

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: P853839

Luminaire Tested: SQ2-FB-050U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853839
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-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

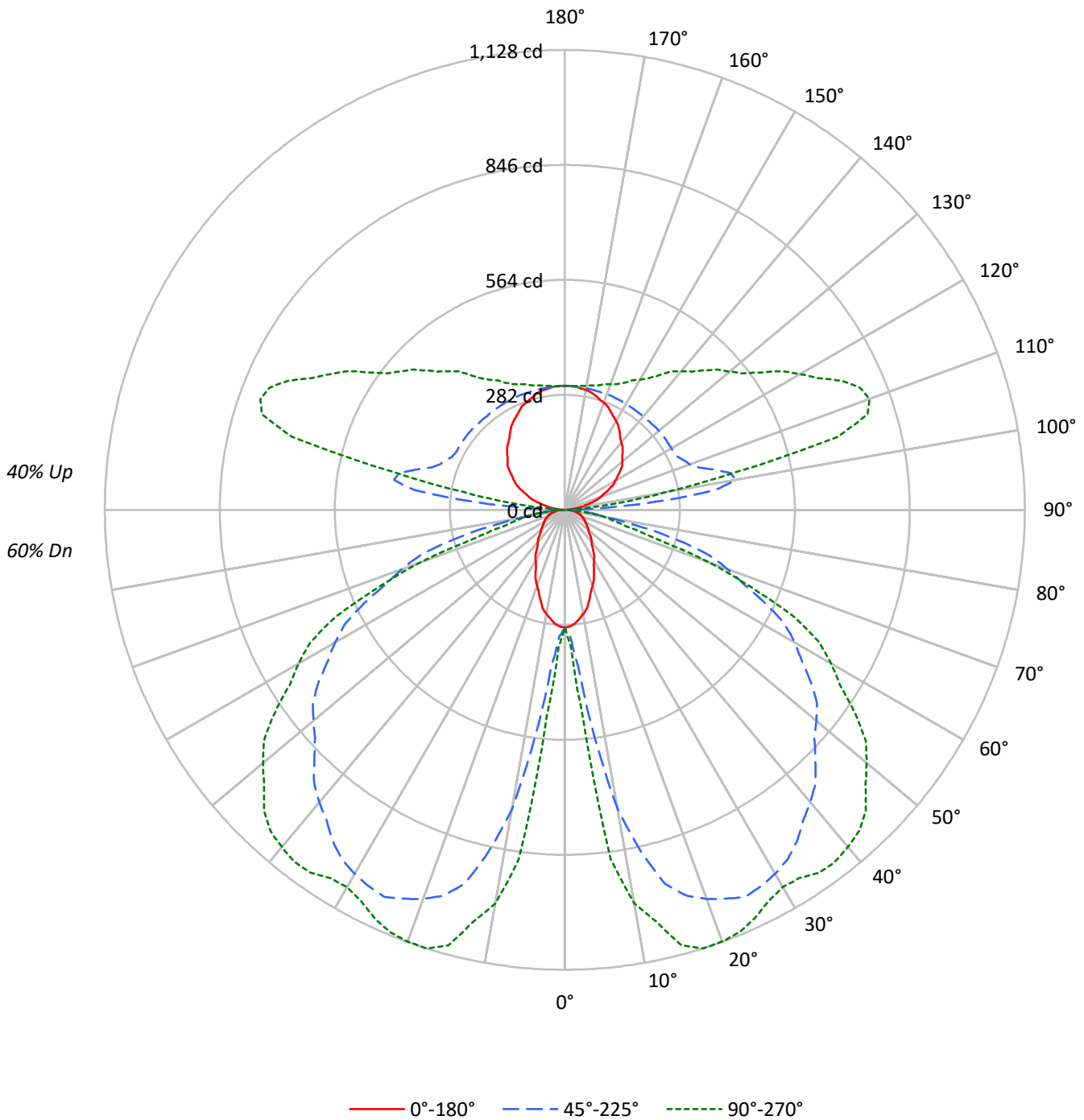
Lumens per Lamp: N/A
Luminaire Lumens: 4742.6 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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

TEST NUMBER: P853839

CATALOG NUMBER: SQ2-FB-050U-075D-930-UNV-STD-W-4

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	0
RCR																		
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	100	95	91	88	93	89	86	83	78	75	73	67	65	64	58	56	55	50
2	91	83	76	71	84	78	72	67	68	63	60	59	55	52	50	48	46	41
3	82	72	65	58	76	68	61	55	59	54	49	51	47	44	44	41	38	34
4	75	64	55	49	70	60	52	46	52	46	42	45	41	37	39	35	32	29
5	69	56	48	41	64	53	45	39	46	40	35	40	35	31	34	31	28	25
6	63	50	42	36	58	47	39	34	41	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	42	35	29	37	31	27	33	27	24	28	24	21	18
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4660	4660	4660
5°	4543	6297	8253
10°	4254	12193	16060
15°	3850	15863	18484
20°	3409	17450	19357
25°	3016	18661	19675
30°	2664	19220	19919
35°	2379	19553	21413
40°	2165	19739	22753
45°	1996	19833	23825
50°	1881	20213	24257
55°	1835	20738	24451
60°	1883	21012	24329
65°	1960	20726	23641
70°	2030	20044	17882
75°	2252	18004	9869
80°	2325	9289	9159
85°	2316	6428	3853

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 24671 cd/sqm



TEST NUMBER: P853839

CATALOG NUMBER: SQ2-FB-050U-075D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.0
10°-20°	220.7	4.7
20°-30°	388.3	8.2
30°-40°	502.6	10.6
40°-50°	554.4	11.7
50°-60°	517.6	10.9
60°-70°	400.0	8.4
70°-80°	184.5	3.9
80°-90°	35.6	0.8
90°-100°	121.3	2.6
100°-110°	384.6	8.1
110°-120°	377.1	8.0
120°-130°	306.9	6.5
130°-140°	250.2	5.3
140°-150°	195.1	4.1
150°-160°	140.6	3.0
160°-170°	85.9	1.8
170°-180°	29.0	0.6
0°-30°	657.4	13.9
0°-40°	1160.0	24.5
0°-60°	2231.9	47.1
0°-90°	2852.1	60.1
90°-120°	883.0	18.6
90°-150°	1635.1	34.5
90°-180°	1891.0	39.9
0°-180°	4742.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	280	321	388	474	509	26
15°	230	454	949	1062	1106	64
25°	169	610	1048	1094	1104	78
35°	121	589	992	1027	1086	76
45°	87	451	869	997	1043	68
55°	65	269	737	847	869	59
65°	51	152	542	608	619	50
75°	36	93	289	156	158	37
85°	12	27	35	24	21	13
90°	0	1	3	3	3	1
95°	16	49	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	



TEST NUMBER: P853839

CATALOG NUMBER: SQ2-FB-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	288.6	288.6	288.6	288.6	288.6
2.5°	286.4	298.3	311.9	327.6	334.1
5°	280.3	321.0	388.5	473.9	509.2
7.5°	269.4	352.2	565.0	793.6	864.1
10°	259.5	374.8	743.7	941.6	979.6
12.5°	248.4	404.9	855.8	994.9	1033.9
15°	230.3	454.2	949.0	1062.4	1105.8
17.5°	211.7	509.6	992.3	1104.1	1127.7
20°	198.4	548.4	1015.6	1111.7	1126.6
22.5°	186.2	577.5	1032.3	1105.1	1121.1
25°	169.3	610.2	1047.5	1093.6	1104.4
27.5°	152.9	618.8	1040.9	1071.1	1081.7
30°	142.9	616.4	1030.9	1053.4	1068.4
32.5°	134.0	609.7	1016.5	1038.3	1070.6
35°	120.7	588.7	992.0	1026.7	1086.4
37.5°	109.3	555.1	959.9	1030.8	1088.3
40°	102.7	530.0	936.5	1030.6	1079.5
42.5°	96.0	500.6	909.9	1019.5	1068.4
45°	87.4	451.0	868.6	997.3	1043.4
47.5°	79.4	395.2	830.3	966.4	1000.1
50°	74.9	357.1	804.7	938.5	965.7
52.5°	70.5	320.1	779.2	905.2	930.2
55°	65.2	268.7	736.7	846.8	868.6
57.5°	60.5	224.6	688.5	782.4	800.0
60°	58.3	200.7	650.7	735.8	753.4
62.5°	54.9	178.9	608.5	686.9	703.4
65°	51.3	151.7	542.5	608.0	618.8
67.5°	46.3	131.5	472.3	512.3	492.0
70°	43.0	121.7	424.6	437.1	378.8
72.5°	40.8	110.8	372.4	339.4	228.9
75°	36.1	93.1	288.6	155.5	158.2
77.5°	29.4	72.0	189.8	119.4	121.8
80°	25.0	58.9	99.9	97.2	98.5
82.5°	20.5	45.8	68.8	71.6	69.7
85°	12.5	27.4	34.7	23.5	20.8
87.5°	4.4	10.1	6.1	6.1	6.1
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



TEST NUMBER: P853839

CATALOG NUMBER: SQ2-FB-050U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4



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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	13.29	14.28	14.14	15.17	16.28	22.02	23.02	22.88	23.90	25.02
	3H	14.03	14.92	14.90	15.81	16.96	23.66	24.55	24.53	25.44	26.59
	4H	14.33	15.18	15.22	16.08	17.23	23.84	24.69	24.73	25.59	26.74
	6H	14.56	15.34	15.46	16.24	17.41	23.94	24.71	24.84	25.62	26.79
	8H	14.62	15.36	15.53	16.29	17.45	23.94	24.69	24.85	25.61	26.78
	12H	14.65	15.36	15.57	16.28	17.47	23.92	24.63	24.83	25.55	26.74
4H	2H	17.70	18.55	18.59	19.45	20.60	22.48	23.33	23.37	24.23	25.38
	3H	18.65	19.35	19.55	20.28	21.45	24.32	25.03	25.23	25.96	27.13
	4H	18.94	19.58	19.85	20.51	21.70	24.57	25.21	25.48	26.13	27.33
	6H	19.08	19.63	20.01	20.58	21.78	24.72	25.27	25.65	26.22	27.42
	8H	19.10	19.62	20.04	20.56	21.77	24.75	25.26	25.68	26.21	27.42
	12H	19.10	19.57	20.05	20.53	21.74	24.73	25.19	25.68	26.16	27.37
8H	4H	20.12	20.64	21.06	21.59	22.80	24.70	25.21	25.63	26.16	27.37
	6H	20.37	20.79	21.33	21.78	22.99	24.91	25.33	25.87	26.32	27.53
	8H	20.44	20.82	21.41	21.79	23.02	24.97	25.35	25.94	26.32	27.55
	12H	20.47	20.80	21.45	21.78	23.05	24.97	25.30	25.94	26.27	27.54
12H	4H	20.15	20.61	21.10	21.58	22.79	24.65	25.12	25.61	26.08	27.30
	6H	20.46	20.84	21.43	21.82	23.04	24.89	25.27	25.86	26.25	27.47
	8H	20.57	20.91	21.55	21.88	23.15	24.97	25.30	25.94	26.27	27.54