

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: P938460

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-5000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938460  
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

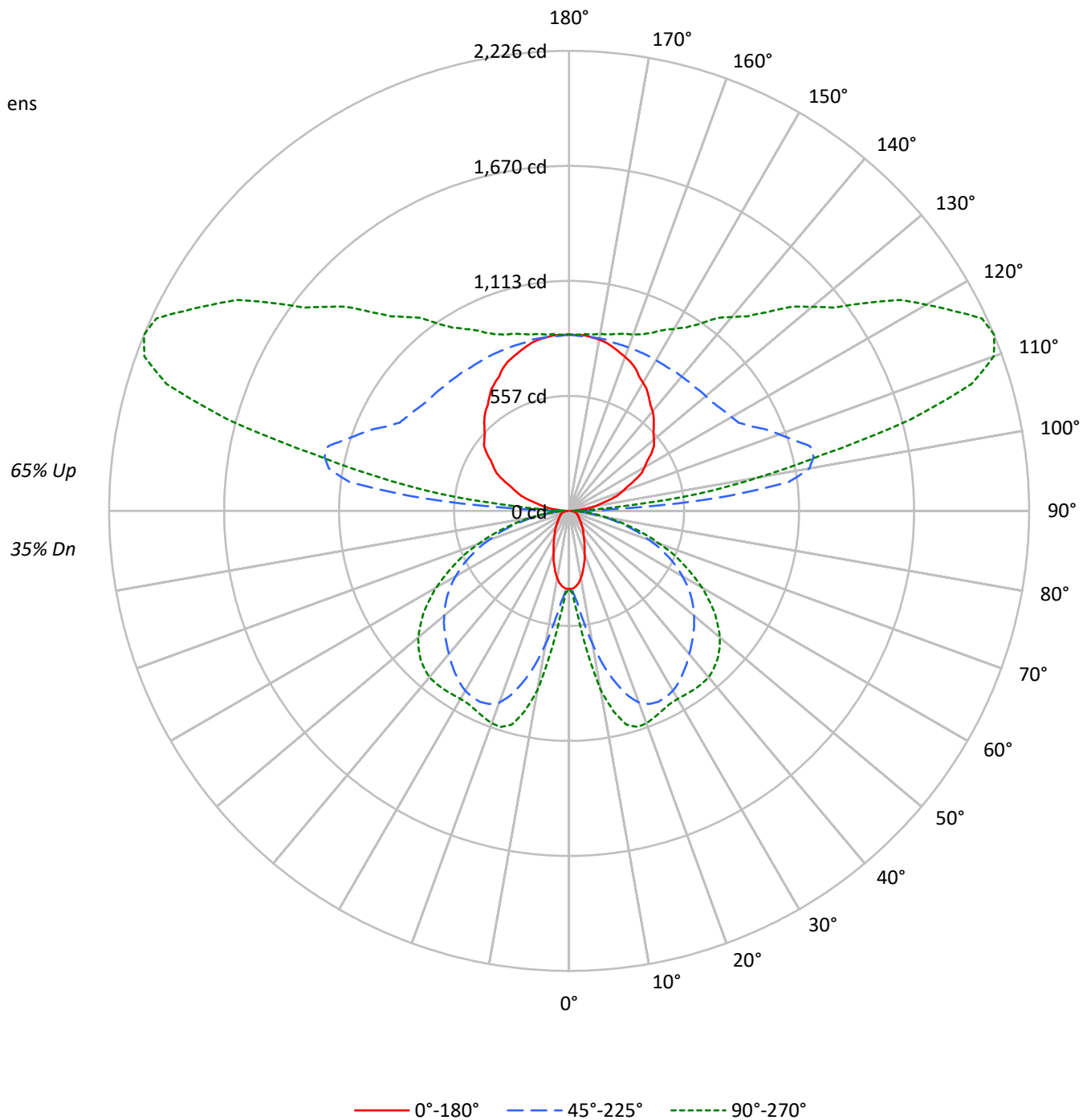
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8449.3 lumens  
Efficiency: N/A  
Efficacy: 116.7 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): 72.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

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

	0°	45°	90°
0°	3499	3499	3499
5°	3415	4041	4704
10°	3094	5887	7798
15°	2626	7686	9416
20°	2135	8900	9596
25°	1779	9305	9402
30°	1499	9358	9383
35°	1323	9195	9627
40°	1151	8986	9877
45°	1040	8830	9916
50°	952	8688	9752
55°	909	8484	9319
60°	927	8101	8636
65°	961	7522	7698
70°	1015	6547	6503
75°	1115	5325	5076
80°	1189	3680	3419
85°	1002	1943	1750

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9916 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	0.6
10°-20°	216.2	2.6
20°-30°	378.2	4.5
30°-40°	486.8	5.8
40°-50°	543.8	6.4
50°-60°	520.8	6.2
60°-70°	412.7	4.9
70°-80°	242.7	2.9
80°-90°	70.7	0.8
90°-100°	415.7	4.9
100°-110°	1093.0	12.9
110°-120°	1133.3	13.4
120°-130°	909.0	10.8
130°-140°	713.2	8.4
140°-150°	547.5	6.5
150°-160°	394.3	4.7
160°-170°	241.2	2.9
170°-180°	81.5	1.0
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0°-30°	643.1	7.6
0°-40°	1130.0	13.4
0°-60°	2194.5	26.0
0°-90°	2920.6	34.6
90°-120°	2642.0	31.3
90°-150°	4811.7	56.9
90°-180°	5529.0	65.4
0°-180°	8449.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	377	377	377	377	377	
5°	367	394	444	502	520	34
15°	275	508	856	1038	1071	77
25°	176	576	1020	1065	1066	81
35°	119	550	960	1015	1055	74
45°	81	439	849	972	1016	63
55°	58	279	720	837	860	53
65°	46	148	535	602	610	46
75°	34	91	294	323	324	36
85°	12	28	73	80	81	13
90°	6	16	44	22	22	6
95°	55	215	716	369	251	61
105°	197	298	1208	1834	1711	209
115°	350	425	968	1931	2204	345
125°	487	546	880	1488	1755	432
135°	580	638	853	1201	1362	449
145°	673	715	842	1024	1105	421
155°	760	781	842	924	951	349
165°	820	831	842	875	886	231
175°	853	853	848	859	859	81
180°	853	853	853	853	853	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	377.1	377.1	377.1	377.1	377.1	377.1	377.1	377.1	377.1	377.1	377.1
2.5°	377.1	377.1	379.6	380.8	383.1	384.4	386.8	389.2	396.5	397.7	400.1
5°	367.4	372.3	388.0	394.1	411.0	434.1	443.8	459.6	492.3	502.0	508.0
7.5°	352.9	363.8	402.6	412.3	454.7	515.4	540.8	574.8	626.9	652.4	672.9
10°	329.8	352.9	422.0	445.0	514.1	606.3	653.6	700.8	779.7	814.8	828.2
12.5°	304.4	341.9	442.6	474.1	573.6	708.2	765.2	817.3	907.0	954.3	961.6
15°	275.2	326.1	462.0	508.0	636.6	793.1	856.1	920.4	1004.1	1038.0	1046.4
17.5°	249.8	314.0	480.1	528.7	685.2	869.4	933.7	987.1	1055.0	1078.0	1084.1
20°	218.2	294.7	492.3	555.4	736.1	925.2	987.1	1028.3	1074.3	1088.9	1091.3
22.5°	195.2	274.0	499.6	565.0	769.9	959.2	1011.3	1044.1	1075.5	1080.4	1081.6
25°	175.8	251.0	498.4	575.9	799.1	979.7	1019.7	1044.1	1062.2	1064.6	1064.6
27.5°	157.7	225.6	493.5	578.4	820.9	984.6	1016.2	1033.1	1041.6	1046.4	1046.4
30°	141.9	201.3	481.4	573.6	830.6	979.7	1005.2	1013.7	1022.2	1029.5	1033.1
32.5°	129.8	178.2	463.3	563.8	831.8	967.6	985.8	990.7	1002.8	1019.7	1025.9
35°	118.8	155.2	442.6	550.5	824.5	948.3	960.4	965.2	989.5	1015.0	1023.4
37.5°	107.9	138.2	415.9	527.5	813.6	925.2	933.7	942.2	979.7	1010.1	1019.7
40°	97.0	123.7	384.4	502.0	796.7	897.3	904.6	918.0	967.6	1002.8	1012.5
42.5°	88.6	111.6	350.5	475.4	774.8	865.8	876.7	896.1	953.1	990.7	1001.6
45°	81.2	99.4	314.0	438.9	746.9	833.1	848.8	875.5	936.1	972.5	982.2
47.5°	74.0	90.9	276.5	401.4	716.6	800.3	820.9	851.3	913.1	948.3	956.7
50°	67.9	82.5	238.9	361.4	683.9	765.2	789.4	820.9	884.0	916.7	927.6
52.5°	63.0	75.2	203.7	321.4	646.3	728.7	756.6	789.4	848.8	880.3	887.6
55°	58.2	69.1	173.4	278.9	607.5	689.9	720.3	751.8	810.0	836.7	841.5
57.5°	55.8	64.2	147.9	238.9	566.3	646.3	680.3	709.4	763.9	784.5	789.4
60°	52.1	60.7	128.6	204.9	521.4	605.0	634.2	663.3	709.4	726.4	729.9
62.5°	48.5	58.2	114.0	172.2	475.4	556.6	585.7	612.4	651.2	663.3	668.2
65°	46.1	55.8	103.1	147.9	428.0	505.6	534.7	557.8	589.3	601.5	603.8
67.5°	43.7	53.3	94.6	127.3	380.8	454.7	476.6	498.4	522.6	534.7	535.9
70°	40.0	50.9	87.3	112.8	332.2	396.5	414.7	437.7	457.1	463.3	466.8
72.5°	37.6	47.3	82.5	101.9	282.6	340.7	357.7	371.0	388.0	394.1	394.1
75°	34.0	42.4	77.6	90.9	231.6	278.9	293.5	306.8	320.1	322.6	318.9
77.5°	30.3	37.6	66.7	76.4	180.7	220.7	232.8	240.1	251.0	253.5	254.7
80°	25.4	32.8	52.1	59.4	131.0	162.5	171.0	177.0	186.8	186.8	189.1
82.5°	19.4	25.4	37.6	42.4	88.6	111.6	118.8	122.5	128.6	128.6	128.6
85°	12.1	15.8	24.2	27.9	53.3	67.9	72.8	74.0	78.8	80.0	80.0
87.5°	6.1	8.4	15.8	17.0	27.9	35.1	35.1	37.6	37.6	36.3	35.1
90°	5.7	10.3	14.9	16.1	25.2	37.4	43.5	38.6	29.0	21.7	21.7
92.5°	22.9	61.8	100.8	110.5	155.3	215.0	244.9	214.6	154.2	108.7	104.4
95°	55.0	126.2	197.4	215.2	382.1	604.8	716.1	639.0	484.8	369.2	356.1
97.5°	95.0	157.8	220.7	236.4	514.7	885.9	1071.5	1022.8	925.3	852.3	827.3
100°	125.9	182.9	239.9	254.1	563.0	974.9	1180.8	1184.4	1191.5	1196.9	1167.1
102.5°	152.2	205.5	258.6	271.9	585.2	1002.9	1211.7	1273.8	1397.9	1491.1	1465.7
105°	196.9	242.0	287.0	298.3	601.5	1006.0	1208.2	1347.4	1625.7	1834.5	1820.8
107.5°	242.7	284.7	326.7	337.2	604.7	961.3	1139.6	1333.7	1721.9	2013.1	2016.4
110°	273.6	311.5	349.5	358.9	600.1	921.5	1082.3	1299.4	1733.3	2058.8	2073.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	303.9	340.1	376.3	385.2	600.3	887.0	1030.3	1252.4	1696.5	2029.7	2051.5
115°	349.7	383.0	416.4	424.7	605.8	847.2	967.9	1181.8	1609.7	1930.6	1961.0
117.5°	395.0	425.3	455.5	463.1	617.1	822.3	924.9	1118.0	1504.2	1793.8	1827.5
120°	421.2	449.8	478.2	485.4	626.1	813.9	907.8	1084.2	1437.0	1701.7	1734.4
122.5°	447.0	475.7	504.5	511.7	639.4	809.6	894.7	1053.5	1371.2	1609.5	1641.8
125°	486.6	512.7	539.0	545.5	657.1	805.9	880.3	1015.2	1285.1	1487.6	1517.3
127.5°	518.6	545.0	571.4	578.1	674.8	803.8	868.3	984.2	1215.9	1389.8	1414.8
130°	535.8	564.2	592.6	599.8	687.8	805.1	863.7	966.9	1173.2	1327.9	1351.0
132.5°	553.5	582.0	610.5	617.6	698.3	805.9	859.7	952.0	1136.7	1275.2	1296.0
135°	579.8	605.8	631.6	638.2	709.7	805.1	852.8	930.2	1084.8	1200.8	1218.7
137.5°	606.7	632.4	658.1	664.5	726.9	810.1	851.7	917.1	1047.8	1145.9	1160.5
140°	629.1	652.8	676.4	682.3	737.5	811.0	847.7	904.1	1017.1	1101.8	1115.5
142.5°	646.2	668.1	689.9	695.4	746.2	813.8	847.7	897.3	996.5	1071.0	1082.7
145°	672.6	691.7	710.7	715.4	757.6	813.9	842.0	882.5	963.7	1024.5	1033.4
147.5°	698.8	717.5	736.0	740.7	774.4	819.5	842.0	873.9	937.7	985.6	992.9
150°	716.1	732.9	749.6	753.8	783.2	822.3	842.0	869.0	922.8	963.3	969.3
152.5°	733.8	746.5	759.2	762.4	788.9	824.3	842.0	865.0	911.1	945.6	950.1
155°	760.1	769.6	778.9	781.3	801.5	828.5	842.0	860.3	897.0	924.4	927.4
157.5°	779.6	788.8	797.8	800.1	814.1	832.7	842.0	856.2	884.7	906.0	908.2
160°	792.7	799.9	807.0	808.8	819.9	834.6	842.0	854.2	878.6	896.9	898.1
162.5°	805.9	811.2	816.6	817.9	825.9	836.7	842.0	852.3	872.9	888.3	889.4
165°	820.2	825.0	829.9	831.1	834.7	839.6	842.0	849.3	864.1	875.1	876.3
167.5°	833.4	835.7	837.9	838.5	841.5	845.7	847.7	852.5	862.2	869.4	870.0
170°	842.0	844.3	846.6	847.1	847.3	847.6	847.7	852.5	862.2	869.4	869.4
172.5°	846.6	847.0	847.6	847.7	847.7	847.7	847.7	851.5	859.1	864.8	864.4
175°	852.8	852.8	852.8	852.8	851.1	848.8	847.7	850.1	854.9	858.6	858.6
177.5°	852.8	852.8	852.8	852.8	851.5	849.8	848.9	850.8	854.6	857.4	856.9
180°	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8	852.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	377.1	377.1
2.5°	402.6	400.1
5°	517.8	520.2
7.5°	697.3	696.0
10°	867.0	877.9
12.5°	990.7	993.1
15°	1065.9	1070.7
17.5°	1095.0	1096.2
20°	1096.2	1093.7
22.5°	1082.9	1080.4
25°	1067.1	1065.9
27.5°	1052.5	1053.7
30°	1046.4	1050.1
32.5°	1046.4	1052.5
35°	1048.9	1055.0
37.5°	1047.6	1055.0
40°	1042.9	1051.3
42.5°	1029.5	1035.5
45°	1008.9	1016.2
47.5°	982.2	987.1
50°	948.3	953.1
52.5°	905.8	907.0
55°	854.8	859.7
57.5°	800.3	801.5
60°	739.7	743.3
62.5°	675.4	675.4
65°	607.5	609.9
67.5°	537.2	543.3
70°	465.6	466.8
72.5°	395.3	395.3
75°	322.6	323.8
77.5°	253.5	253.5
80°	187.9	189.1
82.5°	129.8	132.1
85°	81.2	81.2
87.5°	37.6	34.0
90°	21.7	21.7
92.5°	87.1	69.8
95°	303.7	251.3
97.5°	727.6	627.9
100°	1048.4	929.5
102.5°	1363.9	1262.1
105°	1766.1	1711.4
107.5°	2029.6	2042.8
110°	2130.1	2187.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2139.1	2226.5
115°	2082.3	2203.7
117.5°	1962.0	2096.6
120°	1865.1	1995.9
122.5°	1770.8	1899.7
125°	1636.1	1754.9
127.5°	1515.0	1615.2
130°	1443.6	1536.2
132.5°	1378.8	1461.8
135°	1290.2	1361.7
137.5°	1219.1	1277.5
140°	1170.2	1224.8
142.5°	1129.8	1176.8
145°	1069.1	1104.7
147.5°	1022.5	1052.0
150°	993.2	1017.1
152.5°	968.2	986.2
155°	939.4	951.3
157.5°	916.5	924.9
160°	902.9	907.8
162.5°	894.0	898.6
165°	881.2	886.0
167.5°	872.0	874.0
170°	869.4	869.4
172.5°	862.6	860.9
175°	858.6	858.6
177.5°	854.8	852.8
180°	852.8	852.8



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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	3.73	4.50	4.81	5.57	7.05	16.87	17.64	17.95	18.71	20.19
	3H	4.43	5.11	5.51	6.20	7.69	18.69	19.37	19.77	20.46	21.95
	4H	4.73	5.37	5.82	6.46	7.96	19.32	19.97	20.41	21.06	22.56
	6H	4.97	5.57	6.07	6.66	8.17	19.73	20.33	20.84	21.42	22.93
	8H	5.04	5.61	6.14	6.71	8.22	19.84	20.41	20.95	21.52	23.03
	12H	5.05	5.59	6.16	6.69	8.22	19.90	20.44	21.01	21.54	23.07
4H	2H	10.91	11.56	12.01	12.65	14.15	17.14	17.79	18.24	18.87	20.37
	3H	12.47	13.02	13.58	14.13	15.64	19.16	19.70	20.27	20.82	22.33
	4H	12.56	13.06	13.68	14.17	15.70	19.91	20.41	21.02	21.51	23.05
	6H	12.57	13.00	13.69	14.13	15.65	20.43	20.86	21.55	21.99	23.51
	8H	12.54	12.94	13.66	14.06	15.60	20.58	20.98	21.70	22.10	23.64
	12H	12.50	12.86	13.63	13.99	15.54	20.66	21.03	21.80	22.16	23.70
8H	4H	13.99	14.39	15.11	15.51	17.05	19.96	20.36	21.08	21.48	23.02
	6H	14.23	14.56	15.37	15.72	17.26	20.58	20.91	21.72	22.07	23.60
	8H	14.24	14.54	15.39	15.68	17.23	20.79	21.08	21.93	22.22	23.77
	12H	14.21	14.46	15.36	15.60	17.19	20.92	21.17	22.07	22.31	23.90
12H	4H	14.13	14.49	15.26	15.62	17.17	19.91	20.27	21.05	21.41	22.95
	6H	14.48	14.77	15.63	15.91	17.47	20.56	20.85	21.70	21.99	23.55
	8H	14.55	14.80	15.70	15.94	17.53	20.77	21.03	21.93	22.17	23.76