

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: P855108

Luminaire Tested: SQ2-PR1-075U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855108
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-075U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

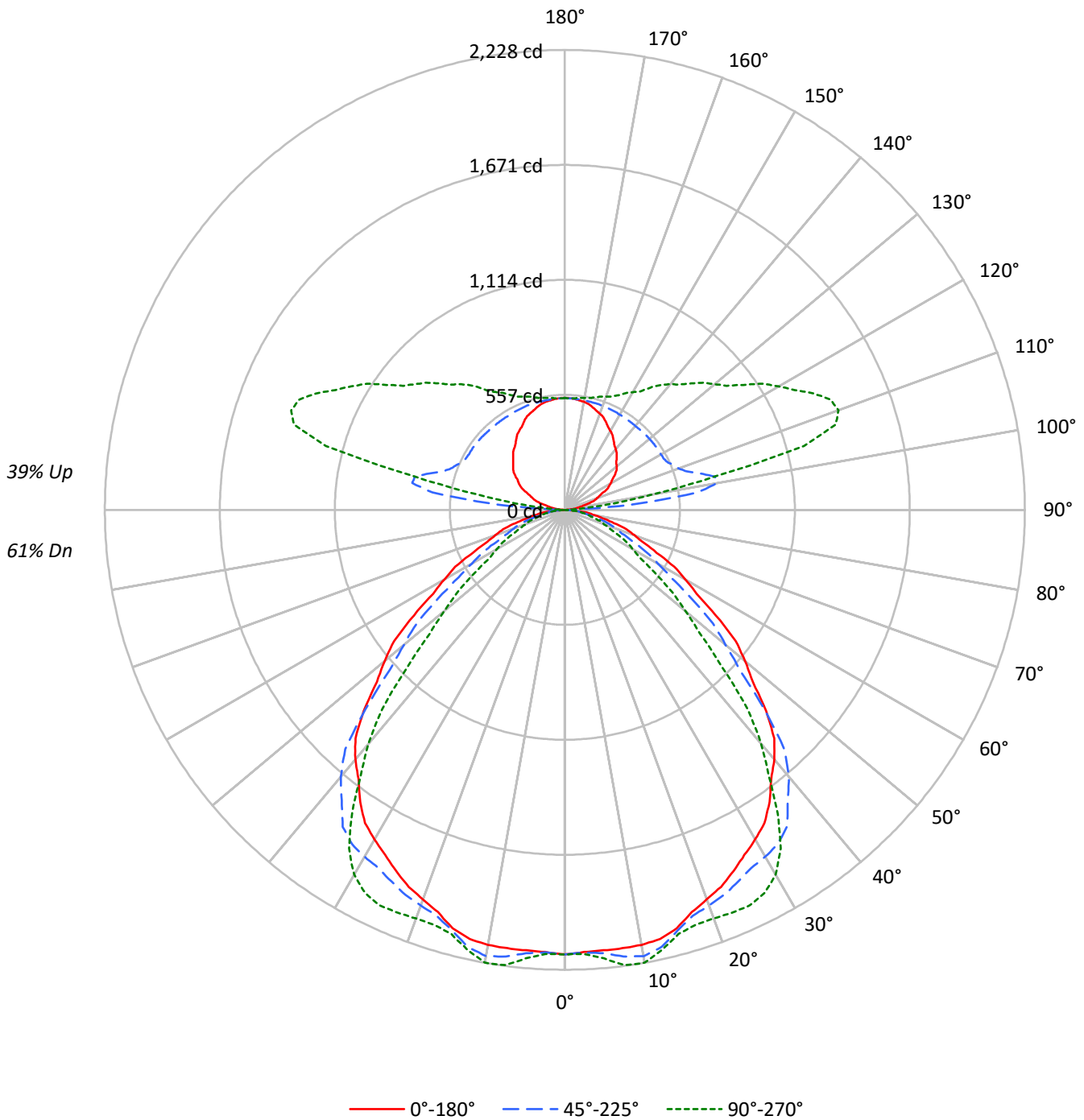
Lumens per Lamp: N/A
Luminaire Lumens: 8533.6 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.9
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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	66	66	66	61	
1	101	97	93	90	94	91	88	85	80	77	75	69	67	66	60	58	57	57	57	57	53	
2	93	85	80	75	86	80	75	71	71	67	63	62	59	56	53	51	49	49	49	49	45	
3	85	76	69	63	79	71	65	60	63	58	54	55	51	48	48	45	43	43	43	43	39	
4	78	68	60	54	73	64	57	52	56	51	47	50	45	42	43	40	37	37	37	37	34	
5	72	61	53	47	67	57	50	45	51	45	41	45	40	37	39	36	33	33	33	33	30	
6	66	55	47	41	62	52	44	39	46	40	36	41	36	33	36	32	29	29	29	29	27	
7	62	49	42	36	58	47	40	35	42	36	32	37	32	29	33	29	26	26	26	26	24	
8	57	45	37	32	54	43	36	31	38	33	28	34	29	26	30	26	24	24	24	24	21	
9	53	41	34	29	50	39	32	28	35	30	26	31	27	23	28	24	21	21	21	21	19	
10	50	38	31	26	47	36	29	25	32	27	23	29	25	21	26	22	20	20	20	20	18	

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	2.4
10°-20°	601.9	7.1
20°-30°	930.5	10.9
30°-40°	1119.2	13.1
40°-50°	1004.9	11.8
50°-60°	673.2	7.9
60°-70°	391.6	4.6
70°-80°	201.1	2.4
80°-90°	50.2	0.6
90°-100°	204.8	2.4
100°-110°	679.0	8.0
110°-120°	673.9	7.9
120°-130°	548.9	6.4
130°-140°	446.1	5.2
140°-150°	346.5	4.1
150°-160°	249.6	2.9
160°-170°	152.9	1.8
170°-180°	51.6	0.6
0°-30°	1740.3	20.4
0°-40°	2859.5	33.5
0°-60°	4537.6	53.2
0°-90°	5180.4	60.7
90°-120°	1557.7	18.3
90°-150°	2899.1	34.0
90°-180°	3353.0	39.3
0°-180°	8533.6	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	4	4	3
95°	29	86	371	132	89	33
105°	119	169	680	1282	1199	125
115°	212	254	547	1139	1332	210
125°	296	329	537	895	1055	263
135°	354	390	533	768	867	274
145°	412	442	532	661	723	258
155°	470	486	535	590	612	216
165°	516	521	537	558	564	145
175°	539	539	540	544	543	51
180°	542	542	542	542	542	



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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	6.1	6.1
90°	0.0	1.1	3.4	4.5	4.5
92.5°	8.9	34.6	102.1	33.0	27.8
95°	29.2	86.1	371.2	132.4	88.6
97.5°	53.6	113.3	647.9	377.9	238.8
100°	70.6	127.7	750.2	644.3	427.2
102.5°	89.5	144.7	743.8	984.7	743.8
105°	118.8	169.3	679.5	1281.9	1198.7
107.5°	148.9	193.9	617.9	1312.3	1375.7
110°	165.9	210.9	586.4	1282.3	1410.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.9	227.9	567.6	1229.3	1392.6
115°	212.0	253.6	547.2	1139.1	1332.1
117.5°	239.7	276.8	539.8	1053.0	1255.4
120°	256.8	293.0	537.1	999.0	1195.3
122.5°	272.1	307.4	537.1	954.8	1136.1
125°	296.0	328.9	537.1	895.0	1055.2
127.5°	315.7	348.0	535.7	849.9	986.7
130°	327.4	361.5	534.8	823.6	946.4
132.5°	338.1	373.0	533.9	801.8	912.2
135°	354.3	390.5	532.6	768.1	866.7
137.5°	371.9	406.7	531.3	735.6	822.6
140°	383.5	417.5	530.4	713.9	793.9
142.5°	394.3	427.3	531.3	692.1	763.4
145°	411.5	442.3	531.5	660.8	723.2
147.5°	430.1	455.8	531.8	634.2	680.6
150°	441.8	464.8	532.6	618.7	658.2
152.5°	452.6	474.7	533.5	606.0	637.6
155°	469.9	486.3	534.8	590.3	612.2
157.5°	486.6	499.4	536.2	579.2	594.7
160°	495.6	506.5	537.1	571.0	583.0
162.5°	504.6	512.9	537.1	565.6	575.0
165°	515.8	521.2	537.1	558.5	564.0
167.5°	526.1	528.9	538.2	552.1	555.1
170°	531.5	532.6	538.2	549.4	550.6
172.5°	535.1	536.2	539.1	546.7	546.9
175°	539.4	539.4	540.5	543.8	542.7
177.5°	541.6	541.6	540.7	542.4	540.7
180°	541.6	541.6	541.6	541.6	541.6



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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	20.06	20.97	20.93	21.85	22.97	16.78	17.70	17.65	18.58	19.69
	3H	21.29	22.11	22.18	23.00	24.14	17.85	18.67	18.73	19.56	20.70
	4H	21.75	22.52	22.65	23.42	24.57	18.25	19.02	19.15	19.92	21.07
	6H	22.07	22.78	22.98	23.68	24.84	18.59	19.30	19.50	20.20	21.36
	8H	22.15	22.83	23.07	23.75	24.91	18.68	19.35	19.59	20.27	21.43
	12H	22.18	22.82	23.11	23.74	24.93	18.69	19.33	19.61	20.24	21.43
4H	2H	20.14	20.91	21.04	21.81	22.96	17.36	18.13	18.26	19.03	20.18
	3H	21.62	22.26	22.53	23.19	24.35	18.63	19.27	19.54	20.20	21.36
	4H	22.22	22.79	23.14	23.72	24.91	19.14	19.72	20.06	20.64	21.83
	6H	22.67	23.17	23.61	24.12	25.31	19.58	20.07	20.51	21.02	22.22
	8H	22.81	23.27	23.74	24.21	25.42	19.70	20.16	20.64	21.11	22.31
	12H	22.86	23.28	23.82	24.24	25.45	19.72	20.14	20.68	21.10	22.31
8H	4H	22.25	22.71	23.19	23.65	24.86	19.45	19.91	20.39	20.86	22.06
	6H	22.80	23.18	23.76	24.17	25.37	19.98	20.37	20.95	21.35	22.56
	8H	22.99	23.33	23.97	24.31	25.53	20.17	20.51	21.14	21.48	22.71
	12H	23.10	23.40	24.08	24.37	25.64	20.23	20.53	21.21	21.50	22.77
12H	4H	22.21	22.62	23.16	23.59	24.80	19.47	19.88	20.42	20.85	22.06
	6H	22.78	23.12	23.76	24.10	25.32	20.04	20.38	21.02	21.36	22.58
	8H	23.00	23.30	23.97	24.27	25.54	20.25	20.55	21.23	21.52	22.79