

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: P937451

Luminaire Tested: SQ4-FB-100U-050D-930-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937451  
REPORT IS A COMBINATION OF REPORTS P933573 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-930-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

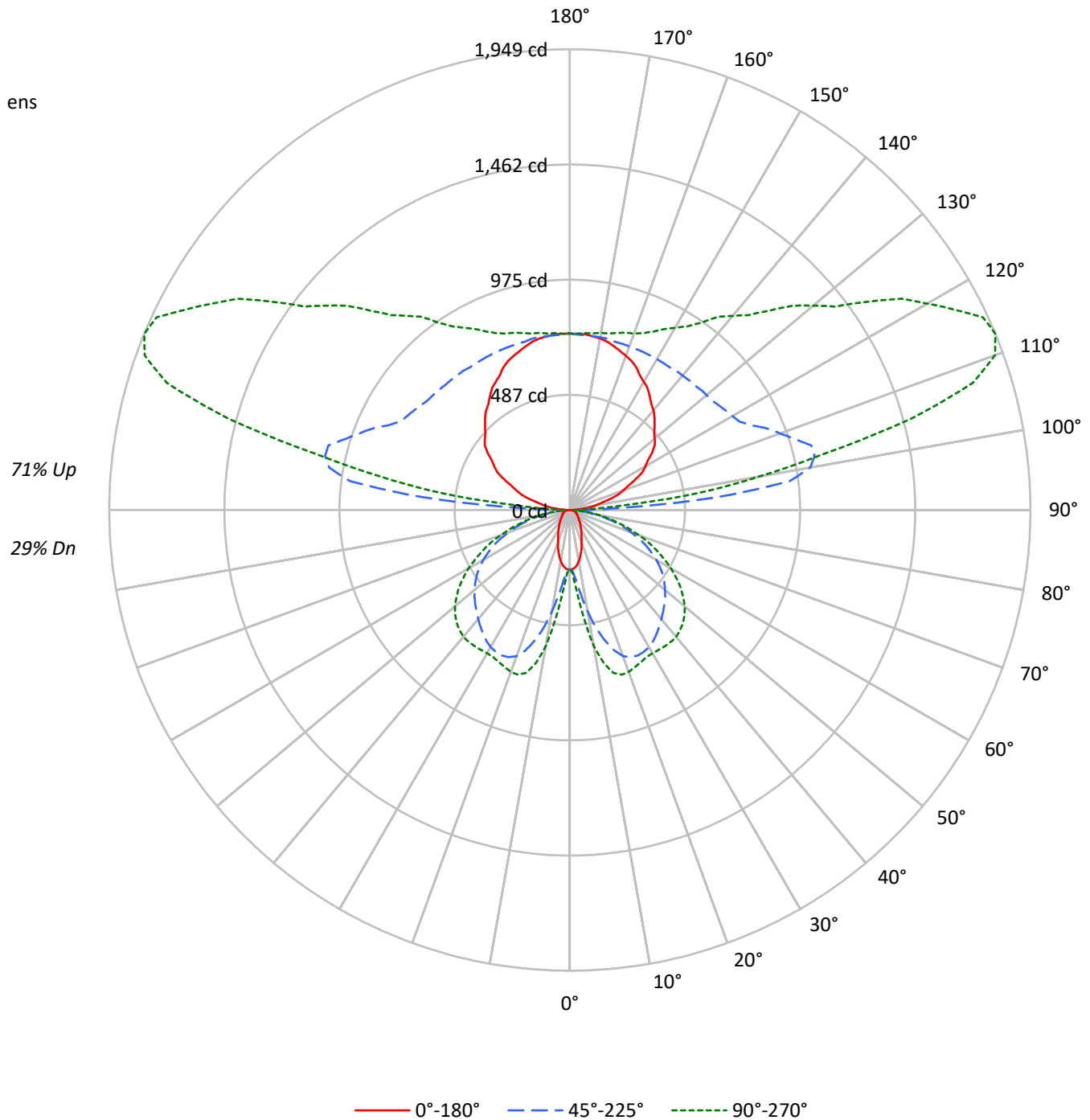
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6785.4 lumens  
Efficiency: N/A  
Efficacy: 109.8 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: Semi-Indirect

Input Watts (W): 61.8  
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				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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			

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

	0°	45°	90°
0°	1554	1554	1554
5°	1518	1795	2089
10°	1376	2617	3462
15°	1169	3418	4181
20°	951	3960	4262
25°	794	4143	4175
30°	669	4168	4167
35°	591	4098	4275
40°	514	4007	4386
45°	466	3939	4403
50°	427	3879	4331
55°	409	3791	4139
60°	418	3623	3835
65°	434	3368	3418
70°	462	2935	2889
75°	509	2391	2254
80°	550	1656	1519
85°	483	878	777

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4403 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.5	0.5
10°-20°	144.0	2.1
20°-30°	251.9	3.7
30°-40°	324.3	4.8
40°-50°	362.2	5.3
50°-60°	346.9	5.1
60°-70°	274.9	4.1
70°-80°	161.7	2.4
80°-90°	47.8	0.7
90°-100°	363.9	5.4
100°-110°	956.7	14.1
110°-120°	991.9	14.6
120°-130°	795.7	11.7
130°-140°	624.3	9.2
140°-150°	479.2	7.1
150°-160°	345.1	5.1
160°-170°	211.1	3.1
170°-180°	71.3	1.1
0°-30°	428.4	6.3
0°-40°	752.7	11.1
0°-60°	1461.8	21.5
0°-90°	1946.1	28.7
90°-120°	2312.5	34.1
90°-150°	4211.7	62.1
90°-180°	4839.0	71.3
0°-180°	6785.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	251	251	251	251	251	
5°	245	262	296	334	346	23
15°	183	338	570	691	713	51
25°	117	384	679	709	710	54
35°	79	367	640	676	703	49
45°	54	292	565	648	677	42
55°	39	186	480	557	573	35
65°	31	98	356	401	406	30
75°	23	60	196	215	216	24
85°	8	18	48	53	54	9
90°	5	14	38	19	19	5
95°	48	188	627	323	220	53
105°	172	261	1058	1606	1498	183
115°	306	372	847	1690	1929	302
125°	426	478	771	1302	1536	378
135°	508	559	746	1051	1192	393
145°	589	626	737	897	967	369
155°	665	684	737	809	833	306
165°	718	727	737	766	776	203
175°	746	746	742	752	752	71
180°	746	746	746	746	746	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2	251.2
2.5°	251.2	251.2	252.8	253.6	255.3	256.1	257.7	259.3	264.1	264.9	266.5
5°	244.8	248.0	258.5	262.5	273.8	289.2	295.6	306.1	327.9	334.4	338.5
7.5°	235.0	242.3	268.1	274.6	302.9	343.3	360.2	382.9	417.6	434.6	448.3
10°	219.7	235.0	281.0	296.5	342.5	403.8	435.4	466.9	519.4	542.7	551.7
12.5°	202.8	227.8	294.8	315.8	382.1	471.7	509.7	544.4	604.2	635.7	640.5
15°	183.3	217.3	307.7	338.5	424.1	528.2	570.2	613.1	668.8	691.4	697.1
17.5°	166.4	209.2	319.8	352.2	456.3	579.1	621.9	657.5	702.7	718.0	722.1
20°	145.4	196.3	327.9	369.9	490.3	616.3	657.5	685.0	715.6	725.3	727.0
22.5°	130.0	182.5	332.8	376.4	512.9	638.9	673.6	695.4	716.4	719.6	720.5
25°	117.2	167.2	332.0	383.7	532.3	652.6	679.3	695.4	707.5	709.1	709.1
27.5°	105.0	150.2	328.7	385.3	546.8	655.9	676.8	688.2	693.8	697.1	697.1
30°	94.5	134.1	320.6	382.1	553.3	652.6	669.6	675.2	680.9	685.8	688.2
32.5°	86.4	118.8	308.5	375.6	554.1	644.6	656.7	659.9	667.9	679.3	683.4
35°	79.2	103.4	294.8	366.7	549.3	631.6	639.7	643.0	659.1	676.0	681.7
37.5°	71.9	92.1	277.0	351.4	541.9	616.3	621.9	627.6	652.6	672.8	679.3
40°	64.6	82.4	256.1	334.4	530.7	597.7	602.6	611.4	644.6	667.9	674.4
42.5°	58.9	74.3	233.4	316.6	516.1	576.7	583.9	596.9	634.9	659.9	667.1
45°	54.1	66.2	209.2	292.4	497.5	554.9	565.4	583.1	623.5	647.8	654.2
47.5°	49.3	60.5	184.1	267.3	477.4	533.1	546.8	567.0	608.2	631.6	637.3
50°	45.2	54.9	159.2	240.7	455.5	509.7	525.8	546.8	588.8	610.6	617.9
52.5°	42.0	50.1	135.7	214.1	430.5	485.4	504.0	525.8	565.4	586.4	591.2
55°	38.8	46.0	115.5	185.7	404.6	459.6	479.8	500.8	539.5	557.3	560.6
57.5°	37.2	42.8	98.5	159.2	377.2	430.5	453.1	472.5	508.9	522.6	525.8
60°	34.8	40.4	85.6	136.5	347.3	403.0	422.5	441.8	472.5	483.8	486.2
62.5°	32.3	38.8	76.0	114.7	316.6	370.7	390.1	407.9	433.7	441.8	445.0
65°	30.7	37.2	68.7	98.5	285.1	336.8	356.2	371.5	392.5	400.6	402.2
67.5°	29.1	35.6	63.0	84.8	253.6	302.9	317.4	332.0	348.1	356.2	357.0
70°	26.7	33.9	58.1	75.1	221.3	264.1	276.2	291.6	304.5	308.5	311.0
72.5°	25.1	31.5	54.9	67.9	188.2	226.9	238.3	247.2	258.5	262.5	262.5
75°	22.6	28.3	51.7	60.5	154.3	185.7	195.5	204.4	213.2	214.9	212.4
77.5°	20.2	25.1	44.4	50.9	120.4	147.0	155.1	160.0	167.2	168.8	169.6
80°	16.9	21.8	34.8	39.6	87.2	108.2	113.9	118.0	124.4	124.4	126.0
82.5°	12.9	16.9	25.1	28.3	58.9	74.3	79.2	81.6	85.6	85.6	85.6
85°	8.1	10.5	16.1	18.5	35.6	45.2	48.5	49.3	52.5	53.3	53.3
87.5°	4.0	5.6	10.5	11.3	18.5	23.4	23.4	25.1	25.1	24.3	23.4
90°	5.0	9.0	13.0	14.1	22.1	32.8	38.1	33.8	25.4	19.0	19.0
92.5°	20.1	54.1	88.2	96.7	135.9	188.2	214.4	187.9	134.9	95.2	91.4
95°	48.1	110.4	172.8	188.4	334.5	529.3	626.7	559.3	424.3	323.1	311.6
97.5°	83.2	138.2	193.2	206.9	450.6	775.5	937.9	895.3	810.0	746.0	724.1
100°	110.3	160.1	210.0	222.4	492.8	853.3	1033.5	1036.7	1042.9	1047.6	1021.6
102.5°	133.3	179.9	226.4	238.0	512.2	877.8	1060.6	1115.0	1223.6	1305.1	1282.9
105°	172.3	211.8	251.2	261.1	526.6	880.7	1057.6	1179.4	1423.0	1605.7	1593.7
107.5°	212.4	249.2	285.9	295.1	529.3	841.4	997.5	1167.4	1507.2	1762.0	1764.9
110°	239.5	272.6	305.9	314.1	525.2	806.7	947.4	1137.3	1517.2	1802.1	1814.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	266.0	297.7	329.3	337.2	525.4	776.3	901.8	1096.2	1485.0	1776.6	1795.7
115°	306.1	335.3	364.4	371.7	530.2	741.5	847.2	1034.4	1409.0	1689.9	1716.5
117.5°	345.7	372.2	398.7	405.3	540.0	719.7	809.6	978.6	1316.6	1570.1	1599.6
120°	368.7	393.7	418.6	424.9	548.1	712.4	794.6	949.0	1257.8	1489.5	1518.1
122.5°	391.3	416.4	441.6	447.9	559.6	708.6	783.1	922.2	1200.2	1408.8	1437.0
125°	425.8	448.8	471.8	477.5	575.2	705.4	770.6	888.7	1124.9	1302.1	1328.2
127.5°	453.9	477.1	500.3	506.1	590.7	703.6	760.0	861.5	1064.3	1216.5	1238.4
130°	469.0	493.9	518.8	525.1	602.1	704.7	756.0	846.3	1026.9	1162.3	1182.6
132.5°	484.4	509.4	534.3	540.6	611.2	705.4	752.5	833.4	995.0	1116.3	1134.4
135°	507.5	530.2	552.9	558.6	621.3	704.7	746.5	814.2	949.5	1051.1	1066.8
137.5°	531.0	553.5	576.1	581.7	636.3	709.1	745.5	802.8	917.2	1003.0	1015.8
140°	550.6	571.3	592.1	597.2	645.5	709.8	742.0	791.4	890.3	964.4	976.4
142.5°	565.6	584.8	603.9	608.8	653.2	712.3	742.0	785.4	872.2	937.3	947.6
145°	588.7	605.4	622.1	626.3	663.2	712.4	737.0	772.5	843.6	896.8	904.6
147.5°	611.7	627.9	644.2	648.3	677.8	717.2	737.0	764.9	820.8	862.7	869.2
150°	626.7	641.4	656.1	659.8	685.5	719.8	737.0	760.6	807.7	843.2	848.4
152.5°	642.3	653.5	664.6	667.4	690.6	721.5	737.0	757.1	797.5	827.7	831.6
155°	665.4	673.6	681.7	683.8	701.6	725.2	737.0	753.1	785.1	809.1	811.8
157.5°	682.4	690.4	698.4	700.4	712.6	728.9	737.0	749.4	774.4	793.1	795.0
160°	693.9	700.1	706.4	707.9	717.6	730.6	737.0	747.7	769.0	785.1	786.1
162.5°	705.4	710.1	714.8	716.0	722.9	732.3	737.0	746.0	764.1	777.5	778.5
165°	718.0	722.1	726.4	727.4	730.6	734.9	737.0	743.4	756.3	766.1	767.1
167.5°	729.4	731.5	733.5	733.9	736.6	740.2	742.0	746.2	754.7	761.0	761.5
170°	737.0	739.0	741.0	741.5	741.7	741.9	742.0	746.2	754.7	761.0	761.0
172.5°	741.0	741.4	741.9	742.0	742.0	742.0	742.0	745.3	752.0	757.0	756.6
175°	746.5	746.5	746.5	746.5	744.9	742.9	742.0	744.1	748.3	751.5	751.5
177.5°	746.5	746.5	746.5	746.5	745.3	743.8	743.0	744.7	748.0	750.5	750.0
180°	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5	746.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	251.2	251.2
2.5°	268.1	266.5
5°	344.9	346.5
7.5°	464.5	463.7
10°	577.5	584.7
12.5°	659.9	661.5
15°	710.0	713.2
17.5°	729.4	730.2
20°	730.2	728.6
22.5°	721.3	719.6
25°	710.8	710.0
27.5°	701.1	701.9
30°	697.1	699.5
32.5°	697.1	701.1
35°	698.7	702.7
37.5°	697.9	702.7
40°	694.6	700.3
42.5°	685.8	689.8
45°	672.0	676.8
47.5°	654.2	657.5
50°	631.6	634.9
52.5°	603.4	604.2
55°	569.4	572.7
57.5°	533.1	533.9
60°	492.7	495.1
62.5°	449.9	449.9
65°	404.6	406.2
67.5°	357.8	361.8
70°	310.2	311.0
72.5°	263.3	263.3
75°	214.9	215.7
77.5°	168.8	168.8
80°	125.2	126.0
82.5°	86.4	88.0
85°	54.1	54.1
87.5°	25.1	22.6
90°	19.0	19.0
92.5°	76.2	61.1
95°	265.8	219.9
97.5°	636.9	549.6
100°	917.6	813.6
102.5°	1193.7	1104.7
105°	1545.9	1498.0
107.5°	1776.6	1788.1
110°	1864.5	1914.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1872.3	1948.9
115°	1822.6	1928.9
117.5°	1717.4	1835.2
120°	1632.6	1747.0
122.5°	1550.0	1662.9
125°	1432.1	1536.1
127.5°	1326.2	1413.8
130°	1263.7	1344.7
132.5°	1207.0	1279.6
135°	1129.3	1191.9
137.5°	1067.0	1118.3
140°	1024.3	1072.2
142.5°	988.9	1030.1
145°	935.8	967.0
147.5°	895.0	920.9
150°	869.3	890.3
152.5°	847.4	863.2
155°	822.2	832.6
157.5°	802.3	809.6
160°	790.4	794.6
162.5°	782.5	786.5
165°	771.4	775.5
167.5°	763.3	765.0
170°	761.0	761.0
172.5°	755.1	753.5
175°	751.5	751.5
177.5°	748.2	746.5
180°	746.5	746.5



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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	0.16	0.87	1.27	1.99	3.53	13.32	14.04	14.44	15.15	16.70
	3H	0.85	1.49	1.98	2.62	4.18	15.15	15.79	16.27	16.91	18.47
	4H	1.14	1.76	2.28	2.88	4.44	15.78	16.39	16.92	17.52	19.08
	6H	1.39	1.95	2.53	3.07	4.65	16.20	16.76	17.34	17.89	19.47
	8H	1.45	1.99	2.60	3.13	4.70	16.31	16.85	17.46	17.99	19.56
	12H	1.46	1.97	2.61	3.11	4.70	16.37	16.88	17.52	18.02	19.61
4H	2H	7.35	7.96	8.49	9.08	10.65	13.58	14.19	14.72	15.31	16.88
	3H	8.90	9.41	10.05	10.56	12.14	15.61	16.12	16.75	17.27	18.84
	4H	8.99	9.46	10.14	10.60	12.19	16.36	16.83	17.51	17.97	19.57
	6H	8.99	9.40	10.15	10.56	12.14	16.89	17.29	18.05	18.45	20.04
	8H	8.97	9.34	10.12	10.49	12.10	17.05	17.42	18.20	18.57	20.18
	12H	8.91	9.26	10.09	10.42	12.03	17.13	17.47	18.30	18.63	20.24
8H	4H	10.42	10.80	11.57	11.95	13.55	16.41	16.79	17.57	17.94	19.55
	6H	10.65	10.97	11.83	12.16	13.76	17.03	17.34	18.21	18.54	20.14
	8H	10.67	10.94	11.85	12.11	13.74	17.25	17.52	18.43	18.69	20.31
	12H	10.63	10.87	11.82	12.04	13.70	17.38	17.62	18.57	18.79	20.44
12H	4H	10.55	10.90	11.73	12.06	13.67	16.36	16.70	17.53	17.86	19.47
	6H	10.91	11.18	12.09	12.35	13.98	17.01	17.28	18.19	18.46	20.08
	8H	10.97	11.21	12.16	12.38	14.04	17.23	17.47	18.42	18.64	20.30