

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P936709

Luminaire Tested: SQ4-FB-050U-075D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936709
REPORT IS A COMBINATION OF REPORTS P933462 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-075D-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

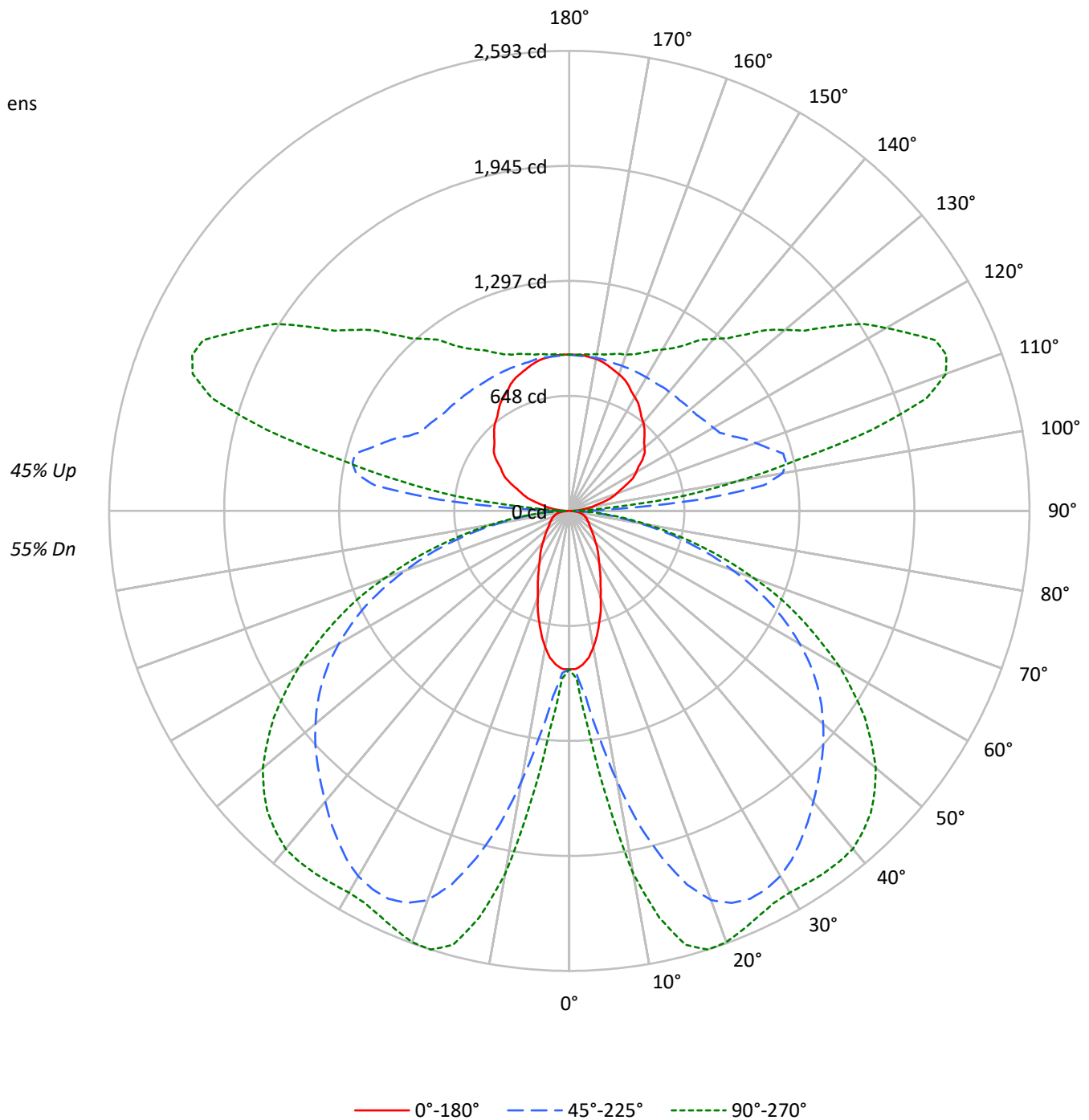
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12613.4 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 109.2
Input Voltage (V): NR
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2696	3190	3709
10°	2447	4651	6148
15°	2080	6077	7424
20°	1694	7044	7566
25°	1414	7373	7412
30°	1193	7422	7398
35°	1055	7301	7590
40°	920	7142	7787
45°	834	7027	7818
50°	765	6924	7688
55°	734	6772	7348
60°	752	6478	6809
65°	784	6029	6070
70°	836	5261	5128
75°	931	4294	4002
80°	1024	2981	2696
85°	930	1585	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	0.9
10°-20°	511.4	4.1
20°-30°	894.5	7.1
30°-40°	1151.5	9.1
40°-50°	1286.1	10.2
50°-60°	1231.8	9.8
60°-70°	976.2	7.7
70°-80°	574.0	4.6
80°-90°	162.8	1.3
90°-100°	429.3	3.4
100°-110°	1128.7	8.9
110°-120°	1170.4	9.3
120°-130°	938.8	7.4
130°-140°	736.6	5.8
140°-150°	565.4	4.5
150°-160°	407.2	3.2
160°-170°	249.1	2.0
170°-180°	84.2	0.7
0°-30°	1521.2	12.1
0°-40°	2672.7	21.2
0°-60°	5190.7	41.2
0°-90°	6903.8	54.7
90°-120°	2728.4	21.6
90°-150°	4969.2	39.4
90°-180°	5710.0	45.3
0°-180°	12613.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	869	932	1050	1187	1230	80
15°	651	1202	2025	2455	2532	181
25°	416	1362	2412	2518	2521	192
35°	281	1302	2272	2401	2495	176
45°	192	1038	2008	2300	2404	149
55°	138	660	1704	1979	2034	125
65°	109	350	1265	1423	1443	108
75°	80	215	694	763	766	84
85°	29	66	172	189	192	30
90°	6	16	45	22	22	7
95°	57	222	740	381	260	63
105°	203	308	1248	1894	1768	216
115°	361	439	1000	1994	2276	357
125°	502	563	909	1536	1812	446
135°	599	659	881	1240	1406	463
145°	694	739	870	1058	1141	435
155°	785	807	870	955	982	361
165°	847	858	870	904	915	239
175°	881	881	875	887	887	84
180°	881	881	881	881	881	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9
2.5°	891.9	891.9	897.7	900.6	906.3	909.2	914.9	920.6	937.8	940.7	946.4
5°	869.0	880.5	917.8	932.1	972.3	1026.7	1049.7	1087.1	1164.5	1187.4	1201.8
7.5°	834.6	860.4	952.2	975.1	1075.5	1219.0	1279.2	1359.5	1482.9	1543.1	1591.8
10°	780.1	834.6	998.1	1052.6	1216.1	1434.1	1545.9	1657.8	1844.2	1927.4	1958.9
12.5°	719.9	808.8	1046.8	1121.5	1356.7	1675.0	1809.8	1933.1	2145.4	2257.2	2274.4
15°	651.0	771.5	1092.8	1201.8	1505.8	1875.8	2024.9	2176.9	2374.8	2455.1	2475.2
17.5°	590.8	742.8	1135.8	1250.5	1620.5	2056.5	2208.5	2334.6	2495.3	2549.7	2564.1
20°	516.2	696.9	1164.5	1313.6	1741.0	2188.4	2334.6	2432.2	2541.1	2575.6	2581.3
22.5°	461.7	648.2	1181.7	1336.6	1821.3	2268.7	2392.0	2469.4	2544.0	2555.5	2558.4
25°	415.9	593.7	1178.8	1362.4	1890.1	2317.4	2412.1	2469.4	2512.5	2518.2	2518.2
27.5°	372.8	533.4	1167.4	1368.1	1941.7	2328.9	2403.5	2443.6	2463.7	2475.2	2475.2
30°	335.6	476.1	1138.7	1356.7	1964.7	2317.4	2377.7	2397.7	2417.8	2435.0	2443.6
32.5°	306.9	421.6	1095.7	1333.7	1967.5	2288.8	2331.8	2343.3	2371.9	2412.1	2426.4
35°	281.1	367.1	1046.8	1302.2	1950.3	2242.9	2271.6	2283.0	2340.4	2400.6	2420.7
37.5°	255.3	327.0	983.7	1247.7	1924.5	2188.4	2208.5	2228.5	2317.4	2389.1	2412.1
40°	229.4	292.5	909.2	1187.4	1884.4	2122.4	2139.6	2171.2	2288.8	2371.9	2394.9
42.5°	209.4	263.9	828.9	1124.4	1832.7	2047.8	2073.7	2119.5	2254.3	2343.3	2369.1
45°	192.2	235.2	742.8	1038.2	1766.8	1970.4	2007.7	2070.8	2214.2	2300.2	2323.2
47.5°	174.9	215.1	653.9	949.3	1695.1	1893.0	1941.7	2013.4	2159.7	2242.9	2262.9
50°	160.6	195.0	565.0	854.7	1617.6	1809.8	1867.2	1941.7	2090.9	2168.3	2194.1
52.5°	149.1	177.8	481.8	760.0	1528.7	1723.8	1789.7	1867.2	2007.7	2082.3	2099.5
55°	137.7	163.5	410.1	659.6	1437.0	1632.0	1703.7	1778.3	1915.9	1979.0	1990.5
57.5°	131.9	152.0	349.9	565.0	1339.5	1528.7	1609.0	1677.9	1806.9	1855.7	1867.2
60°	123.3	143.4	304.0	484.7	1233.3	1431.2	1500.1	1568.9	1677.9	1718.0	1726.6
62.5°	114.7	137.7	269.6	407.3	1124.4	1316.5	1385.3	1448.4	1540.2	1568.9	1580.4
65°	109.0	131.9	243.8	349.9	1012.4	1196.1	1264.9	1319.4	1393.9	1422.6	1428.4
67.5°	103.2	126.2	223.7	301.1	900.6	1075.5	1127.2	1178.8	1236.2	1264.9	1267.8
70°	94.6	120.5	206.5	266.7	785.8	937.8	980.9	1035.3	1081.2	1095.7	1104.3
72.5°	88.9	111.9	195.0	240.9	668.2	805.9	846.1	877.6	917.8	932.1	932.1
75°	80.3	100.4	183.6	215.1	547.8	659.6	694.1	725.6	757.2	762.9	754.3
77.5°	71.7	88.9	157.7	180.7	427.3	522.0	550.7	567.9	593.7	599.4	602.3
80°	60.2	77.4	123.3	140.5	309.7	384.3	404.4	418.7	441.7	441.7	447.4
82.5°	45.9	60.2	88.9	100.4	209.4	263.9	281.1	289.7	304.0	304.0	304.0
85°	28.7	37.3	57.4	66.0	126.2	160.6	172.1	174.9	186.4	189.3	189.3
87.5°	14.3	20.1	37.3	40.2	66.0	83.2	83.2	88.9	88.9	86.0	83.2
90°	5.9	10.6	15.4	16.5	26.0	38.6	44.9	40.0	29.9	22.5	22.5
92.5°	23.6	63.8	104.0	114.1	160.3	222.1	253.0	221.7	159.2	112.3	107.8
95°	56.8	130.3	203.9	222.3	394.6	624.6	739.5	659.8	500.7	381.3	367.7
97.5°	98.1	163.0	227.9	244.2	531.6	914.9	1106.6	1056.3	955.6	880.2	854.5
100°	130.0	188.9	247.7	262.4	581.4	1006.8	1219.5	1223.1	1230.5	1236.0	1205.3
102.5°	157.3	212.1	267.0	280.8	604.3	1035.7	1251.4	1315.5	1443.7	1539.8	1513.5
105°	203.3	249.8	296.3	307.9	621.2	1039.0	1247.9	1391.6	1678.9	1894.5	1880.4
107.5°	250.7	294.0	337.4	348.2	624.5	992.8	1176.9	1377.4	1778.4	2079.0	2082.5
110°	282.6	321.7	360.9	370.6	619.7	951.8	1117.9	1341.9	1790.1	2126.2	2141.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	313.9	351.1	388.4	397.8	619.9	915.9	1064.0	1293.4	1752.1	2096.1	2118.7
115°	361.2	395.6	430.0	438.6	625.6	874.9	999.6	1220.5	1662.4	1993.8	2025.2
117.5°	407.8	439.1	470.4	478.2	637.2	849.2	955.2	1154.7	1553.4	1852.5	1887.2
120°	435.1	464.5	493.9	501.2	646.6	840.6	937.5	1119.8	1484.1	1757.4	1791.2
122.5°	461.7	491.4	521.0	528.5	660.3	836.0	923.9	1087.9	1416.1	1662.2	1695.5
125°	502.5	529.5	556.6	563.4	678.7	832.3	909.2	1048.5	1327.2	1536.3	1567.0
127.5°	535.6	562.9	590.2	597.0	696.9	830.1	896.7	1016.4	1255.7	1435.2	1461.2
130°	553.3	582.8	612.1	619.5	710.3	831.4	892.0	998.5	1211.6	1371.4	1395.3
132.5°	571.6	601.0	630.5	637.8	721.2	832.3	887.8	983.2	1174.0	1317.0	1338.4
135°	598.8	625.6	652.4	659.1	733.0	831.5	880.8	960.7	1120.4	1240.2	1258.7
137.5°	626.6	653.1	679.7	686.3	750.7	836.7	879.6	947.1	1082.2	1183.4	1198.5
140°	649.6	674.1	698.5	704.6	761.5	837.5	875.4	933.7	1050.5	1137.9	1152.1
142.5°	667.4	689.9	712.6	718.2	770.6	840.5	875.4	926.7	1029.1	1106.0	1118.1
145°	694.5	714.2	733.9	738.9	782.5	840.5	869.6	911.5	995.3	1058.1	1067.3
147.5°	721.8	740.9	760.1	764.9	799.8	846.3	869.6	902.6	968.5	1017.9	1025.6
150°	739.5	756.8	774.2	778.5	808.9	849.3	869.6	897.4	953.0	994.8	1001.0
152.5°	757.8	770.9	784.1	787.4	814.8	851.3	869.6	893.4	940.9	976.6	981.2
155°	785.0	794.7	804.5	806.9	827.8	855.6	869.6	888.5	926.3	954.7	957.7
157.5°	805.1	814.6	824.0	826.4	840.8	860.0	869.6	884.3	913.6	935.7	937.9
160°	818.7	826.1	833.4	835.3	846.7	861.9	869.6	882.2	907.3	926.3	927.5
162.5°	832.3	837.8	843.4	844.7	853.0	864.0	869.6	880.2	901.4	917.4	918.5
165°	847.1	852.1	857.1	858.3	862.0	867.1	869.6	877.2	892.4	903.8	905.0
167.5°	860.7	863.0	865.4	865.9	869.1	873.3	875.4	880.4	890.4	897.9	898.4
170°	869.6	871.9	874.3	874.8	875.0	875.3	875.4	880.4	890.4	897.9	897.9
172.5°	874.3	874.7	875.3	875.4	875.4	875.4	875.4	879.3	887.3	893.2	892.7
175°	880.8	880.8	880.8	880.8	878.9	876.6	875.4	877.9	883.0	886.7	886.7
177.5°	880.8	880.8	880.8	880.8	879.4	877.6	876.7	878.7	882.6	885.5	885.0
180°	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8	880.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	891.9	891.9
2.5°	952.2	946.4
5°	1224.7	1230.5
7.5°	1649.2	1646.3
10°	2050.7	2076.5
12.5°	2343.3	2349.0
15°	2521.1	2532.5
17.5°	2589.9	2592.8
20°	2592.8	2587.0
22.5°	2561.2	2555.5
25°	2523.9	2521.1
27.5°	2489.5	2492.4
30°	2475.2	2483.8
32.5°	2475.2	2489.5
35°	2480.9	2495.3
37.5°	2478.0	2495.3
40°	2466.6	2486.7
42.5°	2435.0	2449.4
45°	2386.3	2403.5
47.5°	2323.2	2334.6
50°	2242.9	2254.3
52.5°	2142.5	2145.4
55°	2022.0	2033.5
57.5°	1893.0	1895.8
60°	1749.6	1758.2
62.5°	1597.6	1597.6
65°	1437.0	1442.7
67.5°	1270.6	1285.0
70°	1101.4	1104.3
72.5°	935.0	935.0
75°	762.9	765.8
77.5°	599.4	599.4
80°	444.5	447.4
82.5°	306.9	312.6
85°	192.2	192.2
87.5°	88.9	80.3
90°	22.5	22.5
92.5°	90.0	72.1
95°	313.6	259.5
97.5°	751.4	648.5
100°	1082.7	960.0
102.5°	1408.5	1303.4
105°	1824.0	1767.5
107.5°	2096.0	2109.7
110°	2199.8	2258.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2209.1	2299.5
115°	2150.5	2275.9
117.5°	2026.2	2165.2
120°	1926.2	2061.2
122.5°	1828.7	1961.9
125°	1689.6	1812.4
127.5°	1564.6	1668.1
130°	1491.0	1586.6
132.5°	1424.1	1509.7
135°	1332.5	1406.3
137.5°	1259.0	1319.4
140°	1208.5	1265.0
142.5°	1166.8	1215.4
145°	1104.1	1140.9
147.5°	1056.0	1086.5
150°	1025.7	1050.5
152.5°	999.9	1018.5
155°	970.1	982.5
157.5°	946.5	955.2
160°	932.6	937.5
162.5°	923.3	928.1
165°	910.1	915.1
167.5°	900.6	902.7
170°	897.9	897.9
172.5°	890.9	889.1
175°	886.7	886.7
177.5°	882.9	880.8
180°	880.8	880.8



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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	4.96	5.90	5.86	6.84	8.04	18.15	19.10	19.06	20.03	21.23
	3H	5.67	6.52	6.59	7.46	8.69	20.00	20.85	20.92	21.80	23.02
	4H	5.97	6.78	6.90	7.73	8.96	20.65	21.46	21.59	22.41	23.64
	6H	6.23	6.97	7.17	7.92	9.17	21.09	21.84	22.04	22.79	24.04
	8H	6.30	7.01	7.25	7.98	9.22	21.22	21.93	22.17	22.90	24.14
	12H	6.32	6.99	7.28	7.96	9.23	21.29	21.97	22.25	22.93	24.20
4H	2H	12.19	13.00	13.13	13.95	15.18	18.43	19.24	19.37	20.19	21.42
	3H	13.77	14.44	14.72	15.42	16.67	20.49	21.17	21.44	22.15	23.39
	4H	13.86	14.48	14.82	15.45	16.72	21.27	21.89	22.23	22.86	24.13
	6H	13.88	14.42	14.85	15.41	16.68	21.82	22.35	22.79	23.35	24.61
	8H	13.86	14.36	14.83	15.35	16.63	21.98	22.48	22.96	23.47	24.76
	12H	13.82	14.27	14.81	15.28	16.57	22.08	22.54	23.08	23.54	24.83
8H	4H	15.32	15.82	16.30	16.81	18.09	21.33	21.83	22.31	22.82	24.11
	6H	15.57	15.98	16.57	17.01	18.29	21.97	22.39	22.97	23.42	24.70
	8H	15.59	15.95	16.59	16.97	18.27	22.20	22.56	23.21	23.58	24.88
	12H	15.56	15.88	16.57	16.89	18.24	22.35	22.67	23.36	23.68	25.03
12H	4H	15.47	15.92	16.46	16.93	18.22	21.29	21.74	22.29	22.75	24.04
	6H	15.83	16.20	16.84	17.21	18.51	21.96	22.32	22.97	23.34	24.64
	8H	15.90	16.22	16.92	17.24	18.58	22.19	22.52	23.21	23.53	24.87