

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: P937458

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

**Test Information**

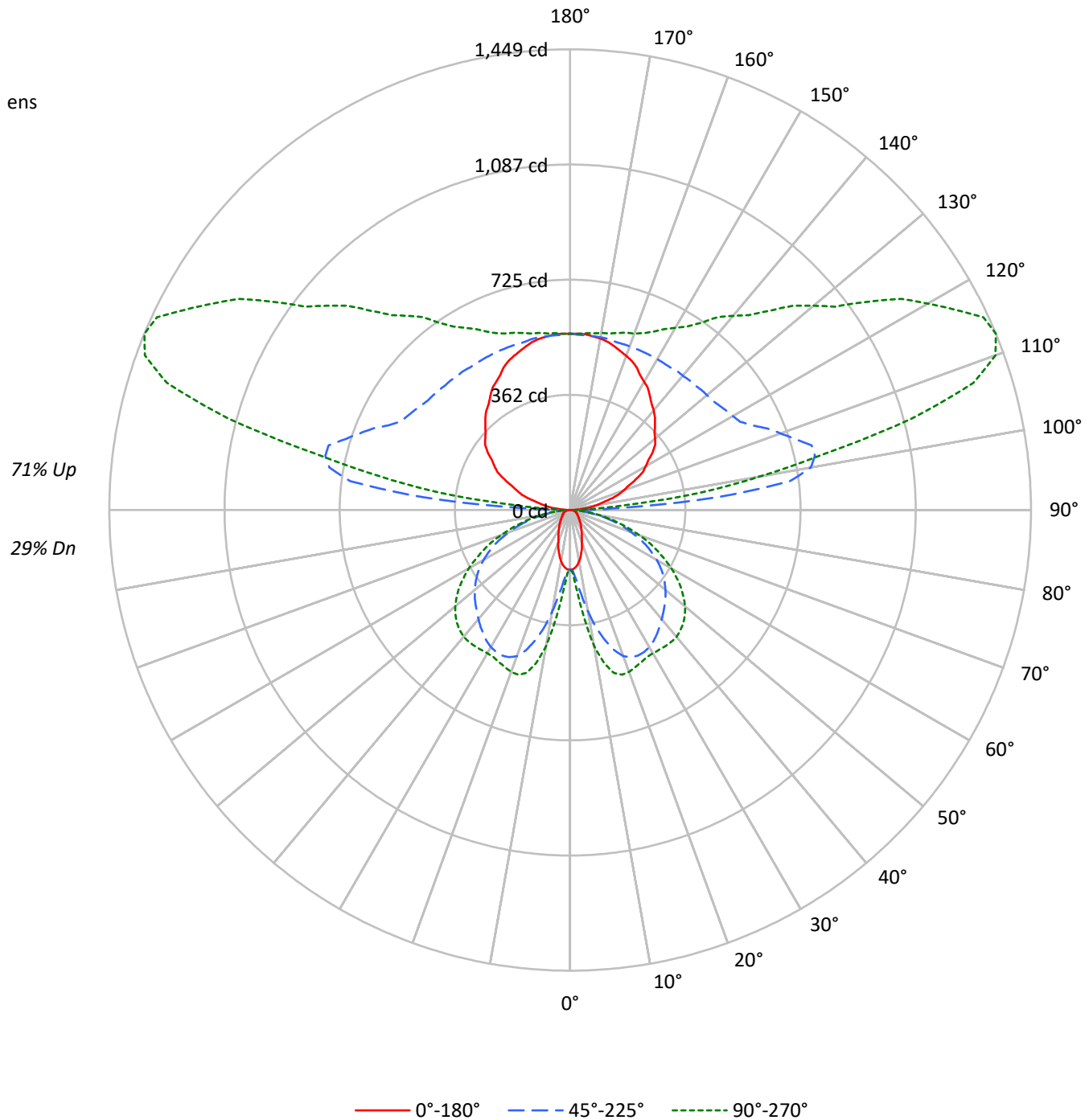
Test Method: LM-79-2019  
Report Number: P937458  
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5044.2 lumens  
Efficiency: N/A  
Efficacy: 122.4 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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### Luminous Intensity Polar Plot





TEST NUMBER: P937458

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	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°	1733	1733	1733
5°	1692	2002	2330
10°	1533	2916	3863
15°	1302	3806	4664
20°	1059	4408	4754
25°	881	4609	4657
30°	743	4635	4648
35°	655	4555	4768
40°	571	4451	4892
45°	515	4373	4911
50°	472	4303	4830
55°	450	4203	4616
60°	459	4013	4278
65°	475	3725	3813
70°	503	3243	3222
75°	551	2636	2515
80°	590	1823	1694
85°	497	964	866

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4911 cd/sqm



TEST NUMBER: P937458

CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.2	0.5
10°-20°	107.1	2.1
20°-30°	187.3	3.7
30°-40°	241.1	4.8
40°-50°	269.3	5.3
50°-60°	258.0	5.1
60°-70°	204.4	4.1
70°-80°	120.2	2.4
80°-90°	35.5	0.7
90°-100°	270.5	5.4
100°-110°	711.1	14.1
110°-120°	737.3	14.6
120°-130°	591.4	11.7
130°-140°	464.0	9.2
140°-150°	356.2	7.1
150°-160°	256.5	5.1
160°-170°	156.9	3.1
170°-180°	53.0	1.1
0°-30°	318.6	6.3
0°-40°	559.7	11.1
0°-60°	1087.0	21.5
0°-90°	1447.1	28.7
90°-120°	1718.9	34.1
90°-150°	3130.5	62.1
90°-180°	3597.0	71.3
0°-180°	5044.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	187	187	187	187	187	
5°	182	195	220	249	258	17
15°	136	252	424	514	530	38
25°	87	285	505	527	528	40
35°	59	273	476	503	522	37
45°	40	217	420	482	503	31
55°	29	138	357	414	426	26
65°	23	73	265	298	302	23
75°	17	45	145	160	160	18
85°	6	14	36	40	40	6
90°	4	10	28	14	14	3
95°	36	140	466	240	164	40
105°	128	194	786	1194	1114	136
115°	228	276	630	1256	1434	225
125°	317	355	573	968	1142	281
135°	377	415	555	781	886	292
145°	438	466	548	667	719	274
155°	495	508	548	601	619	227
165°	534	541	548	569	576	151
175°	555	555	552	559	559	53
180°	555	555	555	555	555	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8
2.5°	186.8	186.8	188.0	188.6	189.8	190.4	191.6	192.8	196.4	197.0	198.2
5°	182.0	184.4	192.2	195.2	203.6	215.1	219.8	227.7	243.9	248.6	251.7
7.5°	174.8	180.2	199.4	204.2	225.3	255.3	267.9	284.7	310.5	323.1	333.3
10°	163.4	174.8	209.1	220.4	254.6	300.3	323.7	347.2	386.2	403.6	410.2
12.5°	150.8	169.4	219.3	234.8	284.1	350.8	379.0	404.9	449.3	472.7	476.3
15°	136.4	161.6	228.8	251.7	315.3	392.8	424.0	455.9	497.3	514.1	518.3
17.5°	123.7	155.6	237.9	261.9	339.3	430.6	462.5	488.9	522.5	534.0	536.9
20°	108.2	145.9	243.9	275.1	364.6	458.3	488.9	509.3	532.2	539.3	540.6
22.5°	96.7	135.7	247.5	279.9	381.4	475.1	500.9	517.1	532.7	535.1	535.8
25°	87.1	124.4	246.8	285.3	395.8	485.3	505.1	517.1	526.2	527.3	527.3
27.5°	78.1	111.7	244.4	286.5	406.7	487.7	503.3	511.8	516.0	518.3	518.3
30°	70.3	99.7	238.4	284.1	411.4	485.3	497.9	502.1	506.3	510.0	511.8
32.5°	64.3	88.3	229.5	279.2	412.0	479.3	488.3	490.7	496.7	505.1	508.1
35°	58.8	76.9	219.3	272.7	408.4	469.7	475.7	478.1	490.1	502.7	506.9
37.5°	53.5	68.5	206.0	261.3	403.0	458.3	462.5	466.7	485.3	500.3	505.1
40°	48.1	61.2	190.4	248.6	394.7	444.4	448.1	454.6	479.3	496.7	501.6
42.5°	43.9	55.2	173.6	235.5	383.8	428.9	434.2	443.9	472.1	490.7	496.1
45°	40.2	49.2	155.6	217.4	369.9	412.6	420.4	433.7	463.7	481.7	486.5
47.5°	36.6	45.0	137.0	198.8	355.0	396.4	406.7	421.6	452.3	469.7	473.9
50°	33.7	40.8	118.4	179.0	338.8	379.0	391.0	406.7	437.9	454.1	459.5
52.5°	31.2	37.2	100.9	159.2	320.2	361.0	374.8	391.0	420.4	436.0	439.7
55°	28.8	34.2	85.9	138.1	300.9	341.7	356.8	372.4	401.2	414.4	416.9
57.5°	27.7	31.9	73.2	118.4	280.5	320.2	336.9	351.3	378.4	388.6	391.0
60°	25.8	30.0	63.7	101.5	258.3	299.8	314.2	328.6	351.3	359.7	361.6
62.5°	24.0	28.8	56.5	85.3	235.5	275.7	290.1	303.3	322.5	328.6	330.9
65°	22.8	27.7	51.0	73.2	212.0	250.4	264.8	276.3	291.9	297.9	299.1
67.5°	21.7	26.4	46.8	63.0	188.6	225.3	236.0	246.8	258.8	264.8	265.5
70°	19.8	25.2	43.2	55.9	164.6	196.4	205.4	216.8	226.4	229.5	231.3
72.5°	18.6	23.5	40.8	50.5	139.9	168.8	177.2	183.8	192.2	195.2	195.2
75°	16.8	21.0	38.4	45.0	114.7	138.1	145.3	151.9	158.6	159.7	157.9
77.5°	15.0	18.6	33.0	37.9	89.5	109.3	115.3	118.9	124.4	125.5	126.1
80°	12.6	16.2	25.8	29.5	64.9	80.5	84.7	87.7	92.5	92.5	93.7
82.5°	9.6	12.6	18.6	21.0	43.9	55.2	58.8	60.7	63.7	63.7	63.7
85°	6.0	7.8	12.0	13.8	26.4	33.7	36.1	36.6	39.0	39.7	39.7
87.5°	3.0	4.2	7.8	8.4	13.8	17.5	17.5	18.6	18.6	18.0	17.5
90°	3.8	6.7	9.7	10.4	16.4	24.4	28.3	25.2	18.9	14.1	14.1
92.5°	14.9	40.2	65.5	71.9	101.1	139.9	159.4	139.7	100.3	70.7	68.0
95°	35.7	82.1	128.5	140.0	248.6	393.4	465.8	415.7	315.4	240.2	231.7
97.5°	61.8	102.7	143.6	153.8	334.9	576.4	697.1	665.4	602.0	554.5	538.3
100°	81.9	119.0	156.1	165.4	366.4	634.3	768.3	770.6	775.2	778.7	759.3
102.5°	99.0	133.7	168.2	176.9	380.8	652.5	788.4	828.8	909.5	970.1	953.5
105°	128.1	157.4	186.7	194.0	391.4	654.6	786.2	876.7	1057.7	1193.5	1184.7
107.5°	157.9	185.2	212.5	219.4	393.4	625.4	741.4	867.7	1120.3	1309.8	1311.9
110°	178.0	202.7	227.3	233.5	390.4	599.6	704.2	845.4	1127.7	1339.5	1348.8



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CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-4-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	197.8	221.2	244.7	250.6	390.5	577.0	670.3	814.8	1103.7	1320.5	1334.7
115°	227.5	249.2	270.8	276.3	394.1	551.2	629.8	769.0	1047.3	1256.1	1275.8
117.5°	257.0	276.7	296.3	301.3	401.5	535.0	601.8	727.4	978.7	1167.1	1189.0
120°	274.1	292.6	311.1	315.8	407.4	529.6	590.6	705.4	935.0	1107.1	1128.5
122.5°	290.9	309.6	328.3	333.0	416.0	526.7	582.0	685.4	892.1	1047.2	1068.1
125°	316.6	333.6	350.6	354.9	427.5	524.3	572.7	660.6	836.1	967.8	987.2
127.5°	337.4	354.5	371.8	376.1	439.1	523.0	564.9	640.3	791.1	904.2	920.5
130°	348.5	367.1	385.6	390.3	447.5	523.8	562.0	629.1	763.3	864.0	879.0
132.5°	360.1	378.6	397.2	401.8	454.3	524.3	559.3	619.4	739.5	829.7	843.2
135°	377.3	394.1	411.0	415.2	461.8	523.8	554.9	605.2	705.8	781.2	792.9
137.5°	394.7	411.5	428.1	432.3	472.9	527.1	554.1	596.6	681.7	745.5	755.0
140°	409.2	424.6	440.0	443.9	479.8	527.6	551.5	588.2	661.7	716.9	725.7
142.5°	420.4	434.7	448.9	452.5	485.5	529.5	551.5	583.7	648.3	696.7	704.4
145°	437.5	450.0	462.3	465.5	493.0	529.6	547.8	574.3	627.0	666.6	672.4
147.5°	454.7	466.8	478.8	481.9	503.9	533.2	547.8	568.6	610.2	641.3	646.1
150°	465.8	476.8	487.7	490.5	509.6	535.1	547.8	565.4	600.4	626.7	630.6
152.5°	477.4	485.6	493.9	496.0	513.3	536.3	547.8	562.8	592.7	615.2	618.1
155°	494.6	500.7	506.8	508.4	521.5	539.1	547.8	559.7	583.6	601.4	603.4
157.5°	507.2	513.2	519.1	520.6	529.7	541.8	547.8	557.1	575.6	589.5	590.8
160°	515.8	520.4	525.0	526.2	533.4	543.0	547.8	555.8	571.7	583.6	584.4
162.5°	524.3	527.8	531.3	532.2	537.4	544.3	547.8	554.6	567.9	577.9	578.6
165°	533.6	536.7	539.9	540.7	543.1	546.2	547.8	552.7	562.3	569.4	570.2
167.5°	542.2	543.7	545.2	545.6	547.6	550.2	551.5	554.6	560.9	565.7	566.0
170°	547.8	549.3	550.8	551.2	551.2	551.4	551.5	554.6	560.9	565.7	565.7
172.5°	550.8	551.2	551.4	551.5	551.5	551.5	551.5	554.0	558.9	562.7	562.4
175°	554.9	554.9	554.9	554.9	553.8	552.2	551.5	553.1	556.3	558.6	558.6
177.5°	554.9	554.9	554.9	554.9	554.0	552.9	552.2	553.5	556.0	557.9	557.5
180°	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	186.8	186.8
2.5°	199.4	198.2
5°	256.5	257.7
7.5°	345.3	344.8
10°	429.5	434.9
12.5°	490.7	491.9
15°	528.0	530.4
17.5°	542.4	543.0
20°	543.0	541.8
22.5°	536.4	535.1
25°	528.6	528.0
27.5°	521.3	522.0
30°	518.3	520.2
32.5°	518.3	521.3
35°	519.5	522.5
37.5°	518.9	522.5
40°	516.5	520.7
42.5°	510.0	512.9
45°	499.7	503.3
47.5°	486.5	488.9
50°	469.7	472.1
52.5°	448.6	449.3
55°	423.5	425.8
57.5°	396.4	397.0
60°	366.4	368.2
62.5°	334.6	334.6
65°	300.9	302.1
67.5°	266.1	269.0
70°	230.6	231.3
72.5°	195.8	195.8
75°	159.7	160.4
77.5°	125.5	125.5
80°	93.1	93.7
82.5°	64.3	65.4
85°	40.2	40.2
87.5°	18.6	16.8
90°	14.1	14.1
92.5°	56.7	45.4
95°	197.6	163.5
97.5°	473.4	408.5
100°	682.0	604.8
102.5°	887.3	821.2
105°	1149.0	1113.5
107.5°	1320.5	1329.1
110°	1385.9	1422.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1391.7	1448.6
115°	1354.8	1433.8
117.5°	1276.5	1364.1
120°	1213.5	1298.6
122.5°	1152.1	1236.0
125°	1064.4	1141.8
127.5°	985.7	1050.9
130°	939.3	999.5
132.5°	897.1	951.1
135°	839.4	885.9
137.5°	793.2	831.2
140°	761.4	796.9
142.5°	735.1	765.7
145°	695.6	718.8
147.5°	665.3	684.5
150°	646.1	661.7
152.5°	629.9	641.7
155°	611.1	618.9
157.5°	596.4	601.8
160°	587.5	590.6
162.5°	581.7	584.6
165°	573.4	576.5
167.5°	567.3	568.6
170°	565.7	565.7
172.5°	561.3	560.1
175°	558.6	558.6
177.5°	556.3	554.9
180°	554.9	554.9



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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	0.52	1.24	1.64	2.35	3.90	13.67	14.39	14.78	15.50	17.04
	3H	1.22	1.86	2.34	2.98	4.54	15.48	16.12	16.60	17.25	18.81
	4H	1.51	2.12	2.65	3.25	4.81	16.11	16.72	17.24	17.84	19.41
	6H	1.75	2.32	2.90	3.44	5.02	16.52	17.08	17.66	18.21	19.78
	8H	1.82	2.35	2.96	3.49	5.06	16.63	17.17	17.77	18.31	19.88
	12H	1.83	2.34	2.98	3.47	5.07	16.69	17.19	17.83	18.33	19.92
4H	2H	7.70	8.31	8.84	9.43	11.00	13.93	14.54	15.07	15.66	17.22
	3H	9.26	9.77	10.40	10.92	12.49	15.94	16.45	17.09	17.60	19.18
	4H	9.35	9.82	10.50	10.95	12.55	16.69	17.16	17.84	18.30	19.90
	6H	9.35	9.75	10.50	10.91	12.50	17.21	17.61	18.37	18.77	20.36
	8H	9.32	9.70	10.48	10.85	12.45	17.36	17.74	18.52	18.89	20.50
	12H	9.27	9.61	10.44	10.78	12.39	17.44	17.78	18.61	18.94	20.56
8H	4H	10.77	11.14	11.92	12.30	13.90	16.74	17.12	17.90	18.27	19.88
	6H	11.00	11.32	12.18	12.51	14.11	17.35	17.66	18.53	18.86	20.46
	8H	11.02	11.29	12.20	12.46	14.09	17.56	17.83	18.74	19.01	20.63
	12H	10.98	11.22	12.17	12.39	14.04	17.69	17.93	18.88	19.10	20.75
12H	4H	10.90	11.24	12.07	12.41	14.02	16.69	17.03	17.86	18.19	19.80
	6H	11.26	11.53	12.44	12.70	14.32	17.33	17.60	18.51	18.78	20.40
	8H	11.32	11.56	12.50	12.73	14.38	17.55	17.79	18.73	18.96	20.61