

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: P936718

Luminaire Tested: SQ4-FB-050U-075D-840-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

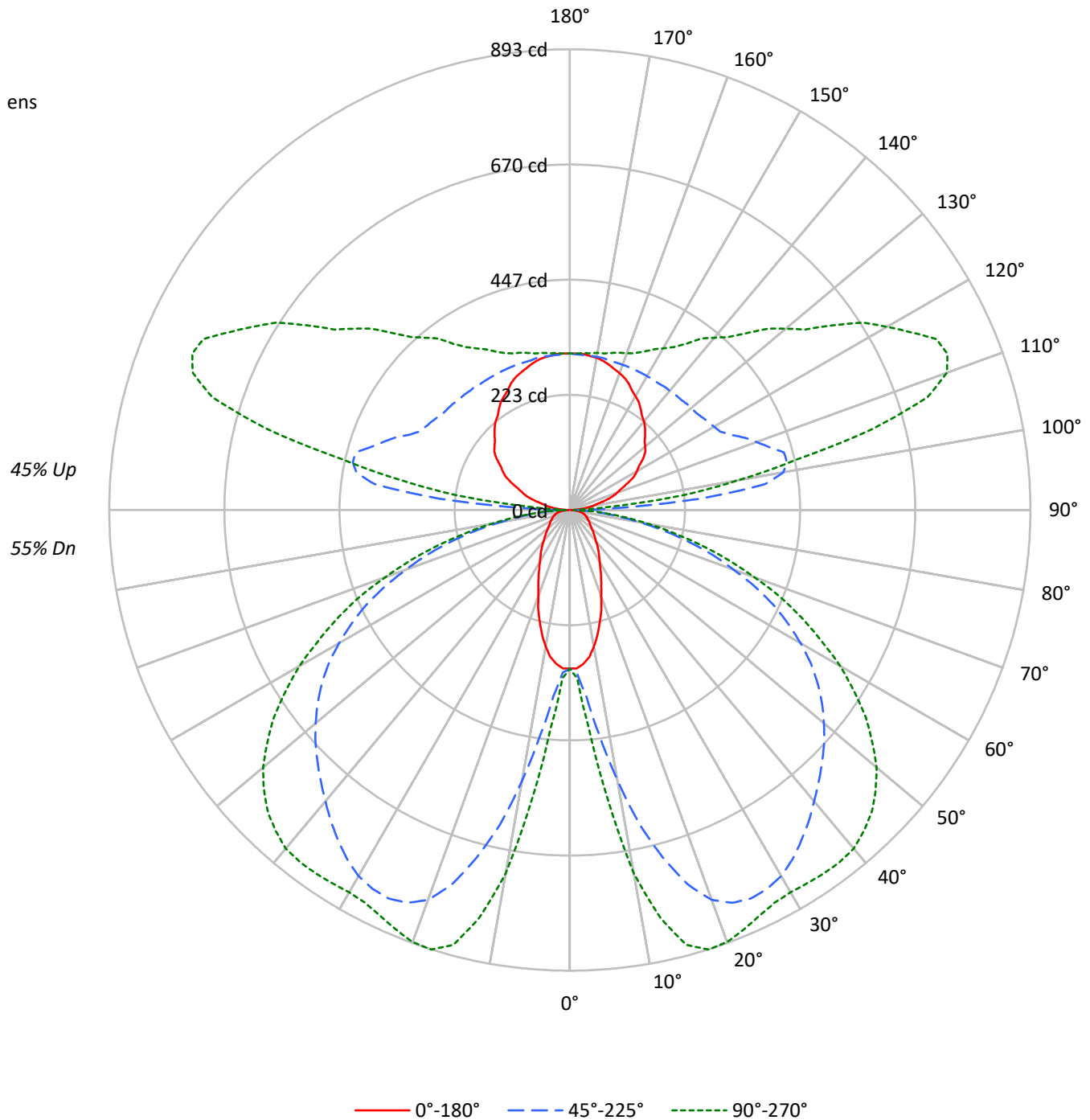
Test Method: LM-79-2019  
Report Number: P936718  
REPORT IS A COMBINATION OF REPORTS P933470 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4345.1 lumens  
Efficiency: N/A  
Efficacy: 119.4 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: General Diffuse  
  
Input Watts (W): 36.4  
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	60	60	60	55
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	50	50	50	45
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	41	41	41	37
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	34	34	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	29	29	29	25
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	25	25	25	21
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	21	21	21	18
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	19	19	19	16
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	16	16	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	15	15	15	12
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	13	13	13	11

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

	0°	45°	90°
0°	2852	2852	2852
5°	2783	3293	3833
10°	2521	4796	6354
15°	2140	6262	7672
20°	1740	7251	7819
25°	1450	7583	7660
30°	1221	7625	7645
35°	1078	7492	7844
40°	937	7321	8048
45°	848	7194	8079
50°	775	7079	7946
55°	740	6913	7593
60°	756	6600	7036
65°	781	6129	6273
70°	828	5335	5300
75°	908	4338	4136
80°	969	2998	2786
85°	820	1583	1426

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8079 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.7	0.9
10°-20°	176.2	4.1
20°-30°	308.1	7.1
30°-40°	396.6	9.1
40°-50°	443.0	10.2
50°-60°	424.3	9.8
60°-70°	336.3	7.7
70°-80°	197.7	4.6
80°-90°	56.1	1.3
90°-100°	147.9	3.4
100°-110°	388.9	8.9
110°-120°	403.2	9.3
120°-130°	323.4	7.4
130°-140°	253.8	5.8
140°-150°	194.8	4.5
150°-160°	140.3	3.2
160°-170°	85.8	2.0
170°-180°	29.0	0.7
0°-30°	524.0	12.1
0°-40°	920.7	21.2
0°-60°	1788.1	41.2
0°-90°	2378.2	54.7
90°-120°	939.9	21.6
90°-150°	1711.8	39.4
90°-180°	1967.0	45.3
0°-180°	4345.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	307	307	307	307	307	
5°	299	321	362	409	424	28
15°	224	414	698	846	872	62
25°	143	469	831	868	868	66
35°	97	449	782	827	860	60
45°	66	358	692	792	828	51
55°	47	227	587	682	700	43
65°	38	120	436	490	497	37
75°	28	74	239	263	264	29
85°	10	23	59	65	66	10
90°	2	6	16	8	8	2
95°	20	77	255	131	89	22
105°	70	106	430	653	609	74
115°	124	151	344	687	784	123
125°	173	194	313	529	624	154
135°	206	227	303	427	484	160
145°	239	254	300	364	393	150
155°	270	278	300	329	338	124
165°	292	296	300	311	315	82
175°	303	303	302	306	306	29
180°	303	303	303	303	303	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3	307.3
2.5°	307.3	307.3	309.2	310.2	312.2	313.2	315.2	317.1	323.1	324.1	326.0
5°	299.4	303.3	316.2	321.1	334.9	353.7	361.6	374.5	401.1	409.0	414.0
7.5°	287.5	296.4	328.0	335.9	370.5	419.9	440.6	468.3	510.8	531.5	548.3
10°	268.7	287.5	343.8	362.6	418.9	494.0	532.5	571.1	635.3	663.9	674.8
12.5°	248.0	278.6	360.6	386.3	467.3	577.0	623.4	665.9	739.0	777.6	783.5
15°	224.3	265.8	376.4	414.0	518.7	646.2	697.5	749.9	818.1	845.7	852.6
17.5°	203.5	255.9	391.2	430.8	558.2	708.4	760.8	804.2	859.6	878.3	883.3
20°	177.8	240.1	401.1	452.5	599.7	753.8	804.2	837.8	875.4	887.2	889.2
22.5°	159.1	223.3	407.1	460.4	627.4	781.5	824.0	850.7	876.4	880.3	881.3
25°	143.3	204.5	406.1	469.3	651.1	798.3	830.9	850.7	865.5	867.5	867.5
27.5°	128.4	183.8	402.1	471.3	668.9	802.3	827.9	841.8	848.7	852.6	852.6
30°	115.6	164.0	392.2	467.3	676.8	798.3	819.1	826.0	832.9	838.8	841.8
32.5°	105.7	145.2	377.4	459.4	677.8	788.4	803.2	807.2	817.1	830.9	835.8
35°	96.8	126.5	360.6	448.6	671.8	772.6	782.5	786.4	806.2	827.0	833.9
37.5°	87.9	112.6	338.9	429.8	662.9	753.8	760.8	767.7	798.3	823.0	830.9
40°	79.0	100.8	313.2	409.0	649.1	731.1	737.0	747.9	788.4	817.1	825.0
42.5°	72.1	90.9	285.5	387.3	631.3	705.4	714.3	730.1	776.6	807.2	816.1
45°	66.2	81.0	255.9	357.7	608.6	678.8	691.6	713.3	762.7	792.4	800.3
47.5°	60.3	74.1	225.3	327.0	583.9	652.1	668.9	693.6	744.0	772.6	779.5
50°	55.3	67.2	194.6	294.4	557.2	623.4	643.2	668.9	720.3	746.9	755.8
52.5°	51.4	61.3	166.0	261.8	526.6	593.8	616.5	643.2	691.6	717.3	723.2
55°	47.4	56.3	141.3	227.2	495.0	562.2	586.9	612.6	660.0	681.7	685.7
57.5°	45.4	52.4	120.5	194.6	461.4	526.6	554.3	578.0	622.4	639.2	643.2
60°	42.5	49.4	104.7	167.0	424.8	493.0	516.7	540.4	578.0	591.8	594.8
62.5°	39.5	47.4	92.9	140.3	387.3	453.5	477.2	498.9	530.6	540.4	544.4
65°	37.5	45.4	84.0	120.5	348.8	412.0	435.7	454.5	480.2	490.0	492.0
67.5°	35.6	43.5	77.1	103.7	310.2	370.5	388.3	406.1	425.8	435.7	436.7
70°	32.6	41.5	71.1	91.9	270.7	323.1	337.9	356.7	372.5	377.4	380.4
72.5°	30.6	38.5	67.2	83.0	230.2	277.6	291.5	302.3	316.2	321.1	321.1
75°	27.7	34.6	63.2	74.1	188.7	227.2	239.1	250.0	260.8	262.8	259.8
77.5°	24.7	30.6	54.3	62.2	147.2	179.8	189.7	195.6	204.5	206.5	207.5
80°	20.7	26.7	42.5	48.4	106.7	132.4	139.3	144.2	152.2	152.2	154.1
82.5°	15.8	20.7	30.6	34.6	72.1	90.9	96.8	99.8	104.7	104.7	104.7
85°	9.9	12.8	19.8	22.7	43.5	55.3	59.3	60.3	64.2	65.2	65.2
87.5°	4.9	6.9	12.8	13.8	22.7	28.7	28.7	30.6	30.6	29.6	28.7
90°	2.1	3.7	5.3	5.7	9.0	13.3	15.5	13.7	10.3	7.7	7.7
92.5°	8.1	21.9	35.9	39.3	55.2	76.5	87.1	76.4	54.8	38.7	37.1
95°	19.6	44.9	70.2	76.6	135.9	215.1	254.7	227.2	172.4	131.3	126.7
97.5°	33.8	56.1	78.4	84.1	183.1	315.2	381.2	363.9	329.2	303.2	294.3
100°	44.8	65.0	85.4	90.4	200.3	346.8	420.1	421.4	424.0	425.8	415.3
102.5°	54.1	73.1	92.0	96.7	208.2	356.8	431.1	453.2	497.4	530.5	521.4
105°	70.0	86.1	102.1	106.1	214.0	358.0	429.9	479.4	578.4	652.7	647.8
107.5°	86.4	101.3	116.2	119.9	215.1	342.0	405.5	474.5	612.7	716.2	717.4
110°	97.3	110.8	124.3	127.6	213.5	327.9	385.1	462.3	616.7	732.5	737.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	108.1	120.9	133.8	137.0	213.5	315.6	366.5	445.6	603.6	722.1	729.9
115°	124.4	136.2	148.1	151.1	215.5	301.3	344.3	420.4	572.6	686.9	697.6
117.5°	140.5	151.3	162.0	164.7	219.5	292.5	329.1	397.8	535.1	638.1	650.1
120°	149.9	160.1	170.1	172.7	222.8	289.6	323.0	385.7	511.3	605.4	617.1
122.5°	159.1	169.3	179.5	182.1	227.4	288.0	318.2	374.7	487.9	572.6	584.1
125°	173.1	182.4	191.7	194.0	233.8	286.7	313.2	361.2	457.2	529.3	539.8
127.5°	184.5	193.9	203.3	205.7	240.1	286.0	308.9	350.1	432.5	494.4	503.3
130°	190.6	200.8	210.8	213.4	244.7	286.4	307.3	344.0	417.4	472.5	480.7
132.5°	196.9	207.1	217.2	219.7	248.5	286.7	305.9	338.7	404.4	453.7	461.1
135°	206.3	215.5	224.8	227.0	252.5	286.4	303.4	330.9	385.9	427.2	433.5
137.5°	215.9	225.0	234.2	236.4	258.7	288.2	303.0	326.2	372.8	407.6	412.9
140°	223.8	232.2	240.7	242.8	262.3	288.5	301.5	321.7	361.9	392.0	396.9
142.5°	229.9	237.7	245.4	247.4	265.5	289.5	301.5	319.2	354.5	381.0	385.1
145°	239.3	246.0	252.8	254.5	269.5	289.6	299.6	314.0	342.8	364.5	367.6
147.5°	248.7	255.3	261.8	263.5	275.6	291.6	299.6	310.9	333.6	350.6	353.3
150°	254.7	260.6	266.7	268.1	278.6	292.5	299.6	309.1	328.3	342.7	344.9
152.5°	261.0	265.6	270.1	271.2	280.7	293.2	299.6	307.8	324.2	336.4	338.0
155°	270.4	273.8	277.1	277.9	285.1	294.7	299.6	306.1	319.1	328.9	330.0
157.5°	277.3	280.6	283.9	284.6	289.6	296.2	299.6	304.6	314.8	322.4	323.2
160°	282.1	284.5	287.1	287.7	291.7	296.9	299.6	303.9	312.6	319.1	319.5
162.5°	286.7	288.6	290.5	291.0	293.8	297.7	299.6	303.2	310.5	316.1	316.5
165°	291.9	293.5	295.3	295.7	297.0	298.7	299.6	302.1	307.4	311.3	311.7
167.5°	296.5	297.3	298.1	298.3	299.4	300.8	301.5	303.3	306.8	309.3	309.5
170°	299.6	300.4	301.1	301.3	301.4	301.5	301.5	303.3	306.8	309.3	309.3
172.5°	301.1	301.3	301.5	301.5	301.5	301.5	301.5	302.9	305.6	307.7	307.5
175°	303.4	303.4	303.4	303.4	302.8	301.9	301.5	302.4	304.2	305.5	305.5
177.5°	303.4	303.4	303.4	303.4	302.9	302.3	302.0	302.7	304.1	305.1	304.9
180°	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4	303.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	307.3	307.3
2.5°	328.0	326.0
5°	421.9	423.9
7.5°	568.1	567.1
10°	706.4	715.3
12.5°	807.2	809.2
15°	868.5	872.4
17.5°	892.2	893.2
20°	893.2	891.2
22.5°	882.3	880.3
25°	869.4	868.5
27.5°	857.6	858.6
30°	852.6	855.6
32.5°	852.6	857.6
35°	854.6	859.6
37.5°	853.6	859.6
40°	849.7	856.6
42.5°	838.8	843.8
45°	822.0	827.9
47.5°	800.3	804.2
50°	772.6	776.6
52.5°	738.0	739.0
55°	696.5	700.5
57.5°	652.1	653.1
60°	602.7	605.6
62.5°	550.3	550.3
65°	495.0	497.0
67.5°	437.7	442.6
70°	379.4	380.4
72.5°	322.1	322.1
75°	262.8	263.8
77.5°	206.5	206.5
80°	153.1	154.1
82.5°	105.7	107.7
85°	66.2	66.2
87.5°	30.6	27.7
90°	7.7	7.7
92.5°	31.0	24.8
95°	108.0	89.4
97.5°	258.9	223.4
100°	373.0	330.7
102.5°	485.2	449.0
105°	628.4	608.9
107.5°	722.0	726.8
110°	757.8	778.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	761.1	792.2
115°	740.8	784.0
117.5°	698.0	745.9
120°	663.5	710.1
122.5°	630.0	675.9
125°	582.0	624.3
127.5°	539.0	574.6
130°	513.7	546.6
132.5°	490.5	520.1
135°	459.0	484.4
137.5°	433.6	454.5
140°	416.3	435.8
142.5°	401.9	418.7
145°	380.4	393.0
147.5°	363.8	374.3
150°	353.4	361.9
152.5°	344.4	350.8
155°	334.2	338.5
157.5°	326.1	329.1
160°	321.3	323.0
162.5°	318.1	319.7
165°	313.5	315.3
167.5°	310.2	310.9
170°	309.3	309.3
172.5°	306.9	306.3
175°	305.5	305.5
177.5°	304.2	303.4
180°	303.4	303.4



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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	5.05	6.00	5.96	6.93	8.13	18.19	19.14	19.10	20.07	21.27
	3H	5.76	6.62	6.68	7.56	8.78	20.02	20.87	20.94	21.82	23.04
	4H	6.07	6.88	7.00	7.82	9.05	20.66	21.47	21.59	22.42	23.65
	6H	6.32	7.07	7.27	8.02	9.27	21.08	21.83	22.03	22.78	24.03
	8H	6.39	7.10	7.35	8.07	9.32	21.20	21.91	22.15	22.88	24.12
	12H	6.41	7.09	7.37	8.05	9.32	21.26	21.94	22.22	22.91	24.18
4H	2H	12.25	13.06	13.19	14.01	15.24	18.48	19.29	19.42	20.23	21.46
	3H	13.83	14.51	14.78	15.48	16.73	20.52	21.19	21.47	22.17	23.42
	4H	13.93	14.55	14.89	15.52	16.79	21.28	21.90	22.24	22.87	24.14
	6H	13.95	14.48	14.92	15.48	16.75	21.81	22.34	22.78	23.34	24.61
	8H	13.93	14.43	14.90	15.41	16.70	21.97	22.47	22.94	23.45	24.74
	12H	13.89	14.34	14.88	15.34	16.63	22.06	22.51	23.05	23.51	24.80
8H	4H	15.37	15.87	16.35	16.86	18.15	21.35	21.85	22.32	22.83	24.12
	6H	15.62	16.03	16.62	17.06	18.35	21.97	22.38	22.97	23.41	24.69
	8H	15.64	16.01	16.65	17.02	18.32	22.18	22.55	23.19	23.56	24.86
	12H	15.61	15.93	16.62	16.95	18.29	22.32	22.64	23.33	23.65	25.00
12H	4H	15.52	15.97	16.51	16.97	18.26	21.30	21.76	22.30	22.76	24.05
	6H	15.87	16.24	16.88	17.26	18.56	21.95	22.32	22.96	23.33	24.64
	8H	15.95	16.27	16.96	17.28	18.63	22.18	22.50	23.19	23.51	24.86