

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: P855496

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

Issue Date: 7/12/2024

**Test Information**

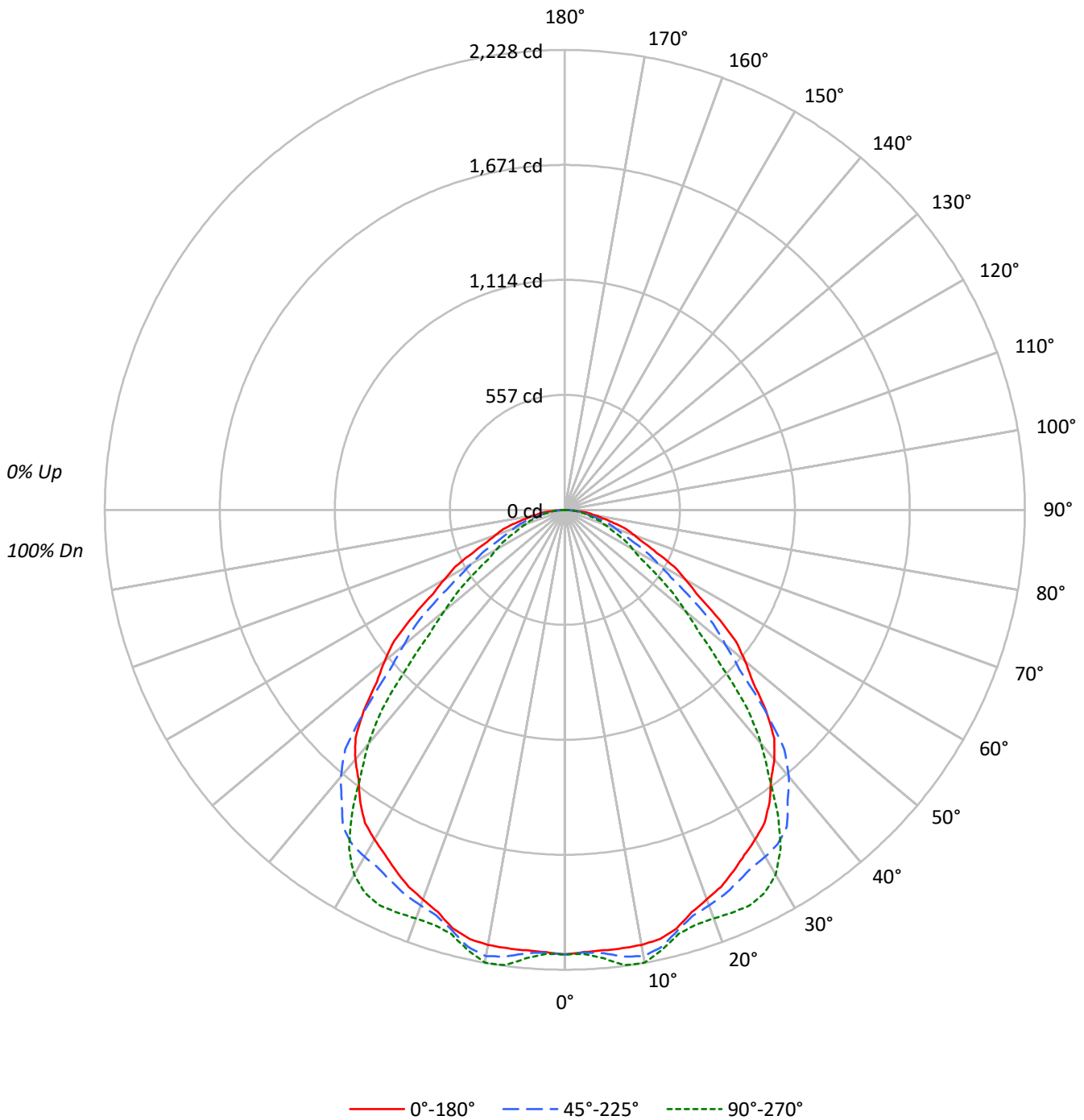
Test Method: LM-79-2019  
Report Number: P855496  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5179.9 lumens  
Efficiency: N/A  
Efficacy: 137.8 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: Direct  
  
Input Watts (W): 37.6  
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

TEST NUMBER: P855496  
CATALOG NUMBER: SQ2-PR1-100D-835-UNV-STD-W-4

### 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56	
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			44	
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39			39	
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35			35	
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32			32	
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29			29	

**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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CATALOG NUMBER: SQ2-PR1-100D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.9	4.0
10°-20°	601.9	11.6
20°-30°	930.5	18.0
30°-40°	1119.2	21.6
40°-50°	1004.9	19.4
50°-60°	673.2	13.0
60°-70°	391.6	7.6
70°-80°	201.1	3.9
80°-90°	49.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1740.3	33.6
0°-40°	2859.5	55.2
0°-60°	4537.6	87.6
0°-90°	5179.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5179.9	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	67
90°	0	0	0	0	0	



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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	14.0	5.3	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0

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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	23.03	24.53	23.40	24.84	25.16	19.76	21.25	20.12	21.57	21.88
	3H	24.31	25.65	24.69	25.98	26.34	20.87	22.21	21.25	22.53	22.90
	4H	24.79	26.04	25.19	26.39	26.77	21.30	22.55	21.70	22.90	23.28
	6H	25.14	26.29	25.55	26.66	27.05	21.66	22.81	22.07	23.18	23.57
	8H	25.24	26.34	25.67	26.73	27.13	21.76	22.86	22.19	23.25	23.65
	12H	25.29	26.34	25.72	26.72	27.15	21.79	22.84	22.22	23.22	23.65
4H	2H	23.19	24.44	23.59	24.79	25.17	20.40	21.65	20.80	22.00	22.38
	3H	24.71	25.75	25.12	26.15	26.55	21.72	22.76	22.13	23.16	23.56
	4H	25.33	26.26	25.76	26.68	27.11	22.25	23.18	22.69	23.60	24.04
	6H	25.82	26.62	26.27	27.06	27.53	22.72	23.52	23.18	23.97	24.43
	8H	25.96	26.71	26.42	27.16	27.62	22.85	23.61	23.32	24.05	24.52
	12H	26.04	26.71	26.52	27.19	27.66	22.90	23.57	23.38	24.05	24.52
8H	4H	25.40	26.15	25.86	26.60	27.07	22.60	23.35	23.06	23.80	24.27
	6H	25.97	26.59	26.47	27.08	27.56	23.16	23.78	23.65	24.27	24.75
	8H	26.17	26.73	26.68	27.24	27.73	23.34	23.90	23.86	24.41	24.90
	12H	26.30	26.79	26.81	27.29	27.85	23.43	23.93	23.94	24.42	24.98
12H	4H	25.38	26.06	25.87	26.54	27.01	22.64	23.32	23.13	23.79	24.27
	6H	25.95	26.51	26.47	27.03	27.51	23.21	23.78	23.73	24.29	24.77
	8H	26.19	26.69	26.70	27.18	27.75	23.45	23.94	23.96	24.44	25.00