

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: P937510

Luminaire Tested: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937510
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-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

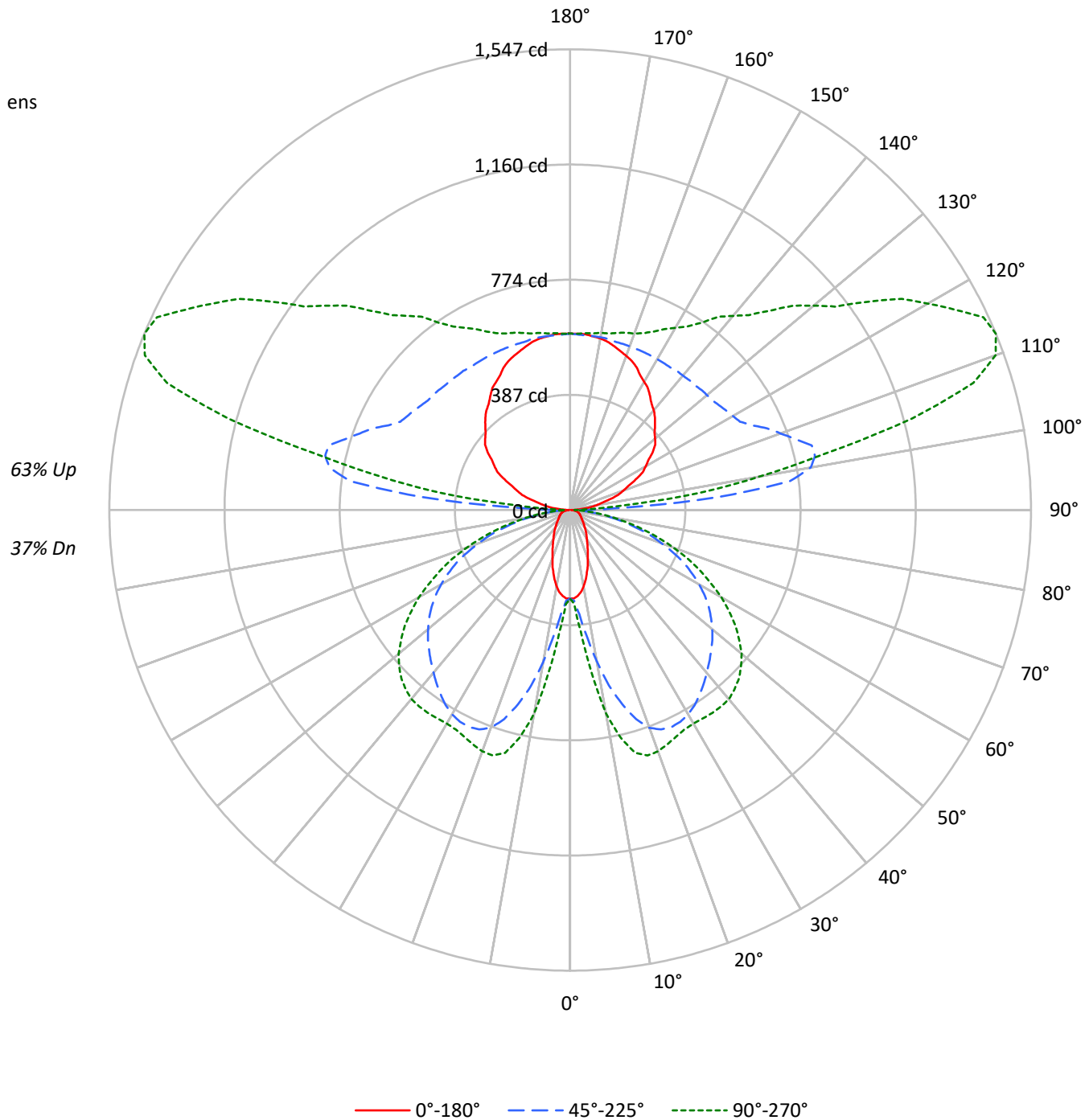
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6143.2 lumens
Efficiency: N/A
Efficacy: 124.9 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_{in}): 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

TEST NUMBER: P937510
CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P937510

CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

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	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°	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



TEST NUMBER: P937510

CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	0.6
10°-20°	170.5	2.8
20°-30°	298.1	4.9
30°-40°	383.8	6.2
40°-50°	428.7	7.0
50°-60°	410.6	6.7
60°-70°	325.4	5.3
70°-80°	191.3	3.1
80°-90°	55.4	0.9
90°-100°	288.8	4.7
100°-110°	759.3	12.4
110°-120°	787.3	12.8
120°-130°	631.5	10.3
130°-140°	495.5	8.1
140°-150°	380.3	6.2
150°-160°	273.9	4.5
160°-170°	167.6	2.7
170°-180°	56.6	0.9
0°-30°	507.1	8.3
0°-40°	890.9	14.5
0°-60°	1730.2	28.2
0°-90°	2302.3	37.5
90°-120°	1835.4	29.9
90°-150°	3342.8	54.4
90°-180°	3841.0	62.5
0°-180°	6143.2	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°	4	11	30	15	15	4
95°	38	150	497	256	175	42
105°	137	207	840	1274	1189	145
115°	243	295	672	1341	1531	240
125°	338	379	612	1033	1219	300
135°	403	443	592	834	946	312
145°	467	497	585	712	768	293
155°	528	543	585	642	661	243
165°	570	577	585	608	616	161
175°	592	592	589	596	596	56
180°	592	592	592	592	592	



TEST NUMBER: P937510
 CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

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°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2	15.1	15.1
92.5°	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1	75.5	72.6
95°	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8	256.5	247.4
97.5°	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8	592.1	574.7
100°	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7	831.4	810.8
102.5°	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2	1035.8	1018.1
105°	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4	1274.4	1265.0
107.5°	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2	1398.5	1400.8
110°	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2	1430.3	1440.2



TEST NUMBER: P937510

CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6	1410.0	1425.2
115°	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3	1341.3	1362.3
117.5°	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0	1246.2	1269.6
120°	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4	1182.2	1204.9
122.5°	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6	1118.1	1140.5
125°	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8	1033.4	1054.1
127.5°	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7	965.5	982.9
130°	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1	922.5	938.6
132.5°	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7	885.9	900.4
135°	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6	834.2	846.6
137.5°	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9	796.1	806.2
140°	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6	765.5	774.9
142.5°	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2	744.0	752.2
145°	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5	711.7	718.0
147.5°	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5	684.8	689.9
150°	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1	669.2	673.3
152.5°	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9	656.9	660.0
155°	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1	642.1	644.2
157.5°	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6	629.4	630.9
160°	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4	623.1	624.0
162.5°	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4	617.1	617.9
165°	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4	608.0	608.9
167.5°	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9	604.0	604.4
170°	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9	604.0	604.0
172.5°	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8	600.8	600.6
175°	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0	596.4	596.4
177.5°	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7	595.7	595.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P937510

CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

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°	15.1	15.1
92.5°	60.5	48.5
95°	211.0	174.6
97.5°	505.4	436.2
100°	728.3	645.8
102.5°	947.5	876.8
105°	1226.9	1189.0
107.5°	1410.0	1419.2
110°	1479.8	1519.4



TEST NUMBER: P937510

CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1486.0	1546.8
115°	1446.6	1530.9
117.5°	1363.1	1456.6
120°	1295.8	1386.6
122.5°	1230.2	1319.8
125°	1136.6	1219.2
127.5°	1052.6	1122.2
130°	1002.9	1067.3
132.5°	957.9	1015.6
135°	896.2	946.0
137.5°	846.9	887.6
140°	813.0	850.9
142.5°	784.9	817.6
145°	742.7	767.5
147.5°	710.4	730.9
150°	689.9	706.6
152.5°	672.5	685.2
155°	652.6	660.9
157.5°	636.8	642.6
160°	627.3	630.7
162.5°	621.1	624.3
165°	612.2	615.6
167.5°	605.7	607.2
170°	604.0	604.0
172.5°	599.3	598.1
175°	596.4	596.4
177.5°	594.0	592.5
180°	592.5	592.5



TEST NUMBER: P937510
 CATALOG NUMBER: SQ4-FB-100U-075D-830-1D-UNV-STD-W-4

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	3.25	4.03	4.30	5.09	6.53	16.39	17.17	17.44	18.23	19.67
	3H	3.95	4.65	5.01	5.72	7.18	18.21	18.91	19.27	19.98	21.44
	4H	4.25	4.91	5.32	5.99	7.45	18.84	19.51	19.91	20.58	22.04
	6H	4.49	5.11	5.57	6.18	7.66	19.25	19.87	20.33	20.94	22.42
	8H	4.56	5.15	5.64	6.24	7.70	19.36	19.95	20.45	21.04	22.51
	12H	4.57	5.13	5.66	6.22	7.71	19.42	19.98	20.51	21.07	22.56
4H	2H	10.43	11.10	11.51	12.17	13.63	16.65	17.32	17.73	18.39	19.86
	3H	11.99	12.55	13.08	13.65	15.13	18.68	19.24	19.76	20.34	21.81
	4H	12.08	12.60	13.18	13.69	15.18	19.43	19.95	20.52	21.03	22.53
	6H	12.09	12.53	13.19	13.65	15.13	19.95	20.40	21.05	21.51	23.00
	8H	12.07	12.48	13.17	13.58	15.09	20.11	20.52	21.21	21.62	23.13
	12H	12.02	12.39	13.14	13.51	15.02	20.19	20.56	21.31	21.68	23.19
8H	4H	13.51	13.93	14.61	15.03	16.53	19.49	19.90	20.59	21.00	22.51
	6H	13.75	14.09	14.87	15.24	16.74	20.10	20.44	21.22	21.59	23.09
	8H	13.77	14.07	14.90	15.19	16.72	20.31	20.61	21.44	21.74	23.26
	12H	13.73	14.00	14.87	15.12	16.68	20.44	20.71	21.58	21.83	23.39
12H	4H	13.65	14.02	14.77	15.14	16.65	19.44	19.81	20.55	20.93	22.44
	6H	14.01	14.31	15.13	15.43	16.95	20.08	20.38	21.21	21.51	23.03
	8H	14.07	14.34	15.21	15.46	17.02	20.30	20.56	21.43	21.69	23.25