

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: P854303

Luminaire Tested: SQ2-PW1-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854303
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-940-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

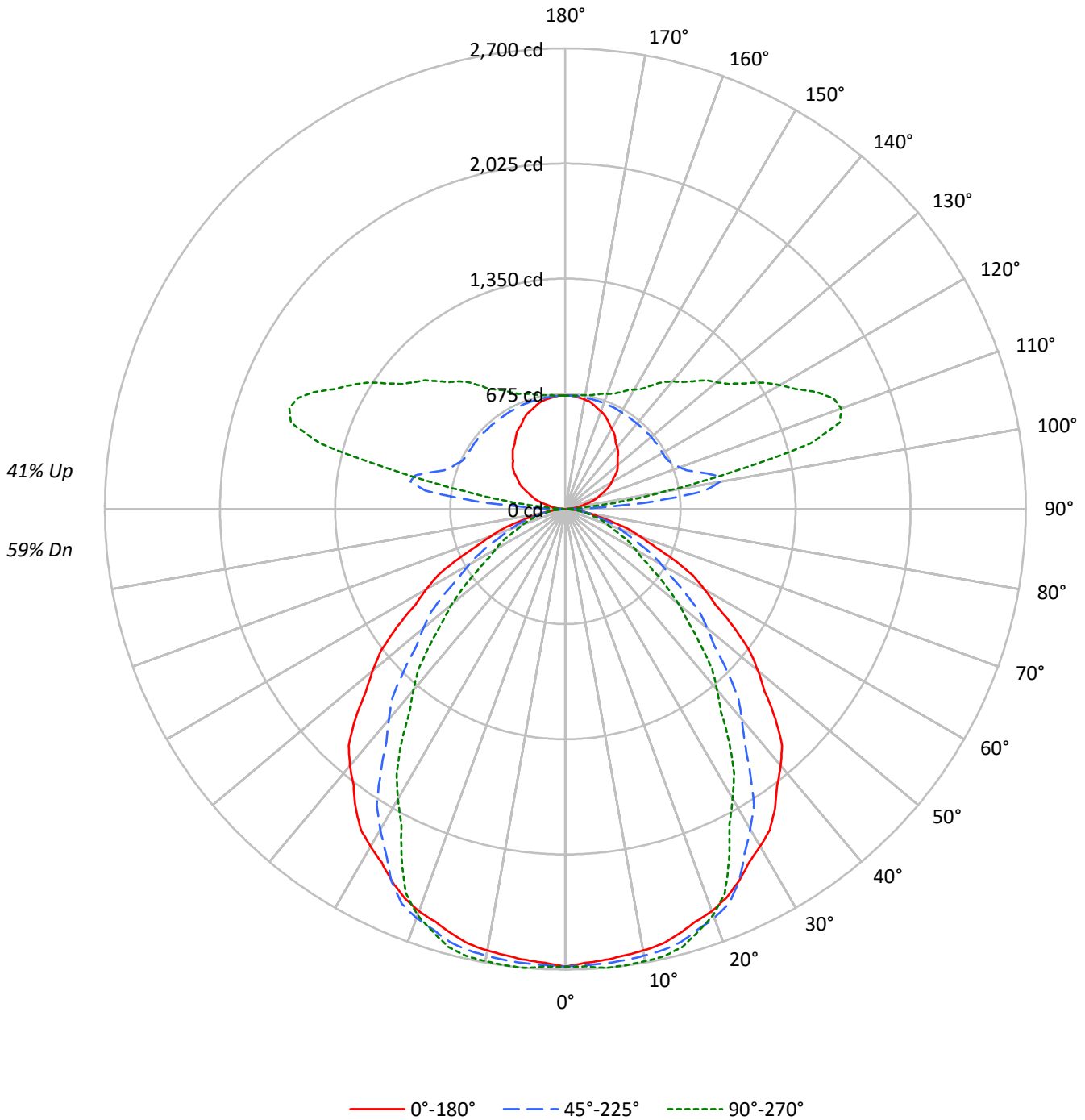
Lumens per Lamp: N/A
Luminaire Lumens: 10092.8 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

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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	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°	43308	43308	43308
5°	43018	43349	43764
10°	43097	43599	44143
15°	43086	43896	44409
20°	43103	43849	43541
25°	42870	42916	40458
30°	42578	40434	36577
35°	42245	37209	33031
40°	41406	33921	29183
45°	39781	30506	25489
50°	37025	27271	21818
55°	33869	24090	17689
60°	30357	20954	15261
65°	26544	18055	13566
70°	21706	16041	12302
75°	16893	13861	11316
80°	12590	11874	9977
85°	8522	8985	5687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 39781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.4	2.5
10°-20°	740.0	7.3
20°-30°	1089.1	10.8
30°-40°	1190.7	11.8
40°-50°	1068.2	10.6
50°-60°	796.8	7.9
60°-70°	503.6	5.0
70°-80°	249.5	2.5
80°-90°	59.6	0.6
90°-100°	277.8	2.8
100°-110°	840.2	8.3
110°-120°	820.3	8.1
120°-130°	670.3	6.6
130°-140°	547.1	5.4
140°-150°	425.9	4.2
150°-160°	307.0	3.0
160°-170°	187.9	1.9
170°-180°	63.5	0.6
0°-30°	2084.5	20.7
0°-40°	3275.2	32.5
0°-60°	5140.2	50.9
0°-90°	5952.8	59.0
90°-120°	1938.3	19.2
90°-150°	3581.6	35.5
90°-180°	4140.0	41.0
0°-180°	10092.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2654	2697	2675	2678	2700	253
15°	2578	2628	2626	2644	2657	728
25°	2406	2459	2409	2308	2271	1108
35°	2143	2121	1888	1723	1676	1337
45°	1742	1602	1336	1169	1116	1336
55°	1203	1088	856	671	628	1074
65°	695	637	473	380	355	689
75°	271	291	222	186	181	298
85°	46	58	48	33	31	58
90°	0	2	12	7	6	3
95°	34	109	524	194	122	41
105°	146	205	825	1567	1489	154
115°	260	310	667	1381	1622	257
125°	363	403	658	1090	1283	323
135°	436	481	654	940	1058	337
145°	509	546	654	809	884	319
155°	580	599	658	725	753	267
165°	634	641	661	686	694	179
175°	663	663	664	669	667	63
180°	665	665	665	665	665	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2682.3	2682.3	2682.3	2682.3	2682.3
2.5°	2663.9	2697.9	2676.2	2678.4	2684.3
5°	2654.2	2696.7	2674.6	2677.7	2700.2
7.5°	2640.9	2683.9	2667.5	2676.7	2698.7
10°	2628.7	2673.6	2659.3	2672.5	2692.5
12.5°	2612.3	2659.3	2649.1	2664.4	2684.3
15°	2577.6	2627.5	2626.1	2644.3	2656.8
17.5°	2537.2	2587.2	2584.7	2589.5	2595.4
20°	2508.6	2558.5	2552.0	2534.1	2534.1
22.5°	2467.7	2521.7	2505.0	2456.1	2440.1
25°	2406.4	2458.9	2409.0	2308.5	2271.0
27.5°	2334.9	2377.3	2277.1	2134.4	2082.5
30°	2283.8	2316.3	2168.8	2011.9	1961.9
32.5°	2230.7	2243.1	2058.5	1895.3	1841.3
35°	2143.3	2120.8	1887.8	1723.3	1675.8
37.5°	2040.1	1973.1	1723.8	1551.5	1499.0
40°	1964.5	1869.6	1609.4	1437.0	1384.6
42.5°	1880.7	1761.8	1501.1	1328.7	1274.2
45°	1742.2	1602.3	1336.0	1168.8	1116.3
47.5°	1586.4	1447.5	1181.7	1019.8	974.8
50°	1474.0	1339.1	1085.7	923.5	868.6
52.5°	1359.5	1238.7	991.7	825.0	750.0
55°	1203.2	1088.3	855.8	670.9	628.4
57.5°	1042.3	942.9	732.7	564.8	529.8
60°	940.1	852.7	648.9	507.6	472.6
62.5°	842.0	764.6	567.1	454.6	425.6
65°	694.8	637.4	472.6	380.1	355.1
67.5°	551.8	519.8	392.9	311.8	295.3
70°	459.8	449.8	339.8	273.1	260.6
72.5°	380.1	384.1	288.7	236.4	227.9
75°	270.8	290.8	222.2	186.4	181.4
77.5°	184.4	214.4	164.5	137.9	133.9
80°	135.4	165.4	127.7	107.3	107.3
82.5°	94.5	118.5	90.9	80.7	80.7
85°	46.0	58.5	48.5	33.2	30.7
87.5°	12.3	18.7	10.7	7.6	7.4
90°	0.0	2.0	12.5	7.3	6.3
92.5°	11.7	47.2	169.6	56.2	40.5
95°	34.5	109.0	524.2	193.7	122.2
97.5°	66.6	138.7	826.2	546.7	332.9
100°	86.7	157.1	923.2	892.5	599.4
102.5°	109.2	177.2	903.1	1251.8	997.9
105°	146.2	205.4	825.0	1566.8	1489.2
107.5°	181.3	237.9	749.8	1597.9	1687.8
110°	204.7	258.8	712.2	1558.7	1722.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	227.2	279.7	689.7	1492.8	1699.5
115°	260.0	310.1	667.3	1380.8	1621.8
117.5°	292.6	340.0	659.4	1275.9	1522.6
120°	314.3	359.3	656.9	1214.7	1451.6
122.5°	334.4	376.9	656.9	1160.8	1379.7
125°	363.4	403.2	657.9	1090.4	1283.4
127.5°	387.0	428.3	656.9	1037.4	1202.0
130°	402.1	444.9	656.9	1007.0	1156.0
132.5°	415.4	459.1	656.0	979.1	1116.8
135°	435.5	481.4	653.7	940.4	1057.9
137.5°	457.8	501.5	653.7	899.1	1008.0
140°	472.0	514.9	653.7	872.2	975.4
142.5°	486.2	527.5	652.9	847.7	937.8
145°	508.6	546.4	653.7	809.0	884.5
147.5°	530.9	563.0	655.0	777.0	835.0
150°	545.1	574.7	655.8	759.3	808.3
152.5°	558.5	584.8	656.7	744.0	784.1
155°	579.6	599.0	657.9	725.4	752.9
157.5°	598.0	613.7	659.2	711.6	730.8
160°	608.8	622.1	660.0	703.1	717.4
162.5°	619.7	629.7	660.8	695.6	707.4
165°	633.9	641.0	661.0	686.3	694.5
167.5°	646.0	649.7	662.3	679.1	682.5
170°	652.7	654.7	663.1	675.7	676.7
172.5°	656.9	658.1	663.1	672.3	672.5
175°	663.1	663.1	664.2	669.3	667.3
177.5°	666.0	665.2	664.4	666.8	665.2
180°	665.2	665.2	665.2	665.2	665.2

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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	20.95	21.85	21.83	22.75	23.89	17.43	18.34	18.32	19.23	20.37
	3H	22.27	23.08	23.17	23.99	25.15	18.64	19.45	19.54	20.36	21.52
	4H	22.65	23.41	23.56	24.32	25.50	19.09	19.85	20.00	20.77	21.94
	6H	22.85	23.55	23.78	24.47	25.66	19.41	20.11	20.34	21.03	22.22
	8H	22.89	23.55	23.82	24.49	25.68	19.49	20.15	20.42	21.09	22.28
	12H	22.89	23.52	23.82	24.45	25.66	19.50	20.13	20.44	21.06	22.28
4H	2H	21.06	21.82	21.97	22.73	23.91	18.12	18.88	19.04	19.80	20.97
	3H	22.61	23.24	23.53	24.18	25.37	19.51	20.14	20.44	21.09	22.28
	4H	23.11	23.69	24.05	24.63	25.84	20.06	20.64	21.00	21.58	22.79
	6H	23.45	23.94	24.40	24.91	26.12	20.47	20.96	21.42	21.93	23.14
	8H	23.53	23.99	24.48	24.95	26.18	20.57	21.03	21.53	21.99	23.22
	12H	23.55	23.96	24.52	24.94	26.17	20.60	21.01	21.57	21.99	23.22
8H	4H	23.16	23.62	24.11	24.57	25.80	20.39	20.85	21.35	21.81	23.04
	6H	23.59	23.97	24.57	24.97	26.20	20.90	21.28	21.88	22.28	23.51
	8H	23.74	24.07	24.73	25.06	26.31	21.06	21.40	22.05	22.39	23.63
	12H	23.81	24.10	24.80	25.08	26.38	21.12	21.42	22.12	22.40	23.70
12H	4H	23.12	23.53	24.09	24.51	25.74	20.41	20.82	21.38	21.80	23.03
	6H	23.59	23.92	24.57	24.91	26.16	20.96	21.30	21.95	22.29	23.54
	8H	23.75	24.04	24.74	25.03	26.32	21.15	21.45	22.14	22.43	23.72