

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: P938118

Luminaire Tested: SQ4-FB-125U-125D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

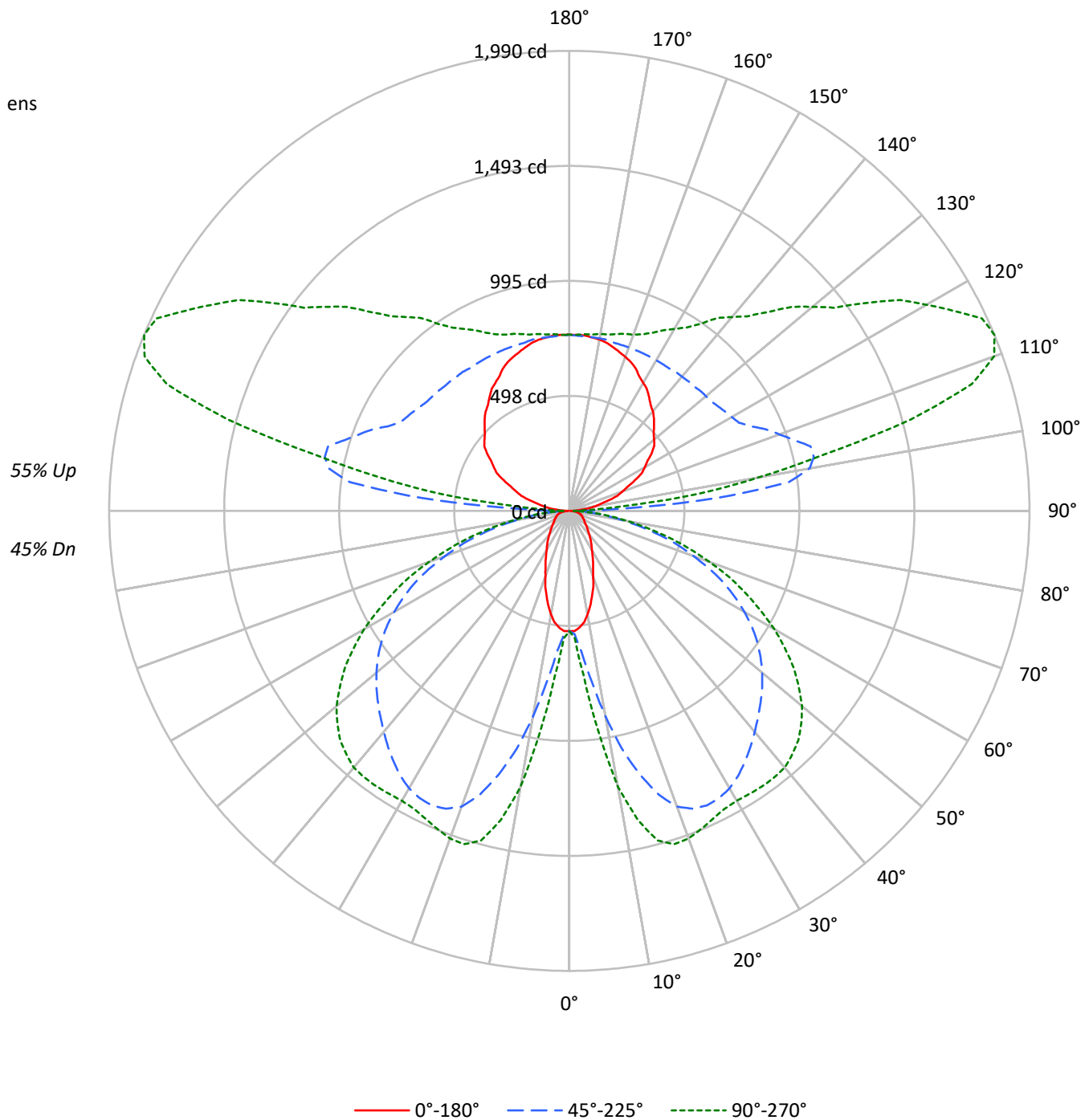
Test Method: LM-79-2019  
Report Number: P938118  
REPORT IS A COMBINATION OF REPORTS P933600 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-125D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8966.1 lumens  
Efficiency: N/A  
Efficacy: 119.2 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 75.2  
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				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	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	44	42	37	37	37	37
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	27	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	23	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	22	18	16	13	13	13	13
8	52	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

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

	0°	45°	90°
0°	4824	4824	4824
5°	4708	5572	6485
10°	4266	8116	10751
15°	3621	10596	12982
20°	2945	12271	13231
25°	2454	12831	12962
30°	2066	12902	12937
35°	1824	12677	13271
40°	1587	12389	13617
45°	1434	12174	13671
50°	1314	11979	13444
55°	1253	11696	12848
60°	1279	11169	11908
65°	1323	10371	10614
70°	1399	9027	8968
75°	1535	7341	6998
80°	1643	5072	4715
85°	1383	2677	2413

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13671 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	0.8
10°-20°	298.1	3.3
20°-30°	521.4	5.8
30°-40°	671.2	7.5
40°-50°	749.7	8.4
50°-60°	718.0	8.0
60°-70°	569.0	6.3
70°-80°	334.6	3.7
80°-90°	95.9	1.1
90°-100°	371.5	4.1
100°-110°	976.8	10.9
110°-120°	1012.8	11.3
120°-130°	812.4	9.1
130°-140°	637.5	7.1
140°-150°	489.3	5.5
150°-160°	352.4	3.9
160°-170°	215.6	2.4
170°-180°	72.8	0.8
0°-30°	886.7	9.9
0°-40°	1557.9	17.4
0°-60°	3025.6	33.7
0°-90°	4025.1	44.9
90°-120°	2361.2	26.3
90°-150°	4300.3	48.0
90°-180°	4941.0	55.1
0°-180°	8966.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	506	543	612	692	717	47
15°	380	700	1180	1431	1476	106
25°	242	794	1406	1468	1470	112
35°	164	759	1324	1399	1454	102
45°	112	605	1170	1341	1401	87
55°	80	384	993	1154	1185	73
65°	64	204	737	829	841	63
75°	47	125	405	445	446	49
85°	17	38	100	110	112	18
90°	5	14	39	20	20	5
95°	49	192	640	330	225	55
105°	176	267	1080	1640	1530	187
115°	312	380	865	1725	1970	309
125°	435	488	787	1330	1568	386
135°	518	570	762	1073	1217	401
145°	601	639	752	916	987	377
155°	679	698	752	826	850	312
165°	733	743	752	782	792	207
175°	762	762	758	767	767	72
180°	762	762	762	762	762	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9	519.9
2.5°	519.9	519.9	523.2	524.9	528.3	530.0	533.3	536.7	546.7	548.3	551.7
5°	506.5	513.3	535.0	543.3	566.7	598.5	611.9	633.6	678.8	692.1	700.5
7.5°	486.5	501.5	555.1	568.4	626.9	710.5	745.6	792.5	864.3	899.4	927.8
10°	454.7	486.5	581.7	613.5	708.8	835.8	901.1	966.3	1074.9	1123.5	1141.8
12.5°	419.6	471.5	610.2	653.7	790.8	976.3	1054.9	1126.8	1250.5	1315.7	1325.7
15°	379.5	449.7	637.0	700.5	877.6	1093.3	1180.3	1268.9	1384.3	1431.0	1442.8
17.5°	344.4	433.0	662.1	728.9	944.5	1198.6	1287.3	1360.9	1454.4	1486.2	1494.5
20°	300.9	406.3	678.8	765.7	1014.8	1275.6	1360.9	1417.7	1481.2	1501.3	1504.6
22.5°	269.1	377.8	688.7	779.0	1061.6	1322.3	1394.3	1439.4	1482.9	1489.6	1491.2
25°	242.5	346.1	687.2	794.1	1101.7	1350.8	1406.0	1439.4	1464.5	1467.9	1467.9
27.5°	217.4	310.9	680.4	797.4	1131.8	1357.5	1401.0	1424.4	1436.1	1442.8	1442.8
30°	195.6	277.5	663.7	790.8	1145.2	1350.8	1385.9	1397.6	1409.3	1419.4	1424.4
32.5°	178.9	245.7	638.6	777.4	1146.9	1334.1	1359.2	1365.8	1382.6	1406.0	1414.3
35°	163.8	214.0	610.2	759.0	1136.8	1307.3	1324.0	1330.7	1364.1	1399.3	1411.0
37.5°	148.8	190.6	573.4	727.3	1121.8	1275.6	1287.3	1299.0	1350.8	1392.6	1406.0
40°	133.8	170.5	530.0	692.1	1098.4	1237.1	1247.2	1265.5	1334.1	1382.6	1395.9
42.5°	122.0	153.8	483.1	655.3	1068.2	1193.7	1208.7	1235.5	1314.0	1365.8	1380.9
45°	112.0	137.1	433.0	605.2	1029.8	1148.6	1170.3	1207.0	1290.6	1340.8	1354.2
47.5°	102.0	125.4	381.2	553.4	988.0	1103.4	1131.8	1173.6	1258.8	1307.3	1319.1
50°	93.7	113.7	329.3	498.1	942.8	1054.9	1088.4	1131.8	1218.7	1263.8	1279.0
52.5°	86.9	103.6	280.9	443.0	891.1	1004.7	1043.2	1088.4	1170.3	1213.8	1223.7
55°	80.2	95.2	239.1	384.5	837.5	951.2	993.0	1036.5	1116.7	1153.5	1160.2
57.5°	76.9	88.6	203.9	329.3	780.7	891.1	937.9	978.0	1053.2	1081.7	1088.4
60°	71.9	83.6	177.2	282.6	718.9	834.3	874.4	914.5	978.0	1001.4	1006.4
62.5°	66.9	80.2	157.2	237.4	655.3	767.4	807.5	844.2	897.8	914.5	921.1
65°	63.5	76.9	142.1	203.9	590.1	697.1	737.2	769.1	812.5	829.2	832.6
67.5°	60.2	73.6	130.4	175.6	524.9	626.9	657.0	687.2	720.5	737.2	738.9
70°	55.1	70.2	120.3	155.5	458.0	546.7	571.8	603.5	630.2	638.6	643.7
72.5°	51.9	65.2	113.7	140.4	389.6	469.8	493.2	511.6	535.0	543.3	543.3
75°	46.8	58.5	107.0	125.4	319.3	384.5	404.6	423.0	441.3	444.7	439.7
77.5°	41.8	51.9	92.0	105.3	249.1	304.3	321.0	331.0	346.1	349.4	351.0
80°	35.1	45.2	71.9	81.9	180.5	224.0	235.7	244.0	257.5	257.5	260.8
82.5°	26.8	35.1	51.9	58.5	122.0	153.8	163.8	168.8	177.2	177.2	177.2
85°	16.7	21.7	33.4	38.4	73.6	93.7	100.3	102.0	108.7	110.4	110.4
87.5°	8.4	11.7	21.7	23.4	38.4	48.5	48.5	51.9	51.9	50.2	48.5
90°	5.1	9.2	13.3	14.3	22.5	33.4	38.8	34.5	25.9	19.5	19.5
92.5°	20.5	55.2	90.0	98.7	138.8	192.3	218.9	191.9	137.8	97.2	93.4
95°	49.1	112.7	176.5	192.4	341.6	540.4	639.9	571.1	433.3	330.0	318.2
97.5°	84.9	141.0	197.2	211.2	460.0	791.7	957.6	914.0	827.0	761.6	739.4
100°	112.5	163.5	214.4	227.1	503.2	871.2	1055.3	1058.4	1064.9	1069.6	1043.0
102.5°	136.0	183.6	231.1	242.9	522.9	896.3	1082.9	1138.5	1249.4	1332.6	1309.9
105°	176.0	216.3	256.5	266.6	537.7	899.2	1079.9	1204.3	1453.0	1639.5	1627.2
107.5°	216.9	254.4	292.0	301.3	540.4	859.2	1018.5	1192.0	1538.9	1799.0	1802.0
110°	244.5	278.4	312.2	320.7	536.3	823.7	967.4	1161.3	1549.2	1840.1	1852.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	271.6	303.9	336.1	344.2	536.4	792.7	920.8	1119.3	1516.3	1814.0	1833.5
115°	312.5	342.3	372.2	379.6	541.4	757.1	865.0	1056.2	1438.6	1725.4	1752.5
117.5°	353.0	380.1	407.2	413.9	551.5	735.0	826.7	999.2	1344.3	1603.1	1633.2
120°	376.5	402.0	427.5	433.8	559.7	727.5	811.3	969.0	1284.3	1520.8	1550.1
122.5°	399.5	425.2	450.9	457.3	571.5	723.5	799.6	941.6	1225.5	1438.4	1467.3
125°	434.8	458.2	481.6	487.5	587.3	720.3	786.7	907.4	1148.6	1329.5	1356.0
127.5°	463.5	487.1	510.7	516.6	603.1	718.4	776.0	879.5	1086.7	1242.0	1264.4
130°	478.8	504.3	529.8	536.1	614.7	719.6	771.9	864.1	1048.5	1186.8	1207.4
132.5°	494.7	520.2	545.7	552.0	624.1	720.3	768.4	850.9	1016.0	1139.8	1158.2
135°	518.2	541.4	564.5	570.4	634.3	719.6	762.2	831.4	969.6	1073.3	1089.3
137.5°	542.2	565.1	588.2	593.9	649.6	724.0	761.2	819.5	936.4	1024.1	1037.1
140°	562.2	583.3	604.5	609.8	659.1	724.8	757.6	808.1	909.1	984.7	997.0
142.5°	577.5	597.0	616.6	621.6	666.9	727.4	757.6	802.0	890.6	957.1	967.5
145°	601.1	618.1	635.2	639.4	677.1	727.4	752.5	788.7	861.2	915.7	923.7
147.5°	624.6	641.2	657.8	662.0	692.1	732.3	752.5	781.0	838.1	880.9	887.5
150°	639.9	654.9	670.0	673.7	700.0	735.0	752.5	776.6	824.8	860.9	866.3
152.5°	655.8	667.2	678.6	681.4	705.1	736.7	752.5	773.0	814.2	845.0	849.1
155°	679.3	687.7	696.1	698.2	716.3	740.4	752.5	768.9	801.6	826.2	828.8
157.5°	696.7	704.9	713.0	715.1	727.6	744.2	752.5	765.2	790.7	809.8	811.6
160°	708.5	714.8	721.2	722.8	732.7	745.8	752.5	763.3	785.2	801.6	802.7
162.5°	720.3	725.0	729.8	731.0	738.1	747.7	752.5	761.6	780.1	794.0	794.9
165°	733.0	737.3	741.7	742.8	746.0	750.3	752.5	759.1	772.2	782.1	783.2
167.5°	744.9	746.8	748.9	749.4	752.2	755.8	757.6	761.9	770.5	777.1	777.6
170°	752.5	754.5	756.6	757.1	757.3	757.5	757.6	761.9	770.5	777.1	777.1
172.5°	756.6	757.0	757.5	757.6	757.6	757.6	757.6	761.0	767.8	772.9	772.5
175°	762.2	762.2	762.2	762.2	760.7	758.6	757.6	759.8	764.0	767.3	767.3
177.5°	762.2	762.2	762.2	762.2	761.1	759.4	758.6	760.3	763.7	766.3	765.8
180°	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2	762.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	519.9	519.9
2.5°	555.1	551.7
5°	713.8	717.2
7.5°	961.3	959.6
10°	1195.3	1210.4
12.5°	1365.8	1369.2
15°	1469.6	1476.2
17.5°	1509.7	1511.3
20°	1511.3	1508.0
22.5°	1492.9	1489.6
25°	1471.1	1469.6
27.5°	1451.1	1452.8
30°	1442.8	1447.8
32.5°	1442.8	1451.1
35°	1446.1	1454.4
37.5°	1444.5	1454.4
40°	1437.7	1449.4
42.5°	1419.4	1427.7
45°	1390.9	1401.0
47.5°	1354.2	1360.9
50°	1307.3	1314.0
52.5°	1248.8	1250.5
55°	1178.6	1185.3
57.5°	1103.4	1105.1
60°	1019.8	1024.9
62.5°	931.2	931.2
65°	837.5	840.9
67.5°	740.6	749.0
70°	642.0	643.7
72.5°	545.0	545.0
75°	444.7	446.4
77.5°	349.4	349.4
80°	259.2	260.8
82.5°	178.9	182.2
85°	112.0	112.0
87.5°	51.9	46.8
90°	19.5	19.5
92.5°	77.9	62.4
95°	271.4	224.6
97.5°	650.3	561.2
100°	936.9	830.7
102.5°	1218.9	1128.0
105°	1578.4	1529.5
107.5°	1813.9	1825.7
110°	1903.7	1954.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1911.7	1989.9
115°	1861.0	1969.5
117.5°	1753.5	1873.7
120°	1666.9	1783.7
122.5°	1582.5	1697.8
125°	1462.1	1568.4
127.5°	1354.0	1443.6
130°	1290.2	1373.0
132.5°	1232.3	1306.4
135°	1153.1	1216.9
137.5°	1089.5	1141.7
140°	1045.8	1094.7
142.5°	1009.6	1051.7
145°	955.5	987.3
147.5°	913.8	940.2
150°	887.7	909.1
152.5°	865.2	881.4
155°	839.5	850.2
157.5°	819.2	826.7
160°	807.0	811.3
162.5°	799.1	803.1
165°	787.5	791.9
167.5°	779.3	781.1
170°	777.1	777.1
172.5°	770.9	769.4
175°	767.3	767.3
177.5°	764.0	762.2
180°	762.2	762.2



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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	5.97	6.82	6.96	7.83	9.17	19.11	19.96	20.10	20.97	22.31
	3H	6.68	7.44	7.68	8.46	9.82	20.94	21.70	21.94	22.72	24.08
	4H	6.98	7.70	7.99	8.72	10.09	21.57	22.29	22.59	23.32	24.68
	6H	7.23	7.90	8.25	8.92	10.30	21.99	22.66	23.01	23.68	25.06
	8H	7.30	7.93	8.33	8.97	10.35	22.10	22.74	23.13	23.78	25.16
	12H	7.31	7.92	8.35	8.95	10.36	22.16	22.77	23.20	23.80	25.21
4H	2H	13.16	13.89	14.18	14.91	16.28	19.39	20.11	20.41	21.13	22.50
	3H	14.73	15.34	15.76	16.39	17.77	21.42	22.02	22.45	23.07	24.45
	4H	14.83	15.38	15.86	16.42	17.83	22.17	22.73	23.21	23.77	25.17
	6H	14.84	15.32	15.89	16.38	17.78	22.70	23.18	23.75	24.24	25.64
	8H	14.81	15.26	15.86	16.32	17.73	22.85	23.30	23.90	24.36	25.77
	12H	14.77	15.18	15.84	16.25	17.67	22.94	23.34	24.01	24.42	25.84
8H	4H	16.26	16.71	17.31	17.77	19.18	22.23	22.68	23.28	23.74	25.15
	6H	16.50	16.87	17.58	17.97	19.38	22.85	23.22	23.92	24.32	25.73
	8H	16.52	16.85	17.60	17.93	19.36	23.06	23.39	24.14	24.47	25.90
	12H	16.49	16.78	17.57	17.85	19.33	23.20	23.48	24.28	24.56	26.03
12H	4H	16.40	16.81	17.47	17.88	19.30	22.19	22.59	23.25	23.66	25.08
	6H	16.76	17.08	17.84	18.17	19.60	22.83	23.16	23.91	24.24	25.67
	8H	16.83	17.11	17.91	18.19	19.66	23.05	23.34	24.14	24.42	25.89