

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: P937557

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937557  
REPORT IS A COMBINATION OF REPORTS P933566 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

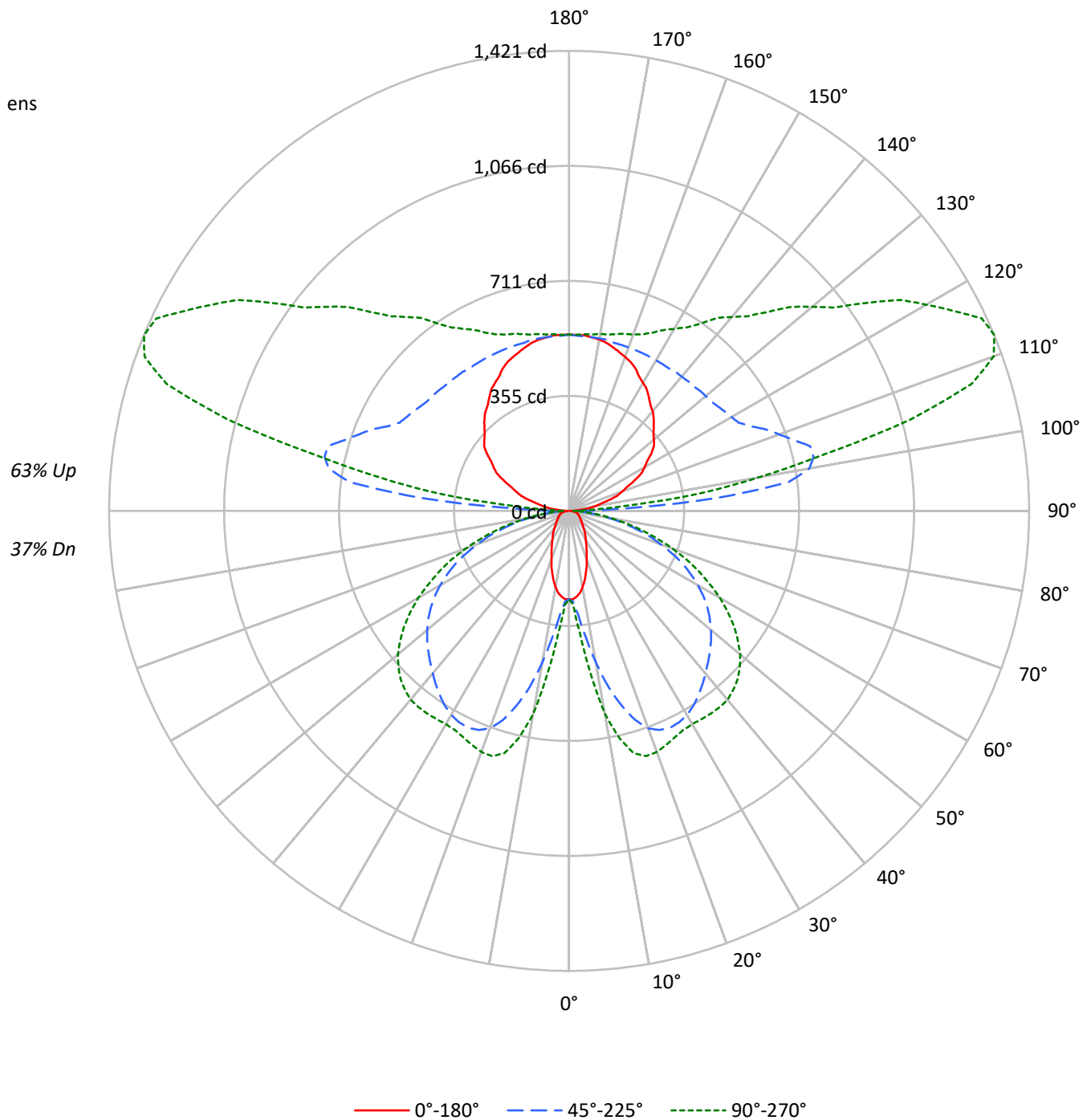
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5643.8 lumens  
Efficiency: N/A  
Efficacy: 114.7 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): 49.2  
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





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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	50	30	10	0
RCR																					
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

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

	0°	45°	90°
0°	2535	2535	2535
5°	2473	2928	3407
10°	2241	4264	5648
15°	1903	5567	6820
20°	1547	6446	6950
25°	1289	6741	6809
30°	1086	6778	6797
35°	959	6660	6972
40°	834	6508	7154
45°	753	6395	7182
50°	690	6293	7063
55°	659	6145	6750
60°	672	5868	6256
65°	696	5448	5577
70°	736	4743	4710
75°	807	3856	3676
80°	861	2664	2477
85°	729	1407	1267

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7182 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.3	0.6
10°-20°	156.6	2.8
20°-30°	273.9	4.9
30°-40°	352.6	6.2
40°-50°	393.8	7.0
50°-60°	377.2	6.7
60°-70°	298.9	5.3
70°-80°	175.8	3.1
80°-90°	50.9	0.9
90°-100°	265.3	4.7
100°-110°	697.6	12.4
110°-120°	723.3	12.8
120°-130°	580.2	10.3
130°-140°	455.2	8.1
140°-150°	349.4	6.2
150°-160°	251.6	4.5
160°-170°	154.0	2.7
170°-180°	52.0	0.9
0°-30°	465.8	8.3
0°-40°	818.5	14.5
0°-60°	1589.5	28.2
0°-90°	2115.2	37.5
90°-120°	1686.2	29.9
90°-150°	3071.0	54.4
90°-180°	3529.0	62.5
0°-180°	5643.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	273	273	273	273	273	
5°	266	285	322	364	377	25
15°	199	368	620	752	776	55
25°	127	417	739	771	772	59
35°	86	399	696	735	764	54
45°	59	318	615	704	736	46
55°	42	202	522	606	623	38
65°	33	107	387	436	442	33
75°	25	66	212	234	234	26
85°	9	20	53	58	59	9
90°	4	10	28	14	14	4
95°	35	137	457	236	160	39
105°	126	190	771	1171	1092	133
115°	223	271	618	1232	1406	220
125°	311	348	562	949	1120	276
135°	370	407	544	766	869	286
145°	429	457	537	654	705	269
155°	485	499	537	590	607	223
165°	524	530	537	559	566	148
175°	544	544	541	548	548	52
180°	544	544	544	544	544	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2
2.5°	273.2	273.2	274.9	275.8	277.5	278.4	280.2	281.9	287.2	288.1	289.8
5°	266.1	269.6	281.1	285.4	297.7	314.4	321.5	332.9	356.6	363.6	368.0
7.5°	255.6	263.5	291.6	298.6	329.4	373.3	391.7	416.3	454.1	472.5	487.5
10°	238.9	255.6	305.6	322.3	372.4	439.2	473.4	507.7	564.7	590.2	599.9
12.5°	220.5	247.7	320.6	343.4	415.4	512.9	554.2	592.0	657.0	691.2	696.5
15°	199.4	236.3	334.6	368.0	461.1	574.4	620.1	666.6	727.2	751.8	758.0
17.5°	180.9	227.5	347.8	382.9	496.2	629.7	676.3	714.9	764.1	780.8	785.2
20°	158.1	213.4	356.6	402.3	533.1	670.1	714.9	744.8	778.2	788.7	790.5
22.5°	141.4	198.5	361.9	409.3	557.7	694.7	732.5	756.2	779.1	782.6	783.4
25°	127.4	181.8	361.0	417.2	578.8	709.7	738.7	756.2	769.4	771.1	771.1
27.5°	114.2	163.4	357.5	418.9	594.6	713.2	736.0	748.3	754.5	758.0	758.0
30°	102.8	145.8	348.7	415.4	601.6	709.7	728.1	734.3	740.4	745.7	748.3
32.5°	94.0	129.1	335.5	408.4	602.5	700.9	714.1	717.6	726.4	738.7	743.0
35°	86.1	112.4	320.6	398.7	597.2	686.8	695.6	699.1	716.7	735.1	741.3
37.5°	78.2	100.1	301.3	382.1	589.3	670.1	676.3	682.4	709.7	731.6	738.7
40°	70.3	89.6	278.4	363.6	577.0	649.9	655.2	664.9	700.9	726.4	733.4
42.5°	64.1	80.8	253.8	344.3	561.2	627.1	635.0	649.1	690.3	717.6	725.5
45°	58.8	72.0	227.5	317.9	541.0	603.4	614.8	634.1	678.0	704.4	711.4
47.5°	53.6	65.9	200.3	290.7	519.1	579.7	594.6	616.6	661.4	686.8	693.0
50°	49.2	59.7	173.0	261.7	495.4	554.2	571.8	594.6	640.3	664.0	671.9
52.5°	45.7	54.5	147.6	232.7	468.1	527.9	548.1	571.8	614.8	637.6	642.9
55°	42.2	50.1	125.6	202.0	440.0	499.8	521.7	544.5	586.7	606.0	609.5
57.5°	40.4	46.5	107.2	173.0	410.2	468.1	492.7	513.8	553.3	568.3	571.8
60°	37.8	43.9	93.1	148.4	377.7	438.3	459.4	480.4	513.8	526.1	528.7
62.5°	35.1	42.2	82.6	124.7	344.3	403.1	424.2	443.5	471.6	480.4	483.9
65°	33.4	40.4	74.7	107.2	310.0	366.3	387.3	404.0	426.9	435.6	437.4
67.5°	31.6	38.6	68.5	92.2	275.8	329.4	345.2	361.0	378.5	387.3	388.2
70°	29.0	36.9	63.2	81.7	240.7	287.2	300.4	317.1	331.1	335.5	338.1
72.5°	27.2	34.3	59.7	73.8	204.6	246.8	259.1	268.8	281.1	285.4	285.4
75°	24.6	30.7	56.2	65.9	167.8	202.0	212.5	222.2	231.9	233.6	231.0
77.5°	22.0	27.2	48.3	55.3	130.9	159.9	168.6	173.9	181.8	183.6	184.4
80°	18.4	23.7	37.8	43.0	94.9	117.7	123.8	128.2	135.3	135.3	137.0
82.5°	14.1	18.4	27.2	30.7	64.1	80.8	86.1	88.7	93.1	93.1	93.1
85°	8.8	11.4	17.6	20.2	38.6	49.2	52.7	53.6	57.1	58.0	58.0
87.5°	4.4	6.1	11.4	12.3	20.2	25.5	25.5	27.2	27.2	26.3	25.5
90°	3.7	6.6	9.5	10.2	16.1	23.9	27.8	24.7	18.5	13.9	13.9
92.5°	14.6	39.4	64.3	70.5	99.2	137.3	156.3	137.0	98.4	69.4	66.7
95°	35.0	80.5	126.0	137.4	243.9	385.9	457.0	407.8	309.4	235.6	227.3
97.5°	60.6	100.7	140.9	150.9	328.6	565.5	683.8	652.8	590.6	543.9	528.0
100°	80.4	116.7	153.1	162.2	359.4	622.3	753.7	756.0	760.4	763.9	744.9
102.5°	97.1	131.1	165.0	173.6	373.5	640.1	773.4	813.0	892.3	951.6	935.4
105°	125.7	154.4	183.1	190.3	384.0	642.1	771.2	860.0	1037.6	1170.9	1162.2
107.5°	154.9	181.7	208.5	215.2	385.9	613.5	727.3	851.2	1099.0	1284.9	1287.0
110°	174.6	198.8	223.0	229.1	382.9	588.2	690.8	829.3	1106.3	1314.0	1323.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	194.0	217.0	240.0	245.8	383.1	566.1	657.6	799.3	1082.8	1295.4	1309.4
115°	223.2	244.4	265.7	271.0	386.6	540.8	617.8	754.4	1027.4	1232.3	1251.6
117.5°	252.1	271.4	290.7	295.5	393.8	524.9	590.4	713.6	960.1	1145.0	1166.4
120°	268.8	287.0	305.2	309.8	399.6	519.5	579.4	692.0	917.2	1086.1	1107.0
122.5°	285.4	303.7	322.1	326.6	408.1	516.7	571.0	672.3	875.1	1027.3	1047.8
125°	310.6	327.3	343.9	348.2	419.4	514.3	561.8	648.0	820.2	949.4	968.4
127.5°	330.9	347.8	364.8	369.0	430.7	513.0	554.2	628.2	776.1	887.0	903.0
130°	341.9	360.1	378.3	382.9	439.0	513.9	551.3	617.2	748.8	847.6	862.3
132.5°	353.3	371.4	389.6	394.2	445.6	514.3	548.7	607.6	725.5	813.9	827.2
135°	370.1	386.6	403.2	407.4	453.0	513.9	544.4	593.7	692.4	766.4	777.8
137.5°	387.2	403.7	420.0	424.1	463.9	517.1	543.6	585.3	668.7	731.4	740.7
140°	401.5	416.6	431.7	435.5	470.7	517.6	541.0	577.0	649.2	703.3	712.0
142.5°	412.5	426.4	440.4	443.9	476.3	519.4	541.0	572.7	636.0	683.5	691.0
145°	429.2	441.4	453.6	456.6	483.6	519.5	537.4	563.3	615.1	653.9	659.6
147.5°	446.1	457.9	469.7	472.7	494.3	523.0	537.4	557.8	598.6	629.1	633.9
150°	457.0	467.7	478.4	481.1	499.9	525.0	537.4	554.6	589.0	614.8	618.6
152.5°	468.3	476.4	484.6	486.6	503.5	526.1	537.4	552.1	581.4	603.5	606.4
155°	485.2	491.1	497.2	498.7	511.6	528.8	537.4	549.1	572.5	590.0	591.9
157.5°	497.6	503.4	509.2	510.7	519.6	531.5	537.4	546.5	564.7	578.3	579.6
160°	506.0	510.6	515.0	516.2	523.3	532.7	537.4	545.2	560.8	572.5	573.3
162.5°	514.3	517.8	521.2	522.1	527.2	534.0	537.4	544.0	557.1	566.9	567.6
165°	523.5	526.5	529.6	530.4	532.8	535.9	537.4	542.2	551.6	558.6	559.4
167.5°	531.9	533.4	534.9	535.2	537.2	539.7	541.0	544.1	550.3	554.9	555.3
170°	537.4	538.8	540.3	540.7	540.8	540.9	541.0	544.1	550.3	554.9	554.9
172.5°	540.3	540.7	540.9	541.0	541.0	541.0	541.0	543.5	548.3	552.0	551.7
175°	544.4	544.4	544.4	544.4	543.2	541.7	541.0	542.6	545.7	548.0	548.0
177.5°	544.4	544.4	544.4	544.4	543.5	542.4	541.7	543.0	545.4	547.3	546.9
180°	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4	544.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	273.2	273.2
2.5°	291.6	289.8
5°	375.0	376.8
7.5°	505.0	504.1
10°	628.0	635.9
12.5°	717.6	719.3
15°	772.0	775.5
17.5°	793.1	794.0
20°	794.0	792.2
22.5°	784.3	782.6
25°	772.9	772.0
27.5°	762.4	763.2
30°	758.0	760.6
32.5°	758.0	762.4
35°	759.7	764.1
37.5°	758.9	764.1
40°	755.3	761.5
42.5°	745.7	750.1
45°	730.7	736.0
47.5°	711.4	714.9
50°	686.8	690.3
52.5°	656.1	657.0
55°	619.2	622.7
57.5°	579.7	580.6
60°	535.8	538.4
62.5°	489.2	489.2
65°	440.0	441.8
67.5°	389.1	393.5
70°	337.3	338.1
72.5°	286.3	286.3
75°	233.6	234.5
77.5°	183.6	183.6
80°	136.1	137.0
82.5°	94.0	95.7
85°	58.8	58.8
87.5°	27.2	24.6
90°	13.9	13.9
92.5°	55.6	44.5
95°	193.8	160.4
97.5°	464.4	400.8
100°	669.1	593.3
102.5°	870.5	805.6
105°	1127.2	1092.3
107.5°	1295.4	1303.8
110°	1359.5	1395.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1365.2	1421.1
115°	1329.0	1406.5
117.5°	1252.3	1338.2
120°	1190.4	1273.9
122.5°	1130.2	1212.5
125°	1044.2	1120.1
127.5°	967.0	1030.9
130°	921.4	980.5
132.5°	880.1	933.0
135°	823.4	869.1
137.5°	778.1	815.4
140°	746.9	781.8
142.5°	721.1	751.1
145°	682.4	705.1
147.5°	652.7	671.5
150°	633.9	649.2
152.5°	617.9	629.5
155°	599.5	607.2
157.5°	585.0	590.4
160°	576.3	579.4
162.5°	570.6	573.5
165°	562.5	565.5
167.5°	556.5	557.8
170°	554.9	554.9
172.5°	550.6	549.5
175°	548.0	548.0
177.5°	545.7	544.4
180°	544.4	544.4



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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	2.96	3.74	4.01	4.80	6.24	16.09	16.88	17.14	17.94	19.38
	3H	3.66	4.36	4.72	5.43	6.88	17.91	18.62	18.97	19.69	21.14
	4H	3.95	4.62	5.02	5.69	7.15	18.54	19.21	19.62	20.28	21.74
	6H	4.20	4.81	5.28	5.89	7.36	18.96	19.57	20.04	20.65	22.12
	8H	4.26	4.85	5.35	5.94	7.41	19.07	19.66	20.16	20.75	22.22
	12H	4.28	4.84	5.37	5.92	7.41	19.13	19.69	20.22	20.77	22.26
4H	2H	10.14	10.81	11.21	11.88	13.34	16.36	17.03	17.44	18.10	19.56
	3H	11.70	12.26	12.79	13.36	14.83	18.38	18.94	19.47	20.04	21.52
	4H	11.79	12.31	12.88	13.39	14.89	19.14	19.65	20.23	20.74	22.23
	6H	11.80	12.24	12.90	13.35	14.84	19.66	20.10	20.76	21.21	22.70
	8H	11.77	12.19	12.87	13.29	14.79	19.81	20.23	20.91	21.33	22.83
	12H	11.73	12.10	12.84	13.22	14.73	19.89	20.27	21.01	21.38	22.90
8H	4H	13.22	13.63	14.32	14.73	16.24	19.19	19.60	20.29	20.71	22.21
	6H	13.46	13.80	14.58	14.94	16.45	19.80	20.15	20.93	21.29	22.79
	8H	13.47	13.77	14.60	14.90	16.42	20.02	20.32	21.15	21.44	22.96
	12H	13.44	13.70	14.57	14.83	16.38	20.15	20.41	21.28	21.53	23.09
12H	4H	13.35	13.73	14.47	14.85	16.36	19.14	19.52	20.26	20.63	22.14
	6H	13.71	14.01	14.84	15.14	16.66	19.79	20.09	20.92	21.21	22.74
	8H	13.78	14.04	14.91	15.16	16.72	20.01	20.27	21.14	21.39	22.95