

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: P855100

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855100
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-100U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

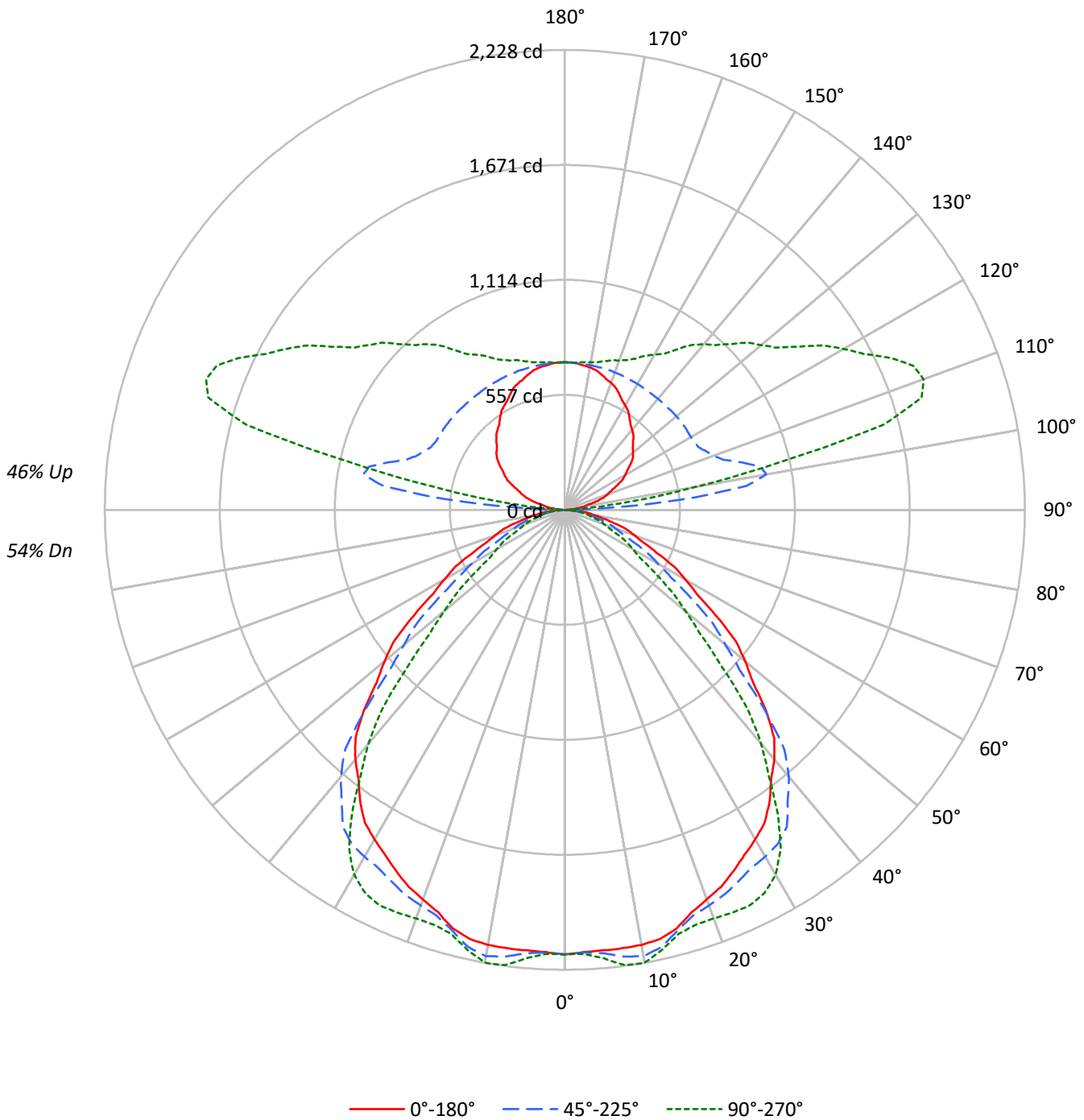
Lumens per Lamp: N/A
Luminaire Lumens: 9625.8 lumens
Efficiency: N/A
Efficacy: 137.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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	108	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54	54	54	47	47	47	40	40	40	35	35	35	30	30	30	27	27	27	24	24	24	21	21	21	19	19	19	17	17	17	16	16	16	
1	99	95	92	88	88	92	89	85	83	76	74	72	64	63	61	54	53	52	47	46	45	40	39	38	34	30	29	28	24	23	22	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
2	91	84	78	73	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40	39	38	34	30	29	28	24	23	22	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0			
3	83	74	67	62	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35	34	33	30	29	28	24	23	22	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0				
4	77	66	59	53	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30	29	28	24	23	22	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0							
5	70	59	51	46	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27	26	25	24	23	22	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0							
6	65	53	45	40	40	60	50	43	38	44	38	34	38	33	30	32	29	26	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0									
7	60	48	41	35	35	56	45	38	33	40	34	30	34	30	27	30	26	24	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0												
8	56	44	36	31	31	52	41	34	30	36	31	27	32	27	24	27	24	21	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0														
9	52	40	33	28	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																
10	49	37	30	25	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																	

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	2.2
10°-20°	601.9	6.3
20°-30°	930.5	9.7
30°-40°	1119.2	11.6
40°-50°	1004.9	10.4
50°-60°	673.2	7.0
60°-70°	391.6	4.1
70°-80°	201.1	2.1
80°-90°	50.9	0.5
90°-100°	298.3	3.1
100°-110°	902.1	9.4
110°-120°	880.6	9.1
120°-130°	719.6	7.5
130°-140°	587.4	6.1
140°-150°	457.2	4.8
150°-160°	329.6	3.4
160°-170°	201.8	2.1
170°-180°	68.1	0.7
0°-30°	1740.3	18.1
0°-40°	2859.5	29.7
0°-60°	4537.6	47.1
0°-90°	5181.1	53.8
90°-120°	2081.0	21.6
90°-150°	3845.2	39.9
90°-180°	4445.0	46.2
0°-180°	9625.8	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	2	14	8	7	4
95°	37	117	563	208	131	44
105°	157	221	886	1682	1599	165
115°	279	333	716	1482	1741	276
125°	390	433	706	1171	1378	347
135°	468	517	702	1010	1136	362
145°	546	586	702	868	950	342
155°	622	643	706	779	808	286
165°	681	688	710	737	746	192
175°	712	712	713	719	716	68
180°	714	714	714	714	714	



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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	14.5	7.9	6.8	6.6
90°	0.0	2.2	13.5	7.8	6.7
92.5°	12.6	50.7	182.1	60.4	43.5
95°	37.0	117.0	562.8	207.9	131.2
97.5°	71.5	148.9	887.0	587.0	357.4
100°	93.0	168.7	991.1	958.2	643.6
102.5°	117.2	190.2	969.6	1343.9	1071.3
105°	157.0	220.6	885.8	1682.1	1598.7
107.5°	194.6	255.3	805.0	1715.5	1812.0
110°	219.8	277.8	764.7	1673.4	1848.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.0	300.3	740.4	1602.7	1824.6
115°	279.2	332.8	716.5	1482.4	1741.2
117.5°	314.1	365.0	707.9	1369.8	1634.6
120°	337.5	385.7	705.1	1304.0	1558.4
122.5°	359.0	404.6	705.1	1246.2	1481.2
125°	390.2	432.9	706.3	1170.7	1377.9
127.5°	415.5	459.8	705.1	1113.7	1290.4
130°	431.6	477.7	705.1	1081.1	1241.1
132.5°	446.0	493.0	704.3	1051.2	1199.0
135°	467.5	516.8	701.9	1009.7	1135.7
137.5°	491.5	538.4	701.9	965.3	1082.1
140°	506.8	552.8	701.9	936.5	1047.1
142.5°	522.0	566.3	701.0	910.1	1006.7
145°	546.0	586.5	701.9	868.4	949.6
147.5°	570.0	604.4	703.2	834.1	896.5
150°	585.2	617.0	704.1	815.1	867.8
152.5°	599.6	627.8	704.9	798.7	841.7
155°	622.2	643.0	706.3	778.7	808.3
157.5°	642.0	658.9	707.6	764.0	784.6
160°	653.6	667.9	708.5	754.8	770.2
162.5°	665.3	676.1	709.4	746.8	759.5
165°	680.6	688.2	709.7	736.8	745.5
167.5°	693.5	697.4	711.0	729.0	732.8
170°	700.7	702.9	711.9	725.4	726.5
172.5°	705.1	706.5	711.9	721.8	722.0
175°	711.9	711.9	713.1	718.6	716.5
177.5°	715.1	714.2	713.3	715.9	714.2
180°	714.2	714.2	714.2	714.2	714.2



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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	19.46	20.31	20.39	21.26	22.48	16.18	17.04	17.12	17.98	19.20
	3H	20.69	21.45	21.64	22.41	23.65	17.25	18.01	18.20	18.96	20.21
	4H	21.14	21.86	22.10	22.82	24.07	17.65	18.37	18.61	19.33	20.58
	6H	21.46	22.12	22.43	23.09	24.35	17.98	18.64	18.95	19.60	20.87
	8H	21.54	22.17	22.52	23.15	24.41	18.07	18.69	19.04	19.67	20.94
	12H	21.57	22.17	22.55	23.14	24.43	18.07	18.67	19.06	19.64	20.93
4H	2H	19.54	20.26	20.50	21.21	22.47	16.75	17.47	17.72	18.43	19.68
	3H	21.01	21.60	21.98	22.59	23.86	18.02	18.61	18.99	19.60	20.87
	4H	21.60	22.15	22.59	23.13	24.42	18.52	19.07	19.51	20.05	21.34
	6H	22.06	22.52	23.05	23.53	24.82	18.96	19.43	19.95	20.43	21.72
	8H	22.19	22.62	23.18	23.62	24.92	19.08	19.52	20.08	20.52	21.82
	12H	22.24	22.63	23.26	23.65	24.96	19.10	19.50	20.12	20.51	21.82
8H	4H	21.63	22.06	22.63	23.06	24.36	18.83	19.26	19.83	20.26	21.57
	6H	22.18	22.54	23.20	23.58	24.88	19.36	19.72	20.39	20.76	22.06
	8H	22.38	22.69	23.40	23.72	25.04	19.55	19.87	20.58	20.89	22.21
	12H	22.48	22.76	23.51	23.78	25.14	19.61	19.89	20.64	20.91	22.28
12H	4H	21.59	21.98	22.60	22.99	24.30	18.85	19.24	19.86	20.25	21.56
	6H	22.16	22.48	23.19	23.51	24.83	19.42	19.74	20.45	20.77	22.09
	8H	22.38	22.66	23.41	23.68	25.04	19.63	19.91	20.66	20.93	22.30