

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: P853676

Luminaire Tested: SQ2-F-050U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853676
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-050U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

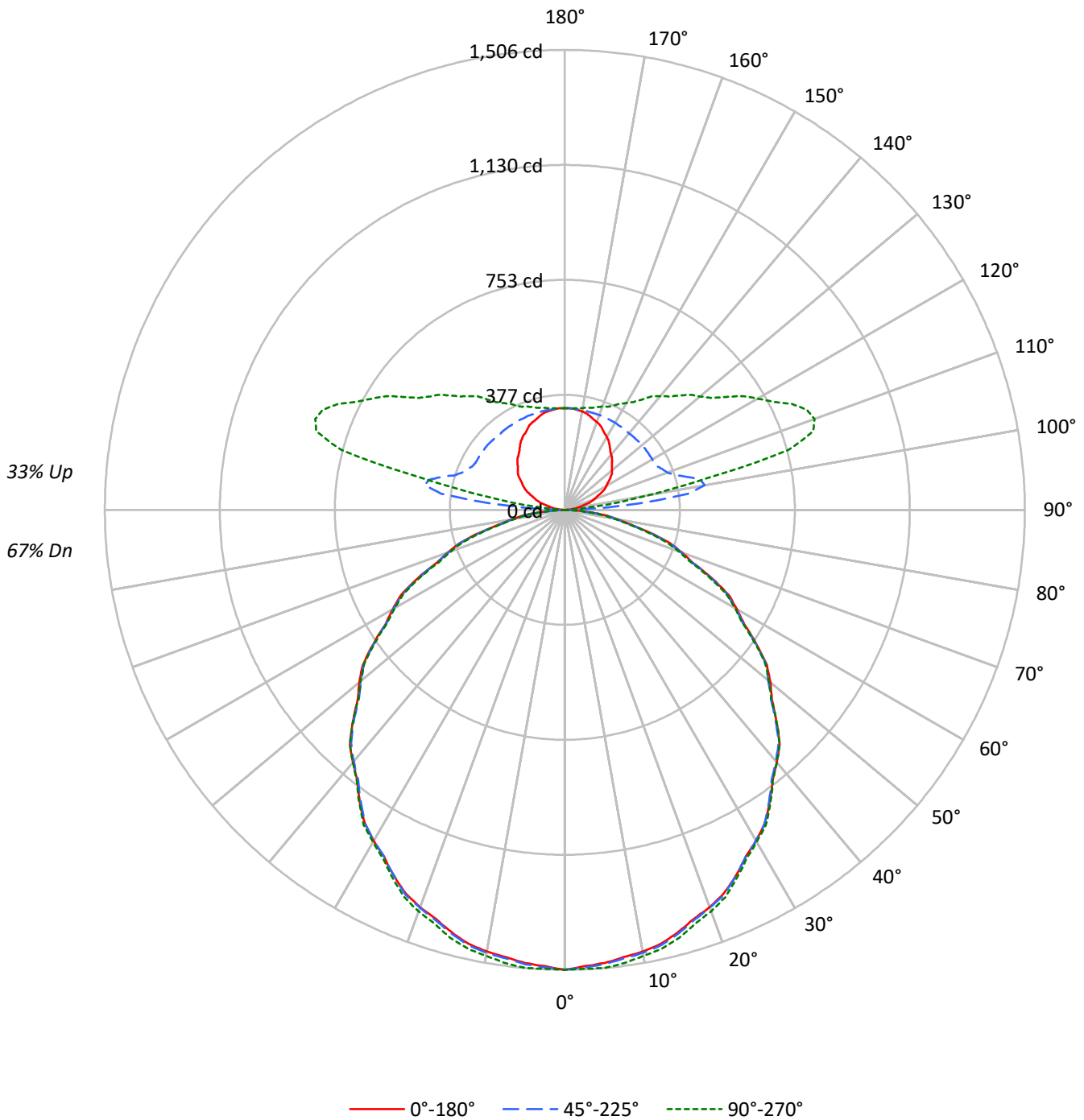
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6297.5 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.4
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	62	60	56				
2	92	84	78	73	87	80	74	69	71	67	63	63	59	56	55	53	50	47				
3	84	74	66	60	79	70	63	58	62	57	52	55	51	48	49	46	43	39				
4	77	65	57	51	72	62	55	49	55	49	45	49	44	41	44	40	37	34				
5	70	58	50	44	66	55	48	42	50	43	38	44	39	35	39	35	32	29				
6	65	52	44	38	61	50	42	36	45	38	34	40	35	31	35	31	28	25				
7	60	47	39	33	56	45	37	32	40	34	30	36	31	27	32	28	25	22				
8	56	43	35	29	52	41	33	28	37	31	26	33	28	24	30	25	22	20				
9	52	39	32	26	49	37	30	25	34	28	24	31	25	22	27	23	20	18				
10	49	36	29	24	46	34	28	23	31	25	21	28	23	20	25	21	18	16				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24314	24314	24314
5°	24141	24208	24407
10°	24082	24150	24319
15°	23936	24005	24246
20°	23794	23830	24041
25°	23575	23575	23721
30°	23332	23332	23409
35°	23049	22969	23130
40°	22744	22658	22744
45°	22393	22299	22393
50°	22057	21851	21901
55°	21540	21484	21368
60°	21003	20870	20734
65°	20378	20145	19908
70°	19176	19081	18694
75°	18047	17661	17149
80°	16020	15639	15072
85°	12931	11782	11023

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	2.3
10°-20°	406.7	6.5
20°-30°	611.9	9.7
30°-40°	732.2	11.6
40°-50°	755.5	12.0
50°-60°	681.5	10.8
60°-70°	520.1	8.3
70°-80°	299.0	4.7
80°-90°	78.4	1.2
90°-100°	132.7	2.1
100°-110°	421.1	6.7
110°-120°	412.9	6.6
120°-130°	336.0	5.3
130°-140°	273.9	4.4
140°-150°	213.6	3.4
150°-160°	153.9	2.4
160°-170°	94.0	1.5
170°-180°	31.7	0.5
0°-30°	1161.0	18.4
0°-40°	1893.2	30.1
0°-60°	3330.2	52.9
0°-90°	4227.7	67.1
90°-120°	966.7	15.4
90°-150°	1790.2	28.4
90°-180°	2070.0	32.9
0°-180°	6297.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1490	1510	1494	1496	1506	141
15°	1432	1450	1436	1442	1450	404
25°	1323	1337	1323	1326	1332	609
35°	1169	1177	1165	1170	1174	731
45°	981	987	977	979	981	757
55°	765	769	763	759	759	684
65°	533	531	527	523	521	524
75°	289	287	283	277	275	305
85°	70	66	64	58	60	81
90°	0	1	3	3	3	4
95°	18	54	241	89	58	21
105°	73	103	415	791	758	77
115°	131	156	335	697	820	129
125°	181	203	330	546	644	161
135°	219	241	328	470	529	169
145°	256	275	328	405	441	160
155°	291	302	329	362	376	134
165°	318	321	330	343	346	90
175°	332	331	332	334	333	31
180°	333	333	333	333	333	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1505.9	1505.9	1505.9	1505.9	1505.9
2.5°	1496.0	1513.7	1499.3	1502.6	1504.2
5°	1489.5	1509.5	1493.6	1495.8	1505.9
7.5°	1477.1	1498.8	1481.2	1485.2	1496.4
10°	1468.9	1489.0	1473.0	1475.3	1483.3
12.5°	1455.8	1475.9	1459.9	1463.8	1471.8
15°	1432.0	1450.1	1436.1	1442.5	1450.5
17.5°	1404.5	1423.8	1408.2	1413.7	1420.5
20°	1384.8	1400.9	1386.9	1389.2	1399.2
22.5°	1360.2	1376.3	1363.9	1364.5	1372.9
25°	1323.3	1337.3	1323.3	1325.5	1331.5
27.5°	1281.0	1293.0	1281.0	1283.2	1288.4
30°	1251.5	1263.5	1251.5	1253.6	1255.6
32.5°	1218.6	1229.1	1217.0	1219.2	1224.4
35°	1169.4	1177.4	1165.3	1169.5	1173.5
37.5°	1116.9	1122.9	1112.8	1114.9	1118.5
40°	1079.1	1085.2	1075.0	1077.1	1079.1
42.5°	1041.4	1045.8	1035.6	1037.8	1041.4
45°	980.7	986.7	976.6	978.7	980.7
47.5°	919.1	922.7	914.2	912.6	916.2
50°	878.1	880.1	869.9	869.9	871.9
52.5°	833.8	835.8	828.8	825.6	827.6
55°	765.2	769.3	763.2	759.1	759.1
57.5°	696.3	699.9	692.2	690.1	689.7
60°	650.4	652.4	646.3	644.2	642.1
62.5°	604.4	604.8	598.7	596.6	594.6
65°	533.4	531.4	527.3	523.1	521.1
67.5°	453.8	455.8	451.8	445.2	445.2
70°	406.2	408.2	404.2	396.0	396.0
72.5°	360.3	359.1	356.6	349.9	346.7
75°	289.3	287.3	283.1	276.9	274.9
77.5°	218.3	216.3	214.2	206.4	208.0
80°	172.3	170.3	168.2	162.1	162.1
82.5°	131.3	127.7	125.6	119.4	119.4
85°	69.8	65.7	63.6	57.5	59.5
87.5°	19.7	18.3	17.0	13.8	13.8
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.9	23.3	74.4	24.8	17.4
95°	17.8	53.7	241.1	89.4	57.6
97.5°	33.1	69.6	408.3	255.2	156.6
100°	44.0	78.9	465.4	424.3	275.7
102.5°	55.8	89.0	455.3	623.0	476.9
105°	73.4	103.1	415.1	790.6	757.8
107.5°	91.0	118.4	376.7	808.0	852.3
110°	102.7	129.4	357.4	787.9	869.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.5	139.5	346.5	753.2	857.4
115°	131.0	155.6	335.4	696.6	819.6
117.5°	147.2	170.5	331.0	642.2	766.2
120°	157.2	179.8	330.2	608.5	728.4
122.5°	167.3	189.0	330.2	581.5	693.2
125°	181.3	202.8	330.2	546.2	643.5
127.5°	193.7	214.4	330.2	518.8	601.8
130°	201.2	222.8	330.2	502.7	577.5
132.5°	208.8	230.3	329.3	490.0	557.4
135°	219.1	240.6	328.1	469.9	529.3
137.5°	229.1	251.7	327.8	450.6	503.7
140°	235.8	258.4	327.0	437.1	485.3
142.5°	244.2	265.9	327.8	423.6	468.5
145°	255.7	275.2	328.1	405.4	441.3
147.5°	267.3	283.9	328.3	389.3	418.6
150°	275.7	289.0	329.1	380.0	403.5
152.5°	282.4	294.0	329.1	372.3	391.8
155°	291.4	301.6	329.1	361.9	376.3
157.5°	301.0	308.0	330.2	355.5	365.4
160°	306.0	312.2	330.2	351.3	359.5
162.5°	311.1	315.6	330.2	347.9	353.6
165°	317.6	320.7	330.2	342.8	345.9
167.5°	323.7	324.5	331.2	339.2	341.9
170°	327.0	327.0	331.2	337.5	338.5
172.5°	328.7	329.5	331.2	335.8	336.0
175°	332.3	331.2	332.3	334.3	333.3
177.5°	333.3	332.5	332.5	334.1	332.5
180°	333.3	333.3	333.3	333.3	333.3



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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	20.50	21.55	21.29	22.37	23.37	20.42	21.47	21.21	22.29	23.29
	3H	22.29	23.24	23.09	24.07	25.10	22.17	23.12	22.98	23.95	24.98
	4H	22.96	23.85	23.78	24.69	25.73	22.80	23.70	23.63	24.54	25.58
	6H	23.44	24.26	24.27	25.11	26.16	23.25	24.08	24.09	24.92	25.98
	8H	23.58	24.37	24.42	25.23	26.29	23.38	24.17	24.22	25.03	26.09
	12H	23.66	24.41	24.51	25.27	26.35	23.44	24.19	24.29	25.05	26.13
4H	2H	21.07	21.97	21.90	22.80	23.84	21.01	21.90	21.83	22.74	23.78
	3H	23.07	23.82	23.91	24.69	25.75	22.97	23.72	23.80	24.58	25.64
	4H	23.87	24.56	24.72	25.42	26.51	23.73	24.41	24.58	25.28	26.36
	6H	24.47	25.06	25.34	25.95	27.04	24.29	24.89	25.16	25.77	26.86
	8H	24.67	25.22	25.54	26.10	27.21	24.46	25.02	25.33	25.90	27.00
	12H	24.78	25.28	25.67	26.18	27.29	24.55	25.05	25.44	25.95	27.06
8H	4H	24.14	24.69	25.01	25.57	26.68	24.01	24.56	24.88	25.45	26.55
	6H	24.86	25.32	25.76	26.25	27.35	24.70	25.15	25.59	26.08	27.18
	8H	25.13	25.54	26.04	26.46	27.58	24.94	25.35	25.85	26.26	27.38
	12H	25.31	25.67	26.22	26.58	27.75	25.08	25.44	25.99	26.35	27.52
12H	4H	24.14	24.64	25.03	25.54	26.65	24.02	24.52	24.91	25.42	26.53
	6H	24.91	25.31	25.82	26.23	27.35	24.75	25.16	25.66	26.07	27.19
	8H	25.21	25.57	26.12	26.48	27.65	25.02	25.38	25.94	26.29	27.46