

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: P937419

Luminaire Tested: SQ4-FB-100U-050D-840-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937419
REPORT IS A COMBINATION OF REPORTS P933573 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

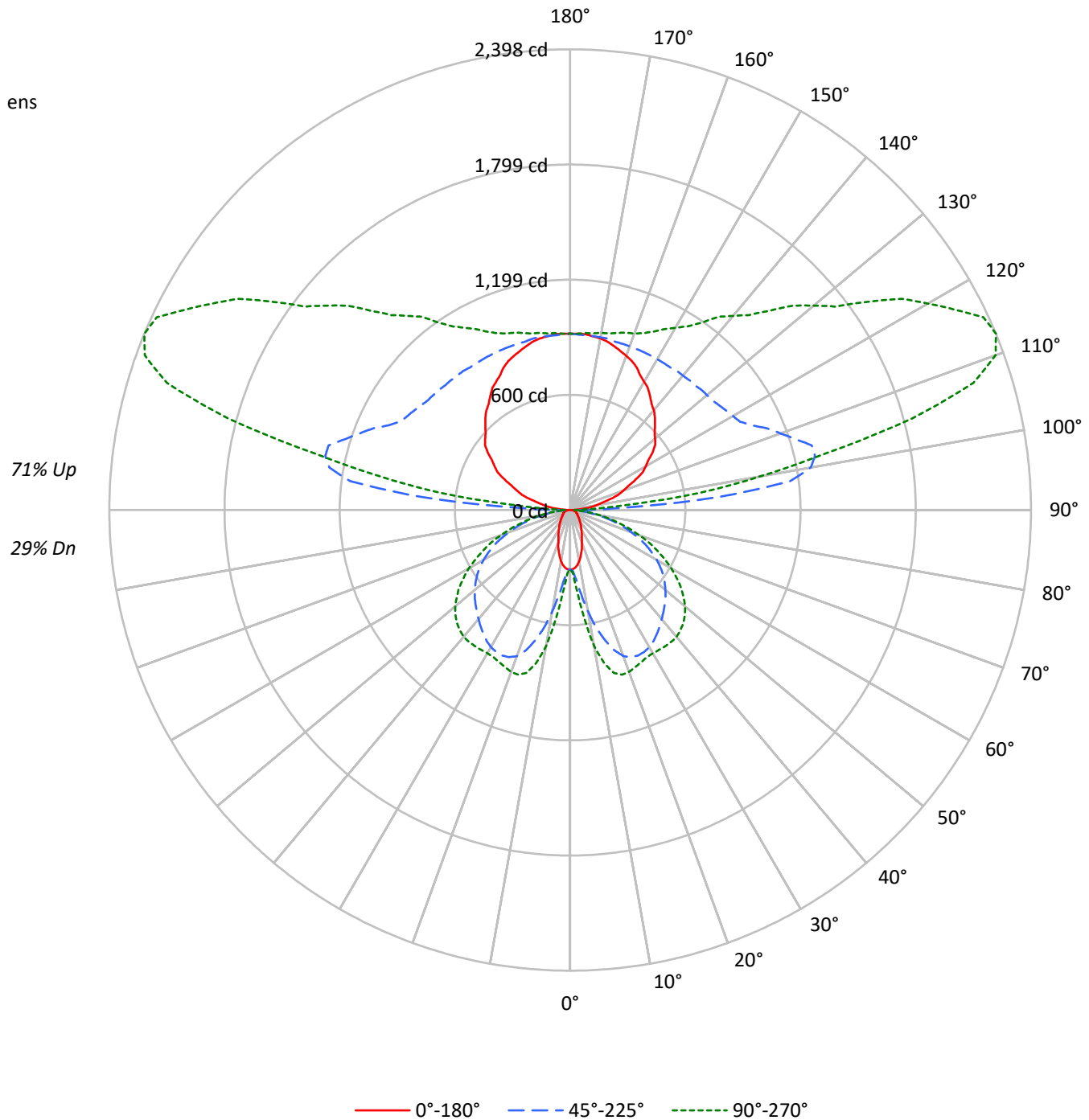
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8348.6 lumens
Efficiency: N/A
Efficacy: 135.1 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-Indirect

Input Watts (W): 61.8
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

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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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18	13			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9	7			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8	6			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1912	1912	1912
5°	1867	2209	2570
10°	1693	3220	4261
15°	1438	4205	5145
20°	1171	4872	5243
25°	976	5097	5137
30°	823	5128	5127
35°	727	5041	5259
40°	633	4930	5396
45°	573	4847	5418
50°	525	4772	5328
55°	502	4664	5092
60°	515	4458	4719
65°	533	4144	4206
70°	567	3611	3554
75°	628	2942	2774
80°	677	2037	1868
85°	596	1081	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.0	0.5
10°-20°	177.2	2.1
20°-30°	309.9	3.7
30°-40°	399.0	4.8
40°-50°	445.6	5.3
50°-60°	426.8	5.1
60°-70°	338.3	4.1
70°-80°	198.9	2.4
80°-90°	58.8	0.7
90°-100°	447.7	5.4
100°-110°	1177.1	14.1
110°-120°	1220.5	14.6
120°-130°	979.0	11.7
130°-140°	768.2	9.2
140°-150°	589.6	7.1
150°-160°	424.6	5.1
160°-170°	259.8	3.1
170°-180°	87.8	1.1
0°-30°	527.1	6.3
0°-40°	926.1	11.1
0°-60°	1798.5	21.5
0°-90°	2394.4	28.7
90°-120°	2845.2	34.1
90°-150°	5182.0	62.1
90°-180°	5954.0	71.3
0°-180°	8348.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	301	323	364	411	426	28
15°	226	416	702	851	878	63
25°	144	472	836	872	874	66
35°	97	451	787	832	865	61
45°	67	360	696	797	833	52
55°	48	228	590	686	705	43
65°	38	121	438	493	500	37
75°	28	74	240	264	265	29
85°	10	23	60	66	67	11
90°	6	17	47	23	23	6
95°	59	232	771	398	271	66
105°	212	321	1301	1976	1843	225
115°	377	457	1042	2079	2373	372
125°	524	588	948	1602	1890	465
135°	624	687	918	1293	1466	483
145°	724	770	907	1103	1190	454
155°	819	841	907	996	1024	376
165°	883	895	907	943	954	249
175°	918	918	913	925	925	87
180°	918	918	918	918	918	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0	309.0
2.5°	309.0	309.0	311.0	312.0	314.1	315.1	317.0	319.0	325.0	325.9	327.9
5°	301.1	305.1	318.0	323.0	336.9	355.8	363.7	376.6	403.5	411.4	416.4
7.5°	289.2	298.2	329.9	337.9	372.7	422.4	443.2	471.1	513.8	534.7	551.6
10°	270.3	289.2	345.8	364.8	421.4	496.9	535.7	574.4	639.0	667.8	678.8
12.5°	249.5	280.3	362.7	388.6	470.1	580.4	627.1	669.9	743.4	782.1	788.0
15°	225.6	267.4	378.6	416.4	521.8	649.9	701.6	754.3	822.9	850.7	857.7
17.5°	204.7	257.4	393.5	433.3	561.5	712.5	765.2	809.0	864.6	883.5	888.4
20°	178.9	241.5	403.5	455.2	603.3	758.3	809.0	842.8	880.5	892.5	894.4
22.5°	160.0	224.6	409.4	463.1	631.0	786.1	828.8	855.6	881.5	885.4	886.4
25°	144.1	205.7	408.4	472.1	654.9	802.9	835.7	855.6	870.5	872.5	872.5
27.5°	129.2	184.9	404.5	474.0	672.8	807.0	832.8	846.7	853.6	857.7	857.7
30°	116.3	165.0	394.5	470.1	680.7	802.9	823.9	830.8	837.7	843.8	846.7
32.5°	106.3	146.1	379.6	462.1	681.7	793.1	808.0	811.9	821.8	835.7	840.8
35°	97.4	127.3	362.7	451.2	675.8	777.2	787.0	791.1	811.0	831.8	838.7
37.5°	88.4	113.3	340.9	432.3	666.8	758.3	765.2	772.2	802.9	827.8	835.7
40°	79.5	101.4	315.1	411.4	653.0	735.4	741.4	752.3	793.1	821.8	829.8
42.5°	72.5	91.4	287.2	389.6	635.0	709.6	718.5	734.4	781.1	811.9	820.8
45°	66.6	81.5	257.4	359.7	612.2	682.7	695.7	717.5	767.2	797.0	804.9
47.5°	60.7	74.5	226.5	328.9	587.4	655.9	672.8	697.6	748.3	777.2	784.1
50°	55.6	67.6	195.8	296.1	560.5	627.1	646.9	672.8	724.5	751.3	760.3
52.5°	51.7	61.7	167.0	263.4	529.7	597.2	620.2	646.9	695.7	721.5	727.5
55°	47.7	56.6	142.1	228.5	497.9	565.4	590.3	616.1	663.8	685.7	689.7
57.5°	45.7	52.7	121.2	195.8	464.1	529.7	557.5	581.3	626.1	643.0	646.9
60°	42.8	49.7	105.3	168.0	427.3	495.9	519.8	543.6	581.3	595.3	598.2
62.5°	39.7	47.7	93.5	141.1	389.6	456.2	480.0	501.9	533.6	543.6	547.5
65°	37.7	45.7	84.5	121.2	350.8	414.4	438.3	457.1	482.9	492.9	494.9
67.5°	35.8	43.8	77.6	104.3	312.0	372.7	390.6	408.4	428.3	438.3	439.3
70°	32.8	41.7	71.5	92.4	272.3	325.0	339.9	358.7	374.6	379.6	382.7
72.5°	30.8	38.7	67.6	83.5	231.6	279.2	293.1	304.1	318.0	323.0	323.0
75°	27.9	34.8	63.6	74.5	189.8	228.5	240.5	251.4	262.3	264.4	261.3
77.5°	24.8	30.8	54.6	62.6	148.1	180.9	190.8	196.8	205.7	207.7	208.7
80°	20.8	26.9	42.8	48.7	107.3	133.2	140.1	145.1	153.0	153.0	155.0
82.5°	15.9	20.8	30.8	34.8	72.5	91.4	97.4	100.4	105.3	105.3	105.3
85°	10.0	12.9	19.9	22.8	43.8	55.6	59.7	60.7	64.6	65.6	65.6
87.5°	4.9	6.9	12.9	13.9	22.8	28.8	28.8	30.8	30.8	29.8	28.8
90°	6.1	11.1	16.0	17.3	27.2	40.3	46.8	41.6	31.2	23.4	23.4
92.5°	24.7	66.6	108.5	119.0	167.3	231.6	263.8	231.2	166.0	117.1	112.4
95°	59.2	135.8	212.6	231.8	411.6	651.3	771.1	688.1	522.1	397.6	383.4
97.5°	102.4	170.0	237.7	254.6	554.4	954.1	1154.0	1101.5	996.6	917.9	891.0
100°	135.7	197.0	258.4	273.7	606.3	1049.8	1271.7	1275.5	1283.2	1288.9	1256.9
102.5°	164.0	221.3	278.5	292.8	630.2	1080.1	1305.0	1371.8	1505.5	1605.8	1578.4
105°	212.0	260.5	309.0	321.2	647.9	1083.5	1301.3	1451.2	1750.8	1975.6	1960.9
107.5°	261.3	306.6	351.8	363.1	651.2	1035.2	1227.3	1436.4	1854.4	2168.0	2171.5
110°	294.6	335.4	376.3	386.5	646.3	992.5	1165.6	1399.3	1866.7	2217.3	2232.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	327.3	366.3	405.2	414.9	646.4	955.2	1109.5	1348.7	1827.1	2185.9	2209.4
115°	376.6	412.5	448.4	457.3	652.4	912.3	1042.3	1272.7	1733.6	2079.2	2111.9
117.5°	425.3	457.9	490.5	498.6	664.4	885.5	996.1	1204.1	1619.9	1931.8	1968.1
120°	453.7	484.4	515.0	522.8	674.4	876.6	977.6	1167.6	1547.6	1832.6	1867.8
122.5°	481.5	512.4	543.4	551.1	688.5	871.8	963.5	1134.6	1476.8	1733.3	1768.1
125°	523.9	552.2	580.4	587.5	707.7	868.0	948.1	1093.4	1384.1	1602.1	1634.2
127.5°	558.5	587.0	615.5	622.6	726.8	865.7	935.1	1059.9	1309.5	1496.7	1523.7
130°	577.0	607.7	638.3	646.1	740.8	867.1	930.2	1041.3	1263.5	1430.1	1455.0
132.5°	596.1	626.8	657.4	665.1	752.1	868.0	925.9	1025.3	1224.2	1373.4	1395.7
135°	624.4	652.4	680.3	687.4	764.4	867.1	918.4	1001.7	1168.3	1293.3	1312.6
137.5°	653.4	681.0	708.8	715.7	782.9	872.5	917.3	987.7	1128.5	1234.1	1249.8
140°	677.5	703.0	728.5	734.8	794.2	873.3	912.9	973.8	1095.4	1186.6	1201.3
142.5°	695.9	719.6	743.1	749.0	803.6	876.5	912.9	966.4	1073.2	1153.3	1165.9
145°	724.3	744.9	765.4	770.5	816.0	876.6	906.8	950.5	1037.9	1103.4	1113.0
147.5°	752.7	772.6	792.6	797.6	834.0	882.5	906.8	941.2	1009.9	1061.5	1069.4
150°	771.1	789.2	807.3	811.8	843.5	885.6	906.8	935.8	993.8	1037.4	1043.8
152.5°	790.3	804.0	817.7	821.1	849.7	887.7	906.8	931.6	981.2	1018.3	1023.2
155°	818.7	828.7	838.8	841.4	863.2	892.3	906.8	926.5	966.0	995.5	998.8
157.5°	839.6	849.5	859.3	861.7	876.8	896.8	906.8	922.1	952.8	975.8	978.1
160°	853.7	861.4	869.1	871.0	883.0	898.9	906.8	919.9	946.2	966.0	967.3
162.5°	868.0	873.7	879.4	880.9	889.5	901.1	906.8	917.9	940.1	956.7	957.9
165°	883.4	888.5	893.7	895.0	899.0	904.2	906.8	914.7	930.6	942.6	943.8
167.5°	897.5	900.0	902.4	903.0	906.3	910.7	912.9	918.1	928.5	936.3	936.9
170°	906.8	909.3	911.7	912.3	912.5	912.8	912.9	918.1	928.5	936.3	936.3
172.5°	911.7	912.2	912.8	912.9	912.9	912.9	912.9	917.1	925.3	931.4	930.9
175°	918.4	918.4	918.4	918.4	916.6	914.1	912.9	915.5	920.7	924.7	924.7
177.5°	918.4	918.4	918.4	918.4	917.1	915.2	914.2	916.3	920.3	923.4	922.8
180°	918.4	918.4	918.4	918.4	918.4	918.4	918.4	918.4	918.4	918.4	918.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	309.0	309.0
2.5°	329.9	327.9
5°	424.3	426.3
7.5°	571.5	570.5
10°	710.6	719.5
12.5°	811.9	813.9
15°	873.6	877.5
17.5°	897.4	898.4
20°	898.4	896.4
22.5°	887.4	885.4
25°	874.6	873.6
27.5°	862.6	863.6
30°	857.7	860.6
32.5°	857.7	862.6
35°	859.7	864.6
37.5°	858.7	864.6
40°	854.6	861.6
42.5°	843.8	848.7
45°	826.9	832.8
47.5°	804.9	809.0
50°	777.2	781.1
52.5°	742.4	743.4
55°	700.6	704.6
57.5°	655.9	656.9
60°	606.2	609.2
62.5°	553.6	553.6
65°	497.9	499.8
67.5°	440.3	445.2
70°	381.7	382.7
72.5°	324.0	324.0
75°	264.4	265.4
77.5°	207.7	207.7
80°	154.0	155.0
82.5°	106.3	108.3
85°	66.6	66.6
87.5°	30.8	27.9
90°	23.4	23.4
92.5°	93.8	75.2
95°	327.0	270.6
97.5°	783.6	676.2
100°	1129.0	1001.0
102.5°	1468.8	1359.2
105°	1902.0	1843.1
107.5°	2185.9	2200.1
110°	2294.0	2355.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2303.6	2397.9
115°	2242.6	2373.3
117.5°	2113.0	2258.0
120°	2008.7	2149.5
122.5°	1907.0	2046.0
125°	1762.0	1889.9
127.5°	1631.7	1739.6
130°	1554.8	1654.5
132.5°	1485.1	1574.4
135°	1389.5	1466.5
137.5°	1312.9	1375.9
140°	1260.3	1319.2
142.5°	1216.7	1267.4
145°	1151.4	1189.7
147.5°	1101.2	1133.0
150°	1069.6	1095.4
152.5°	1042.6	1062.1
155°	1011.6	1024.5
157.5°	987.1	996.1
160°	972.5	977.6
162.5°	962.8	967.7
165°	949.1	954.2
167.5°	939.1	941.3
170°	936.3	936.3
172.5°	929.0	927.1
175°	924.7	924.7
177.5°	920.6	918.4
180°	918.4	918.4



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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	0.88	1.59	1.99	2.71	4.25	14.04	14.76	15.16	15.87	17.42
	3H	1.57	2.22	2.70	3.34	4.90	15.87	16.51	16.99	17.63	19.19
	4H	1.86	2.48	3.00	3.60	5.16	16.50	17.11	17.64	18.24	19.80
	6H	2.11	2.67	3.25	3.79	5.37	16.92	17.48	18.06	18.61	20.19
	8H	2.17	2.71	3.32	3.85	5.42	17.03	17.57	18.18	18.71	20.28
	12H	2.18	2.69	3.33	3.83	5.42	17.10	17.60	18.24	18.74	20.33
4H	2H	8.07	8.68	9.21	9.80	11.37	14.30	14.91	15.44	16.03	17.60
	3H	9.62	10.13	10.77	11.28	12.86	16.33	16.84	17.47	17.99	19.57
	4H	9.71	10.18	10.86	11.32	12.92	17.08	17.56	18.24	18.69	20.29
	6H	9.71	10.12	10.87	11.28	12.86	17.61	18.01	18.77	19.17	20.76
	8H	9.69	10.06	10.84	11.21	12.82	17.77	18.14	18.92	19.30	20.90
	12H	9.64	9.98	10.81	11.14	12.75	17.85	18.19	19.02	19.35	20.97
8H	4H	11.14	11.52	12.30	12.67	14.27	17.13	17.51	18.29	18.66	20.27
	6H	11.37	11.69	12.55	12.88	14.48	17.75	18.06	18.93	19.26	20.86
	8H	11.39	11.66	12.57	12.83	14.46	17.97	18.24	19.15	19.41	21.03
	12H	11.35	11.59	12.54	12.76	14.42	18.10	18.34	19.29	19.51	21.16
12H	4H	11.27	11.62	12.45	12.78	14.39	17.08	17.42	18.25	18.58	20.19
	6H	11.63	11.90	12.81	13.07	14.70	17.73	18.00	18.91	19.18	20.80
	8H	11.69	11.93	12.88	13.10	14.76	17.95	18.19	19.14	19.36	21.02