

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: P855140

Luminaire Tested: SQ2-PP3-050U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855140  
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-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

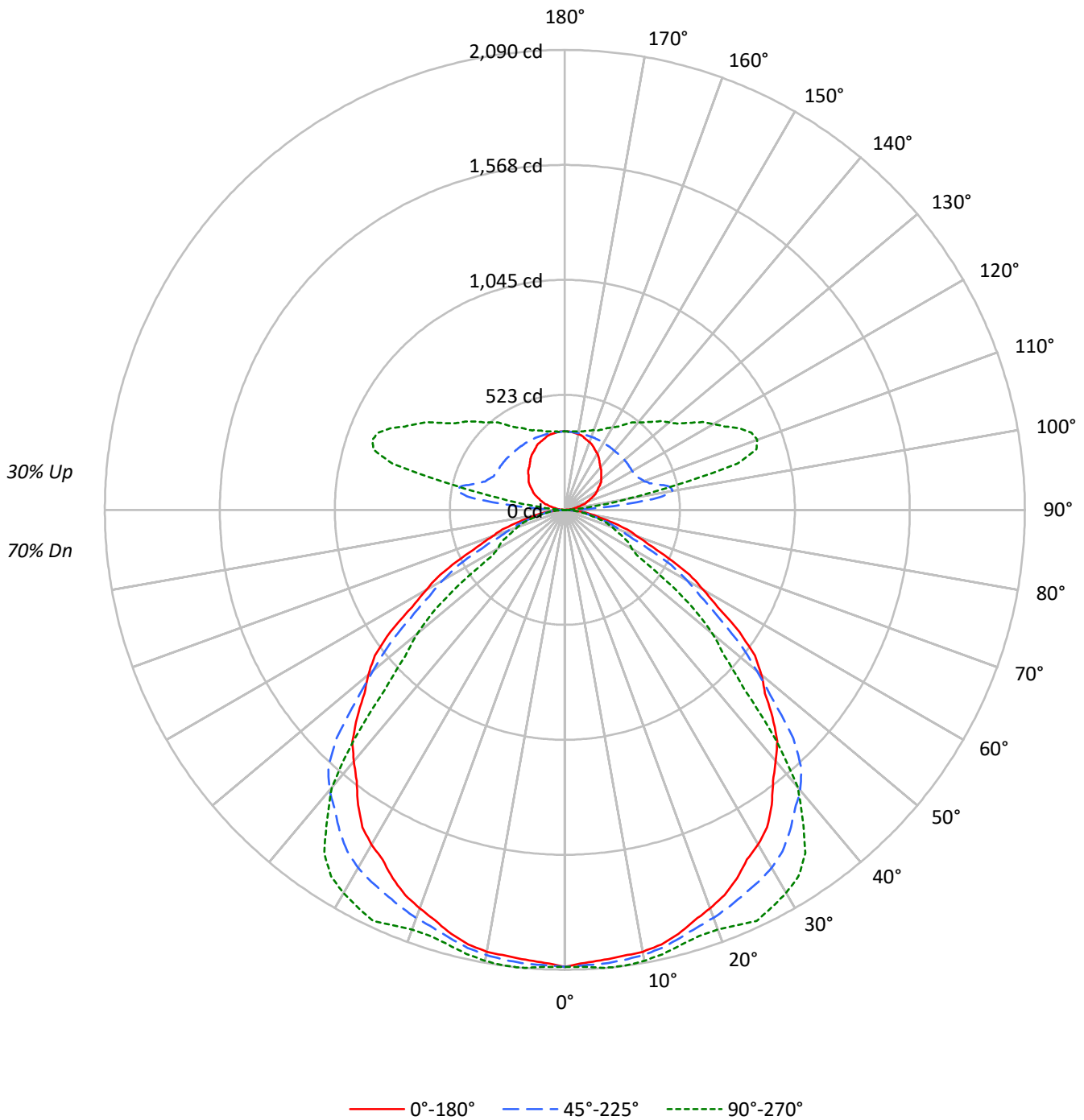
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7444.0 lumens  
Efficiency: N/A  
Efficacy: 142.1 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	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	75	75	75	75	75	75	75	75	75	75	75	75	70				
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	65	65	65	65	65	65	65	65	65	65	65	65	61				
2	94	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	56	56	56	56	56	56	56	56	56	56	56	56	56	52				
3	87	77	70	64	82	74	67	62	66	61	57	60	56	52	54	51	48	48	48	48	48	48	48	48	48	48	48	48	48	45				
4	80	69	61	55	75	66	59	53	59	54	49	54	49	45	48	45	42	42	42	42	42	42	42	42	42	42	42	42	42	39				
5	73	62	54	48	69	59	52	46	54	47	43	49	44	40	44	40	37	37	37	37	37	37	37	37	37	37	37	37	37	34				
6	68	56	47	42	64	53	46	40	48	42	38	44	39	35	40	36	33	33	33	33	33	33	33	33	33	33	33	33	33	30				
7	63	50	42	37	59	48	41	36	44	38	33	40	35	31	37	32	29	29	29	29	29	29	29	29	29	29	29	29	29	27				
8	58	46	38	33	55	44	37	32	40	34	30	37	32	28	34	29	26	26	26	26	26	26	26	26	26	26	26	26	26	24				
9	54	42	34	29	52	40	33	29	37	31	27	34	29	25	31	27	24	24	24	24	24	24	24	24	24	24	24	24	24	22				
10	51	39	31	26	48	37	30	26	34	28	24	31	26	23	29	25	21	21	21	21	21	21	21	21	21	21	21	21	21	20				

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

	0°	45°	90°
0°	33525	33525	33525
5°	33263	33546	33867
10°	33431	33682	34115
15°	33351	33680	34195
20°	33112	33905	34885
25°	32924	34331	36718
30°	32738	35029	37483
35°	32274	35130	37552
40°	31413	35068	34697
45°	30474	33479	26414
50°	29276	28560	21999
55°	27246	24034	15817
60°	23460	20625	11341
65°	19790	15931	11156
70°	16475	12538	10674
75°	13961	10817	9994
80°	11836	9382	8973
85°	9355	7744	4891

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 33479 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.7	2.7
10°-20°	572.2	7.7
20°-30°	896.4	12.0
30°-40°	1105.8	14.9
40°-50°	1041.2	14.0
50°-60°	737.2	9.9
60°-70°	420.0	5.6
70°-80°	207.8	2.8
80°-90°	51.3	0.7
90°-100°	142.0	1.9
100°-110°	450.5	6.1
110°-120°	441.7	5.9
120°-130°	359.4	4.8
130°-140°	293.1	3.9
140°-150°	228.5	3.1
150°-160°	164.6	2.2
160°-170°	100.6	1.4
170°-180°	33.9	0.5
0°-30°	1666.3	22.4
0°-40°	2772.2	37.2
0°-60°	4550.6	61.1
0°-90°	5229.7	70.3
90°-120°	1034.2	13.9
90°-150°	1915.2	25.7
90°-180°	2214.0	29.7
0°-180°	7444.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2076	2076	2076	2076	2076	
5°	2052	2089	2070	2075	2090	196
15°	1995	2023	2015	2035	2046	562
25°	1848	1895	1927	2005	2061	851
35°	1637	1682	1782	1884	1905	1021
45°	1335	1435	1466	1243	1157	1027
55°	968	1026	854	644	562	854
65°	518	546	417	294	292	520
75°	224	248	173	162	160	243
85°	50	46	42	33	26	59
90°	0	1	3	3	3	3
95°	19	58	258	96	62	22
105°	78	110	444	846	811	83
115°	140	166	359	745	877	138
125°	194	217	353	584	688	173
135°	234	257	351	503	566	181
145°	274	294	351	434	472	171
155°	312	323	352	387	402	144
165°	340	343	353	367	370	96
175°	356	354	356	358	357	34
180°	357	357	357	357	357	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2076.4	2076.4	2076.4	2076.4	2076.4
2.5°	2060.6	2089.8	2071.2	2074.7	2078.2
5°	2052.3	2088.7	2069.8	2074.6	2089.6
7.5°	2044.4	2081.7	2063.2	2071.2	2089.6
10°	2039.1	2071.3	2054.4	2065.7	2080.8
12.5°	2023.3	2053.7	2038.7	2053.4	2066.8
15°	1995.2	2023.1	2014.9	2035.0	2045.7
17.5°	1957.0	1990.9	1990.8	2019.1	2030.3
20°	1927.1	1968.0	1973.3	2008.8	2030.3
22.5°	1895.5	1943.2	1952.1	2005.6	2042.7
25°	1848.1	1895.3	1927.1	2005.2	2061.1
27.5°	1792.8	1839.6	1905.2	1992.6	2036.9
30°	1756.0	1801.0	1878.9	1969.8	2010.5
32.5°	1710.3	1757.1	1840.2	1938.1	1975.4
35°	1637.4	1682.4	1782.3	1883.8	1905.2
37.5°	1553.5	1604.7	1716.4	1773.1	1774.3
40°	1490.4	1556.9	1663.8	1674.1	1646.2
42.5°	1429.0	1514.3	1590.0	1543.7	1419.7
45°	1334.6	1435.4	1466.2	1242.6	1156.8
47.5°	1234.0	1333.6	1284.4	1042.1	982.8
50°	1165.5	1260.0	1137.0	931.6	875.8
52.5°	1088.2	1172.4	1005.3	825.5	740.6
55°	967.9	1026.0	853.8	643.5	561.9
57.5°	823.1	863.9	730.0	483.0	391.6
60°	726.5	758.7	638.7	396.3	351.2
62.5°	638.7	667.5	543.9	344.3	328.4
65°	518.0	545.9	417.0	294.1	292.0
67.5°	412.3	442.7	320.0	256.8	254.2
70°	349.0	381.1	265.6	230.4	226.1
72.5°	296.3	326.8	225.2	202.3	199.7
75°	223.8	247.5	173.4	162.4	160.2
77.5°	162.4	177.4	129.0	123.4	121.2
80°	127.3	133.8	100.9	98.7	96.5
82.5°	95.7	93.6	76.4	74.1	70.3
85°	50.5	46.2	41.8	32.8	26.4
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	79.7	26.5	18.6
95°	19.0	57.5	257.9	95.6	61.7
97.5°	35.4	74.5	436.8	273.0	167.5
100°	47.1	84.4	497.8	453.9	294.9
102.5°	59.6	95.2	487.1	666.5	510.2
105°	78.5	110.3	444.1	845.8	810.7
107.5°	97.3	126.7	403.0	864.5	911.9
110°	109.9	138.4	382.4	843.0	930.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	122.4	149.2	370.7	805.9	917.2
115°	140.2	166.5	358.9	745.3	876.9
117.5°	157.4	182.4	354.1	687.0	819.7
120°	168.2	192.3	353.2	651.0	779.4
122.5°	178.9	202.2	353.2	622.2	741.7
125°	194.0	217.1	353.2	584.4	688.5
127.5°	207.2	229.4	353.2	555.1	643.9
130°	215.2	238.3	353.2	537.8	617.9
132.5°	223.4	246.4	352.3	524.2	596.3
135°	234.4	257.3	350.9	502.7	566.3
137.5°	245.1	269.2	350.7	482.1	538.9
140°	252.2	276.5	349.9	467.6	519.2
142.5°	261.3	284.5	350.7	453.2	501.2
145°	273.6	294.5	350.9	433.7	472.1
147.5°	286.0	303.7	351.2	416.5	447.9
150°	294.9	309.2	352.1	406.5	431.7
152.5°	302.0	314.6	352.1	398.3	419.2
155°	311.8	322.8	352.1	387.3	402.5
157.5°	322.1	329.5	353.2	380.4	390.9
160°	327.4	334.0	353.2	375.8	384.7
162.5°	332.8	337.7	353.2	372.2	378.3
165°	339.7	343.0	353.2	366.8	370.1
167.5°	346.3	347.2	354.3	362.9	365.8
170°	349.9	349.9	354.3	361.1	362.2
172.5°	351.6	352.5	354.3	359.3	359.5
175°	355.5	354.3	355.5	357.7	356.6
177.5°	356.6	355.7	355.7	357.5	355.7
180°	356.6	356.6	356.6	356.6	356.6

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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	21.46	22.49	22.23	23.27	24.22	17.85	18.88	18.62	19.67	20.62
	3H	22.57	23.48	23.35	24.28	25.26	18.97	19.89	19.75	20.68	21.67
	4H	22.92	23.78	23.72	24.58	25.58	19.44	20.31	20.24	21.11	22.10
	6H	23.14	23.93	23.95	24.75	25.75	19.80	20.59	20.61	21.40	22.41
	8H	23.19	23.95	24.02	24.78	25.79	19.89	20.64	20.71	21.47	22.48
	12H	23.21	23.93	24.04	24.76	25.79	19.91	20.63	20.73	21.45	22.49
4H	2H	21.59	22.45	22.39	23.25	24.25	18.59	19.45	19.39	20.26	21.25
	3H	22.91	23.63	23.73	24.46	25.47	19.86	20.57	20.67	21.41	22.42
	4H	23.39	24.04	24.22	24.88	25.92	20.42	21.06	21.25	21.90	22.94
	6H	23.74	24.30	24.58	25.16	26.20	20.87	21.42	21.71	22.29	23.33
	8H	23.83	24.36	24.68	25.21	26.27	20.99	21.51	21.84	22.37	23.42
	12H	23.88	24.35	24.75	25.22	26.28	21.02	21.49	21.89	22.37	23.43
8H	4H	23.42	23.94	24.27	24.80	25.86	20.70	21.22	21.55	22.08	23.14
	6H	23.86	24.29	24.74	25.19	26.24	21.25	21.68	22.13	22.58	23.64
	8H	24.02	24.40	24.90	25.29	26.37	21.44	21.82	22.33	22.72	23.79
	12H	24.11	24.45	25.00	25.33	26.46	21.52	21.86	22.41	22.74	23.87
12H	4H	23.39	23.86	24.26	24.73	25.79	20.72	21.19	21.59	22.06	23.12
	6H	23.85	24.23	24.74	25.12	26.20	21.30	21.69	22.19	22.58	23.66
	8H	24.03	24.36	24.91	25.25	26.38	21.52	21.86	22.41	22.74	23.87