

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: P937422

Luminaire Tested: SQ4-FB-100U-050D-927-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937422
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-927-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

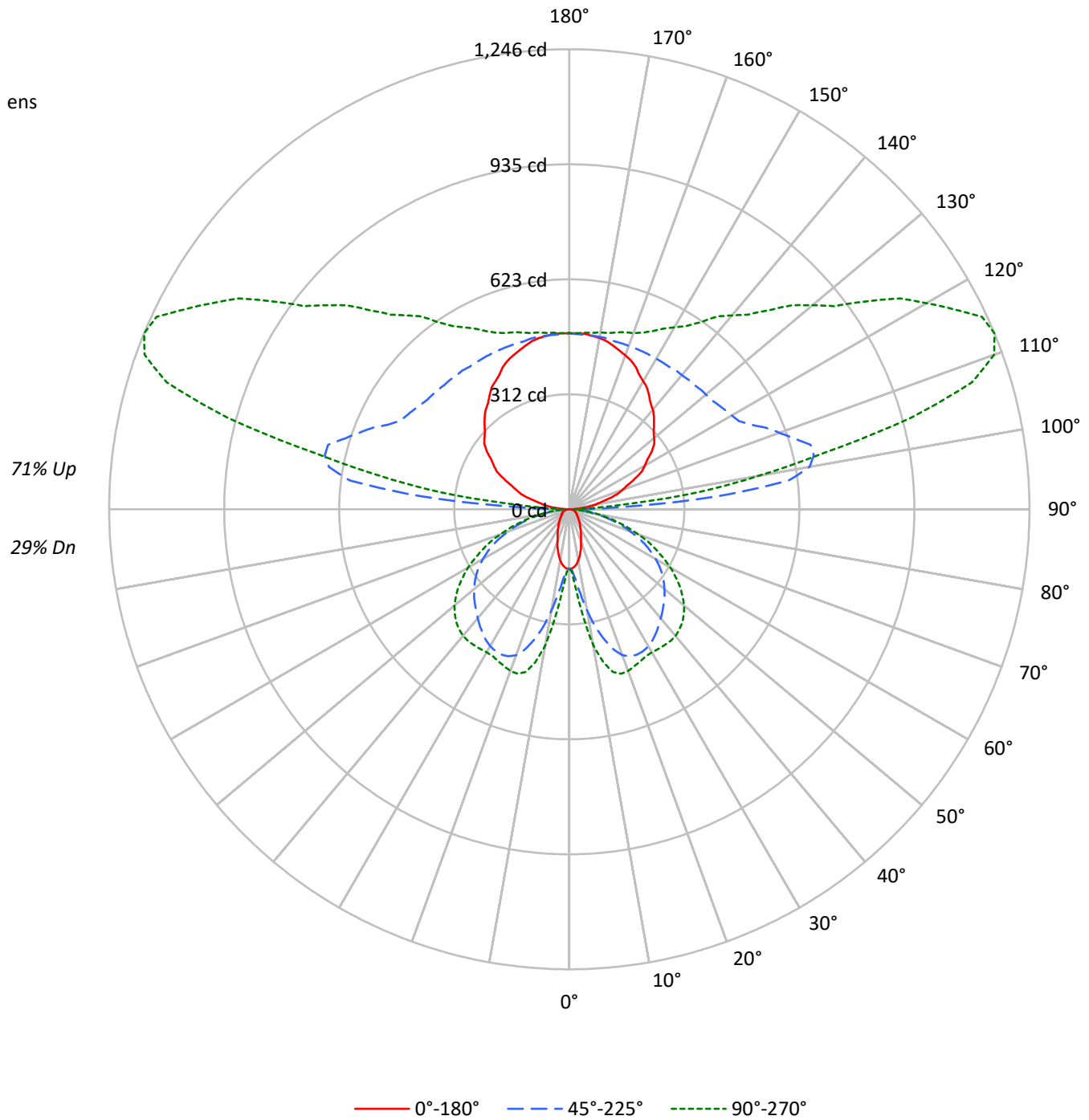
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4338.2 lumens
Efficiency: N/A
Efficacy: 105.3 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: Semi-Indirect

Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): 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				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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29				29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23				23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19				19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16				16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13				13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11				11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10				10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8				8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7				7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7				7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6				6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1490	1490	1490
5°	1455	1721	2004
10°	1318	2508	3322
15°	1119	3274	4011
20°	910	3791	4088
25°	758	3964	4005
30°	638	3986	3998
35°	563	3917	4101
40°	490	3828	4207
45°	443	3762	4224
50°	407	3701	4154
55°	387	3614	3969
60°	395	3451	3679
65°	408	3205	3279
70°	432	2788	2771
75°	475	2268	2162
80°	510	1567	1457
85°	431	827	745

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4224 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.8	0.5
10°-20°	92.1	2.1
20°-30°	161.1	3.7
30°-40°	207.4	4.8
40°-50°	231.6	5.3
50°-60°	221.9	5.1
60°-70°	175.8	4.1
70°-80°	103.4	2.4
80°-90°	30.5	0.7
90°-100°	232.6	5.4
100°-110°	611.6	14.1
110°-120°	634.1	14.6
120°-130°	508.6	11.7
130°-140°	399.1	9.2
140°-150°	306.3	7.1
150°-160°	220.6	5.1
160°-170°	135.0	3.1
170°-180°	45.6	1.1
0°-30°	274.0	6.3
0°-40°	481.4	11.1
0°-60°	934.9	21.5
0°-90°	1244.6	28.7
90°-120°	1478.3	34.1
90°-150°	2692.4	62.1
90°-180°	3094.0	71.3
0°-180°	4338.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	161	161	161	161	161	
5°	156	168	189	214	222	14
15°	117	216	365	442	456	33
25°	75	245	434	454	454	34
35°	51	234	409	432	449	32
45°	35	187	362	414	433	27
55°	25	119	307	356	366	23
65°	20	63	228	256	260	19
75°	14	39	125	137	138	15
85°	5	12	31	34	35	5
90°	3	9	24	12	12	3
95°	31	120	401	207	141	34
105°	110	167	676	1026	958	117
115°	196	238	542	1080	1233	193
125°	272	305	493	832	982	242
135°	324	357	477	672	762	251
145°	376	400	471	573	618	236
155°	425	437	471	517	532	195
165°	459	465	471	490	496	130
175°	477	477	474	480	480	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	160.6	160.6	160.6	160.6	160.6	160.6	160.6	160.6	160.6	160.6	160.6
2.5°	160.6	160.6	161.7	162.2	163.2	163.8	164.8	165.8	168.9	169.4	170.5
5°	156.5	158.6	165.3	167.9	175.1	185.0	189.0	195.8	209.7	213.8	216.4
7.5°	150.3	155.0	171.5	175.6	193.7	219.5	230.4	244.9	267.0	277.9	286.7
10°	140.5	150.3	179.8	189.6	219.0	258.3	278.4	298.6	332.2	347.1	352.8
12.5°	129.7	145.7	188.6	202.0	244.3	301.7	325.9	348.2	386.4	406.6	409.6
15°	117.3	139.0	196.8	216.4	271.2	337.8	364.7	392.1	427.7	442.1	445.8
17.5°	106.4	133.8	204.6	225.2	291.8	370.4	397.8	420.5	449.4	459.2	461.8
20°	93.0	125.5	209.7	236.6	313.5	394.2	420.5	438.1	457.7	463.8	464.9
22.5°	83.2	116.7	212.8	240.7	328.0	408.6	430.8	444.8	458.2	460.2	460.8
25°	74.9	107.0	212.3	245.4	340.4	417.3	434.4	444.8	452.5	453.5	453.5
27.5°	67.1	96.1	210.2	246.4	349.7	419.4	432.9	440.1	443.8	445.8	445.8
30°	60.4	85.8	205.1	244.3	353.8	417.3	428.2	431.8	435.4	438.6	440.1
32.5°	55.3	75.9	197.4	240.2	354.4	412.2	420.0	422.0	427.2	434.4	437.0
35°	50.6	66.1	188.6	234.5	351.3	403.9	409.1	411.2	421.5	432.4	436.0
37.5°	46.0	58.9	177.2	224.7	346.6	394.2	397.8	401.4	417.3	430.3	434.4
40°	41.3	52.7	163.8	213.8	339.4	382.2	385.4	391.0	412.2	427.2	431.4
42.5°	37.7	47.5	149.3	202.5	330.1	368.8	373.4	381.8	406.0	422.0	426.7
45°	34.6	42.4	133.8	187.0	318.2	354.9	361.6	373.0	398.8	414.3	418.4
47.5°	31.5	38.7	117.8	171.0	305.3	341.0	349.7	362.6	389.0	403.9	407.6
50°	29.0	35.1	101.8	153.9	291.4	325.9	336.3	349.7	376.6	390.5	395.2
52.5°	26.9	32.0	86.8	136.9	275.4	310.5	322.3	336.3	361.6	375.0	378.1
55°	24.8	29.4	73.8	118.8	258.8	293.9	306.8	320.2	345.0	356.4	358.5
57.5°	23.8	27.4	63.0	101.8	241.2	275.4	289.8	302.1	325.4	334.2	336.3
60°	22.2	25.8	54.7	87.3	222.1	257.8	270.2	282.6	302.1	309.4	311.0
62.5°	20.6	24.8	48.6	73.4	202.5	237.1	249.5	260.9	277.4	282.6	284.6
65°	19.6	23.8	43.9	63.0	182.3	215.4	227.8	237.6	251.0	256.2	257.3
67.5°	18.6	22.7	40.3	54.2	162.2	193.7	203.0	212.3	222.6	227.8	228.3
70°	17.0	21.7	37.2	48.0	141.5	168.9	176.6	186.5	194.7	197.4	198.9
72.5°	16.0	20.2	35.1	43.4	120.4	145.1	152.4	158.1	165.3	167.9	167.9
75°	14.5	18.1	33.0	38.7	98.6	118.8	125.0	130.7	136.4	137.4	135.8
77.5°	12.9	16.0	28.4	32.6	77.0	94.0	99.2	102.3	107.0	108.0	108.5
80°	10.9	13.9	22.2	25.3	55.8	69.2	72.8	75.4	79.5	79.5	80.6
82.5°	8.2	10.9	16.0	18.1	37.7	47.5	50.6	52.2	54.7	54.7	54.7
85°	5.2	6.7	10.3	11.9	22.7	29.0	31.0	31.5	33.6	34.1	34.1
87.5°	2.6	3.6	6.7	7.2	11.9	15.0	15.0	16.0	16.0	15.5	15.0
90°	3.2	5.8	8.3	8.9	14.1	20.9	24.3	21.6	16.2	12.2	12.2
92.5°	12.8	34.6	56.4	61.8	86.9	120.4	137.1	120.1	86.2	60.8	58.4
95°	30.7	70.6	110.5	120.4	213.8	338.3	400.6	357.5	271.3	206.6	199.3
97.5°	53.1	88.3	123.5	132.3	288.1	495.7	599.5	572.3	517.7	476.9	462.9
100°	70.5	102.3	134.2	142.2	315.1	545.5	660.7	662.7	666.7	669.7	653.0
102.5°	85.2	115.0	144.7	152.2	327.5	561.2	678.1	712.8	782.2	834.3	820.0
105°	110.2	135.4	160.5	166.9	336.6	562.9	676.1	754.0	909.7	1026.5	1018.9
107.5°	135.8	159.3	182.8	188.6	338.3	537.8	637.6	746.3	963.5	1126.4	1128.3
110°	153.1	174.3	195.5	200.8	335.7	515.7	605.6	727.0	969.9	1152.0	1160.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	170.1	190.3	210.4	215.5	335.9	496.3	576.5	700.8	949.3	1135.7	1147.9
115°	195.7	214.3	232.9	237.6	339.0	474.1	541.6	661.4	900.7	1080.3	1097.2
117.5°	221.0	237.9	254.9	259.1	345.3	460.2	517.6	625.6	841.7	1003.8	1022.6
120°	235.7	251.6	267.6	271.6	350.4	455.5	508.0	606.7	804.1	952.2	970.5
122.5°	250.2	266.3	282.4	286.4	357.7	453.0	500.6	589.4	767.2	900.6	918.6
125°	272.3	286.9	301.5	305.2	367.7	450.9	492.6	568.1	719.1	832.4	849.0
127.5°	290.1	304.9	319.8	323.5	377.6	449.8	485.9	550.7	680.4	777.6	791.6
130°	299.8	315.7	331.6	335.6	384.8	450.5	483.3	541.1	656.5	743.1	756.0
132.5°	309.7	325.6	341.6	345.6	390.7	450.9	481.0	532.7	636.0	713.6	725.2
135°	324.5	339.0	353.5	357.1	397.2	450.5	477.2	520.5	607.0	671.9	681.9
137.5°	339.5	353.9	368.2	371.8	406.7	453.3	476.6	513.1	586.3	641.2	649.3
140°	352.0	365.2	378.5	381.8	412.6	453.8	474.3	505.9	569.1	616.5	624.2
142.5°	361.6	373.8	386.1	389.2	417.6	455.4	474.3	502.0	557.6	599.2	605.8
145°	376.3	387.0	397.6	400.3	424.0	455.5	471.2	493.9	539.2	573.3	578.3
147.5°	391.1	401.5	411.8	414.4	433.4	458.5	471.2	489.0	524.8	551.6	555.7
150°	400.6	410.0	419.4	421.8	438.3	460.2	471.2	486.3	516.4	539.0	542.3
152.5°	410.6	417.6	424.8	426.6	441.4	461.2	471.2	484.0	509.7	529.1	531.6
155°	425.3	430.6	435.9	437.2	448.5	463.6	471.2	481.4	501.9	517.2	518.9
157.5°	436.2	441.4	446.4	447.8	455.5	465.9	471.2	479.1	495.0	507.0	508.1
160°	443.6	447.6	451.5	452.5	458.8	467.0	471.2	478.0	491.6	501.9	502.6
162.5°	450.9	453.9	456.9	457.7	462.2	468.2	471.2	476.9	488.4	497.0	497.7
165°	458.9	461.6	464.3	465.0	467.1	469.8	471.2	475.3	483.6	489.7	490.4
167.5°	466.3	467.6	468.9	469.2	470.9	473.2	474.3	477.0	482.4	486.5	486.8
170°	471.2	472.4	473.7	474.0	474.1	474.2	474.3	477.0	482.4	486.5	486.5
172.5°	473.7	474.0	474.2	474.3	474.3	474.3	474.3	476.5	480.7	483.9	483.7
175°	477.2	477.2	477.2	477.2	476.2	474.9	474.3	475.7	478.4	480.4	480.4
177.5°	477.2	477.2	477.2	477.2	476.5	475.5	474.9	476.0	478.2	479.8	479.5
180°	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2	477.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	160.6	160.6
2.5°	171.5	170.5
5°	220.6	221.6
7.5°	297.0	296.5
10°	369.4	374.0
12.5°	422.0	423.0
15°	454.1	456.1
17.5°	466.5	467.0
20°	467.0	465.9
22.5°	461.3	460.2
25°	454.6	454.1
27.5°	448.4	448.9
30°	445.8	447.4
32.5°	445.8	448.4
35°	446.8	449.4
37.5°	446.3	449.4
40°	444.2	447.8
42.5°	438.6	441.1
45°	429.7	432.9
47.5°	418.4	420.5
50°	403.9	406.0
52.5°	385.8	386.4
55°	364.2	366.2
57.5°	341.0	341.4
60°	315.1	316.6
62.5°	287.7	287.7
65°	258.8	259.8
67.5°	228.8	231.4
70°	198.4	198.9
72.5°	168.4	168.4
75°	137.4	137.9
77.5°	108.0	108.0
80°	80.1	80.6
82.5°	55.3	56.3
85°	34.6	34.6
87.5°	16.0	14.5
90°	12.2	12.2
92.5°	48.7	39.0
95°	169.9	140.6
97.5°	407.1	351.4
100°	586.6	520.1
102.5°	763.1	706.2
105°	988.2	957.6
107.5°	1135.7	1143.1
110°	1191.9	1223.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1196.9	1245.9
115°	1165.2	1233.1
117.5°	1097.9	1173.2
120°	1043.7	1116.8
122.5°	990.8	1063.0
125°	915.5	982.0
127.5°	847.8	903.8
130°	807.8	859.6
132.5°	771.5	818.0
135°	721.9	761.9
137.5°	682.1	714.9
140°	654.8	685.4
142.5°	632.2	658.5
145°	598.2	618.2
147.5°	572.2	588.7
150°	555.7	569.1
152.5°	541.7	551.9
155°	525.6	532.3
157.5°	512.9	517.6
160°	505.3	508.0
162.5°	500.3	502.8
165°	493.1	495.8
167.5°	487.9	489.0
170°	486.5	486.5
172.5°	482.7	481.7
175°	480.4	480.4
177.5°	478.4	477.2
180°	477.2	477.2



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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	0.00	0.72	1.12	1.83	3.38	13.15	13.86	14.26	14.97	16.52
	3H	0.70	1.34	1.82	2.46	4.02	14.96	15.60	16.08	16.72	18.28
	4H	0.99	1.60	2.13	2.73	4.29	15.59	16.20	16.72	17.32	18.88
	6H	1.23	1.80	2.38	2.92	4.50	16.00	16.56	17.14	17.68	19.26
	8H	1.30	1.83	2.44	2.97	4.54	16.11	16.64	17.25	17.78	19.35
	12H	1.31	1.82	2.46	2.95	4.55	16.16	16.67	17.31	17.81	19.40
4H	2H	7.18	7.79	8.32	8.91	10.48	13.40	14.01	14.54	15.14	16.70
	3H	8.73	9.25	9.88	10.39	11.97	15.42	15.93	16.57	17.08	18.66
	4H	8.82	9.29	9.97	10.43	12.03	16.17	16.64	17.32	17.78	19.37
	6H	8.83	9.23	9.98	10.39	11.98	16.69	17.09	17.84	18.25	19.84
	8H	8.80	9.18	9.95	10.33	11.93	16.84	17.22	17.99	18.37	19.97
	12H	8.75	9.09	9.92	10.25	11.86	16.92	17.26	18.09	18.42	20.03
8H	4H	10.25	10.62	11.40	11.77	13.38	16.22	16.60	17.37	17.75	19.35
	6H	10.48	10.79	11.66	11.99	13.59	16.83	17.14	18.00	18.33	19.93
	8H	10.50	10.77	11.68	11.94	13.56	17.04	17.31	18.22	18.48	20.10
	12H	10.46	10.70	11.64	11.87	13.52	17.17	17.41	18.35	18.58	20.23
12H	4H	10.38	10.72	11.55	11.88	13.49	16.16	16.51	17.34	17.67	19.28
	6H	10.73	11.01	11.91	12.18	13.80	16.81	17.08	17.99	18.25	19.88
	8H	10.80	11.03	11.98	12.20	13.86	17.02	17.26	18.21	18.43	20.09