

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: P936685

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P936685  
REPORT IS A COMBINATION OF REPORTS P933469 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-4-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

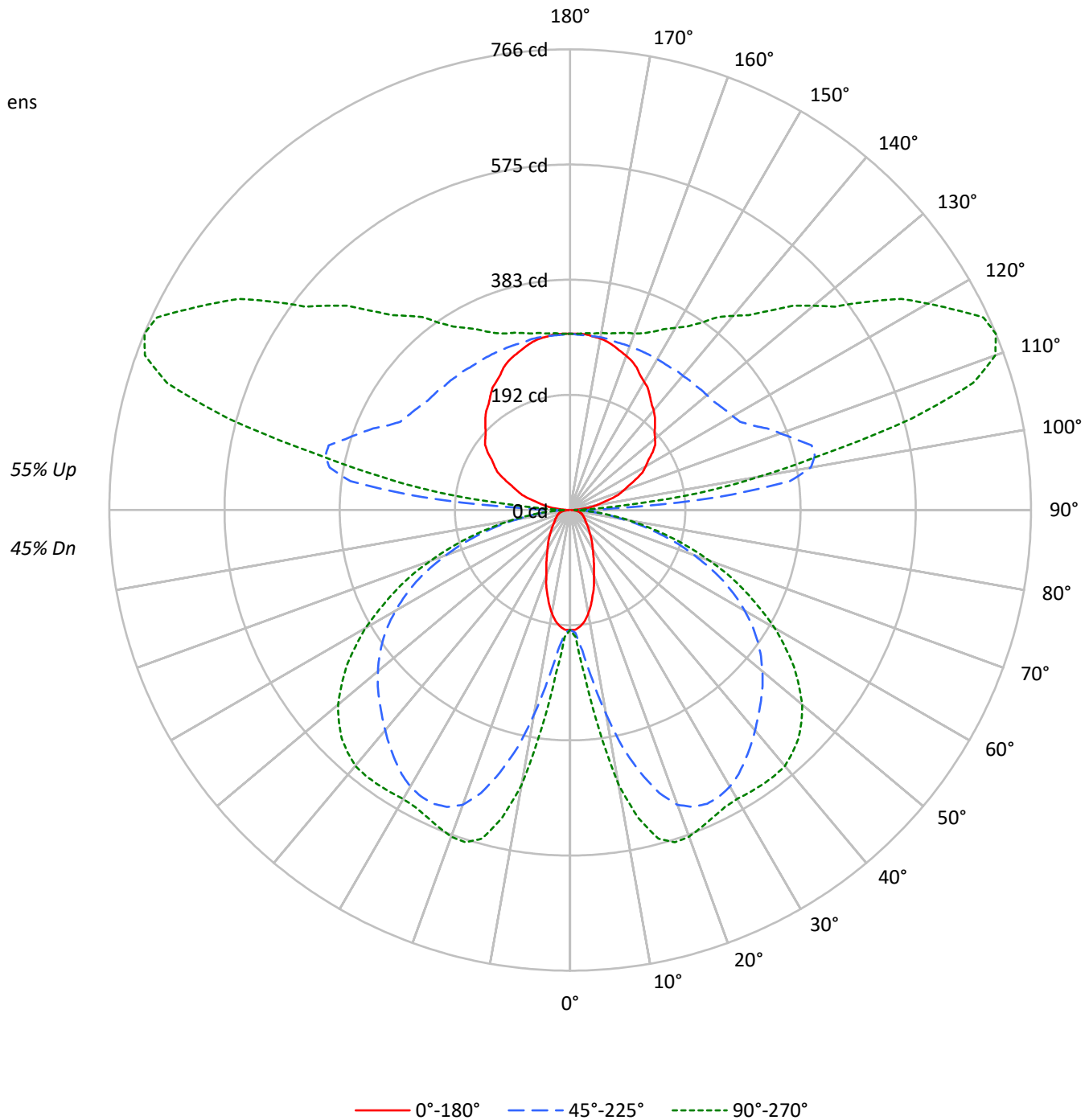
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3443.7 lumens  
Efficiency: N/A  
Efficacy: 121.3 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): 28.4  
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





TEST NUMBER: P936685

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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	25	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1848	1848	1848
5°	1805	2135	2485
10°	1635	3110	4120
15°	1388	4061	4975
20°	1129	4702	5070
25°	940	4917	4968
30°	792	4944	4958
35°	698	4858	5085
40°	609	4748	5218
45°	549	4666	5239
50°	503	4589	5153
55°	481	4483	4923
60°	489	4280	4563
65°	508	3974	4067
70°	536	3459	3437
75°	590	2812	2681
80°	632	1943	1808
85°	530	1028	924

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5239 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	25.8	0.7
10°-20°	114.2	3.3
20°-30°	199.8	5.8
30°-40°	257.2	7.5
40°-50°	287.3	8.3
50°-60°	275.2	8.0
60°-70°	218.1	6.3
70°-80°	128.2	3.7
80°-90°	36.7	1.1
90°-100°	142.9	4.2
100°-110°	375.9	10.9
110°-120°	389.7	11.3
120°-130°	312.6	9.1
130°-140°	245.3	7.1
140°-150°	188.3	5.5
150°-160°	135.6	3.9
160°-170°	83.0	2.4
170°-180°	28.0	0.8
<b>0°-30°</b>	<b>339.8</b>	<b>9.9</b>
<b>0°-40°</b>	<b>597.0</b>	<b>17.3</b>
<b>0°-60°</b>	<b>1159.5</b>	<b>33.7</b>
<b>0°-90°</b>	<b>1542.5</b>	<b>44.8</b>
<b>90°-120°</b>	<b>908.5</b>	<b>26.4</b>
<b>90°-150°</b>	<b>1654.7</b>	<b>48.0</b>
<b>90°-180°</b>	<b>1901.0</b>	<b>55.2</b>
<b>0°-180°</b>	<b>3443.7</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	199	199	199	199	199	
5°	194	208	234	265	275	18
15°	145	268	452	548	566	40
25°	93	304	539	562	563	43
35°	63	291	507	536	557	39
45°	43	232	448	514	537	33
55°	31	147	381	442	454	28
65°	24	78	282	318	322	24
75°	18	48	155	170	171	19
85°	6	15	38	42	43	7
90°	2	6	15	7	7	2
95°	19	74	246	127	86	21
105°	68	103	416	631	589	72
115°	120	146	333	664	758	119
125°	167	188	303	512	604	149
135°	199	220	293	413	468	154
145°	231	246	290	352	380	145
155°	261	269	290	318	327	120
165°	282	286	290	301	305	80
175°	293	293	292	295	295	28
180°	293	293	293	293	293	



TEST NUMBER: P936685

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2	199.2
2.5°	199.2	199.2	200.5	201.1	202.5	203.1	204.4	205.6	209.5	210.1	211.4
5°	194.2	196.7	205.0	208.2	217.2	229.4	234.5	242.9	260.1	265.2	268.5
7.5°	186.4	192.2	212.7	217.8	240.3	272.3	285.7	303.7	331.2	344.7	355.5
10°	174.3	186.4	223.0	235.1	271.6	320.3	345.3	370.3	412.0	430.5	437.6
12.5°	160.8	180.7	233.9	250.5	303.0	374.2	404.3	431.9	479.2	504.2	508.1
15°	145.4	172.4	244.1	268.5	336.4	419.0	452.3	486.3	530.5	548.4	552.8
17.5°	132.0	166.0	253.7	279.3	361.9	459.4	493.4	521.5	557.3	569.6	572.7
20°	115.4	155.7	260.1	293.5	388.9	488.9	521.5	543.3	567.7	575.3	576.6
22.5°	103.1	144.8	264.0	298.5	406.8	506.7	534.3	551.6	568.2	570.8	571.5
25°	92.9	132.6	263.3	304.4	422.2	517.6	538.8	551.6	561.3	562.5	562.5
27.5°	83.3	119.2	260.7	305.6	433.8	520.2	536.9	545.9	550.4	552.8	552.8
30°	75.0	106.4	254.3	303.0	438.8	517.6	531.1	535.6	540.1	544.0	545.9
32.5°	68.6	94.2	244.8	297.9	439.5	511.2	520.9	523.4	529.8	538.8	542.0
35°	62.7	82.0	233.9	290.9	435.7	501.0	507.4	510.0	522.8	536.2	540.7
37.5°	57.0	73.1	219.7	278.7	429.8	488.9	493.4	497.8	517.6	533.7	538.8
40°	51.3	65.3	203.1	265.2	421.0	474.1	478.0	484.9	511.2	529.8	535.0
42.5°	46.8	58.9	185.2	251.2	409.4	457.4	463.2	473.5	503.6	523.4	529.2
45°	42.9	52.5	166.0	231.9	394.6	440.2	448.5	462.6	494.6	513.8	518.9
47.5°	39.1	48.0	146.1	212.1	378.7	422.9	433.8	449.7	482.5	501.0	505.5
50°	35.9	43.5	126.3	190.9	361.4	404.3	417.0	433.8	467.1	484.4	490.1
52.5°	33.3	39.7	107.6	169.8	341.5	385.1	399.8	417.0	448.5	465.1	469.0
55°	30.8	36.5	91.6	147.4	321.0	364.5	380.6	397.2	427.9	442.1	444.6
57.5°	29.5	34.0	78.1	126.3	299.2	341.5	359.4	374.7	403.6	414.5	417.0
60°	27.5	32.0	67.9	108.3	275.5	319.7	335.1	350.5	374.7	383.7	385.7
62.5°	25.6	30.8	60.3	91.0	251.2	294.0	309.4	323.6	344.0	350.5	353.0
65°	24.4	29.5	54.4	78.1	226.1	267.1	282.5	294.7	311.3	317.7	319.1
67.5°	23.1	28.2	49.9	67.2	201.1	240.3	251.7	263.3	276.1	282.5	283.2
70°	21.1	26.9	46.1	59.6	175.5	209.5	219.1	231.3	241.5	244.8	246.7
72.5°	19.9	25.0	43.5	53.9	149.3	180.0	189.0	196.1	205.0	208.2	208.2
75°	18.0	22.4	41.0	48.0	122.3	147.4	155.0	162.1	169.1	170.4	168.5
77.5°	16.0	19.9	35.2	40.4	95.5	116.6	123.0	126.8	132.6	133.9	134.6
80°	13.5	17.3	27.5	31.4	69.2	85.9	90.3	93.5	98.7	98.7	100.0
82.5°	10.2	13.5	19.9	22.4	46.8	58.9	62.7	64.7	67.9	67.9	67.9
85°	6.4	8.3	12.8	14.7	28.2	35.9	38.5	39.1	41.6	42.3	42.3
87.5°	3.2	4.5	8.3	9.0	14.7	18.6	18.6	19.9	19.9	19.2	18.6
90°	2.0	3.5	5.2	5.5	8.7	12.9	15.0	13.3	9.9	7.4	7.4
92.5°	7.8	21.2	34.7	38.0	53.4	73.9	84.2	73.8	53.0	37.4	35.9
95°	18.9	43.4	67.9	74.0	131.4	207.9	246.2	219.6	166.6	126.9	122.4
97.5°	32.7	54.2	75.8	81.3	177.0	304.6	368.4	351.7	318.2	293.1	284.5
100°	43.3	62.8	82.5	87.4	193.6	335.2	406.1	407.3	409.8	411.6	401.4
102.5°	52.3	70.7	88.9	93.5	201.2	344.9	416.7	438.1	480.7	512.7	504.0
105°	67.7	83.2	98.7	102.6	206.9	346.0	415.5	463.4	559.1	630.9	626.2
107.5°	83.5	97.9	112.3	115.9	207.9	330.6	391.9	458.7	592.2	692.3	693.4
110°	94.1	107.1	120.1	123.4	206.4	317.0	372.3	446.8	596.1	708.0	712.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	104.5	116.9	129.3	132.5	206.4	305.0	354.3	430.7	583.4	698.0	705.6
115°	120.2	131.7	143.2	146.0	208.3	291.3	332.8	406.4	553.5	663.9	674.3
117.5°	135.8	146.2	156.6	159.2	212.2	282.8	318.1	384.5	517.2	616.8	628.4
120°	144.9	154.7	164.5	166.9	215.4	279.9	312.2	372.8	494.2	585.2	596.5
122.5°	153.8	163.7	173.5	176.0	219.8	278.4	307.6	362.2	471.6	553.5	564.6
125°	167.3	176.3	185.3	187.6	226.0	277.1	302.7	349.1	442.0	511.6	521.8
127.5°	178.3	187.5	196.5	198.8	232.1	276.5	298.6	338.5	418.1	477.9	486.5
130°	184.2	194.1	203.8	206.3	236.6	276.9	297.0	332.5	403.5	456.7	464.6
132.5°	190.3	200.2	209.9	212.4	240.2	277.1	295.7	327.4	390.9	438.5	445.7
135°	199.4	208.3	217.3	219.5	244.1	276.9	293.3	319.8	373.0	412.9	419.1
137.5°	208.7	217.5	226.3	228.5	250.0	278.6	292.9	315.3	360.3	394.0	399.1
140°	216.3	224.4	232.6	234.6	253.6	278.9	291.5	310.9	349.8	378.9	383.6
142.5°	222.2	229.8	237.2	239.1	256.6	279.8	291.5	308.6	342.7	368.2	372.3
145°	231.3	237.8	244.4	246.0	260.5	279.9	289.6	303.5	331.4	352.3	355.4
147.5°	240.4	246.8	253.1	254.7	266.3	281.8	289.6	300.5	322.5	338.9	341.5
150°	246.2	251.9	257.8	259.2	269.3	282.8	289.6	298.8	317.3	331.3	333.4
152.5°	252.3	256.7	261.1	262.1	271.3	283.4	289.6	297.5	313.3	325.2	326.7
155°	261.4	264.6	267.9	268.6	275.6	284.9	289.6	295.9	308.5	317.9	319.0
157.5°	268.1	271.2	274.4	275.1	279.9	286.3	289.6	294.4	304.3	311.6	312.4
160°	272.7	275.0	277.5	278.1	281.9	287.0	289.6	293.8	302.2	308.5	308.8
162.5°	277.1	279.0	280.8	281.2	284.0	287.7	289.6	293.1	300.2	305.5	305.9
165°	282.1	283.7	285.4	285.8	287.1	288.7	289.6	292.0	297.1	300.9	301.3
167.5°	286.6	287.4	288.1	288.3	289.4	290.8	291.5	293.2	296.5	299.0	299.2
170°	289.6	290.3	291.1	291.3	291.4	291.5	291.5	293.2	296.5	299.0	299.0
172.5°	291.1	291.3	291.5	291.5	291.5	291.5	291.5	292.8	295.4	297.4	297.2
175°	293.3	293.3	293.3	293.3	292.7	291.8	291.5	292.3	294.0	295.3	295.3
177.5°	293.3	293.3	293.3	293.3	292.8	292.2	291.9	292.6	293.9	294.9	294.7
180°	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3	293.3



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CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-4-4000K

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	199.2	199.2
2.5°	212.7	211.4
5°	273.6	274.8
7.5°	368.3	367.8
10°	458.1	463.8
12.5°	523.4	524.7
15°	563.2	565.7
17.5°	578.5	579.2
20°	579.2	577.9
22.5°	572.1	570.8
25°	563.8	563.2
27.5°	556.1	556.8
30°	552.8	554.9
32.5°	552.8	556.1
35°	554.2	557.3
37.5°	553.5	557.3
40°	550.9	555.4
42.5°	544.0	547.1
45°	533.0	536.9
47.5°	518.9	521.5
50°	501.0	503.6
52.5°	478.6	479.2
55°	451.7	454.2
57.5°	422.9	423.4
60°	390.8	392.7
62.5°	356.9	356.9
65°	321.0	322.2
67.5°	283.8	287.0
70°	246.0	246.7
72.5°	208.9	208.9
75°	170.4	171.0
77.5°	133.9	133.9
80°	99.3	100.0
82.5°	68.6	69.8
85°	42.9	42.9
87.5°	19.9	18.0
90°	7.4	7.4
92.5°	30.0	24.0
95°	104.4	86.4
97.5°	250.2	215.9
100°	360.5	319.6
102.5°	469.0	434.0
105°	607.4	588.6
107.5°	697.9	702.5
110°	732.5	752.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	735.6	765.7
115°	716.1	757.8
117.5°	674.7	721.0
120°	641.4	686.4
122.5°	609.0	653.3
125°	562.6	603.5
127.5°	521.0	555.4
130°	496.5	528.3
132.5°	474.2	502.7
135°	443.7	468.2
137.5°	419.1	439.3
140°	402.4	421.3
142.5°	388.5	404.7
145°	367.7	379.9
147.5°	351.6	361.8
150°	341.6	349.8
152.5°	332.9	339.1
155°	323.1	327.2
157.5°	315.2	318.1
160°	310.6	312.2
162.5°	307.5	309.0
165°	303.0	304.7
167.5°	299.9	300.5
170°	299.0	299.0
172.5°	296.6	296.0
175°	295.3	295.3
177.5°	294.0	293.3
180°	293.3	293.3



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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	2.63	3.48	3.62	4.49	5.83	15.77	16.62	16.76	17.63	18.97
	3H	3.33	4.10	4.34	5.12	6.48	17.59	18.36	18.60	19.37	20.74
	4H	3.63	4.36	4.65	5.38	6.75	18.23	18.95	19.24	19.97	21.34
	6H	3.88	4.55	4.91	5.58	6.96	18.65	19.31	19.67	20.34	21.72
	8H	3.95	4.59	4.98	5.63	7.01	18.76	19.40	19.79	20.44	21.82
	12H	3.97	4.57	5.01	5.61	7.01	18.82	19.42	19.86	20.46	21.86
4H	2H	9.82	10.54	10.84	11.57	12.93	16.04	16.77	17.07	17.79	19.16
	3H	11.39	11.99	12.42	13.04	14.43	18.07	18.68	19.11	19.73	21.11
	4H	11.48	12.04	12.52	13.08	14.49	18.83	19.39	19.87	20.43	21.83
	6H	11.49	11.97	12.54	13.04	14.44	19.36	19.83	20.41	20.90	22.30
	8H	11.47	11.92	12.52	12.98	14.39	19.51	19.96	20.56	21.02	22.43
	12H	11.43	11.83	12.50	12.90	14.33	19.60	20.00	20.66	21.07	22.50
8H	4H	12.92	13.36	13.97	14.42	15.84	18.89	19.34	19.94	20.40	21.81
	6H	13.16	13.53	14.23	14.63	16.04	19.51	19.88	20.58	20.98	22.39
	8H	13.18	13.50	14.26	14.59	16.02	19.72	20.04	20.80	21.13	22.56
	12H	13.14	13.43	14.23	14.51	15.98	19.85	20.14	20.94	21.22	22.69
12H	4H	13.06	13.46	14.13	14.53	15.96	18.84	19.25	19.91	20.32	21.74
	6H	13.41	13.74	14.49	14.82	16.26	19.49	19.82	20.57	20.90	22.33
	8H	13.48	13.77	14.57	14.85	16.32	19.71	20.00	20.80	21.08	22.55