

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: P936710

Luminaire Tested: SQ4-FB-050U-075D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

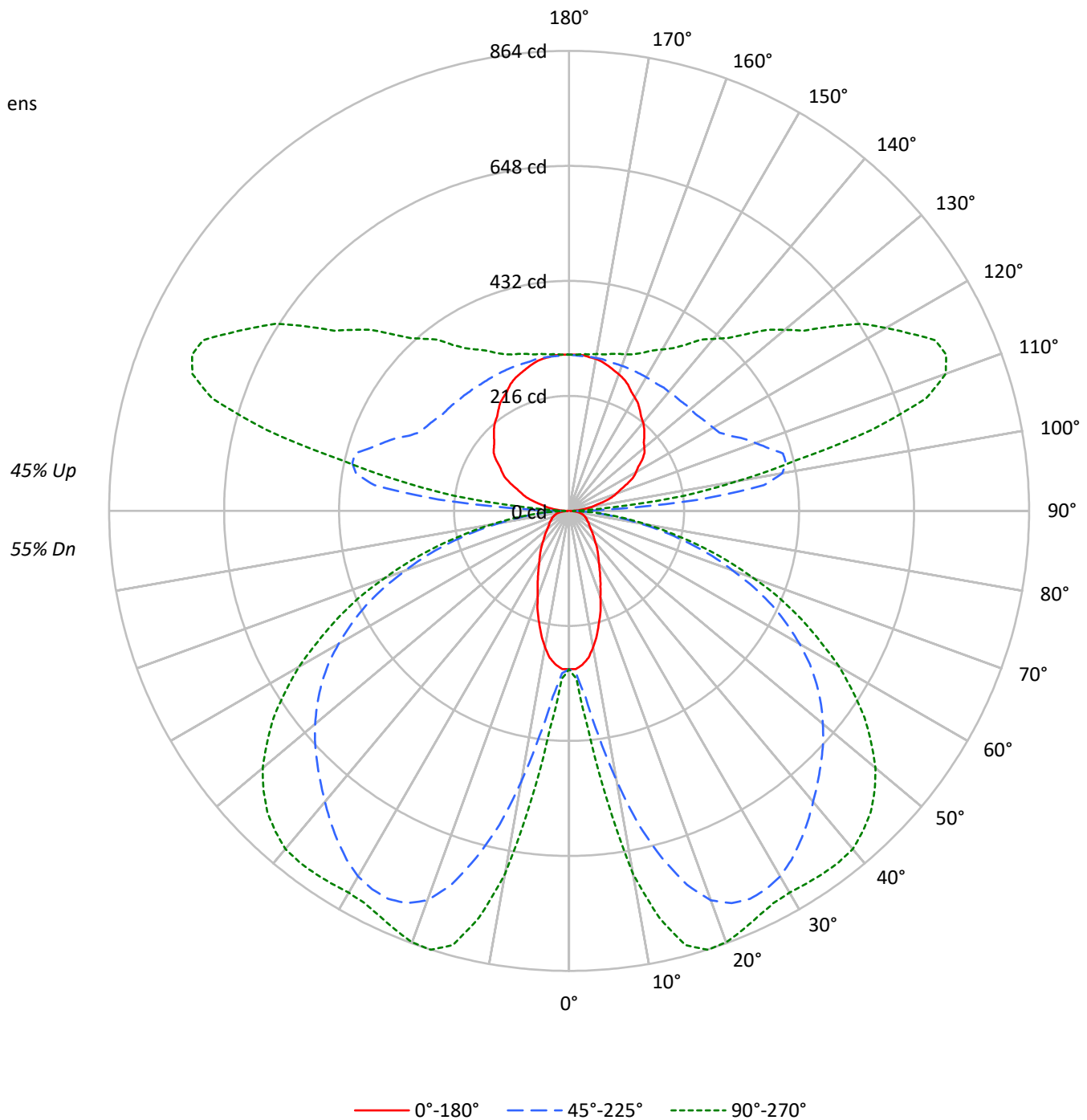
Test Method: LM-79-2019  
Report Number: P936710  
REPORT IS A COMBINATION OF REPORTS P933470 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4204.4 lumens  
Efficiency: N/A  
Efficacy: 115.5 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°	2759	2759	2759
5°	2693	3186	3708
10°	2439	4641	6147
15°	2071	6059	7423
20°	1684	7017	7565
25°	1403	7337	7412
30°	1182	7378	7398
35°	1043	7250	7589
40°	908	7085	7787
45°	821	6961	7817
50°	750	6850	7688
55°	717	6689	7347
60°	731	6387	6809
65°	756	5931	6070
70°	800	5163	5128
75°	879	4199	4002
80°	941	2901	2696
85°	795	1532	1381

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7817 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.5	0.9
10°-20°	170.5	4.1
20°-30°	298.1	7.1
30°-40°	383.8	9.1
40°-50°	428.7	10.2
50°-60°	410.6	9.8
60°-70°	325.4	7.7
70°-80°	191.3	4.6
80°-90°	54.3	1.3
90°-100°	143.1	3.4
100°-110°	376.3	8.9
110°-120°	390.1	9.3
120°-130°	312.9	7.4
130°-140°	245.5	5.8
140°-150°	188.5	4.5
150°-160°	135.7	3.2
160°-170°	83.0	2.0
170°-180°	28.1	0.7
0°-30°	507.1	12.1
0°-40°	890.9	21.2
0°-60°	1730.2	41.2
0°-90°	2301.2	54.7
90°-120°	909.5	21.6
90°-150°	1656.4	39.4
90°-180°	1903.0	45.3
0°-180°	4204.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	290	311	350	396	410	27
15°	217	401	675	818	844	60
25°	139	454	804	839	840	64
35°	94	434	757	800	832	59
45°	64	346	669	767	801	50
55°	46	220	568	660	678	42
65°	36	117	422	474	481	36
75°	27	72	231	254	255	28
85°	10	22	57	63	64	10
90°	2	6	15	8	8	2
95°	19	74	246	127	86	21
105°	68	103	416	632	589	72
115°	120	146	333	665	759	119
125°	168	188	303	512	604	149
135°	200	220	294	413	469	154
145°	232	246	290	353	380	145
155°	262	269	290	318	328	120
165°	282	286	290	301	305	80
175°	294	294	292	296	296	28
180°	294	294	294	294	294	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	297.3	297.3	297.3	297.3	297.3	297.3	297.3	297.3	297.3	297.3	297.3
2.5°	297.3	297.3	299.2	300.2	302.1	303.1	305.0	306.9	312.6	313.6	315.5
5°	289.7	293.5	305.9	310.7	324.1	342.2	349.9	362.3	388.1	395.8	400.6
7.5°	278.2	286.8	317.4	325.0	358.5	406.3	426.4	453.1	494.3	514.3	530.6
10°	260.0	278.2	332.7	350.9	405.3	478.0	515.3	552.6	614.7	642.4	652.9
12.5°	240.0	269.6	348.9	373.8	452.2	558.3	603.2	644.3	715.1	752.4	758.1
15°	217.0	257.2	364.2	400.6	501.9	625.2	674.9	725.6	791.6	818.3	825.0
17.5°	196.9	247.6	378.6	416.8	540.1	685.5	736.1	778.2	831.7	849.9	854.7
20°	172.1	232.3	388.1	437.8	580.3	729.4	778.2	810.7	847.0	858.5	860.4
22.5°	153.9	216.1	393.9	445.5	607.1	756.2	797.3	823.1	848.0	851.8	852.8
25°	138.6	197.9	392.9	454.1	630.0	772.4	804.0	823.1	837.5	839.4	839.4
27.5°	124.3	177.8	389.1	456.0	647.2	776.3	801.1	814.5	821.2	825.0	825.0
30°	111.9	158.7	379.5	452.2	654.9	772.4	792.5	799.2	805.9	811.6	814.5
32.5°	102.3	140.5	365.2	444.5	655.8	762.9	777.2	781.1	790.6	804.0	808.8
35°	93.7	122.4	348.9	434.0	650.1	747.6	757.2	761.0	780.1	800.2	806.9
37.5°	85.1	109.0	327.9	415.9	641.5	729.4	736.1	742.8	772.4	796.3	804.0
40°	76.5	97.5	303.1	395.8	628.1	707.4	713.2	723.7	762.9	790.6	798.3
42.5°	69.8	88.0	276.3	374.8	610.9	682.6	691.2	706.5	751.4	781.1	789.7
45°	64.1	78.4	247.6	346.1	588.9	656.8	669.2	690.2	738.0	766.7	774.4
47.5°	58.3	71.7	218.0	316.4	565.0	631.0	647.2	671.1	719.9	747.6	754.3
50°	53.5	65.0	188.3	284.9	539.2	603.2	622.4	647.2	696.9	722.7	731.3
52.5°	49.7	59.3	160.6	253.3	509.5	574.6	596.5	622.4	669.2	694.1	699.8
55°	45.9	54.5	136.7	219.9	479.0	544.0	567.9	592.7	638.6	659.6	663.5
57.5°	44.0	50.7	116.6	188.3	446.5	509.5	536.3	559.3	602.3	618.5	622.4
60°	41.1	47.8	101.3	161.6	411.1	477.0	500.0	522.9	559.3	572.6	575.5
62.5°	38.2	45.9	89.9	135.8	374.8	438.8	461.7	482.8	513.4	522.9	526.8
65°	36.3	44.0	81.3	116.6	337.5	398.7	421.6	439.8	464.6	474.2	476.1
67.5°	34.4	42.1	74.6	100.4	300.2	358.5	375.7	392.9	412.0	421.6	422.6
70°	31.5	40.2	68.8	88.9	261.9	312.6	327.0	345.1	360.4	365.2	368.1
72.5°	29.6	37.3	65.0	80.3	222.7	268.6	282.0	292.5	305.9	310.7	310.7
75°	26.8	33.5	61.2	71.7	182.6	219.9	231.4	241.9	252.4	254.3	251.4
77.5°	23.9	29.6	52.6	60.2	142.4	174.0	183.6	189.3	197.9	199.8	200.8
80°	20.1	25.8	41.1	46.8	103.2	128.1	134.8	139.6	147.2	147.2	149.1
82.5°	15.3	20.1	29.6	33.5	69.8	88.0	93.7	96.6	101.3	101.3	101.3
85°	9.6	12.4	19.1	22.0	42.1	53.5	57.4	58.3	62.1	63.1	63.1
87.5°	4.8	6.7	12.4	13.4	22.0	27.7	27.7	29.6	29.6	28.7	27.7
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.5	7.5
92.5°	7.8	21.2	34.7	38.0	53.4	74.0	84.3	73.9	53.1	37.5	35.9
95°	18.9	43.4	68.0	74.1	131.5	208.1	246.5	219.9	166.8	127.1	122.6
97.5°	32.7	54.3	75.9	81.4	177.1	305.0	368.8	352.1	318.5	293.4	284.8
100°	43.3	62.9	82.6	87.5	193.8	335.6	406.5	407.7	410.2	412.0	401.8
102.5°	52.4	70.7	89.0	93.6	201.4	345.2	417.1	438.5	481.3	513.3	504.5
105°	67.8	83.3	98.8	102.7	207.1	346.4	416.0	463.9	559.6	631.5	626.8
107.5°	83.6	98.0	112.4	116.1	208.1	331.0	392.3	459.2	592.8	693.0	694.2
110°	94.2	107.2	120.3	123.5	206.6	317.3	372.6	447.3	596.7	708.8	713.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.6	117.0	129.4	132.6	206.6	305.3	354.7	431.2	584.0	698.7	706.3
115°	120.4	131.8	143.3	146.2	208.5	291.6	333.2	406.8	554.1	664.6	675.0
117.5°	135.9	146.4	156.8	159.4	212.4	283.1	318.4	384.9	517.8	617.5	629.0
120°	145.0	154.9	164.6	167.1	215.6	280.2	312.5	373.2	494.7	585.8	597.1
122.5°	153.9	163.9	173.7	176.2	220.1	278.7	307.9	362.6	472.1	554.1	565.2
125°	167.5	176.5	185.5	187.8	226.2	277.4	303.1	349.5	442.4	512.1	522.4
127.5°	178.5	187.7	196.7	199.0	232.3	276.8	298.9	338.8	418.5	478.4	487.0
130°	184.4	194.3	204.0	206.5	236.8	277.1	297.3	332.9	403.9	457.2	465.1
132.5°	190.5	200.4	210.1	212.6	240.4	277.4	296.0	327.7	391.3	439.0	446.2
135°	199.6	208.5	217.5	219.7	244.4	277.1	293.6	320.2	373.4	413.4	419.5
137.5°	208.9	217.7	226.6	228.8	250.3	278.9	293.2	315.7	360.7	394.4	399.5
140°	216.5	224.7	232.9	234.9	253.8	279.2	291.8	311.3	350.2	379.3	384.0
142.5°	222.5	230.0	237.5	239.4	256.9	280.1	291.8	308.9	343.0	368.6	372.6
145°	231.5	238.0	244.6	246.3	260.8	280.2	289.9	303.8	331.7	352.7	355.7
147.5°	240.6	247.0	253.3	255.0	266.6	282.1	289.9	300.9	322.8	339.3	341.9
150°	246.5	252.2	258.0	259.5	269.6	283.1	289.9	299.1	317.7	331.6	333.7
152.5°	252.6	257.0	261.4	262.4	271.6	283.7	289.9	297.8	313.7	325.5	327.0
155°	261.7	264.9	268.2	268.9	275.9	285.2	289.9	296.2	308.8	318.3	319.3
157.5°	268.3	271.5	274.7	275.4	280.2	286.6	289.9	294.7	304.6	311.9	312.7
160°	272.9	275.3	277.8	278.4	282.2	287.3	289.9	294.1	302.5	308.8	309.2
162.5°	277.4	279.2	281.1	281.5	284.3	288.0	289.9	293.4	300.5	305.8	306.2
165°	282.4	284.0	285.7	286.1	287.4	289.0	289.9	292.3	297.4	301.2	301.6
167.5°	286.9	287.7	288.4	288.6	289.7	291.1	291.8	293.5	296.8	299.3	299.5
170°	289.9	290.6	291.4	291.6	291.7	291.8	291.8	293.5	296.8	299.3	299.3
172.5°	291.4	291.6	291.8	291.8	291.8	291.8	291.8	293.1	295.7	297.7	297.5
175°	293.6	293.6	293.6	293.6	293.0	292.2	291.8	292.6	294.4	295.6	295.6
177.5°	293.6	293.6	293.6	293.6	293.1	292.5	292.2	292.9	294.3	295.2	295.0
180°	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6	293.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	297.3	297.3
2.5°	317.4	315.5
5°	408.2	410.1
7.5°	549.7	548.7
10°	683.5	692.1
12.5°	781.1	783.0
15°	840.3	844.1
17.5°	863.3	864.2
20°	864.2	862.3
22.5°	853.7	851.8
25°	841.3	840.3
27.5°	829.8	830.8
30°	825.0	827.9
32.5°	825.0	829.8
35°	826.9	831.7
37.5°	826.0	831.7
40°	822.2	828.9
42.5°	811.6	816.4
45°	795.4	801.1
47.5°	774.4	778.2
50°	747.6	751.4
52.5°	714.1	715.1
55°	674.0	677.8
57.5°	631.0	631.9
60°	583.2	586.0
62.5°	532.5	532.5
65°	479.0	480.9
67.5°	423.5	428.3
70°	367.1	368.1
72.5°	311.7	311.7
75°	254.3	255.3
77.5°	199.8	199.8
80°	148.2	149.1
82.5°	102.3	104.2
85°	64.1	64.1
87.5°	29.6	26.8
90°	7.5	7.5
92.5°	30.0	24.0
95°	104.5	86.5
97.5°	250.5	216.2
100°	360.9	320.0
102.5°	469.5	434.5
105°	608.0	589.2
107.5°	698.6	703.2
110°	733.3	752.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	736.4	766.5
115°	716.8	758.6
117.5°	675.4	721.8
120°	642.0	687.1
122.5°	609.6	654.0
125°	563.2	604.1
127.5°	521.5	556.0
130°	497.0	528.9
132.5°	474.7	503.2
135°	444.2	468.7
137.5°	419.6	439.8
140°	402.9	421.7
142.5°	388.9	405.2
145°	368.1	380.3
147.5°	352.0	362.1
150°	342.0	350.2
152.5°	333.3	339.5
155°	323.4	327.5
157.5°	315.6	318.4
160°	310.9	312.5
162.5°	307.8	309.4
165°	303.3	305.1
167.5°	300.2	300.9
170°	299.3	299.3
172.5°	296.9	296.4
175°	295.6	295.6
177.5°	294.4	293.6
180°	293.6	293.6



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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	4.94	5.88	5.84	6.82	8.02	18.08	19.02	18.98	19.96	21.16
	3H	5.65	6.50	6.57	7.44	8.67	19.91	20.76	20.83	21.70	22.92
	4H	5.95	6.76	6.89	7.71	8.94	20.55	21.35	21.48	22.30	23.53
	6H	6.21	6.96	7.15	7.91	9.15	20.97	21.72	21.91	22.67	23.91
	8H	6.28	6.99	7.23	7.96	9.20	21.09	21.80	22.04	22.77	24.01
	12H	6.30	6.98	7.26	7.94	9.21	21.15	21.83	22.11	22.79	24.06
4H	2H	12.14	12.95	13.08	13.89	15.12	18.36	19.17	19.30	20.12	21.35
	3H	13.72	14.39	14.67	15.37	16.62	20.40	21.08	21.35	22.06	23.30
	4H	13.82	14.43	14.78	15.41	16.68	21.16	21.78	22.12	22.75	24.02
	6H	13.83	14.37	14.80	15.36	16.63	21.69	22.23	22.67	23.22	24.49
	8H	13.81	14.31	14.79	15.30	16.58	21.85	22.35	22.83	23.34	24.62
	12H	13.77	14.23	14.77	15.23	16.52	21.94	22.39	22.94	23.40	24.69
8H	4H	15.26	15.76	16.23	16.75	18.03	21.23	21.73	22.21	22.72	24.00
	6H	15.50	15.92	16.50	16.95	18.23	21.85	22.27	22.85	23.30	24.58
	8H	15.52	15.89	16.53	16.91	18.21	22.07	22.43	23.07	23.45	24.75
	12H	15.50	15.82	16.51	16.83	18.18	22.21	22.53	23.22	23.54	24.89
12H	4H	15.40	15.86	16.40	16.86	18.15	21.19	21.64	22.18	22.65	23.94
	6H	15.76	16.13	16.77	17.14	18.45	21.84	22.20	22.85	23.22	24.52
	8H	15.83	16.16	16.85	17.17	18.51	22.06	22.39	23.08	23.40	24.74