

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: P937689

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937689
REPORT IS A COMBINATION OF REPORTS P933575 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

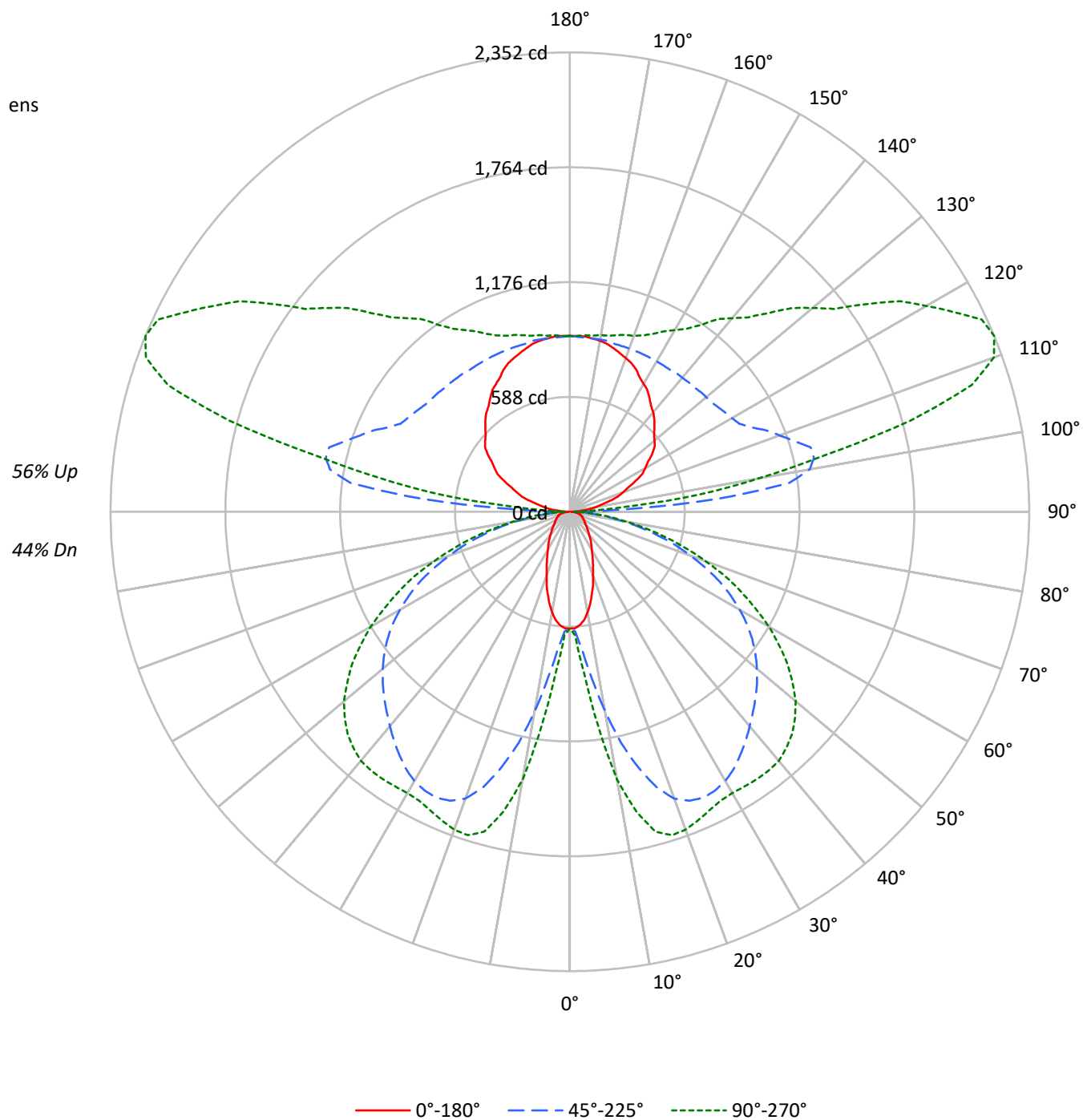
Lumens per Lamp: N/A
Luminaire Lumens: 10463.3 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 87
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

TEST NUMBER: P937689

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-3500K

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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80		65	65	65		51
1	96	91	87	84	88	84	80	77	69	67	65		56	55	53		44
2	87	79	73	68	79	73	67	63	60	56	53		49	46	43		38
3	79	69	62	56	72	63	57	52	53	48	44		43	39	36		33
4	72	61	53	46	65	56	49	43	46	41	37		38	34	30		29
5	66	54	46	39	60	49	42	37	41	36	31		33	29	26		26
6	60	48	40	34	55	44	37	31	37	31	27		30	26	22		24
7	56	43	35	29	51	40	32	27	33	27	23		27	23	19		21
8	51	39	31	26	47	36	29	24	30	24	20		25	20	17		19
9	48	35	28	23	44	33	26	21	27	22	18		22	18	15		18
10	44	32	25	20	41	30	23	19	25	20	16		21	16	14		16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3694	3694	3694
5°	3608	4269	4966
10°	3271	6222	8233
15°	2780	8126	9941
20°	2261	9415	10132
25°	1886	9849	9926
30°	1590	9909	9907
35°	1405	9742	10163
40°	1223	9526	10428
45°	1107	9366	10468
50°	1015	9222	10295
55°	971	9013	9839
60°	993	8613	9118
65°	1032	8007	8128
70°	1097	6979	6866
75°	1211	5684	5358
80°	1312	3937	3611
85°	1145	2085	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10468 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	0.7
10°-20°	342.4	3.3
20°-30°	598.9	5.7
30°-40°	771.0	7.4
40°-50°	861.1	8.2
50°-60°	824.8	7.9
60°-70°	653.6	6.2
70°-80°	384.4	3.7
80°-90°	110.2	1.1
90°-100°	439.1	4.2
100°-110°	1154.4	11.0
110°-120°	1197.0	11.4
120°-130°	960.2	9.2
130°-140°	753.4	7.2
140°-150°	578.2	5.5
150°-160°	416.4	4.0
160°-170°	254.8	2.4
170°-180°	86.1	0.8
0°-30°	1018.6	9.7
0°-40°	1789.5	17.1
0°-60°	3475.4	33.2
0°-90°	4623.6	44.2
90°-120°	2790.5	26.7
90°-150°	5082.3	48.6
90°-180°	5840.0	55.8
0°-180°	10463.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	597	597	597	597	597	
5°	582	624	703	795	824	54
15°	436	805	1356	1644	1696	121
25°	278	912	1615	1686	1688	128
35°	188	872	1521	1607	1671	118
45°	129	695	1344	1540	1609	100
55°	92	442	1141	1325	1362	84
65°	73	234	847	952	966	72
75°	54	144	465	511	513	56
85°	19	44	115	127	129	20
90°	6	17	46	23	23	6
95°	58	227	756	390	265	64
105°	208	315	1276	1938	1808	220
115°	369	449	1022	2039	2328	365
125°	514	576	930	1571	1854	456
135°	612	674	901	1268	1438	474
145°	710	756	889	1082	1167	445
155°	803	825	889	976	1005	369
165°	866	878	889	924	936	244
175°	901	901	895	907	907	86
180°	901	901	901	901	901	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.2
2.5°	597.2	597.2	601.1	603.0	606.8	608.7	612.6	616.5	627.9	629.8	633.7
5°	581.9	589.5	614.5	624.1	651.0	687.5	702.8	727.8	779.7	795.1	804.7
7.5°	558.8	576.1	637.6	652.9	720.2	816.2	856.5	910.3	992.8	1033.1	1065.8
10°	522.3	558.8	668.3	704.8	814.3	960.2	1035.1	1110.0	1234.8	1290.5	1311.6
12.5°	482.0	541.6	701.0	750.9	908.3	1121.5	1211.7	1294.3	1436.4	1511.3	1522.9
15°	436.0	516.6	731.7	804.7	1008.1	1255.9	1355.8	1457.6	1590.0	1643.8	1657.3
17.5°	395.6	497.4	760.5	837.3	1085.0	1376.9	1478.7	1563.2	1670.7	1707.2	1716.8
20°	345.6	466.7	779.7	879.6	1165.7	1465.2	1563.2	1628.5	1701.5	1724.5	1728.3
22.5°	309.2	434.0	791.2	894.9	1219.4	1519.0	1601.6	1653.4	1703.4	1711.1	1713.0
25°	278.5	397.5	789.3	912.2	1265.5	1551.7	1615.0	1653.4	1682.3	1686.1	1686.1
27.5°	249.6	357.2	781.6	916.0	1300.1	1559.3	1609.2	1636.2	1649.6	1657.3	1657.3
30°	224.7	318.8	762.4	908.3	1315.4	1551.7	1592.0	1605.4	1618.9	1630.3	1636.2
32.5°	205.5	282.3	733.5	892.9	1317.4	1532.5	1561.3	1568.9	1588.1	1615.0	1624.6
35°	188.2	245.8	701.0	871.8	1305.8	1501.8	1520.9	1528.6	1567.0	1607.4	1620.7
37.5°	170.9	218.9	658.7	835.4	1288.6	1465.2	1478.7	1492.2	1551.7	1599.6	1615.0
40°	153.6	195.8	608.7	795.1	1261.6	1421.0	1432.6	1453.7	1532.5	1588.1	1603.5
42.5°	140.2	176.6	554.9	752.8	1227.1	1371.1	1388.4	1419.1	1509.4	1568.9	1586.3
45°	128.7	157.5	497.4	695.2	1183.0	1319.3	1344.3	1386.5	1482.5	1540.1	1555.5
47.5°	117.2	144.0	437.9	635.7	1134.9	1267.5	1300.1	1348.1	1446.0	1501.8	1515.1
50°	107.6	130.6	378.3	572.3	1083.1	1211.7	1250.2	1300.1	1399.9	1451.8	1469.1
52.5°	99.9	119.1	322.6	508.9	1023.6	1154.2	1198.3	1250.2	1344.3	1394.2	1405.7
55°	92.2	109.5	274.6	441.7	962.1	1092.6	1140.7	1190.6	1282.8	1325.0	1332.8
57.5°	88.4	101.7	234.3	378.3	896.8	1023.6	1077.3	1123.5	1209.8	1242.5	1250.2
60°	82.6	96.0	203.6	324.5	825.8	958.2	1004.4	1050.4	1123.5	1150.3	1156.0
62.5°	76.8	92.2	180.5	272.7	752.8	881.4	927.5	969.8	1031.2	1050.4	1058.1
65°	73.0	88.4	163.3	234.3	677.9	800.8	846.9	883.3	933.3	952.5	956.3
67.5°	69.1	84.5	149.8	201.6	603.0	720.2	754.7	789.3	827.7	846.9	848.8
70°	63.4	80.6	138.3	178.6	526.2	627.9	656.8	693.2	723.9	733.5	739.3
72.5°	59.5	74.9	130.6	161.3	447.5	539.6	566.5	587.6	614.5	624.1	624.1
75°	53.8	67.2	122.9	144.0	366.8	441.7	464.7	485.9	507.0	510.9	505.0
77.5°	48.0	59.5	105.6	121.0	286.1	349.5	368.7	380.2	397.5	401.4	403.3
80°	40.3	51.8	82.6	94.1	207.4	257.4	270.7	280.3	295.7	295.7	299.6
82.5°	30.7	40.3	59.5	67.2	140.2	176.6	188.2	194.0	203.6	203.6	203.6
85°	19.2	25.0	38.4	44.2	84.5	107.6	115.2	117.2	124.8	126.7	126.7
87.5°	9.6	13.5	25.0	26.8	44.2	55.7	55.7	59.5	59.5	57.7	55.7
90°	6.0	10.9	15.7	17.0	26.6	39.5	45.9	40.8	30.6	23.0	23.0
92.5°	24.2	65.3	106.4	116.7	164.1	227.1	258.7	226.7	162.8	114.8	110.3
95°	58.0	133.2	208.5	227.3	403.7	638.8	756.3	674.9	512.0	389.9	376.1
97.5°	100.4	166.8	233.1	249.7	543.7	935.8	1131.8	1080.3	977.4	900.2	873.8
100°	133.0	193.2	253.4	268.4	594.7	1029.7	1247.2	1251.0	1258.5	1264.2	1232.8
102.5°	160.9	217.1	273.2	287.2	618.1	1059.3	1279.9	1345.5	1476.6	1574.9	1548.1
105°	207.9	255.5	303.1	315.0	635.5	1062.7	1276.3	1423.3	1717.2	1937.6	1923.2
107.5°	256.3	300.7	345.1	356.1	638.7	1015.3	1203.7	1408.7	1818.7	2126.3	2129.8
110°	289.0	329.0	369.1	379.1	633.8	973.5	1143.2	1372.4	1830.8	2174.6	2189.6

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	321.0	359.2	397.4	406.9	634.0	936.8	1088.2	1322.8	1792.0	2143.8	2166.9
115°	369.4	404.6	439.7	448.6	639.8	894.8	1022.3	1248.3	1700.3	2039.3	2071.3
117.5°	417.2	449.1	481.1	489.1	651.7	868.5	976.9	1180.9	1588.8	1894.7	1930.2
120°	445.0	475.1	505.1	512.7	661.4	859.7	958.8	1145.2	1517.8	1797.4	1831.9
122.5°	472.2	502.5	532.9	540.5	675.3	855.0	945.0	1112.8	1448.4	1700.0	1734.1
125°	513.9	541.6	569.3	576.2	694.1	851.3	929.9	1072.4	1357.5	1571.3	1602.7
127.5°	547.8	575.7	603.7	610.7	712.8	849.0	917.2	1039.5	1284.3	1467.9	1494.4
130°	565.9	596.0	626.1	633.6	726.6	850.4	912.3	1021.2	1239.2	1402.6	1427.0
132.5°	584.6	614.7	644.8	652.3	737.6	851.3	908.0	1005.6	1200.7	1347.0	1368.9
135°	612.4	639.8	667.3	674.1	749.7	850.4	900.8	982.5	1145.8	1268.4	1287.3
137.5°	640.8	667.9	695.2	701.9	767.8	855.7	899.6	968.7	1106.8	1210.4	1225.8
140°	664.4	689.4	714.4	720.6	778.9	856.5	895.4	955.0	1074.3	1163.8	1178.2
142.5°	682.6	705.7	728.8	734.6	788.2	859.6	895.4	947.8	1052.5	1131.1	1143.5
145°	710.4	730.5	750.7	755.7	800.3	859.7	889.3	932.2	1017.9	1082.2	1091.6
147.5°	738.2	757.8	777.3	782.3	817.9	865.5	889.3	923.1	990.5	1041.1	1048.8
150°	756.3	774.0	791.8	796.2	827.2	868.6	889.3	917.8	974.7	1017.4	1023.7
152.5°	775.1	788.6	801.9	805.3	833.3	870.6	889.3	913.7	962.3	998.7	1003.5
155°	802.9	812.8	822.7	825.2	846.6	875.1	889.3	908.7	947.4	976.4	979.6
157.5°	823.5	833.1	842.7	845.2	859.9	879.6	889.3	904.4	934.5	957.1	959.3
160°	837.3	844.9	852.4	854.3	866.0	881.6	889.3	902.2	928.0	947.4	948.7
162.5°	851.3	856.9	862.5	864.0	872.4	883.7	889.3	900.2	922.0	938.3	939.4
165°	866.4	871.4	876.6	877.8	881.7	886.8	889.3	897.1	912.7	924.4	925.7
167.5°	880.2	882.7	885.1	885.7	888.9	893.2	895.4	900.5	910.7	918.3	918.9
170°	889.3	891.8	894.2	894.8	895.0	895.3	895.4	900.5	910.7	918.3	918.3
172.5°	894.2	894.7	895.3	895.4	895.4	895.4	895.4	899.4	907.5	913.5	913.0
175°	900.8	900.8	900.8	900.8	898.9	896.5	895.4	897.9	903.0	906.9	906.9
177.5°	900.8	900.8	900.8	900.8	899.4	897.6	896.6	898.7	902.6	905.6	905.0
180°	900.8	900.8	900.8	900.8	900.8	900.8	900.8	900.8	900.8	900.8	900.8

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	597.2	597.2
2.5°	637.6	633.7
5°	820.0	823.8
7.5°	1104.2	1102.3
10°	1373.1	1390.3
12.5°	1568.9	1572.8
15°	1688.0	1695.7
17.5°	1734.1	1736.0
20°	1736.0	1732.2
22.5°	1714.8	1711.1
25°	1689.9	1688.0
27.5°	1666.9	1668.8
30°	1657.3	1663.0
32.5°	1657.3	1666.9
35°	1661.2	1670.7
37.5°	1659.2	1670.7
40°	1651.5	1664.9
42.5°	1630.3	1640.0
45°	1597.8	1609.2
47.5°	1555.5	1563.2
50°	1501.8	1509.4
52.5°	1434.5	1436.4
55°	1353.9	1361.5
57.5°	1267.5	1269.4
60°	1171.4	1177.1
62.5°	1069.7	1069.7
65°	962.1	965.9
67.5°	850.7	860.3
70°	737.4	739.3
72.5°	626.1	626.1
75°	510.9	512.7
77.5°	401.4	401.4
80°	297.7	299.6
82.5°	205.5	209.3
85°	128.7	128.7
87.5°	59.5	53.8
90°	23.0	23.0
92.5°	92.0	73.7
95°	320.7	265.4
97.5°	768.5	663.2
100°	1107.3	981.8
102.5°	1440.5	1333.1
105°	1865.4	1807.7
107.5°	2143.8	2157.8
110°	2249.9	2310.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2259.3	2351.8
115°	2199.4	2327.6
117.5°	2072.4	2214.6
120°	1970.1	2108.2
122.5°	1870.4	2006.6
125°	1728.1	1853.6
127.5°	1600.3	1706.1
130°	1524.9	1622.7
132.5°	1456.5	1544.1
135°	1362.8	1438.3
137.5°	1287.6	1349.4
140°	1236.1	1293.8
142.5°	1193.3	1243.0
145°	1129.3	1166.9
147.5°	1080.0	1111.2
150°	1049.0	1074.3
152.5°	1022.6	1041.7
155°	992.2	1004.8
157.5°	968.1	976.9
160°	953.8	958.8
162.5°	944.3	949.1
165°	930.8	935.9
167.5°	921.0	923.2
170°	918.3	918.3
172.5°	911.2	909.3
175°	906.9	906.9
177.5°	902.9	900.8
180°	900.8	900.8

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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	4.99	5.83	5.98	6.84	8.19	18.15	19.00	19.15	20.01	21.36
	3H	5.69	6.45	6.70	7.47	8.84	19.98	20.74	20.99	21.77	23.13
	4H	5.99	6.71	7.01	7.73	9.11	20.63	21.34	21.65	22.37	23.75
	6H	6.24	6.90	7.27	7.93	9.32	21.05	21.71	22.08	22.74	24.13
	8H	6.30	6.94	7.34	7.98	9.37	21.17	21.80	22.21	22.85	24.23
	12H	6.32	6.92	7.36	7.96	9.37	21.23	21.83	22.28	22.88	24.29
4H	2H	12.19	12.91	13.22	13.94	15.31	18.42	19.14	19.45	20.17	21.55
	3H	13.76	14.36	14.79	15.41	16.80	20.46	21.07	21.50	22.12	23.51
	4H	13.85	14.40	14.90	15.45	16.86	21.23	21.78	22.27	22.82	24.24
	6H	13.86	14.34	14.92	15.41	16.81	21.76	22.24	22.81	23.30	24.71
	8H	13.84	14.28	14.89	15.34	16.77	21.92	22.36	22.97	23.43	24.85
	12H	13.79	14.20	14.87	15.27	16.70	22.01	22.41	23.08	23.49	24.92
8H	4H	15.29	15.74	16.35	16.80	18.22	21.29	21.73	22.34	22.79	24.22
	6H	15.53	15.90	16.61	17.01	18.43	21.91	22.28	22.99	23.38	24.80
	8H	15.55	15.88	16.64	16.96	18.40	22.13	22.45	23.21	23.54	24.98
	12H	15.52	15.80	16.61	16.89	18.37	22.27	22.55	23.36	23.63	25.11
12H	4H	15.43	15.84	16.51	16.91	18.34	21.24	21.64	22.31	22.72	24.14
	6H	15.79	16.11	16.88	17.20	18.64	21.89	22.22	22.98	23.30	24.74
	8H	15.86	16.14	16.95	17.23	18.71	22.12	22.40	23.21	23.49	24.97