

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: P936919

Luminaire Tested: SQ4-FB-050U-125D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

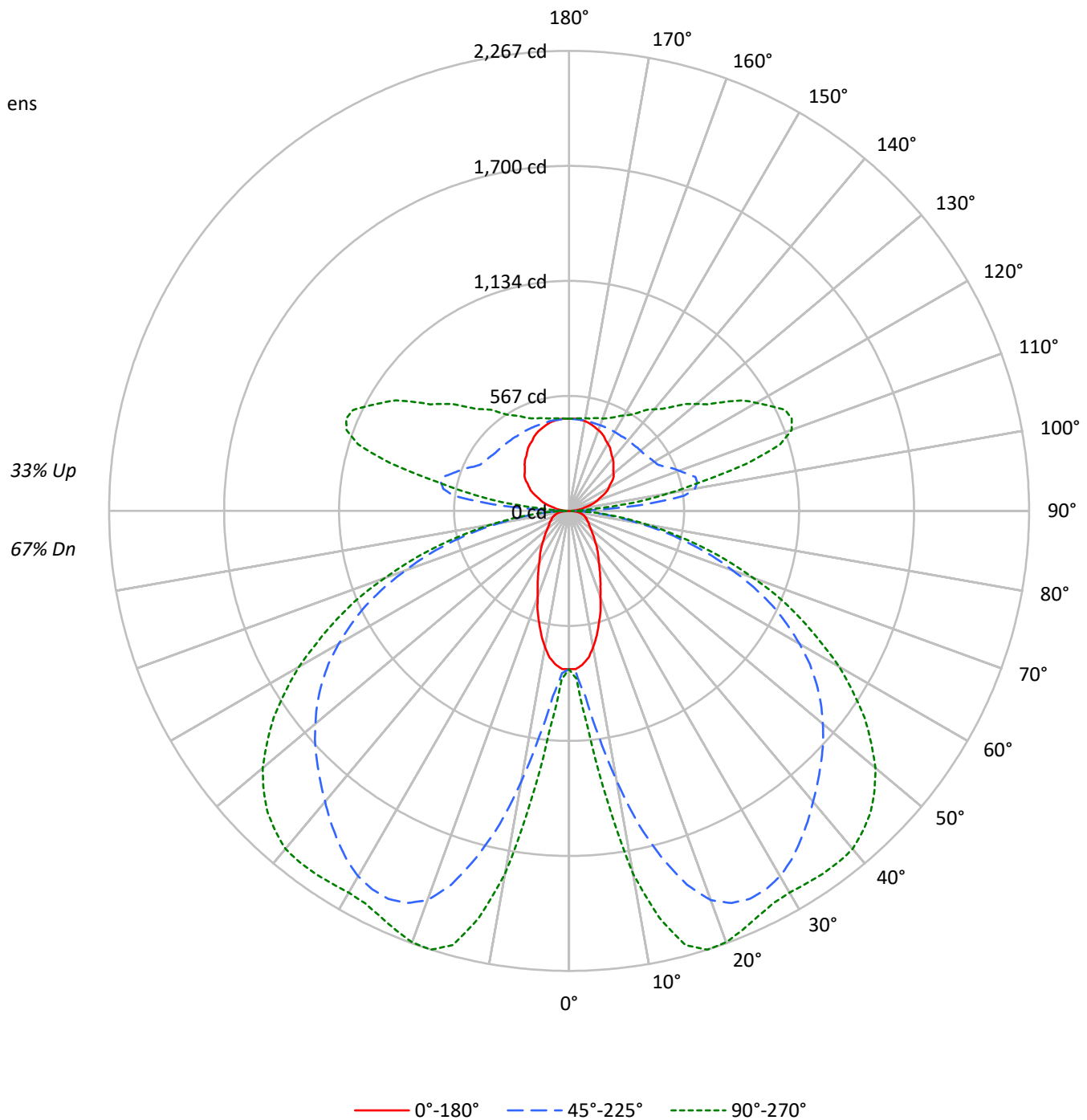
Test Method: LM-79-2019  
Report Number: P936919  
REPORT IS A COMBINATION OF REPORTS P933480 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-125D-840-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8985.9 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 84  
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				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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67	67	67	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55	55	55	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45	45	45	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37	37	37	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31	31	31	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26	26	26	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23	23	23	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20	20	20	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17	17	17	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15	15	15	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14	14	14	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4825	4825	4825
5°	4712	5575	6485
10°	4272	8125	10752
15°	3630	10613	12983
20°	2954	12295	13231
25°	2463	12863	12962
30°	2076	12941	12938
35°	1835	12723	13273
40°	1598	12440	13618
45°	1447	12232	13672
50°	1325	12044	13445
55°	1267	11770	12849
60°	1296	11249	11908
65°	1347	10457	10615
70°	1432	9113	8968
75°	1580	7424	6998
80°	1715	5142	4715
85°	1496	2724	2415

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13672 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	1.1
10°-20°	447.1	5.0
20°-30°	782.1	8.7
30°-40°	1006.8	11.2
40°-50°	1124.6	12.5
50°-60°	1077.1	12.0
60°-70°	853.6	9.5
70°-80°	501.9	5.6
80°-90°	141.2	1.6
90°-100°	221.9	2.5
100°-110°	583.3	6.5
110°-120°	604.8	6.7
120°-130°	485.1	5.4
130°-140°	380.6	4.2
140°-150°	292.2	3.3
150°-160°	210.4	2.3
160°-170°	128.7	1.4
170°-180°	43.5	0.5
0°-30°	1330.2	14.8
0°-40°	2337.0	26.0
0°-60°	4538.7	50.5
0°-90°	6035.5	67.2
90°-120°	1409.9	15.7
90°-150°	2567.8	28.6
90°-180°	2950.0	32.8
0°-180°	8985.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	760	815	918	1038	1076	70
15°	569	1051	1771	2147	2214	158
25°	364	1191	2109	2202	2204	168
35°	246	1139	1986	2099	2182	153
45°	168	908	1756	2011	2102	130
55°	120	577	1490	1730	1778	110
65°	95	306	1106	1244	1262	94
75°	70	188	607	667	670	74
85°	25	58	150	166	168	27
90°	3	9	23	12	12	4
95°	29	115	382	197	134	33
105°	105	159	645	979	913	111
115°	187	227	516	1030	1176	184
125°	260	291	470	794	936	231
135°	309	341	455	641	727	239
145°	359	382	449	547	590	225
155°	406	417	449	493	508	186
165°	438	444	449	467	473	124
175°	455	455	452	458	458	43
180°	455	455	455	455	455	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9	779.9
2.5°	779.9	779.9	785.0	787.4	792.5	795.0	800.0	805.0	820.0	822.6	827.6
5°	759.9	769.9	802.6	815.1	850.2	897.8	917.9	950.5	1018.2	1038.3	1050.8
7.5°	729.8	752.4	832.6	852.6	940.5	1065.9	1118.5	1188.8	1296.6	1349.2	1391.9
10°	682.1	729.8	872.7	920.4	1063.4	1254.0	1351.8	1449.6	1612.6	1685.3	1712.9
12.5°	629.5	707.2	915.4	980.6	1186.2	1464.6	1582.5	1690.3	1875.9	1973.7	1988.7
15°	569.3	674.6	955.5	1050.8	1316.6	1640.2	1770.6	1903.5	2076.6	2146.7	2164.3
17.5°	516.6	649.5	993.1	1093.4	1417.0	1798.2	1931.0	2041.4	2181.9	2229.5	2242.1
20°	451.4	609.4	1018.2	1148.6	1522.3	1913.6	2041.4	2126.7	2222.0	2252.0	2257.1
22.5°	403.8	566.8	1033.3	1168.7	1592.6	1983.7	2091.6	2159.3	2224.5	2234.6	2237.0
25°	363.7	519.1	1030.8	1191.2	1652.7	2026.4	2109.2	2159.3	2196.9	2202.0	2202.0
27.5°	326.0	466.4	1020.7	1196.3	1697.9	2036.4	2101.6	2136.7	2154.2	2164.3	2164.3
30°	293.4	416.3	995.6	1186.2	1717.9	2026.4	2079.0	2096.6	2114.1	2129.2	2136.7
32.5°	268.3	368.6	958.0	1166.1	1720.4	2001.3	2038.9	2048.9	2074.0	2109.2	2121.6
35°	245.8	321.0	915.4	1138.6	1705.4	1961.2	1986.3	1996.3	2046.4	2099.1	2116.7
37.5°	223.2	285.9	860.3	1090.9	1682.8	1913.6	1931.0	1948.6	2026.4	2089.0	2109.2
40°	200.7	255.8	795.0	1038.3	1647.7	1855.9	1870.9	1898.4	2001.3	2074.0	2094.1
42.5°	183.1	230.7	724.8	983.1	1602.5	1790.7	1813.2	1853.3	1971.2	2048.9	2071.5
45°	168.1	205.6	649.5	907.9	1544.8	1722.9	1755.5	1810.7	1936.1	2011.4	2031.4
47.5°	152.9	188.1	571.8	830.1	1482.2	1655.2	1697.9	1760.5	1888.5	1961.2	1978.8
50°	140.4	170.5	494.1	747.3	1414.4	1582.5	1632.7	1697.9	1828.3	1896.0	1918.5
52.5°	130.4	155.5	421.3	664.6	1336.7	1507.2	1564.9	1632.7	1755.5	1820.7	1835.8
55°	120.3	143.0	358.6	576.8	1256.4	1427.0	1489.7	1554.9	1675.3	1730.5	1740.5
57.5°	115.4	132.9	306.0	494.1	1171.2	1336.7	1406.9	1467.1	1580.0	1622.6	1632.7
60°	107.8	125.4	265.9	423.9	1078.4	1251.4	1311.7	1371.8	1467.1	1502.3	1509.8
62.5°	100.3	120.3	235.7	356.1	983.1	1151.1	1211.3	1266.5	1346.7	1371.8	1381.8
65°	95.3	115.4	213.2	306.0	885.2	1045.8	1106.0	1153.6	1218.8	1243.9	1248.9
67.5°	90.3	110.4	195.6	263.3	787.4	940.5	985.6	1030.8	1080.9	1106.0	1108.5
70°	82.8	105.3	180.6	233.3	687.2	820.0	857.7	905.3	945.5	958.0	965.6
72.5°	77.8	97.8	170.5	210.6	584.3	704.7	739.8	767.4	802.6	815.1	815.1
75°	70.2	87.7	160.6	188.1	479.0	576.8	606.9	634.5	662.1	667.1	659.6
77.5°	62.7	77.8	137.9	158.0	373.7	456.5	481.6	496.6	519.1	524.1	526.7
80°	52.7	67.7	107.8	122.9	270.8	336.0	353.6	366.2	386.2	386.2	391.2
82.5°	40.1	52.7	77.8	87.7	183.1	230.7	245.8	253.3	265.9	265.9	265.9
85°	25.1	32.6	50.2	57.7	110.4	140.4	150.5	152.9	163.0	165.5	165.5
87.5°	12.5	17.6	32.6	35.1	57.7	72.7	72.7	77.8	77.8	75.3	72.7
90°	3.1	5.5	8.0	8.6	13.4	20.0	23.2	20.6	15.4	11.6	11.6
92.5°	12.3	33.0	53.7	59.0	82.9	114.8	130.7	114.5	82.2	58.0	55.7
95°	29.3	67.3	105.3	114.8	203.9	322.8	382.2	341.1	258.8	197.0	190.0
97.5°	50.7	84.3	117.8	126.2	274.8	472.9	571.9	545.9	493.8	454.8	441.4
100°	67.2	97.6	128.0	135.7	300.5	520.3	630.1	632.0	635.9	638.7	622.9
102.5°	81.2	109.7	138.0	145.1	312.3	535.2	646.6	679.7	746.0	795.7	782.2
105°	105.1	129.1	153.1	159.2	321.0	536.9	644.8	719.1	867.6	979.0	971.7
107.5°	129.5	152.0	174.3	179.9	322.7	513.0	608.1	711.7	918.8	1074.3	1076.0
110°	146.0	166.2	186.4	191.5	320.2	491.8	577.6	693.4	925.1	1098.8	1106.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	162.2	181.5	200.8	205.6	320.3	473.4	549.8	668.4	905.4	1083.1	1094.8
115°	186.6	204.4	222.2	226.6	323.3	452.1	516.5	630.7	859.1	1030.3	1046.5
117.5°	210.7	226.9	243.0	247.1	329.3	438.9	493.6	596.7	802.8	957.3	975.3
120°	224.8	240.0	255.2	259.1	334.1	434.3	484.4	578.6	766.9	908.1	925.6
122.5°	238.6	253.9	269.2	273.1	341.2	432.0	477.4	562.2	731.8	859.0	876.2
125°	259.6	273.6	287.6	291.1	350.6	430.1	469.8	541.8	685.9	793.9	809.7
127.5°	276.7	290.9	305.0	308.6	360.1	429.0	463.4	525.2	648.8	741.6	754.9
130°	285.9	301.1	316.4	320.1	367.0	429.6	460.9	515.9	626.1	708.7	721.0
132.5°	295.4	310.6	325.8	329.6	372.7	430.1	458.8	508.1	606.6	680.5	691.6
135°	309.4	323.3	337.1	340.6	378.8	429.7	455.2	496.5	579.0	640.8	650.4
137.5°	323.8	337.5	351.1	354.6	387.9	432.2	454.5	489.4	559.1	611.5	619.3
140°	335.7	348.4	360.9	364.1	393.5	432.7	452.4	482.5	542.8	588.0	595.3
142.5°	344.8	356.5	368.1	371.1	398.2	434.3	452.4	478.9	531.7	571.5	577.8
145°	358.9	369.1	379.3	381.9	404.4	434.3	449.3	471.0	514.3	546.8	551.5
147.5°	373.0	382.8	392.8	395.3	413.3	437.3	449.3	466.3	500.4	526.0	530.0
150°	382.2	391.1	400.0	402.3	418.0	438.9	449.3	463.8	492.5	514.1	517.2
152.5°	391.5	398.4	405.2	406.9	421.0	439.9	449.3	461.6	486.2	504.6	506.9
155°	405.7	410.7	415.7	416.9	427.7	442.1	449.3	459.1	478.7	493.3	494.9
157.5°	416.0	420.9	425.8	427.0	434.4	444.4	449.3	457.0	472.2	483.5	484.6
160°	423.1	426.8	430.6	431.6	437.5	445.4	449.3	455.9	468.9	478.7	479.3
162.5°	430.1	432.9	435.8	436.5	440.7	446.5	449.3	454.9	465.8	474.0	474.6
165°	437.7	440.3	442.8	443.5	445.5	448.1	449.3	453.3	461.1	467.0	467.7
167.5°	444.7	445.9	447.2	447.5	449.1	451.3	452.4	455.0	460.1	464.0	464.3
170°	449.3	450.5	451.8	452.1	452.2	452.3	452.4	455.0	460.1	464.0	464.0
172.5°	451.8	452.1	452.3	452.4	452.4	452.4	452.4	454.4	458.4	461.5	461.3
175°	455.2	455.2	455.2	455.2	454.3	453.0	452.4	453.7	456.3	458.1	458.1
177.5°	455.2	455.2	455.2	455.2	454.5	453.5	453.0	454.0	456.1	457.5	457.2
180°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	779.9	779.9
2.5°	832.6	827.6
5°	1070.9	1075.9
7.5°	1442.1	1439.5
10°	1793.1	1815.7
12.5°	2048.9	2054.0
15°	2204.4	2214.5
17.5°	2264.6	2267.2
20°	2267.2	2262.1
22.5°	2239.5	2234.6
25°	2206.9	2204.4
27.5°	2176.9	2179.3
30°	2164.3	2171.8
32.5°	2164.3	2176.9
35°	2169.4	2181.9
37.5°	2166.8	2181.9
40°	2156.8	2174.3
42.5°	2129.2	2141.8
45°	2086.6	2101.6
47.5°	2031.4	2041.4
50°	1961.2	1971.2
52.5°	1873.3	1875.9
55°	1768.0	1778.1
57.5°	1655.2	1657.7
60°	1529.8	1537.3
62.5°	1396.9	1396.9
65°	1256.4	1261.5
67.5°	1111.0	1123.6
70°	963.0	965.6
72.5°	817.6	817.6
75°	667.1	669.6
77.5°	524.1	524.1
80°	388.7	391.2
82.5°	268.3	273.4
85°	168.1	168.1
87.5°	77.8	70.2
90°	11.6	11.6
92.5°	46.4	37.2
95°	162.0	134.1
97.5°	388.3	335.1
100°	559.5	496.1
102.5°	727.9	673.5
105°	942.6	913.3
107.5°	1083.0	1090.2
110°	1136.7	1167.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1141.5	1188.2
115°	1111.2	1176.0
117.5°	1047.1	1118.9
120°	995.3	1065.2
122.5°	945.0	1013.8
125°	873.1	936.5
127.5°	808.5	862.0
130°	770.4	819.8
132.5°	735.9	780.1
135°	688.5	726.7
137.5°	650.6	681.8
140°	624.4	653.7
142.5°	602.9	628.0
145°	570.6	589.5
147.5°	545.7	561.4
150°	530.1	542.8
152.5°	516.6	526.3
155°	501.3	507.6
157.5°	489.2	493.6
160°	481.8	484.4
162.5°	477.1	479.6
165°	470.3	472.9
167.5°	465.3	466.4
170°	464.0	464.0
172.5°	460.3	459.4
175°	458.1	458.1
177.5°	456.3	455.2
180°	455.2	455.2



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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	7.90	8.99	8.68	9.81	10.81	21.06	22.16	21.85	22.97	23.97
	3H	8.62	9.61	9.42	10.43	11.46	22.91	23.90	23.71	24.73	25.75
	4H	8.93	9.86	9.74	10.70	11.73	23.56	24.50	24.38	25.33	26.37
	6H	9.19	10.06	10.02	10.90	11.95	24.00	24.87	24.83	25.71	26.76
	8H	9.27	10.09	10.10	10.95	12.00	24.13	24.95	24.97	25.81	26.87
	12H	9.29	10.08	10.14	10.93	12.01	24.20	24.99	25.05	25.84	26.92
4H	2H	15.13	16.07	15.95	16.90	17.94	21.36	22.30	22.18	23.13	24.17
	3H	16.72	17.51	17.55	18.37	19.43	23.43	24.21	24.26	25.08	26.13
	4H	16.83	17.54	17.67	18.40	19.49	24.20	24.92	25.05	25.78	26.86
	6H	16.85	17.47	17.71	18.36	19.44	24.75	25.37	25.61	26.26	27.34
	8H	16.83	17.41	17.70	18.30	19.40	24.91	25.50	25.78	26.38	27.48
	12H	16.80	17.33	17.69	18.23	19.34	25.02	25.54	25.90	26.44	27.55
8H	4H	18.29	18.87	19.15	19.75	20.85	24.28	24.86	25.15	25.74	26.84
	6H	18.54	19.02	19.43	19.95	21.05	24.92	25.40	25.81	26.32	27.42
	8H	18.56	18.99	19.47	19.91	21.02	25.14	25.57	26.04	26.48	27.60
	12H	18.54	18.92	19.45	19.83	21.00	25.29	25.67	26.20	26.58	27.75
12H	4H	18.44	18.97	19.33	19.87	20.97	24.24	24.77	25.13	25.67	26.78
	6H	18.80	19.23	19.70	20.15	21.26	24.90	25.33	25.81	26.25	27.37
	8H	18.88	19.26	19.79	20.17	21.34	25.14	25.52	26.05	26.43	27.60