

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: P854022

Luminaire Tested: SQ2-PH1-075U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854022
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-075U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

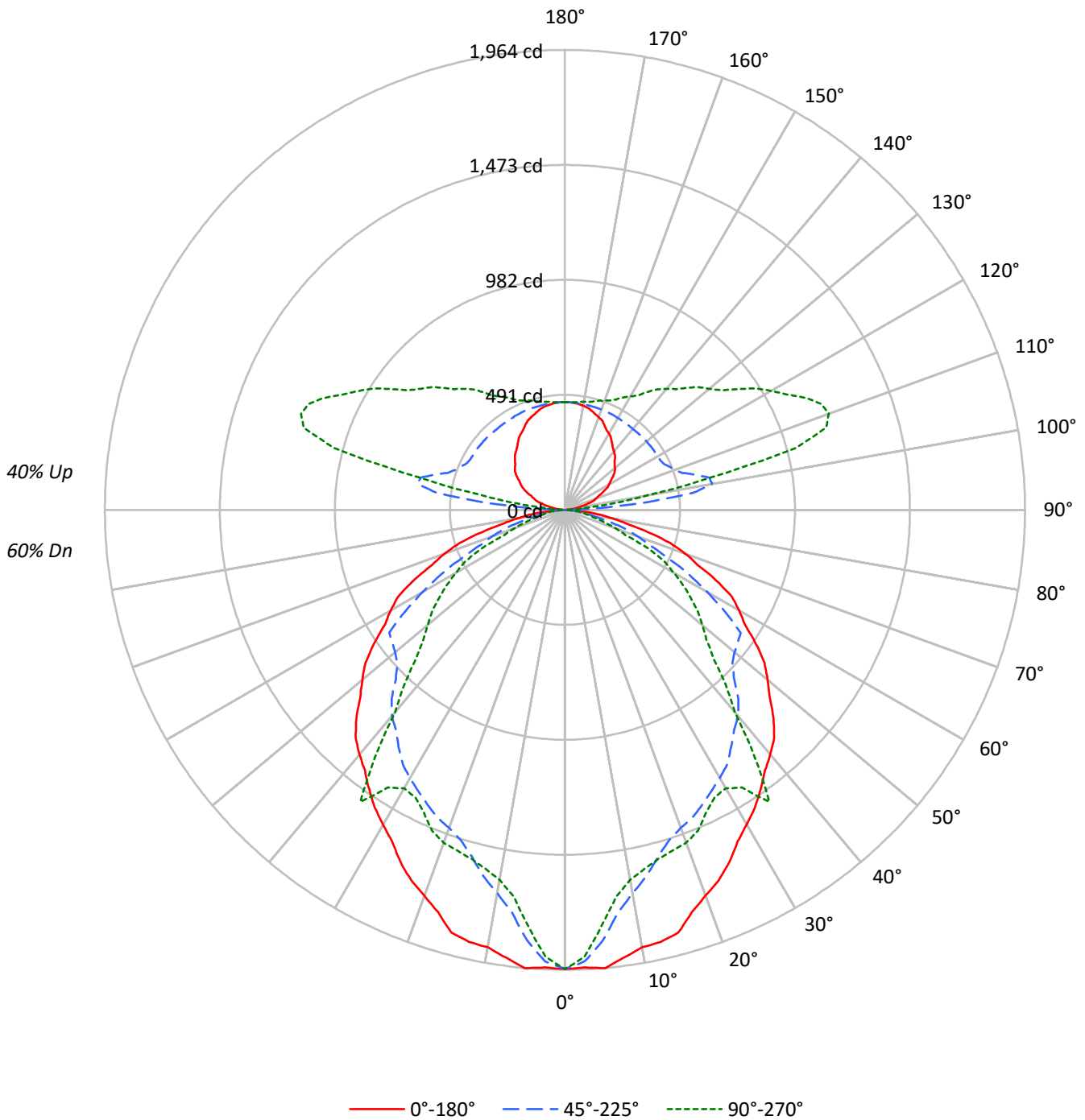
Lumens per Lamp: N/A
Luminaire Lumens: 7187.0 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.9
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: P854022

CATALOG NUMBER: SQ2-PH1-075U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									20
RC	80									50									30									10									0									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	60																
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	58	57	56	56	56	56	56	56	56	56	56	56	56	56	56	51																
2	92	84	78	73	85	79	74	69	69	65	61	60	57	54	52	49	47	47	47	47	47	47	47	47	47	47	47	47	47	43																
3	84	74	67	61	78	70	63	58	61	56	52	53	49	46	46	43	41	41	41	41	41	41	41	41	41	41	41	41	41	37																
4	77	66	58	52	71	62	55	49	54	49	44	47	43	40	41	38	35	35	35	35	35	35	35	35	35	35	35	35	35	32																
5	70	59	50	44	66	55	48	42	49	43	38	43	38	34	37	33	31	31	31	31	31	31	31	31	31	31	31	31	31	28																
6	65	53	44	39	60	50	42	37	44	38	34	39	34	30	34	30	27	27	27	27	27	27	27	27	27	27	27	27	27	24																
7	60	48	40	34	56	45	38	32	40	34	30	35	30	27	31	27	24	24	24	24	24	24	24	24	24	24	24	24	24	22																
8	56	43	35	30	52	41	34	29	36	31	26	32	27	24	28	24	22	22	22	22	22	22	22	22	22	22	22	22	22	19																
9	52	40	32	27	49	37	31	26	33	28	24	30	25	22	26	22	19	19	19	19	19	19	19	19	19	19	19	19	19	17																
10	49	36	29	24	46	34	28	23	31	25	21	27	23	20	24	20	18	18	18	18	18	18	18	18	18	18	18	18	18	16																

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: P854022

CATALOG NUMBER: SQ2-PH1-075U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	2.4
10°-20°	453.8	6.3
20°-30°	665.4	9.3
30°-40°	805.8	11.2
40°-50°	792.4	11.0
50°-60°	689.8	9.6
60°-70°	479.6	6.7
70°-80°	227.4	3.2
80°-90°	50.6	0.7
90°-100°	174.1	2.4
100°-110°	577.1	8.0
110°-120°	572.7	8.0
120°-130°	466.5	6.5
130°-140°	379.1	5.3
140°-150°	294.4	4.1
150°-160°	212.1	3.0
160°-170°	129.9	1.8
170°-180°	43.9	0.6
0°-30°	1291.7	18.0
0°-40°	2097.5	29.2
0°-60°	3579.6	49.8
0°-90°	4337.1	60.3
90°-120°	1323.9	18.4
90°-150°	2463.9	34.3
90°-180°	2850.0	39.7
0°-180°	7187.0	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	4	4	3
95°	25	73	315	113	75	28
105°	101	144	578	1090	1019	107
115°	180	216	465	968	1132	178
125°	252	280	456	761	897	224
135°	301	332	453	653	737	233
145°	350	376	452	562	615	219
155°	399	413	455	502	520	184
165°	438	443	456	475	479	124
175°	458	458	459	462	461	44
180°	460	460	460	460	460	



TEST NUMBER: P854022

CATALOG NUMBER: SQ2-PH1-075U-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	8.2	8.2
90°	0.0	0.9	2.9	3.8	3.8
92.5°	7.6	29.4	86.7	28.1	23.6
95°	24.8	73.2	315.4	112.6	75.3
97.5°	45.6	96.2	550.6	321.1	203.0
100°	60.0	108.5	637.5	547.6	363.1
102.5°	76.0	123.0	632.2	836.8	632.2
105°	101.0	143.9	577.5	1089.6	1018.7
107.5°	126.6	164.8	525.1	1115.3	1169.1
110°	141.0	179.2	498.4	1089.8	1198.9



TEST NUMBER: P854022

CATALOG NUMBER: SQ2-PH1-075U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	156.3	193.7	482.4	1044.8	1183.6
115°	180.1	215.5	465.1	968.1	1132.1
117.5°	203.7	235.2	458.8	894.9	1067.0
120°	218.2	249.0	456.5	849.1	1015.9
122.5°	231.2	261.2	456.5	811.4	965.6
125°	251.6	279.5	456.5	760.7	896.8
127.5°	268.4	295.8	455.3	722.3	838.6
130°	278.3	307.2	454.6	700.0	804.3
132.5°	287.4	317.1	453.8	681.4	775.3
135°	301.1	331.9	452.7	652.8	736.7
137.5°	316.0	345.6	451.5	625.1	699.1
140°	325.9	354.8	450.8	606.7	674.7
142.5°	335.1	363.2	451.5	588.2	648.8
145°	349.7	375.8	451.7	561.6	614.7
147.5°	365.6	387.4	451.9	539.0	578.5
150°	375.5	395.0	452.7	525.9	559.4
152.5°	384.6	403.4	453.4	515.0	541.9
155°	399.3	413.3	454.6	501.7	520.3
157.5°	413.6	424.4	455.7	492.2	505.5
160°	421.2	430.5	456.5	485.3	495.6
162.5°	428.8	435.9	456.5	480.7	488.7
165°	438.4	443.0	456.5	474.7	479.4
167.5°	447.1	449.6	457.4	469.3	471.7
170°	451.7	452.6	457.4	467.0	467.9
172.5°	454.8	455.7	458.2	464.7	464.9
175°	458.4	458.4	459.3	462.2	461.2
177.5°	460.3	460.3	459.5	461.0	459.5
180°	460.3	460.3	460.3	460.3	460.3



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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	20.24	21.19	21.10	22.08	23.19	18.91	19.86	19.78	20.75	21.86
	3H	22.27	23.12	23.15	24.02	25.16	19.95	20.81	20.83	21.70	22.84
	4H	23.01	23.81	23.90	24.71	25.86	20.17	20.98	21.06	21.88	23.03
	6H	23.50	24.24	24.40	25.15	26.31	20.32	21.06	21.22	21.97	23.13
	8H	23.62	24.33	24.54	25.25	26.42	20.35	21.06	21.27	21.99	23.15
	12H	23.67	24.34	24.59	25.26	26.45	20.36	21.03	21.27	21.95	23.14
4H	2H	20.62	21.43	21.52	22.33	23.48	19.56	20.37	20.46	21.27	22.42
	3H	22.74	23.41	23.65	24.34	25.51	20.75	21.42	21.66	22.35	23.52
	4H	23.56	24.17	24.48	25.10	26.29	21.03	21.64	21.95	22.57	23.76
	6H	24.15	24.67	25.08	25.63	26.82	21.24	21.77	22.18	22.72	23.92
	8H	24.32	24.81	25.26	25.76	26.96	21.30	21.79	22.24	22.74	23.95
	12H	24.39	24.83	25.35	25.80	27.01	21.32	21.76	22.27	22.72	23.93
8H	4H	23.58	24.07	24.52	25.02	26.23	21.25	21.75	22.19	22.69	23.90
	6H	24.24	24.64	25.20	25.63	26.84	21.53	21.94	22.49	22.92	24.13
	8H	24.47	24.82	25.44	25.80	27.02	21.63	21.99	22.61	22.97	24.19
	12H	24.58	24.90	25.56	25.87	27.14	21.68	22.00	22.66	22.97	24.24
12H	4H	23.54	23.98	24.50	24.94	26.16	21.26	21.70	22.21	22.66	23.87
	6H	24.21	24.57	25.19	25.55	26.77	21.56	21.92	22.53	22.90	24.12
	8H	24.45	24.77	25.43	25.74	27.01	21.68	22.00	22.66	22.97	24.24