

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: P855116

Luminaire Tested: SQ2-PR1-025U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855116
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-835-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

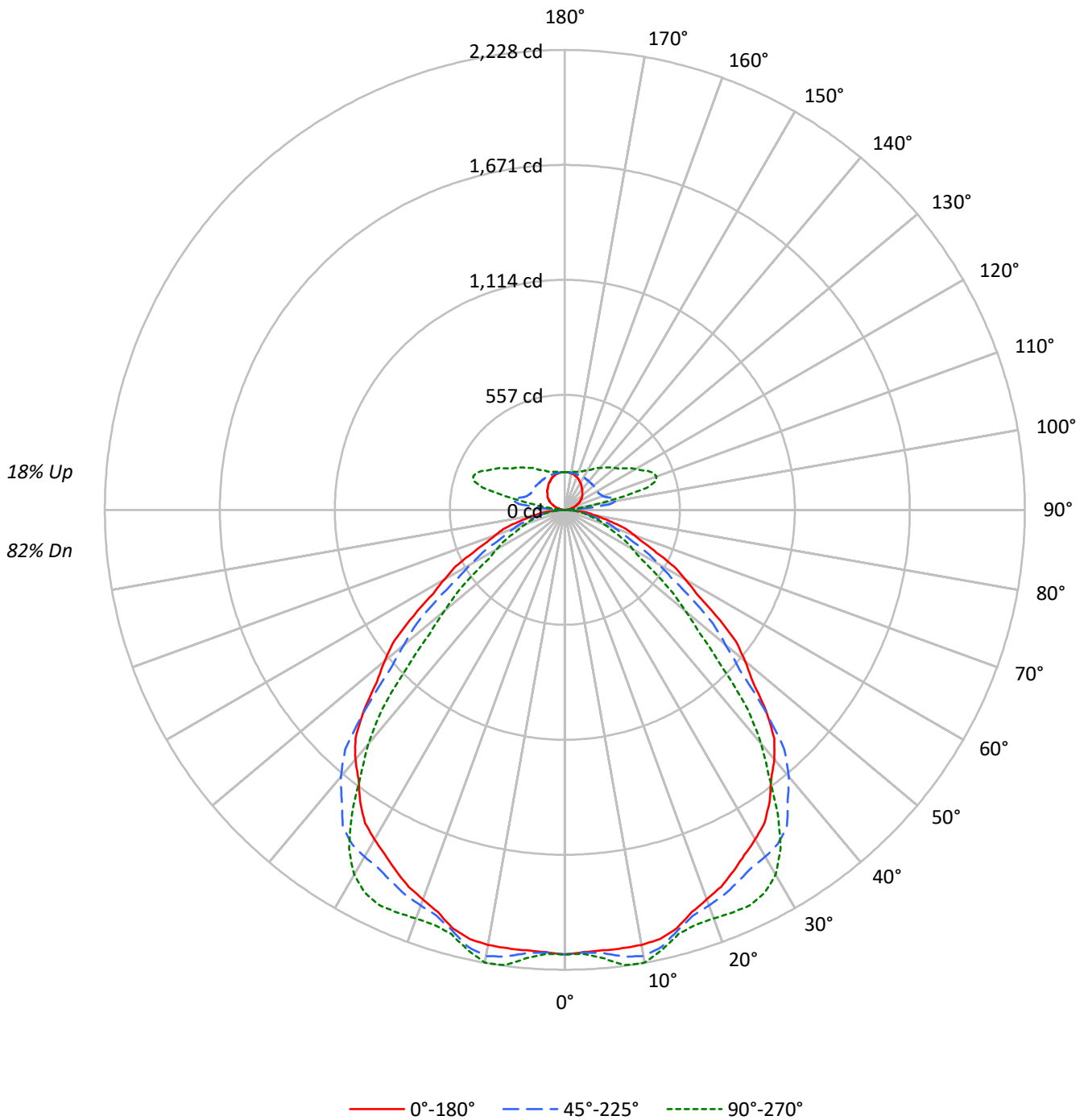
Lumens per Lamp: N/A
Luminaire Lumens: 6315.4 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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

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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	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°	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	3.3
10°-20°	601.9	9.5
20°-30°	930.5	14.7
30°-40°	1119.2	17.7
40°-50°	1004.9	15.9
50°-60°	673.2	10.7
60°-70°	391.6	6.2
70°-80°	201.1	3.2
80°-90°	50.1	0.8
90°-100°	74.0	1.2
100°-110°	230.2	3.6
110°-120°	225.2	3.6
120°-130°	183.8	2.9
130°-140°	150.4	2.4
140°-150°	117.4	1.9
150°-160°	84.7	1.3
160°-170°	51.8	0.8
170°-180°	17.5	0.3
0°-30°	1740.3	27.6
0°-40°	2859.5	45.3
0°-60°	4537.6	71.8
0°-90°	5180.3	82.0
90°-120°	529.5	8.4
90°-150°	981.1	15.5
90°-180°	1135.0	18.0
0°-180°	6315.4	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	2
95°	10	30	136	50	33	12
105°	40	57	227	433	413	43
115°	72	85	184	380	444	71
125°	100	111	182	298	350	89
135°	120	133	181	258	290	93
145°	140	151	181	223	242	88
155°	160	166	182	200	206	74
165°	176	177	183	188	191	50
175°	183	183	183	184	183	17
180°	183	183	183	183	183	

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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°	3.6	12.6	42.9	14.0	11.4
95°	10.1	29.9	135.8	50.1	32.6
97.5°	18.4	38.8	224.9	140.0	88.2
100°	24.7	43.3	253.6	237.2	158.2
102.5°	31.0	48.8	248.2	338.7	265.9
105°	40.4	56.8	226.7	432.6	412.9
107.5°	49.8	65.2	206.0	439.9	461.6
110°	56.1	71.4	195.2	429.6	472.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.4	76.8	189.9	411.0	465.2
115°	71.9	85.0	184.0	379.6	444.3
117.5°	81.0	93.0	181.5	349.6	415.8
120°	86.3	98.5	180.6	332.5	396.1
122.5°	91.8	103.9	181.5	318.0	376.3
125°	99.8	110.8	181.7	298.5	350.0
127.5°	106.4	117.6	181.7	283.9	327.8
130°	110.0	122.0	181.7	275.8	315.3
132.5°	114.4	126.5	180.8	268.5	305.4
135°	120.1	133.2	180.6	257.7	289.5
137.5°	126.5	138.6	180.6	246.8	275.8
140°	130.1	142.3	180.6	239.6	265.9
142.5°	134.7	145.9	180.6	232.3	256.0
145°	140.2	151.2	180.6	222.6	242.4
147.5°	147.0	156.4	181.7	213.5	229.2
150°	151.4	159.1	181.7	209.0	221.0
152.5°	155.0	161.8	181.7	204.5	214.8
155°	160.5	165.9	181.7	199.9	206.4
157.5°	165.8	170.0	181.7	195.8	200.0
160°	169.4	172.7	181.7	193.1	196.3
162.5°	172.1	174.5	181.7	191.3	193.6
165°	176.2	177.2	182.9	188.5	190.7
167.5°	178.6	178.8	181.7	187.0	188.1
170°	179.5	180.6	181.7	185.1	186.3
172.5°	181.3	181.5	182.7	184.2	184.5
175°	182.9	182.9	182.9	184.0	182.9
177.5°	182.9	182.9	182.9	182.9	182.9
180°	182.9	182.9	182.9	182.9	182.9



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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	21.72	22.89	22.35	23.52	24.25	18.44	19.61	19.08	20.25	20.98
	3H	22.98	24.02	23.62	24.67	25.43	19.53	20.58	20.18	21.22	21.99
	4H	23.44	24.42	24.11	25.08	25.86	19.95	20.93	20.61	21.59	22.37
	6H	23.78	24.68	24.45	25.35	26.14	20.29	21.20	20.97	21.87	22.66
	8H	23.87	24.72	24.56	25.41	26.21	20.39	21.24	21.08	21.94	22.73
	12H	23.90	24.72	24.60	25.41	26.23	20.41	21.22	21.10	21.91	22.73
4H	2H	21.84	22.81	22.50	23.47	24.25	19.05	20.03	19.72	20.69	21.47
	3H	23.34	24.14	24.02	24.84	25.64	20.35	21.15	21.03	21.85	22.65
	4H	23.94	24.67	24.64	25.38	26.20	20.86	21.59	21.56	22.30	23.13
	6H	24.41	25.04	25.13	25.77	26.61	21.31	21.95	22.03	22.67	23.51
	8H	24.55	25.14	25.27	25.86	26.71	21.44	22.03	22.16	22.76	23.61
	12H	24.62	25.14	25.36	25.89	26.75	21.48	22.00	22.22	22.76	23.61
8H	4H	23.99	24.58	24.71	25.30	26.15	21.19	21.78	21.91	22.50	23.35
	6H	24.55	25.04	25.30	25.80	26.66	21.74	22.22	22.49	22.99	23.84
	8H	24.75	25.18	25.51	25.95	26.82	21.92	22.35	22.69	23.13	23.99
	12H	24.86	25.25	25.63	26.01	26.94	22.00	22.38	22.76	23.14	24.07
12H	4H	23.96	24.49	24.70	25.24	26.09	21.22	21.75	21.96	22.50	23.35
	6H	24.53	24.97	25.30	25.74	26.61	21.79	22.23	22.56	23.00	23.87
	8H	24.76	25.14	25.52	25.90	26.83	22.02	22.40	22.78	23.16	24.09