

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: P854933

Luminaire Tested: SQ2-PP3-050U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854933  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050U-100D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

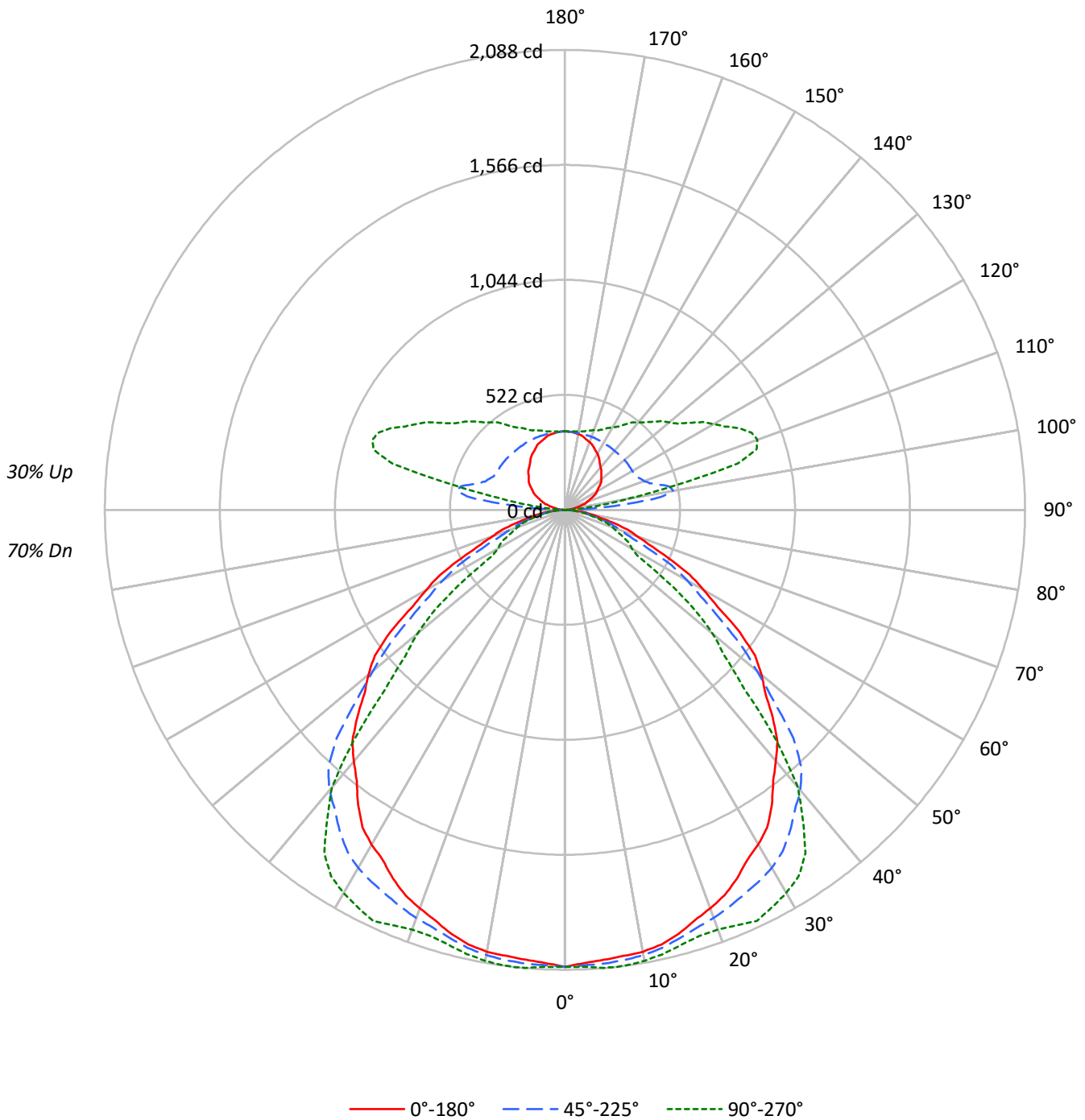
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7437.3 lumens  
Efficiency: N/A  
Efficacy: 141.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
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	95	95	95	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	94	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	56	52				
3	87	77	70	64	82	74	67	62	66	61	57	60	56	52	54	51	48	45				
4	80	69	61	55	75	66	59	53	59	54	49	54	49	45	48	45	42	39				
5	73	62	54	48	69	59	52	46	54	47	43	49	44	40	44	40	37	34				
6	68	56	47	42	64	53	46	40	48	42	38	44	39	35	40	36	33	30				
7	63	50	42	37	59	48	41	36	44	38	33	40	35	31	37	32	29	27				
8	58	46	38	33	55	44	37	32	40	34	30	37	32	28	34	29	26	24				
9	54	42	34	29	52	40	33	29	37	31	27	34	29	25	31	27	24	22				
10	51	39	31	26	48	37	30	26	34	28	24	31	26	23	29	25	21	20				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	33495	33495	33495
5°	33232	33516	33836
10°	33401	33652	34083
15°	33320	33650	34165
20°	33082	33874	34854
25°	32895	34301	36685
30°	32708	34998	37449
35°	32244	35096	37517
40°	31386	35036	34665
45°	30446	33449	26389
50°	29248	28535	21979
55°	27220	24014	15803
60°	23441	20605	11328
65°	19771	15916	11144
70°	16461	12529	10664
75°	13949	10805	9987
80°	11827	9382	8963
85°	9337	7725	4872

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 33449 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.5	2.7
10°-20°	571.7	7.7
20°-30°	895.6	12.0
30°-40°	1104.8	14.9
40°-50°	1040.2	14.0
50°-60°	736.5	9.9
60°-70°	419.7	5.6
70°-80°	207.6	2.8
80°-90°	51.2	0.7
90°-100°	141.9	1.9
100°-110°	450.1	6.1
110°-120°	441.3	5.9
120°-130°	359.1	4.8
130°-140°	292.8	3.9
140°-150°	228.3	3.1
150°-160°	164.5	2.2
160°-170°	100.5	1.4
170°-180°	33.9	0.5
0°-30°	1664.8	22.4
0°-40°	2769.7	37.2
0°-60°	4546.4	61.1
0°-90°	5224.9	70.3
90°-120°	1033.2	13.9
90°-150°	1913.4	25.7
90°-180°	2212.0	29.7
0°-180°	7437.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2074	2074	2074	2074	2074	
5°	2050	2087	2068	2073	2088	195
15°	1993	2021	2013	2033	2044	562
25°	1846	1894	1925	2003	2059	850
35°	1636	1681	1781	1882	1903	1020
45°	1333	1434	1465	1241	1156	1026
55°	967	1025	853	643	561	853
65°	518	545	417	294	292	520
75°	224	247	173	162	160	242
85°	50	46	42	33	26	59
90°	0	1	3	3	3	3
95°	19	57	258	96	62	22
105°	78	110	444	845	810	83
115°	140	166	358	745	876	138
125°	194	217	353	584	688	173
135°	234	257	351	502	566	181
145°	273	294	351	433	472	171
155°	312	322	352	387	402	144
165°	339	343	353	366	370	96
175°	355	354	355	357	356	34
180°	356	356	356	356	356	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2074.5	2074.5	2074.5	2074.5	2074.5
2.5°	2058.8	2088.0	2069.3	2072.8	2076.3
5°	2050.4	2086.8	2067.9	2072.7	2087.7
7.5°	2042.5	2079.8	2061.4	2069.3	2087.7
10°	2037.3	2069.4	2052.6	2063.9	2078.9
12.5°	2021.5	2051.9	2036.9	2051.6	2064.9
15°	1993.4	2021.3	2013.1	2033.1	2043.9
17.5°	1955.2	1989.1	1989.0	2017.3	2028.5
20°	1925.4	1966.2	1971.5	2007.0	2028.5
22.5°	1893.8	1941.4	1950.4	2003.8	2040.8
25°	1846.5	1893.6	1925.4	2003.4	2059.2
27.5°	1791.2	1838.0	1903.4	1990.8	2035.0
30°	1754.4	1799.4	1877.2	1968.0	2008.7
32.5°	1708.7	1755.5	1838.5	1936.3	1973.7
35°	1635.9	1680.9	1780.6	1882.1	1903.4
37.5°	1552.1	1603.3	1714.8	1771.5	1772.7
40°	1489.1	1555.5	1662.3	1672.6	1644.7
42.5°	1427.7	1512.9	1588.6	1542.3	1418.4
45°	1333.4	1434.1	1464.9	1241.4	1155.7
47.5°	1232.9	1332.3	1283.3	1041.2	982.0
50°	1164.4	1258.9	1136.0	930.7	875.0
52.5°	1087.2	1171.3	1004.4	824.8	739.9
55°	967.0	1025.0	853.1	642.9	561.4
57.5°	822.3	863.1	729.4	482.6	391.2
60°	725.9	758.0	638.1	396.0	350.8
62.5°	638.1	666.9	543.4	343.9	328.1
65°	517.5	545.4	416.6	293.9	291.7
67.5°	411.9	442.3	319.7	256.5	253.9
70°	348.7	380.8	265.4	230.2	225.9
72.5°	296.0	326.5	225.0	202.2	199.6
75°	223.6	247.3	173.2	162.2	160.1
77.5°	162.2	177.3	128.9	123.2	121.1
80°	127.2	133.6	100.9	98.6	96.4
82.5°	95.7	93.5	76.3	74.1	70.2
85°	50.4	46.1	41.7	32.8	26.3
87.5°	15.8	16.1	7.7	5.9	5.9
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.9	79.6	26.5	18.5
95°	19.0	57.4	257.7	95.5	61.6
97.5°	35.4	74.4	436.4	272.7	167.3
100°	47.0	84.3	497.4	453.5	294.6
102.5°	59.6	95.1	486.6	665.9	509.7
105°	78.5	110.2	443.7	845.0	810.0
107.5°	97.2	126.6	402.6	863.7	911.1
110°	109.8	138.3	382.0	842.2	929.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	122.3	149.0	370.4	805.1	916.4
115°	140.1	166.3	358.5	744.6	876.1
117.5°	157.3	182.3	353.8	686.4	818.9
120°	168.0	192.1	352.9	650.5	778.7
122.5°	178.8	202.0	352.9	621.6	741.0
125°	193.8	216.9	352.9	583.9	687.9
127.5°	207.0	229.2	352.9	554.6	643.3
130°	215.0	238.1	352.9	537.3	617.3
132.5°	223.2	246.1	352.0	523.7	595.7
135°	234.2	257.1	350.6	502.2	565.8
137.5°	244.9	269.0	350.4	481.7	538.4
140°	252.0	276.2	349.6	467.2	518.7
142.5°	261.1	284.2	350.4	452.8	500.8
145°	273.4	294.2	350.6	433.3	471.7
147.5°	285.7	303.5	350.8	416.1	447.5
150°	294.6	308.9	351.7	406.1	431.3
152.5°	301.8	314.3	351.7	398.0	418.8
155°	311.5	322.5	351.7	386.9	402.2
157.5°	321.8	329.2	352.9	380.0	390.5
160°	327.1	333.7	352.9	375.5	384.3
162.5°	332.5	337.4	352.9	371.9	378.0
165°	339.4	342.7	352.9	366.4	369.7
167.5°	346.0	346.9	354.0	362.6	365.4
170°	349.6	349.6	354.0	360.8	361.9
172.5°	351.3	352.2	354.0	359.0	359.2
175°	355.1	354.0	355.1	357.4	356.3
177.5°	356.3	355.4	355.4	357.2	355.4
180°	356.3	356.3	356.3	356.3	356.3

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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	21.45	22.48	22.22	23.27	24.22	17.85	18.88	18.62	19.66	20.62
	3H	22.56	23.48	23.34	24.28	25.26	18.97	19.89	19.75	20.68	21.66
	4H	22.91	23.78	23.71	24.58	25.58	19.44	20.30	20.24	21.11	22.10
	6H	23.14	23.93	23.95	24.74	25.75	19.79	20.59	20.61	21.40	22.41
	8H	23.19	23.95	24.01	24.78	25.79	19.88	20.64	20.71	21.47	22.48
	12H	23.21	23.93	24.04	24.75	25.79	19.90	20.62	20.73	21.45	22.48
4H	2H	21.58	22.45	22.39	23.25	24.25	18.58	19.45	19.39	20.25	21.25
	3H	22.91	23.62	23.72	24.46	25.47	19.85	20.57	20.67	21.41	22.42
	4H	23.39	24.04	24.22	24.87	25.91	20.41	21.06	21.24	21.90	22.94
	6H	23.73	24.29	24.58	25.15	26.20	20.86	21.42	21.71	22.28	23.33
	8H	23.83	24.35	24.68	25.21	26.27	20.99	21.51	21.84	22.36	23.42
	12H	23.87	24.34	24.74	25.22	26.28	21.02	21.49	21.89	22.37	23.43
8H	4H	23.42	23.94	24.27	24.80	25.85	20.70	21.22	21.55	22.08	23.13
	6H	23.86	24.29	24.73	25.19	26.24	21.25	21.68	22.13	22.58	23.64
	8H	24.01	24.40	24.90	25.29	26.36	21.43	21.82	22.32	22.71	23.78
	12H	24.11	24.44	25.00	25.33	26.46	21.52	21.85	22.41	22.74	23.87
12H	4H	23.38	23.85	24.25	24.73	25.79	20.71	21.18	21.58	22.06	23.12
	6H	23.84	24.23	24.73	25.12	26.19	21.30	21.69	22.19	22.58	23.65
	8H	24.02	24.36	24.91	25.24	26.37	21.52	21.86	22.41	22.74	23.87