

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: P521580

Luminaire Tested: SQ4-F-100U-100D-92765-1D-UNV-STD-W-4_5700K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521580
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-38)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-100U-100D-92765-1D-UNV-STD-W-4_5700K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

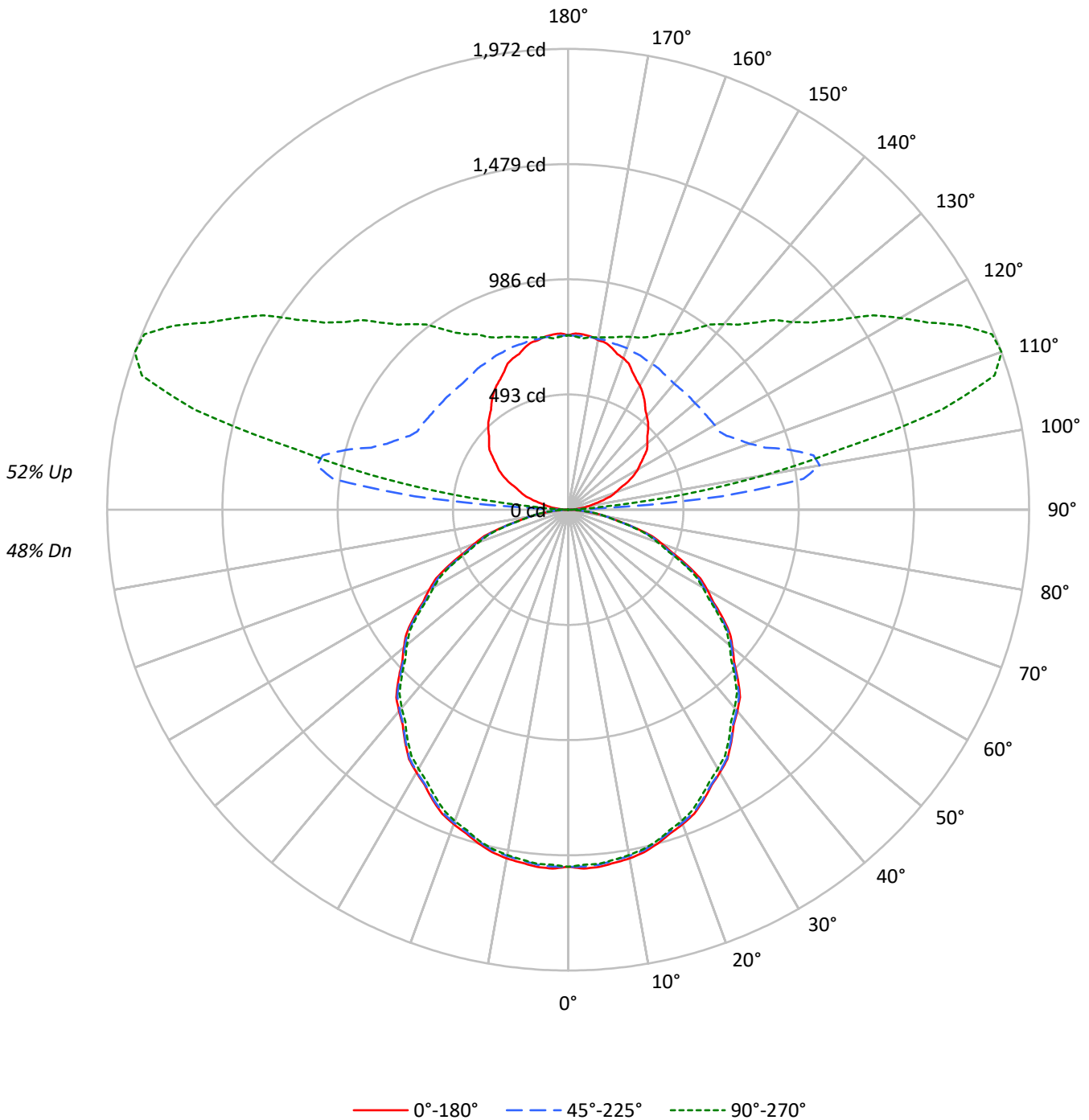
Lumens per Lamp: N/A
Luminaire Lumens: 8995.6 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 74.6
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										
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	50	30	10	0														
RCR																																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48						48														
1	97	93	89	85	89	86	82	79	72	70	67	60	58	56	48	47	46	41						41														
2	88	81	75	70	81	75	69	65	63	59	56	52	49	47	42	40	38	34						34														
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	35	32	28						28														
4	74	63	55	49	67	58	51	46	49	44	39	41	37	34	33	30	28	24						24														
5	67	56	48	42	62	52	44	39	44	38	34	37	32	29	30	27	24	21						21														
6	62	50	42	36	57	46	39	34	39	34	29	33	29	25	27	24	21	18						18														
7	57	45	37	31	53	42	35	30	36	30	26	30	26	22	25	21	19	16						16														
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14						14														
9	49	37	30	25	45	35	28	23	30	24	20	25	21	18	21	17	15	13						13														
10	46	34	27	22	43	32	25	21	27	22	18	23	19	16	19	16	14	12						12														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14097	14097	14097
5°	14210	14122	14082
10°	14195	14096	14057
15°	14128	14047	14017
20°	14064	14002	13918
25°	13956	13902	13750
30°	13836	13803	13633
35°	13696	13648	13504
40°	13559	13508	13342
45°	13401	13291	13139
50°	13174	13083	12930
55°	12989	12801	12648
60°	12688	12433	12256
65°	12278	11931	11745
70°	11564	11192	10993
75°	10441	10174	10024
80°	8623	8623	8512
85°	6066	6966	7188

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13401 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	1.6
10°-20°	414.4	4.6
20°-30°	626.6	7.0
30°-40°	754.6	8.4
40°-50°	783.7	8.7
50°-60°	710.4	7.9
60°-70°	541.0	6.0
70°-80°	302.3	3.4
80°-90°	78.4	0.9
90°-100°	340.3	3.8
100°-110°	968.4	10.8
110°-120°	927.8	10.3
120°-130°	734.4	8.2
130°-140°	589.4	6.6
140°-150°	461.5	5.1
150°-160°	337.6	3.8
160°-170°	209.1	2.3
170°-180°	71.0	0.8
0°-30°	1185.7	13.2
0°-40°	1940.3	21.6
0°-60°	3434.3	38.2
0°-90°	4356.0	48.4
90°-120°	2236.6	24.9
90°-150°	4021.8	44.7
90°-180°	4640.0	51.6
0°-180°	8995.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1528	1528	1528	1528	1528	
5°	1534	1520	1525	1520	1520	146
15°	1479	1466	1471	1468	1468	417
25°	1371	1360	1366	1355	1351	631
35°	1216	1209	1212	1200	1199	761
45°	1027	1021	1019	1008	1007	791
55°	808	804	796	786	786	720
65°	562	556	546	539	538	554
75°	293	289	285	281	281	310
85°	57	61	66	67	68	71
90°	0	0	0	0	0	4
95°	37	147	659	228	141	42
105°	150	228	987	1743	1657	159
115°	280	338	748	1585	1862	275
125°	395	438	714	1185	1417	353
135°	483	523	706	1001	1132	373
145°	569	599	711	866	944	356
155°	650	666	728	783	815	301
165°	718	721	737	753	764	202
175°	753	748	746	741	736	71
180°	747	747	747	747	747	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1527.9	1527.9	1527.9	1527.9	1527.9
2.5°	1537.3	1524.8	1528.8	1526.1	1521.1
5°	1534.3	1519.8	1524.8	1520.5	1520.5
7.5°	1523.7	1509.8	1513.1	1510.5	1510.5
10°	1515.2	1499.6	1504.6	1500.4	1500.4
12.5°	1501.6	1487.7	1492.7	1488.5	1487.6
15°	1479.1	1465.6	1470.6	1467.5	1467.5
17.5°	1452.0	1439.1	1445.6	1440.5	1438.8
20°	1432.4	1417.9	1426.1	1417.6	1417.6
22.5°	1408.7	1395.8	1403.2	1392.9	1391.3
25°	1370.9	1359.5	1365.6	1354.9	1350.7
27.5°	1328.5	1316.2	1325.3	1313.3	1311.1
30°	1298.7	1287.3	1295.6	1282.8	1279.7
32.5°	1266.5	1256.7	1262.5	1250.5	1248.2
35°	1216.0	1208.7	1211.7	1200.0	1199.0
37.5°	1162.3	1155.2	1158.1	1145.1	1144.3
40°	1125.8	1119.6	1121.6	1107.8	1107.8
42.5°	1088.4	1081.4	1081.7	1068.7	1067.9
45°	1027.1	1020.9	1018.6	1008.0	1007.0
47.5°	962.0	959.1	955.6	945.0	945.0
50°	917.8	915.8	911.5	900.8	900.8
52.5°	872.8	871.6	865.6	856.7	855.0
55°	807.5	804.4	795.8	786.3	786.3
57.5°	736.0	733.5	723.9	716.2	714.3
60°	687.6	683.4	673.8	665.3	664.2
62.5°	637.5	634.2	623.7	616.0	614.1
65°	562.4	556.1	546.5	539.0	538.0
67.5°	483.0	475.9	467.5	461.3	459.2
70°	428.7	422.4	414.9	409.5	407.5
72.5°	375.2	369.0	362.2	358.6	358.2
75°	292.9	288.7	285.4	281.2	281.2
77.5°	212.4	209.9	208.2	206.1	206.1
80°	162.3	162.3	162.3	160.2	160.2
82.5°	116.5	119.0	120.7	119.5	119.5
85°	57.3	61.4	65.8	66.9	67.9
87.5°	16.1	21.1	26.3	27.2	28.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	11.4	60.2	139.7	40.7	30.7
95°	36.9	146.6	658.9	228.0	140.6
97.5°	67.9	171.7	1014.7	726.1	497.6
100°	89.5	186.6	1092.0	1106.1	852.0
102.5°	113.3	202.7	1074.9	1415.8	1193.9
105°	150.5	228.3	986.9	1743.2	1657.1
107.5°	188.3	258.0	884.1	1835.5	1912.1
110°	214.4	279.7	825.0	1800.2	1972.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	239.4	301.3	785.2	1716.7	1962.1
115°	279.7	338.0	748.3	1585.3	1861.6
117.5°	315.2	369.9	726.5	1441.7	1734.4
120°	343.6	389.5	724.2	1359.6	1640.1
122.5°	366.4	412.2	718.5	1287.6	1548.1
125°	394.8	437.8	714.2	1185.3	1417.1
127.5°	425.7	466.0	712.0	1124.1	1315.2
130°	441.6	481.9	708.6	1081.5	1248.2
132.5°	458.7	497.8	708.6	1048.3	1201.6
135°	482.8	523.1	705.7	1001.2	1131.7
137.5°	505.5	544.7	705.4	961.3	1074.1
140°	522.6	562.8	704.3	928.3	1036.6
142.5°	541.9	575.5	707.7	901.9	999.1
145°	569.4	598.6	711.4	866.5	944.3
147.5°	593.0	621.3	717.7	830.8	898.0
150°	613.4	632.9	719.9	819.0	866.2
152.5°	629.3	649.9	722.2	803.0	846.9
155°	650.3	665.6	728.4	783.1	815.1
157.5°	676.5	685.6	729.9	774.1	796.9
160°	690.1	697.1	735.5	767.2	786.7
162.5°	698.1	706.1	736.7	761.4	776.4
165°	718.5	721.3	737.0	752.8	763.9
167.5°	732.4	729.9	743.5	750.7	755.1
170°	737.0	735.6	741.2	742.8	748.3
172.5°	747.2	742.5	744.6	740.5	744.9
175°	752.6	748.4	745.5	741.1	735.5
177.5°	754.9	748.2	744.6	740.1	741.2
180°	746.9	746.9	746.9	746.9	746.9

(END OF REPORT)