

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: P853843

Luminaire Tested: SQ2-FB-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853843
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-935-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

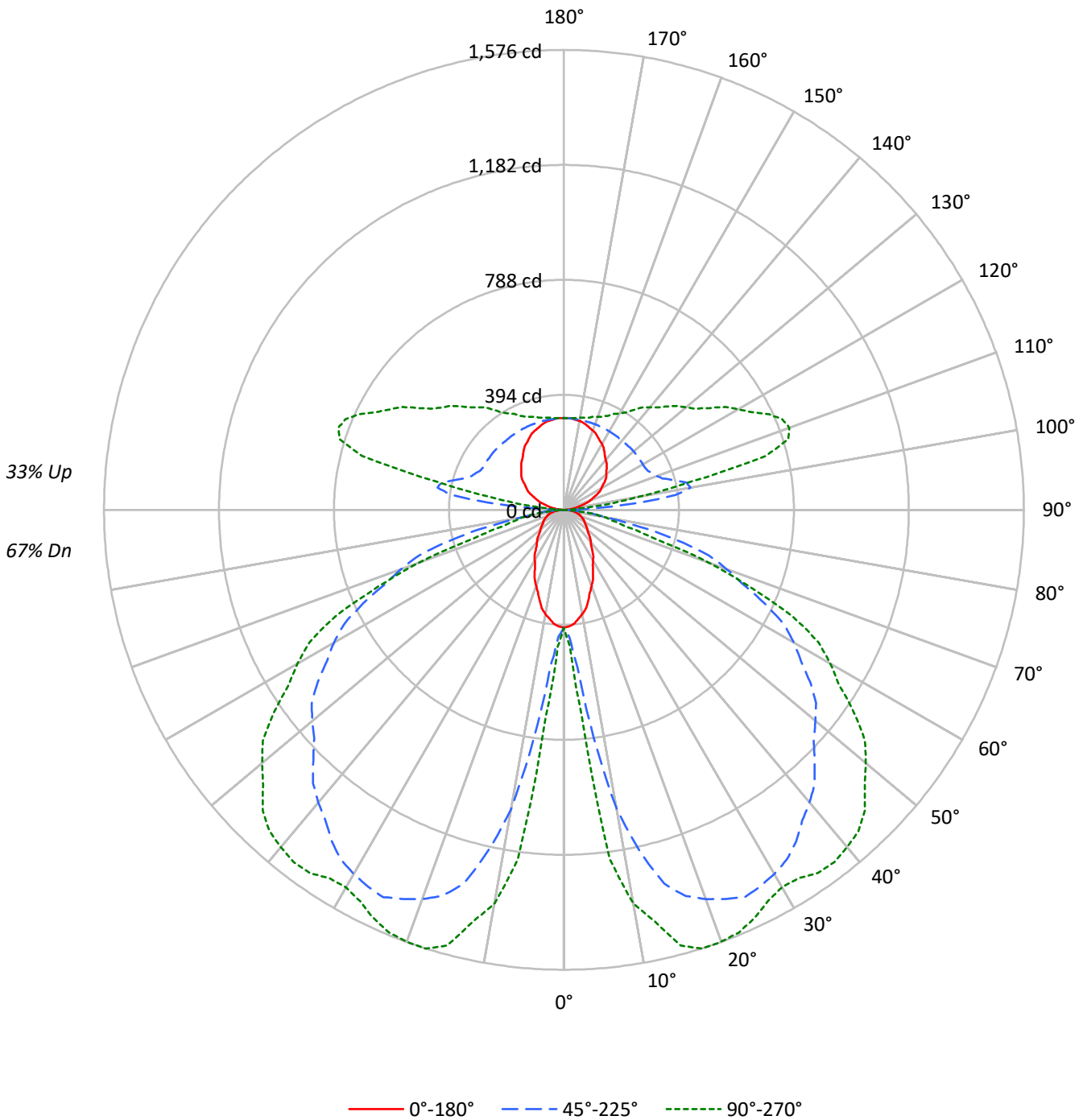
Lumens per Lamp: N/A
Luminaire Lumens: 5943.6 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	6513	6513	6513
5°	6350	8802	11537
10°	5946	17044	22450
15°	5382	22176	25839
20°	4766	24395	27060
25°	4215	26088	27505
30°	3725	26867	27844
35°	3325	27334	29934
40°	3025	27594	31805
45°	2790	27725	33305
50°	2630	28256	33907
55°	2567	28991	34179
60°	2632	29376	34010
65°	2743	28974	33047
70°	2837	28018	24996
75°	3144	25165	13793
80°	3245	12980	12803
85°	3242	8985	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 34487 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.6	1.1
10°-20°	308.5	5.2
20°-30°	542.8	9.1
30°-40°	702.6	11.8
40°-50°	774.9	13.0
50°-60°	723.5	12.2
60°-70°	559.2	9.4
70°-80°	257.9	4.3
80°-90°	49.7	0.8
90°-100°	125.5	2.1
100°-110°	398.1	6.7
110°-120°	390.3	6.6
120°-130°	317.6	5.3
130°-140°	259.0	4.4
140°-150°	201.9	3.4
150°-160°	145.5	2.4
160°-170°	88.9	1.5
170°-180°	30.0	0.5
0°-30°	918.9	15.5
0°-40°	1621.6	27.3
0°-60°	3120.1	52.5
0°-90°	3986.9	67.1
90°-120°	913.9	15.4
90°-150°	1692.4	28.5
90°-180°	1957.0	32.9
0°-180°	5943.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	392	449	543	662	712	36
15°	322	635	1327	1485	1546	90
25°	237	853	1464	1529	1544	109
35°	169	823	1387	1435	1519	106
45°	122	630	1214	1394	1459	95
55°	91	376	1030	1184	1214	82
65°	72	212	758	850	865	70
75°	50	130	403	217	221	52
85°	18	38	48	33	29	18
90°	0	1	3	3	3	2
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	403.4	403.4	403.4	403.4	403.4
2.5°	400.3	417.0	436.0	457.9	467.0
5°	391.8	448.7	543.1	662.5	711.8
7.5°	376.7	492.3	789.8	1109.3	1208.0
10°	362.7	523.9	1039.6	1316.2	1369.3
12.5°	347.2	566.0	1196.3	1390.7	1445.4
15°	322.0	634.9	1326.7	1485.1	1545.8
17.5°	296.0	712.4	1387.2	1543.5	1576.5
20°	277.4	766.6	1419.8	1554.1	1574.9
22.5°	260.3	807.2	1443.0	1544.8	1567.2
25°	236.6	853.0	1464.4	1528.7	1543.9
27.5°	213.7	865.0	1455.1	1497.3	1512.1
30°	199.8	861.6	1441.1	1472.6	1493.5
32.5°	187.4	852.3	1420.9	1451.4	1496.6
35°	168.7	823.0	1386.8	1435.2	1518.7
37.5°	152.8	776.0	1341.8	1441.0	1521.4
40°	143.5	740.9	1309.2	1440.7	1509.0
42.5°	134.2	699.7	1272.0	1425.2	1493.5
45°	122.2	630.4	1214.2	1394.1	1458.6
47.5°	110.9	552.4	1160.6	1351.0	1398.0
50°	104.7	499.2	1124.9	1312.0	1349.9
52.5°	98.5	447.5	1089.3	1265.4	1300.3
55°	91.2	375.6	1029.9	1183.8	1214.2
57.5°	84.6	314.0	962.4	1093.7	1118.4
60°	81.5	280.6	909.7	1028.5	1053.2
62.5°	76.8	250.1	850.7	960.2	983.4
65°	71.8	212.1	758.4	849.9	865.0
67.5°	64.8	183.9	660.2	716.2	687.8
70°	60.1	170.1	593.5	611.0	529.5
72.5°	57.0	154.9	520.6	474.4	320.0
75°	50.4	130.1	403.4	217.3	221.1
77.5°	41.1	100.7	265.3	166.9	170.3
80°	34.9	82.3	139.6	135.8	137.7
82.5°	28.7	64.0	96.2	100.0	97.4
85°	17.5	38.3	48.5	32.9	29.1
87.5°	6.2	14.0	8.4	8.4	8.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1



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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	15.00	16.08	15.79	16.90	17.90	23.74	24.81	24.53	25.63	26.63
	3H	15.75	16.72	16.55	17.54	18.57	25.38	26.35	26.18	27.17	28.20
	4H	16.06	16.97	16.88	17.81	18.85	25.57	26.48	26.39	27.32	28.36
	6H	16.29	17.13	17.12	17.97	19.03	25.66	26.51	26.50	27.35	28.41
	8H	16.35	17.16	17.19	18.02	19.07	25.67	26.48	26.52	27.34	28.40
	12H	16.39	17.15	17.23	18.01	19.09	25.65	26.42	26.50	27.28	28.36
4H	2H	19.43	20.34	20.25	21.18	22.22	24.21	25.12	25.03	25.96	27.00
	3H	20.38	21.14	21.22	22.01	23.07	26.05	26.82	26.89	27.68	28.74
	4H	20.67	21.37	21.52	22.23	23.32	26.30	27.00	27.15	27.86	28.95
	6H	20.82	21.42	21.68	22.31	23.40	26.46	27.06	27.33	27.95	29.04
	8H	20.84	21.41	21.71	22.29	23.39	26.49	27.05	27.36	27.94	29.04
	12H	20.85	21.35	21.74	22.26	23.36	26.47	26.98	27.37	27.88	28.99
8H	4H	21.87	22.43	22.74	23.31	24.41	26.44	27.00	27.31	27.88	28.99
	6H	22.11	22.58	23.01	23.50	24.61	26.65	27.12	27.55	28.04	29.15
	8H	22.19	22.60	23.10	23.52	24.64	26.72	27.13	27.63	28.05	29.17
	12H	22.23	22.59	23.14	23.50	24.67	26.72	27.08	27.63	27.99	29.17
12H	4H	21.90	22.40	22.79	23.30	24.41	26.40	26.91	27.29	27.81	28.92
	6H	22.21	22.62	23.12	23.54	24.66	26.64	27.05	27.55	27.97	29.09
	8H	22.33	22.69	23.24	23.60	24.77	26.72	27.08	27.63	27.99	29.16