

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: P937482

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

**Test Information**

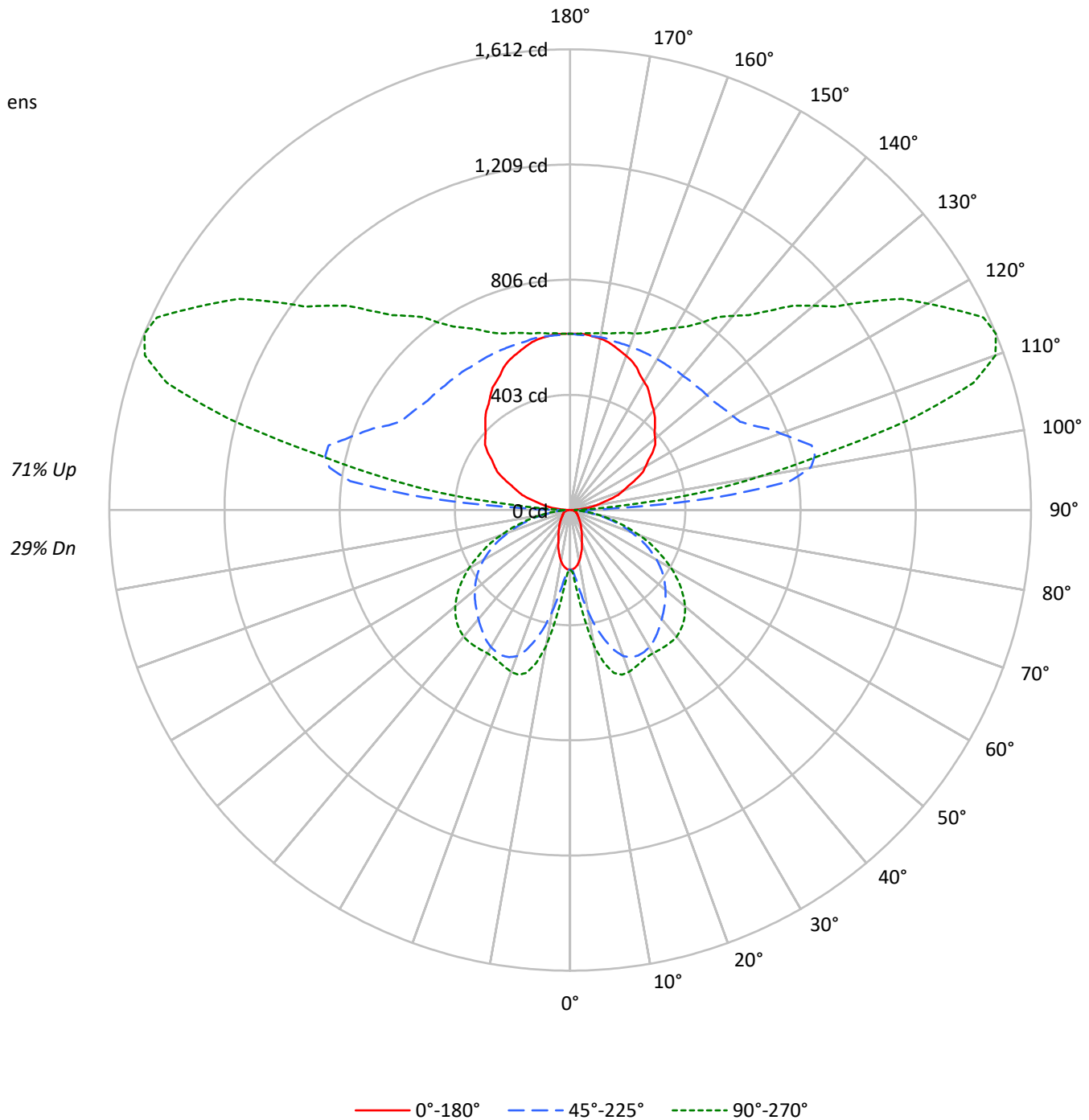
Test Method: LM-79-2019  
Report Number: P937482  
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-4-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5611.4 lumens  
Efficiency: N/A  
Efficacy: 136.2 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 41.2  
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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CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-4-2700K

### 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	50	30	10	50	30	10	
RCR	0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29	29	29	29	29	29	29	29	29
	1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23	23	23	23	23	23	23	23	23
	2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19	19	19	19	19	19	19	19	19
	3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16	16	16	16	16	16	16	16	16
	4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13	13	13	13	13	13	13	13	13
	5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11	11	11	11	11	11	11	11	11
	6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10	10	10	10	10	10	10	10	10
	7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8	8	8	8	8	8	8	8	8
	8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7	7	7	7	7	7	7	7	7
	9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7	7	7	7	7	7	7	7	7
	10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6	6	6	6	6	6	6	6	6

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

	0°	45°	90°
0°	1928	1928	1928
5°	1882	2226	2591
10°	1705	3244	4297
15°	1448	4235	5188
20°	1177	4904	5288
25°	981	5128	5180
30°	826	5156	5171
35°	728	5067	5304
40°	635	4952	5442
45°	572	4865	5464
50°	524	4788	5374
55°	501	4675	5135
60°	511	4464	4759
65°	529	4144	4242
70°	559	3607	3585
75°	613	2934	2797
80°	655	2027	1886
85°	555	1070	963

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5464 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.9	0.5
10°-20°	119.1	2.1
20°-30°	208.4	3.7
30°-40°	268.2	4.8
40°-50°	299.6	5.3
50°-60°	287.0	5.1
60°-70°	227.4	4.1
70°-80°	133.7	2.4
80°-90°	39.5	0.7
90°-100°	300.9	5.4
100°-110°	791.1	14.1
110°-120°	820.2	14.6
120°-130°	657.9	11.7
130°-140°	516.2	9.2
140°-150°	396.2	7.1
150°-160°	285.4	5.1
160°-170°	174.6	3.1
170°-180°	59.0	1.1
0°-30°	354.4	6.3
0°-40°	622.6	11.1
0°-60°	1209.2	21.5
0°-90°	1609.9	28.7
90°-120°	1912.2	34.1
90°-150°	3482.6	62.1
90°-180°	4002.0	71.3
0°-180°	5611.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	208	208	208	208	208	
5°	202	217	244	277	287	19
15°	152	280	472	572	590	42
25°	97	317	562	587	587	45
35°	65	303	529	559	581	41
45°	45	242	468	536	560	35
55°	32	154	397	461	474	29
65°	25	82	295	331	336	25
75°	19	50	162	178	178	20
85°	7	15	40	44	45	7
90°	4	12	32	16	16	4
95°	40	156	518	267	182	44
105°	142	216	875	1328	1239	151
115°	253	307	701	1397	1595	250
125°	352	395	637	1077	1270	313
135°	420	462	617	869	986	325
145°	487	518	610	742	800	305
155°	550	566	610	669	688	253
165°	594	602	610	634	641	168
175°	617	617	614	621	621	59
180°	617	617	617	617	617	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	207.8	207.8	207.8	207.8	207.8	207.8	207.8	207.8	207.8	207.8	207.8
2.5°	207.8	207.8	209.2	209.8	211.2	211.8	213.1	214.4	218.5	219.1	220.5
5°	202.5	205.2	213.8	217.1	226.5	239.2	244.5	253.3	271.3	276.6	280.0
7.5°	194.4	200.5	221.8	227.2	250.6	284.0	298.0	316.7	345.4	359.5	370.8
10°	181.8	194.4	232.6	245.2	283.3	334.1	360.2	386.2	429.7	449.0	456.4
12.5°	167.7	188.4	243.9	261.3	316.0	390.2	421.6	450.4	499.8	525.9	529.9
15°	151.7	179.8	254.6	280.0	350.8	436.9	471.7	507.2	553.3	571.9	576.6
17.5°	137.6	173.1	264.6	291.3	377.5	479.1	514.5	543.9	581.3	594.0	597.3
20°	120.3	162.3	271.3	306.1	405.6	509.9	543.9	566.6	592.0	600.0	601.4
22.5°	107.6	151.0	275.3	311.3	424.3	528.5	557.3	575.3	592.6	595.3	596.0
25°	96.9	138.3	274.6	317.4	440.3	539.8	561.9	575.3	585.3	586.6	586.6
27.5°	86.9	124.3	271.9	318.7	452.4	542.5	560.0	569.3	574.0	576.6	576.6
30°	78.2	111.0	265.2	316.0	457.7	539.8	553.9	558.6	563.2	567.3	569.3
32.5°	71.5	98.2	255.3	310.7	458.4	533.2	543.2	545.9	552.6	561.9	565.2
35°	65.4	85.6	243.9	303.4	454.4	522.5	529.2	531.9	545.2	559.3	563.9
37.5°	59.5	76.2	229.2	290.6	448.3	509.9	514.5	519.2	539.8	556.6	561.9
40°	53.5	68.1	211.8	276.6	439.0	494.4	498.5	505.8	533.2	552.6	558.0
42.5°	48.8	61.5	193.1	261.9	427.0	477.1	483.1	493.8	525.2	545.9	551.9
45°	44.7	54.8	173.1	241.8	411.5	459.1	467.7	482.5	515.8	535.8	541.2
47.5°	40.7	50.1	152.4	221.2	394.9	441.0	452.4	469.0	503.2	522.5	527.2
50°	37.4	45.4	131.7	199.1	376.9	421.6	435.0	452.4	487.1	505.2	511.1
52.5°	34.8	41.4	112.2	177.1	356.2	401.6	416.9	435.0	467.7	485.1	489.1
55°	32.1	38.0	95.5	153.7	334.8	380.2	396.9	414.2	446.3	461.0	463.7
57.5°	30.8	35.5	81.5	131.7	312.0	356.2	374.8	390.8	420.9	432.3	435.0
60°	28.7	33.4	70.8	112.9	287.3	333.5	349.5	365.5	390.8	400.2	402.3
62.5°	26.7	32.1	62.8	94.9	261.9	306.7	322.7	337.4	358.8	365.5	368.1
65°	25.4	30.8	56.8	81.5	235.9	278.6	294.6	307.4	324.7	331.4	332.8
67.5°	24.1	29.4	52.1	70.1	209.8	250.6	262.5	274.6	287.9	294.6	295.3
70°	22.0	28.1	48.1	62.2	183.1	218.5	228.5	241.2	251.9	255.3	257.3
72.5°	20.7	26.1	45.4	56.2	155.7	187.7	197.1	204.5	213.8	217.1	217.1
75°	18.7	23.4	42.7	50.1	127.6	153.7	161.7	169.0	176.4	177.7	175.7
77.5°	16.7	20.7	36.8	42.1	99.6	121.6	128.3	132.3	138.3	139.6	140.3
80°	14.0	18.0	28.7	32.8	72.2	89.5	94.2	97.5	102.9	102.9	104.3
82.5°	10.7	14.0	20.7	23.4	48.8	61.5	65.4	67.5	70.8	70.8	70.8
85°	6.7	8.7	13.3	15.3	29.4	37.4	40.1	40.7	43.4	44.1	44.1
87.5°	3.4	4.7	8.7	9.4	15.3	19.4	19.4	20.7	20.7	20.0	19.4
90°	4.2	7.5	10.8	11.6	18.2	27.1	31.5	28.0	21.0	15.7	15.7
92.5°	16.5	44.7	72.9	80.0	112.4	155.7	177.3	155.4	111.6	78.7	75.6
95°	39.7	91.3	142.9	155.8	276.6	437.6	518.2	462.4	350.9	267.2	257.8
97.5°	68.7	114.2	159.8	171.1	372.6	641.2	775.5	740.2	669.7	616.8	598.8
100°	91.1	132.4	173.6	184.0	407.6	705.7	854.7	857.3	862.3	866.2	844.7
102.5°	110.2	148.7	187.1	196.8	423.6	725.9	877.1	922.0	1011.8	1079.2	1060.7
105°	142.5	175.1	207.7	215.8	435.5	728.2	874.6	975.3	1176.7	1327.8	1317.9
107.5°	175.7	206.1	236.5	244.0	437.6	695.7	824.8	965.3	1246.3	1457.0	1459.4
110°	198.0	225.5	252.9	259.8	434.3	667.0	783.4	940.4	1254.6	1490.1	1500.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	220.0	246.1	272.2	278.8	434.5	641.9	745.7	906.5	1227.9	1469.0	1484.8
115°	253.1	277.2	301.3	307.4	438.4	613.2	700.6	855.5	1165.1	1397.4	1419.3
117.5°	285.9	307.8	329.7	335.2	446.6	595.2	669.5	809.2	1088.7	1298.4	1322.7
120°	304.9	325.5	346.1	351.3	453.2	589.1	657.1	784.7	1040.1	1231.7	1255.4
122.5°	323.6	344.4	365.2	370.4	462.7	585.9	647.5	762.4	992.4	1164.9	1188.2
125°	352.2	371.1	390.0	394.8	475.6	583.3	637.1	734.8	930.2	1076.7	1098.2
127.5°	375.3	394.4	413.6	418.4	488.4	581.8	628.5	712.3	880.1	1005.9	1024.0
130°	387.7	408.4	429.0	434.2	497.8	582.8	625.2	699.9	849.2	961.1	977.9
132.5°	400.6	421.2	441.8	447.0	505.4	583.3	622.2	689.0	822.7	923.0	938.0
135°	419.7	438.4	457.3	461.9	513.7	582.8	617.3	673.3	785.1	869.1	882.1
137.5°	439.1	457.8	476.3	481.0	526.1	586.3	616.4	663.7	758.4	829.4	839.9
140°	455.3	472.4	489.5	493.8	533.8	586.9	613.5	654.4	736.1	797.5	807.4
142.5°	467.7	483.6	499.4	503.4	540.1	589.0	613.5	649.4	721.2	775.1	783.7
145°	486.7	500.6	514.3	517.8	548.4	589.1	609.5	638.8	697.5	741.5	748.0
147.5°	505.9	519.3	532.7	536.0	560.5	593.1	609.5	632.6	678.8	713.4	718.8
150°	518.2	530.4	542.5	545.6	566.9	595.3	609.5	629.0	667.9	697.2	701.5
152.5°	531.1	540.2	549.5	551.8	571.0	596.6	609.5	626.1	659.4	684.4	687.6
155°	550.2	557.0	563.8	565.5	580.2	599.7	609.5	622.7	649.2	669.0	671.2
157.5°	564.2	570.9	577.5	579.2	589.2	602.7	609.5	619.7	640.3	655.8	657.3
160°	573.8	579.0	584.1	585.3	593.4	604.1	609.5	618.3	635.9	649.2	650.1
162.5°	583.3	587.1	591.0	592.0	597.8	605.6	609.5	616.9	631.8	642.9	643.7
165°	593.6	597.1	600.6	601.5	604.2	607.7	609.5	614.8	625.5	633.5	634.4
167.5°	603.2	604.9	606.6	607.0	609.2	612.0	613.5	617.0	624.0	629.3	629.7
170°	609.5	611.0	612.7	613.1	613.2	613.4	613.5	617.0	624.0	629.3	629.3
172.5°	612.7	613.1	613.4	613.5	613.5	613.5	613.5	616.3	621.8	626.0	625.7
175°	617.3	617.3	617.3	617.3	616.0	614.3	613.5	615.3	618.8	621.4	621.4
177.5°	617.3	617.3	617.3	617.3	616.3	615.0	614.3	615.7	618.5	620.6	620.2
180°	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	207.8	207.8
2.5°	221.8	220.5
5°	285.4	286.6
7.5°	384.2	383.6
10°	477.8	483.8
12.5°	545.9	547.2
15°	587.3	590.0
17.5°	603.4	604.1
20°	604.1	602.7
22.5°	596.7	595.3
25°	588.0	587.3
27.5°	580.0	580.7
30°	576.6	578.7
32.5°	576.6	580.0
35°	578.0	581.3
37.5°	577.3	581.3
40°	574.6	579.3
42.5°	567.3	570.6
45°	555.9	560.0
47.5°	541.2	543.9
50°	522.5	525.2
52.5°	499.1	499.8
55°	471.1	473.7
57.5°	441.0	441.6
60°	407.6	409.6
62.5°	372.2	372.2
65°	334.8	336.1
67.5°	296.0	299.3
70°	256.6	257.3
72.5°	217.8	217.8
75°	177.7	178.4
77.5°	139.6	139.6
80°	103.6	104.3
82.5°	71.5	72.8
85°	44.7	44.7
87.5°	20.7	18.7
90°	15.7	15.7
92.5°	63.0	50.5
95°	219.8	181.9
97.5°	526.6	454.5
100°	758.8	672.8
102.5°	987.1	913.5
105°	1278.3	1238.7
107.5°	1469.0	1478.6
110°	1541.7	1582.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1548.2	1611.5
115°	1507.1	1595.0
117.5°	1420.1	1517.5
120°	1350.0	1444.6
122.5°	1281.7	1375.0
125°	1184.1	1270.2
127.5°	1096.6	1169.1
130°	1044.9	1111.9
132.5°	998.0	1058.1
135°	933.8	985.5
137.5°	882.4	924.7
140°	847.0	886.5
142.5°	817.7	851.8
145°	773.8	799.6
147.5°	740.1	761.4
150°	718.8	736.1
152.5°	700.7	713.8
155°	679.9	688.5
157.5°	663.4	669.5
160°	653.6	657.1
162.5°	647.1	650.4
165°	637.8	641.3
167.5°	631.1	632.6
170°	629.3	629.3
172.5°	624.4	623.1
175°	621.4	621.4
177.5°	618.8	617.3
180°	617.3	617.3



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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	0.90	1.62	2.02	2.73	4.27	14.04	14.76	15.15	15.87	17.41
	3H	1.60	2.24	2.72	3.36	4.92	15.85	16.49	16.98	17.62	19.18
	4H	1.89	2.50	3.02	3.62	5.19	16.48	17.09	17.61	18.21	19.78
	6H	2.13	2.69	3.27	3.82	5.39	16.89	17.45	18.03	18.58	20.16
	8H	2.19	2.73	3.34	3.87	5.44	17.00	17.54	18.15	18.68	20.25
	12H	2.21	2.71	3.36	3.85	5.44	17.06	17.56	18.21	18.70	20.29
4H	2H	8.07	8.68	9.21	9.80	11.37	14.30	14.91	15.44	16.03	17.60
	3H	9.63	10.14	10.78	11.29	12.87	16.31	16.82	17.46	17.97	19.55
	4H	9.72	10.19	10.87	11.32	12.92	17.06	17.53	18.21	18.67	20.27
	6H	9.72	10.12	10.88	11.28	12.87	17.58	17.99	18.74	19.15	20.73
	8H	9.69	10.07	10.85	11.22	12.83	17.73	18.11	18.89	19.26	20.87
	12H	9.64	9.98	10.81	11.15	12.76	17.81	18.15	18.98	19.32	20.93
8H	4H	11.14	11.52	12.29	12.67	14.27	17.11	17.49	18.27	18.64	20.25
	6H	11.37	11.69	12.55	12.88	14.48	17.72	18.03	18.90	19.23	20.83
	8H	11.39	11.66	12.57	12.83	14.46	17.93	18.20	19.11	19.38	21.00
	12H	11.35	11.59	12.54	12.76	14.42	18.06	18.30	19.25	19.47	21.12
12H	4H	11.27	11.61	12.44	12.78	14.39	17.06	17.40	18.23	18.56	20.17
	6H	11.63	11.90	12.81	13.07	14.69	17.70	17.98	18.88	19.15	20.77
	8H	11.69	11.93	12.88	13.10	14.75	17.92	18.16	19.10	19.33	20.98