

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: P853998

Luminaire Tested: SQ2-PH1-025U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853998
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-025U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

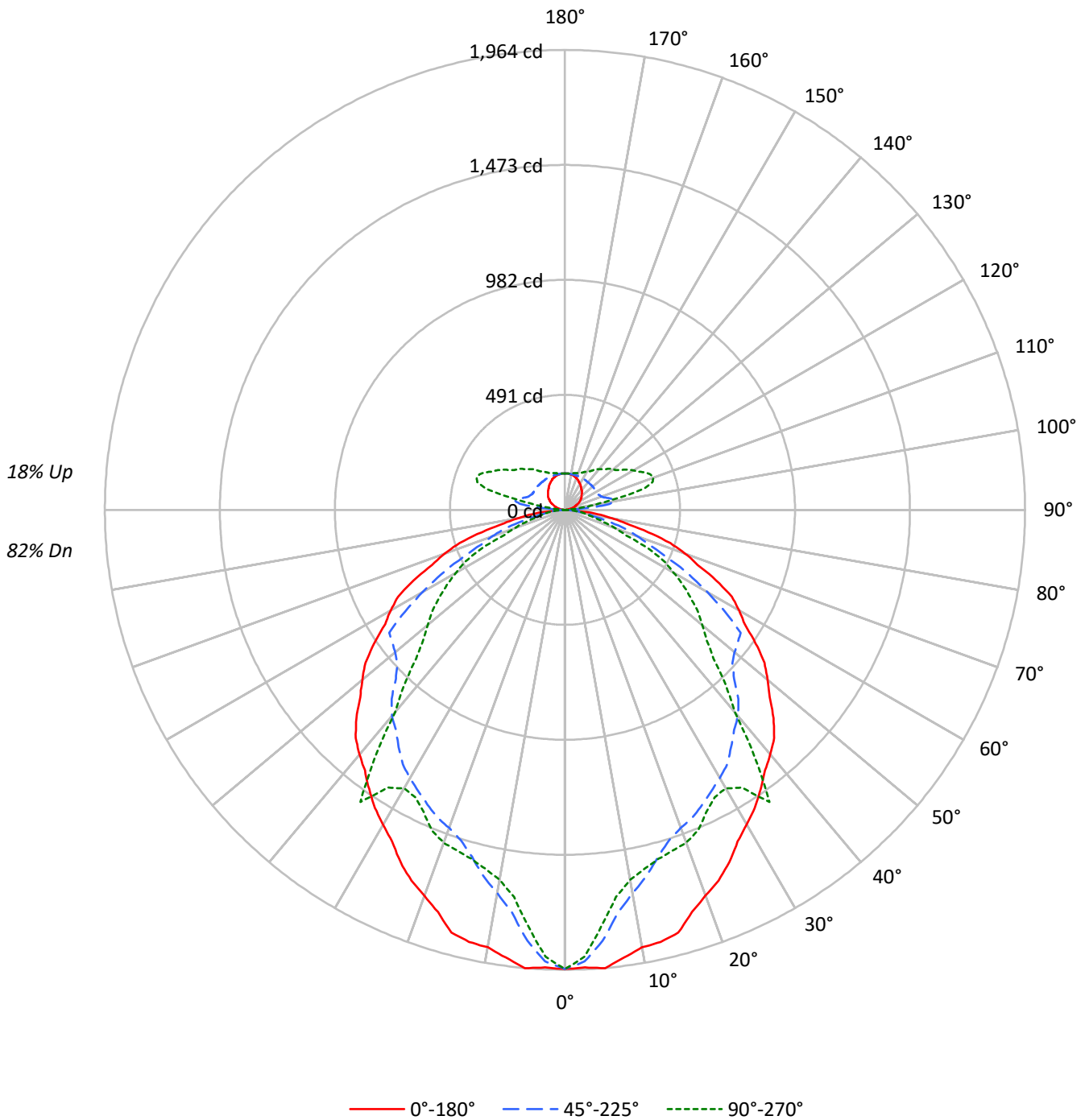
Lumens per Lamp: N/A
Luminaire Lumens: 5301.7 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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: P853998

CATALOG NUMBER: SQ2-PH1-025U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853998

CATALOG NUMBER: SQ2-PH1-025U-100D-930-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
RCR																				
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	85	82	
1	105	101	97	93	101	97	93	90	89	87	84	82	80	78	76	74	73	73	70	
2	96	88	82	77	92	85	79	75	79	74	70	73	69	66	67	64	62	62	59	
3	88	78	70	64	84	75	68	63	70	64	59	64	60	56	60	56	53	53	50	
4	81	69	61	55	77	67	59	53	62	56	51	58	52	48	54	49	46	46	43	
5	74	62	53	47	71	60	52	46	56	49	44	52	46	42	48	44	40	40	37	
6	68	56	47	41	65	54	46	40	50	44	39	47	41	37	44	39	35	35	33	
7	63	51	42	36	61	49	41	36	46	39	34	43	37	33	40	35	31	31	29	
8	59	46	38	32	57	45	37	32	42	35	31	39	34	29	37	32	28	28	26	
9	55	42	35	29	53	41	34	29	39	32	28	36	31	27	34	29	25	25	24	
10	52	39	31	26	50	38	31	26	36	29	25	34	28	24	32	27	23	23	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31656	31656	31656
5°	31836	29932	28935
10°	31104	27250	26302
15°	31244	25631	25787
20°	30129	24840	25995
25°	29578	24725	25390
30°	28937	24658	25598
35°	28716	24378	30003
40°	28743	24219	23787
45°	28752	23299	20489
50°	28349	23757	19211
55°	27989	25782	18432
60°	27709	22591	17289
65°	27224	18315	15037
70°	25714	15588	10744
75°	22926	11753	8147
80°	18736	7634	7634
85°	11745	6910	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28752 cd/sqm



TEST NUMBER: P853998

CATALOG NUMBER: SQ2-PH1-025U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	3.3
10°-20°	453.8	8.6
20°-30°	665.4	12.5
30°-40°	805.8	15.2
40°-50°	792.4	14.9
50°-60°	689.8	13.0
60°-70°	479.6	9.0
70°-80°	227.4	4.3
80°-90°	50.5	1.0
90°-100°	62.9	1.2
100°-110°	195.6	3.7
110°-120°	191.4	3.6
120°-130°	156.3	2.9
130°-140°	127.8	2.4
140°-150°	99.8	1.9
150°-160°	72.0	1.4
160°-170°	44.0	0.8
170°-180°	14.8	0.3
0°-30°	1291.7	24.4
0°-40°	2097.5	39.6
0°-60°	3579.6	67.5
0°-90°	4337.1	81.8
90°-120°	450.0	8.5
90°-150°	833.8	15.7
90°-180°	965.0	18.2
0°-180°	5301.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1964	1962	1847	1789	1785	185
15°	1869	1665	1533	1523	1543	521
25°	1660	1412	1388	1431	1425	764
35°	1457	1178	1237	1344	1522	913
45°	1259	933	1020	1056	897	968
55°	994	726	916	660	655	888
65°	713	499	479	394	394	700
75°	368	254	188	134	131	389
85°	63	42	37	30	28	85
90°	0	1	3	3	3	2
95°	9	25	115	43	28	10
105°	34	48	193	368	351	36
115°	61	72	156	323	378	60
125°	85	94	154	254	298	75
135°	102	113	154	219	246	79
145°	119	128	154	189	206	75
155°	136	141	154	170	176	63
165°	150	151	155	160	162	42
175°	155	155	155	156	155	15
180°	155	155	155	155	155	

TEST NUMBER: P853998

CATALOG NUMBER: SQ2-PH1-025U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1960.6	1960.6	1960.6	1960.6	1960.6
2.5°	1956.1	1976.6	1930.8	1912.8	1909.9
5°	1964.3	1962.5	1846.8	1788.9	1785.3
7.5°	1928.5	1872.0	1733.8	1669.9	1667.0
10°	1897.2	1811.5	1662.1	1604.3	1604.3
12.5°	1889.7	1754.4	1603.9	1561.2	1570.0
15°	1869.2	1664.9	1533.4	1522.7	1542.7
17.5°	1801.3	1581.3	1478.6	1503.0	1526.3
20°	1753.5	1536.5	1445.7	1491.0	1512.9
22.5°	1713.2	1493.3	1421.9	1471.4	1483.0
25°	1660.3	1412.2	1387.9	1430.7	1425.2
27.5°	1596.8	1337.8	1354.0	1380.1	1383.4
30°	1552.1	1293.1	1322.6	1349.3	1373.0
32.5°	1508.8	1241.0	1288.3	1351.5	1405.8
35°	1456.9	1177.9	1236.8	1343.5	1522.2
37.5°	1402.5	1103.3	1184.9	1274.7	1331.6
40°	1363.7	1049.9	1149.1	1259.9	1128.6
42.5°	1321.9	1008.1	1095.4	1238.5	1016.7
45°	1259.2	932.7	1020.4	1056.0	897.3
47.5°	1185.3	874.1	969.7	880.6	818.6
50°	1128.6	834.9	945.8	805.0	764.8
52.5°	1073.4	794.3	929.4	742.6	715.6
55°	994.3	726.2	915.9	660.3	654.8
57.5°	910.3	656.8	810.0	588.6	598.1
60°	858.1	611.9	699.6	546.3	535.4
62.5°	802.9	568.3	596.6	492.6	481.7
65°	712.6	499.2	479.4	393.6	393.6
67.5°	613.4	427.3	388.4	322.1	278.3
70°	544.7	380.6	330.2	256.8	227.6
72.5°	471.6	330.8	270.5	210.4	176.8
75°	367.5	254.4	188.4	134.2	130.6
77.5°	265.6	183.2	126.9	99.6	100.0
80°	201.5	139.5	82.1	80.3	82.1
82.5°	141.8	95.8	61.2	63.8	64.2
85°	63.4	41.5	37.3	29.8	28.0
87.5°	13.4	12.2	8.0	8.0	8.0
90°	0.0	0.9	2.9	2.9	2.9
92.5°	3.1	10.7	36.4	12.0	9.7
95°	8.6	25.4	115.4	42.6	27.7
97.5°	15.6	33.0	191.1	119.0	75.0
100°	21.0	36.8	215.5	201.6	134.5
102.5°	26.3	41.4	210.9	287.9	226.0
105°	34.3	48.3	192.6	367.7	350.9
107.5°	42.3	55.4	175.1	373.8	392.3
110°	47.7	60.7	165.9	365.1	401.5



TEST NUMBER: P853998

CATALOG NUMBER: SQ2-PH1-025U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.0	65.3	161.3	349.3	395.4
115°	61.0	72.2	156.4	322.6	377.6
117.5°	68.8	79.1	154.3	297.1	353.4
120°	73.4	83.7	153.5	282.5	336.6
122.5°	78.0	88.3	154.3	270.2	319.8
125°	84.9	94.2	154.5	253.7	297.5
127.5°	90.4	99.9	154.5	241.3	278.6
130°	93.5	103.7	154.5	234.4	268.0
132.5°	97.3	107.5	153.7	228.2	259.6
135°	102.0	113.2	153.5	219.0	246.0
137.5°	107.6	117.8	153.5	209.8	234.4
140°	110.6	120.9	153.5	203.6	226.0
142.5°	114.4	123.9	153.5	197.5	217.6
145°	119.2	128.5	153.5	189.2	206.0
147.5°	124.9	132.9	154.5	181.5	194.7
150°	128.7	135.3	154.5	177.6	187.9
152.5°	131.8	137.6	154.5	173.8	182.5
155°	136.4	141.0	154.5	169.9	175.5
157.5°	140.9	144.5	154.5	166.4	169.9
160°	144.0	146.8	154.5	164.1	166.9
162.5°	146.3	148.3	154.5	162.5	164.6
165°	149.7	150.6	155.4	160.2	162.1
167.5°	151.8	152.0	154.5	158.9	159.8
170°	152.6	153.5	154.5	157.4	158.3
172.5°	154.1	154.3	155.2	156.6	156.8
175°	155.4	155.4	155.4	156.4	155.4
177.5°	155.4	155.4	155.4	155.4	155.4
180°	155.4	155.4	155.4	155.4	155.4



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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	21.88	23.11	22.51	23.75	24.48	20.56	21.79	21.18	22.42	23.16
	3H	23.94	25.04	24.58	25.69	26.46	21.62	22.72	22.26	23.37	24.14
	4H	24.68	25.72	25.35	26.38	27.16	21.85	22.89	22.51	23.55	24.33
	6H	25.19	26.15	25.86	26.82	27.61	22.01	22.97	22.69	23.64	24.44
	8H	25.32	26.24	26.01	26.93	27.73	22.05	22.97	22.74	23.66	24.46
	12H	25.38	26.25	26.07	26.94	27.76	22.06	22.94	22.76	23.62	24.45
4H	2H	22.30	23.34	22.97	24.00	24.78	21.24	22.28	21.91	22.94	23.72
	3H	24.44	25.31	25.12	26.01	26.81	22.46	23.32	23.13	24.02	24.82
	4H	25.27	26.06	25.97	26.76	27.59	22.75	23.53	23.44	24.23	25.06
	6H	25.88	26.56	26.59	27.29	28.13	22.97	23.65	23.69	24.38	25.22
	8H	26.06	26.69	26.78	27.42	28.27	23.04	23.67	23.76	24.40	25.25
	12H	26.14	26.71	26.88	27.46	28.32	23.07	23.63	23.80	24.38	25.24
8H	4H	25.32	25.95	26.04	26.68	27.53	22.99	23.62	23.71	24.35	25.20
	6H	25.99	26.51	26.74	27.28	28.13	23.28	23.80	24.03	24.57	25.42
	8H	26.22	26.68	26.98	27.45	28.32	23.38	23.85	24.15	24.62	25.49
	12H	26.35	26.76	27.11	27.52	28.45	23.44	23.86	24.21	24.62	25.55
12H	4H	25.29	25.86	26.03	26.61	27.46	23.01	23.57	23.74	24.32	25.18
	6H	25.96	26.43	26.73	27.20	28.07	23.31	23.78	24.07	24.55	25.42
	8H	26.21	26.62	26.98	27.38	28.31	23.44	23.85	24.21	24.61	25.55