

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: P853737

Luminaire Tested: SQ2-F-150U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853737
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-150U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

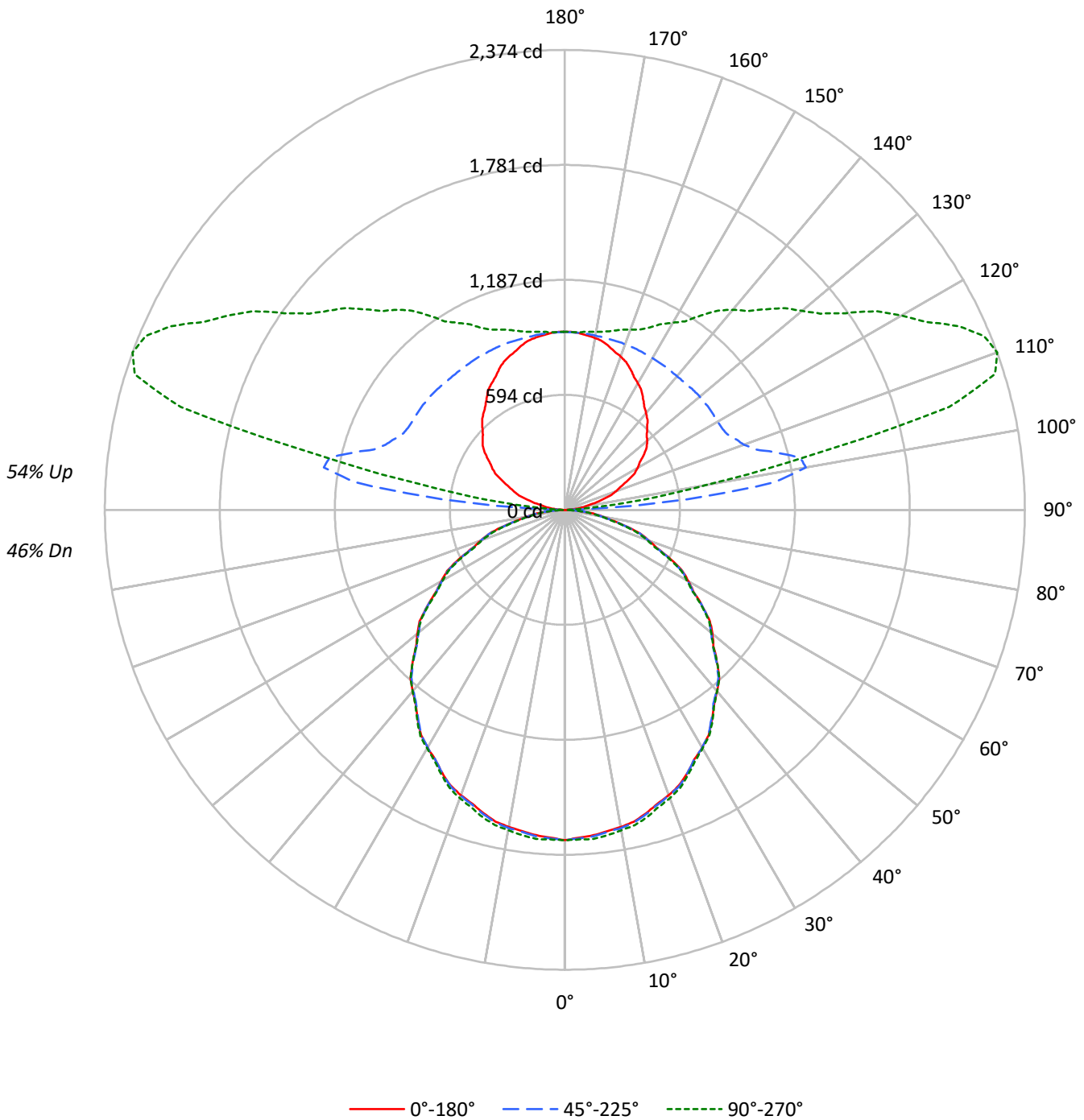
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10456.6 lumens
Efficiency: N/A
Efficacy: 98.8 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: General Diffuse

Input Watts (W): 105.8
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46				46
1	97	92	88	85	89	85	81	78	71	68	66	58	56	55	46	45	44				38	
2	88	80	74	69	80	74	69	64	62	58	55	51	48	45	40	38	37				32	
3	80	71	63	57	73	65	59	53	54	50	46	45	41	38	36	33	31				27	
4	73	62	54	48	67	57	50	45	48	43	39	40	36	33	32	29	27				23	
5	67	55	47	41	61	51	44	39	43	38	33	35	31	28	28	25	23				20	
6	62	50	42	36	56	46	39	33	39	33	29	32	28	25	26	23	20				17	
7	57	45	37	31	52	41	34	29	35	29	25	29	25	22	23	20	18				15	
8	53	41	33	27	48	38	31	26	32	26	22	27	22	19	22	18	16				14	
9	49	37	29	24	45	34	28	23	29	24	20	24	20	17	20	17	14				12	
10	46	34	27	22	42	31	25	21	27	22	18	22	18	16	18	15	13				11	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27527	27527	27527
5°	27331	27407	27632
10°	27266	27343	27534
15°	27101	27178	27450
20°	26940	26979	27218
25°	26690	26690	26856
30°	26416	26416	26502
35°	26097	26004	26187
40°	25752	25653	25752
45°	25352	25245	25352
50°	24970	24739	24797
55°	24389	24324	24192
60°	23776	23628	23476
65°	23072	22808	22541
70°	21711	21602	21163
75°	20430	19994	19420
80°	18140	17713	17062
85°	14635	13338	12486

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25507 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.2	1.5
10°-20°	460.5	4.4
20°-30°	692.8	6.6
30°-40°	829.0	7.9
40°-50°	855.3	8.2
50°-60°	771.6	7.4
60°-70°	588.8	5.6
70°-80°	338.5	3.2
80°-90°	89.3	0.9
90°-100°	350.0	3.3
100°-110°	1146.0	11.0
110°-120°	1133.0	10.8
120°-130°	926.2	8.9
130°-140°	755.8	7.2
140°-150°	588.2	5.6
150°-160°	423.5	4.1
160°-170°	259.1	2.5
170°-180°	87.5	0.8
0°-30°	1314.5	12.6
0°-40°	2143.5	20.5
0°-60°	3770.4	36.1
0°-90°	4787.0	45.8
90°-120°	2629.1	25.1
90°-150°	4899.3	46.9
90°-180°	5670.0	54.2
0°-180°	10456.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1686	1709	1691	1694	1705	160
15°	1621	1642	1626	1633	1642	457
25°	1498	1514	1498	1501	1508	690
35°	1324	1333	1319	1324	1329	828
45°	1110	1117	1106	1108	1110	857
55°	866	871	864	859	859	775
65°	604	602	597	592	590	594
75°	328	325	320	314	311	345
85°	79	74	72	65	67	91
90°	1	3	8	7	8	6
95°	49	142	636	227	147	56
105°	199	284	1138	2161	2053	210
115°	359	429	924	1910	2242	354
125°	499	557	911	1506	1769	444
135°	601	665	904	1299	1464	465
145°	703	755	902	1117	1224	441
155°	802	828	907	1000	1038	369
165°	875	883	911	946	956	247
175°	915	915	916	922	920	87
180°	919	919	919	919	919	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1693.8	1713.8	1697.5	1701.2	1703.1
5°	1686.3	1709.0	1691.0	1693.6	1704.9
7.5°	1672.4	1696.9	1677.0	1681.5	1694.2
10°	1663.1	1685.8	1667.8	1670.3	1679.4
12.5°	1648.2	1671.0	1652.9	1657.3	1666.4
15°	1621.3	1641.7	1625.9	1633.1	1642.2
17.5°	1590.2	1612.0	1594.4	1600.6	1608.3
20°	1567.9	1586.0	1570.2	1572.8	1584.1
22.5°	1540.0	1558.2	1544.2	1544.9	1554.4
25°	1498.2	1514.1	1498.2	1500.7	1507.5
27.5°	1450.3	1464.0	1450.3	1452.8	1458.7
30°	1416.9	1430.5	1416.9	1419.3	1421.5
32.5°	1379.7	1391.5	1377.9	1380.3	1386.2
35°	1324.0	1333.1	1319.3	1324.1	1328.6
37.5°	1264.5	1271.3	1259.9	1262.3	1266.4
40°	1221.8	1228.6	1217.1	1219.5	1221.8
42.5°	1179.0	1184.0	1172.5	1175.0	1179.0
45°	1110.3	1117.1	1105.6	1108.0	1110.3
47.5°	1040.6	1044.7	1035.0	1033.3	1037.4
50°	994.1	996.4	984.9	984.9	987.2
52.5°	944.0	946.2	938.4	934.7	937.0
55°	866.4	870.9	864.1	859.4	859.4
57.5°	788.4	792.4	783.7	781.4	780.9
60°	736.3	738.6	731.7	729.3	727.0
62.5°	684.3	684.7	677.8	675.4	673.1
65°	603.9	601.7	597.0	592.3	590.0
67.5°	513.8	516.1	511.5	504.0	504.0
70°	459.9	462.2	457.6	448.3	448.3
72.5°	407.9	406.5	403.7	396.2	392.5
75°	327.5	325.2	320.5	313.5	311.3
77.5°	247.1	244.9	242.5	233.7	235.5
80°	195.1	192.8	190.5	183.5	183.5
82.5°	148.7	144.6	142.2	135.2	135.2
85°	79.0	74.4	72.0	65.1	67.4
87.5°	22.5	21.0	20.1	16.2	16.4
90°	0.9	2.8	7.6	6.6	7.6
92.5°	16.0	58.5	179.7	58.5	46.8
95°	49.1	142.3	636.3	226.7	147.3
97.5°	89.1	187.7	1091.7	660.4	409.3
100°	117.1	211.2	1263.1	1128.0	747.7
102.5°	148.8	240.7	1244.3	1662.1	1288.4
105°	199.2	284.1	1137.6	2161.3	2053.3
107.5°	248.9	326.8	1033.5	2208.0	2326.7
110°	281.3	357.0	983.7	2153.7	2374.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	312.3	385.8	953.5	2059.2	2341.8
115°	358.7	428.9	924.2	1909.8	2242.1
117.5°	403.9	469.4	913.1	1763.0	2100.5
120°	433.3	495.2	910.1	1677.5	2006.1
122.5°	459.8	520.1	910.1	1603.7	1908.7
125°	499.4	556.6	911.0	1506.1	1769.2
127.5°	533.0	591.4	909.9	1434.1	1663.0
130°	554.2	613.2	909.1	1390.6	1597.3
132.5°	573.0	633.6	906.9	1353.1	1540.7
135°	601.4	665.1	903.5	1299.0	1464.2
137.5°	631.2	694.3	901.4	1242.6	1391.9
140°	652.3	713.3	900.6	1206.9	1348.1
142.5°	673.5	730.7	900.6	1168.8	1296.8
145°	703.3	755.0	901.6	1117.4	1224.4
147.5°	734.7	777.7	902.9	1072.6	1153.4
150°	754.3	792.1	904.4	1046.6	1114.9
152.5°	773.9	807.3	905.2	1025.2	1081.7
155°	801.5	828.3	907.2	999.7	1038.5
157.5°	826.2	845.6	909.3	979.6	1007.7
160°	842.1	857.8	910.1	968.2	990.3
162.5°	855.7	868.4	910.1	959.0	975.2
165°	875.1	883.4	911.0	946.2	956.3
167.5°	891.6	895.6	912.1	936.2	941.8
170°	900.6	902.5	912.9	930.9	932.7
172.5°	907.4	908.5	915.2	927.1	927.4
175°	914.8	914.8	915.7	922.3	920.5
177.5°	918.6	917.8	917.1	921.5	918.6
180°	918.6	918.6	918.6	918.6	918.6



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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	19.08	19.92	20.07	20.92	22.25	19.01	19.84	20.00	20.84	22.17
	3H	20.86	21.61	21.86	22.62	23.97	20.74	21.49	21.74	22.50	23.85
	4H	21.52	22.23	22.53	23.25	24.60	21.37	22.08	22.38	23.09	24.45
	6H	21.99	22.64	23.01	23.66	25.03	21.80	22.46	22.83	23.48	24.85
	8H	22.13	22.75	23.16	23.79	25.15	21.92	22.55	22.95	23.58	24.95
	12H	22.20	22.79	23.23	23.82	25.21	21.98	22.57	23.01	23.60	24.99
4H	2H	19.63	20.34	20.65	21.36	22.72	19.57	20.28	20.59	21.30	22.65
	3H	21.62	22.21	22.65	23.25	24.63	21.51	22.10	22.54	23.15	24.52
	4H	22.41	22.95	23.44	23.99	25.38	22.26	22.81	23.30	23.84	25.24
	6H	22.99	23.46	24.04	24.52	25.91	22.81	23.28	23.86	24.34	25.73
	8H	23.18	23.62	24.23	24.67	26.08	22.98	23.42	24.03	24.47	25.87
	12H	23.28	23.68	24.35	24.74	26.15	23.05	23.45	24.12	24.52	25.93
8H	4H	22.65	23.09	23.70	24.14	25.55	22.52	22.96	23.57	24.01	25.42
	6H	23.37	23.73	24.44	24.82	26.22	23.20	23.56	24.27	24.66	26.06
	8H	23.63	23.95	24.71	25.03	26.45	23.44	23.76	24.52	24.84	26.26
	12H	23.80	24.08	24.88	25.15	26.62	23.57	23.85	24.66	24.93	26.39
12H	4H	22.64	23.04	23.71	24.10	25.52	22.52	22.92	23.59	23.98	25.39
	6H	23.41	23.73	24.49	24.81	26.23	23.25	23.57	24.33	24.65	26.07
	8H	23.70	23.98	24.78	25.05	26.52	23.52	23.79	24.60	24.87	26.33