

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: P936623

Luminaire Tested: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

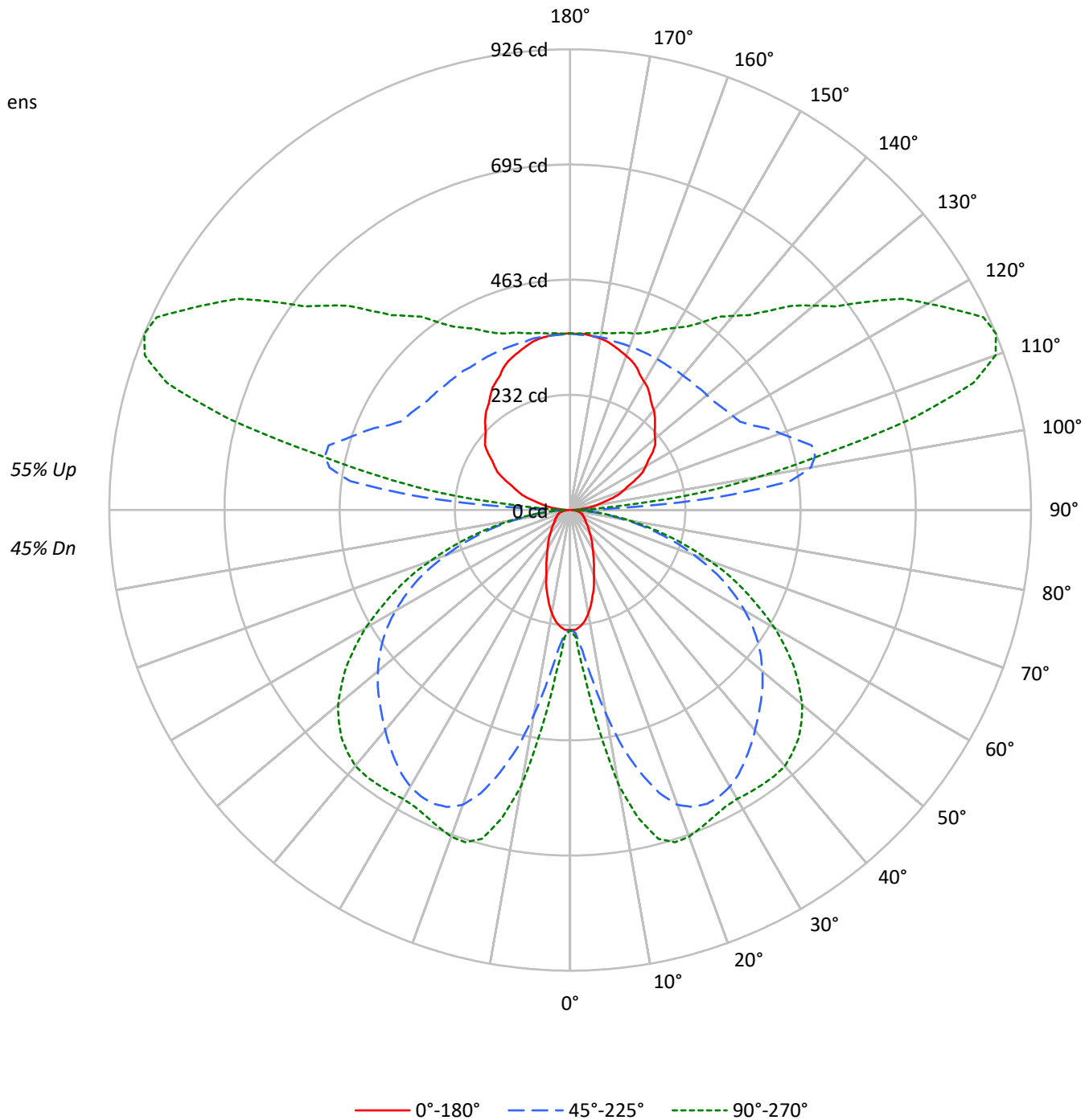
Test Method: LM-79-2019  
Report Number: P936623  
REPORT IS A COMBINATION OF REPORTS P933477 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4164.2 lumens  
Efficiency: N/A  
Efficacy: 97.8 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 42.6  
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

TEST NUMBER: P936623  
CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

### Luminous Intensity Polar Plot





TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45	45	45	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37	37	37	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30	30	30	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25	25	25	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	24	21	21	21	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18	18	18	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15	15	15	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13	13	13	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12	12	12	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10	10	10	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9	9	9	9

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

	0°	45°	90°
0°	1490	1490	1490
5°	1455	1721	2003
10°	1320	2509	3320
15°	1121	3277	4009
20°	912	3797	4086
25°	761	3972	4003
30°	641	3997	3995
35°	567	3929	4099
40°	494	3842	4206
45°	447	3778	4222
50°	410	3719	4153
55°	392	3635	3969
60°	400	3474	3678
65°	415	3230	3278
70°	443	2815	2770
75°	488	2292	2161
80°	527	1588	1456
85°	465	842	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4222 cd/sqm



TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	0.7
10°-20°	138.1	3.3
20°-30°	241.5	5.8
30°-40°	310.9	7.5
40°-50°	347.3	8.3
50°-60°	332.6	8.0
60°-70°	263.6	6.3
70°-80°	155.0	3.7
80°-90°	44.4	1.1
90°-100°	172.9	4.2
100°-110°	454.6	10.9
110°-120°	471.3	11.3
120°-130°	378.1	9.1
130°-140°	296.6	7.1
140°-150°	227.7	5.5
150°-160°	164.0	3.9
160°-170°	100.3	2.4
170°-180°	33.9	0.8
0°-30°	410.8	9.9
0°-40°	721.7	17.3
0°-60°	1401.7	33.7
0°-90°	1864.8	44.8
90°-120°	1098.8	26.4
90°-150°	2001.2	48.1
90°-180°	2299.0	55.2
0°-180°	4164.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	241	241	241	241	241	
5°	235	252	283	321	332	22
15°	176	325	547	663	684	49
25°	112	368	651	680	681	52
35°	76	352	613	648	674	47
45°	52	280	542	621	649	40
55°	37	178	460	534	549	34
65°	29	94	342	384	390	29
75°	22	58	187	206	207	23
85°	8	18	46	51	52	8
90°	2	7	18	9	9	2
95°	23	90	298	154	104	25
105°	82	124	502	763	712	87
115°	146	177	403	803	916	144
125°	202	227	366	619	730	180
135°	241	265	355	499	566	187
145°	280	298	350	426	460	175
155°	316	325	350	384	396	145
165°	341	346	350	364	368	96
175°	355	355	353	357	357	34
180°	355	355	355	355	355	



TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9
2.5°	240.9	240.9	242.4	243.2	244.8	245.6	247.1	248.6	253.3	254.0	255.6
5°	234.7	237.8	247.9	251.7	262.6	277.3	283.4	293.5	314.5	320.6	324.6
7.5°	225.4	232.4	257.1	263.3	290.4	329.2	345.4	367.1	400.4	416.7	429.9
10°	210.7	225.4	269.5	284.3	328.4	387.2	417.5	447.7	498.0	520.4	529.0
12.5°	194.4	218.4	282.7	302.8	366.4	452.3	488.7	522.1	579.3	609.5	614.2
15°	175.8	208.4	295.1	324.6	406.6	506.5	546.8	587.9	641.3	663.0	668.4
17.5°	159.5	200.6	306.7	337.7	437.6	555.3	596.4	630.5	673.8	688.5	692.4
20°	139.4	188.2	314.5	354.7	470.2	591.0	630.5	656.8	686.2	695.5	697.1
22.5°	124.7	175.0	319.1	360.9	491.8	612.6	646.0	666.8	687.0	690.1	690.8
25°	112.3	160.3	318.3	367.9	510.4	625.8	651.3	666.8	678.4	680.0	680.0
27.5°	100.7	144.1	315.2	369.4	524.4	628.9	649.0	659.9	665.3	668.4	668.4
30°	90.6	128.6	307.5	366.4	530.5	625.8	642.1	647.5	652.9	657.6	659.9
32.5°	82.9	113.9	295.8	360.1	531.3	618.1	629.7	632.8	640.5	651.3	655.3
35°	75.9	99.2	282.7	351.7	526.7	605.7	613.4	616.5	632.0	648.3	653.7
37.5°	68.9	88.3	265.7	337.0	519.7	591.0	596.4	601.8	625.8	645.2	651.3
40°	62.0	79.0	245.6	320.6	508.9	573.1	577.8	586.3	618.1	640.5	646.7
42.5°	56.5	71.2	223.8	303.6	494.9	553.0	559.9	572.3	608.8	632.8	639.7
45°	51.9	63.5	200.6	280.4	477.1	532.1	542.2	559.2	597.9	621.2	627.3
47.5°	47.3	58.1	176.6	256.3	457.8	511.2	524.4	543.7	583.2	605.7	611.1
50°	43.4	52.7	152.6	230.8	436.8	488.7	504.2	524.4	564.6	585.5	592.5
52.5°	40.3	48.0	130.1	205.3	412.8	465.5	483.3	504.2	542.2	562.3	567.0
55°	37.2	44.1	110.7	178.1	388.0	440.7	460.1	480.2	517.4	534.4	537.5
57.5°	35.7	41.0	94.5	152.6	361.7	412.8	434.5	453.1	487.9	501.1	504.2
60°	33.3	38.7	82.1	130.9	333.0	386.5	405.1	423.7	453.1	463.9	466.2
62.5°	31.0	37.2	72.8	110.0	303.6	355.5	374.1	391.2	415.9	423.7	426.7
65°	29.4	35.7	65.8	94.5	273.4	322.9	341.6	356.3	376.4	384.2	385.7
67.5°	27.9	34.1	60.4	81.3	243.2	290.4	304.4	318.3	333.8	341.6	342.3
70°	25.6	32.5	55.7	72.0	212.2	253.3	264.9	279.6	292.0	295.8	298.2
72.5°	24.0	30.2	52.7	65.1	180.5	217.6	228.5	237.0	247.9	251.7	251.7
75°	21.7	27.1	49.6	58.1	147.9	178.1	187.4	196.0	204.4	206.1	203.7
77.5°	19.3	24.0	42.6	48.8	115.4	141.0	148.7	153.4	160.3	161.9	162.6
80°	16.2	20.9	33.3	38.0	83.6	103.8	109.2	113.1	119.3	119.3	120.8
82.5°	12.4	16.2	24.0	27.1	56.5	71.2	75.9	78.2	82.1	82.1	82.1
85°	7.8	10.1	15.5	17.8	34.1	43.4	46.5	47.3	50.4	51.1	51.1
87.5°	3.8	5.4	10.1	10.9	17.8	22.5	22.5	24.0	24.0	23.3	22.5
90°	2.4	4.3	6.2	6.7	10.5	15.6	18.1	16.1	12.0	9.0	9.0
92.5°	9.5	25.7	41.9	46.0	64.6	89.5	101.9	89.2	64.1	45.2	43.4
95°	22.9	52.4	82.1	89.5	158.9	251.6	297.8	265.8	201.7	153.5	148.1
97.5°	39.5	65.7	91.8	98.3	214.1	368.5	445.7	425.4	384.8	354.4	344.0
100°	52.4	76.1	99.8	105.7	234.2	405.5	491.1	492.6	495.6	497.8	485.5
102.5°	63.3	85.5	107.6	113.1	243.4	417.1	504.0	529.8	581.4	620.2	609.6
105°	81.9	100.6	119.4	124.0	250.2	418.4	502.5	560.4	676.1	763.0	757.3
107.5°	100.9	118.4	135.8	140.2	251.5	399.8	473.9	554.6	716.1	837.2	838.6
110°	113.8	129.5	145.3	149.2	249.6	383.3	450.1	540.4	721.0	856.3	862.2



TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	126.4	141.4	156.5	160.2	249.6	368.9	428.5	520.9	705.6	844.2	853.2
115°	145.5	159.3	173.2	176.6	251.9	352.4	402.6	491.6	669.5	803.0	815.6
117.5°	164.2	176.9	189.4	192.6	256.6	342.0	384.7	465.0	625.6	746.1	760.1
120°	175.2	187.0	198.9	201.9	260.4	338.5	377.5	450.9	597.7	707.7	721.3
122.5°	186.0	197.9	209.8	212.8	265.9	336.6	372.1	438.1	570.3	669.4	682.8
125°	202.4	213.2	224.1	226.8	273.3	335.2	366.1	422.3	534.5	618.7	631.0
127.5°	215.7	226.7	237.7	240.5	280.7	334.3	361.1	409.3	505.7	578.0	588.4
130°	222.8	234.7	246.6	249.5	286.1	334.8	359.2	402.1	487.9	552.3	561.9
132.5°	230.2	242.1	253.9	256.9	290.4	335.2	357.6	396.0	472.8	530.4	539.0
135°	241.2	251.9	262.7	265.4	295.2	334.9	354.7	386.9	451.2	499.4	506.9
137.5°	252.3	263.0	273.7	276.4	302.3	336.9	354.2	381.4	435.7	476.6	482.6
140°	261.6	271.5	281.3	283.7	306.7	337.3	352.6	376.1	423.0	458.2	463.9
142.5°	268.7	277.8	286.9	289.2	310.3	338.5	352.6	373.2	414.4	445.4	450.3
145°	279.7	287.7	295.6	297.6	315.2	338.5	350.2	367.1	400.8	426.1	429.8
147.5°	290.7	298.4	306.2	308.1	322.1	340.8	350.2	363.4	390.0	409.9	413.0
150°	297.8	304.8	311.8	313.5	325.8	342.0	350.2	361.4	383.8	400.6	403.1
152.5°	305.2	310.5	315.8	317.1	328.1	342.8	350.2	359.7	378.9	393.2	395.1
155°	316.2	320.1	323.9	324.9	333.3	344.6	350.2	357.8	373.1	384.5	385.7
157.5°	324.2	328.0	331.9	332.8	338.6	346.3	350.2	356.1	368.0	376.8	377.7
160°	329.7	332.6	335.6	336.3	341.0	347.1	350.2	355.3	365.4	373.1	373.5
162.5°	335.2	337.4	339.6	340.2	343.5	348.0	350.2	354.5	363.1	369.4	369.9
165°	341.1	343.1	345.1	345.7	347.2	349.2	350.2	353.3	359.4	364.0	364.5
167.5°	346.6	347.5	348.5	348.7	350.0	351.7	352.6	354.6	358.6	361.6	361.8
170°	350.2	351.1	352.1	352.4	352.4	352.5	352.6	354.6	358.6	361.6	361.6
172.5°	352.1	352.4	352.5	352.6	352.6	352.6	352.6	354.1	357.3	359.7	359.5
175°	354.7	354.7	354.7	354.7	354.0	353.0	352.6	353.6	355.6	357.0	357.0
177.5°	354.7	354.7	354.7	354.7	354.2	353.4	353.0	353.8	355.4	356.6	356.4
180°	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7



TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	240.9	240.9
2.5°	257.1	255.6
5°	330.7	332.3
7.5°	445.4	444.6
10°	553.8	560.7
12.5°	632.8	634.3
15°	680.8	683.9
17.5°	699.4	700.2
20°	700.2	698.6
22.5°	691.6	690.1
25°	681.6	680.8
27.5°	672.3	673.1
30°	668.4	670.7
32.5°	668.4	672.3
35°	670.0	673.8
37.5°	669.2	673.8
40°	666.1	671.5
42.5°	657.6	661.4
45°	644.4	649.0
47.5°	627.3	630.5
50°	605.7	608.8
52.5°	578.6	579.3
55°	546.0	549.2
57.5°	511.2	512.0
60°	472.5	474.8
62.5°	431.4	431.4
65°	388.0	389.5
67.5°	343.1	347.0
70°	297.5	298.2
72.5°	252.5	252.5
75°	206.1	206.8
77.5°	161.9	161.9
80°	120.0	120.8
82.5°	82.9	84.4
85°	51.9	51.9
87.5°	24.0	21.7
90°	9.0	9.0
92.5°	36.2	29.0
95°	126.3	104.5
97.5°	302.6	261.2
100°	436.1	386.6
102.5°	567.3	524.9
105°	734.6	711.8
107.5°	844.1	849.6
110°	885.9	909.6





TEST NUMBER: P936623

CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	889.7	926.0
115°	866.0	916.5
117.5°	816.0	872.0
120°	775.7	830.1
122.5°	736.5	790.1
125°	680.4	729.9
127.5°	630.1	671.8
130°	600.4	638.9
132.5°	573.5	608.0
135°	536.6	566.3
137.5°	507.0	531.4
140°	486.6	509.4
142.5°	469.9	489.4
145°	444.7	459.5
147.5°	425.3	437.5
150°	413.1	423.0
152.5°	402.6	410.2
155°	390.7	395.6
157.5°	381.2	384.7
160°	375.5	377.5
162.5°	371.8	373.8
165°	366.5	368.5
167.5°	362.7	363.5
170°	361.6	361.6
172.5°	358.7	358.0
175°	357.0	357.0
177.5°	355.6	354.7
180°	354.7	354.7



TEST NUMBER: P936623  
 CATALOG NUMBER: SQ4-FB-050U-050D-927-1D-UNV-STD-W-6

**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	1.89	2.74	2.88	3.75	5.09	15.06	15.90	16.05	16.91	18.26
	3H	2.59	3.36	3.60	4.38	5.74	16.89	17.65	17.89	18.67	20.03
	4H	2.89	3.62	3.91	4.64	6.01	17.53	18.25	18.55	19.28	20.64
	6H	3.14	3.81	4.17	4.84	6.22	17.96	18.62	18.98	19.65	21.03
	8H	3.21	3.84	4.24	4.89	6.27	18.07	18.71	19.11	19.75	21.13
	12H	3.23	3.83	4.26	4.87	6.27	18.14	18.74	19.18	19.78	21.18
4H	2H	9.10	9.82	10.12	10.84	12.21	15.33	16.05	16.35	17.07	18.44
	3H	10.66	11.27	11.70	12.32	13.70	17.37	17.97	18.40	19.02	20.41
	4H	10.76	11.31	11.80	12.36	13.76	18.13	18.69	19.17	19.73	21.13
	6H	10.77	11.25	11.82	12.31	13.71	18.67	19.14	19.72	20.21	21.61
	8H	10.74	11.19	11.80	12.25	13.67	18.83	19.27	19.88	20.33	21.75
	12H	10.70	11.11	11.77	12.18	13.60	18.92	19.32	19.98	20.39	21.81
8H	4H	12.20	12.65	13.25	13.70	15.12	18.19	18.64	19.24	19.70	21.11
	6H	12.44	12.81	13.51	13.91	15.32	18.82	19.19	19.89	20.29	21.70
	8H	12.46	12.78	13.54	13.87	15.30	19.03	19.36	20.11	20.44	21.87
	12H	12.43	12.71	13.51	13.79	15.26	19.17	19.46	20.26	20.54	22.01
12H	4H	12.34	12.75	13.41	13.82	15.24	18.14	18.55	19.21	19.62	21.04
	6H	12.70	13.02	13.78	14.11	15.54	18.80	19.13	19.88	20.21	21.64
	8H	12.77	13.05	13.85	14.13	15.60	19.03	19.31	20.11	20.39	21.86