

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: P853727

Luminaire Tested: SQ2-F-125U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853727
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-125U-125D-940-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

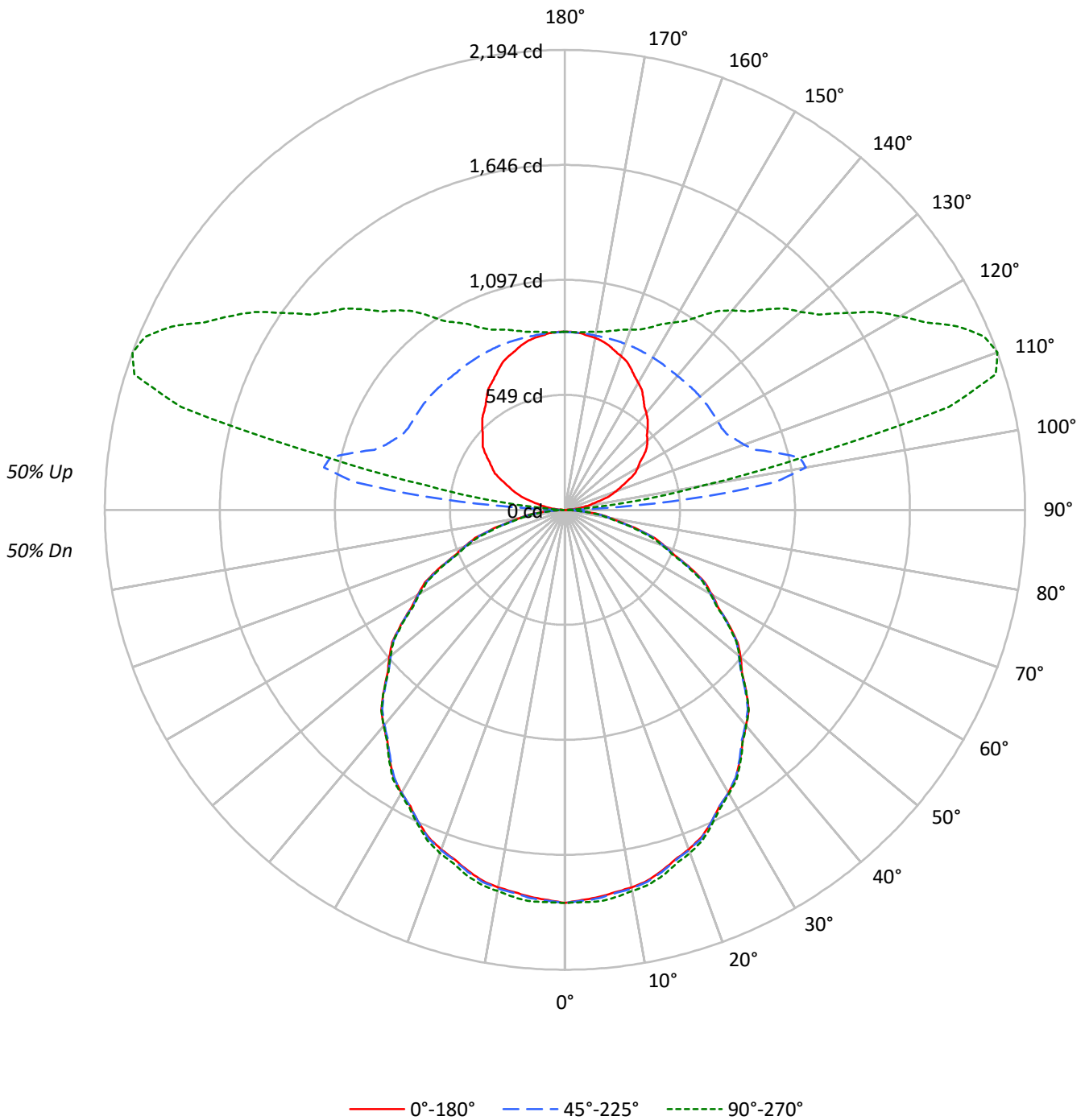
Lumens per Lamp: N/A
Luminaire Lumens: 10503.6 lumens
Efficiency: N/A
Efficacy: 112.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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

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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	0
RCR																		
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	36	33	29
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	27	25	22
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	24	22	19
7	58	45	37	32	53	42	35	30	36	30	26	31	26	23	25	22	19	17
8	53	41	33	28	49	38	31	26	33	27	23	28	23	20	23	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	16	13
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30273	30273	30273
5°	30058	30141	30389
10°	29988	30072	30280
15°	29805	29890	30190
20°	29627	29672	29935
25°	29354	29354	29535
30°	29052	29052	29147
35°	28700	28600	28801
40°	28321	28214	28321
45°	27882	27766	27882
50°	27462	27206	27271
55°	26821	26750	26607
60°	26150	25985	25820
65°	25375	25081	24791
70°	23877	23755	23273
75°	22470	21990	21354
80°	19954	19479	18763
85°	16098	14672	13727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 28053 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.2	1.7
10°-20°	506.4	4.8
20°-30°	762.0	7.3
30°-40°	911.7	8.7
40°-50°	940.7	9.0
50°-60°	848.6	8.1
60°-70°	647.6	6.2
70°-80°	372.3	3.5
80°-90°	98.1	0.9
90°-100°	324.8	3.1
100°-110°	1057.5	10.1
110°-120°	1046.1	10.0
120°-130°	854.9	8.1
130°-140°	698.7	6.7
140°-150°	544.2	5.2
150°-160°	392.3	3.7
160°-170°	239.8	2.3
170°-180°	80.9	0.8
0°-30°	1445.6	13.8
0°-40°	2357.3	22.4
0°-60°	4146.6	39.5
0°-90°	5264.6	50.1
90°-120°	2428.4	23.1
90°-150°	4526.1	43.1
90°-180°	5239.0	49.9
0°-180°	10503.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1875	1875	1875	1875	1875	
5°	1855	1880	1860	1862	1875	176
15°	1783	1806	1788	1796	1806	503
25°	1648	1665	1648	1650	1658	759
35°	1456	1466	1451	1456	1461	910
45°	1221	1229	1216	1219	1221	942
55°	953	958	950	945	945	852
65°	664	662	656	651	649	653
75°	360	358	352	345	342	380
85°	87	82	79	72	74	101
90°	0	3	7	6	6	5
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1875.0	1875.0	1875.0	1875.0	1875.0
2.5°	1862.8	1884.8	1866.9	1871.0	1873.0
5°	1854.6	1879.6	1859.7	1862.5	1875.0
7.5°	1839.3	1866.2	1844.4	1849.3	1863.3
10°	1829.1	1854.0	1834.2	1836.9	1846.9
12.5°	1812.7	1837.7	1817.8	1822.6	1832.6
15°	1783.1	1805.6	1788.2	1796.1	1806.1
17.5°	1748.8	1772.8	1753.4	1760.3	1768.8
20°	1724.3	1744.3	1726.9	1729.7	1742.2
22.5°	1693.7	1713.6	1698.3	1699.0	1709.5
25°	1647.7	1665.2	1647.7	1650.4	1657.9
27.5°	1595.1	1610.0	1595.1	1597.8	1604.3
30°	1558.3	1573.3	1558.3	1560.9	1563.4
32.5°	1517.4	1530.4	1515.4	1518.1	1524.6
35°	1456.1	1466.1	1451.0	1456.2	1461.2
37.5°	1390.7	1398.2	1385.6	1388.2	1392.7
40°	1343.7	1351.2	1338.6	1341.2	1343.7
42.5°	1296.7	1302.2	1289.5	1292.2	1296.7
45°	1221.1	1228.6	1216.0	1218.6	1221.1
47.5°	1144.4	1148.9	1138.3	1136.4	1140.9
50°	1093.3	1095.8	1083.1	1083.2	1085.7
52.5°	1038.2	1040.7	1032.0	1028.0	1030.5
55°	952.8	957.8	950.3	945.2	945.2
57.5°	867.0	871.5	861.9	859.3	858.8
60°	809.8	812.3	804.7	802.1	799.6
62.5°	752.6	753.1	745.4	742.8	740.3
65°	664.2	661.7	656.5	651.4	648.9
67.5°	565.1	567.6	562.5	554.3	554.3
70°	505.8	508.3	503.2	493.0	493.0
72.5°	448.6	447.1	444.0	435.7	431.7
75°	360.2	357.7	352.5	344.8	342.3
77.5°	271.8	269.3	266.7	257.0	259.0
80°	214.6	212.1	209.5	201.8	201.8
82.5°	163.5	159.0	156.3	148.7	148.7
85°	86.9	81.9	79.2	71.6	74.1
87.5°	24.5	23.1	21.9	17.6	17.6
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1



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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	19.83	20.70	20.78	21.67	22.94	19.75	20.62	20.70	21.59	22.86
	3H	21.61	22.39	22.57	23.37	24.66	21.49	22.27	22.45	23.25	24.54
	4H	22.27	23.01	23.25	24.00	25.29	22.12	22.86	23.09	23.84	25.14
	6H	22.74	23.42	23.73	24.41	25.72	22.55	23.24	23.54	24.23	25.54
	8H	22.88	23.53	23.87	24.54	25.84	22.67	23.33	23.67	24.33	25.64
	12H	22.95	23.57	23.95	24.57	25.91	22.73	23.35	23.73	24.35	25.68
4H	2H	20.38	21.12	21.36	22.11	23.41	20.32	21.06	21.30	22.05	23.34
	3H	22.37	22.99	23.36	24.00	25.32	22.26	22.88	23.26	23.89	25.21
	4H	23.16	23.73	24.16	24.73	26.07	23.02	23.58	24.02	24.59	25.93
	6H	23.75	24.24	24.76	25.27	26.60	23.57	24.06	24.58	25.09	26.42
	8H	23.94	24.39	24.95	25.42	26.77	23.74	24.19	24.75	25.22	26.56
	12H	24.04	24.45	25.08	25.49	26.85	23.81	24.23	24.85	25.26	26.62
8H	4H	23.41	23.86	24.42	24.89	26.24	23.28	23.74	24.30	24.76	26.11
	6H	24.13	24.50	25.17	25.57	26.91	23.96	24.34	25.00	25.40	26.75
	8H	24.39	24.73	25.44	25.78	27.14	24.20	24.53	25.25	25.58	26.95
	12H	24.56	24.86	25.61	25.90	27.31	24.33	24.63	25.39	25.67	27.08
12H	4H	23.40	23.81	24.44	24.85	26.21	23.28	23.69	24.32	24.73	26.09
	6H	24.17	24.50	25.22	25.55	26.92	24.01	24.34	25.06	25.39	26.76
	8H	24.46	24.76	25.51	25.80	27.21	24.28	24.57	25.33	25.61	27.02