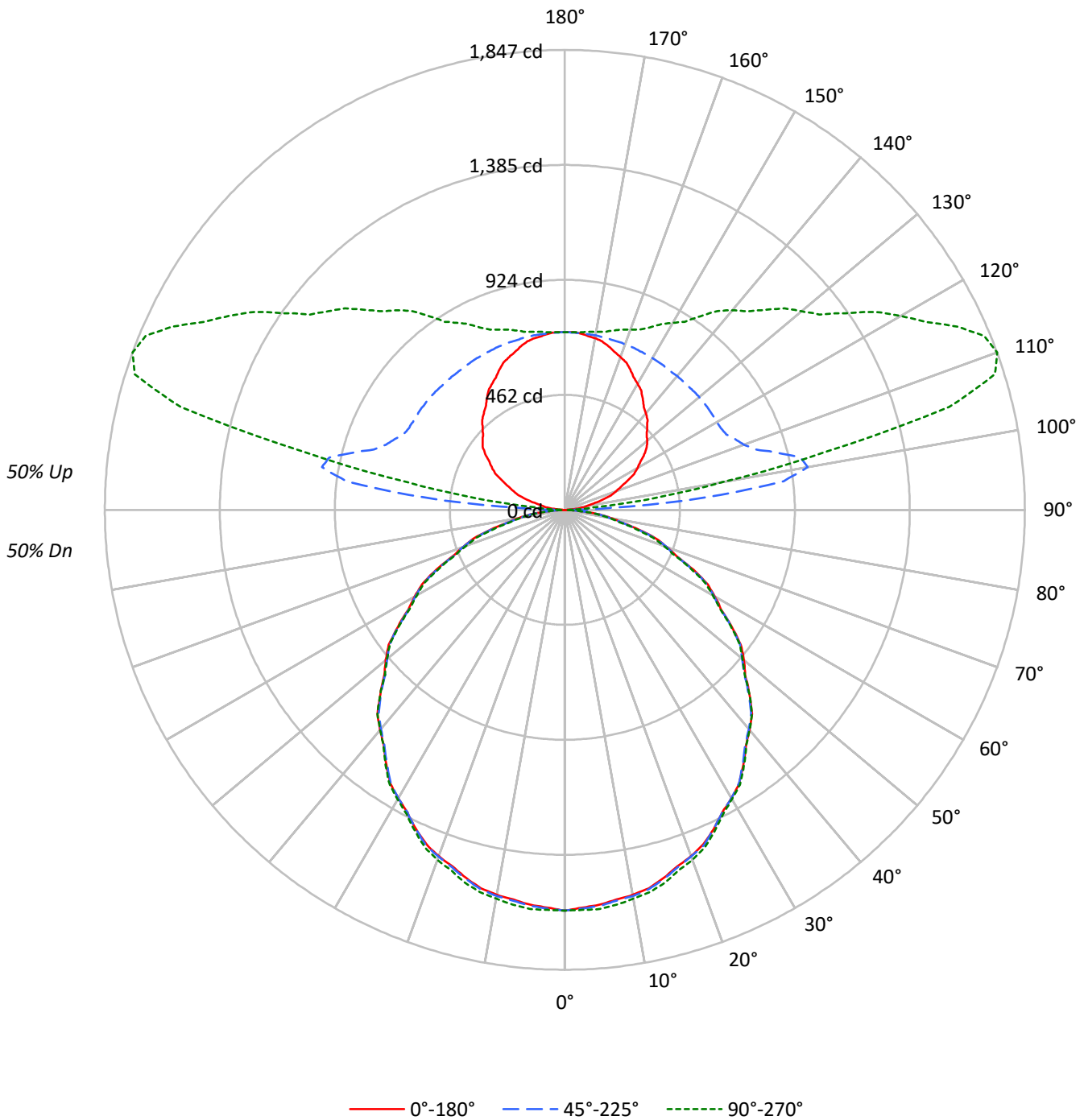
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8960.4 lumens
Efficiency: N/A
Efficacy: 127.6 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

TEST NUMBER: P853711
CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853711

CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

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	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°	25988	25988	25988
5°	25804	25875	26088
10°	25742	25814	25994
15°	25586	25660	25917
20°	25433	25471	25697
25°	25197	25197	25356
30°	24940	24940	25022
35°	24636	24551	24723
40°	24312	24219	24312
45°	23934	23834	23934
50°	23574	23355	23410
55°	23026	22964	22838
60°	22446	22307	22165
65°	21784	21532	21280
70°	20497	20394	19978
75°	19289	18883	18334
80°	17127	16718	16104
85°	13801	12597	11764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24083 cd/sqm



TEST NUMBER: P853711

CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.2	1.7
10°-20°	434.7	4.9
20°-30°	654.1	7.3
30°-40°	782.6	8.7
40°-50°	807.5	9.0
50°-60°	728.5	8.1
60°-70°	555.9	6.2
70°-80°	319.6	3.6
80°-90°	84.6	0.9
90°-100°	298.0	3.3
100°-110°	901.3	10.1
110°-120°	879.8	9.8
120°-130°	718.9	8.0
130°-140°	586.9	6.5
140°-150°	456.8	5.1
150°-160°	329.3	3.7
160°-170°	201.6	2.2
170°-180°	68.1	0.8
0°-30°	1241.0	13.8
0°-40°	2023.6	22.6
0°-60°	3559.6	39.7
0°-90°	4519.8	50.4
90°-120°	2079.1	23.2
90°-150°	3841.7	42.9
90°-180°	4441.0	49.6
0°-180°	8960.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1592	1614	1596	1599	1610	151
15°	1531	1550	1535	1542	1550	432
25°	1414	1430	1414	1417	1423	651
35°	1250	1258	1246	1250	1254	782
45°	1048	1055	1044	1046	1048	809
55°	818	822	816	811	811	731
65°	570	568	564	559	557	560
75°	309	307	303	296	294	326
85°	74	70	68	62	64	86
90°	0	2	14	8	7	5
95°	37	117	562	208	131	44
105°	157	220	885	1681	1597	165
115°	279	332	716	1481	1740	276
125°	390	432	706	1170	1377	346
135°	467	516	701	1009	1135	362
145°	546	586	701	868	949	342
155°	622	642	706	778	808	286
165°	680	688	709	736	745	192
175°	711	711	712	718	716	67
180°	714	714	714	714	714	

TEST NUMBER: P853711

CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1609.6	1609.6	1609.6	1609.6	1609.6
2.5°	1599.1	1618.0	1602.6	1606.2	1607.9
5°	1592.1	1613.5	1596.5	1598.8	1609.6
7.5°	1578.9	1602.1	1583.4	1587.5	1599.5
10°	1570.1	1591.6	1574.5	1576.9	1585.5
12.5°	1556.1	1577.6	1560.5	1564.6	1573.2
15°	1530.7	1550.0	1535.1	1541.9	1550.5
17.5°	1501.3	1521.8	1505.2	1511.1	1518.3
20°	1480.2	1497.4	1482.4	1484.9	1495.6
22.5°	1453.9	1471.1	1457.9	1458.5	1467.5
25°	1414.4	1429.5	1414.4	1416.8	1423.3
27.5°	1369.3	1382.1	1369.3	1371.6	1377.1
30°	1337.7	1350.6	1337.7	1339.9	1342.1
32.5°	1302.6	1313.8	1300.8	1303.2	1308.7
35°	1249.9	1258.5	1245.6	1250.0	1254.3
37.5°	1193.8	1200.3	1189.4	1191.7	1195.5
40°	1153.5	1159.9	1149.1	1151.3	1153.5
42.5°	1113.1	1117.9	1107.0	1109.3	1113.1
45°	1048.2	1054.7	1043.8	1046.1	1048.2
47.5°	982.4	986.3	977.2	975.5	979.4
50°	938.5	940.7	929.8	929.8	932.0
52.5°	891.2	893.3	886.0	882.5	884.6
55°	818.0	822.2	815.8	811.3	811.3
57.5°	744.3	748.1	739.9	737.7	737.3
60°	695.1	697.3	690.8	688.6	686.4
62.5°	646.0	646.5	639.9	637.7	635.5
65°	570.2	568.0	563.6	559.1	557.0
67.5°	485.0	487.2	482.9	475.9	475.9
70°	434.2	436.3	432.0	423.2	423.2
72.5°	385.1	383.7	381.1	374.0	370.6
75°	309.2	307.1	302.7	296.0	293.9
77.5°	233.4	231.2	229.0	220.7	222.4
80°	184.2	182.0	179.8	173.2	173.2
82.5°	140.3	136.5	134.2	127.6	127.6
85°	74.5	70.3	68.0	61.5	63.5
87.5°	21.0	19.8	20.2	15.6	15.4
90°	0.0	2.1	13.5	7.8	6.7
92.5°	12.6	50.7	181.9	60.4	43.4
95°	37.0	116.9	562.3	207.7	131.0
97.5°	71.5	148.8	886.2	586.5	357.1
100°	92.9	168.6	990.2	957.3	643.0
102.5°	117.1	190.1	968.7	1342.6	1070.4
105°	156.8	220.4	885.0	1680.6	1597.3
107.5°	194.5	255.1	804.2	1713.9	1810.4
110°	219.6	277.6	764.0	1671.9	1847.1



TEST NUMBER: P853711

CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	243.8	300.1	739.8	1601.2	1822.9
115°	278.9	332.5	715.8	1481.0	1739.6
117.5°	313.9	364.6	707.2	1368.5	1633.1
120°	337.2	385.3	704.5	1302.8	1557.0
122.5°	358.6	404.2	704.5	1245.1	1479.9
125°	389.8	432.5	705.6	1169.7	1376.7
127.5°	415.2	459.4	704.5	1112.7	1289.3
130°	431.2	477.2	704.5	1080.1	1240.0
132.5°	445.6	492.5	703.7	1050.3	1197.9
135°	467.1	516.4	701.2	1008.8	1134.7
137.5°	491.0	538.0	701.2	964.4	1081.1
140°	506.3	552.3	701.2	935.6	1046.2
142.5°	521.6	565.8	700.3	909.3	1005.8
145°	545.5	586.0	701.2	867.7	948.7
147.5°	569.5	603.9	702.6	833.4	895.7
150°	584.7	616.4	703.5	814.4	867.0
152.5°	599.0	627.3	704.3	798.0	841.0
155°	621.6	642.4	705.6	778.0	807.6
157.5°	641.4	658.3	707.0	763.3	783.9
160°	653.1	667.3	707.9	754.1	769.5
162.5°	664.7	675.4	708.8	746.1	758.8
165°	680.0	687.5	709.0	736.2	744.9
167.5°	692.9	696.8	710.4	728.4	732.1
170°	700.1	702.2	711.3	724.7	725.9
172.5°	704.5	705.9	711.3	721.1	721.4
175°	711.3	711.3	712.4	718.0	715.8
177.5°	714.5	713.5	712.6	715.2	713.5
180°	713.5	713.5	713.5	713.5	713.5



TEST NUMBER: P853711

CATALOG NUMBER: SQ2-F-100U-100D-830-UNV-STD-W-4

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	20.20	20.28	21.17	22.44	19.25	20.12	20.20	21.09	22.36
	3H	21.11	21.89	22.07	22.87	24.16	20.99	21.77	21.95	22.75	24.04
	4H	21.77	22.51	22.74	23.49	24.79	21.62	22.36	22.59	23.34	24.64
	6H	22.24	22.92	23.22	23.91	25.22	22.05	22.74	23.04	23.73	25.03
	8H	22.38	23.03	23.37	24.03	25.34	22.17	22.83	23.17	23.83	25.14
	12H	22.45	23.07	23.45	24.07	25.40	22.23	22.85	23.23	23.85	25.18
4H	2H	19.88	20.62	20.86	21.61	22.90	19.82	20.56	20.80	21.54	22.84
	3H	21.87	22.49	22.86	23.50	24.81	21.76	22.38	22.75	23.39	24.70
	4H	22.66	23.23	23.66	24.23	25.56	22.52	23.08	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	23.69	24.25	24.71	26.06
	12H	23.54	23.95	24.57	24.99	26.34	23.31	23.73	24.34	24.76	26.11
8H	4H	22.91	23.37	23.92	24.39	25.73	22.78	23.24	23.79	24.26	25.60
	6H	23.63	24.00	24.66	25.07	26.41	23.46	23.84	24.50	24.90	26.24
	8H	23.89	24.23	24.94	25.27	26.64	23.70	24.03	24.75	25.08	26.44
	12H	24.06	24.36	25.11	25.40	26.80	23.83	24.13	24.88	25.17	26.57
12H	4H	22.90	23.32	23.93	24.35	25.70	22.78	23.19	23.81	24.23	25.58
	6H	23.67	24.00	24.71	25.05	26.41	23.51	23.84	24.56	24.89	26.25
	8H	23.96	24.26	25.01	25.30	26.70	23.78	24.07	24.83	25.11	26.52