

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: P855279

Luminaire Tested: SQ2-PW1-100U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855279
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-100D-840-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

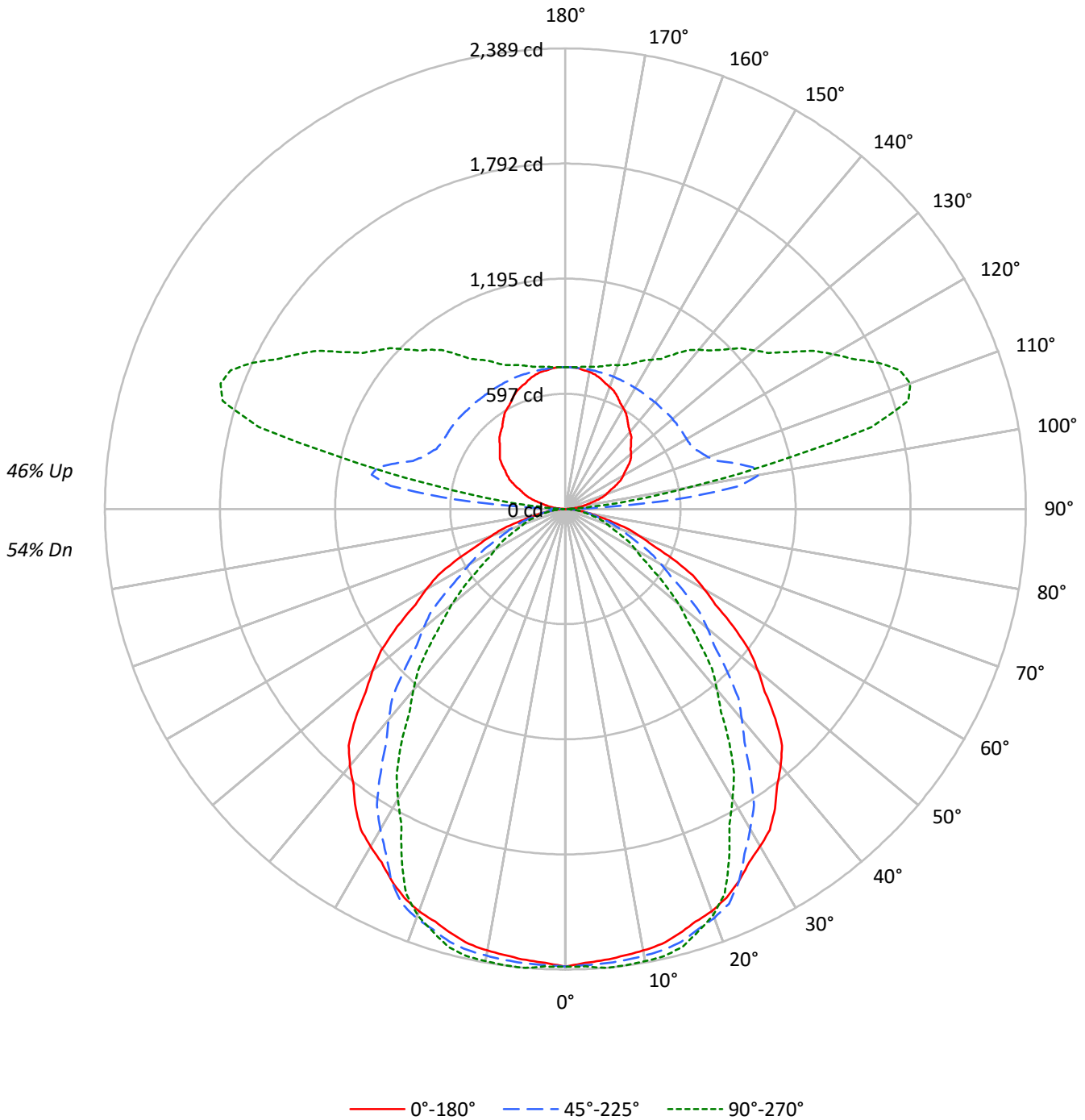
Lumens per Lamp: N/A
Luminaire Lumens: 9844.6 lumens
Efficiency: N/A
Efficacy: 140.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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
RCR																				
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54		
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	53	52	51	46		
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40		
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	40	38	34		
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	39	36	33	30		
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	30	26		
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23		
7	60	48	41	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21		
8	56	44	36	31	52	41	34	30	36	31	27	32	27	24	27	24	21	19		
9	52	40	33	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17		
10	49	37	30	25	45	35	28	24	31	26	22	27	23	20	23	20	18	16		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38319	38319	38319
5°	38063	38357	38723
10°	38133	38579	39059
15°	38123	38842	39295
20°	38139	38799	38527
25°	37933	37973	35799
30°	37675	35779	32365
35°	37381	32924	29229
40°	36636	30014	25821
45°	35200	26994	22555
50°	32760	24129	19306
55°	29968	21318	15651
60°	26863	18542	13501
65°	23492	15973	12004
70°	19204	14195	10881
75°	14947	12264	10012
80°	11139	10507	8833
85°	7540	7966	5039

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35200 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.0	2.3
10°-20°	654.8	6.7
20°-30°	963.6	9.8
30°-40°	1053.6	10.7
40°-50°	945.1	9.6
50°-60°	705.0	7.2
60°-70°	445.5	4.5
70°-80°	220.7	2.2
80°-90°	53.0	0.5
90°-100°	307.1	3.1
100°-110°	929.0	9.4
110°-120°	906.9	9.2
120°-130°	741.0	7.5
130°-140°	604.9	6.1
140°-150°	470.9	4.8
150°-160°	339.4	3.4
160°-170°	207.8	2.1
170°-180°	70.2	0.7
0°-30°	1844.4	18.7
0°-40°	2898.0	29.4
0°-60°	4548.2	46.2
0°-90°	5267.5	53.5
90°-120°	2143.0	21.8
90°-150°	3959.8	40.2
90°-180°	4577.0	46.5
0°-180°	9844.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2373	2373	2373	2373	2373	
5°	2348	2386	2367	2369	2389	223
15°	2281	2325	2324	2340	2351	644
25°	2129	2176	2132	2043	2010	981
35°	1896	1876	1670	1525	1483	1183
45°	1542	1418	1182	1034	988	1182
55°	1065	963	757	594	556	951
65°	615	564	418	336	314	609
75°	240	257	197	165	160	264
85°	41	52	43	29	27	52
90°	0	2	14	8	7	3
95°	38	120	580	214	135	45
105°	162	227	912	1732	1646	170
115°	288	343	738	1527	1793	284
125°	402	446	727	1206	1419	357
135°	481	532	723	1040	1170	373
145°	562	604	723	894	978	352
155°	641	662	727	802	832	295
165°	701	709	731	759	768	197
175°	733	733	734	740	738	70
180°	736	736	736	736	736	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2373.3	2373.3	2373.3	2373.3	2373.3
2.5°	2357.1	2387.2	2368.0	2370.0	2375.2
5°	2348.5	2386.2	2366.6	2369.4	2389.2
7.5°	2336.7	2374.7	2360.3	2368.4	2387.9
10°	2325.9	2365.8	2353.1	2364.7	2382.4
12.5°	2311.5	2353.1	2344.0	2357.5	2375.2
15°	2280.7	2325.0	2323.7	2339.8	2350.8
17.5°	2245.0	2289.2	2287.1	2291.3	2296.5
20°	2219.7	2263.9	2258.1	2242.3	2242.3
22.5°	2183.5	2231.3	2216.5	2173.2	2159.1
25°	2129.3	2175.7	2131.5	2042.6	2009.5
27.5°	2066.0	2103.5	2014.9	1888.6	1842.6
30°	2020.8	2049.5	1919.1	1780.2	1736.0
32.5°	1973.7	1984.8	1821.4	1677.0	1629.2
35°	1896.5	1876.5	1670.4	1524.8	1482.9
37.5°	1805.1	1745.9	1525.3	1372.8	1326.3
40°	1738.2	1654.3	1424.0	1271.6	1225.1
42.5°	1664.1	1558.8	1328.2	1175.7	1127.5
45°	1541.6	1417.8	1182.2	1034.2	987.8
47.5°	1403.7	1280.8	1045.6	902.4	862.5
50°	1304.2	1184.9	960.6	817.2	768.6
52.5°	1202.9	1096.1	877.4	730.0	663.7
55°	1064.6	963.0	757.3	593.7	556.0
57.5°	922.2	834.3	648.3	499.7	468.8
60°	831.9	754.5	574.2	449.1	418.1
62.5°	745.0	676.5	501.8	402.2	376.5
65°	614.9	563.9	418.1	336.3	314.2
67.5°	488.2	460.0	347.6	275.9	261.3
70°	406.8	398.0	300.7	241.6	230.5
72.5°	336.3	339.8	255.5	209.2	201.6
75°	239.6	257.3	196.6	164.9	160.5
77.5°	163.2	189.7	145.6	122.0	118.4
80°	119.8	146.4	113.0	95.0	95.0
82.5°	83.7	104.9	80.4	71.4	71.4
85°	40.7	51.7	43.0	29.4	27.2
87.5°	10.8	16.5	10.0	7.0	6.8
90°	0.0	2.2	13.9	8.0	6.9
92.5°	12.9	52.2	187.5	62.2	44.8
95°	38.1	120.5	579.6	214.1	135.1
97.5°	73.7	153.4	913.4	604.5	368.0
100°	95.8	173.8	1020.7	986.7	662.8
102.5°	120.7	195.9	998.5	1383.9	1103.3
105°	161.6	227.1	912.2	1732.3	1646.4
107.5°	200.4	262.9	828.9	1766.6	1866.0
110°	226.3	286.1	787.5	1723.3	1903.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	251.3	309.3	762.5	1650.4	1879.0
115°	287.5	342.7	737.8	1526.6	1793.1
117.5°	323.5	375.8	729.0	1410.6	1683.3
120°	347.5	397.2	726.2	1342.9	1604.9
122.5°	369.7	416.6	726.2	1283.3	1525.4
125°	401.8	445.8	727.3	1205.6	1419.0
127.5°	427.9	473.5	726.2	1146.9	1328.9
130°	444.5	491.9	726.2	1113.3	1278.1
132.5°	459.3	507.6	725.3	1082.5	1234.7
135°	481.4	532.2	722.8	1039.8	1169.6
137.5°	506.1	554.5	722.8	994.1	1114.4
140°	521.9	569.3	722.8	964.4	1078.3
142.5°	537.6	583.2	721.8	937.2	1036.7
145°	562.3	604.0	722.8	894.3	977.9
147.5°	587.0	622.4	724.2	859.0	923.2
150°	602.6	635.4	725.1	839.4	893.6
152.5°	617.4	646.6	725.9	822.5	866.8
155°	640.7	662.2	727.3	801.9	832.4
157.5°	661.1	678.5	728.7	786.8	808.0
160°	673.1	687.8	729.7	777.3	793.2
162.5°	685.1	696.2	730.6	769.0	782.1
165°	700.9	708.7	730.8	758.8	767.8
167.5°	714.2	718.2	732.2	750.8	754.6
170°	721.6	723.8	733.2	747.0	748.2
172.5°	726.2	727.6	733.2	743.3	743.5
175°	733.2	733.2	734.3	740.0	737.8
177.5°	736.4	735.5	734.6	737.2	735.5
180°	735.5	735.5	735.5	735.5	735.5



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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	20.04	20.90	20.98	21.84	23.07	16.53	17.38	17.47	18.33	19.55
	3H	21.37	22.13	22.31	23.08	24.33	17.73	18.50	18.68	19.45	20.70
	4H	21.74	22.46	22.70	23.42	24.68	18.18	18.90	19.14	19.86	21.12
	6H	21.94	22.60	22.91	23.57	24.84	18.50	19.16	19.47	20.13	21.39
	8H	21.98	22.60	22.95	23.59	24.85	18.57	19.20	19.55	20.19	21.45
	12H	21.97	22.57	22.95	23.55	24.84	18.59	19.18	19.57	20.16	21.45
4H	2H	20.15	20.87	21.11	21.83	23.08	17.21	17.93	18.18	18.89	20.15
	3H	21.69	22.29	22.67	23.28	24.55	18.60	19.20	19.58	20.19	21.46
	4H	22.20	22.74	23.18	23.73	25.02	19.14	19.69	20.13	20.67	21.97
	6H	22.53	23.00	23.53	24.01	25.30	19.55	20.02	20.55	21.02	22.32
	8H	22.61	23.04	23.61	24.05	25.35	19.65	20.09	20.65	21.09	22.40
	12H	22.62	23.02	23.64	24.03	25.35	19.68	20.07	20.69	21.09	22.40
8H	4H	22.24	22.67	23.24	23.67	24.98	19.47	19.91	20.47	20.91	22.21
	6H	22.67	23.03	23.70	24.08	25.38	19.98	20.34	21.00	21.38	22.68
	8H	22.82	23.13	23.85	24.16	25.49	20.14	20.46	21.17	21.49	22.81
	12H	22.88	23.16	23.92	24.19	25.55	20.20	20.48	21.23	21.50	22.87
12H	4H	22.20	22.59	23.21	23.61	24.92	19.49	19.88	20.50	20.90	22.21
	6H	22.66	22.98	23.69	24.01	25.33	20.04	20.36	21.07	21.39	22.71
	8H	22.83	23.10	23.86	24.13	25.50	20.23	20.51	21.26	21.53	22.90