

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: P853830

Luminaire Tested: SQ2-FB-025U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-025U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

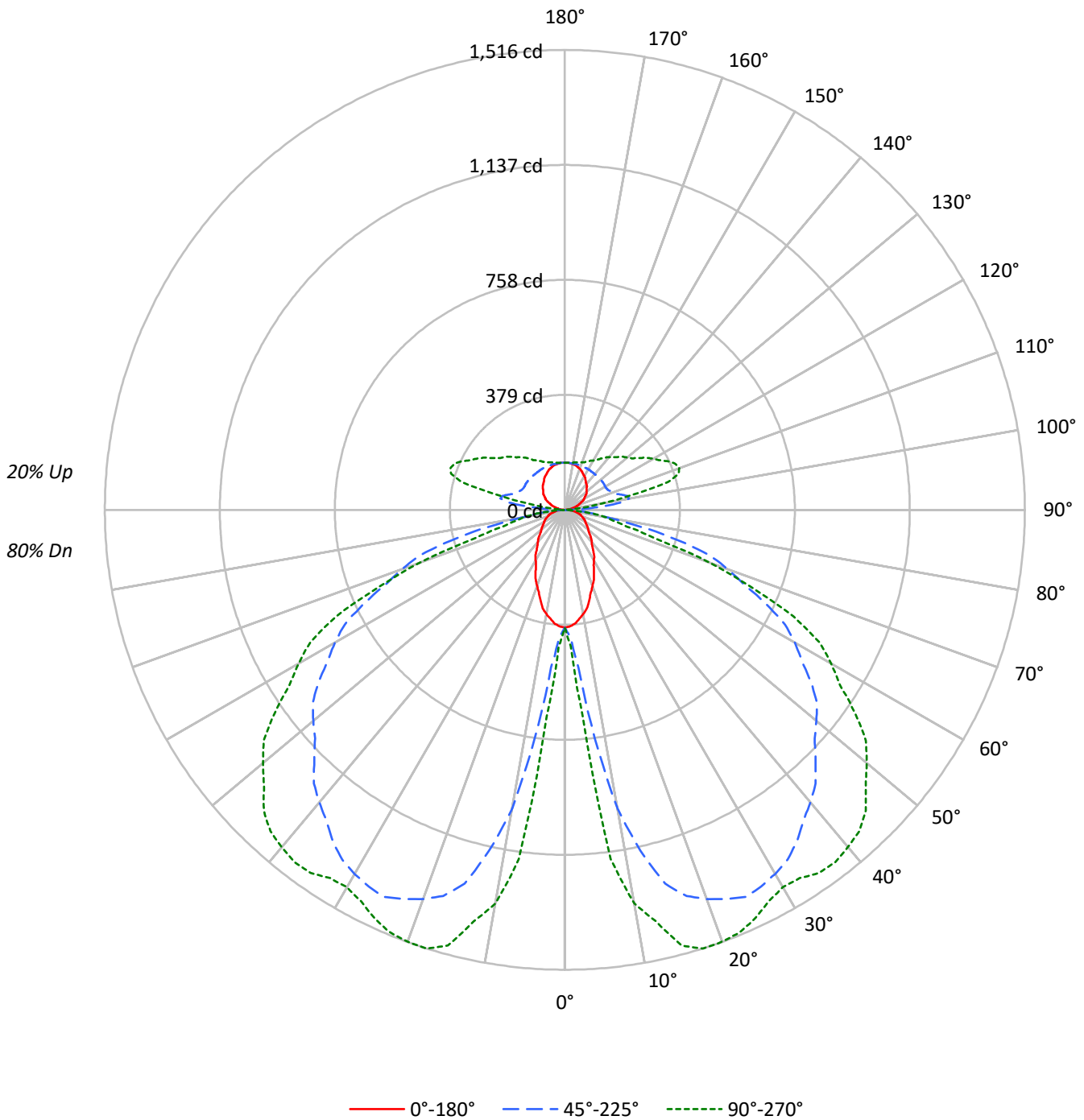
Lumens per Lamp: N/A
Luminaire Lumens: 4799.2 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	80				
1	104	100	95	92	99	95	92	88	87	85	82	80	78	76	74	72	70	67				
2	94	86	80	74	90	83	77	72	76	71	67	70	66	62	64	61	58	55				
3	86	75	67	61	82	72	65	59	66	60	55	61	56	52	56	52	49	46				
4	78	66	57	51	74	63	56	49	58	52	47	54	48	44	49	45	41	38				
5	71	59	50	43	68	56	48	42	52	45	40	48	42	37	44	39	35	33				
6	66	52	43	37	62	50	42	36	46	39	34	43	37	32	40	34	31	28				
7	60	47	38	32	58	45	37	31	42	35	30	39	33	28	36	31	27	24				
8	56	43	34	28	53	41	33	28	38	31	26	35	29	25	33	27	24	21				
9	52	39	31	25	50	37	30	24	35	28	23	32	26	22	30	25	21	19				
10	49	35	28	22	46	34	27	22	32	25	21	30	24	20	28	23	19	17				

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	1.4
10°-20°	296.7	6.2
20°-30°	522.1	10.9
30°-40°	675.8	14.1
40°-50°	745.3	15.5
50°-60°	695.9	14.5
60°-70°	537.9	11.2
70°-80°	248.1	5.2
80°-90°	47.7	1.0
90°-100°	62.9	1.3
100°-110°	195.6	4.1
110°-120°	191.4	4.0
120°-130°	156.3	3.3
130°-140°	127.8	2.7
140°-150°	99.8	2.1
150°-160°	72.0	1.5
160°-170°	44.0	0.9
170°-180°	14.8	0.3
0°-30°	883.8	18.4
0°-40°	1559.6	32.5
0°-60°	3000.8	62.5
0°-90°	3834.5	79.9
90°-120°	450.0	9.4
90°-150°	833.8	17.4
90°-180°	965.0	20.1
0°-180°	4799.2	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	1
95°	9	25	115	43	28	10
105°	34	48	193	368	351	36
115°	61	72	156	323	378	60
125°	85	94	154	254	298	75
135°	102	113	154	219	246	79
145°	119	128	154	189	206	75
155°	136	141	154	170	176	63
165°	150	151	155	160	162	42
175°	155	155	155	156	155	15
180°	155	155	155	155	155	



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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°	3.1	10.7	36.4	12.0	9.7
95°	8.6	25.4	115.4	42.6	27.7
97.5°	15.6	33.0	191.1	119.0	75.0
100°	21.0	36.8	215.5	201.6	134.5
102.5°	26.3	41.4	210.9	287.9	226.0
105°	34.3	48.3	192.6	367.7	350.9
107.5°	42.3	55.4	175.1	373.8	392.3
110°	47.7	60.7	165.9	365.1	401.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.0	65.3	161.3	349.3	395.4
115°	61.0	72.2	156.4	322.6	377.6
117.5°	68.8	79.1	154.3	297.1	353.4
120°	73.4	83.7	153.5	282.5	336.6
122.5°	78.0	88.3	154.3	270.2	319.8
125°	84.9	94.2	154.5	253.7	297.5
127.5°	90.4	99.9	154.5	241.3	278.6
130°	93.5	103.7	154.5	234.4	268.0
132.5°	97.3	107.5	153.7	228.2	259.6
135°	102.0	113.2	153.5	219.0	246.0
137.5°	107.6	117.8	153.5	209.8	234.4
140°	110.6	120.9	153.5	203.6	226.0
142.5°	114.4	123.9	153.5	197.5	217.6
145°	119.2	128.5	153.5	189.2	206.0
147.5°	124.9	132.9	154.5	181.5	194.7
150°	128.7	135.3	154.5	177.6	187.9
152.5°	131.8	137.6	154.5	173.8	182.5
155°	136.4	141.0	154.5	169.9	175.5
157.5°	140.9	144.5	154.5	166.4	169.9
160°	144.0	146.8	154.5	164.1	166.9
162.5°	146.3	148.3	154.5	162.5	164.6
165°	149.7	150.6	155.4	160.2	162.1
167.5°	151.8	152.0	154.5	158.9	159.8
170°	152.6	153.5	154.5	157.4	158.3
172.5°	154.1	154.3	155.2	156.6	156.8
175°	155.4	155.4	155.4	156.4	155.4
177.5°	155.4	155.4	155.4	155.4	155.4
180°	155.4	155.4	155.4	155.4	155.4



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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	15.81	17.08	16.45	17.74	18.51	24.55	25.81	25.19	26.48	27.24
	3H	16.57	17.71	17.23	18.38	19.19	26.20	27.34	26.86	28.01	28.81
	4H	16.89	17.97	17.57	18.65	19.46	26.40	27.47	27.08	28.16	28.97
	6H	17.13	18.12	17.82	18.82	19.65	26.51	27.50	27.20	28.20	29.02
	8H	17.20	18.15	17.90	18.86	19.69	26.52	27.47	27.23	28.19	29.02
	12H	17.24	18.15	17.95	18.86	19.72	26.51	27.41	27.22	28.12	28.98
4H	2H	20.26	21.33	20.94	22.02	22.83	25.04	26.11	25.72	26.80	27.61
	3H	21.23	22.13	21.92	22.85	23.68	26.90	27.80	27.60	28.52	29.36
	4H	21.53	22.35	22.24	23.07	23.93	27.16	27.97	27.87	28.70	29.56
	6H	21.69	22.39	22.42	23.14	24.02	27.33	28.04	28.06	28.79	29.66
	8H	21.72	22.38	22.45	23.13	24.01	27.37	28.02	28.10	28.77	29.66
	12H	21.73	22.32	22.49	23.10	23.99	27.36	27.95	28.12	28.72	29.61
8H	4H	22.74	23.40	23.48	24.15	25.03	27.31	27.97	28.05	28.72	29.60
	6H	23.00	23.54	23.76	24.33	25.22	27.54	28.08	28.30	28.87	29.76
	8H	23.07	23.56	23.85	24.35	25.25	27.60	28.09	28.38	28.88	29.78
	12H	23.12	23.55	23.90	24.33	25.29	27.62	28.04	28.40	28.82	29.79
12H	4H	22.78	23.37	23.54	24.14	25.03	27.28	27.88	28.04	28.65	29.54
	6H	23.10	23.58	23.88	24.37	25.28	27.52	28.01	28.30	28.80	29.70
	8H	23.22	23.65	24.00	24.43	25.39	27.61	28.04	28.39	28.82	29.78