

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: P936851

Luminaire Tested: SQ4-FB-050U-100D-930-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

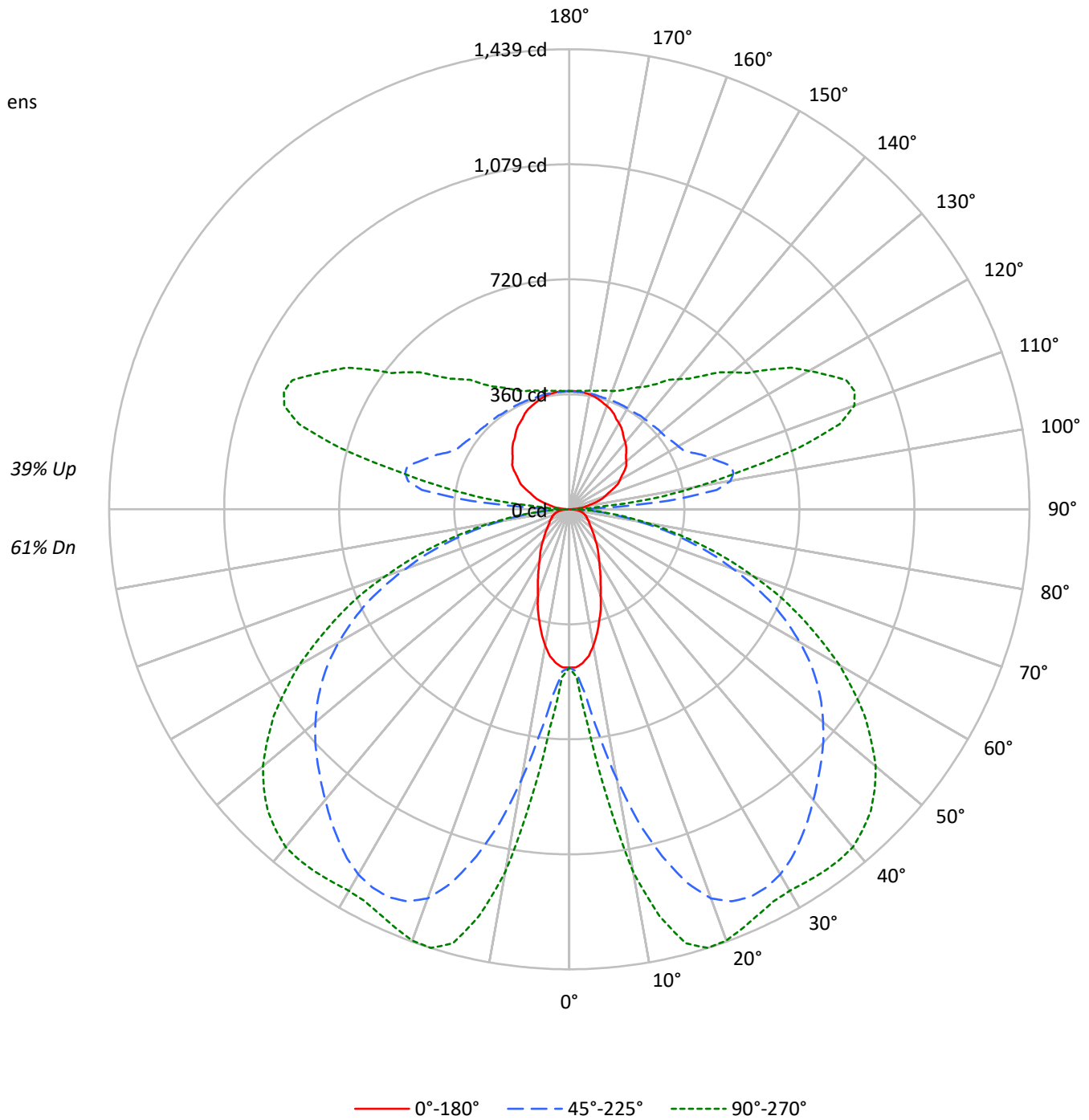
Test Method: LM-79-2019  
Report Number: P936851  
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-100D-930-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6228.1 lumens  
Efficiency: N/A  
Efficacy: 91.9 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: Semi-Direct  
  
Input Watts (W): 67.8  
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				
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

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

	0°	45°	90°
0°	3062	3062	3062
5°	2990	3537	4115
10°	2711	5156	6822
15°	2304	6735	8238
20°	1874	7802	8396
25°	1563	8163	8225
30°	1317	8211	8210
35°	1164	8073	8422
40°	1014	7894	8641
45°	917	7762	8675
50°	841	7642	8532
55°	805	7469	8154
60°	823	7137	7556
65°	855	6635	6735
70°	908	5783	5691
75°	1004	4711	4441
80°	1087	3263	2993
85°	948	1728	1531

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8675 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	1.0
10°-20°	283.7	4.6
20°-30°	496.3	8.0
30°-40°	638.9	10.3
40°-50°	713.6	11.5
50°-60°	683.5	11.0
60°-70°	541.7	8.7
70°-80°	318.5	5.1
80°-90°	89.9	1.4
90°-100°	180.3	2.9
100°-110°	474.0	7.6
110°-120°	491.5	7.9
120°-130°	394.3	6.3
130°-140°	309.4	5.0
140°-150°	237.4	3.8
150°-160°	171.0	2.7
160°-170°	104.6	1.7
170°-180°	35.3	0.6
0°-30°	844.1	13.6
0°-40°	1483.0	23.8
0°-60°	2880.1	46.2
0°-90°	3830.1	61.5
90°-120°	1145.9	18.4
90°-150°	2087.0	33.5
90°-180°	2398.0	38.5
0°-180°	6228.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	495	495	495	495	495	
5°	482	517	582	659	683	45
15°	361	667	1124	1362	1405	101
25°	231	756	1338	1397	1399	106
35°	156	722	1260	1332	1384	97
45°	107	576	1114	1276	1334	82
55°	76	366	945	1098	1128	70
65°	60	194	702	789	800	60
75°	45	119	385	423	425	47
85°	16	37	96	105	107	17
90°	2	7	19	9	9	3
95°	24	93	311	160	109	26
105°	85	129	524	796	742	91
115°	152	184	420	837	956	150
125°	211	237	382	645	761	187
135°	252	277	370	521	591	195
145°	292	310	365	444	479	183
155°	330	339	365	401	413	151
165°	356	360	365	380	384	100
175°	370	370	368	372	372	35
180°	370	370	370	370	370	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9	494.9
2.5°	494.9	494.9	498.1	499.7	502.8	504.4	507.7	510.9	520.3	522.0	525.2
5°	482.2	488.5	509.3	517.2	539.5	569.7	582.4	603.1	646.1	658.9	666.8
7.5°	463.1	477.4	528.4	541.1	596.8	676.4	709.8	754.3	822.8	856.2	883.2
10°	432.8	463.1	553.8	584.0	674.8	795.7	857.8	919.8	1023.3	1069.4	1086.9
12.5°	399.4	448.8	580.9	622.2	752.7	929.4	1004.2	1072.6	1190.4	1252.4	1262.0
15°	361.3	428.1	606.3	666.8	835.4	1040.8	1123.6	1207.9	1317.6	1362.2	1373.4
17.5°	327.9	412.2	630.2	693.9	899.1	1141.1	1225.4	1295.4	1384.5	1414.7	1422.7
20°	286.4	386.7	646.1	728.9	966.0	1214.2	1295.4	1349.5	1410.0	1429.1	1432.2
22.5°	256.2	359.7	655.6	741.6	1010.5	1258.8	1327.2	1370.2	1411.6	1417.9	1419.5
25°	230.8	329.4	654.0	755.9	1048.7	1285.8	1338.4	1370.2	1394.1	1397.2	1397.2
27.5°	206.9	296.0	647.7	759.1	1077.4	1292.2	1333.5	1355.9	1367.0	1373.4	1373.4
30°	186.2	264.2	631.8	752.7	1090.1	1285.8	1319.2	1330.4	1341.6	1351.0	1355.9
32.5°	170.3	233.9	607.9	740.0	1091.7	1269.9	1293.8	1300.1	1316.0	1338.4	1346.3
35°	155.9	203.7	580.9	722.5	1082.1	1244.5	1260.4	1266.7	1298.5	1332.0	1343.1
37.5°	141.6	181.4	545.9	692.3	1067.8	1214.2	1225.4	1236.5	1285.8	1325.6	1338.4
40°	127.3	162.3	504.4	658.9	1045.5	1177.6	1187.2	1204.7	1269.9	1316.0	1328.8
42.5°	116.2	146.4	459.9	623.9	1016.9	1136.2	1150.5	1176.0	1250.8	1300.1	1314.5
45°	106.6	130.5	412.2	576.1	980.3	1093.3	1114.0	1149.0	1228.5	1276.3	1289.1
47.5°	97.1	119.3	362.9	526.8	940.5	1050.3	1077.4	1117.1	1198.3	1244.5	1255.6
50°	89.1	108.2	313.5	474.3	897.5	1004.2	1036.0	1077.4	1160.1	1203.1	1217.4
52.5°	82.8	98.7	267.3	421.7	848.2	956.5	993.0	1036.0	1114.0	1155.4	1164.9
55°	76.4	90.7	227.6	366.0	797.3	905.5	945.3	986.6	1063.0	1098.0	1104.4
57.5°	73.2	84.3	194.2	313.5	743.2	848.2	892.8	931.0	1002.5	1029.6	1036.0
60°	68.4	79.6	168.7	268.9	684.3	794.1	832.3	870.5	931.0	953.2	958.0
62.5°	63.7	76.4	149.6	226.0	623.9	730.4	768.6	803.6	854.6	870.5	876.9
65°	60.5	73.2	135.3	194.2	561.8	663.6	701.8	732.0	773.4	789.3	792.5
67.5°	57.3	70.0	124.1	167.1	499.7	596.8	625.4	654.0	685.9	701.8	703.4
70°	52.5	66.8	114.6	148.0	436.0	520.3	544.3	574.5	599.9	607.9	612.7
72.5°	49.3	62.1	108.2	133.7	370.8	447.2	469.4	486.9	509.3	517.2	517.2
75°	44.6	55.7	101.8	119.3	303.9	366.0	385.1	402.6	420.1	423.3	418.5
77.5°	39.7	49.3	87.5	100.3	237.1	289.6	305.5	315.1	329.4	332.6	334.2
80°	33.4	43.0	68.4	78.0	171.8	213.3	224.4	232.3	245.1	245.1	248.3
82.5°	25.5	33.4	49.3	55.7	116.2	146.4	155.9	160.8	168.7	168.7	168.7
85°	15.9	20.7	31.8	36.6	70.0	89.1	95.5	97.1	103.4	105.0	105.0
87.5°	7.9	11.2	20.7	22.2	36.6	46.2	46.2	49.3	49.3	47.8	46.2
90°	2.5	4.5	6.5	7.0	10.9	16.2	18.9	16.8	12.5	9.4	9.4
92.5°	10.0	26.8	43.7	47.9	67.4	93.3	106.2	93.1	66.8	47.1	45.3
95°	23.8	54.7	85.6	93.3	165.7	262.3	310.6	277.2	210.3	160.1	154.4
97.5°	41.2	68.5	95.7	102.5	223.3	384.3	464.8	443.7	401.3	369.6	358.8
100°	54.6	79.3	104.1	110.3	244.2	422.9	512.2	513.7	516.8	519.1	506.3
102.5°	66.0	89.1	112.2	118.0	253.8	435.0	525.6	552.5	606.3	646.7	635.7
105°	85.4	105.0	124.5	129.4	260.9	436.4	524.0	584.4	705.1	795.7	789.8
107.5°	105.3	123.5	141.6	146.2	262.3	416.9	494.2	578.4	746.8	873.1	874.5
110°	118.7	135.1	151.5	155.6	260.3	399.7	469.4	563.5	751.8	893.0	899.2



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	131.9	147.5	163.2	167.1	260.3	384.7	446.9	543.2	735.9	880.3	889.8
115°	151.7	166.1	180.6	184.2	262.7	367.5	419.8	512.6	698.2	837.4	850.5
117.5°	171.3	184.4	197.5	200.8	267.6	356.7	401.2	484.9	652.4	778.0	792.6
120°	182.7	195.0	207.4	210.5	271.6	353.0	393.7	470.2	623.3	738.0	752.3
122.5°	193.9	206.4	218.8	221.9	277.3	351.1	388.0	456.9	594.8	698.1	712.1
125°	211.0	222.4	233.8	236.6	285.0	349.5	381.8	440.4	557.4	645.2	658.1
127.5°	224.9	236.4	247.9	250.8	292.7	348.7	376.6	426.9	527.3	602.7	613.6
130°	232.4	244.8	257.1	260.2	298.3	349.1	374.6	419.3	508.9	576.0	586.0
132.5°	240.1	252.5	264.8	267.9	302.9	349.5	372.9	413.0	493.0	553.1	562.1
135°	251.5	262.7	274.0	276.8	307.9	349.2	369.9	403.5	470.6	520.8	528.6
137.5°	263.1	274.3	285.4	288.2	315.3	351.3	369.4	397.7	454.4	497.0	503.3
140°	272.9	283.1	293.3	295.9	319.8	351.7	367.7	392.2	441.2	477.9	483.8
142.5°	280.2	289.7	299.2	301.6	323.6	353.0	367.7	389.2	432.2	464.5	469.6
145°	291.7	300.0	308.3	310.4	328.7	353.0	365.2	382.8	418.0	444.4	448.2
147.5°	303.1	311.2	319.3	321.3	335.9	355.4	365.2	379.0	406.7	427.5	430.7
150°	310.6	317.9	325.1	327.0	339.7	356.7	365.2	376.9	400.3	417.8	420.4
152.5°	318.2	323.8	329.3	330.7	342.2	357.5	365.2	375.2	395.2	410.1	412.0
155°	329.7	333.8	337.8	338.9	347.6	359.3	365.2	373.2	389.1	400.9	402.2
157.5°	338.1	342.1	346.1	347.1	353.1	361.2	365.2	371.4	383.8	393.0	393.9
160°	343.8	346.9	349.9	350.8	355.6	362.0	365.2	370.5	381.1	389.1	389.5
162.5°	349.5	351.9	354.2	354.8	358.2	362.9	365.2	369.7	378.6	385.3	385.8
165°	355.7	357.8	359.9	360.5	362.1	364.2	365.2	368.4	374.8	379.6	380.1
167.5°	361.4	362.4	363.4	363.7	365.0	366.8	367.7	369.8	374.0	377.1	377.3
170°	365.2	366.2	367.2	367.5	367.5	367.6	367.7	369.8	374.0	377.1	377.1
172.5°	367.2	367.5	367.6	367.7	367.7	367.7	367.7	369.3	372.6	375.1	374.9
175°	369.9	369.9	369.9	369.9	369.2	368.2	367.7	368.7	370.8	372.4	372.4
177.5°	369.9	369.9	369.9	369.9	369.4	368.6	368.2	369.0	370.7	371.9	371.6
180°	369.9	369.9	369.9	369.9	369.9	369.9	369.9	369.9	369.9	369.9	369.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	494.9	494.9
2.5°	528.4	525.2
5°	679.5	682.7
7.5°	915.0	913.5
10°	1137.9	1152.1
12.5°	1300.1	1303.3
15°	1398.8	1405.2
17.5°	1437.0	1438.6
20°	1438.6	1435.4
22.5°	1421.1	1417.9
25°	1400.4	1398.8
27.5°	1381.3	1382.9
30°	1373.4	1378.1
32.5°	1373.4	1381.3
35°	1376.6	1384.5
37.5°	1375.0	1384.5
40°	1368.6	1379.7
42.5°	1351.0	1359.1
45°	1324.1	1333.5
47.5°	1289.1	1295.4
50°	1244.5	1250.8
52.5°	1188.8	1190.4
55°	1122.0	1128.3
57.5°	1050.3	1051.9
60°	970.7	975.5
62.5°	886.4	886.4
65°	797.3	800.4
67.5°	705.0	712.9
70°	611.1	612.7
72.5°	518.8	518.8
75°	423.3	424.9
77.5°	332.6	332.6
80°	246.7	248.3
82.5°	170.3	173.4
85°	106.6	106.6
87.5°	49.3	44.6
90°	9.4	9.4
92.5°	37.7	30.3
95°	131.7	109.0
97.5°	315.6	272.4
100°	454.7	403.2
102.5°	591.6	547.4
105°	766.1	742.3
107.5°	880.2	886.0
110°	923.9	948.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	927.8	965.7
115°	903.1	955.8
117.5°	851.0	909.4
120°	808.9	865.7
122.5°	768.1	824.0
125°	709.6	761.2
127.5°	657.1	700.6
130°	626.2	666.3
132.5°	598.1	634.0
135°	559.6	590.6
137.5°	528.8	554.2
140°	507.5	531.3
142.5°	490.0	510.4
145°	463.7	479.2
147.5°	443.5	456.3
150°	430.8	441.2
152.5°	419.9	427.8
155°	407.4	412.6
157.5°	397.6	401.2
160°	391.6	393.7
162.5°	387.8	389.8
165°	382.2	384.3
167.5°	378.2	379.1
170°	377.1	377.1
172.5°	374.1	373.4
175°	372.4	372.4
177.5°	370.8	369.9
180°	369.9	369.9



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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	5.87	6.90	6.72	7.77	8.86	19.04	20.06	19.88	20.93	22.03
	3H	6.59	7.51	7.44	8.39	9.51	20.88	21.81	21.74	22.69	23.81
	4H	6.90	7.77	7.77	8.66	9.79	21.53	22.41	22.40	23.29	24.42
	6H	7.15	7.96	8.04	8.86	10.00	21.97	22.77	22.85	23.67	24.81
	8H	7.23	8.00	8.12	8.91	10.05	22.09	22.86	22.98	23.77	24.92
	12H	7.25	7.98	8.15	8.89	10.06	22.16	22.90	23.06	23.80	24.97
4H	2H	13.10	13.97	13.97	14.86	15.99	19.33	20.20	20.21	21.09	22.22
	3H	14.68	15.41	15.57	16.33	17.48	21.39	22.12	22.27	23.04	24.18
	4H	14.78	15.45	15.68	16.37	17.54	22.16	22.83	23.06	23.74	24.91
	6H	14.80	15.38	15.72	16.32	17.49	22.70	23.28	23.62	24.22	25.39
	8H	14.79	15.33	15.70	16.26	17.45	22.87	23.41	23.78	24.34	25.53
	12H	14.75	15.24	15.69	16.19	17.38	22.97	23.46	23.90	24.41	25.60
8H	4H	16.24	16.78	17.16	17.71	18.90	22.23	22.77	23.15	23.71	24.89
	6H	16.49	16.94	17.43	17.91	19.10	22.86	23.32	23.81	24.29	25.48
	8H	16.51	16.91	17.46	17.87	19.08	23.08	23.48	24.04	24.45	25.65
	12H	16.49	16.84	17.44	17.80	19.05	23.23	23.59	24.19	24.54	25.80
12H	4H	16.39	16.88	17.33	17.83	19.02	22.19	22.68	23.13	23.63	24.83
	6H	16.75	17.15	17.70	18.11	19.32	22.85	23.25	23.80	24.22	25.42
	8H	16.83	17.18	17.78	18.14	19.39	23.09	23.44	24.04	24.40	25.65