

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: P853842

Luminaire Tested: SQ2-FB-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853842
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-050U-100D-930-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

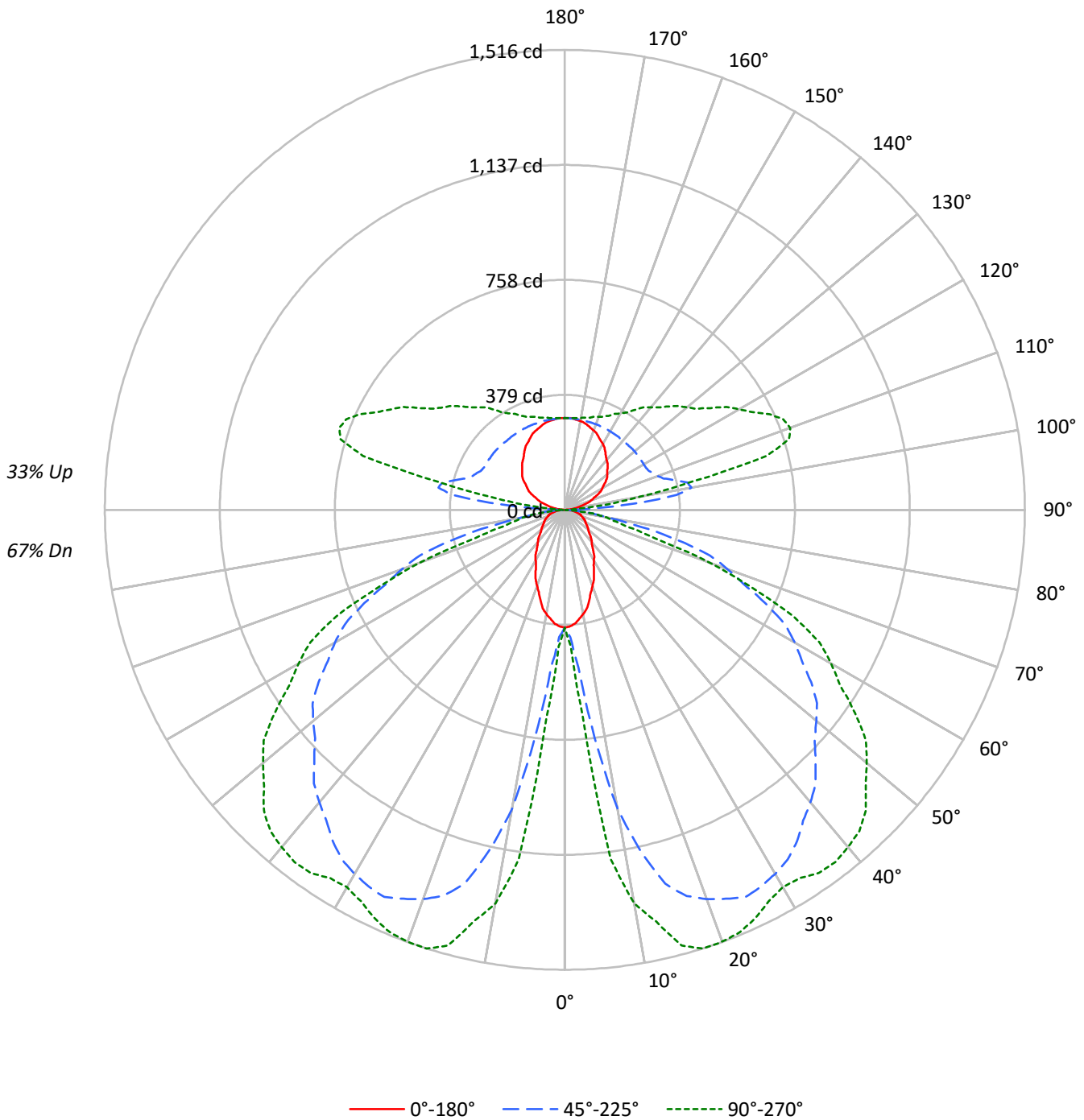
Lumens per Lamp: N/A
Luminaire Lumens: 5716.5 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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																	
RC	80									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	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	78	76	72	70	68	63	62	60	56																											
2	92	84	77	72	86	79	74	69	71	66	62	62	59	56	55	52	50	46																											
3	83	73	65	59	78	69	62	57	62	56	51	55	50	47	48	45	42	38																											
4	76	64	56	50	71	61	53	47	54	48	43	48	43	39	42	39	35	32																											
5	70	57	48	42	65	54	46	40	48	42	37	43	38	34	38	34	30	27																											
6	64	51	42	36	60	48	40	35	43	37	32	38	33	29	34	30	26	24																											
7	59	46	37	31	55	43	36	30	39	32	28	35	29	25	31	26	23	20																											
8	54	41	33	27	51	39	32	26	35	29	24	32	26	22	28	24	20	18																											
9	51	38	30	24	48	36	28	23	32	26	22	29	24	20	26	21	18	16																											
10	47	34	27	22	44	33	26	21	30	23	19	27	21	18	24	19	16	14																											

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6265	6265	6265
5°	6107	8465	11096
10°	5719	16393	21592
15°	5177	21329	24852
20°	4584	23462	26027
25°	4055	25091	26453
30°	3581	25840	26780
35°	3199	26290	28791
40°	2909	26540	30589
45°	2683	26665	32031
50°	2529	27178	32614
55°	2469	27885	32873
60°	2528	28252	32708
65°	2636	27866	31786
70°	2729	26946	24043
75°	3026	24205	13269
80°	3124	12487	12311
85°	3112	8633	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 33169 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	1.1
10°-20°	296.7	5.2
20°-30°	522.1	9.1
30°-40°	675.8	11.8
40°-50°	745.3	13.0
50°-60°	695.9	12.2
60°-70°	537.9	9.4
70°-80°	248.1	4.3
80°-90°	47.7	0.8
90°-100°	120.7	2.1
100°-110°	382.8	6.7
110°-120°	375.4	6.6
120°-130°	305.5	5.3
130°-140°	249.1	4.4
140°-150°	194.2	3.4
150°-160°	139.9	2.4
160°-170°	85.5	1.5
170°-180°	28.9	0.5
0°-30°	883.8	15.5
0°-40°	1559.6	27.3
0°-60°	3000.8	52.5
0°-90°	3834.5	67.1
90°-120°	879.0	15.4
90°-150°	1627.7	28.5
90°-180°	1882.0	32.9
0°-180°	5716.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	377	432	522	637	685	35
15°	310	611	1276	1428	1487	86
25°	228	820	1408	1470	1485	105
35°	162	792	1334	1380	1461	102
45°	118	606	1168	1341	1403	91
55°	88	361	991	1139	1168	79
65°	69	204	729	817	832	68
75°	48	125	388	209	213	50
85°	17	37	47	32	28	17
90°	0	1	3	3	3	2
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	388.0	388.0	388.0	388.0	388.0
2.5°	385.0	401.1	419.4	440.4	449.2
5°	376.8	431.5	522.3	637.2	684.6
7.5°	362.3	473.5	759.6	1067.0	1161.8
10°	348.8	503.9	999.9	1265.9	1317.0
12.5°	333.9	544.4	1150.6	1337.6	1390.1
15°	309.7	610.6	1276.0	1428.4	1486.8
17.5°	284.7	685.2	1334.2	1484.5	1516.3
20°	266.8	737.4	1365.5	1494.7	1514.8
22.5°	250.3	776.4	1387.9	1485.8	1507.3
25°	227.6	820.4	1408.4	1470.3	1484.9
27.5°	205.6	831.9	1399.5	1440.1	1454.3
30°	192.1	828.7	1386.0	1416.3	1436.4
32.5°	180.2	819.7	1366.6	1396.0	1439.4
35°	162.3	791.6	1333.8	1380.4	1460.7
37.5°	147.0	746.4	1290.5	1385.9	1463.3
40°	138.0	712.6	1259.2	1385.7	1451.3
42.5°	129.1	673.0	1223.4	1370.7	1436.4
45°	117.5	606.4	1167.8	1340.8	1402.8
47.5°	106.7	531.3	1116.3	1299.4	1344.6
50°	100.7	480.1	1082.0	1261.9	1298.4
52.5°	94.8	430.4	1047.6	1217.0	1250.6
55°	87.7	361.3	990.6	1138.6	1167.8
57.5°	81.3	302.0	925.6	1051.9	1075.6
60°	78.3	269.9	874.9	989.2	1012.9
62.5°	73.9	240.6	818.2	923.5	945.8
65°	69.0	204.0	729.4	817.4	832.0
67.5°	62.3	176.9	635.0	688.9	661.5
70°	57.8	163.6	570.8	587.7	509.3
72.5°	54.8	149.0	500.7	456.3	307.8
75°	48.5	125.1	388.0	209.0	212.7
77.5°	39.5	96.8	255.2	160.5	163.8
80°	33.6	79.2	134.3	130.6	132.4
82.5°	27.6	61.5	92.5	96.2	93.6
85°	16.8	36.9	46.6	31.6	28.0
87.5°	6.0	13.5	8.0	8.0	8.0
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	14.86	15.94	15.65	16.76	17.76	23.60	24.68	24.39	25.50	26.50
	3H	15.61	16.58	16.41	17.41	18.44	25.24	26.21	26.04	27.04	28.07
	4H	15.92	16.84	16.74	17.67	18.71	25.43	26.35	26.25	27.18	28.22
	6H	16.15	17.00	16.98	17.84	18.89	25.53	26.37	26.36	27.22	28.27
	8H	16.22	17.02	17.06	17.88	18.94	25.54	26.34	26.38	27.21	28.26
	12H	16.25	17.02	17.10	17.87	18.96	25.52	26.29	26.37	27.14	28.22
4H	2H	19.29	20.21	20.11	21.04	22.08	24.07	24.99	24.90	25.82	26.86
	3H	20.24	21.01	21.08	21.88	22.93	25.92	26.68	26.75	27.55	28.61
	4H	20.54	21.23	21.39	22.10	23.18	26.17	26.86	27.02	27.73	28.81
	6H	20.68	21.28	21.55	22.17	23.26	26.32	26.93	27.19	27.81	28.90
	8H	20.71	21.27	21.58	22.15	23.26	26.36	26.92	27.23	27.80	28.90
	12H	20.71	21.22	21.60	22.12	23.23	26.34	26.84	27.23	27.75	28.86
8H	4H	21.73	22.29	22.60	23.18	24.28	26.30	26.86	27.17	27.75	28.85
	6H	21.98	22.44	22.88	23.37	24.47	26.52	26.98	27.42	27.91	29.01
	8H	22.05	22.46	22.96	23.38	24.50	26.58	26.99	27.49	27.91	29.03
	12H	22.09	22.45	23.00	23.36	24.53	26.59	26.95	27.50	27.86	29.03
12H	4H	21.76	22.26	22.65	23.17	24.28	26.27	26.77	27.16	27.67	28.78
	6H	22.08	22.49	22.98	23.41	24.53	26.50	26.91	27.41	27.83	28.95
	8H	22.19	22.55	23.10	23.46	24.64	26.58	26.94	27.49	27.85	29.03