

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: P936679

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P936679  
REPORT IS A COMBINATION OF REPORTS P933461 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-12-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

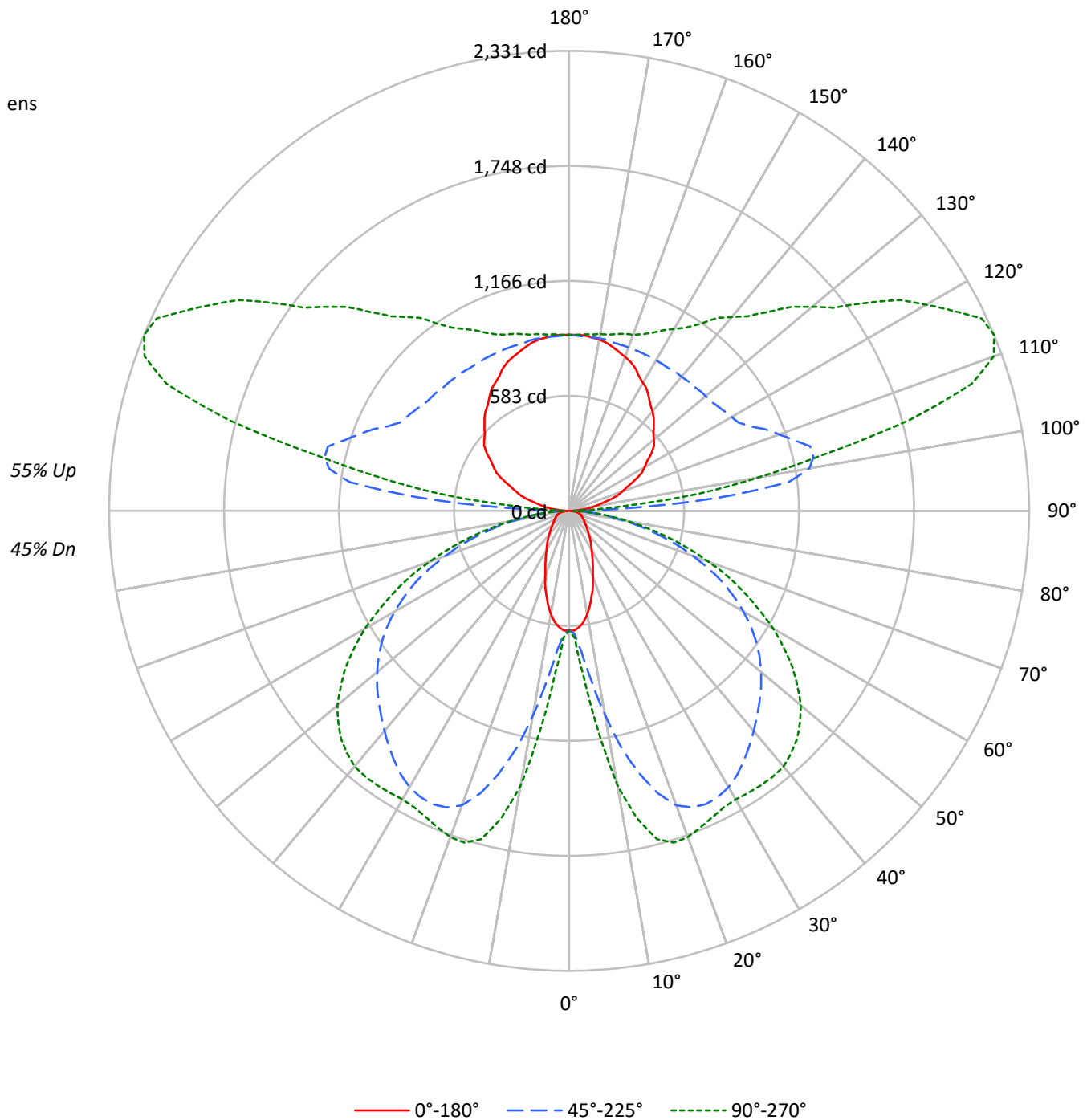
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10481.6 lumens  
Efficiency: N/A  
Efficacy: 123.0 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): 85.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1876	1876	1876
5°	1833	2168	2521
10°	1663	3161	4179
15°	1414	4132	5047
20°	1152	4789	5143
25°	961	5012	5039
30°	811	5046	5029
35°	717	4963	5159
40°	626	4856	5294
45°	567	4777	5315
50°	520	4707	5227
55°	499	4603	4995
60°	511	4404	4629
65°	533	4099	4126
70°	568	3577	3486
75°	633	2918	2720
80°	697	2027	1833
85°	632	1077	938

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5315 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.4	0.7
10°-20°	347.6	3.3
20°-30°	608.1	5.8
30°-40°	782.8	7.5
40°-50°	874.3	8.3
50°-60°	837.4	8.0
60°-70°	663.6	6.3
70°-80°	390.2	3.7
80°-90°	111.8	1.1
90°-100°	435.1	4.2
100°-110°	1144.1	10.9
110°-120°	1186.3	11.3
120°-130°	951.5	9.1
130°-140°	746.6	7.1
140°-150°	573.1	5.5
150°-160°	412.7	3.9
160°-170°	252.5	2.4
170°-180°	85.3	0.8
0°-30°	1034.2	9.9
0°-40°	1816.9	17.3
0°-60°	3528.6	33.7
0°-90°	4694.3	44.8
90°-120°	2765.5	26.4
90°-150°	5036.8	48.1
90°-180°	5787.0	55.2
0°-180°	10481.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	591	634	714	807	836	55
15°	443	817	1377	1669	1722	123
25°	283	926	1640	1712	1714	130
35°	191	885	1544	1632	1696	119
45°	131	706	1365	1564	1634	101
55°	94	448	1158	1345	1382	85
65°	74	238	860	967	981	73
75°	55	146	472	519	520	57
85°	20	45	117	129	131	21
90°	6	17	46	23	23	6
95°	58	225	750	386	263	64
105°	206	312	1265	1920	1792	219
115°	366	445	1013	2021	2307	362
125°	509	571	922	1557	1837	452
135°	607	668	893	1257	1425	470
145°	704	749	881	1072	1156	441
155°	796	818	881	968	996	366
165°	859	870	881	916	928	242
175°	893	893	887	899	899	85
180°	893	893	893	893	893	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4
2.5°	606.4	606.4	610.3	612.2	616.1	618.0	622.0	625.9	637.6	639.5	643.4
5°	590.8	598.6	623.9	633.6	661.0	698.0	713.6	739.0	791.6	807.2	817.0
7.5°	567.3	584.9	647.3	662.9	731.2	828.7	869.6	924.2	1008.1	1048.9	1082.1
10°	530.3	567.3	678.5	715.6	826.7	974.9	1050.9	1126.9	1253.7	1310.3	1331.7
12.5°	489.3	549.8	711.6	762.3	922.2	1138.7	1230.3	1314.2	1458.4	1534.5	1546.1
15°	442.6	524.5	742.8	817.0	1023.7	1275.1	1376.6	1479.9	1614.5	1669.0	1682.7
17.5°	401.7	504.9	772.1	850.1	1101.7	1398.0	1501.3	1587.1	1696.3	1733.3	1743.1
20°	351.0	473.8	791.6	893.0	1183.5	1487.7	1587.1	1653.4	1727.5	1750.9	1754.8
22.5°	314.0	440.6	803.3	908.6	1238.1	1542.3	1626.1	1678.8	1729.5	1737.2	1739.2
25°	282.8	403.6	801.4	926.2	1284.9	1575.4	1639.7	1678.8	1708.0	1711.9	1711.9
27.5°	253.5	362.7	793.5	930.0	1320.0	1583.2	1633.9	1661.2	1674.8	1682.7	1682.7
30°	228.1	323.6	774.0	922.2	1335.6	1575.4	1616.4	1630.1	1643.6	1655.3	1661.2
32.5°	208.6	286.6	744.8	906.6	1337.5	1555.9	1585.2	1592.9	1612.4	1639.7	1649.5
35°	191.1	249.6	711.6	885.2	1325.9	1524.7	1544.2	1552.0	1591.0	1632.0	1645.6
37.5°	173.5	222.3	668.8	848.2	1308.2	1487.7	1501.3	1514.9	1575.4	1624.1	1639.7
40°	156.0	198.8	618.0	807.2	1281.0	1442.8	1454.6	1476.0	1555.9	1612.4	1628.0
42.5°	142.3	179.4	563.5	764.3	1245.9	1392.2	1409.7	1440.9	1532.5	1592.9	1610.5
45°	130.6	159.9	504.9	705.8	1201.1	1339.4	1364.8	1407.8	1505.2	1563.7	1579.3
47.5°	118.9	146.2	444.6	645.4	1152.3	1286.8	1320.0	1368.7	1468.1	1524.7	1538.4
50°	109.2	132.6	384.1	581.0	1099.6	1230.3	1269.3	1320.0	1421.4	1474.0	1491.6
52.5°	101.4	120.9	327.5	516.7	1039.3	1171.8	1216.7	1269.3	1364.8	1415.5	1427.2
55°	93.6	111.1	278.8	448.5	976.8	1109.4	1158.1	1208.8	1302.4	1345.4	1353.1
57.5°	89.7	103.3	237.9	384.1	910.6	1039.3	1093.8	1140.6	1228.3	1261.5	1269.3
60°	83.8	97.5	206.7	329.6	838.4	973.0	1019.8	1066.5	1140.6	1167.9	1173.7
62.5°	78.0	93.6	183.2	276.8	764.3	895.0	941.8	984.6	1047.0	1066.5	1074.3
65°	74.1	89.7	165.7	237.9	688.3	813.1	859.9	896.9	947.6	967.1	970.9
67.5°	70.2	85.8	152.0	204.7	612.2	731.2	766.3	801.4	840.3	859.9	861.8
70°	64.3	81.9	140.4	181.3	534.2	637.6	666.9	703.9	735.1	744.8	750.7
72.5°	60.5	76.1	132.6	163.8	454.3	547.9	575.2	596.6	623.9	633.6	633.6
75°	54.6	68.2	124.8	146.2	372.4	448.5	471.8	493.3	514.7	518.6	512.8
77.5°	48.7	60.5	107.3	122.9	290.5	354.8	374.3	386.0	403.6	407.5	409.4
80°	41.0	52.6	83.8	95.5	210.6	261.2	274.9	284.7	300.3	300.3	304.2
82.5°	31.2	41.0	60.5	68.2	142.3	179.4	191.1	196.9	206.7	206.7	206.7
85°	19.5	25.4	39.0	44.9	85.8	109.2	117.0	118.9	126.7	128.7	128.7
87.5°	9.8	13.7	25.4	27.3	44.9	56.6	56.6	60.5	60.5	58.5	56.6
90°	6.0	10.8	15.6	16.8	26.4	39.1	45.5	40.5	30.3	22.8	22.8
92.5°	23.9	64.6	105.4	115.6	162.5	225.1	256.4	224.7	161.3	113.9	109.3
95°	57.6	132.1	206.7	225.3	400.0	633.0	749.5	668.8	507.5	386.4	372.7
97.5°	99.4	165.2	231.0	247.5	538.9	927.3	1121.6	1070.6	968.6	892.2	866.1
100°	131.8	191.5	251.1	266.0	589.3	1020.5	1236.1	1239.7	1247.2	1252.8	1221.7
102.5°	159.4	215.0	270.6	284.6	612.5	1049.8	1268.4	1333.3	1463.3	1560.8	1534.1
105°	206.1	253.2	300.3	312.1	629.7	1053.1	1264.8	1410.5	1701.8	1920.3	1905.9
107.5°	254.1	298.0	342.0	352.9	633.0	1006.3	1192.9	1396.1	1802.5	2107.3	2110.8
110°	286.4	326.1	365.8	375.7	628.1	964.7	1133.1	1360.2	1814.5	2155.2	2170.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	318.1	355.9	393.7	403.2	628.3	928.4	1078.5	1311.0	1775.9	2124.6	2147.5
115°	366.1	401.0	435.9	444.6	634.1	886.8	1013.2	1237.1	1685.0	2020.9	2052.7
117.5°	413.4	445.1	476.7	484.7	645.8	860.8	968.2	1170.4	1574.5	1877.7	1912.9
120°	441.0	470.8	500.6	508.0	655.4	852.0	950.3	1135.0	1504.3	1781.3	1815.5
122.5°	467.9	498.1	528.1	535.7	669.3	847.4	936.4	1102.7	1435.4	1684.8	1718.5
125°	509.3	536.7	564.2	571.0	687.9	843.6	921.5	1062.8	1345.3	1557.2	1588.3
127.5°	542.8	570.5	598.3	605.1	706.4	841.4	908.9	1030.2	1272.8	1454.8	1481.0
130°	560.9	590.7	620.5	627.9	720.0	842.7	904.2	1012.1	1228.1	1390.0	1414.3
132.5°	579.4	609.2	639.1	646.5	731.0	843.6	899.9	996.6	1189.9	1334.9	1356.6
135°	607.0	634.1	661.2	668.0	742.9	842.8	892.7	973.7	1135.7	1257.1	1275.8
137.5°	635.1	662.0	689.0	695.6	761.0	848.1	891.6	960.0	1096.9	1199.5	1214.8
140°	658.4	683.2	708.0	714.2	771.9	848.8	887.3	946.4	1064.7	1153.4	1167.7
142.5°	676.5	699.3	722.3	728.0	781.1	851.9	887.3	939.3	1043.1	1121.0	1133.3
145°	704.0	723.9	743.9	748.9	793.1	851.9	881.4	923.8	1008.8	1072.5	1081.8
147.5°	731.6	751.0	770.5	775.3	810.7	857.9	881.4	914.8	981.7	1031.8	1039.5
150°	749.5	767.1	784.7	789.1	819.9	860.9	881.4	909.6	966.0	1008.3	1014.6
152.5°	768.1	781.4	794.8	798.1	825.9	862.9	881.4	905.5	953.7	989.8	994.6
155°	795.6	805.5	815.4	817.8	839.1	867.3	881.4	900.6	938.9	967.6	970.7
157.5°	816.1	825.7	835.2	837.6	852.2	871.7	881.4	896.3	926.1	948.5	950.7
160°	829.9	837.3	844.8	846.6	858.2	873.7	881.4	894.2	919.7	938.9	940.1
162.5°	843.6	849.2	854.9	856.2	864.6	875.8	881.4	892.2	913.7	929.9	931.0
165°	858.6	863.7	868.7	870.0	873.7	878.9	881.4	889.2	904.6	916.1	917.4
167.5°	872.4	874.7	877.1	877.7	880.9	885.2	887.3	892.4	902.5	910.1	910.7
170°	881.4	883.7	886.2	886.7	886.9	887.2	887.3	892.4	902.5	910.1	910.1
172.5°	886.2	886.6	887.2	887.3	887.3	887.3	887.3	891.3	899.3	905.3	904.9
175°	892.7	892.7	892.7	892.7	890.9	888.5	887.3	889.8	895.0	898.7	898.7
177.5°	892.7	892.7	892.7	892.7	891.4	889.5	888.6	890.6	894.6	897.6	897.0
180°	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7	892.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	606.4	606.4
2.5°	647.3	643.4
5°	832.6	836.4
7.5°	1121.1	1119.2
10°	1394.1	1411.6
12.5°	1592.9	1596.8
15°	1713.9	1721.6
17.5°	1760.7	1762.6
20°	1762.6	1758.7
22.5°	1741.1	1737.2
25°	1715.8	1713.9
27.5°	1692.4	1694.4
30°	1682.7	1688.5
32.5°	1682.7	1692.4
35°	1686.5	1696.3
37.5°	1684.6	1696.3
40°	1676.8	1690.4
42.5°	1655.3	1665.1
45°	1622.2	1633.9
47.5°	1579.3	1587.1
50°	1524.7	1532.5
52.5°	1456.5	1458.4
55°	1374.6	1382.4
57.5°	1286.8	1288.8
60°	1189.4	1195.2
62.5°	1086.1	1086.1
65°	976.8	980.7
67.5°	863.8	873.5
70°	748.7	750.7
72.5°	635.7	635.7
75°	518.6	520.5
77.5°	407.5	407.5
80°	302.2	304.2
82.5°	208.6	212.5
85°	130.6	130.6
87.5°	60.5	54.6
90°	22.8	22.8
92.5°	91.2	73.1
95°	317.8	263.0
97.5°	761.6	657.3
100°	1097.4	973.1
102.5°	1427.6	1321.1
105°	1848.8	1791.5
107.5°	2124.5	2138.4
110°	2229.7	2289.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2239.2	2330.7
115°	2179.8	2306.8
117.5°	2053.8	2194.7
120°	1952.4	2089.3
122.5°	1853.6	1988.6
125°	1712.6	1837.0
127.5°	1585.9	1690.8
130°	1511.3	1608.2
132.5°	1443.4	1530.2
135°	1350.6	1425.4
137.5°	1276.1	1337.3
140°	1224.9	1282.2
142.5°	1182.7	1231.9
145°	1119.1	1156.4
147.5°	1070.4	1101.3
150°	1039.6	1064.7
152.5°	1013.5	1032.4
155°	983.3	995.8
157.5°	959.4	968.2
160°	945.3	950.3
162.5°	935.9	940.7
165°	922.5	927.5
167.5°	912.8	914.9
170°	910.1	910.1
172.5°	903.0	901.2
175°	898.7	898.7
177.5°	894.9	892.7
180°	892.7	892.7



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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	2.70	3.55	3.69	4.56	5.90	15.89	16.74	16.88	17.75	19.09
	3H	3.40	4.17	4.41	5.19	6.55	17.74	18.50	18.74	19.52	20.88
	4H	3.70	4.43	4.72	5.45	6.82	18.38	19.11	19.40	20.13	21.50
	6H	3.95	4.62	4.98	5.65	7.03	18.82	19.49	19.85	20.51	21.89
	8H	4.02	4.66	5.05	5.70	7.08	18.94	19.58	19.97	20.62	22.00
	12H	4.04	4.64	5.07	5.68	7.08	19.01	19.62	20.05	20.65	22.06
4H	2H	9.92	10.65	10.94	11.67	13.04	16.16	16.89	17.19	17.91	19.28
	3H	11.49	12.09	12.52	13.14	14.53	18.21	18.82	19.25	19.87	21.25
	4H	11.58	12.14	12.62	13.18	14.58	18.98	19.54	20.02	20.58	21.99
	6H	11.59	12.07	12.64	13.14	14.54	19.53	20.01	20.58	21.07	22.47
	8H	11.57	12.02	12.62	13.07	14.49	19.69	20.14	20.74	21.20	22.61
	12H	11.52	11.93	12.59	13.00	14.42	19.79	20.19	20.86	21.26	22.69
8H	4H	13.03	13.48	14.08	14.53	15.95	19.04	19.49	20.09	20.55	21.96
	6H	13.27	13.64	14.34	14.74	16.15	19.68	20.05	20.75	21.15	22.56
	8H	13.29	13.61	14.37	14.70	16.13	19.90	20.22	20.98	21.31	22.74
	12H	13.26	13.54	14.34	14.62	16.09	20.05	20.33	21.13	21.41	22.88
12H	4H	13.17	13.58	14.24	14.65	16.07	18.99	19.40	20.06	20.47	21.89
	6H	13.53	13.86	14.61	14.94	16.37	19.66	19.99	20.74	21.07	22.50
	8H	13.60	13.89	14.69	14.97	16.44	19.89	20.18	20.98	21.26	22.73