

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: P854166

Luminaire Tested: SQ2-PR1-025U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854166
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-025U-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

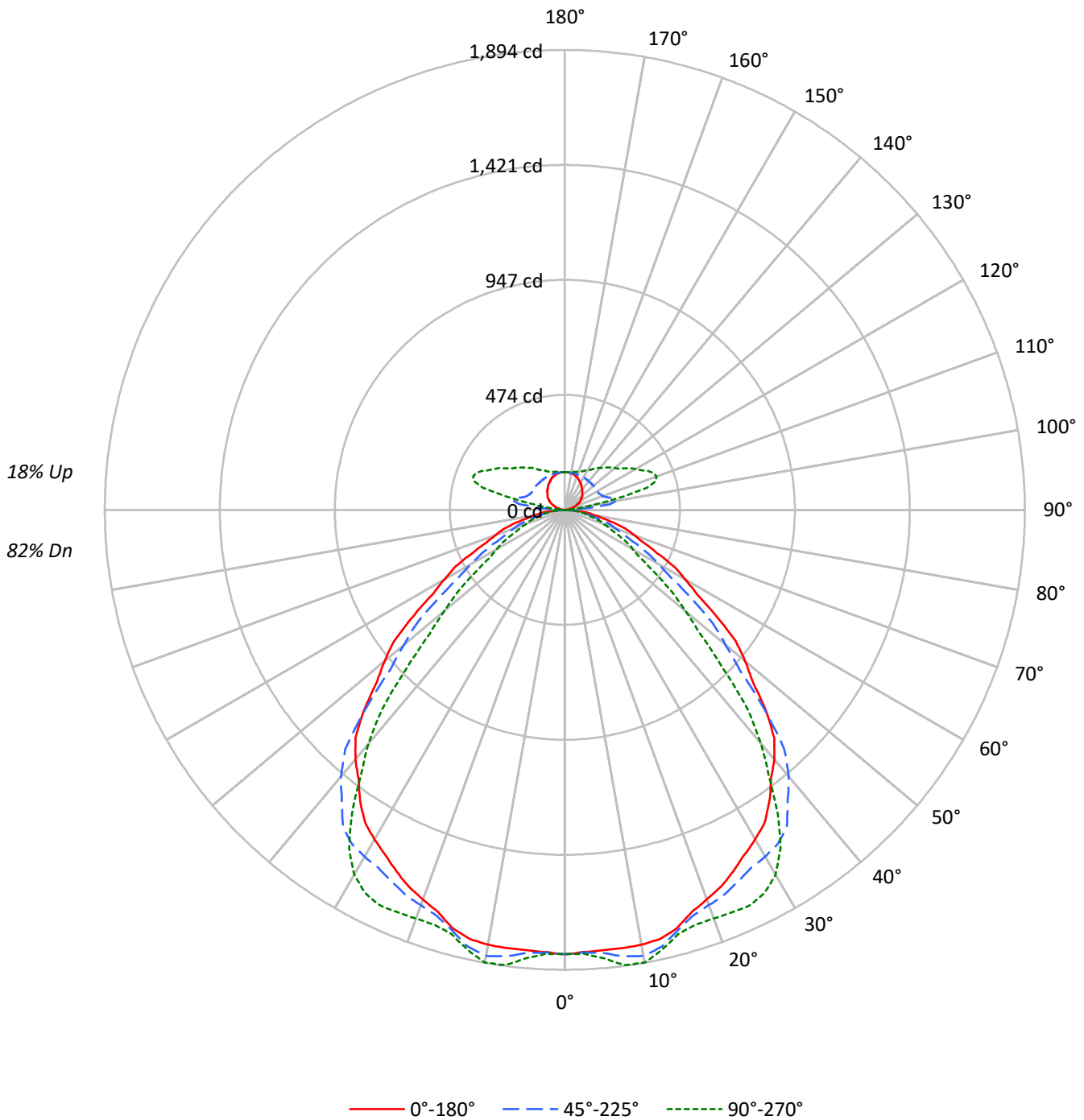
Lumens per Lamp: N/A
Luminaire Lumens: 5367.4 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P854166

CATALOG NUMBER: SQ2-PR1-025U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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CATALOG NUMBER: SQ2-PR1-025U-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	0
RCR																		
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82
1	106	102	98	95	102	98	95	92	90	88	86	84	82	80	77	76	74	71
2	97	90	84	79	93	87	81	77	80	76	72	75	71	68	69	67	64	61
3	90	80	73	67	86	77	71	66	72	67	62	67	63	59	62	59	56	53
4	82	72	64	58	79	69	62	57	65	59	54	60	55	51	56	52	49	46
5	76	64	56	50	73	62	55	49	58	52	47	55	49	45	51	47	43	41
6	70	58	50	44	67	56	49	43	53	46	42	50	44	40	47	42	38	36
7	65	53	45	39	63	51	44	39	48	42	37	45	40	36	43	38	34	32
8	61	48	41	35	58	47	40	35	44	38	33	42	36	32	39	35	31	29
9	57	45	37	32	55	43	36	31	41	35	30	39	33	29	36	32	28	26
10	53	41	34	29	51	40	33	28	38	32	27	36	30	26	34	29	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29547	29547	29547
5°	29509	29691	30054
10°	29819	30585	31044
15°	29810	29966	30215
20°	29328	29776	30771
25°	29245	30077	32037
30°	29215	30745	32345
35°	28937	31401	30114
40°	28270	30235	26500
45°	26750	26537	20957
50°	24320	21695	16259
55°	21371	17855	12656
60°	18493	14276	10421
65°	15966	11832	9123
70°	14356	10480	8101
75°	13150	9077	7448
80°	11446	7280	7280
85°	8299	6558	3464

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 28917 cd/sqm



TEST NUMBER: P854166

CATALOG NUMBER: SQ2-PR1-025U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.7	3.3
10°-20°	511.6	9.5
20°-30°	790.8	14.7
30°-40°	951.2	17.7
40°-50°	854.1	15.9
50°-60°	572.2	10.7
60°-70°	332.8	6.2
70°-80°	170.9	3.2
80°-90°	42.5	0.8
90°-100°	62.9	1.2
100°-110°	195.6	3.6
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	1.3
160°-170°	44.0	0.8
170°-180°	14.8	0.3
0°-30°	1479.1	27.6
0°-40°	2430.3	45.3
0°-60°	3856.5	71.8
0°-90°	4402.7	82.0
90°-120°	450.0	8.4
90°-150°	833.8	15.5
90°-180°	965.0	18.0
0°-180°	5367.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1830	1830	1830	1830	1830	
5°	1821	1852	1832	1836	1854	174
15°	1783	1856	1793	1798	1808	501
25°	1642	1707	1688	1751	1798	757
35°	1468	1481	1593	1562	1528	915
45°	1172	1266	1162	980	918	896
55°	759	788	634	490	450	682
65°	418	427	310	252	239	423
75°	211	205	146	123	119	224
85°	45	36	35	24	19	55
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: P854166

CATALOG NUMBER: SQ2-PR1-025U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	1822.6	1844.5	1824.1	1825.6	1830.0
5°	1820.7	1851.7	1831.9	1836.0	1854.3
7.5°	1820.3	1864.5	1855.0	1866.4	1890.5
10°	1818.8	1871.7	1865.5	1867.9	1893.5
12.5°	1809.9	1871.5	1843.1	1840.8	1854.7
15°	1783.4	1856.3	1792.7	1798.5	1807.6
17.5°	1736.8	1813.0	1752.4	1773.0	1790.9
20°	1706.9	1781.7	1733.0	1759.8	1790.9
22.5°	1680.0	1754.8	1715.1	1752.6	1795.3
25°	1641.6	1707.3	1688.3	1750.9	1798.3
27.5°	1601.3	1640.0	1662.5	1746.5	1779.7
30°	1567.0	1592.5	1649.1	1722.1	1734.9
32.5°	1529.7	1545.0	1631.2	1669.2	1652.8
35°	1468.1	1480.9	1593.1	1562.5	1527.8
37.5°	1395.0	1421.3	1507.7	1419.5	1379.7
40°	1341.3	1385.0	1434.5	1302.9	1257.3
42.5°	1275.6	1345.7	1337.5	1169.9	1114.1
45°	1171.5	1266.4	1162.2	979.8	917.8
47.5°	1048.8	1146.2	975.6	812.8	754.8
50°	968.2	1046.6	863.7	711.2	647.3
52.5°	886.1	942.6	768.2	615.8	557.8
55°	759.2	788.4	634.3	489.7	449.6
57.5°	642.8	661.4	518.2	395.6	366.0
60°	572.7	585.5	442.1	346.4	322.7
62.5°	508.5	518.4	380.9	304.8	286.9
65°	417.9	427.0	309.7	251.5	238.8
67.5°	345.9	350.6	254.8	209.0	197.0
70°	304.1	305.9	222.0	180.7	171.6
72.5°	266.8	264.2	190.7	156.9	150.7
75°	210.8	205.3	145.5	123.0	119.4
77.5°	157.4	151.6	102.2	94.8	94.8
80°	123.1	115.8	78.3	78.3	78.3
82.5°	91.8	81.6	60.4	60.4	58.9
85°	44.8	35.7	35.4	24.1	18.7
87.5°	11.9	12.1	5.0	5.0	5.0
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: P854166

CATALOG NUMBER: SQ2-PR1-025U-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	21.16	22.32	21.79	22.96	23.69	17.88	19.05	18.51	19.68	20.41
	3H	22.41	23.45	23.06	24.10	24.87	18.97	20.01	19.62	20.66	21.42
	4H	22.88	23.86	23.54	24.52	25.30	19.38	20.36	20.05	21.02	21.80
	6H	23.21	24.11	23.89	24.78	25.58	19.73	20.63	20.41	21.30	22.09
	8H	23.30	24.16	23.99	24.85	25.65	19.82	20.68	20.51	21.37	22.17
	12H	23.34	24.16	24.04	24.84	25.66	19.84	20.66	20.54	21.34	22.17
4H	2H	21.27	22.25	21.94	22.91	23.69	18.49	19.46	19.16	20.12	20.90
	3H	22.77	23.58	23.45	24.28	25.08	19.78	20.59	20.46	21.29	22.09
	4H	23.38	24.11	24.08	24.81	25.64	20.30	21.03	21.00	21.73	22.56
	6H	23.85	24.48	24.56	25.20	26.04	20.75	21.38	21.47	22.11	22.95
	8H	23.98	24.57	24.71	25.30	26.15	20.88	21.47	21.60	22.19	23.04
	12H	24.05	24.58	24.79	25.33	26.18	20.91	21.44	21.65	22.19	23.04
8H	4H	23.42	24.01	24.15	24.74	25.59	20.63	21.21	21.35	21.94	22.79
	6H	23.98	24.47	24.74	25.24	26.09	21.17	21.66	21.92	22.42	23.28
	8H	24.18	24.62	24.95	25.39	26.25	21.35	21.79	22.12	22.56	23.43
	12H	24.30	24.68	25.06	25.44	26.37	21.43	21.81	22.19	22.57	23.50
12H	4H	23.40	23.92	24.14	24.67	25.53	20.65	21.18	21.40	21.93	22.79
	6H	23.97	24.40	24.73	25.17	26.04	21.23	21.66	21.99	22.44	23.30
	8H	24.19	24.58	24.96	25.34	26.27	21.45	21.83	22.21	22.59	23.52