

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: P853657

Luminaire Tested: SQ2-F-025U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853657
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-025U-050D-840-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

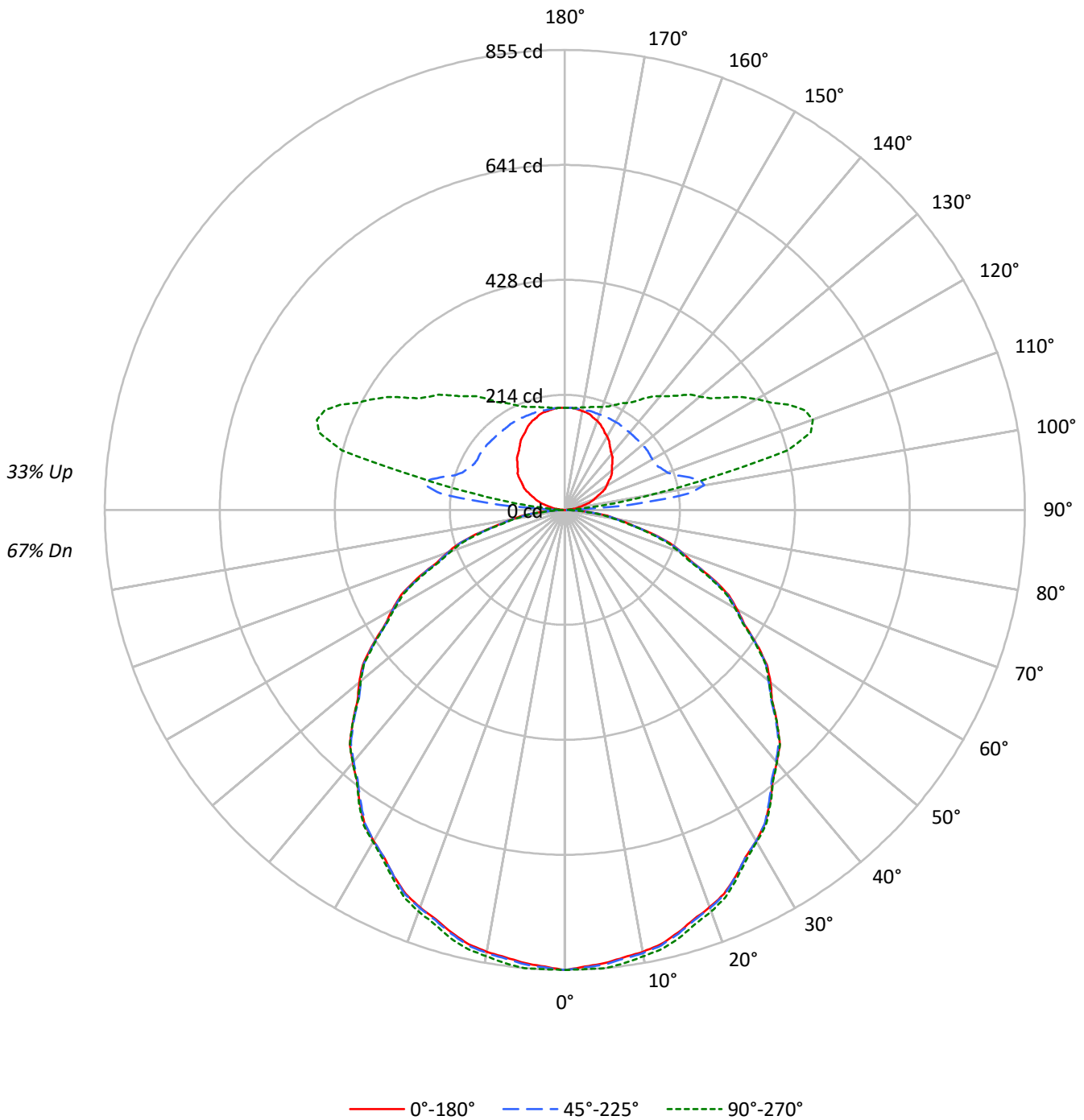
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3580.3 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.2
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	62	60	56				
2	92	84	78	73	87	80	74	69	71	66	63	63	59	56	55	53	50	47				
3	84	74	66	60	79	70	63	58	62	57	52	55	51	47	49	46	43	39				
4	77	65	57	51	72	62	55	49	55	49	45	49	44	41	44	40	37	33				
5	70	58	50	44	66	55	48	42	50	43	38	44	39	35	39	35	32	29				
6	65	52	44	38	61	50	42	36	45	38	33	40	35	31	35	31	28	25				
7	60	47	39	33	56	45	37	32	40	34	30	36	31	27	32	28	25	22				
8	56	43	35	29	52	41	33	28	37	31	26	33	28	24	30	25	22	20				
9	52	39	32	26	49	37	30	25	34	28	24	31	25	22	27	23	20	18				
10	49	36	29	24	46	34	27	23	31	25	21	28	23	20	25	21	18	16				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13811	13811	13811
5°	13713	13750	13864
10°	13680	13719	13814
15°	13598	13636	13772
20°	13515	13536	13656
25°	13392	13392	13473
30°	13254	13254	13297
35°	13094	13046	13139
40°	12920	12872	12920
45°	12721	12666	12721
50°	12529	12411	12441
55°	12237	12203	12138
60°	11929	11854	11780
65°	11576	11442	11308
70°	10891	10839	10617
75°	10249	10031	9744
80°	9103	8889	8563
85°	7336	6688	6262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12796 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	2.3
10°-20°	231.0	6.5
20°-30°	347.6	9.7
30°-40°	415.9	11.6
40°-50°	429.1	12.0
50°-60°	387.1	10.8
60°-70°	295.4	8.3
70°-80°	169.8	4.7
80°-90°	44.8	1.3
90°-100°	76.8	2.1
100°-110°	239.0	6.7
110°-120°	233.8	6.5
120°-130°	190.9	5.3
130°-140°	156.2	4.4
140°-150°	121.9	3.4
150°-160°	88.0	2.5
160°-170°	53.8	1.5
170°-180°	18.1	0.5
0°-30°	659.5	18.4
0°-40°	1075.4	30.0
0°-60°	1891.7	52.8
0°-90°	2401.7	67.1
90°-120°	549.7	15.4
90°-150°	1018.7	28.5
90°-180°	1179.0	32.9
0°-180°	3580.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	846	858	848	850	855	80
15°	814	824	816	819	824	229
25°	752	760	752	753	756	346
35°	664	669	662	664	667	415
45°	557	560	555	556	557	430
55°	435	437	434	431	431	389
65°	303	302	300	297	296	298
75°	164	163	161	157	156	173
85°	40	37	36	33	34	46
90°	0	1	4	4	4	2
95°	10	31	141	52	34	12
105°	42	59	235	449	429	44
115°	75	88	191	394	461	74
125°	104	115	189	310	364	92
135°	125	138	188	268	301	97
145°	146	157	188	231	252	91
155°	167	172	189	208	214	77
165°	183	184	190	196	198	51
175°	190	190	190	191	190	18
180°	190	190	190	190	190	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	855.4	855.4	855.4	855.4	855.4
2.5°	849.8	859.8	851.7	853.5	854.5
5°	846.1	857.5	848.4	849.7	855.4
7.5°	839.1	851.4	841.4	843.6	850.0
10°	834.4	845.8	836.8	838.0	842.6
12.5°	827.0	838.4	829.3	831.5	836.1
15°	813.5	823.7	815.8	819.4	823.9
17.5°	797.8	808.8	799.9	803.1	806.9
20°	786.6	795.7	787.8	789.1	794.8
22.5°	772.7	781.8	774.8	775.1	779.9
25°	751.7	759.6	751.7	753.0	756.3
27.5°	727.7	734.6	727.7	729.0	731.9
30°	710.9	717.8	710.9	712.1	713.2
32.5°	692.2	698.2	691.3	692.6	695.5
35°	664.3	668.8	661.9	664.3	666.6
37.5°	634.4	637.8	632.1	633.3	635.4
40°	613.0	616.4	610.7	611.8	613.0
42.5°	591.6	594.1	588.3	589.5	591.6
45°	557.1	560.4	554.7	555.9	557.1
47.5°	522.1	524.2	519.3	518.4	520.5
50°	498.8	500.0	494.1	494.1	495.3
52.5°	473.6	474.8	470.8	469.0	470.1
55°	434.7	437.0	433.5	431.2	431.2
57.5°	395.5	397.6	393.2	392.0	391.8
60°	369.4	370.6	367.1	365.9	364.8
62.5°	343.3	343.6	340.1	338.9	337.7
65°	303.0	301.8	299.5	297.2	296.0
67.5°	257.8	259.0	256.6	252.9	252.9
70°	230.7	231.9	229.6	224.9	224.9
72.5°	204.6	203.9	202.5	198.8	197.0
75°	164.3	163.2	160.8	157.3	156.2
77.5°	124.0	122.8	121.7	117.2	118.2
80°	97.9	96.7	95.6	92.1	92.1
82.5°	74.6	72.5	71.3	67.8	67.8
85°	39.6	37.3	36.1	32.6	33.8
87.5°	11.2	10.5	10.0	8.2	8.2
90°	0.0	1.2	3.5	3.5	3.5
92.5°	3.7	13.1	44.5	14.6	11.9
95°	10.5	31.0	141.0	52.0	33.8
97.5°	19.1	40.3	233.4	145.3	91.6
100°	25.6	45.0	263.3	246.2	164.3
102.5°	32.2	50.6	257.7	351.7	276.1
105°	42.0	59.1	235.3	449.3	428.8
107.5°	51.7	67.7	213.9	456.7	479.3
110°	58.3	74.2	202.7	446.0	490.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.8	79.8	197.1	426.8	483.1
115°	74.6	88.2	191.0	394.1	461.4
117.5°	84.1	96.6	188.4	362.9	431.8
120°	89.7	102.2	187.5	345.2	411.3
122.5°	95.3	107.8	188.4	330.2	390.8
125°	103.7	115.0	188.7	310.0	363.5
127.5°	110.5	122.0	188.7	294.8	340.4
130°	114.2	126.7	188.7	286.3	327.4
132.5°	118.9	131.3	187.7	278.9	317.1
135°	124.7	138.3	187.5	267.6	300.6
137.5°	131.5	143.9	187.5	256.3	286.3
140°	135.2	147.7	187.5	248.8	276.1
142.5°	139.8	151.4	187.5	241.2	265.8
145°	145.7	157.0	187.5	231.1	251.6
147.5°	152.7	162.5	188.7	221.8	237.9
150°	157.3	165.3	188.7	217.0	229.5
152.5°	161.1	168.1	188.7	212.2	222.9
155°	166.7	172.2	188.7	207.6	214.3
157.5°	172.2	176.6	188.7	203.2	207.6
160°	176.0	179.4	188.7	200.4	203.8
162.5°	178.7	181.2	188.7	198.6	201.0
165°	182.9	184.0	189.8	195.8	198.0
167.5°	185.4	185.6	188.7	194.2	195.2
170°	186.3	187.5	188.7	192.3	193.3
172.5°	188.2	188.4	189.6	191.4	191.5
175°	189.8	189.8	189.8	191.0	189.8
177.5°	189.8	189.8	189.8	189.8	189.8
180°	189.8	189.8	189.8	189.8	189.8



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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	18.53	19.58	19.32	20.40	21.40	18.45	19.50	19.24	20.32	21.32
	3H	20.32	21.27	21.13	22.10	23.13	20.20	21.15	21.01	21.98	23.01
	4H	20.99	21.88	21.81	22.72	23.76	20.84	21.73	21.66	22.57	23.61
	6H	21.47	22.29	22.30	23.14	24.19	21.28	22.11	22.12	22.95	24.01
	8H	21.61	22.40	22.46	23.26	24.32	21.41	22.20	22.25	23.06	24.12
	12H	21.69	22.44	22.54	23.30	24.38	21.47	22.22	22.32	23.08	24.16
4H	2H	19.10	20.00	19.93	20.83	21.87	19.04	19.93	19.86	20.77	21.81
	3H	21.10	21.85	21.94	22.72	23.78	21.00	21.75	21.84	22.61	23.67
	4H	21.90	22.59	22.75	23.45	24.54	21.76	22.44	22.61	23.31	24.39
	6H	22.50	23.09	23.37	23.98	25.07	22.32	22.92	23.19	23.81	24.89
	8H	22.70	23.25	23.57	24.13	25.24	22.49	23.05	23.37	23.93	25.04
	12H	22.81	23.31	23.70	24.21	25.32	22.58	23.08	23.47	23.98	25.09
8H	4H	22.17	22.72	23.04	23.60	24.71	22.04	22.59	22.91	23.48	24.58
	6H	22.89	23.35	23.79	24.28	25.38	22.73	23.18	23.63	24.11	25.21
	8H	23.16	23.57	24.07	24.49	25.61	22.97	23.38	23.88	24.30	25.42
	12H	23.34	23.70	24.25	24.61	25.78	23.11	23.47	24.02	24.38	25.55
12H	4H	22.17	22.67	23.06	23.57	24.68	22.05	22.55	22.94	23.45	24.56
	6H	22.94	23.34	23.85	24.26	25.38	22.78	23.19	23.69	24.11	25.23
	8H	23.24	23.60	24.15	24.51	25.68	23.05	23.41	23.97	24.32	25.50