

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: P853834

Luminaire Tested: SQ2-FB-025U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853834
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-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

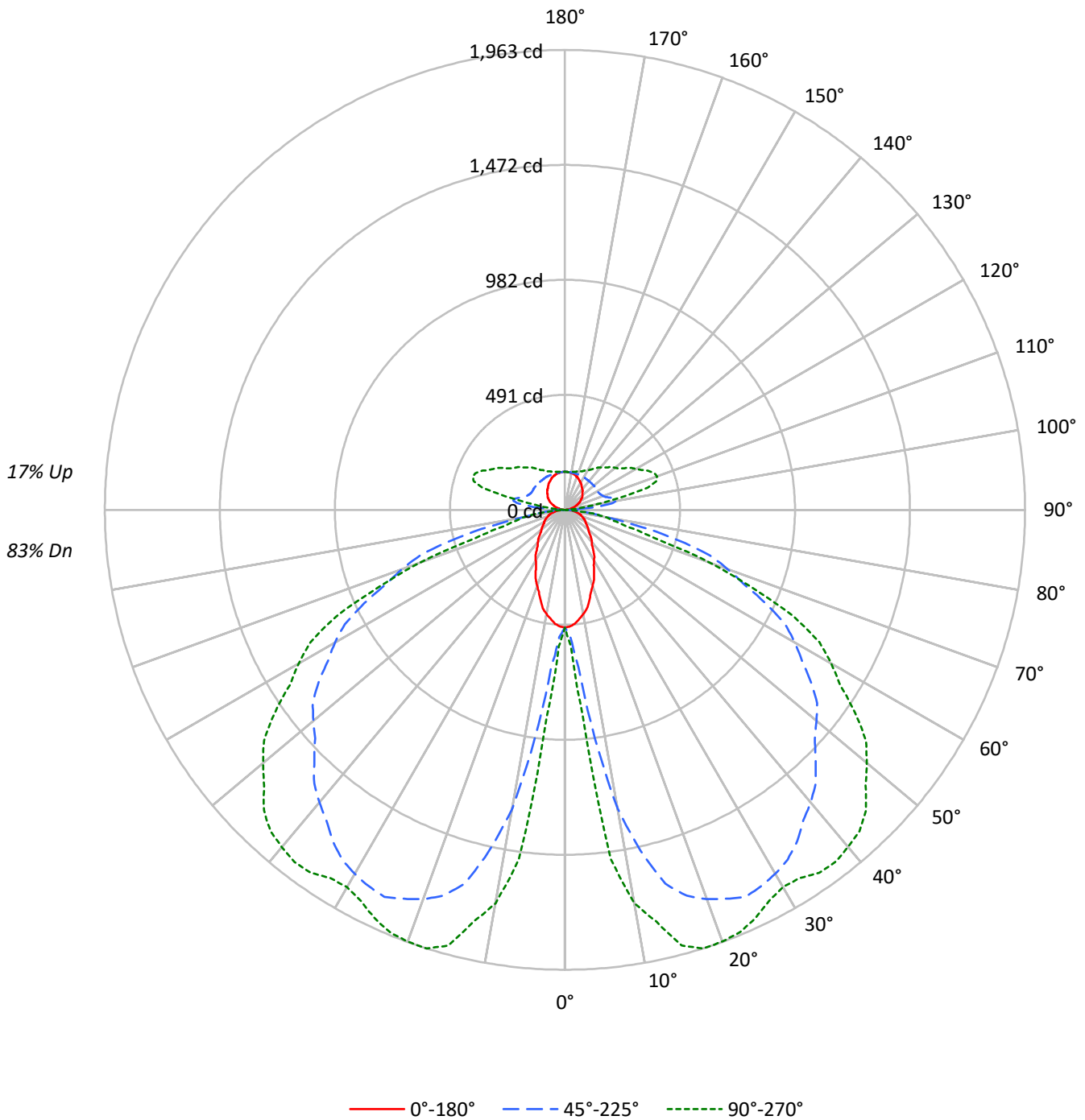
Lumens per Lamp: N/A
Luminaire Lumens: 5968.9 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 56.6
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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83				
1	105	100	96	92	101	96	93	89	89	86	83	82	80	78	76	74	73	69				
2	95	87	80	74	91	84	77	72	77	72	68	72	68	64	66	63	60	57				
3	86	76	68	61	82	73	66	60	68	61	56	63	58	53	58	54	50	47				
4	79	67	58	51	75	64	56	50	59	53	47	55	50	45	51	46	43	40				
5	72	59	50	43	69	57	49	42	53	46	40	49	43	38	46	41	36	34				
6	66	53	44	37	63	51	42	36	47	40	35	44	38	33	41	36	32	29				
7	61	47	39	32	58	46	38	32	43	36	30	40	34	29	37	32	28	25				
8	56	43	34	28	54	41	33	28	39	32	27	36	30	26	34	28	24	22				
9	52	39	31	25	50	38	30	25	35	29	24	33	27	23	31	26	22	20				
10	49	36	28	23	47	35	27	22	32	26	21	30	25	20	29	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8110	8110	8110
5°	7906	10960	14365
10°	7404	21223	27953
15°	6701	27612	32174
20°	5935	30374	33694
25°	5248	32484	34247
30°	4639	33454	34670
35°	4141	34036	37272
40°	3766	34360	39601
45°	3473	34520	41468
50°	3275	35183	42222
55°	3195	36099	42556
60°	3274	36577	42347
65°	3415	36076	41150
70°	3536	34886	31124
75°	3918	31335	17174
80°	4045	16169	15946
85°	4020	11189	6706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 42942 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.2	1.4
10°-20°	384.2	6.4
20°-30°	675.9	11.3
30°-40°	874.9	14.7
40°-50°	964.9	16.2
50°-60°	900.9	15.1
60°-70°	696.3	11.7
70°-80°	321.2	5.4
80°-90°	61.7	1.0
90°-100°	65.5	1.1
100°-110°	203.8	3.4
110°-120°	199.3	3.3
120°-130°	162.7	2.7
130°-140°	133.1	2.2
140°-150°	103.9	1.7
150°-160°	75.0	1.3
160°-170°	45.9	0.8
170°-180°	15.5	0.3
0°-30°	1144.2	19.2
0°-40°	2019.1	33.8
0°-60°	3885.0	65.1
0°-90°	4964.2	83.2
90°-120°	468.6	7.9
90°-150°	868.4	14.5
90°-180°	1005.0	16.8
0°-180°	5968.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	488	559	676	825	886	45
15°	401	790	1652	1849	1925	112
25°	295	1062	1823	1904	1922	135
35°	210	1025	1727	1787	1891	132
45°	152	785	1512	1736	1816	118
55°	114	468	1282	1474	1512	102
65°	89	264	944	1058	1077	88
75°	63	162	502	271	275	64
85°	22	48	60	41	36	23
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	393	63
125°	88	98	161	264	310	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	183	65
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°	502.3	502.3	502.3	502.3	502.3
2.5°	498.5	519.2	542.9	570.2	581.5
5°	487.8	558.7	676.2	824.9	886.3
7.5°	469.0	613.0	983.4	1381.3	1504.1
10°	451.6	652.3	1294.5	1638.9	1705.0
12.5°	432.3	704.8	1489.6	1731.7	1799.7
15°	400.9	790.5	1651.9	1849.2	1924.8
17.5°	368.5	887.1	1727.2	1921.9	1963.0
20°	345.4	954.6	1767.8	1935.0	1961.0
22.5°	324.1	1005.1	1796.8	1923.5	1951.4
25°	294.6	1062.1	1823.4	1903.5	1922.4
27.5°	266.1	1077.0	1811.8	1864.4	1882.8
30°	248.8	1072.9	1794.4	1833.6	1859.6
32.5°	233.3	1061.2	1769.3	1807.3	1863.5
35°	210.1	1024.8	1726.8	1787.1	1891.0
37.5°	190.3	966.3	1670.7	1794.2	1894.4
40°	178.7	922.6	1630.2	1793.9	1878.9
42.5°	167.1	871.3	1583.8	1774.6	1859.6
45°	152.1	785.0	1511.8	1735.8	1816.1
47.5°	138.1	687.9	1445.2	1682.2	1740.8
50°	130.4	621.6	1400.7	1633.7	1680.9
52.5°	122.7	557.2	1356.3	1575.6	1619.1
55°	113.5	467.7	1282.4	1474.0	1511.8
57.5°	105.3	391.0	1198.4	1361.8	1392.5
60°	101.4	349.4	1132.7	1280.7	1311.4
62.5°	95.6	311.5	1059.2	1195.6	1224.4
65°	89.4	264.1	944.3	1058.2	1077.1
67.5°	80.7	229.0	822.1	891.8	856.4
70°	74.9	211.8	739.0	760.8	659.3
72.5°	71.0	192.9	648.2	590.7	398.5
75°	62.8	162.0	502.3	270.6	275.3
77.5°	51.2	125.3	330.4	207.8	212.0
80°	43.5	102.5	173.9	169.1	171.5
82.5°	35.7	79.7	119.8	124.5	121.2
85°	21.7	47.7	60.4	40.9	36.2
87.5°	7.7	17.4	10.3	10.3	10.3
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.5	10.1
95°	8.9	26.4	120.2	44.3	28.8
97.5°	16.3	34.3	199.0	123.9	78.1
100°	21.8	38.4	224.4	209.9	140.0
102.5°	27.4	43.1	219.7	299.8	235.4
105°	35.8	50.3	200.6	382.9	365.5
107.5°	44.1	57.7	182.3	389.3	408.6
110°	49.7	63.2	172.8	380.2	418.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	55.2	68.0	168.0	363.8	411.7
115°	63.6	75.2	162.9	336.0	393.3
117.5°	71.7	82.4	160.7	309.4	368.0
120°	76.5	87.2	159.9	294.2	350.6
122.5°	81.2	91.9	160.7	281.4	333.1
125°	88.4	98.1	160.9	264.2	309.8
127.5°	94.1	104.1	160.9	251.3	290.2
130°	97.3	108.0	160.9	244.1	279.1
132.5°	101.3	112.0	160.1	237.7	270.3
135°	106.3	117.9	159.9	228.1	256.2
137.5°	112.0	122.7	159.9	218.5	244.1
140°	115.2	125.9	159.9	212.1	235.4
142.5°	119.2	129.1	159.9	205.7	226.6
145°	124.1	133.8	159.9	197.0	214.5
147.5°	130.1	138.4	160.9	189.0	202.8
150°	134.1	140.9	160.9	185.0	195.6
152.5°	137.2	143.3	160.9	181.0	190.1
155°	142.0	146.9	160.9	176.9	182.7
157.5°	146.8	150.5	160.9	173.3	177.0
160°	150.0	152.9	160.9	170.9	173.8
162.5°	152.3	154.5	160.9	169.3	171.4
165°	155.9	156.9	161.9	166.9	168.8
167.5°	158.1	158.3	160.9	165.5	166.4
170°	158.9	159.9	160.9	163.9	164.9
172.5°	160.5	160.7	161.7	163.1	163.3
175°	161.9	161.9	161.9	162.8	161.9
177.5°	161.9	161.9	161.9	161.9	161.9
180°	161.9	161.9	161.9	161.9	161.9



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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	16.94	18.26	17.54	18.88	19.58	25.68	27.00	26.28	27.61	28.31
	3H	17.70	18.89	18.32	19.52	20.26	27.33	28.52	27.95	29.15	29.89
	4H	18.03	19.15	18.66	19.79	20.54	27.53	28.66	28.17	29.30	30.05
	6H	18.27	19.30	18.92	19.96	20.72	27.64	28.68	28.30	29.33	30.10
	8H	18.34	19.33	19.00	20.00	20.77	27.66	28.65	28.32	29.33	30.09
	12H	18.38	19.33	19.05	19.99	20.79	27.65	28.60	28.32	29.26	30.06
4H	2H	21.39	22.52	22.03	23.16	23.91	26.17	27.30	26.81	27.94	28.69
	3H	22.37	23.31	23.02	23.99	24.76	28.04	28.98	28.70	29.66	30.43
	4H	22.67	23.52	23.35	24.21	25.01	28.30	29.15	28.97	29.84	30.64
	6H	22.83	23.57	23.52	24.28	25.09	28.48	29.21	29.17	29.92	30.73
	8H	22.87	23.56	23.56	24.26	25.09	28.51	29.20	29.21	29.91	30.73
	12H	22.88	23.50	23.60	24.23	25.06	28.51	29.13	29.23	29.86	30.69
8H	4H	23.89	24.58	24.59	25.28	26.11	28.46	29.15	29.16	29.86	30.68
	6H	24.15	24.72	24.88	25.47	26.29	28.69	29.26	29.41	30.01	30.83
	8H	24.22	24.73	24.97	25.49	26.33	28.75	29.26	29.50	30.01	30.86
	12H	24.27	24.72	25.02	25.46	26.37	28.77	29.22	29.51	29.96	30.86
12H	4H	23.93	24.55	24.65	25.28	26.11	28.43	29.05	29.15	29.79	30.61
	6H	24.25	24.76	24.99	25.51	26.35	28.67	29.18	29.42	29.94	30.78
	8H	24.37	24.82	25.12	25.56	26.47	28.76	29.21	29.51	29.95	30.86