

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: P853828

Luminaire Tested: SQ2-FB-025U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853828
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-935-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

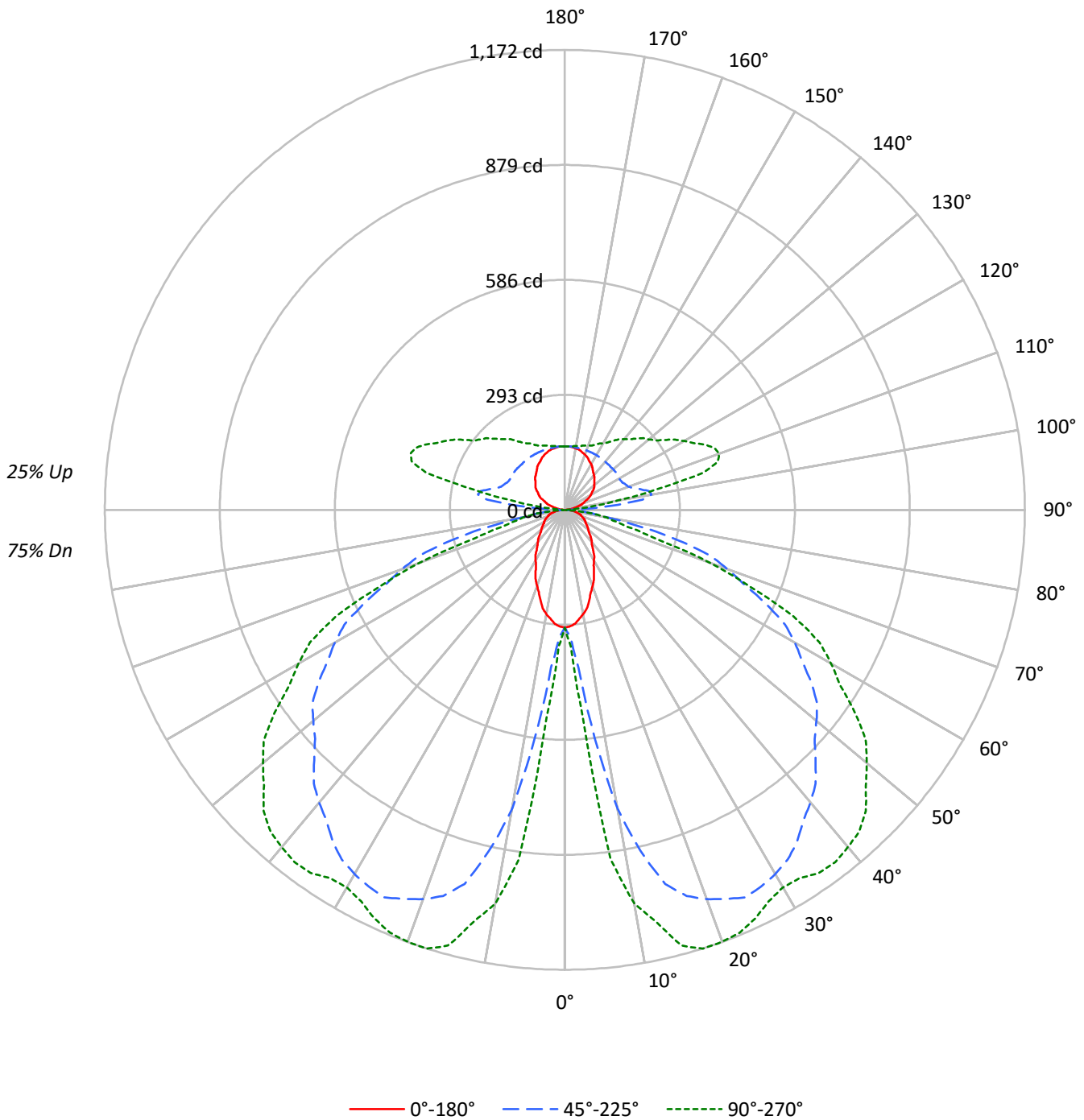
Lumens per Lamp: N/A
Luminaire Lumens: 3970.9 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	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°	4845	4845	4845
5°	4723	6546	8580
10°	4423	12677	16698
15°	4003	16493	19218
20°	3545	18144	20127
25°	3135	19402	20457
30°	2770	19982	20709
35°	2474	20329	22263
40°	2251	20523	23655
45°	2076	20621	24770
50°	1957	21017	25219
55°	1909	21562	25422
60°	1957	21849	25294
65°	2040	21547	24581
70°	2110	20837	18590
75°	2339	18721	10262
80°	2417	9661	9521
85°	2408	6688	4001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 25650 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.3	1.3
10°-20°	229.5	5.8
20°-30°	403.7	10.2
30°-40°	522.6	13.2
40°-50°	576.4	14.5
50°-60°	538.2	13.6
60°-70°	415.9	10.5
70°-80°	191.8	4.8
80°-90°	37.0	0.9
90°-100°	65.6	1.7
100°-110°	203.9	5.1
110°-120°	199.5	5.0
120°-130°	162.9	4.1
130°-140°	133.2	3.4
140°-150°	104.0	2.6
150°-160°	75.0	1.9
160°-170°	45.9	1.2
170°-180°	15.5	0.4
0°-30°	683.5	17.2
0°-40°	1206.1	30.4
0°-60°	2320.6	58.4
0°-90°	2965.4	74.7
90°-120°	469.0	11.8
90°-150°	869.1	21.9
90°-180°	1006.0	25.3
0°-180°	3970.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	291	334	404	493	529	27
15°	240	472	987	1105	1150	67
25°	176	634	1089	1137	1148	81
35°	126	612	1031	1068	1130	79
45°	91	469	903	1037	1085	70
55°	68	279	766	880	903	61
65°	53	158	564	632	643	52
75°	38	97	300	162	164	38
85°	13	28	36	24	22	14
90°	0	1	3	3	3	1
95°	9	26	120	44	29	10
105°	36	50	201	383	366	38
115°	64	75	163	336	394	63
125°	88	98	161	264	310	79
135°	106	118	160	228	256	82
145°	124	134	160	197	215	78
155°	142	147	161	177	183	66
165°	156	157	162	167	169	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	300.1	300.1	300.1	300.1	300.1
2.5°	297.7	310.2	324.3	340.6	347.4
5°	291.4	333.7	403.9	492.8	529.4
7.5°	280.1	366.2	587.4	825.1	898.4
10°	269.8	389.7	773.2	979.0	1018.5
12.5°	258.2	421.0	889.8	1034.4	1075.0
15°	239.5	472.2	986.7	1104.6	1149.7
17.5°	220.1	529.9	1031.7	1148.0	1172.5
20°	206.3	570.2	1056.0	1155.9	1171.4
22.5°	193.6	600.4	1073.3	1149.0	1165.6
25°	176.0	634.4	1089.1	1137.0	1148.3
27.5°	159.0	643.3	1082.2	1113.6	1124.6
30°	148.6	640.9	1071.8	1095.3	1110.8
32.5°	139.4	633.9	1056.8	1079.5	1113.1
35°	125.5	612.1	1031.4	1067.5	1129.5
37.5°	113.7	577.2	998.0	1071.8	1131.6
40°	106.8	551.1	973.7	1071.5	1122.3
42.5°	99.8	520.4	946.0	1060.0	1110.8
45°	90.9	468.9	903.1	1036.9	1084.8
47.5°	82.5	410.9	863.2	1004.8	1039.8
50°	77.9	371.3	836.7	975.8	1004.0
52.5°	73.3	332.8	810.2	941.2	967.1
55°	67.8	279.4	766.0	880.5	903.1
57.5°	62.9	233.6	715.8	813.5	831.8
60°	60.6	208.7	676.6	765.0	783.3
62.5°	57.1	186.0	632.7	714.2	731.4
65°	53.4	157.8	564.0	632.1	643.4
67.5°	48.2	136.8	491.1	532.7	511.5
70°	44.7	126.5	441.4	454.5	393.8
72.5°	42.4	115.2	387.2	352.8	238.0
75°	37.5	96.7	300.1	161.6	164.5
77.5°	30.6	74.9	197.3	124.1	126.7
80°	26.0	61.2	103.9	101.0	102.4
82.5°	21.4	47.6	71.6	74.4	72.4
85°	13.0	28.5	36.1	24.5	21.6
87.5°	4.6	10.5	6.4	6.4	6.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	38.0	12.5	10.1
95°	8.9	26.4	120.3	44.4	28.8
97.5°	16.3	34.4	199.2	124.0	78.1
100°	21.9	38.4	224.6	210.1	140.1
102.5°	27.4	43.2	219.9	300.1	235.6
105°	35.8	50.4	200.8	383.3	365.8
107.5°	44.1	57.7	182.5	389.7	408.9
110°	49.7	63.3	172.9	380.5	418.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	55.3	68.1	168.2	364.1	412.1
115°	63.6	75.3	163.0	336.3	393.6
117.5°	71.8	82.5	160.8	309.7	368.4
120°	76.5	87.2	160.0	294.5	350.9
122.5°	81.3	92.0	160.8	281.7	333.4
125°	88.5	98.2	161.0	264.4	310.1
127.5°	94.2	104.1	161.0	251.6	290.4
130°	97.4	108.1	161.0	244.3	279.3
132.5°	101.4	112.1	160.2	237.9	270.5
135°	106.4	118.0	160.0	228.3	256.4
137.5°	112.1	122.8	160.0	218.7	244.3
140°	115.3	126.0	160.0	212.2	235.6
142.5°	119.3	129.2	160.0	205.8	226.8
145°	124.2	134.0	160.0	197.2	214.7
147.5°	130.2	138.6	161.0	189.2	203.0
150°	134.2	141.0	161.0	185.1	195.8
152.5°	137.4	143.4	161.0	181.1	190.2
155°	142.1	147.0	161.0	177.1	182.9
157.5°	146.9	150.6	161.0	173.4	177.1
160°	150.1	153.0	161.0	171.0	173.9
162.5°	152.5	154.6	161.0	169.4	171.6
165°	156.0	157.0	162.0	167.0	169.0
167.5°	158.2	158.4	161.0	165.6	166.6
170°	159.0	160.0	161.0	164.0	165.0
172.5°	160.6	160.8	161.8	163.2	163.4
175°	162.0	162.0	162.0	163.0	162.0
177.5°	162.0	162.0	162.0	162.0	162.0
180°	162.0	162.0	162.0	162.0	162.0

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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	14.54	15.72	15.25	16.46	17.32	23.28	24.46	23.98	25.19	26.06
	3H	15.30	16.36	16.02	17.10	18.00	24.92	25.99	25.64	26.73	27.63
	4H	15.61	16.62	16.35	17.37	18.28	25.12	26.13	25.86	26.88	27.79
	6H	15.85	16.77	16.60	17.53	18.46	25.22	26.15	25.97	26.91	27.84
	8H	15.91	16.80	16.68	17.58	18.50	25.24	26.12	26.00	26.90	27.83
	12H	15.95	16.80	16.72	17.57	18.53	25.22	26.06	25.99	26.84	27.79
4H	2H	18.98	19.98	19.72	20.73	21.65	23.76	24.77	24.50	25.52	26.43
	3H	19.94	20.78	20.70	21.57	22.50	25.62	26.46	26.37	27.24	28.17
	4H	20.24	21.00	21.01	21.79	22.75	25.87	26.63	26.64	27.42	28.37
	6H	20.39	21.05	21.18	21.86	22.83	26.03	26.69	26.82	27.51	28.47
	8H	20.42	21.04	21.21	21.84	22.82	26.07	26.68	26.86	27.49	28.47
	12H	20.43	20.98	21.24	21.81	22.80	26.06	26.61	26.87	27.44	28.42
8H	4H	21.44	22.06	22.24	22.87	23.84	26.02	26.63	26.81	27.44	28.42
	6H	21.70	22.21	22.52	23.06	24.03	26.24	26.75	27.06	27.59	28.57
	8H	21.77	22.22	22.61	23.07	24.07	26.30	26.75	27.14	27.60	28.60
	12H	21.81	22.21	22.65	23.05	24.10	26.31	26.71	27.15	27.55	28.60
12H	4H	21.48	22.03	22.29	22.86	23.84	25.98	26.54	26.80	27.37	28.35
	6H	21.79	22.25	22.63	23.09	24.09	26.22	26.68	27.06	27.52	28.52
	8H	21.91	22.31	22.75	23.15	24.20	26.31	26.70	27.14	27.54	28.59