

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: P937507

Luminaire Tested: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937507
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-B50-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

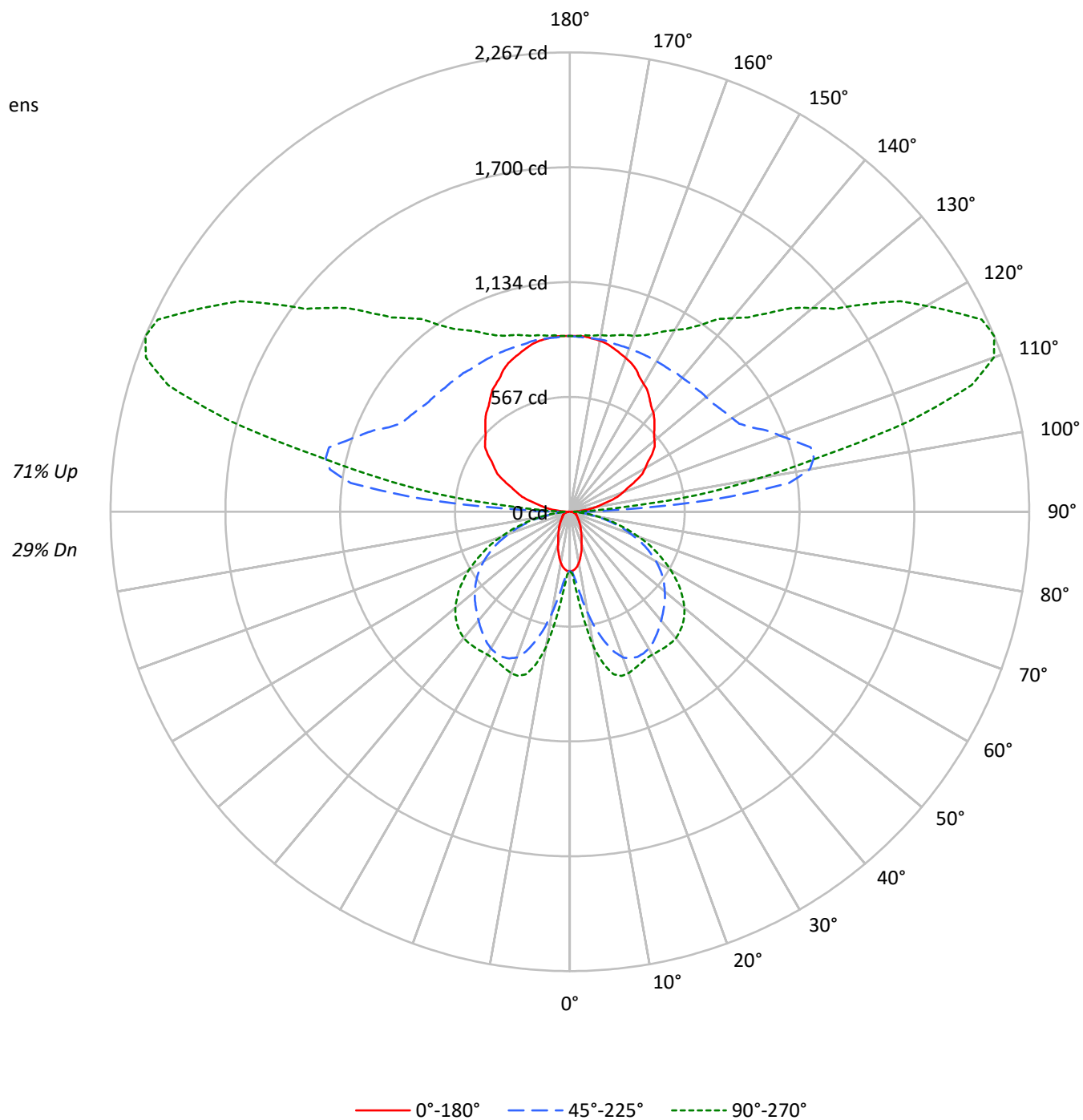
Lumens per Lamp: N/A
Luminaire Lumens: 7892.3 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (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: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	18
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	11	9
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1765	2088	2429
10°	1600	3044	4027
15°	1359	3975	4864
20°	1107	4606	4957
25°	923	4819	4856
30°	778	4848	4847
35°	688	4766	4972
40°	599	4660	5101
45°	542	4582	5122
50°	496	4512	5037
55°	475	4410	4814
60°	486	4214	4461
65°	505	3917	3976
70°	536	3414	3359
75°	592	2780	2622
80°	641	1925	1766
85°	560	1021	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5122 cd/sqm

TEST NUMBER: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	0.5
10°-20°	167.5	2.1
20°-30°	293.0	3.7
30°-40°	377.2	4.8
40°-50°	421.3	5.3
50°-60°	403.5	5.1
60°-70°	319.8	4.1
70°-80°	188.0	2.4
80°-90°	55.6	0.7
90°-100°	423.2	5.4
100°-110°	1112.7	14.1
110°-120°	1153.8	14.6
120°-130°	925.5	11.7
130°-140°	726.2	9.2
140°-150°	557.4	7.1
150°-160°	401.4	5.1
160°-170°	245.6	3.1
170°-180°	83.0	1.1
0°-30°	498.3	6.3
0°-40°	875.5	11.1
0°-60°	1700.2	21.5
0°-90°	2263.6	28.7
90°-120°	2689.7	34.1
90°-150°	4898.7	62.1
90°-180°	5629.0	71.3
0°-180°	7892.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	285	305	344	389	403	26
15°	213	394	663	804	830	59
25°	136	446	790	825	826	63
35°	92	427	744	786	817	57
45°	63	340	658	754	787	49
55°	45	216	558	648	666	41
65°	36	115	414	466	472	35
75°	26	70	227	250	251	28
85°	9	22	56	62	63	10
90°	6	16	44	22	22	5
95°	56	219	729	376	256	62
105°	200	304	1230	1868	1742	212
115°	356	432	985	1966	2244	352
125°	495	555	896	1515	1787	440
135°	590	650	868	1223	1386	457
145°	685	728	857	1043	1125	429
155°	774	795	857	941	968	356
165°	835	846	857	891	902	236
175°	868	868	863	874	874	82
180°	868	868	868	868	868	

TEST NUMBER: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2	292.2
2.5°	292.2	292.2	294.0	295.0	296.9	297.9	299.7	301.6	307.2	308.1	310.0
5°	284.7	288.4	300.7	305.3	318.5	336.3	343.8	356.0	381.4	388.9	393.7
7.5°	273.4	281.9	311.9	319.4	352.3	399.3	419.0	445.3	485.7	505.5	521.5
10°	255.5	273.4	326.9	344.8	398.4	469.7	506.4	543.0	604.1	631.3	641.7
12.5°	235.8	265.0	342.9	367.3	444.4	548.6	592.8	633.3	702.7	739.4	745.0
15°	213.2	252.7	357.9	393.7	493.2	614.4	663.2	713.1	777.9	804.2	810.8
17.5°	193.5	243.3	372.0	409.7	530.8	673.6	723.4	764.8	817.3	835.2	839.9
20°	169.1	228.3	381.4	430.3	570.3	716.8	764.8	796.7	832.4	843.7	845.6
22.5°	151.2	212.3	387.0	437.8	596.5	743.1	783.5	808.8	833.3	837.1	838.0
25°	136.3	194.5	386.1	446.3	619.1	759.1	790.1	808.8	822.9	824.8	824.8
27.5°	122.2	174.8	382.4	448.1	636.1	762.9	787.3	800.4	807.0	810.8	810.8
30°	109.9	156.0	372.9	444.4	643.5	759.1	778.9	785.4	791.9	797.6	800.4
32.5°	100.5	138.1	358.8	436.8	644.5	749.7	763.8	767.6	776.9	790.1	794.8
35°	92.1	120.3	342.9	426.6	638.9	734.7	744.0	747.9	766.6	786.3	792.9
37.5°	83.6	107.1	322.2	408.7	630.4	716.8	723.4	730.0	759.1	782.6	790.1
40°	75.2	95.8	297.9	388.9	617.3	695.2	700.9	711.1	749.7	776.9	784.5
42.5°	68.6	86.4	271.5	368.3	600.3	670.8	679.2	694.2	738.4	767.6	776.0
45°	63.0	77.1	243.3	340.1	578.7	645.4	657.6	678.3	725.3	753.5	760.9
47.5°	57.3	70.4	214.2	310.9	555.3	620.1	636.1	659.5	707.4	734.7	741.2
50°	52.6	63.9	185.1	279.9	529.9	592.8	611.6	636.1	684.9	710.2	718.7
52.5°	48.8	58.3	157.8	249.0	500.7	564.6	586.3	611.6	657.6	682.1	687.7
55°	45.1	53.5	134.3	216.0	470.6	534.5	558.1	582.4	627.6	648.2	652.0
57.5°	43.2	49.8	114.6	185.1	438.7	500.7	527.1	549.6	591.9	607.8	611.6
60°	40.4	47.0	99.6	158.8	404.0	468.8	491.4	513.9	549.6	562.7	565.5
62.5°	37.5	45.1	88.4	133.4	368.3	431.2	453.7	474.5	504.5	513.9	517.6
65°	35.7	43.2	79.9	114.6	331.7	391.7	414.3	432.2	456.5	466.0	467.8
67.5°	33.8	41.4	73.3	98.6	295.0	352.3	369.2	386.1	404.9	414.3	415.3
70°	31.0	39.4	67.6	87.3	257.4	307.2	321.3	339.1	354.2	358.8	361.7
72.5°	29.1	36.6	63.9	78.9	218.9	263.9	277.1	287.5	300.7	305.3	305.3
75°	26.3	32.9	60.1	70.4	179.4	216.0	227.3	237.7	248.0	249.9	247.0
77.5°	23.4	29.1	51.7	59.2	140.0	171.0	180.4	186.1	194.5	196.3	197.3
80°	19.7	25.4	40.4	46.0	101.4	125.9	132.4	137.2	144.7	144.7	146.5
82.5°	15.0	19.7	29.1	32.9	68.6	86.4	92.1	94.9	99.6	99.6	99.6
85°	9.4	12.2	18.8	21.6	41.4	52.6	56.4	57.3	61.1	62.0	62.0
87.5°	4.7	6.5	12.2	13.2	21.6	27.3	27.3	29.1	29.1	28.2	27.3
90°	5.8	10.5	15.1	16.3	25.7	38.1	44.3	39.3	29.5	22.1	22.1
92.5°	23.4	63.0	102.6	112.5	158.1	218.9	249.4	218.6	156.9	110.7	106.3
95°	55.9	128.4	201.0	219.1	389.1	615.7	729.0	650.5	493.5	375.8	362.5
97.5°	96.8	160.7	224.7	240.7	524.1	902.0	1090.9	1041.3	942.1	867.7	842.3
100°	128.2	186.2	244.2	258.7	573.2	992.5	1202.2	1205.8	1213.1	1218.5	1188.2
102.5°	155.0	209.2	263.3	276.8	595.8	1021.0	1233.6	1296.9	1423.2	1518.0	1492.2
105°	200.4	246.3	292.2	303.6	612.5	1024.3	1230.2	1371.9	1655.1	1867.6	1853.7
107.5°	247.0	289.8	332.6	343.2	615.6	978.6	1160.2	1357.8	1753.0	2049.5	2052.8
110°	278.5	317.1	355.8	365.4	610.9	938.3	1101.9	1322.8	1764.7	2096.1	2110.6

TEST NUMBER: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.4	346.2	383.0	392.2	611.1	903.0	1048.9	1275.0	1727.2	2066.4	2088.6
115°	356.0	389.9	423.8	432.3	616.7	862.5	985.4	1203.2	1638.9	1965.6	1996.5
117.5°	402.1	432.9	463.7	471.4	628.1	837.1	941.7	1138.3	1531.4	1826.3	1860.5
120°	428.9	457.9	486.9	494.2	637.5	828.6	924.2	1103.8	1463.0	1732.5	1765.7
122.5°	455.1	484.4	513.7	521.0	650.9	824.2	910.8	1072.6	1396.0	1638.6	1671.5
125°	495.3	522.0	548.7	555.4	669.0	820.5	896.3	1033.7	1308.4	1514.6	1544.8
127.5°	528.0	554.9	581.9	588.6	687.1	818.4	884.0	1002.0	1237.9	1414.9	1440.4
130°	545.5	574.5	603.5	610.7	700.3	819.7	879.4	984.3	1194.4	1352.0	1375.5
132.5°	563.5	592.5	621.5	628.8	711.0	820.5	875.3	969.3	1157.3	1298.4	1319.5
135°	590.3	616.7	643.2	649.8	722.6	819.7	868.2	947.0	1104.5	1222.6	1240.8
137.5°	617.7	643.8	670.1	676.6	740.1	824.8	867.1	933.7	1066.8	1166.7	1181.5
140°	640.4	664.5	688.6	694.6	750.7	825.6	863.0	920.6	1035.5	1121.7	1135.7
142.5°	657.9	680.2	702.5	708.1	759.7	828.6	863.0	913.5	1014.5	1090.3	1102.2
145°	684.7	704.1	723.6	728.4	771.4	828.6	857.2	898.5	981.2	1043.1	1052.2
147.5°	711.5	730.4	749.3	754.0	788.4	834.2	857.2	889.7	954.7	1003.5	1011.0
150°	729.0	746.1	763.2	767.5	797.4	837.2	857.2	884.7	939.5	980.7	986.8
152.5°	747.1	760.1	773.0	776.2	803.2	839.2	857.2	880.7	927.6	962.7	967.3
155°	773.9	783.4	793.0	795.4	816.0	843.5	857.2	875.9	913.2	941.1	944.2
157.5°	793.7	803.1	812.3	814.6	828.8	847.8	857.2	871.7	900.7	922.5	924.7
160°	807.1	814.4	821.6	823.4	834.7	849.8	857.2	869.6	894.5	913.2	914.4
162.5°	820.5	825.9	831.4	832.8	840.9	851.8	857.2	867.7	888.7	904.4	905.5
165°	835.1	839.9	844.9	846.1	849.8	854.8	857.2	864.7	879.7	891.0	892.3
167.5°	848.4	850.8	853.1	853.7	856.8	861.0	863.0	868.0	877.8	885.2	885.7
170°	857.2	859.6	861.9	862.5	862.6	862.9	863.0	868.0	877.8	885.2	885.2
172.5°	861.9	862.4	862.9	863.0	863.0	863.0	863.0	866.9	874.7	880.5	880.0
175°	868.2	868.2	868.2	868.2	866.5	864.1	863.0	865.4	870.4	874.1	874.1
177.5°	868.2	868.2	868.2	868.2	866.9	865.2	864.2	866.2	870.0	872.9	872.4
180°	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2

TEST NUMBER: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	292.2	292.2
2.5°	311.9	310.0
5°	401.2	403.0
7.5°	540.2	539.3
10°	671.7	680.1
12.5°	767.6	769.4
15°	825.8	829.6
17.5°	848.4	849.3
20°	849.3	847.4
22.5°	838.9	837.1
25°	826.8	825.8
27.5°	815.5	816.4
30°	810.8	813.6
32.5°	810.8	815.5
35°	812.7	817.3
37.5°	811.7	817.3
40°	807.9	814.5
42.5°	797.6	802.3
45°	781.7	787.3
47.5°	760.9	764.8
50°	734.7	738.4
52.5°	701.8	702.7
55°	662.3	666.1
57.5°	620.1	621.0
60°	573.1	575.9
62.5°	523.3	523.3
65°	470.6	472.5
67.5°	416.2	420.9
70°	360.8	361.7
72.5°	306.3	306.3
75°	249.9	250.9
77.5°	196.3	196.3
80°	145.6	146.5
82.5°	100.5	102.4
85°	63.0	63.0
87.5°	29.1	26.3
90°	22.1	22.1
92.5°	88.6	71.1
95°	309.2	255.8
97.5°	740.8	639.2
100°	1067.3	946.3
102.5°	1388.5	1284.9
105°	1798.0	1742.4
107.5°	2066.4	2079.8
110°	2168.7	2226.7



TEST NUMBER: P937507

CATALOG NUMBER: SQ4-FB-100U-050D-B50-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2177.7	2266.8
115°	2120.0	2243.6
117.5°	1997.5	2134.6
120°	1898.9	2032.0
122.5°	1802.8	1934.1
125°	1665.7	1786.6
127.5°	1542.5	1644.5
130°	1469.8	1564.1
132.5°	1403.9	1488.3
135°	1313.6	1386.3
137.5°	1241.1	1300.7
140°	1191.4	1247.1
142.5°	1150.2	1198.1
145°	1088.5	1124.7
147.5°	1041.0	1071.1
150°	1011.1	1035.5
152.5°	985.7	1004.0
155°	956.3	968.5
157.5°	933.2	941.7
160°	919.3	924.2
162.5°	910.2	914.9
165°	897.2	902.1
167.5°	887.8	889.8
170°	885.2	885.2
172.5°	878.2	876.5
175°	874.1	874.1
177.5°	870.3	868.2
180°	868.2	868.2

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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	0.68	1.40	1.80	2.51	4.06	13.85	14.57	14.96	15.68	17.22
	3H	1.38	2.02	2.50	3.14	4.70	15.67	16.31	16.80	17.44	19.00
	4H	1.67	2.28	2.80	3.40	4.97	16.31	16.92	17.44	18.04	19.61
	6H	1.91	2.47	3.05	3.60	5.18	16.73	17.29	17.87	18.41	19.99
	8H	1.97	2.51	3.12	3.65	5.22	16.84	17.38	17.98	18.52	20.09
	12H	1.99	2.50	3.14	3.63	5.22	16.90	17.41	18.05	18.54	20.14
4H	2H	7.87	8.48	9.01	9.61	11.17	14.11	14.72	15.25	15.84	17.40
	3H	9.43	9.94	10.57	11.09	12.66	16.13	16.64	17.28	17.79	19.37
	4H	9.52	9.99	10.67	11.12	12.72	16.89	17.36	18.04	18.50	20.09
	6H	9.52	9.92	10.67	11.08	12.67	17.42	17.82	18.57	18.98	20.57
	8H	9.49	9.87	10.65	11.02	12.62	17.57	17.95	18.73	19.10	20.70
	12H	9.44	9.78	10.61	10.94	12.55	17.65	18.00	18.83	19.16	20.77
8H	4H	10.94	11.32	12.10	12.47	14.08	16.94	17.31	18.09	18.47	20.07
	6H	11.18	11.49	12.36	12.68	14.29	17.56	17.87	18.73	19.06	20.66
	8H	11.20	11.47	12.38	12.64	14.26	17.77	18.04	18.95	19.21	20.84
	12H	11.16	11.40	12.34	12.57	14.22	17.91	18.14	19.09	19.31	20.97
12H	4H	11.08	11.42	12.25	12.58	14.19	16.88	17.22	18.06	18.39	20.00
	6H	11.43	11.71	12.62	12.88	14.50	17.54	17.81	18.72	18.98	20.60
	8H	11.50	11.74	12.68	12.91	14.56	17.76	18.00	18.94	19.17	20.82