

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: P854178

Luminaire Tested: SQ2-PR1-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854178  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-050U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

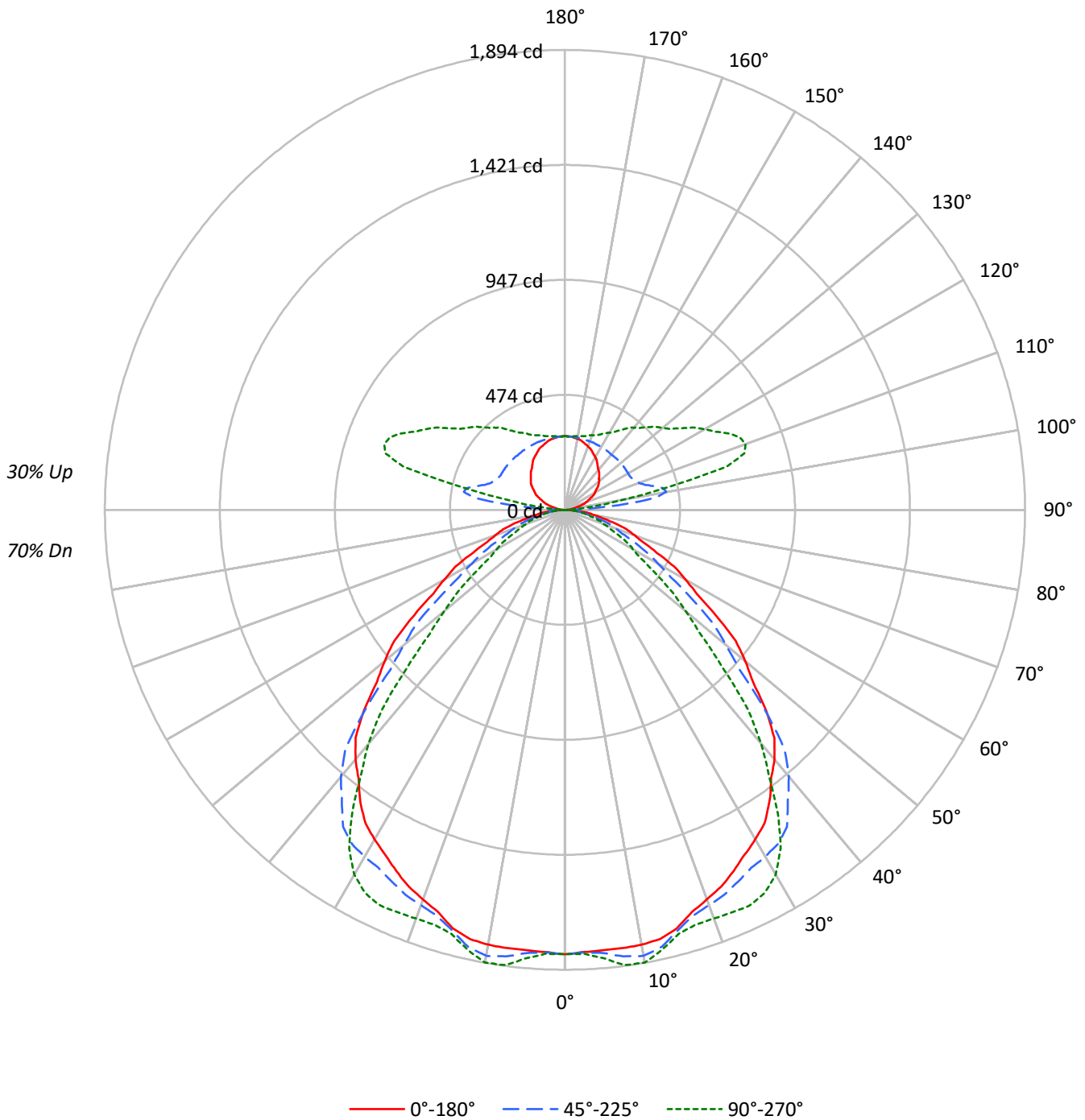
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6284.7 lumens  
Efficiency: N/A  
Efficacy: 119.9 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): 52.4  
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

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### Luminous Intensity Polar Plot





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**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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	75	75	75	70				
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	61				
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	52				
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	45				
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	39				
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	41	37	35				
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	31				
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	27				
8	59	47	39	33	56	45	37	33	41	35	31	37	32	29	34	30	27	25				
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	22				
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	20				

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.7	2.8
10°-20°	511.6	8.1
20°-30°	790.8	12.6
30°-40°	951.2	15.1
40°-50°	854.1	13.6
50°-60°	572.2	9.1
60°-70°	332.8	5.3
70°-80°	170.9	2.7
80°-90°	42.5	0.7
90°-100°	120.7	1.9
100°-110°	382.8	6.1
110°-120°	375.4	6.0
120°-130°	305.5	4.9
130°-140°	249.1	4.0
140°-150°	194.2	3.1
150°-160°	139.9	2.2
160°-170°	85.5	1.4
170°-180°	28.9	0.5
0°-30°	1479.1	23.5
0°-40°	2430.3	38.7
0°-60°	3856.5	61.4
0°-90°	4402.7	70.1
90°-120°	879.0	14.0
90°-150°	1627.7	25.9
90°-180°	1882.0	29.9
0°-180°	6284.7	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°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	

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**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°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	20.25	21.26	21.02	22.05	23.00	16.97	17.98	17.74	18.77	19.73
	3H	21.49	22.40	22.28	23.19	24.18	18.05	18.95	18.84	19.75	20.74
	4H	21.95	22.80	22.76	23.61	24.61	18.46	19.31	19.26	20.11	21.11
	6H	22.28	23.06	23.09	23.87	24.88	18.80	19.58	19.61	20.39	21.40
	8H	22.36	23.11	23.19	23.94	24.95	18.88	19.63	19.71	20.46	21.47
	12H	22.40	23.10	23.23	23.93	24.97	18.90	19.61	19.73	20.43	21.47
4H	2H	20.34	21.19	21.15	22.00	23.00	17.56	18.41	18.37	19.22	20.21
	3H	21.83	22.53	22.65	23.37	24.39	18.84	19.54	19.66	20.38	21.40
	4H	22.43	23.07	23.26	23.91	24.95	19.35	19.99	20.19	20.83	21.87
	6H	22.89	23.44	23.74	24.30	25.35	19.80	20.34	20.65	21.21	22.26
	8H	23.03	23.54	23.88	24.40	25.46	19.92	20.43	20.77	21.29	22.35
	12H	23.09	23.55	23.96	24.43	25.49	19.95	20.41	20.82	21.29	22.35
8H	4H	22.47	22.98	23.32	23.84	24.90	19.67	20.18	20.52	21.04	22.10
	6H	23.02	23.44	23.90	24.35	25.41	20.21	20.63	21.09	21.53	22.59
	8H	23.22	23.60	24.11	24.49	25.57	20.39	20.77	21.28	21.66	22.74
	12H	23.33	23.66	24.22	24.55	25.68	20.46	20.79	21.35	21.68	22.81
12H	4H	22.43	22.89	23.30	23.77	24.84	19.69	20.15	20.56	21.03	22.10
	6H	23.01	23.38	23.90	24.28	25.36	20.27	20.64	21.16	21.54	22.62
	8H	23.23	23.56	24.12	24.44	25.58	20.48	20.81	21.37	21.70	22.83