

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: P936883

Luminaire Tested: SQ4-FB-050U-100D-B2750-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936883
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-STD-W-4-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

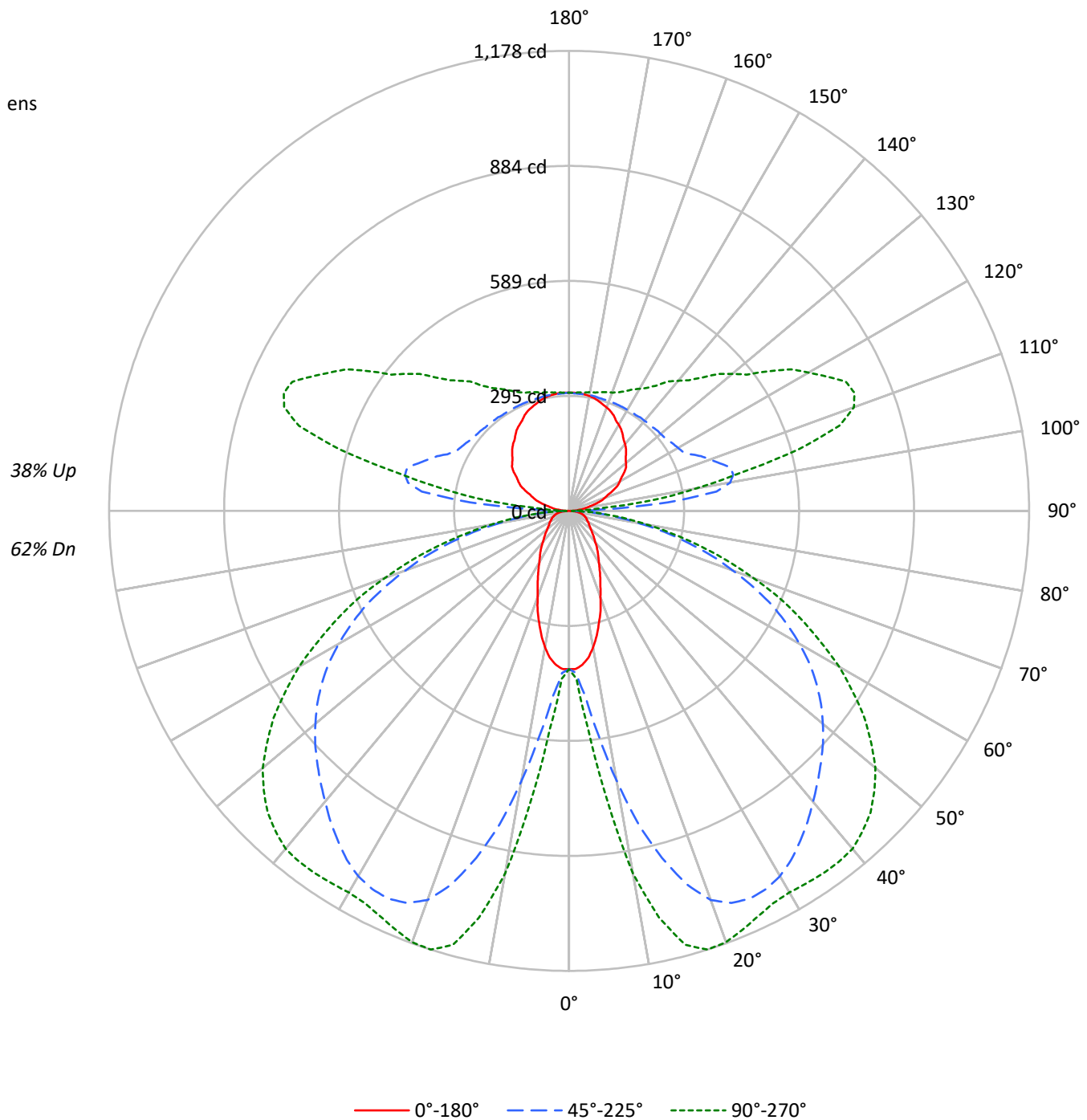
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5098.6 lumens
Efficiency: N/A
Efficacy: 112.8 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 (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: P936883
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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3759	3759	3759
5°	3669	4342	5054
10°	3325	6325	8378
15°	2822	8258	10117
20°	2295	9562	10310
25°	1912	9998	10101
30°	1610	10055	10082
35°	1422	9879	10343
40°	1236	9654	10612
45°	1118	9487	10654
50°	1023	9335	10478
55°	976	9116	10013
60°	996	8704	9280
65°	1032	8082	8271
70°	1092	7035	6988
75°	1197	5721	5454
80°	1278	3953	3674
85°	1076	2087	1881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10654 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	1.0
10°-20°	232.3	4.6
20°-30°	406.3	8.0
30°-40°	523.0	10.3
40°-50°	584.2	11.5
50°-60°	559.6	11.0
60°-70°	443.5	8.7
70°-80°	260.8	5.1
80°-90°	73.6	1.4
90°-100°	147.6	2.9
100°-110°	388.1	7.6
110°-120°	402.4	7.9
120°-130°	322.8	6.3
130°-140°	253.2	5.0
140°-150°	194.4	3.8
150°-160°	140.0	2.7
160°-170°	85.6	1.7
170°-180°	28.9	0.6
0°-30°	691.0	13.6
0°-40°	1214.1	23.8
0°-60°	2357.8	46.2
0°-90°	3135.7	61.5
90°-120°	938.0	18.4
90°-150°	1708.4	33.5
90°-180°	1963.0	38.5
0°-180°	5098.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	395	423	477	539	559	36
15°	296	546	920	1115	1150	82
25°	189	619	1096	1144	1145	87
35°	128	592	1032	1090	1134	80
45°	87	472	912	1045	1092	68
55°	62	300	774	899	924	57
65°	50	159	574	646	655	49
75°	36	98	315	347	348	38
85°	13	30	78	86	87	14
90°	2	6	16	8	8	3
95°	20	76	254	131	89	22
105°	70	106	429	651	608	74
115°	124	151	344	686	782	123
125°	173	194	313	528	623	153
135°	206	227	303	426	483	159
145°	239	254	299	364	392	150
155°	270	277	299	328	338	124
165°	291	295	299	311	315	82
175°	303	303	301	305	305	29
180°	303	303	303	303	303	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	405.1	405.1	407.8	409.1	411.7	413.0	415.6	418.2	426.1	427.3	429.9
5°	394.8	400.0	416.9	423.4	441.6	466.4	476.8	493.8	529.0	539.3	545.8
7.5°	379.1	390.9	432.6	443.0	488.6	553.7	581.0	617.5	673.5	700.9	723.0
10°	354.4	379.1	453.4	478.1	552.4	651.5	702.2	753.0	837.7	875.5	889.9
12.5°	327.1	367.4	475.5	509.4	616.2	760.9	822.1	878.1	974.6	1025.3	1033.1
15°	295.7	350.4	496.4	545.8	684.0	852.1	919.8	988.9	1078.8	1115.3	1124.3
17.5°	268.4	337.4	515.9	568.0	736.1	934.1	1003.2	1060.5	1133.5	1158.3	1164.8
20°	234.5	316.6	529.0	596.7	790.9	994.1	1060.5	1104.8	1154.3	1170.0	1172.6
22.5°	209.7	294.4	536.8	607.1	827.3	1030.6	1086.6	1121.8	1155.6	1160.8	1162.1
25°	188.9	269.7	535.5	618.8	858.6	1052.7	1095.6	1121.8	1141.3	1143.9	1143.9
27.5°	169.4	242.4	530.3	621.5	882.0	1057.9	1091.8	1110.0	1119.1	1124.3	1124.3
30°	152.4	216.2	517.3	616.2	892.4	1052.7	1080.1	1089.1	1098.3	1106.1	1110.0
32.5°	139.4	191.5	497.7	605.8	893.7	1039.6	1059.2	1064.4	1077.4	1095.6	1102.2
35°	127.7	166.7	475.5	591.5	885.9	1018.8	1031.8	1037.1	1063.1	1090.5	1099.6
37.5°	116.0	148.5	446.9	566.8	874.2	994.1	1003.2	1012.3	1052.7	1085.3	1095.6
40°	104.2	132.9	413.0	539.3	855.9	964.1	971.9	986.3	1039.6	1077.4	1087.9
42.5°	95.1	119.9	376.6	510.7	832.5	930.2	941.9	962.8	1024.1	1064.4	1076.1
45°	87.3	106.8	337.4	471.6	802.5	895.1	912.0	940.6	1005.8	1044.9	1055.3
47.5°	79.5	97.7	297.1	431.3	770.0	859.9	882.0	914.6	981.1	1018.8	1027.9
50°	73.0	88.6	256.7	388.3	734.8	822.1	848.2	882.0	949.8	984.9	996.6
52.5°	67.7	80.8	218.9	345.3	694.4	783.0	813.0	848.2	912.0	945.9	953.7
55°	62.5	74.2	186.4	299.6	652.7	741.3	773.9	807.7	870.3	898.9	904.2
57.5°	59.9	69.0	158.9	256.7	608.5	694.4	730.9	762.2	820.7	842.9	848.2
60°	56.0	65.2	138.1	220.2	560.2	650.1	681.4	712.7	762.2	780.4	784.3
62.5°	52.2	62.5	122.5	185.0	510.7	598.0	629.3	658.0	699.7	712.7	717.9
65°	49.5	59.9	110.7	158.9	459.9	543.3	574.5	599.3	633.2	646.2	648.8
67.5°	46.9	57.3	101.7	136.8	409.1	488.6	512.0	535.5	561.5	574.5	575.8
70°	43.0	54.7	93.8	121.2	356.9	426.1	445.6	470.3	491.1	497.7	501.6
72.5°	40.4	50.8	88.6	109.4	303.6	366.1	384.3	398.6	416.9	423.4	423.4
75°	36.5	45.6	83.4	97.7	248.9	299.6	315.3	329.6	343.9	346.6	342.6
77.5°	32.5	40.4	71.7	82.0	194.1	237.1	250.1	257.9	269.7	272.3	273.6
80°	27.3	35.2	56.0	63.8	140.7	174.6	183.7	190.2	200.7	200.7	203.2
82.5°	20.8	27.3	40.4	45.6	95.1	119.9	127.7	131.6	138.1	138.1	138.1
85°	13.0	17.0	26.0	30.0	57.3	73.0	78.2	79.5	84.7	86.0	86.0
87.5°	6.5	9.1	17.0	18.2	30.0	37.8	37.8	40.4	40.4	39.0	37.8
90°	2.1	3.6	5.3	5.7	9.0	13.3	15.5	13.7	10.3	7.7	7.7
92.5°	8.1	21.9	35.8	39.2	55.1	76.3	87.0	76.2	54.7	38.7	37.1
95°	19.5	44.8	70.1	76.4	135.7	214.7	254.2	226.8	172.1	131.0	126.4
97.5°	33.7	56.0	78.3	83.9	182.7	314.5	380.4	363.1	328.5	302.6	293.7
100°	44.7	64.9	85.2	90.2	199.9	346.1	419.2	420.5	423.1	425.0	414.4
102.5°	54.0	73.0	91.8	96.5	207.8	356.0	430.2	452.3	496.4	529.4	520.3
105°	69.9	85.9	101.9	105.9	213.6	357.2	429.0	478.4	577.2	651.4	646.5
107.5°	86.2	101.1	116.0	119.7	214.7	341.4	404.7	473.6	611.4	714.8	715.9
110°	97.1	110.5	124.0	127.4	213.1	327.3	384.3	461.3	615.5	731.0	736.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	107.9	120.7	133.5	136.8	213.1	314.9	365.8	444.7	602.3	720.7	728.5
115°	124.1	136.0	147.8	150.8	215.0	300.7	343.6	419.5	571.5	685.5	696.2
117.5°	140.2	151.0	161.7	164.4	219.1	292.0	328.4	397.0	534.0	636.9	648.8
120°	149.6	159.7	169.8	172.4	222.3	289.0	322.3	384.9	510.3	604.2	615.9
122.5°	158.7	169.0	179.2	181.7	227.0	287.4	317.6	374.0	486.9	571.5	582.9
125°	172.7	182.0	191.3	193.7	233.3	286.1	312.6	360.5	456.3	528.2	538.8
127.5°	184.1	193.6	202.9	205.3	239.6	285.4	308.3	349.4	431.7	493.4	502.3
130°	190.2	200.4	210.4	213.0	244.2	285.8	306.6	343.3	416.6	471.5	479.7
132.5°	196.5	206.7	216.7	219.3	248.0	286.1	305.3	338.0	403.6	452.8	460.2
135°	205.9	215.0	224.3	226.6	252.0	285.8	302.8	330.2	385.1	426.3	432.7
137.5°	215.4	224.5	233.7	235.9	258.1	287.6	302.4	325.6	372.0	406.8	412.0
140°	223.3	231.7	240.2	242.3	261.8	287.9	300.9	321.0	361.2	391.2	396.1
142.5°	229.4	237.2	244.9	246.9	264.9	288.9	300.9	318.6	353.8	380.2	384.3
145°	238.8	245.5	252.3	254.0	269.0	289.0	299.0	313.4	342.1	363.7	366.9
147.5°	248.2	254.8	261.3	263.0	275.0	291.0	299.0	310.3	333.0	349.9	352.6
150°	254.2	260.1	266.1	267.6	278.1	292.0	299.0	308.5	327.6	342.0	344.2
152.5°	260.5	265.0	269.6	270.7	280.1	292.6	299.0	307.1	323.5	335.7	337.3
155°	269.9	273.2	276.6	277.4	284.6	294.1	299.0	305.5	318.5	328.2	329.3
157.5°	276.8	280.0	283.3	284.1	289.0	295.6	299.0	304.0	314.1	321.7	322.5
160°	281.5	284.0	286.5	287.1	291.1	296.3	299.0	303.3	312.0	318.5	318.9
162.5°	286.1	288.0	289.9	290.4	293.2	297.1	299.0	302.6	309.9	315.4	315.8
165°	291.3	292.9	294.7	295.1	296.4	298.1	299.0	301.5	306.7	310.7	311.1
167.5°	295.9	296.7	297.5	297.7	298.8	300.2	300.9	302.7	306.2	308.7	308.9
170°	299.0	299.7	300.5	300.7	300.8	300.9	300.9	302.7	306.2	308.7	308.7
172.5°	300.5	300.7	300.9	300.9	300.9	300.9	300.9	302.3	305.0	307.0	306.8
175°	302.8	302.8	302.8	302.8	302.2	301.3	300.9	301.8	303.6	304.9	304.9
177.5°	302.8	302.8	302.8	302.8	302.3	301.7	301.4	302.1	303.5	304.5	304.3
180°	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8	302.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	405.1	405.1
2.5°	432.6	429.9
5°	556.3	559.0
7.5°	749.2	747.8
10°	931.6	943.2
12.5°	1064.4	1067.0
15°	1145.2	1150.4
17.5°	1176.5	1177.8
20°	1177.8	1175.1
22.5°	1163.5	1160.8
25°	1146.5	1145.2
27.5°	1130.8	1132.1
30°	1124.3	1128.3
32.5°	1124.3	1130.8
35°	1127.0	1133.5
37.5°	1125.6	1133.5
40°	1120.5	1129.6
42.5°	1106.1	1112.6
45°	1084.0	1091.8
47.5°	1055.3	1060.5
50°	1018.8	1024.1
52.5°	973.2	974.6
55°	918.5	923.7
57.5°	859.9	861.2
60°	794.7	798.7
62.5°	725.7	725.7
65°	652.7	655.3
67.5°	577.2	583.7
70°	500.3	501.6
72.5°	424.8	424.8
75°	346.6	347.9
77.5°	272.3	272.3
80°	201.9	203.2
82.5°	139.4	142.0
85°	87.3	87.3
87.5°	40.4	36.5
90°	7.7	7.7
92.5°	31.0	24.7
95°	107.8	89.2
97.5°	258.3	222.9
100°	372.2	330.0
102.5°	484.2	448.1
105°	627.1	607.7
107.5°	720.6	725.3
110°	756.3	776.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	759.5	790.6
115°	739.3	782.4
117.5°	696.6	744.4
120°	662.2	708.6
122.5°	628.8	674.5
125°	580.9	623.1
127.5°	537.9	573.5
130°	512.6	545.5
132.5°	489.5	519.0
135°	458.1	483.4
137.5°	432.8	453.6
140°	415.5	434.9
142.5°	401.1	417.9
145°	379.6	392.2
147.5°	363.0	373.5
150°	352.7	361.2
152.5°	343.7	350.1
155°	333.6	337.8
157.5°	325.5	328.4
160°	320.6	322.3
162.5°	317.5	319.1
165°	312.9	314.6
167.5°	309.6	310.3
170°	308.7	308.7
172.5°	306.3	305.7
175°	304.9	304.9
177.5°	303.6	302.8
180°	302.8	302.8



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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	6.57	7.60	7.42	8.47	9.56	19.71	20.74	20.56	21.61	22.70
	3H	7.29	8.22	8.15	9.10	10.22	21.55	22.47	22.41	23.36	24.47
	4H	7.60	8.47	8.47	9.36	10.49	22.19	23.07	23.06	23.96	25.08
	6H	7.86	8.67	8.74	9.56	10.70	22.62	23.43	23.50	24.32	25.47
	8H	7.93	8.70	8.82	9.61	10.76	22.74	23.51	23.63	24.42	25.57
	12H	7.95	8.69	8.85	9.59	10.76	22.81	23.54	23.70	24.45	25.62
4H	2H	13.79	14.66	14.66	15.55	16.68	20.01	20.88	20.89	21.77	22.90
	3H	15.37	16.10	16.26	17.02	18.17	22.06	22.79	22.94	23.71	24.85
	4H	15.47	16.14	16.37	17.06	18.23	22.82	23.49	23.72	24.40	25.58
	6H	15.49	16.07	16.41	17.01	18.18	23.36	23.94	24.27	24.88	26.05
	8H	15.48	16.02	16.39	16.95	18.14	23.52	24.06	24.43	24.99	26.18
	12H	15.44	15.93	16.38	16.88	18.07	23.61	24.10	24.55	25.05	26.24
8H	4H	16.92	17.46	17.84	18.40	19.58	22.90	23.44	23.81	24.37	25.56
	6H	17.17	17.62	18.12	18.60	19.78	23.52	23.97	24.46	24.94	26.13
	8H	17.19	17.59	18.15	18.56	19.76	23.73	24.13	24.69	25.10	26.30
	12H	17.17	17.52	18.13	18.48	19.73	23.88	24.23	24.84	25.19	26.44
12H	4H	17.07	17.56	18.01	18.51	19.70	22.86	23.35	23.79	24.30	25.49
	6H	17.43	17.83	18.38	18.79	20.00	23.50	23.90	24.46	24.87	26.07
	8H	17.51	17.86	18.47	18.82	20.07	23.74	24.09	24.69	25.05	26.30