

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: P936885

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936885
REPORT IS A COMBINATION OF REPORTS P933471 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

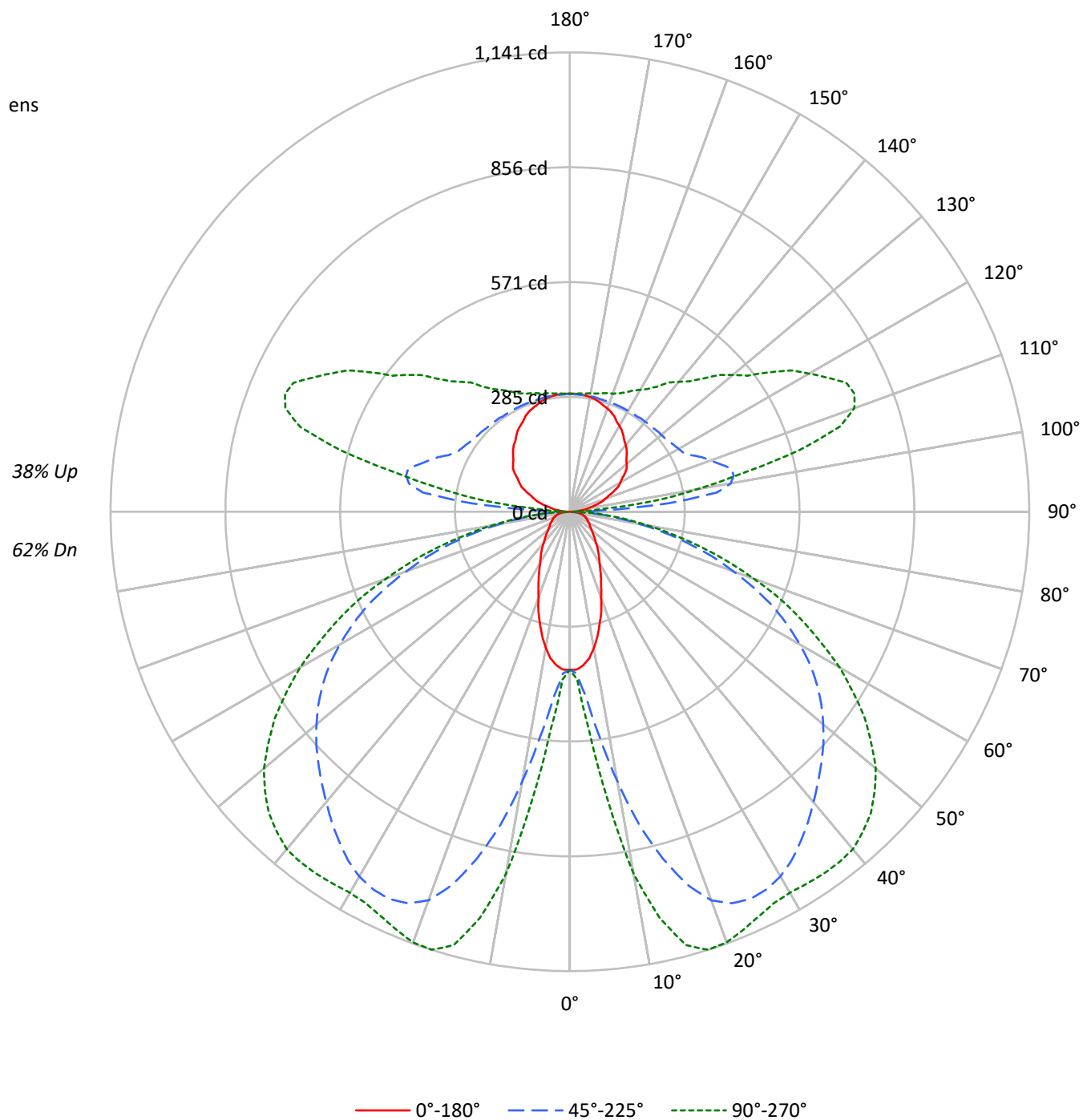
Lumens per Lamp: N/A
Luminaire Lumens: 4938.3 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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

TEST NUMBER: P936885

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P936885

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3641	3641	3641
5°	3554	4205	4895
10°	3220	6127	8115
15°	2733	7998	9798
20°	2222	9262	9986
25°	1852	9684	9783
30°	1559	9738	9765
35°	1377	9569	10018
40°	1197	9350	10278
45°	1082	9189	10319
50°	991	9041	10148
55°	945	8829	9697
60°	964	8430	8988
65°	998	7829	8011
70°	1056	6814	6768
75°	1158	5541	5282
80°	1240	3828	3558
85°	1043	2020	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10319 cd/sqm

TEST NUMBER: P936885

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	1.0
10°-20°	225.0	4.6
20°-30°	393.5	8.0
30°-40°	506.6	10.3
40°-50°	565.9	11.5
50°-60°	542.0	11.0
60°-70°	429.5	8.7
70°-80°	252.6	5.1
80°-90°	71.3	1.4
90°-100°	142.9	2.9
100°-110°	375.9	7.6
110°-120°	389.7	7.9
120°-130°	312.6	6.3
130°-140°	245.3	5.0
140°-150°	188.3	3.8
150°-160°	135.6	2.7
160°-170°	83.0	1.7
170°-180°	28.0	0.6
0°-30°	669.3	13.6
0°-40°	1175.9	23.8
0°-60°	2283.7	46.2
0°-90°	3037.1	61.5
90°-120°	908.5	18.4
90°-150°	1654.7	33.5
90°-180°	1901.0	38.5
0°-180°	4938.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	392	392	392	392	392	
5°	382	410	462	522	541	35
15°	286	529	891	1080	1114	80
25°	183	599	1061	1108	1109	84
35°	124	573	999	1056	1098	77
45°	84	457	883	1012	1058	65
55°	60	290	750	871	895	55
65°	48	154	556	626	635	48
75°	35	95	305	336	337	37
85°	13	29	76	83	84	13
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: P936885

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4	392.4
2.5°	392.4	392.4	395.0	396.2	398.7	400.0	402.5	405.0	412.7	413.9	416.4
5°	382.4	387.4	403.8	410.1	427.7	451.7	461.8	478.3	512.4	522.4	528.7
7.5°	367.2	378.6	419.0	429.1	473.2	536.3	562.8	598.1	652.4	678.9	700.3
10°	343.2	367.2	439.1	463.1	535.0	631.0	680.2	729.3	811.4	847.9	861.9
12.5°	316.8	355.8	460.6	493.4	596.9	737.0	796.3	850.5	943.9	993.1	1000.6
15°	286.4	339.4	480.7	528.7	662.5	825.3	890.9	957.8	1044.9	1080.2	1089.0
17.5°	260.0	326.8	499.7	550.2	713.0	904.8	971.6	1027.2	1097.9	1121.8	1128.1
20°	227.1	306.7	512.4	578.0	766.0	962.8	1027.2	1070.1	1118.0	1133.2	1135.7
22.5°	203.1	285.2	519.9	588.0	801.2	998.2	1052.4	1086.5	1119.3	1124.3	1125.6
25°	183.0	261.2	518.7	599.4	831.6	1019.6	1061.2	1086.5	1105.4	1107.9	1107.9
27.5°	164.1	234.7	513.6	601.9	854.2	1024.6	1057.5	1075.1	1083.9	1089.0	1089.0
30°	147.6	209.4	501.0	596.9	864.4	1019.6	1046.1	1054.9	1063.8	1071.3	1075.1
32.5°	135.0	185.5	482.1	586.8	865.6	1007.0	1025.9	1030.9	1043.5	1061.2	1067.6
35°	123.7	161.5	460.6	572.9	858.1	986.8	999.4	1004.5	1029.7	1056.2	1065.0
37.5°	112.3	143.8	432.8	548.9	846.7	962.8	971.6	980.5	1019.6	1051.2	1061.2
40°	100.9	128.7	400.0	522.4	829.0	933.8	941.3	955.3	1007.0	1043.5	1053.7
42.5°	92.2	116.1	364.7	494.7	806.3	900.9	912.3	932.6	991.9	1030.9	1042.3
45°	84.5	103.4	326.8	456.8	777.3	866.9	883.3	911.1	974.2	1012.0	1022.1
47.5°	77.0	94.6	287.7	417.7	745.8	832.9	854.2	885.9	950.2	986.8	995.6
50°	70.7	85.9	248.6	376.1	711.7	796.3	821.5	854.2	920.0	953.9	965.3
52.5°	65.6	78.2	212.0	334.4	672.6	758.4	787.4	821.5	883.3	916.1	923.7
55°	60.5	71.9	180.5	290.2	632.2	718.0	749.6	782.3	843.0	870.7	875.7
57.5°	58.1	66.8	153.9	248.6	589.3	672.6	707.9	738.2	794.9	816.4	821.5
60°	54.2	63.1	133.8	213.3	542.6	629.6	660.0	690.3	738.2	755.9	759.6
62.5°	50.5	60.5	118.6	179.2	494.7	579.2	609.5	637.3	677.7	690.3	695.3
65°	47.9	58.1	107.2	153.9	445.4	526.2	556.5	580.4	613.3	625.9	628.4
67.5°	45.5	55.5	98.5	132.5	396.2	473.2	495.9	518.7	543.9	556.5	557.7
70°	41.6	53.0	90.8	117.4	345.7	412.7	431.6	455.5	475.7	482.1	485.8
72.5°	39.2	49.2	85.9	106.0	294.0	354.6	372.3	386.1	403.8	410.1	410.1
75°	35.3	44.1	80.8	94.6	241.0	290.2	305.4	319.3	333.1	335.7	331.9
77.5°	31.5	39.2	69.4	79.5	188.0	229.7	242.3	249.8	261.2	263.8	265.0
80°	26.5	34.1	54.2	61.8	136.3	169.1	177.9	184.2	194.3	194.3	196.8
82.5°	20.2	26.5	39.2	44.1	92.2	116.1	123.7	127.5	133.8	133.8	133.8
85°	12.6	16.4	25.2	29.0	55.5	70.7	75.7	77.0	82.0	83.3	83.3
87.5°	6.3	8.8	16.4	17.7	29.0	36.6	36.6	39.2	39.2	37.8	36.6
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

TEST NUMBER: P936885

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

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

TEST NUMBER: P936885

CATALOG NUMBER: SQ4-FB-050U-100D-B2750-1D-UNV-W2A-W-4-4000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	392.4	392.4
2.5°	419.0	416.4
5°	538.8	541.4
7.5°	725.6	724.3
10°	902.3	913.6
12.5°	1030.9	1033.5
15°	1109.2	1114.2
17.5°	1139.5	1140.7
20°	1140.7	1138.2
22.5°	1126.9	1124.3
25°	1110.5	1109.2
27.5°	1095.3	1096.5
30°	1089.0	1092.8
32.5°	1089.0	1095.3
35°	1091.6	1097.9
37.5°	1090.2	1097.9
40°	1085.3	1094.0
42.5°	1071.3	1077.6
45°	1049.9	1057.5
47.5°	1022.1	1027.2
50°	986.8	991.9
52.5°	942.6	943.9
55°	889.6	894.6
57.5°	832.9	834.1
60°	769.7	773.6
62.5°	702.9	702.9
65°	632.2	634.7
67.5°	559.1	565.4
70°	484.6	485.8
72.5°	411.4	411.4
75°	335.7	336.9
77.5°	263.8	263.8
80°	195.6	196.8
82.5°	135.0	137.5
85°	84.5	84.5
87.5°	39.2	35.3
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	6.46	7.49	7.31	8.36	9.45	19.60	20.63	20.45	21.50	22.59
	3H	7.18	8.10	8.04	8.99	10.10	21.44	22.36	22.30	23.24	24.36
	4H	7.49	8.36	8.36	9.25	10.38	22.08	22.96	22.95	23.84	24.97
	6H	7.75	8.55	8.63	9.45	10.59	22.51	23.32	23.39	24.21	25.36
	8H	7.82	8.59	8.71	9.50	10.65	22.63	23.40	23.52	24.31	25.45
	12H	7.84	8.58	8.74	9.48	10.65	22.70	23.43	23.59	24.34	25.51
4H	2H	13.67	14.55	14.55	15.44	16.57	19.90	20.77	20.78	21.66	22.79
	3H	15.26	15.99	16.15	16.91	18.06	21.94	22.68	22.83	23.60	24.74
	4H	15.36	16.03	16.26	16.95	18.12	22.71	23.38	23.61	24.29	25.46
	6H	15.38	15.96	16.30	16.90	18.07	23.25	23.83	24.16	24.76	25.94
	8H	15.36	15.91	16.28	16.84	18.03	23.40	23.95	24.32	24.88	26.07
	12H	15.33	15.82	16.27	16.77	17.96	23.50	23.99	24.44	24.94	26.13
8H	4H	16.81	17.35	17.73	18.29	19.47	22.78	23.33	23.70	24.26	25.45
	6H	17.06	17.51	18.01	18.49	19.67	23.41	23.86	24.35	24.83	26.02
	8H	17.08	17.48	18.04	18.45	19.65	23.62	24.02	24.58	24.99	26.19
	12H	17.06	17.41	18.02	18.37	19.62	23.77	24.12	24.73	25.08	26.33
12H	4H	16.96	17.45	17.90	18.40	19.59	22.75	23.24	23.68	24.19	25.38
	6H	17.32	17.72	18.27	18.68	19.89	23.39	23.79	24.35	24.76	25.96
	8H	17.40	17.75	18.35	18.71	19.96	23.62	23.98	24.58	24.94	26.19