

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: P937691

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937691
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-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

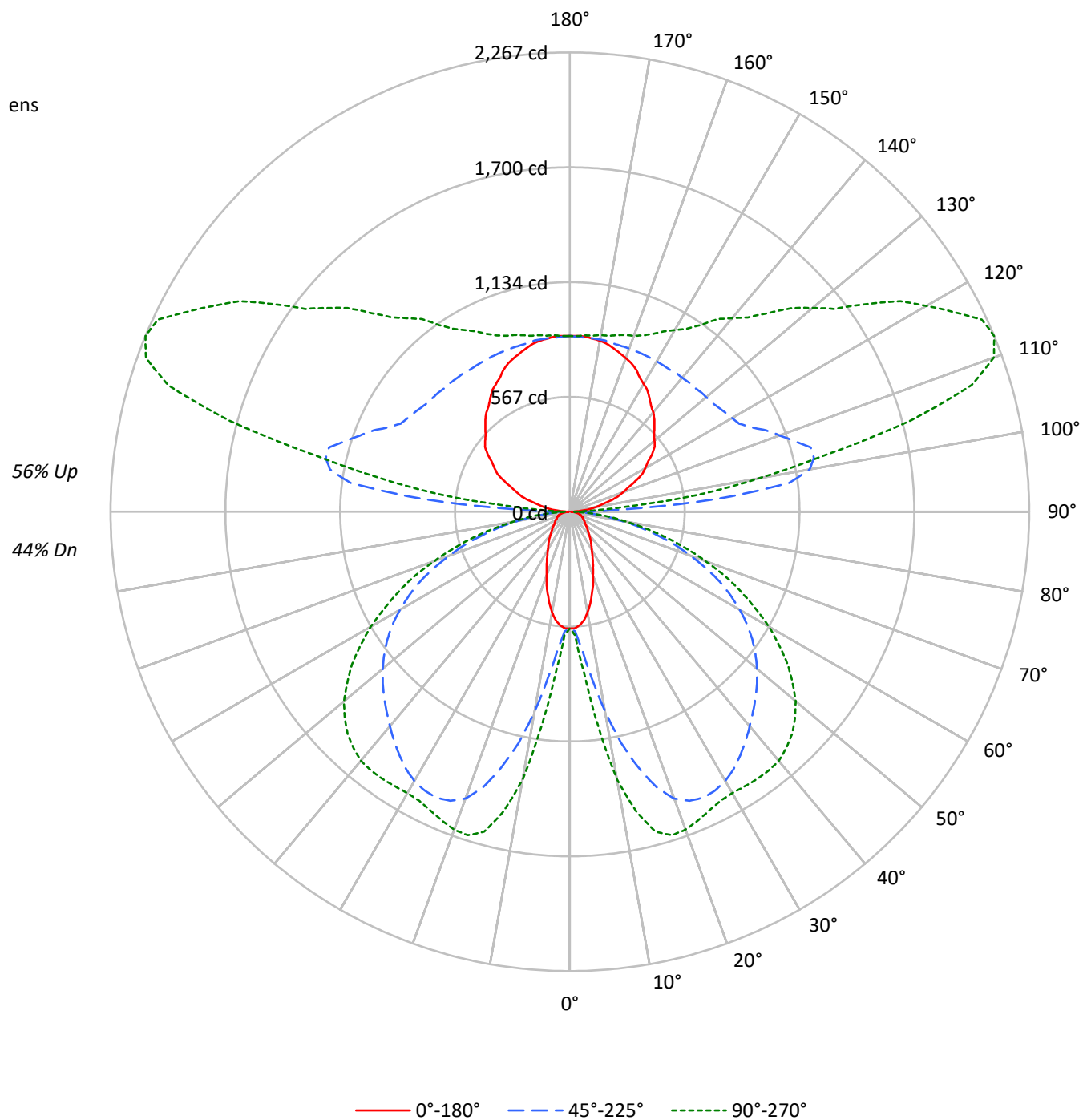
Lumens per Lamp: N/A
Luminaire Lumens: 10085.3 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: General Diffuse

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: P937691

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-W2A-W-6-5000K

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°	3561	3561	3561
5°	3478	4114	4787
10°	3153	5997	7935
15°	2679	7833	9582
20°	2180	9075	9766
25°	1818	9494	9567
30°	1532	9552	9549
35°	1354	9390	9796
40°	1179	9181	10051
45°	1067	9028	10090
50°	979	8889	9924
55°	935	8687	9484
60°	957	8302	8789
65°	994	7718	7834
70°	1057	6727	6618
75°	1166	5479	5165
80°	1266	3796	3481
85°	1103	2011	1781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10090 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	0.7
10°-20°	330.0	3.3
20°-30°	577.3	5.7
30°-40°	743.1	7.4
40°-50°	830.0	8.2
50°-60°	795.0	7.9
60°-70°	630.0	6.2
70°-80°	370.5	3.7
80°-90°	106.2	1.1
90°-100°	423.2	4.2
100°-110°	1112.7	11.0
110°-120°	1153.8	11.4
120°-130°	925.5	9.2
130°-140°	726.2	7.2
140°-150°	557.4	5.5
150°-160°	401.4	4.0
160°-170°	245.6	2.4
170°-180°	83.0	0.8
0°-30°	981.8	9.7
0°-40°	1724.9	17.1
0°-60°	3349.9	33.2
0°-90°	4456.6	44.2
90°-120°	2689.7	26.7
90°-150°	4898.7	48.6
90°-180°	5629.0	55.8
0°-180°	10085.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	561	602	677	766	794	52
15°	420	776	1307	1584	1634	117
25°	268	879	1557	1625	1627	124
35°	181	840	1466	1549	1610	113
45°	124	670	1296	1484	1551	96
55°	89	426	1100	1277	1312	81
65°	70	226	816	918	931	70
75°	52	139	448	492	494	54
85°	18	43	111	122	124	20
90°	6	16	44	22	22	6
95°	56	219	729	376	256	62
105°	200	304	1230	1868	1742	212
115°	356	432	985	1966	2244	352
125°	495	555	896	1515	1787	440
135°	590	650	868	1223	1386	457
145°	685	728	857	1043	1125	429
155°	774	795	857	941	968	356
165°	835	846	857	891	902	236
175°	868	868	863	874	874	82
180°	868	868	868	868	868	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6	575.6
2.5°	575.6	575.6	579.4	581.2	584.9	586.7	590.5	594.2	605.2	607.1	610.8
5°	560.9	568.2	592.3	601.6	627.5	662.7	677.4	701.5	751.5	766.3	775.6
7.5°	538.6	555.3	614.6	629.3	694.1	786.7	825.6	877.4	957.0	995.8	1027.3
10°	503.4	538.6	644.2	679.3	784.8	925.5	997.7	1069.9	1190.2	1243.9	1264.3
12.5°	464.6	522.0	675.7	723.8	875.5	1081.0	1168.0	1247.5	1384.6	1456.8	1467.9
15°	420.2	497.9	705.3	775.6	971.7	1210.6	1306.9	1404.9	1532.6	1584.4	1597.4
17.5°	381.4	479.4	733.0	807.1	1045.8	1327.2	1425.3	1506.7	1610.4	1645.5	1654.8
20°	333.2	449.8	751.5	847.8	1123.6	1412.3	1506.7	1569.7	1640.0	1662.2	1665.9
22.5°	298.0	418.3	762.6	862.5	1175.3	1464.1	1543.7	1593.7	1641.9	1649.3	1651.1
25°	268.4	383.1	760.7	879.3	1219.8	1495.6	1556.7	1593.7	1621.5	1625.2	1625.2
27.5°	240.6	344.3	753.4	882.9	1253.1	1503.0	1551.1	1577.1	1590.0	1597.4	1597.4
30°	216.6	307.3	734.9	875.5	1267.9	1495.6	1534.5	1547.5	1560.4	1571.5	1577.1
32.5°	198.1	272.1	707.0	860.7	1269.8	1477.1	1504.9	1512.2	1530.7	1556.7	1565.9
35°	181.4	237.0	675.7	840.3	1258.7	1447.5	1466.0	1473.4	1510.4	1549.3	1562.2
37.5°	164.8	211.0	634.9	805.2	1242.0	1412.3	1425.3	1438.3	1495.6	1541.8	1556.7
40°	148.0	188.8	586.7	766.3	1216.1	1369.7	1380.8	1401.2	1477.1	1530.7	1545.6
42.5°	135.1	170.3	534.9	725.6	1182.8	1321.6	1338.2	1367.8	1454.9	1512.2	1529.0
45°	124.0	151.8	479.4	670.1	1140.2	1271.6	1295.7	1336.5	1428.9	1484.5	1499.4
47.5°	112.9	138.8	422.1	612.7	1093.9	1221.7	1253.1	1299.4	1393.8	1447.5	1460.4
50°	103.7	125.9	364.6	551.6	1043.9	1168.0	1205.0	1253.1	1349.3	1399.3	1416.0
52.5°	96.3	114.8	310.9	490.5	986.6	1112.5	1155.0	1205.0	1295.7	1343.8	1355.0
55°	88.8	105.5	264.7	425.7	927.4	1053.2	1099.5	1147.6	1236.4	1277.2	1284.6
57.5°	85.2	98.1	225.8	364.6	864.4	986.6	1038.4	1082.9	1166.1	1197.6	1205.0
60°	79.6	92.6	196.2	312.8	796.0	923.6	968.1	1012.5	1082.9	1108.8	1114.3
62.5°	74.1	88.8	174.0	262.8	725.6	849.6	894.0	934.7	994.0	1012.5	1019.9
65°	70.3	85.2	157.4	225.8	653.4	771.9	816.3	851.4	899.6	918.1	921.8
67.5°	66.6	81.4	144.4	194.4	581.2	694.1	727.4	760.7	797.8	816.3	818.2
70°	61.1	77.7	133.3	172.1	507.2	605.2	633.1	668.2	697.8	707.0	712.6
72.5°	57.3	72.2	125.9	155.5	431.3	520.1	546.0	566.4	592.3	601.6	601.6
75°	51.8	64.8	118.4	138.8	353.5	425.7	447.9	468.3	488.7	492.4	486.8
77.5°	46.2	57.3	101.8	116.7	275.8	336.9	355.4	366.5	383.1	386.9	388.7
80°	38.9	50.0	79.6	90.7	199.9	248.1	261.0	270.2	285.1	285.1	288.8
82.5°	29.6	38.9	57.3	64.8	135.1	170.3	181.4	187.0	196.2	196.2	196.2
85°	18.5	24.1	37.0	42.6	81.4	103.7	111.1	112.9	120.3	122.2	122.2
87.5°	9.2	13.0	24.1	25.9	42.6	53.7	53.7	57.3	57.3	55.6	53.7
90°	5.8	10.5	15.1	16.3	25.7	38.1	44.3	39.3	29.5	22.1	22.1
92.5°	23.4	63.0	102.6	112.5	158.1	218.9	249.4	218.6	156.9	110.7	106.3
95°	55.9	128.4	201.0	219.1	389.1	615.7	729.0	650.5	493.5	375.8	362.5
97.5°	96.8	160.7	224.7	240.7	524.1	902.0	1090.9	1041.3	942.1	867.7	842.3
100°	128.2	186.2	244.2	258.7	573.2	992.5	1202.2	1205.8	1213.1	1218.5	1188.2
102.5°	155.0	209.2	263.3	276.8	595.8	1021.0	1233.6	1296.9	1423.2	1518.0	1492.2
105°	200.4	246.3	292.2	303.6	612.5	1024.3	1230.2	1371.9	1655.1	1867.6	1853.7
107.5°	247.0	289.8	332.6	343.2	615.6	978.6	1160.2	1357.8	1753.0	2049.5	2052.8
110°	278.5	317.1	355.8	365.4	610.9	938.3	1101.9	1322.8	1764.7	2096.1	2110.6

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.4	346.2	383.0	392.2	611.1	903.0	1048.9	1275.0	1727.2	2066.4	2088.6
115°	356.0	389.9	423.8	432.3	616.7	862.5	985.4	1203.2	1638.9	1965.6	1996.5
117.5°	402.1	432.9	463.7	471.4	628.1	837.1	941.7	1138.3	1531.4	1826.3	1860.5
120°	428.9	457.9	486.9	494.2	637.5	828.6	924.2	1103.8	1463.0	1732.5	1765.7
122.5°	455.1	484.4	513.7	521.0	650.9	824.2	910.8	1072.6	1396.0	1638.6	1671.5
125°	495.3	522.0	548.7	555.4	669.0	820.5	896.3	1033.7	1308.4	1514.6	1544.8
127.5°	528.0	554.9	581.9	588.6	687.1	818.4	884.0	1002.0	1237.9	1414.9	1440.4
130°	545.5	574.5	603.5	610.7	700.3	819.7	879.4	984.3	1194.4	1352.0	1375.5
132.5°	563.5	592.5	621.5	628.8	711.0	820.5	875.3	969.3	1157.3	1298.4	1319.5
135°	590.3	616.7	643.2	649.8	722.6	819.7	868.2	947.0	1104.5	1222.6	1240.8
137.5°	617.7	643.8	670.1	676.6	740.1	824.8	867.1	933.7	1066.8	1166.7	1181.5
140°	640.4	664.5	688.6	694.6	750.7	825.6	863.0	920.6	1035.5	1121.7	1135.7
142.5°	657.9	680.2	702.5	708.1	759.7	828.6	863.0	913.5	1014.5	1090.3	1102.2
145°	684.7	704.1	723.6	728.4	771.4	828.6	857.2	898.5	981.2	1043.1	1052.2
147.5°	711.5	730.4	749.3	754.0	788.4	834.2	857.2	889.7	954.7	1003.5	1011.0
150°	729.0	746.1	763.2	767.5	797.4	837.2	857.2	884.7	939.5	980.7	986.8
152.5°	747.1	760.1	773.0	776.2	803.2	839.2	857.2	880.7	927.6	962.7	967.3
155°	773.9	783.4	793.0	795.4	816.0	843.5	857.2	875.9	913.2	941.1	944.2
157.5°	793.7	803.1	812.3	814.6	828.8	847.8	857.2	871.7	900.7	922.5	924.7
160°	807.1	814.4	821.6	823.4	834.7	849.8	857.2	869.6	894.5	913.2	914.4
162.5°	820.5	825.9	831.4	832.8	840.9	851.8	857.2	867.7	888.7	904.4	905.5
165°	835.1	839.9	844.9	846.1	849.8	854.8	857.2	864.7	879.7	891.0	892.3
167.5°	848.4	850.8	853.1	853.7	856.8	861.0	863.0	868.0	877.8	885.2	885.7
170°	857.2	859.6	861.9	862.5	862.6	862.9	863.0	868.0	877.8	885.2	885.2
172.5°	861.9	862.4	862.9	863.0	863.0	863.0	863.0	866.9	874.7	880.5	880.0
175°	868.2	868.2	868.2	868.2	866.5	864.1	863.0	865.4	870.4	874.1	874.1
177.5°	868.2	868.2	868.2	868.2	866.9	865.2	864.2	866.2	870.0	872.9	872.4
180°	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	575.6	575.6
2.5°	614.6	610.8
5°	790.4	794.1
7.5°	1064.3	1062.5
10°	1323.5	1340.1
12.5°	1512.2	1516.0
15°	1627.0	1634.4
17.5°	1671.5	1673.3
20°	1673.3	1669.6
22.5°	1652.9	1649.3
25°	1628.9	1627.0
27.5°	1606.7	1608.5
30°	1597.4	1602.9
32.5°	1597.4	1606.7
35°	1601.2	1610.4
37.5°	1599.3	1610.4
40°	1591.8	1604.8
42.5°	1571.5	1580.8
45°	1540.1	1551.1
47.5°	1499.4	1506.7
50°	1447.5	1454.9
52.5°	1382.7	1384.6
55°	1305.0	1312.4
57.5°	1221.7	1223.5
60°	1129.1	1134.6
62.5°	1031.0	1031.0
65°	927.4	931.0
67.5°	820.0	829.2
70°	710.8	712.6
72.5°	603.5	603.5
75°	492.4	494.2
77.5°	386.9	386.9
80°	286.9	288.8
82.5°	198.1	201.7
85°	124.0	124.0
87.5°	57.3	51.8
90°	22.1	22.1
92.5°	88.6	71.1
95°	309.2	255.8
97.5°	740.8	639.2
100°	1067.3	946.3
102.5°	1388.5	1284.9
105°	1798.0	1742.4
107.5°	2066.4	2079.8
110°	2168.7	2226.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2177.7	2266.8
115°	2120.0	2243.6
117.5°	1997.5	2134.6
120°	1898.9	2032.0
122.5°	1802.8	1934.1
125°	1665.7	1786.6
127.5°	1542.5	1644.5
130°	1469.8	1564.1
132.5°	1403.9	1488.3
135°	1313.6	1386.3
137.5°	1241.1	1300.7
140°	1191.4	1247.1
142.5°	1150.2	1198.1
145°	1088.5	1124.7
147.5°	1041.0	1071.1
150°	1011.1	1035.5
152.5°	985.7	1004.0
155°	956.3	968.5
157.5°	933.2	941.7
160°	919.3	924.2
162.5°	910.2	914.9
165°	897.2	902.1
167.5°	887.8	889.8
170°	885.2	885.2
172.5°	878.2	876.5
175°	874.1	874.1
177.5°	870.3	868.2
180°	868.2	868.2

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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	4.86	5.70	5.86	6.72	8.06	18.02	18.87	19.02	19.88	21.23
	3H	5.56	6.32	6.57	7.34	8.71	19.86	20.61	20.86	21.64	23.01
	4H	5.86	6.58	6.88	7.60	8.98	20.50	21.22	21.52	22.24	23.62
	6H	6.11	6.77	7.14	7.80	9.19	20.92	21.59	21.95	22.62	24.01
	8H	6.18	6.81	7.21	7.86	9.24	21.04	21.67	22.08	22.72	24.11
	12H	6.19	6.79	7.24	7.84	9.25	21.11	21.71	22.15	22.75	24.16
4H	2H	12.06	12.78	13.09	13.81	15.19	18.30	19.02	19.32	20.04	21.42
	3H	13.63	14.23	14.67	15.29	16.68	20.34	20.94	21.37	21.99	23.38
	4H	13.72	14.28	14.77	15.32	16.73	21.10	21.65	22.14	22.70	24.11
	6H	13.73	14.21	14.79	15.28	16.69	21.63	22.11	22.69	23.18	24.58
	8H	13.71	14.16	14.77	15.22	16.64	21.79	22.24	22.85	23.30	24.72
	12H	13.67	14.07	14.74	15.14	16.57	21.88	22.28	22.95	23.36	24.79
8H	4H	15.16	15.61	16.22	16.67	18.09	21.16	21.60	22.21	22.66	24.09
	6H	15.41	15.77	16.48	16.88	18.30	21.78	22.15	22.86	23.25	24.67
	8H	15.42	15.75	16.51	16.83	18.27	22.00	22.32	23.08	23.41	24.85
	12H	15.39	15.68	16.48	16.76	18.24	22.14	22.42	23.23	23.51	24.99
12H	4H	15.31	15.71	16.38	16.78	18.21	21.11	21.51	22.18	22.59	24.02
	6H	15.66	15.99	16.75	17.07	18.51	21.76	22.09	22.85	23.18	24.62
	8H	15.73	16.02	16.82	17.10	18.58	21.99	22.28	23.08	23.36	24.84