

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: P854301

Luminaire Tested: SQ2-PW1-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854301
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

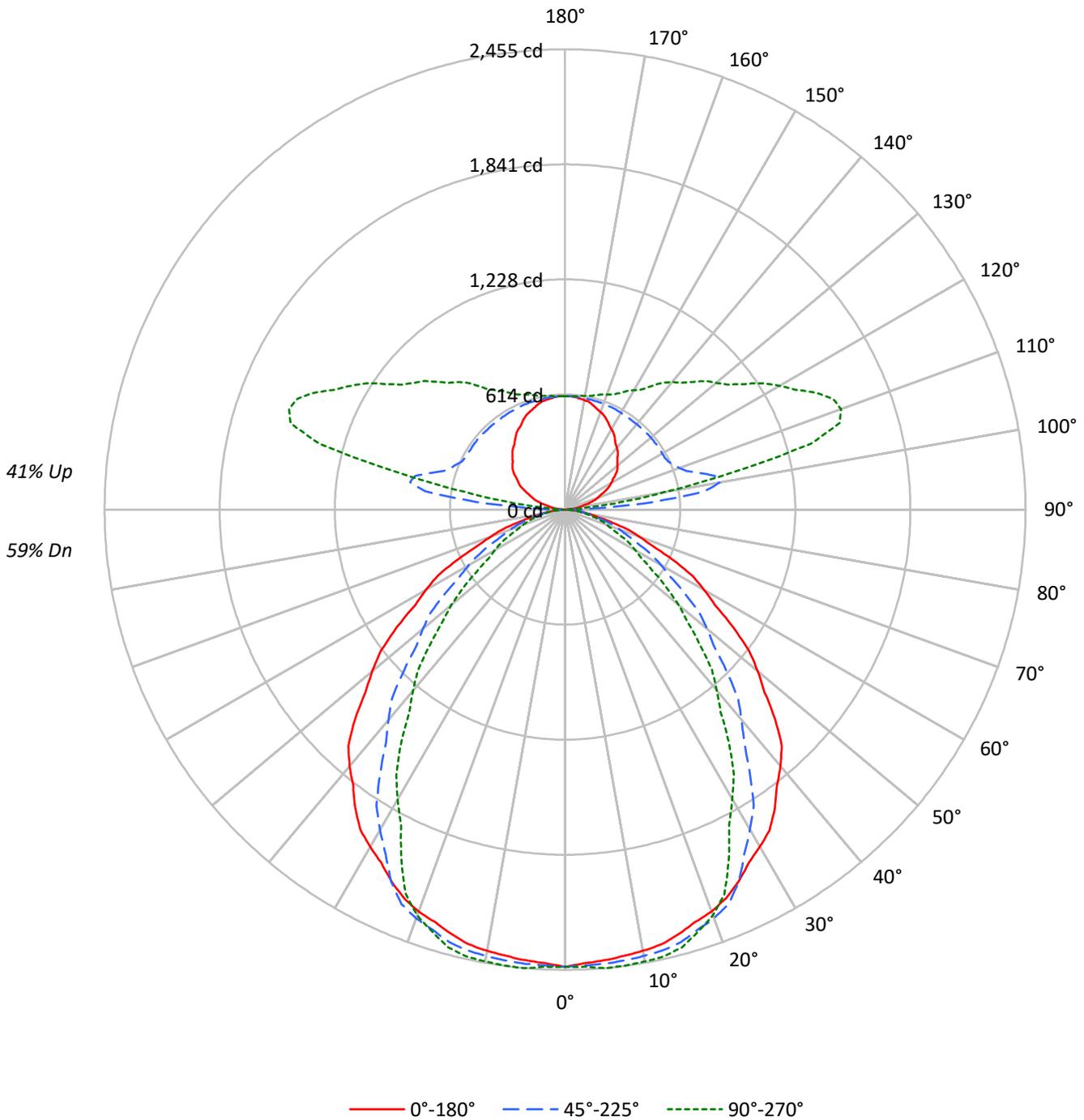
Lumens per Lamp: N/A
Luminaire Lumens: 9177.1 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.8
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: P854301

CATALOG NUMBER: SQ2-PW1-100U-125D-930-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	
RCR																					
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59			
1	100	96	93	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51			
2	92	85	79	74	86	80	74	70	70	66	62	60	58	55	52	50	48	44			
3	84	75	68	63	79	71	64	59	62	57	53	54	50	47	47	44	42	38			
4	78	67	59	54	72	63	56	51	56	50	46	49	44	41	42	39	36	33			
5	71	60	52	46	67	57	50	44	50	44	40	44	40	36	38	35	32	29			
6	66	54	46	41	62	51	44	39	45	40	35	40	35	32	35	31	29	26			
7	61	49	41	36	57	46	39	34	41	36	31	37	32	29	32	28	26	23			
8	57	45	37	32	53	42	36	31	38	32	28	34	29	26	29	26	23	21			
9	53	41	34	29	50	39	32	28	35	29	25	31	26	23	27	24	21	19			
10	50	38	31	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39378	39378	39378
5°	39115	39417	39793
10°	39187	39643	40138
15°	39176	39913	40379
20°	39192	39871	39591
25°	38981	39022	36788
30°	38715	36767	33258
35°	38412	33835	30035
40°	37648	30844	26536
45°	36173	27738	23178
50°	33666	24797	19839
55°	30795	21903	16085
60°	27603	19052	13876
65°	24137	16416	12336
70°	19737	14582	11183
75°	15359	12608	10287
80°	11446	10795	9075
85°	7744	8170	5169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 36173 cd/sqm



TEST NUMBER: P854301

CATALOG NUMBER: SQ2-PW1-100U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.2	2.5
10°-20°	672.9	7.3
20°-30°	990.3	10.8
30°-40°	1082.7	11.8
40°-50°	971.3	10.6
50°-60°	724.5	7.9
60°-70°	457.9	5.0
70°-80°	226.8	2.5
80°-90°	54.2	0.6
90°-100°	252.6	2.8
100°-110°	764.0	8.3
110°-120°	745.8	8.1
120°-130°	609.5	6.6
130°-140°	497.5	5.4
140°-150°	387.3	4.2
150°-160°	279.2	3.0
160°-170°	170.9	1.9
170°-180°	57.7	0.6
0°-30°	1895.4	20.7
0°-40°	2978.1	32.5
0°-60°	4673.8	50.9
0°-90°	5412.7	59.0
90°-120°	1762.4	19.2
90°-150°	3256.6	35.5
90°-180°	3764.0	41.0
0°-180°	9177.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2439	2439	2439	2439	2439	
5°	2413	2452	2432	2435	2455	230
15°	2344	2389	2388	2404	2416	662
25°	2188	2236	2190	2099	2065	1008
35°	1949	1928	1717	1567	1524	1215
45°	1584	1457	1215	1063	1015	1215
55°	1094	990	778	610	571	977
65°	632	580	430	346	323	626
75°	246	264	202	170	165	271
85°	42	53	44	30	28	53
90°	0	2	11	7	6	3
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



TEST NUMBER: P854301

CATALOG NUMBER: SQ2-PW1-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2422.2	2453.1	2433.4	2435.4	2440.8
5°	2413.4	2452.0	2432.0	2434.8	2455.2
7.5°	2401.3	2440.4	2425.5	2433.8	2453.8
10°	2390.2	2431.0	2418.0	2430.1	2448.2
12.5°	2375.3	2418.0	2408.7	2422.6	2440.8
15°	2343.7	2389.1	2387.8	2404.4	2415.7
17.5°	2307.0	2352.4	2350.2	2354.5	2360.0
20°	2281.0	2326.4	2320.5	2304.2	2304.2
22.5°	2243.8	2292.9	2277.7	2233.3	2218.7
25°	2188.1	2235.8	2190.4	2099.0	2065.0
27.5°	2123.0	2161.7	2070.5	1940.8	1893.5
30°	2076.6	2106.1	1972.1	1829.3	1783.9
32.5°	2028.3	2039.6	1871.7	1723.3	1674.3
35°	1948.8	1928.4	1716.6	1566.9	1523.8
37.5°	1855.0	1794.1	1567.4	1410.7	1363.0
40°	1786.2	1699.9	1463.4	1306.7	1259.0
42.5°	1710.0	1601.9	1364.9	1208.1	1158.6
45°	1584.2	1457.0	1214.8	1062.8	1015.1
47.5°	1442.5	1316.2	1074.5	927.3	886.4
50°	1340.3	1217.6	987.2	839.7	789.8
52.5°	1236.2	1126.3	901.7	750.1	682.0
55°	1094.0	989.6	778.1	610.0	571.4
57.5°	947.7	857.3	666.2	513.5	481.7
60°	854.8	775.3	590.0	461.5	429.7
62.5°	765.6	695.2	515.7	413.3	387.0
65°	631.8	579.6	429.7	345.6	322.9
67.5°	501.7	472.7	357.2	283.5	268.5
70°	418.1	409.0	308.9	248.3	236.9
72.5°	345.6	349.3	262.5	214.9	207.2
75°	246.2	264.4	202.1	169.5	164.9
77.5°	167.7	195.0	149.6	125.3	121.7
80°	123.1	150.4	116.1	97.6	97.6
82.5°	85.9	107.7	82.7	73.4	73.4
85°	41.8	53.2	44.1	30.1	27.9
87.5°	11.1	17.0	9.7	6.9	6.7
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



TEST NUMBER: P854301

CATALOG NUMBER: SQ2-PW1-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9



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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	20.62	21.52	21.50	22.42	23.56	17.10	18.00	17.99	18.90	20.04
	3H	21.94	22.75	22.84	23.66	24.82	18.31	19.12	19.21	20.03	21.19
	4H	22.32	23.08	23.23	23.99	25.17	18.76	19.52	19.67	20.43	21.61
	6H	22.52	23.22	23.45	24.14	25.33	19.08	19.78	20.00	20.70	21.89
	8H	22.56	23.22	23.49	24.16	25.35	19.16	19.82	20.09	20.76	21.95
	12H	22.56	23.19	23.49	24.12	25.33	19.17	19.80	20.11	20.73	21.94
4H	2H	20.73	21.49	21.64	22.40	23.58	17.79	18.55	18.71	19.47	20.64
	3H	22.27	22.90	23.20	23.85	25.04	19.18	19.81	20.11	20.76	21.95
	4H	22.78	23.36	23.72	24.30	25.51	19.73	20.30	20.67	21.24	22.46
	6H	23.12	23.61	24.07	24.58	25.79	20.14	20.63	21.09	21.59	22.81
	8H	23.20	23.66	24.15	24.62	25.85	20.24	20.70	21.20	21.66	22.89
	12H	23.22	23.63	24.19	24.60	25.84	20.27	20.68	21.24	21.66	22.89
8H	4H	22.83	23.29	23.78	24.24	25.47	20.06	20.52	21.01	21.48	22.71
	6H	23.26	23.64	24.24	24.64	25.87	20.57	20.95	21.55	21.95	23.18
	8H	23.41	23.74	24.40	24.73	25.98	20.73	21.07	21.72	22.06	23.30
	12H	23.48	23.77	24.47	24.75	26.05	20.79	21.09	21.78	22.07	23.37
12H	4H	22.79	23.20	23.76	24.18	25.41	20.08	20.49	21.05	21.47	22.70
	6H	23.25	23.59	24.24	24.58	25.83	20.63	20.97	21.62	21.96	23.20
	8H	23.42	23.71	24.41	24.70	25.99	20.82	21.12	21.81	22.10	23.39