

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: P937624

Luminaire Tested: SQ4-FB-100U-100D-927-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937624
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-927-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

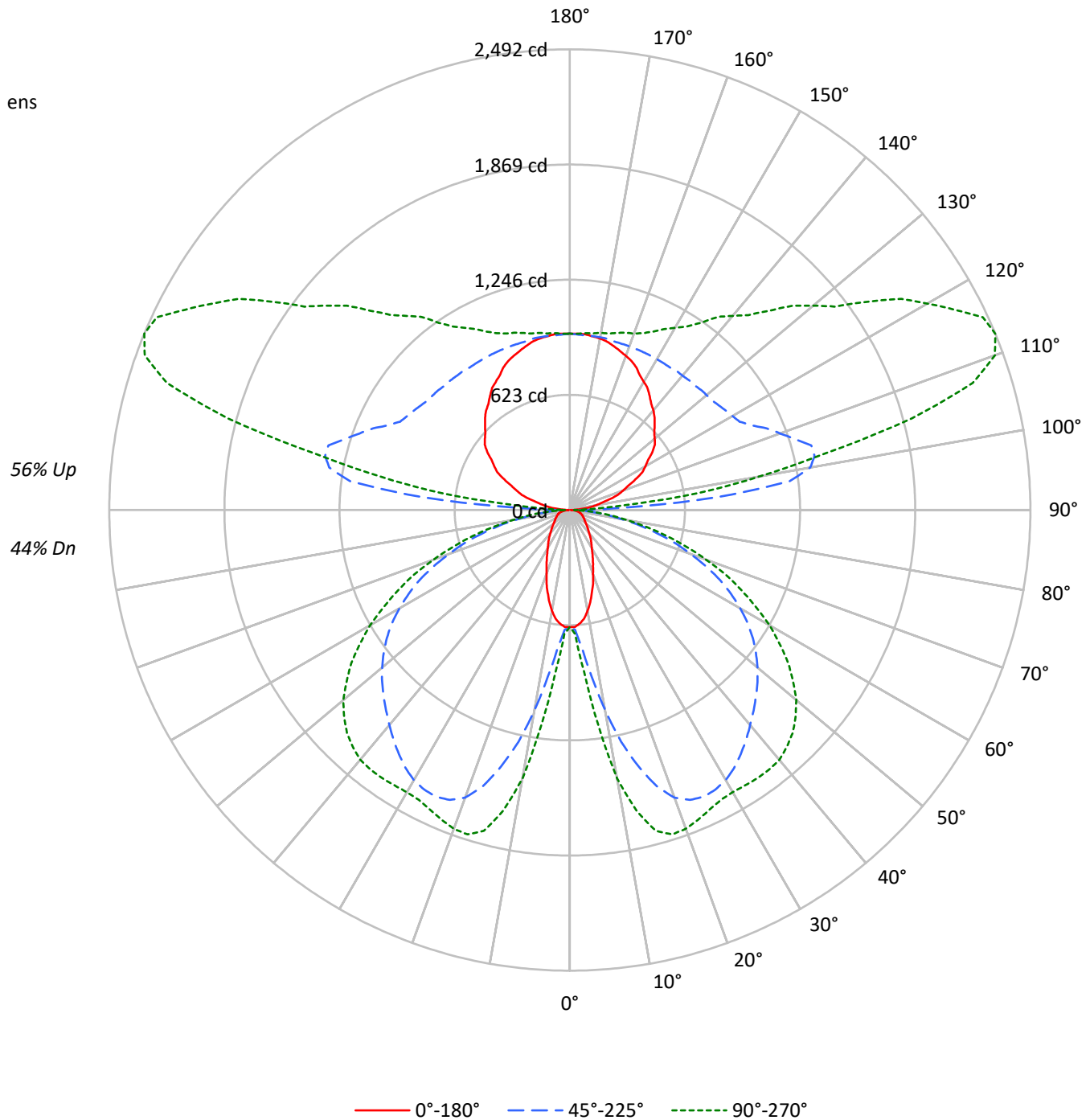
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11086.5 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 116
Input Voltage (V): NR
Input Current (A_{in}): 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	44			44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36			36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30			30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24			24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20			20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17			17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15			15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13			13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11			11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10			10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9			9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2936	2936	2936
5°	2868	3393	3946
10°	2602	4947	6543
15°	2211	6463	7901
20°	1800	7489	8052
25°	1502	7837	7888
30°	1266	7887	7873
35°	1120	7756	8077
40°	976	7586	8287
45°	884	7461	8320
50°	811	7349	8182
55°	776	7185	7819
60°	795	6869	7247
65°	826	6390	6460
70°	880	5572	5457
75°	976	4543	4259
80°	1065	3151	2870
85°	946	1672	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	0.7
10°-20°	362.8	3.3
20°-30°	634.6	5.7
30°-40°	816.9	7.4
40°-50°	912.5	8.2
50°-60°	873.9	7.9
60°-70°	692.6	6.2
70°-80°	407.3	3.7
80°-90°	116.8	1.1
90°-100°	465.3	4.2
100°-110°	1223.1	11.0
110°-120°	1268.3	11.4
120°-130°	1017.3	9.2
130°-140°	798.2	7.2
140°-150°	612.7	5.5
150°-160°	441.2	4.0
160°-170°	270.0	2.4
170°-180°	91.2	0.8
0°-30°	1079.3	9.7
0°-40°	1896.2	17.1
0°-60°	3682.6	33.2
0°-90°	4899.3	44.2
90°-120°	2956.6	26.7
90°-150°	5384.8	48.6
90°-180°	6187.0	55.8
0°-180°	11086.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	616	661	745	842	873	57
15°	462	853	1437	1742	1797	129
25°	295	967	1711	1787	1789	136
35°	199	924	1612	1703	1770	125
45°	136	737	1424	1632	1705	105
55°	98	468	1209	1404	1443	89
65°	77	248	897	1009	1024	77
75°	57	153	492	541	543	60
85°	20	47	122	134	136	22
90°	6	18	49	24	24	7
95°	62	241	801	413	281	68
105°	220	334	1352	2053	1915	234
115°	391	475	1083	2161	2466	387
125°	544	610	985	1665	1964	483
135°	649	714	954	1344	1524	502
145°	753	801	942	1147	1236	472
155°	851	874	942	1034	1065	391
165°	918	930	942	979	992	259
175°	954	954	949	961	961	91
180°	954	954	954	954	954	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
2.5°	632.9	632.9	636.9	638.9	643.0	645.0	649.1	653.2	665.4	667.4	671.5
5°	616.5	624.7	651.2	661.4	689.8	728.5	744.7	771.2	826.1	842.5	852.6
7.5°	592.1	610.5	675.6	691.8	763.1	864.8	907.5	964.5	1052.1	1094.8	1129.4
10°	553.5	592.1	708.2	746.8	862.8	1017.4	1096.8	1176.2	1308.4	1367.4	1389.8
12.5°	510.7	573.8	742.7	795.6	962.5	1188.3	1284.0	1371.5	1522.1	1601.4	1613.6
15°	461.9	547.4	775.3	852.6	1068.3	1330.8	1436.6	1544.5	1684.8	1741.8	1756.1
17.5°	419.2	527.1	805.8	887.2	1149.7	1459.0	1566.9	1656.3	1770.3	1809.0	1819.2
20°	366.3	494.5	826.1	931.9	1235.2	1552.6	1656.3	1725.6	1802.9	1827.3	1831.4
22.5°	327.6	459.8	838.4	948.3	1292.1	1609.6	1697.1	1752.0	1805.0	1813.0	1815.1
25°	295.1	421.2	836.3	966.6	1341.0	1644.2	1711.3	1752.0	1782.6	1786.6	1786.6
27.5°	264.5	378.5	828.2	970.7	1377.6	1652.3	1705.2	1733.7	1748.0	1756.1	1756.1
30°	238.1	337.8	807.8	962.5	1393.9	1644.2	1686.9	1701.2	1715.4	1727.6	1733.7
32.5°	217.8	299.1	777.3	946.2	1395.9	1623.9	1654.3	1662.5	1682.8	1711.3	1721.5
35°	199.4	260.5	742.7	923.8	1383.7	1591.3	1611.6	1619.8	1660.4	1703.2	1717.4
37.5°	181.1	232.0	697.9	885.2	1365.4	1552.6	1566.9	1581.1	1644.2	1695.0	1711.3
40°	162.8	207.6	645.0	842.5	1336.9	1505.8	1518.0	1540.4	1623.9	1682.8	1699.1
42.5°	148.5	187.2	588.0	797.6	1300.3	1452.9	1471.2	1503.7	1599.4	1662.5	1680.8
45°	136.4	166.9	527.1	736.6	1253.5	1397.9	1424.4	1469.2	1570.9	1631.9	1648.3
47.5°	124.1	152.6	463.9	673.5	1202.6	1343.0	1377.6	1428.5	1532.2	1591.3	1605.5
50°	114.0	138.4	400.9	606.4	1147.7	1284.0	1324.7	1377.6	1483.4	1538.4	1556.6
52.5°	105.8	126.1	341.9	539.2	1084.5	1222.9	1269.7	1324.7	1424.4	1477.3	1489.5
55°	97.6	116.0	291.0	468.0	1019.5	1157.8	1208.7	1261.6	1359.3	1404.0	1412.2
57.5°	93.6	107.9	248.2	400.9	950.3	1084.5	1141.5	1190.4	1282.0	1316.5	1324.7
60°	87.5	101.7	215.7	343.9	875.0	1015.4	1064.2	1113.0	1190.4	1218.9	1225.0
62.5°	81.4	97.6	191.3	289.0	797.6	934.0	982.8	1027.6	1092.7	1113.0	1121.2
65°	77.3	93.6	172.9	248.2	718.3	848.5	897.4	936.0	988.9	1009.3	1013.4
67.5°	73.2	89.6	158.7	213.7	638.9	763.1	799.7	836.3	877.0	897.4	899.4
70°	67.1	85.5	146.5	189.3	557.6	665.4	695.9	734.6	767.2	777.3	783.4
72.5°	63.1	79.4	138.4	170.9	474.1	571.8	600.3	622.7	651.2	661.4	661.4
75°	57.0	71.2	130.2	152.6	388.7	468.0	492.4	514.8	537.2	541.3	535.2
77.5°	50.9	63.1	111.9	128.2	303.2	370.4	390.7	402.9	421.2	425.3	427.4
80°	42.7	55.0	87.5	99.7	219.8	272.7	286.9	297.1	313.4	313.4	317.5
82.5°	32.6	42.7	63.1	71.2	148.5	187.2	199.4	205.5	215.7	215.7	215.7
85°	20.3	26.5	40.7	46.8	89.6	114.0	122.1	124.1	132.3	134.3	134.3
87.5°	10.2	14.2	26.5	28.5	46.8	59.0	59.0	63.1	63.1	61.1	59.0
90°	6.4	11.6	16.6	17.9	28.2	41.8	48.7	43.3	32.4	24.3	24.3
92.5°	25.6	69.2	112.8	123.7	173.8	240.7	274.1	240.2	172.6	121.7	116.9
95°	61.5	141.2	220.9	240.9	427.7	676.8	801.3	715.1	542.5	413.2	398.6
97.5°	106.3	176.6	247.0	264.6	576.1	991.5	1199.1	1144.6	1035.6	953.8	925.9
100°	140.9	204.7	268.5	284.4	630.1	1091.0	1321.5	1325.5	1333.4	1339.4	1306.2
102.5°	170.4	229.8	289.4	304.2	654.8	1122.3	1356.0	1425.5	1564.5	1668.7	1640.2
105°	220.4	270.7	321.1	333.7	673.2	1125.9	1352.2	1507.9	1819.4	2053.0	2037.7
107.5°	271.6	318.5	365.5	377.3	676.7	1075.8	1275.4	1492.6	1927.0	2252.8	2256.5
110°	306.2	348.6	391.0	401.6	671.5	1031.3	1211.3	1454.1	1939.8	2304.1	2320.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	340.1	380.5	421.0	431.1	671.7	992.6	1153.0	1401.6	1898.6	2271.4	2295.9
115°	391.4	428.7	466.0	475.3	677.9	948.1	1083.2	1322.6	1801.5	2160.6	2194.6
117.5°	442.0	475.9	509.7	518.2	690.5	920.2	1035.1	1251.2	1683.4	2007.5	2045.1
120°	471.5	503.3	535.2	543.2	700.8	910.9	1015.9	1213.4	1608.2	1904.4	1940.9
122.5°	500.3	532.5	564.6	572.6	715.5	905.9	1001.2	1178.9	1534.5	1801.3	1837.4
125°	544.5	573.8	603.1	610.5	735.4	901.9	985.1	1136.2	1438.3	1664.8	1698.1
127.5°	580.3	609.9	639.6	647.0	755.2	899.6	971.7	1101.4	1360.7	1555.2	1583.3
130°	599.5	631.4	663.3	671.3	769.7	901.0	966.6	1082.0	1312.9	1486.1	1512.0
132.5°	619.4	651.3	683.1	691.2	781.5	901.9	962.1	1065.4	1272.1	1427.1	1450.3
135°	648.9	677.9	707.0	714.3	794.3	901.1	954.4	1041.0	1214.1	1343.9	1363.9
137.5°	679.0	707.7	736.5	743.7	813.5	906.6	953.1	1026.3	1172.6	1282.4	1298.8
140°	703.9	730.4	756.9	763.5	825.2	907.5	948.6	1011.9	1138.3	1233.1	1248.4
142.5°	723.2	747.7	772.2	778.2	835.1	910.8	948.6	1004.2	1115.2	1198.5	1211.7
145°	752.7	774.0	795.4	800.7	847.9	910.8	942.2	987.7	1078.5	1146.6	1156.5
147.5°	782.1	802.9	823.7	828.9	866.7	917.1	942.2	978.0	1049.4	1103.0	1111.3
150°	801.3	820.1	838.9	843.6	876.5	920.3	942.2	972.4	1032.8	1078.1	1084.8
152.5°	821.2	835.4	849.7	853.2	882.9	922.5	942.2	968.0	1019.6	1058.2	1063.3
155°	850.6	861.2	871.7	874.3	897.0	927.2	942.2	962.7	1003.8	1034.5	1037.8
157.5°	872.4	882.7	893.0	895.5	911.1	931.9	942.2	958.2	990.1	1014.0	1016.3
160°	887.2	895.2	903.1	905.1	917.5	934.0	942.2	956.0	983.3	1003.8	1005.2
162.5°	901.9	907.9	913.9	915.4	924.3	936.2	942.2	953.8	976.8	994.1	995.5
165°	917.9	923.3	928.7	930.1	934.2	939.6	942.2	950.5	967.0	979.4	980.8
167.5°	932.6	935.2	937.8	938.4	941.8	946.3	948.6	954.0	964.9	973.0	973.5
170°	942.2	944.8	947.4	948.0	948.3	948.5	948.6	954.0	964.9	973.0	973.0
172.5°	947.4	947.9	948.5	948.6	948.6	948.6	948.6	953.0	961.5	967.9	967.4
175°	954.4	954.4	954.4	954.4	952.5	949.9	948.6	951.3	956.7	960.8	960.8
177.5°	954.4	954.4	954.4	954.4	953.0	951.0	949.9	952.1	956.3	959.6	959.0
180°	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4	954.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	632.9	632.9
2.5°	675.6	671.5
5°	868.9	872.9
7.5°	1170.0	1168.0
10°	1454.9	1473.2
12.5°	1662.5	1666.6
15°	1788.6	1796.8
17.5°	1837.5	1839.5
20°	1839.5	1835.4
22.5°	1817.1	1813.0
25°	1790.7	1788.6
27.5°	1766.2	1768.3
30°	1756.1	1762.2
32.5°	1756.1	1766.2
35°	1760.1	1770.3
37.5°	1758.1	1770.3
40°	1750.0	1764.2
42.5°	1727.6	1737.7
45°	1693.0	1705.2
47.5°	1648.3	1656.3
50°	1591.3	1599.4
52.5°	1520.1	1522.1
55°	1434.6	1442.7
57.5°	1343.0	1345.0
60°	1241.2	1247.4
62.5°	1133.4	1133.4
65°	1019.5	1023.6
67.5°	901.4	911.6
70°	781.4	783.4
72.5°	663.4	663.4
75°	541.3	543.3
77.5°	425.3	425.3
80°	315.4	317.5
82.5°	217.8	221.8
85°	136.4	136.4
87.5°	63.1	57.0
90°	24.3	24.3
92.5°	97.6	78.2
95°	339.9	281.2
97.5°	814.3	702.7
100°	1173.2	1040.3
102.5°	1526.3	1412.4
105°	1976.4	1915.2
107.5°	2271.3	2286.1
110°	2383.8	2447.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2393.8	2491.7
115°	2330.3	2466.2
117.5°	2195.7	2346.3
120°	2087.3	2233.6
122.5°	1981.7	2126.0
125°	1831.0	1964.0
127.5°	1695.5	1807.7
130°	1615.6	1719.3
132.5°	1543.2	1635.9
135°	1443.9	1523.9
137.5°	1364.2	1429.7
140°	1309.5	1370.8
142.5°	1264.3	1317.0
145°	1196.4	1236.2
147.5°	1144.3	1177.3
150°	1111.5	1138.3
152.5°	1083.5	1103.6
155°	1051.2	1064.6
157.5°	1025.7	1035.1
160°	1010.5	1015.9
162.5°	1000.5	1005.7
165°	986.2	991.6
167.5°	975.8	978.1
170°	973.0	973.0
172.5°	965.4	963.4
175°	960.8	960.8
177.5°	956.7	954.4
180°	954.4	954.4



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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	4.19	5.04	5.19	6.05	7.40	17.37	18.22	18.37	19.23	20.58
	3H	4.90	5.66	5.91	6.68	8.05	19.21	19.97	20.22	20.99	22.36
	4H	5.19	5.91	6.22	6.94	8.32	19.85	20.57	20.87	21.60	22.98
	6H	5.44	6.11	6.48	7.14	8.53	20.28	20.95	21.32	21.98	23.37
	8H	5.51	6.14	6.55	7.19	8.58	20.40	21.04	21.44	22.08	23.47
	12H	5.53	6.13	6.57	7.17	8.58	20.47	21.07	21.51	22.11	23.52
4H	2H	11.41	12.13	12.43	13.15	14.53	17.64	18.36	18.67	19.39	20.77
	3H	12.97	13.57	14.01	14.63	16.02	19.69	20.29	20.72	21.34	22.73
	4H	13.07	13.62	14.11	14.66	16.08	20.45	21.01	21.50	22.05	23.46
	6H	13.08	13.55	14.13	14.62	16.03	20.99	21.47	22.05	22.54	23.94
	8H	13.05	13.50	14.11	14.56	15.98	21.15	21.60	22.21	22.66	24.08
	12H	13.01	13.41	14.08	14.49	15.92	21.25	21.65	22.32	22.73	24.15
8H	4H	14.51	14.95	15.56	16.02	17.44	20.51	20.96	21.57	22.02	23.44
	6H	14.75	15.12	15.83	16.22	17.64	21.14	21.51	22.22	22.61	24.03
	8H	14.77	15.09	15.85	16.18	17.62	21.36	21.69	22.45	22.77	24.21
	12H	14.74	15.02	15.83	16.10	17.58	21.50	21.79	22.60	22.87	24.35
12H	4H	14.65	15.05	15.73	16.13	17.56	20.46	20.87	21.54	21.94	23.37
	6H	15.01	15.33	16.09	16.42	17.86	21.12	21.45	22.21	22.54	23.98
	8H	15.08	15.36	16.17	16.45	17.93	21.35	21.64	22.44	22.72	24.20