

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: P855112

Luminaire Tested: SQ2-PR1-050U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855112
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-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

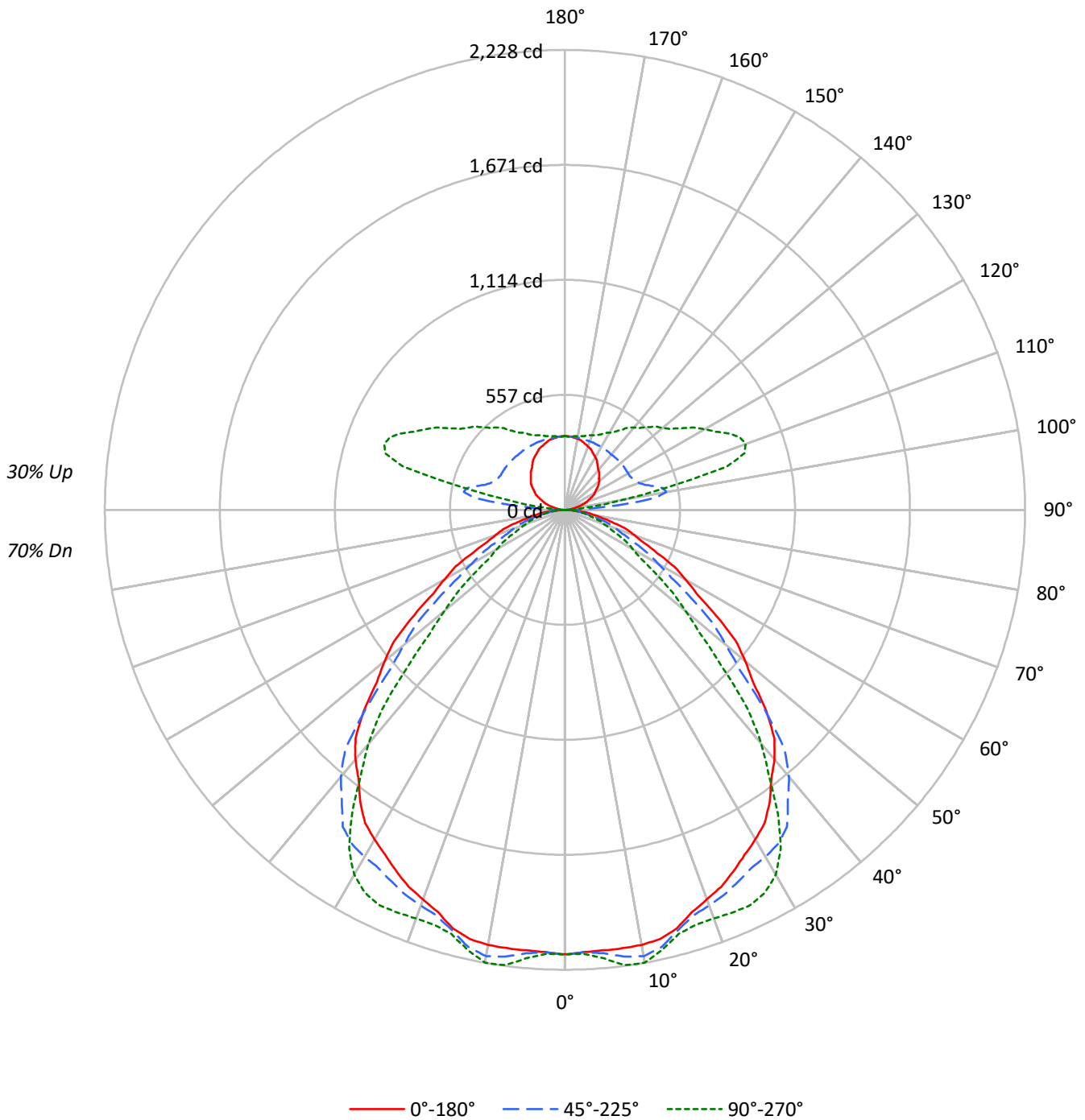
Lumens per Lamp: N/A
Luminaire Lumens: 7394.7 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	34765	34765	34765
5°	34720	34935	35360
10°	35087	35987	36526
15°	35074	35258	35550
20°	34508	35036	36206
25°	34410	35388	37695
30°	34373	36176	38057
35°	34048	36947	35431
40°	33261	35576	31181
45°	31474	31223	24658
50°	28612	25525	19130
55°	25146	21008	14888
60°	21758	16798	12261
65°	18785	13922	10735
70°	16886	12331	9531
75°	15477	10680	8759
80°	13473	8573	8573
85°	9744	7744	4076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 34024 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.9	2.8
10°-20°	601.9	8.1
20°-30°	930.5	12.6
30°-40°	1119.2	15.1
40°-50°	1004.9	13.6
50°-60°	673.2	9.1
60°-70°	391.6	5.3
70°-80°	201.1	2.7
80°-90°	50.1	0.7
90°-100°	142.0	1.9
100°-110°	450.5	6.1
110°-120°	441.7	6.0
120°-130°	359.4	4.9
130°-140°	293.1	4.0
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°	1740.3	23.5
0°-40°	2859.5	38.7
0°-60°	4537.6	61.4
0°-90°	5180.3	70.1
90°-120°	1034.2	14.0
90°-150°	1915.2	25.9
90°-180°	2214.0	29.9
0°-180°	7394.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2153	2153	2153	2153	2153	
5°	2142	2179	2156	2160	2182	204
15°	2098	2184	2109	2116	2127	589
25°	1932	2009	1986	2060	2116	891
35°	1727	1742	1874	1838	1798	1077
45°	1378	1490	1367	1153	1080	1054
55°	893	928	746	576	529	803
65°	492	502	364	296	281	497
75°	248	242	171	145	140	263
85°	53	42	42	28	22	65
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°	2153.2	2153.2	2153.2	2153.2	2153.2
2.5°	2144.5	2170.2	2146.2	2148.1	2153.2
5°	2142.2	2178.8	2155.5	2160.3	2181.7
7.5°	2141.8	2193.7	2182.6	2196.0	2224.4
10°	2140.1	2202.3	2195.0	2197.8	2227.9
12.5°	2129.6	2202.1	2168.6	2165.9	2182.2
15°	2098.3	2184.2	2109.3	2116.2	2126.8
17.5°	2043.4	2133.2	2061.9	2086.1	2107.2
20°	2008.4	2096.4	2039.1	2070.6	2107.2
22.5°	1976.8	2064.7	2018.0	2062.2	2112.4
25°	1931.5	2008.8	1986.4	2060.1	2115.9
27.5°	1884.1	1929.6	1956.1	2054.9	2093.9
30°	1843.7	1873.8	1940.4	2026.2	2041.3
32.5°	1799.8	1817.9	1919.3	1964.0	1944.8
35°	1727.4	1742.4	1874.5	1838.4	1797.6
37.5°	1641.4	1672.3	1774.0	1670.1	1623.4
40°	1578.1	1629.7	1687.9	1533.1	1479.4
42.5°	1500.9	1583.3	1573.8	1376.4	1310.8
45°	1378.4	1490.1	1367.4	1152.8	1079.9
47.5°	1234.0	1348.6	1148.0	956.4	888.0
50°	1139.1	1231.5	1016.2	836.8	761.6
52.5°	1042.6	1109.1	903.9	724.5	656.3
55°	893.3	927.6	746.3	576.2	528.9
57.5°	756.4	778.2	609.7	465.5	430.6
60°	673.8	688.8	520.2	407.6	379.7
62.5°	598.3	610.0	448.3	358.6	337.6
65°	491.7	502.3	364.4	295.9	281.0
67.5°	406.9	412.5	299.8	245.9	231.8
70°	357.7	359.9	261.2	212.6	201.9
72.5°	313.9	310.9	224.3	184.7	177.3
75°	248.1	241.6	171.2	144.7	140.4
77.5°	185.3	178.4	120.3	111.5	111.5
80°	144.9	136.3	92.2	92.2	92.2
82.5°	108.0	96.0	71.1	71.1	69.4
85°	52.6	42.0	41.8	28.4	22.0
87.5°	14.0	14.3	5.9	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	20.81	21.82	21.59	22.61	23.57	17.54	18.55	18.31	19.34	20.29
	3H	22.06	22.96	22.84	23.76	24.75	18.61	19.52	19.40	20.32	21.30
	4H	22.52	23.37	23.32	24.17	25.17	19.02	19.87	19.83	20.68	21.68
	6H	22.84	23.62	23.66	24.44	25.45	19.36	20.14	20.18	20.96	21.97
	8H	22.93	23.67	23.75	24.50	25.52	19.45	20.19	20.28	21.03	22.04
	12H	22.96	23.67	23.79	24.50	25.53	19.46	20.17	20.29	21.00	22.04
4H	2H	20.91	21.76	21.72	22.57	23.56	18.12	18.97	18.93	19.78	20.78
	3H	22.40	23.10	23.22	23.94	24.95	19.41	20.11	20.23	20.95	21.96
	4H	23.00	23.63	23.83	24.47	25.52	19.92	20.55	20.75	21.39	22.44
	6H	23.46	24.01	24.31	24.87	25.92	20.36	20.91	21.21	21.77	22.82
	8H	23.59	24.10	24.45	24.96	26.02	20.49	21.00	21.34	21.86	22.92
	12H	23.65	24.11	24.52	24.99	26.06	20.51	20.97	21.39	21.85	22.92
8H	4H	23.03	23.55	23.89	24.40	25.46	20.23	20.75	21.09	21.60	22.66
	6H	23.59	24.01	24.47	24.91	25.97	20.77	21.20	21.65	22.10	23.16
	8H	23.78	24.16	24.68	25.06	26.13	20.96	21.33	21.85	22.23	23.31
	12H	23.89	24.23	24.79	25.11	26.24	21.03	21.36	21.92	22.25	23.38
12H	4H	23.00	23.46	23.87	24.34	25.40	20.26	20.72	21.13	21.60	22.66
	6H	23.57	23.95	24.46	24.85	25.92	20.83	21.21	21.72	22.11	23.18
	8H	23.79	24.12	24.68	25.01	26.14	21.05	21.38	21.94	22.27	23.40