

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: P853832

Luminaire Tested: SQ2-FB-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853832
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-940-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

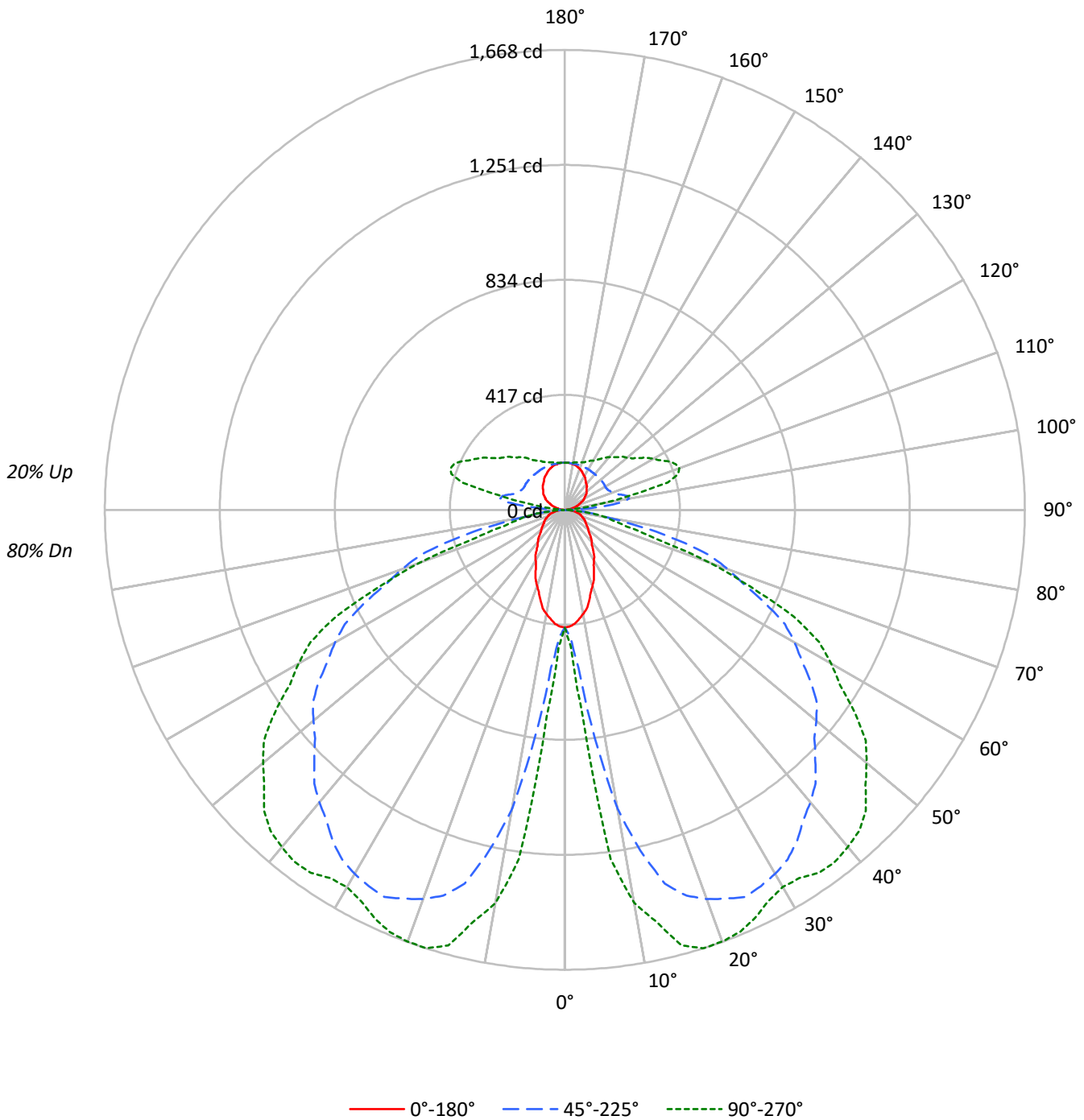
Lumens per Lamp: N/A
Luminaire Lumens: 5278.1 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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																	
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	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°	6889	6889	6889
5°	6716	9310	12203
10°	6291	18029	23746
15°	5693	23457	27331
20°	5041	25804	28624
25°	4459	27595	29094
30°	3939	28418	29451
35°	3518	28913	31663
40°	3199	29187	33641
45°	2952	29325	35228
50°	2783	29888	35867
55°	2714	30666	36152
60°	2784	31071	35973
65°	2900	30647	34957
70°	3002	29637	26441
75°	3325	26619	14591
80°	3431	13733	13547
85°	3427	9503	5706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 36479 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	1.4
10°-20°	326.3	6.2
20°-30°	574.2	10.9
30°-40°	743.2	14.1
40°-50°	819.7	15.5
50°-60°	765.3	14.5
60°-70°	591.5	11.2
70°-80°	272.9	5.2
80°-90°	52.5	1.0
90°-100°	69.2	1.3
100°-110°	215.2	4.1
110°-120°	210.5	4.0
120°-130°	171.8	3.3
130°-140°	140.6	2.7
140°-150°	109.7	2.1
150°-160°	79.2	1.5
160°-170°	48.4	0.9
170°-180°	16.3	0.3
0°-30°	972.0	18.4
0°-40°	1715.2	32.5
0°-60°	3300.3	62.5
0°-90°	4217.2	79.9
90°-120°	494.8	9.4
90°-150°	917.0	17.4
90°-180°	1061.0	20.1
0°-180°	5278.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	414	475	574	701	753	38
15°	341	672	1403	1571	1635	95
25°	250	902	1549	1617	1633	115
35°	178	871	1467	1518	1606	112
45°	129	667	1284	1475	1543	100
55°	96	397	1089	1252	1284	87
65°	76	224	802	899	915	74
75°	53	138	427	230	234	55
85°	18	40	51	35	31	19
90°	0	1	3	3	3	1
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.7	426.7	426.7	426.7	426.7
2.5°	423.5	441.1	461.2	484.4	494.0
5°	414.4	474.6	574.4	700.8	752.9
7.5°	398.4	520.8	835.4	1173.4	1277.7
10°	383.7	554.2	1099.7	1392.3	1448.4
12.5°	367.2	598.7	1265.4	1471.1	1528.9
15°	340.6	671.6	1403.3	1570.9	1635.1
17.5°	313.1	753.6	1467.3	1632.6	1667.5
20°	293.4	810.9	1501.8	1643.8	1665.9
22.5°	275.3	853.9	1526.4	1634.0	1657.7
25°	250.3	902.3	1549.0	1617.0	1633.1
27.5°	226.1	915.0	1539.1	1583.8	1599.4
30°	211.3	911.4	1524.3	1557.7	1579.7
32.5°	198.2	901.5	1503.0	1535.3	1583.0
35°	178.5	870.6	1466.9	1518.1	1606.4
37.5°	161.7	820.8	1419.3	1524.2	1609.3
40°	151.8	783.7	1384.8	1523.9	1596.1
42.5°	142.0	740.2	1345.4	1507.5	1579.7
45°	129.3	666.9	1284.3	1474.6	1542.8
47.5°	117.4	584.4	1227.7	1429.0	1478.8
50°	110.8	528.0	1189.9	1387.8	1427.9
52.5°	104.2	473.3	1152.2	1338.5	1375.4
55°	96.4	397.3	1089.4	1252.2	1284.3
57.5°	89.5	332.2	1018.0	1156.9	1183.0
60°	86.2	296.8	962.2	1087.9	1114.0
62.5°	81.2	264.6	899.8	1015.7	1040.2
65°	75.9	224.4	802.2	899.0	915.0
67.5°	68.5	194.5	698.4	757.6	727.5
70°	63.6	179.9	627.8	646.3	560.1
72.5°	60.3	163.8	550.7	501.8	338.5
75°	53.3	137.6	426.7	229.9	233.9
77.5°	43.5	106.5	280.7	176.5	180.1
80°	36.9	87.1	147.7	143.7	145.7
82.5°	30.4	67.7	101.8	105.8	103.0
85°	18.5	40.5	51.3	34.8	30.8
87.5°	6.6	14.8	8.8	8.8	8.8
90°	0.0	1.0	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9



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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	16.14	17.41	16.78	18.07	18.84	24.88	26.14	25.52	26.81	27.57
	3H	16.90	18.04	17.56	18.71	19.52	26.53	27.67	27.19	28.34	29.14
	4H	17.22	18.30	17.90	18.98	19.79	26.73	27.81	27.41	28.49	29.30
	6H	17.46	18.45	18.15	19.15	19.98	26.84	27.83	27.53	28.53	29.35
	8H	17.53	18.48	18.23	19.19	20.02	26.85	27.80	27.56	28.52	29.35
	12H	17.57	18.48	18.28	19.19	20.05	26.84	27.74	27.55	28.45	29.31
4H	2H	20.59	21.66	21.27	22.35	23.16	25.37	26.44	26.05	27.13	27.94
	3H	21.56	22.46	22.26	23.18	24.01	27.23	28.13	27.93	28.85	29.69
	4H	21.86	22.68	22.57	23.40	24.26	27.49	28.30	28.20	29.03	29.89
	6H	22.02	22.72	22.75	23.47	24.35	27.66	28.37	28.39	29.12	29.99
	8H	22.05	22.71	22.79	23.46	24.34	27.70	28.36	28.43	29.10	29.99
	12H	22.06	22.65	22.82	23.43	24.32	27.69	28.28	28.45	29.05	29.94
8H	4H	23.07	23.73	23.81	24.48	25.36	27.64	28.30	28.38	29.05	29.93
	6H	23.33	23.87	24.09	24.66	25.55	27.87	28.41	28.63	29.20	30.09
	8H	23.40	23.89	24.18	24.68	25.58	27.93	28.42	28.71	29.21	30.11
	12H	23.45	23.88	24.23	24.66	25.62	27.95	28.37	28.73	29.15	30.12
12H	4H	23.11	23.70	23.87	24.47	25.36	27.61	28.21	28.37	28.98	29.87
	6H	23.43	23.91	24.21	24.70	25.61	27.85	28.34	28.63	29.13	30.03
	8H	23.55	23.98	24.33	24.76	25.72	27.94	28.37	28.72	29.15	30.11