

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: P936689

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-6-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936689
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-B2750-1D-UNV-STD-W-6-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

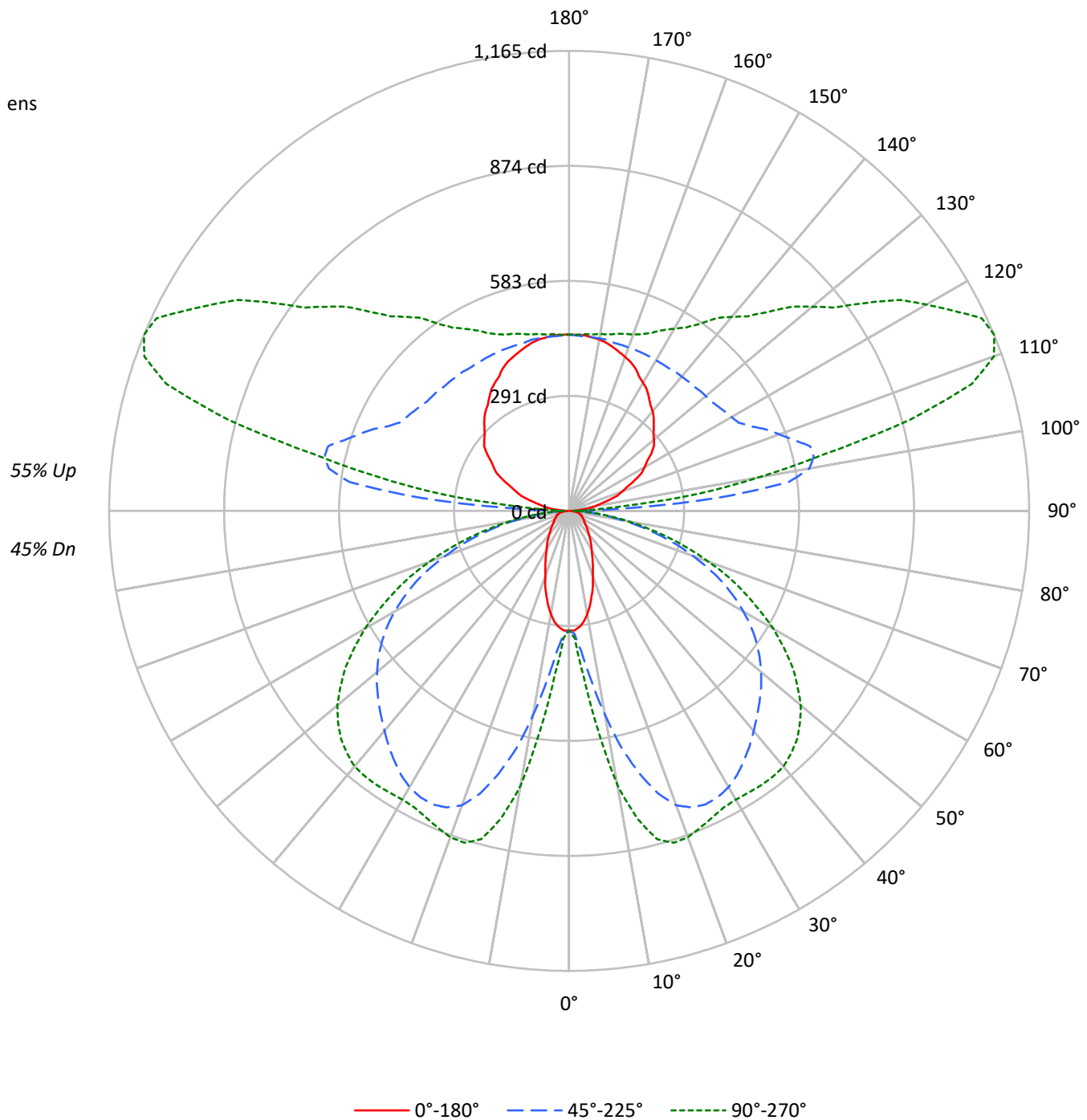
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5240.3 lumens
Efficiency: N/A
Efficacy: 123.0 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_{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: P936689
CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-6-3500K

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	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	24	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°	1875	1875	1875
5°	1832	2167	2520
10°	1660	3158	4178
15°	1410	4124	5046
20°	1148	4779	5143
25°	958	4999	5038
30°	807	5029	5028
35°	713	4944	5158
40°	621	4835	5293
45°	562	4754	5314
50°	515	4681	5225
55°	493	4575	4994
60°	505	4372	4628
65°	523	4064	4125
70°	557	3541	3486
75°	614	2886	2721
80°	664	1998	1832
85°	584	1059	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5314 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	0.7
10°-20°	173.8	3.3
20°-30°	304.0	5.8
30°-40°	391.3	7.5
40°-50°	437.1	8.3
50°-60°	418.6	8.0
60°-70°	331.7	6.3
70°-80°	195.1	3.7
80°-90°	55.9	1.1
90°-100°	217.6	4.2
100°-110°	572.0	10.9
110°-120°	593.1	11.3
120°-130°	475.8	9.1
130°-140°	373.3	7.1
140°-150°	286.5	5.5
150°-160°	206.4	3.9
160°-170°	126.3	2.4
170°-180°	42.7	0.8
0°-30°	517.0	9.9
0°-40°	908.3	17.3
0°-60°	1764.0	33.7
0°-90°	2346.7	44.8
90°-120°	1382.8	26.4
90°-150°	2518.4	48.1
90°-180°	2894.0	55.2
0°-180°	5240.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	295	317	357	404	418	27
15°	221	408	688	834	861	62
25°	141	463	820	856	857	65
35°	96	442	772	816	848	60
45°	65	353	682	782	817	51
55°	47	224	579	672	691	43
65°	37	119	430	483	490	37
75°	27	73	236	259	260	29
85°	10	22	58	64	65	10
90°	3	8	23	11	11	3
95°	29	113	375	193	132	32
105°	103	156	632	960	896	109
115°	183	222	507	1010	1153	181
125°	255	286	461	779	918	226
135°	304	334	446	628	713	235
145°	352	374	441	536	578	221
155°	398	409	441	484	498	183
165°	429	435	441	458	464	121
175°	446	446	444	449	449	42
180°	446	446	446	446	446	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1	303.1
2.5°	303.1	303.1	305.0	306.0	308.0	309.0	311.0	312.9	318.7	319.7	321.6
5°	295.4	299.2	311.9	316.8	330.4	348.9	356.7	369.4	395.7	403.5	408.4
7.5°	283.6	292.4	323.5	331.4	365.5	414.2	434.7	462.0	503.9	524.4	541.0
10°	265.1	283.6	339.2	357.8	413.3	487.3	525.4	563.4	626.7	654.9	665.7
12.5°	244.7	274.9	355.7	381.1	461.1	569.2	615.0	657.0	729.1	767.1	772.9
15°	221.2	262.2	371.3	408.4	511.7	637.4	688.1	739.8	807.1	834.3	841.2
17.5°	200.8	252.4	386.0	425.0	550.7	698.8	750.5	793.4	848.0	866.5	871.3
20°	175.5	236.8	395.7	446.4	591.7	743.7	793.4	826.6	863.6	875.3	877.2
22.5°	156.9	220.3	401.6	454.2	618.9	770.9	812.9	839.2	864.5	868.4	869.4
25°	141.4	201.7	400.6	463.0	642.4	787.5	819.7	839.2	853.8	855.7	855.7
27.5°	126.7	181.3	396.7	464.9	659.9	791.5	816.8	830.4	837.2	841.2	841.2
30°	114.1	161.8	386.9	461.1	667.6	787.5	808.0	814.8	821.6	827.5	830.4
32.5°	104.3	143.3	372.3	453.2	668.6	777.8	792.4	796.3	806.0	819.7	824.6
35°	95.5	124.8	355.7	442.5	662.8	762.2	771.9	775.9	795.4	815.8	822.6
37.5°	86.7	111.1	334.3	424.0	654.0	743.7	750.5	757.4	787.5	811.9	819.7
40°	78.0	99.4	309.0	403.5	640.4	721.2	727.1	737.8	777.8	806.0	813.9
42.5°	71.1	89.6	281.7	382.1	622.8	695.9	704.7	720.3	766.1	796.3	805.0
45°	65.3	79.9	252.4	352.8	600.4	669.6	682.3	703.7	752.4	781.7	789.4
47.5°	59.5	73.1	222.2	322.6	576.1	643.3	659.9	684.2	733.9	762.2	769.0
50°	54.6	66.3	192.1	290.4	549.7	615.0	634.5	659.9	710.6	736.8	745.6
52.5°	50.7	60.5	163.8	258.3	519.5	585.8	608.2	634.5	682.3	707.7	713.5
55°	46.8	55.5	139.3	224.1	488.3	554.6	579.0	604.3	651.1	672.5	676.5
57.5°	44.9	51.6	118.9	192.1	455.1	519.5	546.8	570.2	614.1	630.6	634.5
60°	42.0	48.7	103.3	164.7	419.1	486.3	509.8	533.1	570.2	583.8	586.7
62.5°	39.0	46.8	91.7	138.4	382.1	447.4	470.7	492.3	523.4	533.1	537.0
65°	37.0	44.9	82.8	118.9	344.1	406.4	429.8	448.4	473.6	483.4	485.4
67.5°	35.1	42.9	76.1	102.3	306.0	365.5	383.0	400.6	420.1	429.8	430.8
70°	32.2	40.9	70.2	90.6	267.1	318.7	333.3	351.8	367.4	372.3	375.3
72.5°	30.2	38.0	66.3	81.9	227.1	273.8	287.5	298.3	311.9	316.8	316.8
75°	27.3	34.1	62.4	73.1	186.1	224.1	235.9	246.6	257.3	259.3	256.3
77.5°	24.3	30.2	53.6	61.4	145.3	177.4	187.1	193.0	201.7	203.7	204.7
80°	20.4	26.4	42.0	47.8	105.2	130.6	137.4	142.3	150.1	150.1	152.0
82.5°	15.6	20.4	30.2	34.1	71.1	89.6	95.5	98.5	103.3	103.3	103.3
85°	9.8	12.7	19.5	22.4	42.9	54.6	58.5	59.5	63.4	64.3	64.3
87.5°	4.8	6.8	12.7	13.7	22.4	28.3	28.3	30.2	30.2	29.3	28.3
90°	3.0	5.4	7.8	8.4	13.2	19.6	22.8	20.3	15.1	11.3	11.3
92.5°	12.0	32.4	52.7	57.8	81.3	112.6	128.2	112.3	80.6	56.9	54.7
95°	28.8	66.0	103.3	112.6	200.0	316.6	374.8	334.5	253.8	193.2	186.3
97.5°	49.7	82.7	115.5	123.7	269.5	463.8	560.9	535.4	484.3	446.0	432.9
100°	65.9	95.7	125.6	133.0	294.7	510.3	618.0	619.9	623.6	626.5	611.0
102.5°	79.7	107.6	135.4	142.3	306.3	524.9	634.2	666.7	731.7	780.4	767.2
105°	103.1	126.6	150.2	156.1	314.8	526.6	632.4	705.2	850.9	960.2	953.0
107.5°	127.0	149.0	170.9	176.5	316.5	503.1	596.4	698.0	901.2	1053.6	1055.3
110°	143.2	163.0	182.9	187.8	314.1	482.4	566.5	680.0	907.3	1077.6	1085.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	159.1	178.0	196.9	201.6	314.1	464.2	539.2	655.5	888.0	1062.3	1073.7
115°	183.0	200.5	217.9	222.3	317.1	443.4	506.6	618.6	842.5	1010.5	1026.4
117.5°	206.7	222.6	238.4	242.3	323.0	430.4	484.1	585.2	787.3	938.9	956.5
120°	220.4	235.4	250.3	254.1	327.7	426.0	475.1	567.4	752.1	890.6	907.8
122.5°	234.0	249.0	264.1	267.8	334.6	423.6	468.2	551.4	717.7	842.4	859.3
125°	254.7	268.3	282.1	285.5	343.9	421.8	460.8	531.4	672.7	778.6	794.1
127.5°	271.4	285.3	299.1	302.6	353.2	420.7	454.5	515.1	636.3	727.3	740.4
130°	280.4	295.4	310.3	314.0	360.0	421.3	452.0	506.0	614.1	695.1	707.2
132.5°	289.7	304.7	319.6	323.3	365.5	421.8	450.0	498.4	595.0	667.4	678.3
135°	303.5	317.1	330.6	334.0	371.5	421.4	446.4	486.9	567.8	628.5	637.9
137.5°	317.5	331.0	344.4	347.8	380.4	423.9	445.7	479.9	548.4	599.7	607.4
140°	329.3	341.7	354.0	357.1	386.0	424.4	443.7	473.3	532.4	576.7	583.8
142.5°	338.2	349.6	361.0	364.0	390.5	426.0	443.7	469.7	521.5	560.5	566.7
145°	352.0	362.0	372.0	374.5	396.6	426.0	440.7	461.9	504.4	536.2	540.9
147.5°	365.8	375.5	385.3	387.7	405.3	428.9	440.7	457.4	490.8	515.9	519.8
150°	374.8	383.6	392.3	394.6	410.0	430.4	440.7	454.8	483.0	504.2	507.3
152.5°	384.0	390.7	397.4	399.0	412.9	431.4	440.7	452.7	476.8	494.9	497.2
155°	397.9	402.8	407.7	408.9	419.5	433.6	440.7	450.3	469.5	483.8	485.4
157.5°	408.0	412.8	417.6	418.8	426.1	435.9	440.7	448.2	463.1	474.2	475.3
160°	414.9	418.6	422.3	423.3	429.1	436.8	440.7	447.1	459.9	469.5	470.1
162.5°	421.8	424.6	427.4	428.1	432.3	437.9	440.7	446.1	456.9	464.9	465.5
165°	429.3	431.8	434.3	435.0	436.9	439.4	440.7	444.6	452.2	458.0	458.7
167.5°	436.1	437.3	438.6	438.9	440.5	442.6	443.7	446.2	451.3	455.0	455.3
170°	440.7	441.9	443.1	443.4	443.5	443.6	443.7	446.2	451.3	455.0	455.0
172.5°	443.1	443.4	443.6	443.7	443.7	443.7	443.7	445.6	449.6	452.6	452.4
175°	446.4	446.4	446.4	446.4	445.5	444.3	443.7	445.0	447.5	449.3	449.3
177.5°	446.4	446.4	446.4	446.4	445.7	444.8	444.3	445.3	447.3	448.7	448.5
180°	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4	446.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	303.1	303.1
2.5°	323.5	321.6
5°	416.2	418.1
7.5°	560.5	559.5
10°	696.9	705.6
12.5°	796.3	798.3
15°	856.8	860.7
17.5°	880.1	881.1
20°	881.1	879.2
22.5°	870.4	868.4
25°	857.8	856.8
27.5°	846.0	847.0
30°	841.2	844.1
32.5°	841.2	846.0
35°	843.1	848.0
37.5°	842.2	848.0
40°	838.2	845.1
42.5°	827.5	832.4
45°	811.0	816.8
47.5°	789.4	793.4
50°	762.2	766.1
52.5°	728.1	729.1
55°	687.1	691.1
57.5°	643.3	644.3
60°	594.6	597.5
62.5°	542.9	542.9
65°	488.3	490.2
67.5°	431.8	436.6
70°	374.3	375.3
72.5°	317.7	317.7
75°	259.3	260.3
77.5°	203.7	203.7
80°	151.1	152.0
82.5°	104.3	106.2
85°	65.3	65.3
87.5°	30.2	27.3
90°	11.3	11.3
92.5°	45.5	36.5
95°	158.9	131.5
97.5°	380.8	328.7
100°	548.7	486.5
102.5°	713.9	660.6
105°	924.4	895.7
107.5°	1062.2	1069.2
110°	1114.8	1144.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1119.6	1165.3
115°	1089.8	1153.4
117.5°	1026.9	1097.4
120°	976.2	1044.7
122.5°	926.8	994.3
125°	856.3	918.5
127.5°	792.9	845.5
130°	755.6	804.1
132.5°	721.7	765.1
135°	675.3	712.7
137.5°	638.1	668.7
140°	612.4	641.1
142.5°	591.3	615.9
145°	559.6	578.2
147.5°	535.2	550.6
150°	519.9	532.4
152.5°	506.7	516.2
155°	491.7	497.9
157.5°	479.8	484.1
160°	472.6	475.1
162.5°	467.9	470.4
165°	461.2	463.8
167.5°	456.4	457.5
170°	455.0	455.0
172.5°	451.5	450.6
175°	449.3	449.3
177.5°	447.5	446.4
180°	446.4	446.4



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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	2.69	3.54	3.68	4.55	5.89	15.85	16.70	16.85	17.71	19.05
	3H	3.39	4.16	4.40	5.17	6.54	17.69	18.45	18.69	19.47	20.83
	4H	3.69	4.41	4.71	5.44	6.81	18.33	19.05	19.35	20.07	21.44
	6H	3.94	4.61	4.97	5.63	7.02	18.75	19.42	19.78	20.45	21.83
	8H	4.01	4.64	5.04	5.69	7.06	18.87	19.51	19.91	20.55	21.93
	12H	4.03	4.63	5.06	5.67	7.07	18.94	19.54	19.98	20.58	21.98
4H	2H	9.89	10.62	10.92	11.64	13.01	16.13	16.85	17.15	17.87	19.24
	3H	11.46	12.07	12.49	13.12	14.50	18.17	18.77	19.20	19.82	21.21
	4H	11.56	12.11	12.60	13.15	14.56	18.93	19.49	19.97	20.53	21.93
	6H	11.57	12.05	12.62	13.11	14.51	19.46	19.94	20.51	21.01	22.41
	8H	11.54	11.99	12.59	13.05	14.46	19.62	20.07	20.67	21.13	22.55
	12H	11.50	11.90	12.57	12.98	14.40	19.71	20.12	20.78	21.19	22.61
8H	4H	13.00	13.44	14.05	14.50	15.92	18.99	19.44	20.04	20.50	21.91
	6H	13.24	13.61	14.31	14.71	16.12	19.61	19.98	20.69	21.08	22.50
	8H	13.26	13.58	14.34	14.67	16.10	19.83	20.16	20.91	21.24	22.67
	12H	13.22	13.51	14.31	14.59	16.06	19.97	20.26	21.06	21.34	22.81
12H	4H	13.14	13.54	14.21	14.62	16.04	18.94	19.35	20.01	20.42	21.84
	6H	13.50	13.82	14.58	14.90	16.34	19.60	19.92	20.68	21.01	22.44
	8H	13.56	13.85	14.65	14.93	16.40	19.82	20.11	20.91	21.19	22.66