

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: P853827

Luminaire Tested: SQ2-FB-025U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853827
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-075D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

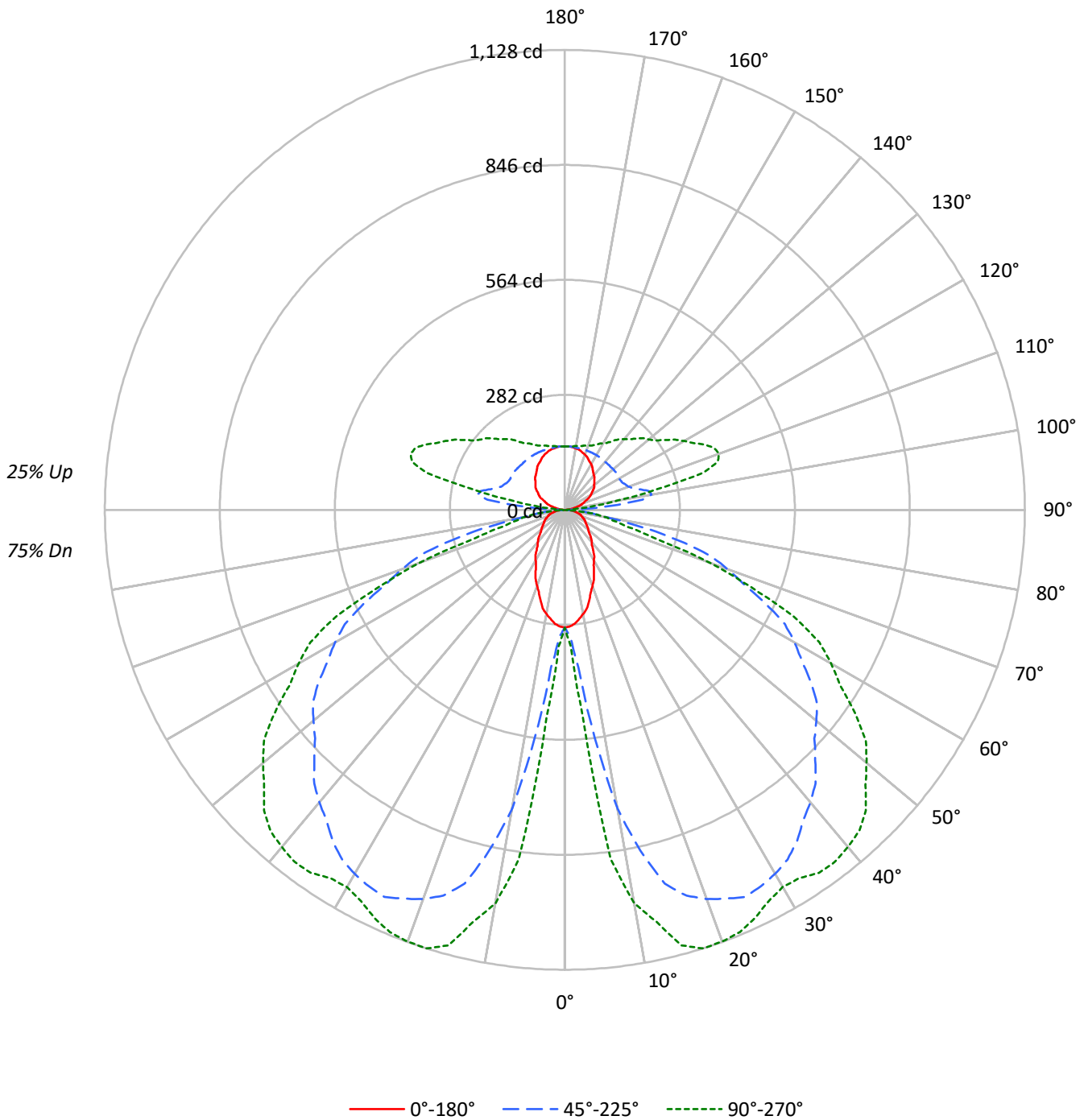
Lumens per Lamp: N/A
Luminaire Lumens: 3819.2 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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	0
RCR																		
0	113	113	113	113	107	107	107	107	97	97	97	88	88	88	79	79	79	75
1	103	98	94	91	98	94	90	87	85	82	79	77	75	73	69	68	66	62
2	93	85	79	73	88	81	75	70	74	69	65	67	63	60	60	57	55	51
3	85	74	66	60	80	71	64	58	64	59	54	58	54	50	53	49	46	43
4	77	65	57	50	73	62	55	49	57	50	45	52	46	42	47	42	39	36
5	71	58	49	43	67	55	47	41	50	44	39	46	40	36	42	37	33	30
6	65	52	43	37	61	49	41	35	45	38	33	41	35	31	37	33	29	26
7	60	47	38	32	57	45	37	31	41	34	29	37	31	27	34	29	25	23
8	55	42	34	28	52	40	33	27	37	30	25	34	28	24	31	26	22	20
9	51	38	30	25	49	37	29	24	34	27	23	31	25	21	28	23	20	18
10	48	35	27	22	46	34	26	21	31	25	20	28	23	19	26	21	18	16

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

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	1.3
10°-20°	220.7	5.8
20°-30°	388.3	10.2
30°-40°	502.6	13.2
40°-50°	554.4	14.5
50°-60°	517.6	13.6
60°-70°	400.0	10.5
70°-80°	184.5	4.8
80°-90°	35.6	0.9
90°-100°	63.1	1.7
100°-110°	196.1	5.1
110°-120°	191.9	5.0
120°-130°	156.6	4.1
130°-140°	128.2	3.4
140°-150°	100.0	2.6
150°-160°	72.2	1.9
160°-170°	44.1	1.2
170°-180°	14.9	0.4
0°-30°	657.4	17.2
0°-40°	1160.0	30.4
0°-60°	2231.9	58.4
0°-90°	2852.1	74.7
90°-120°	451.1	11.8
90°-150°	835.9	21.9
90°-180°	967.0	25.3
0°-180°	3819.2	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°	9	25	116	43	28	10
105°	34	48	193	369	352	36
115°	61	72	157	323	379	60
125°	85	94	155	254	298	76
135°	102	114	154	220	247	79
145°	120	129	154	190	206	75
155°	137	141	155	170	176	63
165°	150	151	156	161	162	42
175°	156	156	156	157	156	15
180°	156	156	156	156	156	



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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°	3.1	10.7	36.5	12.0	9.8
95°	8.6	25.4	115.7	42.7	27.7
97.5°	15.7	33.1	191.6	119.3	75.1
100°	21.0	36.9	216.0	202.1	134.8
102.5°	26.4	41.5	211.5	288.6	226.6
105°	34.4	48.4	193.1	368.6	351.8
107.5°	42.4	55.5	175.5	374.8	393.3
110°	47.8	60.9	166.3	366.0	402.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.2	65.5	161.7	350.2	396.3
115°	61.2	72.4	156.8	323.4	378.6
117.5°	69.0	79.3	154.7	297.8	354.3
120°	73.6	83.9	153.9	283.2	337.5
122.5°	78.2	88.5	154.7	270.9	320.6
125°	85.1	94.4	154.9	254.3	298.3
127.5°	90.6	100.2	154.9	241.9	279.3
130°	93.7	104.0	154.9	235.0	268.6
132.5°	97.5	107.8	154.1	228.8	260.2
135°	102.3	113.5	153.9	219.5	246.6
137.5°	107.8	118.1	153.9	210.3	235.0
140°	110.9	121.2	153.9	204.1	226.6
142.5°	114.7	124.3	153.9	198.0	218.2
145°	119.5	128.8	153.9	189.7	206.5
147.5°	125.2	133.3	154.9	181.9	195.2
150°	129.1	135.6	154.9	178.0	188.3
152.5°	132.1	137.9	154.9	174.2	183.0
155°	136.7	141.4	154.9	170.3	175.9
157.5°	141.3	144.8	154.9	166.8	170.4
160°	144.4	147.2	154.9	164.5	167.3
162.5°	146.6	148.7	154.9	162.9	165.0
165°	150.1	151.0	155.8	160.6	162.5
167.5°	152.2	152.4	154.9	159.3	160.2
170°	153.0	153.9	154.9	157.8	158.7
172.5°	154.5	154.7	155.6	157.0	157.2
175°	155.8	155.8	155.8	156.8	155.8
177.5°	155.8	155.8	155.8	155.8	155.8
180°	155.8	155.8	155.8	155.8	155.8



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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	14.40	15.59	15.11	16.32	17.19	23.14	24.33	23.85	25.06	25.92
	3H	15.16	16.23	15.88	16.97	17.86	24.79	25.85	25.51	26.59	27.49
	4H	15.48	16.48	16.21	17.23	18.14	24.99	25.99	25.72	26.74	27.65
	6H	15.71	16.64	16.46	17.40	18.32	25.09	26.02	25.84	26.78	27.70
	8H	15.78	16.66	16.54	17.44	18.37	25.10	25.99	25.86	26.77	27.69
	12H	15.82	16.66	16.59	17.44	18.39	25.08	25.93	25.85	26.70	27.66
4H	2H	18.84	19.85	19.59	20.60	21.51	23.62	24.63	24.37	25.38	26.29
	3H	19.81	20.65	20.56	21.43	22.36	25.48	26.32	26.24	27.11	28.03
	4H	20.11	20.87	20.88	21.65	22.61	25.73	26.50	26.51	27.28	28.24
	6H	20.26	20.92	21.05	21.73	22.69	25.90	26.56	26.69	27.37	28.33
	8H	20.29	20.90	21.08	21.71	22.69	25.93	26.55	26.73	27.36	28.33
	12H	20.29	20.85	21.11	21.68	22.66	25.92	26.48	26.74	27.31	28.29
8H	4H	21.31	21.93	22.10	22.73	23.71	25.88	26.50	26.67	27.30	28.28
	6H	21.56	22.07	22.38	22.92	23.90	26.10	26.61	26.92	27.46	28.44
	8H	21.64	22.09	22.47	22.94	23.93	26.17	26.62	27.00	27.47	28.46
	12H	21.68	22.08	22.52	22.91	23.97	26.17	26.57	27.01	27.41	28.46
12H	4H	21.34	21.90	22.16	22.73	23.71	25.85	26.40	26.66	27.23	28.21
	6H	21.66	22.11	22.49	22.96	23.95	26.09	26.54	26.92	27.39	28.38
	8H	21.78	22.18	22.62	23.02	24.07	26.17	26.57	27.01	27.41	28.46