

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: P854219

Luminaire Tested: SQ2-PR1-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854219
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-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

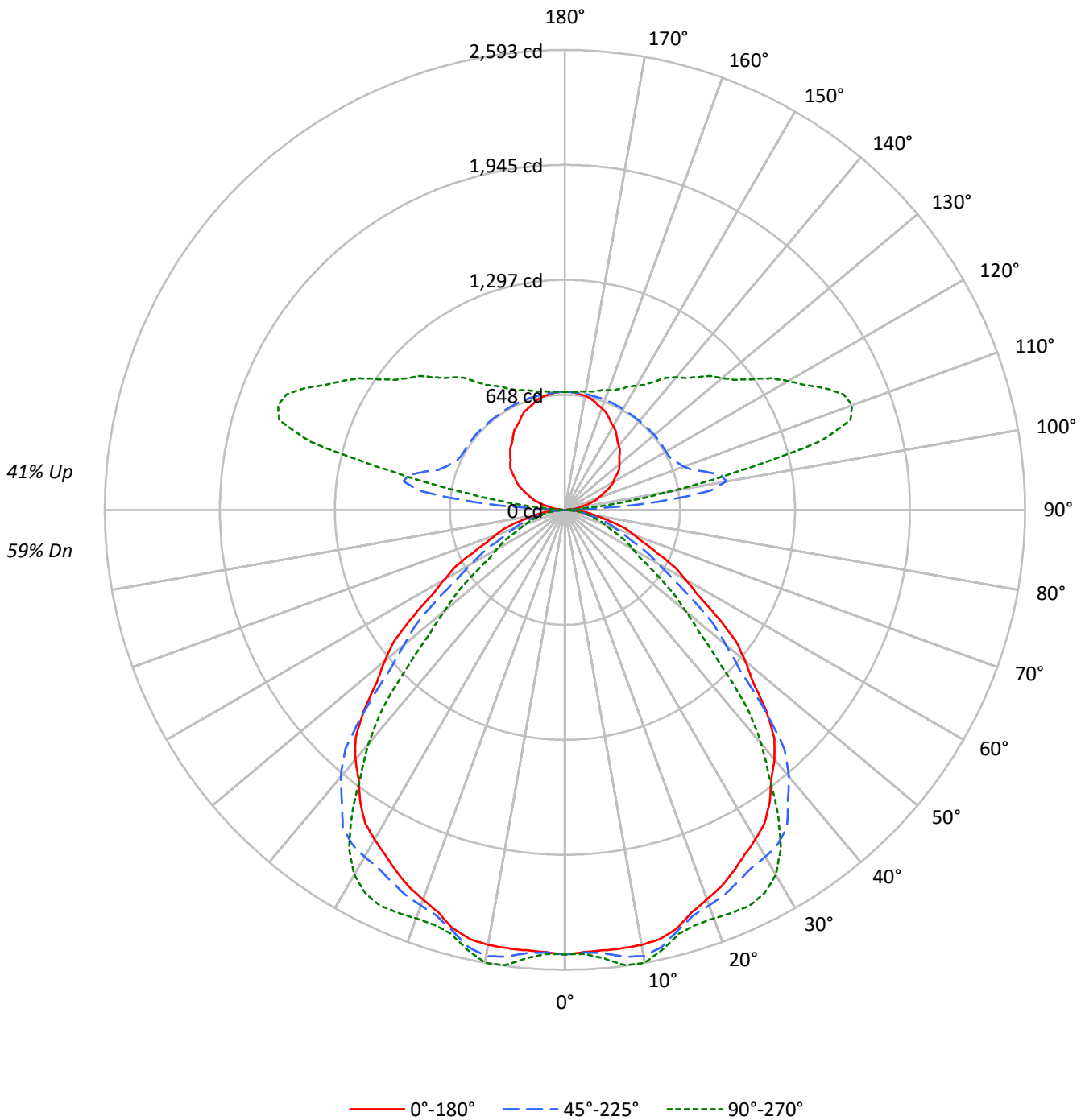
Lumens per Lamp: N/A
Luminaire Lumens: 10169.8 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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	0
RCR																		
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	101	97	93	90	94	90	87	84	79	76	74	68	66	65	58	57	56	51
2	92	85	79	74	86	80	75	70	70	66	63	61	58	55	52	50	48	44
3	85	75	68	63	79	71	65	60	62	57	54	54	51	48	47	44	42	38
4	78	67	60	54	72	63	56	51	56	50	46	49	45	41	42	39	37	33
5	72	60	52	46	67	57	50	44	50	45	40	44	40	36	38	35	32	29
6	66	54	46	41	62	51	44	39	45	40	35	40	36	32	35	31	29	26
7	61	49	41	36	57	47	39	34	41	36	31	37	32	29	32	28	26	23
8	57	45	37	32	53	42	35	31	38	32	28	34	29	26	30	26	23	21
9	53	41	34	29	50	39	32	27	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°	40461	40461	40461
5°	40410	40658	41154
10°	40835	41882	42510
15°	40822	41035	41377
20°	40161	40776	42137
25°	40048	41186	43871
30°	40005	42101	44292
35°	39626	43000	41238
40°	38712	41406	36290
45°	36632	36340	28697
50°	33302	29710	22265
55°	29267	24451	17332
60°	25326	19549	14270
65°	21861	16202	12493
70°	19657	14351	11094
75°	18010	12433	10200
80°	15676	9977	9977
85°	11356	8985	4724

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 39598 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.0	2.4
10°-20°	700.5	6.9
20°-30°	1082.9	10.6
30°-40°	1302.5	12.8
40°-50°	1169.5	11.5
50°-60°	783.5	7.7
60°-70°	455.7	4.5
70°-80°	234.1	2.3
80°-90°	58.9	0.6
90°-100°	277.8	2.7
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	1.8
170°-180°	63.5	0.6
0°-30°	2025.5	19.9
0°-40°	3328.0	32.7
0°-60°	5281.0	51.9
0°-90°	6029.8	59.3
90°-120°	1938.3	19.1
90°-150°	3581.6	35.2
90°-180°	4140.0	40.7
0°-180°	10169.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2493	2536	2509	2514	2539	238
15°	2442	2542	2455	2463	2475	686
25°	2248	2338	2312	2398	2463	1037
35°	2010	2028	2182	2140	2092	1253
45°	1604	1734	1592	1342	1257	1227
55°	1040	1080	869	671	616	934
65°	572	585	424	344	327	579
75°	289	281	199	168	164	306
85°	61	49	48	33	26	76
90°	0	2	12	7	6	4
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°	2506.0	2506.0	2506.0	2506.0	2506.0
2.5°	2495.8	2525.8	2497.9	2500.0	2506.0
5°	2493.3	2535.7	2508.6	2514.3	2539.2
7.5°	2492.7	2553.2	2540.3	2555.8	2588.8
10°	2490.7	2563.1	2554.6	2557.9	2592.9
12.5°	2478.4	2562.9	2523.9	2520.8	2539.8
15°	2442.2	2542.1	2454.9	2462.9	2475.4
17.5°	2378.3	2482.7	2399.8	2427.9	2452.4
20°	2337.4	2439.8	2373.2	2409.9	2452.4
22.5°	2300.6	2403.1	2348.7	2400.1	2458.5
25°	2248.0	2337.9	2311.9	2397.7	2462.6
27.5°	2192.8	2245.8	2276.6	2391.6	2437.1
30°	2145.8	2180.8	2258.2	2358.3	2375.7
32.5°	2094.7	2115.7	2233.7	2285.8	2263.3
35°	2010.4	2027.9	2181.6	2139.6	2092.2
37.5°	1910.3	1946.3	2064.6	1943.8	1889.4
40°	1836.7	1896.7	1964.5	1784.2	1721.8
42.5°	1746.8	1842.7	1831.6	1602.0	1525.6
45°	1604.3	1734.2	1591.5	1341.8	1256.8
47.5°	1436.2	1569.6	1336.0	1113.0	1033.6
50°	1325.8	1433.2	1182.8	973.9	886.4
52.5°	1213.4	1290.9	1052.0	843.2	763.8
55°	1039.7	1079.7	868.6	670.6	615.7
57.5°	880.3	905.8	709.7	541.7	501.2
60°	784.3	801.7	605.4	474.4	441.9
62.5°	696.4	709.9	521.6	417.4	392.9
65°	572.2	584.7	424.1	344.5	327.0
67.5°	473.6	480.1	349.0	286.2	269.8
70°	416.4	418.9	304.0	247.5	235.0
72.5°	365.3	361.8	261.1	214.9	206.4
75°	288.7	281.2	199.3	168.5	163.5
77.5°	215.6	207.6	140.0	129.8	129.8
80°	168.6	158.6	107.3	107.3	107.3
82.5°	125.7	111.7	82.8	82.7	80.7
85°	61.3	48.8	48.5	33.0	25.5
87.5°	16.3	16.8	8.6	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	20.46	21.37	21.35	22.26	23.40	17.19	18.09	18.07	18.99	20.12
	3H	21.70	22.51	22.60	23.41	24.57	18.26	19.06	19.15	19.97	21.13
	4H	22.16	22.91	23.07	23.83	25.00	18.66	19.42	19.57	20.33	21.50
	6H	22.47	23.17	23.40	24.09	25.27	18.99	19.69	19.92	20.61	21.79
	8H	22.56	23.22	23.49	24.16	25.34	19.08	19.74	20.01	20.68	21.86
	12H	22.59	23.22	23.52	24.15	25.36	19.09	19.72	20.02	20.65	21.86
4H	2H	20.55	21.31	21.46	22.22	23.39	17.76	18.52	18.68	19.43	20.60
	3H	22.02	22.65	22.95	23.59	24.78	19.03	19.66	19.96	20.60	21.79
	4H	22.62	23.19	23.56	24.13	25.34	19.54	20.11	20.48	21.05	22.26
	6H	23.08	23.57	24.03	24.53	25.74	19.98	20.47	20.93	21.43	22.65
	8H	23.21	23.67	24.16	24.62	25.85	20.10	20.56	21.05	21.52	22.74
	12H	23.26	23.68	24.23	24.65	25.88	20.13	20.54	21.10	21.51	22.74
8H	4H	22.65	23.11	23.60	24.06	25.29	19.85	20.31	20.80	21.26	22.49
	6H	23.20	23.58	24.18	24.58	25.80	20.39	20.77	21.36	21.76	22.99
	8H	23.40	23.73	24.38	24.72	25.96	20.57	20.91	21.56	21.89	23.14
	12H	23.50	23.80	24.49	24.78	26.07	20.64	20.93	21.62	21.91	23.20
12H	4H	22.61	23.02	23.58	24.00	25.23	19.87	20.28	20.84	21.25	22.48
	6H	23.19	23.52	24.17	24.51	25.75	20.45	20.78	21.43	21.77	23.01
	8H	23.40	23.69	24.39	24.67	25.96	20.66	20.95	21.64	21.93	23.22