

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: P854229

Luminaire Tested: SQ2-PR1-125U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854229
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

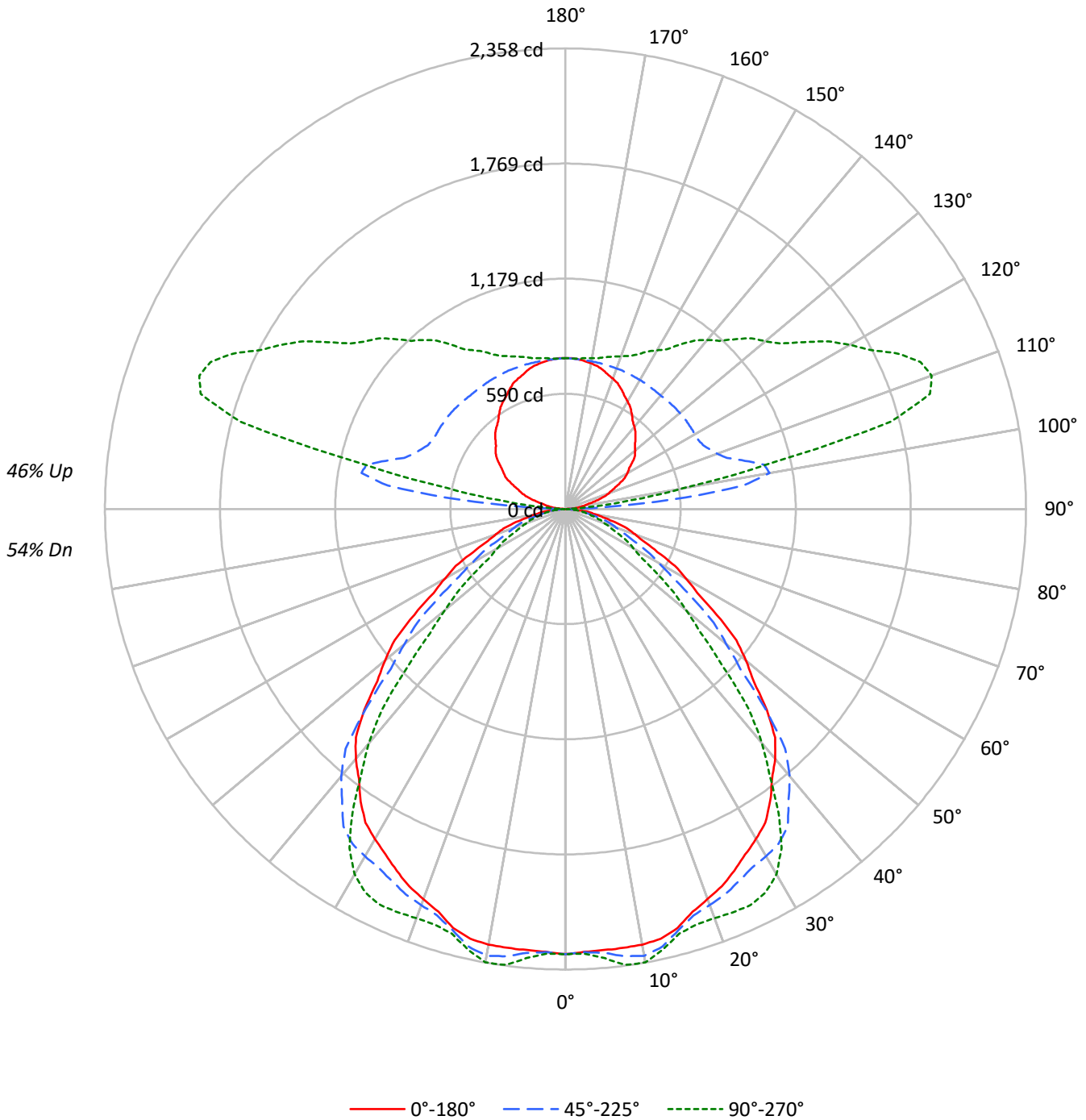
Lumens per Lamp: N/A
Luminaire Lumens: 10246.2 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 93.1
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

TEST NUMBER: P854229

CATALOG NUMBER: SQ2-PR1-125U-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854229

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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54	54	54	54	
1	99	95	92	88	92	88	85	82	76	74	71	64	63	61	54	52	51	46	46	46	46	
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40	40	40	40	
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	38	35	35	35	35	
4	77	66	58	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30	30	30	30	
5	70	59	51	46	65	55	48	43	48	43	39	41	37	34	35	32	30	27	27	27	27	
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23	23	23	23	
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21	21	21	21	
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19	19	19	19	
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17	17	
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	17	16	16	16	16	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36792	36792	36792
5°	36742	36969	37422
10°	37130	38082	38653
15°	37118	37312	37623
20°	36519	37077	38314
25°	36416	37449	39891
30°	36376	38283	40274
35°	36031	39100	37497
40°	35201	37648	32998
45°	33307	33043	26094
50°	30280	27015	20245
55°	26612	22232	15758
60°	23027	17777	12975
65°	19878	14732	11358
70°	17873	13048	10088
75°	16375	11304	9276
80°	14254	9075	9075
85°	10319	8170	4298

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 36004 cd/sqm



TEST NUMBER: P854229

CATALOG NUMBER: SQ2-PR1-125U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.1	2.1
10°-20°	637.0	6.2
20°-30°	984.7	9.6
30°-40°	1184.3	11.6
40°-50°	1063.4	10.4
50°-60°	712.4	7.0
60°-70°	414.4	4.0
70°-80°	212.8	2.1
80°-90°	53.4	0.5
90°-100°	295.3	2.9
100°-110°	961.5	9.4
110°-120°	951.1	9.3
120°-130°	777.3	7.6
130°-140°	635.3	6.2
140°-150°	494.8	4.8
150°-160°	356.7	3.5
160°-170°	218.0	2.1
170°-180°	73.6	0.7
0°-30°	1841.7	18.0
0°-40°	3026.0	29.5
0°-60°	4801.9	46.9
0°-90°	5482.5	53.5
90°-120°	2208.0	21.5
90°-150°	4115.4	40.2
90°-180°	4764.0	46.5
0°-180°	10246.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2267	2306	2281	2286	2309	216
15°	2221	2311	2232	2239	2251	624
25°	2044	2126	2102	2180	2239	943
35°	1828	1844	1984	1946	1902	1140
45°	1459	1577	1447	1220	1143	1116
55°	945	982	790	610	560	850
65°	520	532	386	313	297	526
75°	262	256	181	153	149	279
85°	56	44	44	30	23	69
90°	0	3	7	6	6	4
95°	40	122	541	193	119	46
105°	163	236	952	1819	1723	174
115°	302	360	776	1599	1881	299
125°	420	468	765	1262	1488	374
135°	507	560	762	1090	1229	392
145°	593	636	760	938	1028	371
155°	676	698	764	840	872	311
165°	738	744	766	795	804	208
175°	769	769	769	775	773	73
180°	772	772	772	772	772	



TEST NUMBER: P854229

CATALOG NUMBER: SQ2-PR1-125U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2269.4	2296.6	2271.2	2273.2	2278.7
5°	2267.0	2305.7	2281.0	2286.1	2308.9
7.5°	2266.6	2321.5	2309.8	2323.9	2353.9
10°	2264.7	2330.6	2322.8	2325.8	2357.6
12.5°	2253.6	2330.3	2294.9	2292.1	2309.3
15°	2220.6	2311.4	2232.2	2239.4	2250.8
17.5°	2162.5	2257.5	2182.0	2207.6	2229.9
20°	2125.4	2218.5	2157.9	2191.3	2229.9
22.5°	2091.9	2185.0	2135.6	2182.3	2235.5
25°	2044.1	2125.8	2102.1	2180.1	2239.2
27.5°	1993.9	2042.0	2070.1	2174.6	2215.9
30°	1951.1	1982.9	2053.4	2144.3	2160.2
32.5°	1904.7	1923.8	2031.1	2078.4	2058.0
35°	1828.0	1843.9	1983.7	1945.5	1902.4
37.5°	1737.0	1769.7	1877.3	1767.5	1717.9
40°	1670.1	1724.6	1786.2	1622.3	1565.6
42.5°	1588.3	1675.5	1665.4	1456.7	1387.2
45°	1458.7	1576.8	1447.1	1220.0	1142.8
47.5°	1305.9	1427.2	1214.8	1012.0	939.8
50°	1205.5	1303.2	1075.5	885.5	806.0
52.5°	1103.3	1173.7	956.5	766.7	694.5
55°	945.4	981.7	789.8	609.8	559.8
57.5°	800.4	823.6	645.3	492.5	455.7
60°	713.1	729.0	550.5	431.4	401.8
62.5°	633.2	645.5	474.3	379.5	357.2
65°	520.3	531.7	385.6	313.2	297.3
67.5°	430.6	436.6	317.3	260.3	245.3
70°	378.6	380.9	276.4	225.1	213.7
72.5°	332.2	329.0	237.4	195.4	187.7
75°	262.5	255.7	181.2	153.2	148.7
77.5°	196.0	188.8	127.3	118.0	118.0
80°	153.3	144.2	97.6	97.6	97.6
82.5°	114.3	101.6	75.3	75.2	73.4
85°	55.7	44.4	44.1	30.0	23.2
87.5°	14.9	15.4	6.9	6.7	6.7
90°	0.0	2.8	6.6	5.7	5.7
92.5°	13.7	49.1	157.1	51.8	39.9
95°	39.9	121.6	541.3	193.0	118.7
97.5°	75.0	158.2	918.7	559.5	341.5
100°	97.8	179.5	1060.8	945.9	613.5
102.5°	123.6	202.4	1043.3	1399.4	1064.0
105°	163.3	235.8	952.5	1819.3	1722.7
107.5°	206.3	274.4	866.3	1855.7	1958.1
110°	237.4	299.6	825.3	1810.5	1995.3



TEST NUMBER: P854229

CATALOG NUMBER: SQ2-PR1-125U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	263.3	324.7	799.4	1728.9	1967.2
115°	302.0	360.5	775.9	1599.0	1881.3
117.5°	341.9	394.6	766.8	1480.1	1761.1
120°	364.7	416.7	764.5	1407.0	1679.1
122.5°	386.7	438.0	765.3	1343.5	1597.0
125°	419.8	468.0	765.4	1262.5	1488.2
127.5°	448.1	497.5	765.3	1201.8	1390.0
130°	466.3	516.4	764.5	1167.2	1335.3
132.5°	482.3	534.6	763.7	1135.0	1292.7
135°	507.1	560.1	761.7	1089.6	1228.9
137.5°	531.4	584.7	759.6	1043.5	1167.2
140°	548.9	600.0	758.8	1012.2	1129.2
142.5°	565.6	614.5	758.8	982.3	1086.6
145°	592.6	636.2	759.8	938.4	1027.6
147.5°	618.8	656.7	761.1	901.1	970.0
150°	636.3	669.7	762.6	878.8	937.3
152.5°	653.8	681.3	763.4	861.9	908.5
155°	676.2	698.5	764.5	840.2	871.8
157.5°	697.5	713.4	765.6	824.3	846.4
160°	710.4	723.4	766.4	814.3	831.9
162.5°	721.8	731.8	766.4	805.8	819.0
165°	737.9	744.4	766.4	795.1	804.4
167.5°	749.3	753.4	766.6	787.0	791.9
170°	756.9	758.8	767.3	781.6	783.5
172.5°	762.2	763.3	768.9	778.5	778.2
175°	769.2	769.2	769.2	774.9	773.0
177.5°	772.1	771.4	770.6	774.3	771.3
180°	772.1	772.1	772.1	772.1	772.1



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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	19.63	20.48	20.56	21.43	22.65	16.35	17.20	17.29	18.15	19.37
	3H	20.86	21.62	21.81	22.58	23.82	17.42	18.18	18.37	19.13	20.38
	4H	21.31	22.03	22.28	22.99	24.25	17.82	18.53	18.78	19.49	20.75
	6H	21.63	22.29	22.60	23.25	24.52	18.15	18.81	19.12	19.77	21.04
	8H	21.71	22.34	22.69	23.32	24.59	18.24	18.86	19.21	19.84	21.11
	12H	21.74	22.34	22.72	23.31	24.60	18.24	18.84	19.23	19.81	21.10
4H	2H	19.71	20.42	20.67	21.38	22.64	16.92	17.64	17.89	18.60	19.85
	3H	21.18	21.77	22.15	22.76	24.03	18.19	18.78	19.16	19.77	21.04
	4H	21.77	22.31	22.76	23.30	24.59	18.69	19.23	19.68	20.22	21.51
	6H	22.22	22.69	23.22	23.70	24.99	19.13	19.59	20.13	20.60	21.89
	8H	22.36	22.79	23.35	23.79	25.10	19.25	19.68	20.25	20.69	21.99
	12H	22.41	22.80	23.43	23.82	25.13	19.27	19.66	20.29	20.68	21.99
8H	4H	21.80	22.23	22.80	23.23	24.54	19.00	19.43	20.00	20.43	21.74
	6H	22.35	22.70	23.37	23.75	25.05	19.53	19.89	20.56	20.93	22.24
	8H	22.54	22.86	23.57	23.89	25.21	19.72	20.03	20.75	21.06	22.39
	12H	22.65	22.93	23.68	23.95	25.32	19.78	20.06	20.81	21.08	22.45
12H	4H	21.75	22.15	22.77	23.16	24.47	19.01	19.41	20.03	20.42	21.73
	6H	22.33	22.65	23.36	23.68	25.00	19.59	19.91	20.62	20.94	22.26
	8H	22.54	22.82	23.58	23.84	25.21	19.80	20.08	20.83	21.10	22.47