

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: P854049

Luminaire Tested: SQ2-PH1-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854049
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-100U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

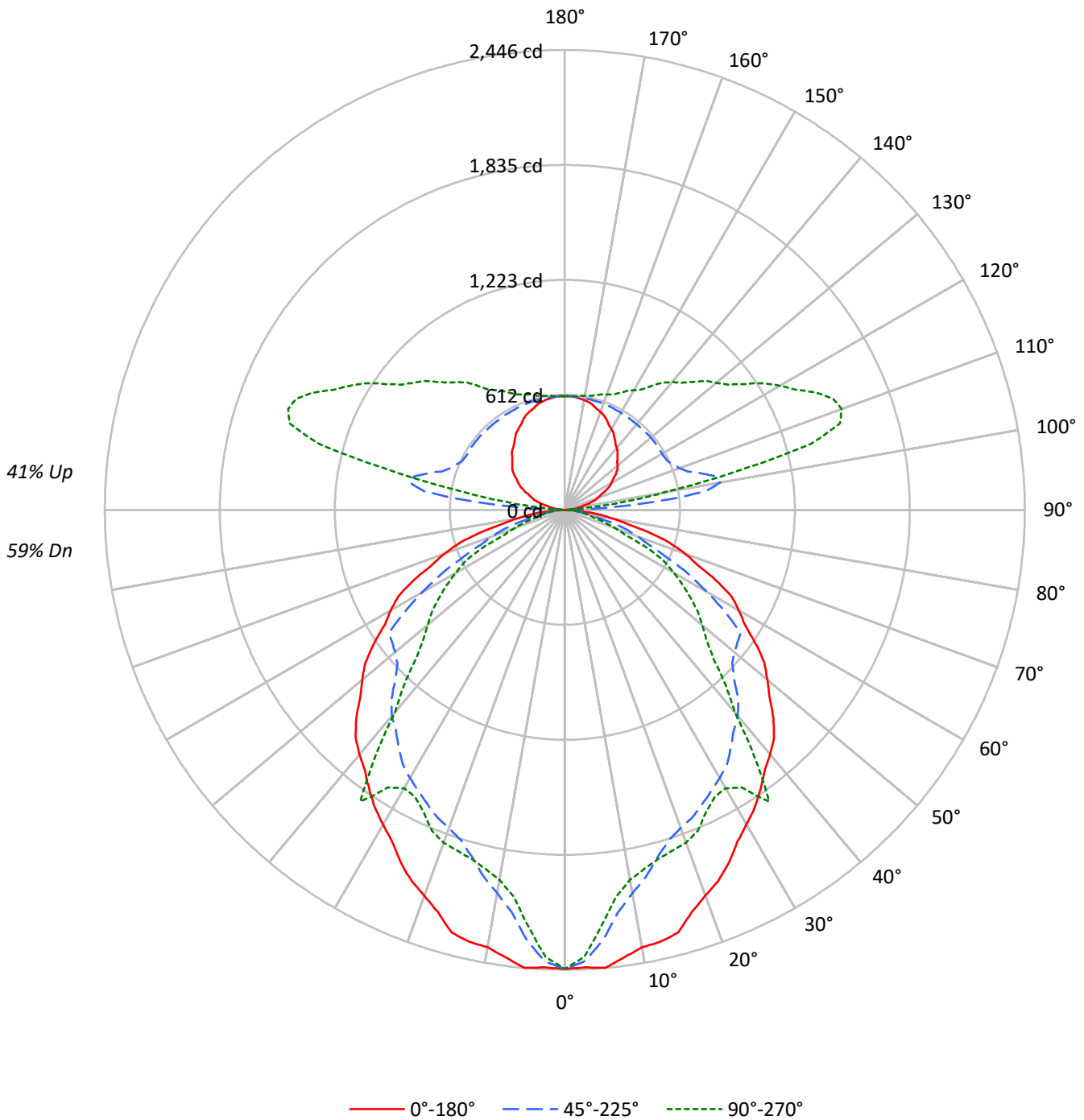
Lumens per Lamp: N/A
Luminaire Lumens: 9165.3 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.8
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: P854049

CATALOG NUMBER: SQ2-PH1-100U-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59		
1	100	96	92	88	93	90	86	83	78	75	73	67	65	64	57	56	55	50		
2	91	84	78	73	85	79	73	69	68	64	61	59	56	54	51	48	47	42		
3	83	74	67	61	78	69	63	57	61	55	51	52	49	45	45	42	40	36		
4	76	65	58	51	71	61	54	49	54	48	44	47	43	39	40	37	34	31		
5	70	58	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27		
6	65	52	44	38	60	49	42	37	44	38	33	38	33	30	33	29	26	24		
7	60	47	39	34	56	45	37	32	40	34	29	35	30	26	30	26	23	21		
8	56	43	35	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19		
9	52	39	32	27	48	37	30	26	33	27	23	29	25	21	26	22	19	17		
10	48	36	29	24	45	34	28	23	31	25	21	27	22	19	24	20	17	15		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39417	39417	39417
5°	39642	37271	36028
10°	38730	33931	32750
15°	38903	31915	32110
20°	37515	30931	32368
25°	36829	30788	31614
30°	36031	30704	31873
35°	35757	30354	37359
40°	35789	30157	29619
45°	35801	29012	25512
50°	35299	29582	23920
55°	34849	32104	22950
60°	34504	28126	21526
65°	33899	22808	18724
70°	32021	19407	13379
75°	28546	14635	10143
80°	23329	9503	9503
85°	14635	8614	6447

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35801 cd/sqm



TEST NUMBER: P854049

CATALOG NUMBER: SQ2-PH1-100U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.8	2.3
10°-20°	565.0	6.2
20°-30°	828.5	9.0
30°-40°	1003.3	10.9
40°-50°	986.7	10.8
50°-60°	858.9	9.4
60°-70°	597.1	6.5
70°-80°	283.1	3.1
80°-90°	63.5	0.7
90°-100°	252.6	2.8
100°-110°	764.0	8.3
110°-120°	745.8	8.1
120°-130°	609.5	6.6
130°-140°	497.5	5.4
140°-150°	387.3	4.2
150°-160°	279.2	3.0
160°-170°	170.9	1.9
170°-180°	57.7	0.6
0°-30°	1608.3	17.5
0°-40°	2611.7	28.5
0°-60°	4457.2	48.6
0°-90°	5400.9	58.9
90°-120°	1762.4	19.2
90°-150°	3256.6	35.5
90°-180°	3764.0	41.1
0°-180°	9165.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2441	2441	2441	2441	2441	
5°	2446	2444	2300	2228	2223	230
15°	2327	2073	1909	1896	1921	649
25°	2067	1758	1728	1781	1775	951
35°	1814	1467	1540	1673	1895	1136
45°	1568	1161	1271	1315	1117	1205
55°	1238	904	1140	822	815	1106
65°	887	622	597	490	490	872
75°	458	317	235	167	163	485
85°	79	52	46	37	35	106
90°	0	2	11	7	6	4
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



TEST NUMBER: P854049

CATALOG NUMBER: SQ2-PH1-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2441.3	2441.3	2441.3	2441.3	2441.3
2.5°	2435.7	2461.1	2404.1	2381.7	2378.1
5°	2445.9	2443.6	2299.6	2227.5	2222.9
7.5°	2401.3	2330.9	2158.8	2079.3	2075.6
10°	2362.3	2255.5	2069.6	1997.6	1997.6
12.5°	2353.0	2184.5	1997.1	1944.0	1954.9
15°	2327.4	2073.1	1909.3	1896.0	1921.0
17.5°	2242.9	1969.0	1841.0	1871.4	1900.5
20°	2183.4	1913.2	1800.2	1856.5	1883.8
22.5°	2133.3	1859.4	1770.4	1832.1	1846.6
25°	2067.3	1758.4	1728.2	1781.4	1774.6
27.5°	1988.3	1665.8	1685.9	1718.5	1722.6
30°	1932.6	1610.1	1646.9	1680.1	1709.6
32.5°	1878.7	1545.3	1604.1	1682.8	1750.5
35°	1814.1	1466.6	1540.0	1672.8	1895.4
37.5°	1746.3	1373.8	1475.4	1587.2	1658.0
40°	1698.0	1307.3	1430.8	1568.8	1405.3
42.5°	1645.9	1255.3	1363.9	1542.1	1265.9
45°	1567.9	1161.3	1270.6	1314.9	1117.3
47.5°	1475.9	1088.4	1207.4	1096.5	1019.2
50°	1405.3	1039.6	1177.7	1002.3	952.3
52.5°	1336.5	989.0	1157.2	924.6	891.0
55°	1238.0	904.2	1140.5	822.1	815.3
57.5°	1133.5	817.8	1008.6	732.9	744.7
60°	1068.5	761.9	871.0	680.3	666.6
62.5°	999.7	707.7	742.8	613.4	599.7
65°	887.3	621.6	597.0	490.1	490.1
67.5°	763.7	532.1	483.6	401.1	346.6
70°	678.3	473.9	411.1	319.7	283.4
72.5°	587.2	411.9	336.8	262.0	220.2
75°	457.6	316.8	234.6	167.1	162.6
77.5°	330.8	228.1	158.0	124.0	124.5
80°	250.9	173.6	102.2	99.9	102.2
82.5°	176.5	119.3	76.2	79.4	79.9
85°	79.0	51.7	46.5	37.1	34.8
87.5°	16.7	15.3	11.6	10.6	10.4
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



TEST NUMBER: P854049

CATALOG NUMBER: SQ2-PH1-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9

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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	20.88	21.82	21.76	22.72	23.86	19.55	20.49	20.43	21.39	22.53
	3H	22.91	23.75	23.80	24.66	25.82	20.59	21.43	21.48	22.34	23.51
	4H	23.65	24.44	24.55	25.35	26.53	20.81	21.60	21.72	22.52	23.69
	6H	24.14	24.87	25.05	25.79	26.97	20.96	21.69	21.88	22.61	23.80
	8H	24.26	24.96	25.19	25.90	27.08	20.99	21.69	21.92	22.63	23.81
	12H	24.31	24.97	25.24	25.90	27.11	20.99	21.66	21.93	22.59	23.80
4H	2H	21.27	22.06	22.18	22.97	24.15	20.20	21.00	21.12	21.91	23.09
	3H	23.38	24.04	24.30	24.98	26.17	21.39	22.05	22.31	23.00	24.18
	4H	24.20	24.80	25.13	25.74	26.95	21.67	22.27	22.60	23.21	24.43
	6H	24.79	25.31	25.73	26.27	27.48	21.88	22.40	22.83	23.36	24.58
	8H	24.96	25.44	25.91	26.40	27.63	21.94	22.42	22.89	23.38	24.61
	12H	25.03	25.47	26.00	26.44	27.67	21.95	22.39	22.92	23.36	24.60
8H	4H	24.22	24.70	25.17	25.66	26.89	21.89	22.38	22.84	23.33	24.56
	6H	24.88	25.28	25.85	26.27	27.50	22.17	22.57	23.14	23.57	24.79
	8H	25.10	25.45	26.09	26.44	27.69	22.27	22.62	23.26	23.61	24.86
	12H	25.22	25.53	26.21	26.51	27.80	22.32	22.63	23.31	23.61	24.90
12H	4H	24.18	24.61	25.15	25.59	26.82	21.89	22.33	22.86	23.30	24.54
	6H	24.85	25.20	25.83	26.19	27.44	22.20	22.55	23.18	23.54	24.78
	8H	25.09	25.40	26.07	26.38	27.67	22.32	22.63	23.31	23.61	24.90