

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: P854013

Luminaire Tested: SQ2-PH1-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854013
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-050U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

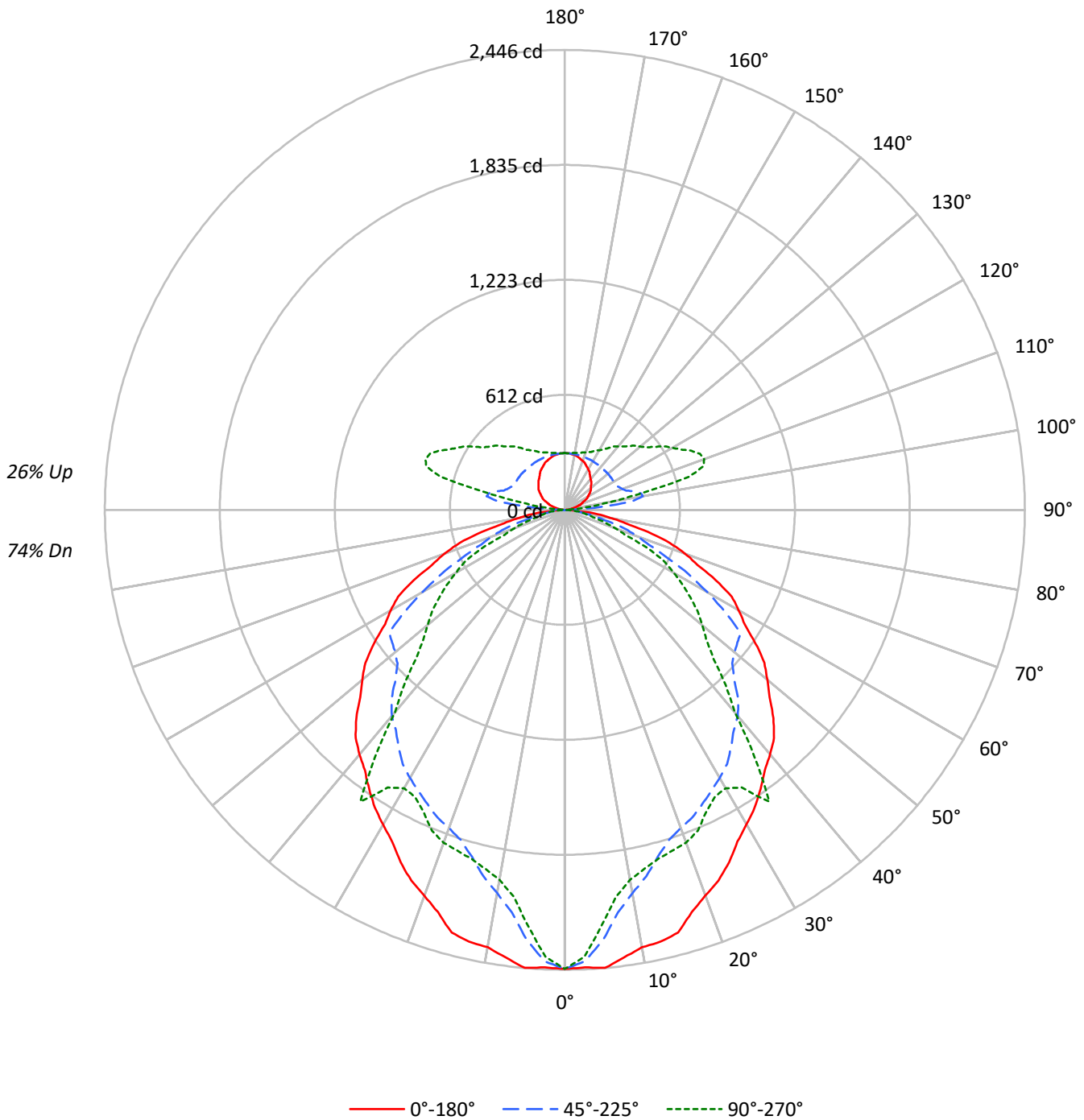
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7275.7 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64
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	87	87	87	78	78	78	74				74
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67				63	
2	95	87	81	75	90	83	77	73	75	71	67	68	65	62	62	59	57				53	
3	86	77	69	63	82	73	66	61	67	61	57	61	56	52	55	51	48				45	
4	79	68	60	54	75	65	58	52	59	53	48	54	49	45	49	45	42				39	
5	73	61	52	46	69	58	51	45	53	47	42	49	43	39	44	40	37				34	
6	67	55	46	40	64	52	45	39	48	42	37	44	39	35	40	36	32				30	
7	62	50	41	36	59	48	40	35	44	37	33	40	35	31	37	32	29				26	
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	34	29	26				24	
9	54	41	34	28	51	40	33	28	37	31	26	34	29	25	31	27	23				21	
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	25	21				19	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39417	39417	39417
5°	39642	37271	36028
10°	38730	33931	32750
15°	38903	31915	32110
20°	37515	30931	32368
25°	36829	30788	31614
30°	36031	30704	31873
35°	35757	30354	37359
40°	35789	30157	29619
45°	35801	29012	25512
50°	35299	29582	23920
55°	34849	32104	22950
60°	34504	28126	21526
65°	33899	22808	18724
70°	32021	19407	13379
75°	28546	14635	10143
80°	23329	9503	9503
85°	14635	8614	6447

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35801 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.8	3.0
10°-20°	565.0	7.8
20°-30°	828.5	11.4
30°-40°	1003.3	13.8
40°-50°	986.7	13.6
50°-60°	858.9	11.8
60°-70°	597.1	8.2
70°-80°	283.1	3.9
80°-90°	62.8	0.9
90°-100°	120.3	1.7
100°-110°	381.5	5.2
110°-120°	374.1	5.1
120°-130°	304.4	4.2
130°-140°	248.2	3.4
140°-150°	193.5	2.7
150°-160°	139.4	1.9
160°-170°	85.2	1.2
170°-180°	28.8	0.4
0°-30°	1608.3	22.1
0°-40°	2611.7	35.9
0°-60°	4457.2	61.3
0°-90°	5400.2	74.2
90°-120°	875.9	12.0
90°-150°	1622.1	22.3
90°-180°	1875.0	25.8
0°-180°	7275.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2441	2441	2441	2441	2441	
5°	2446	2444	2300	2228	2223	230
15°	2327	2073	1909	1896	1921	649
25°	2067	1758	1728	1781	1775	951
35°	1814	1467	1540	1673	1895	1136
45°	1568	1161	1271	1315	1117	1205
55°	1238	904	1140	822	815	1106
65°	887	622	597	490	490	872
75°	458	317	235	167	163	485
85°	79	52	46	37	35	106
90°	0	1	3	3	3	3
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2441.3	2441.3	2441.3	2441.3	2441.3
2.5°	2435.7	2461.1	2404.1	2381.7	2378.1
5°	2445.9	2443.6	2299.6	2227.5	2222.9
7.5°	2401.3	2330.9	2158.8	2079.3	2075.6
10°	2362.3	2255.5	2069.6	1997.6	1997.6
12.5°	2353.0	2184.5	1997.1	1944.0	1954.9
15°	2327.4	2073.1	1909.3	1896.0	1921.0
17.5°	2242.9	1969.0	1841.0	1871.4	1900.5
20°	2183.4	1913.2	1800.2	1856.5	1883.8
22.5°	2133.3	1859.4	1770.4	1832.1	1846.6
25°	2067.3	1758.4	1728.2	1781.4	1774.6
27.5°	1988.3	1665.8	1685.9	1718.5	1722.6
30°	1932.6	1610.1	1646.9	1680.1	1709.6
32.5°	1878.7	1545.3	1604.1	1682.8	1750.5
35°	1814.1	1466.6	1540.0	1672.8	1895.4
37.5°	1746.3	1373.8	1475.4	1587.2	1658.0
40°	1698.0	1307.3	1430.8	1568.8	1405.3
42.5°	1645.9	1255.3	1363.9	1542.1	1265.9
45°	1567.9	1161.3	1270.6	1314.9	1117.3
47.5°	1475.9	1088.4	1207.4	1096.5	1019.2
50°	1405.3	1039.6	1177.7	1002.3	952.3
52.5°	1336.5	989.0	1157.2	924.6	891.0
55°	1238.0	904.2	1140.5	822.1	815.3
57.5°	1133.5	817.8	1008.6	732.9	744.7
60°	1068.5	761.9	871.0	680.3	666.6
62.5°	999.7	707.7	742.8	613.4	599.7
65°	887.3	621.6	597.0	490.1	490.1
67.5°	763.7	532.1	483.6	401.1	346.6
70°	678.3	473.9	411.1	319.7	283.4
72.5°	587.2	411.9	336.8	262.0	220.2
75°	457.6	316.8	234.6	167.1	162.6
77.5°	330.8	228.1	158.0	124.0	124.5
80°	250.9	173.6	102.2	99.9	102.2
82.5°	176.5	119.3	76.2	79.4	79.9
85°	79.0	51.7	46.5	37.1	34.8
87.5°	16.7	15.1	9.9	9.9	9.9
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0



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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	22.09	23.21	22.81	23.94	24.82	20.76	21.88	21.48	22.62	23.50
	3H	24.13	25.14	24.86	25.88	26.79	21.81	22.82	22.55	23.56	24.47
	4H	24.88	25.82	25.63	26.58	27.50	22.04	22.98	22.79	23.74	24.66
	6H	25.37	26.25	26.14	27.01	27.95	22.20	23.07	22.96	23.84	24.77
	8H	25.51	26.34	26.28	27.12	28.06	22.24	23.07	23.01	23.85	24.79
	12H	25.56	26.35	26.34	27.13	28.10	22.24	23.03	23.02	23.81	24.78
4H	2H	22.49	23.44	23.25	24.20	25.12	21.43	22.38	22.19	23.14	24.06
	3H	24.62	25.41	25.39	26.20	27.14	22.64	23.42	23.40	24.22	25.16
	4H	25.45	26.16	26.23	26.96	27.93	22.92	23.64	23.71	24.43	25.40
	6H	26.05	26.67	26.85	27.48	28.46	23.15	23.76	23.95	24.58	25.56
	8H	26.23	26.80	27.03	27.61	28.60	23.21	23.78	24.01	24.60	25.58
	12H	26.31	26.82	27.13	27.66	28.65	23.23	23.74	24.05	24.58	25.57
8H	4H	25.49	26.06	26.29	26.88	27.87	23.16	23.73	23.96	24.55	25.54
	6H	26.15	26.63	26.98	27.48	28.47	23.44	23.92	24.28	24.77	25.76
	8H	26.38	26.80	27.22	27.65	28.66	23.55	23.97	24.39	24.82	25.83
	12H	26.50	26.88	27.35	27.72	28.78	23.60	23.97	24.45	24.82	25.88
12H	4H	25.45	25.97	26.28	26.81	27.80	23.17	23.69	23.99	24.52	25.51
	6H	26.13	26.55	26.97	27.40	28.41	23.47	23.90	24.32	24.75	25.76
	8H	26.37	26.74	27.22	27.59	28.65	23.60	23.97	24.45	24.82	25.88