

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: P937474

Luminaire Tested: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937474
REPORT IS A COMBINATION OF REPORTS P933565 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

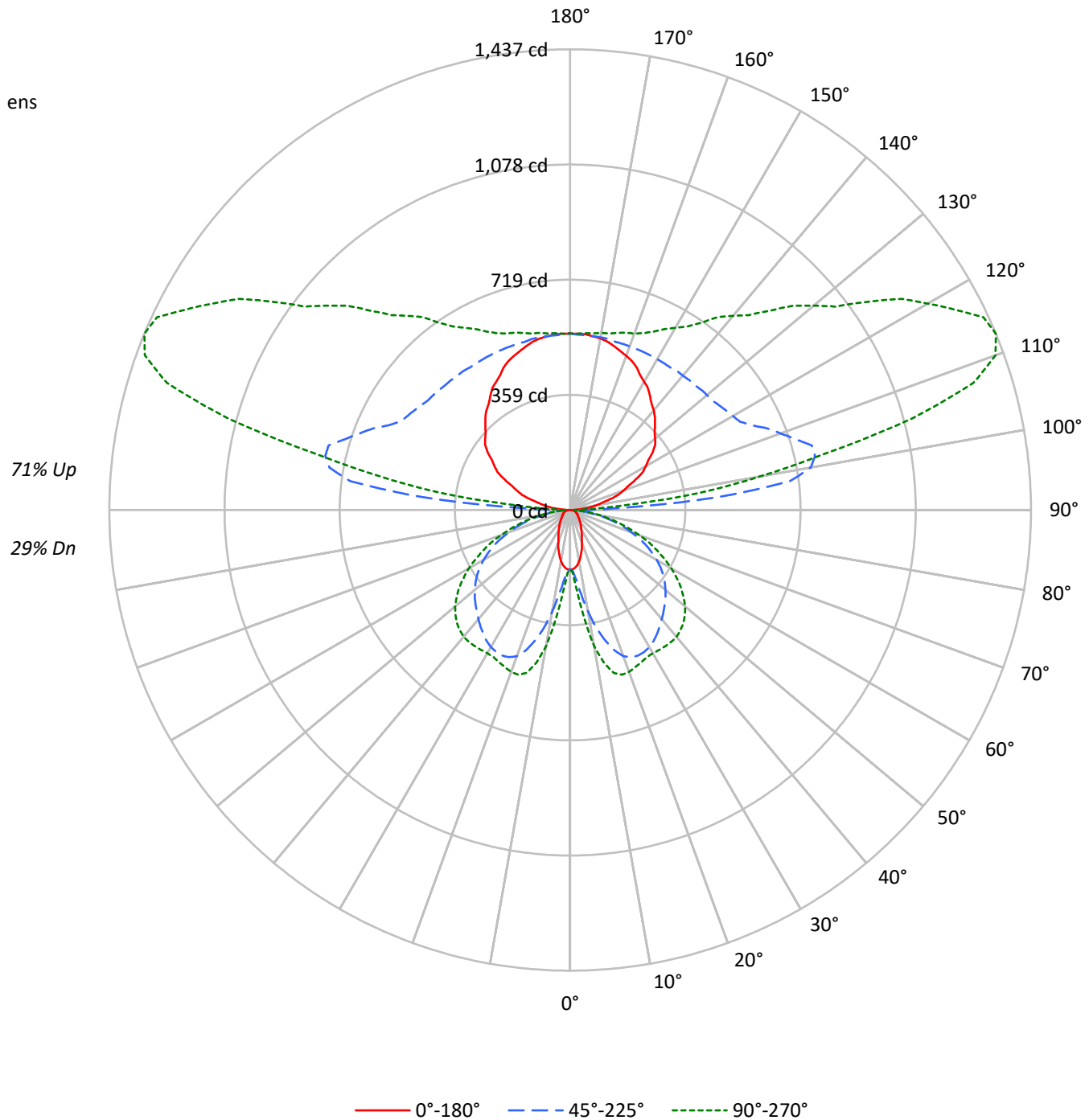
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5003.0 lumens
Efficiency: N/A
Efficacy: 121.4 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): 41.2
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: P937474
CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1719	1719	1719
5°	1678	1985	2311
10°	1521	2892	3831
15°	1290	3776	4627
20°	1050	4372	4714
25°	874	4572	4619
30°	736	4597	4610
35°	649	4517	4728
40°	566	4414	4852
45°	511	4338	4871
50°	468	4268	4790
55°	447	4169	4578
60°	455	3980	4242
65°	471	3696	3782
70°	498	3216	3196
75°	548	2615	2493
80°	585	1808	1681
85°	489	955	860

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4871 cd/sqm



TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	0.5
10°-20°	106.2	2.1
20°-30°	185.8	3.7
30°-40°	239.2	4.8
40°-50°	267.1	5.3
50°-60°	255.9	5.1
60°-70°	202.8	4.1
70°-80°	119.2	2.4
80°-90°	35.2	0.7
90°-100°	268.3	5.4
100°-110°	705.3	14.1
110°-120°	731.3	14.6
120°-130°	586.6	11.7
130°-140°	460.3	9.2
140°-150°	353.3	7.1
150°-160°	254.4	5.1
160°-170°	155.7	3.1
170°-180°	52.6	1.1
0°-30°	316.0	6.3
0°-40°	555.1	11.1
0°-60°	1078.1	21.5
0°-90°	1435.3	28.7
90°-120°	1704.8	34.1
90°-150°	3105.0	62.1
90°-180°	3568.0	71.3
0°-180°	5003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	185	185	185	185	185	
5°	180	194	218	247	256	17
15°	135	250	421	510	526	38
25°	86	283	501	523	524	40
35°	58	270	472	499	518	36
45°	40	216	417	478	499	31
55°	29	137	354	411	422	26
65°	23	73	263	295	300	22
75°	17	45	144	158	159	17
85°	6	14	36	39	40	6
90°	4	10	28	14	14	3
95°	35	139	462	238	162	39
105°	127	192	780	1184	1104	135
115°	226	274	625	1246	1422	223
125°	314	352	568	960	1132	279
135°	374	412	550	775	879	289
145°	434	462	543	661	713	272
155°	490	504	543	596	614	225
165°	529	536	543	565	572	149
175°	550	550	547	554	554	52
180°	550	550	550	550	550	



TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2
2.5°	185.2	185.2	186.5	187.0	188.3	188.9	190.0	191.2	194.8	195.4	196.6
5°	180.5	182.9	190.7	193.6	201.9	213.3	218.0	225.8	241.9	246.6	249.6
7.5°	173.3	178.8	197.8	202.6	223.4	253.2	265.7	282.4	308.0	320.5	330.6
10°	162.1	173.3	207.3	218.6	252.5	297.8	321.1	344.4	383.1	400.3	406.9
12.5°	149.5	168.0	217.5	232.9	281.8	347.9	375.9	401.6	445.6	468.9	472.4
15°	135.2	160.3	227.0	249.6	312.8	389.6	420.6	452.2	493.3	509.9	514.1
17.5°	122.7	154.3	235.9	259.7	336.6	427.1	458.7	484.9	518.2	529.6	532.5
20°	107.3	144.7	241.9	272.9	361.6	454.6	484.9	505.2	527.8	534.9	536.2
22.5°	95.9	134.6	245.4	277.6	378.3	471.2	496.8	512.9	528.4	530.8	531.4
25°	86.4	123.3	244.8	283.0	392.6	481.3	501.0	512.9	521.9	523.0	523.0
27.5°	77.4	110.8	242.4	284.2	403.3	483.7	499.2	507.6	511.8	514.1	514.1
30°	69.7	98.9	236.5	281.8	408.0	481.3	493.8	498.0	502.2	505.8	507.6
32.5°	63.8	87.6	227.6	277.0	408.7	475.3	484.3	486.7	492.7	501.0	503.9
35°	58.3	76.3	217.5	270.5	405.1	465.8	471.8	474.2	486.1	498.6	502.8
37.5°	53.0	67.9	204.3	259.1	399.7	454.6	458.7	462.9	481.3	496.2	501.0
40°	47.7	60.7	188.9	246.6	391.4	440.8	444.4	450.9	475.3	492.7	497.5
42.5°	43.5	54.8	172.2	233.5	380.7	425.4	430.7	440.3	468.2	486.7	492.0
45°	39.9	48.8	154.3	215.6	366.9	409.3	417.0	430.1	459.9	477.7	482.5
47.5°	36.3	44.7	135.9	197.2	352.1	393.2	403.3	418.2	448.6	465.8	470.0
50°	33.4	40.5	117.4	177.5	336.0	375.9	387.8	403.3	434.3	450.4	455.7
52.5°	31.0	36.9	100.1	157.9	317.5	358.0	371.7	387.8	417.0	432.5	436.1
55°	28.6	33.9	85.2	137.0	298.5	338.9	353.9	369.3	397.9	411.1	413.5
57.5°	27.4	31.6	72.6	117.4	278.2	317.5	334.2	348.5	375.3	385.4	387.8
60°	25.6	29.7	63.1	100.7	256.2	297.3	311.6	325.9	348.5	356.8	358.7
62.5°	23.8	28.6	56.0	84.6	233.5	273.4	287.7	300.9	319.9	325.9	328.2
65°	22.6	27.4	50.6	72.6	210.3	248.4	262.7	274.0	289.5	295.4	296.7
67.5°	21.5	26.2	46.4	62.5	187.0	223.4	234.1	244.8	256.7	262.7	263.3
70°	19.6	25.0	42.9	55.4	163.2	194.8	203.7	215.1	224.6	227.6	229.4
72.5°	18.5	23.3	40.5	50.1	138.8	167.4	175.7	182.3	190.7	193.6	193.6
75°	16.7	20.9	38.1	44.7	113.8	137.0	144.1	150.7	157.3	158.4	156.6
77.5°	14.9	18.5	32.8	37.6	88.8	108.4	114.4	117.9	123.3	124.5	125.1
80°	12.5	16.1	25.6	29.2	64.4	79.8	84.0	86.9	91.7	91.7	93.0
82.5°	9.5	12.5	18.5	20.9	43.5	54.8	58.3	60.2	63.1	63.1	63.1
85°	5.9	7.7	11.9	13.7	26.2	33.4	35.8	36.3	38.7	39.3	39.3
87.5°	3.0	4.2	7.7	8.3	13.7	17.3	17.3	18.5	18.5	17.8	17.3
90°	3.7	6.7	9.6	10.3	16.3	24.2	28.1	25.0	18.7	14.0	14.0
92.5°	14.7	39.9	65.0	71.3	100.3	138.8	158.1	138.5	99.5	70.2	67.4
95°	35.4	81.4	127.4	138.9	246.6	390.2	462.0	412.3	312.8	238.3	229.8
97.5°	61.3	101.9	142.4	152.6	332.2	571.7	691.4	660.0	597.1	549.9	533.9
100°	81.3	118.0	154.8	164.0	363.4	629.1	762.0	764.3	768.8	772.3	753.1
102.5°	98.2	132.6	166.9	175.5	377.7	647.2	782.0	822.0	902.1	962.1	945.7
105°	127.1	156.1	185.1	192.4	388.2	649.2	779.8	869.5	1049.1	1183.8	1175.0
107.5°	156.6	183.7	210.8	217.6	390.2	620.3	735.4	860.6	1111.2	1299.1	1301.2
110°	176.5	201.0	225.5	231.6	387.2	594.7	698.4	838.4	1118.5	1328.5	1337.8



TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	196.2	219.4	242.7	248.6	387.3	572.3	664.8	808.2	1094.7	1309.7	1323.8
115°	225.6	247.1	268.6	274.0	390.9	546.7	624.6	762.7	1038.8	1245.9	1265.4
117.5°	254.9	274.4	293.9	298.8	398.2	530.7	596.9	721.5	970.7	1157.6	1179.3
120°	271.8	290.2	308.6	313.2	404.0	525.3	585.8	699.7	927.3	1098.1	1119.2
122.5°	288.5	307.1	325.6	330.2	412.6	522.4	577.3	679.8	884.8	1038.6	1059.4
125°	314.0	330.9	347.7	352.0	424.0	520.0	568.1	655.2	829.3	959.9	979.1
127.5°	334.6	351.6	368.8	373.0	435.5	518.7	560.3	635.1	784.6	896.8	913.0
130°	345.7	364.1	382.5	387.1	443.8	519.6	557.4	624.0	757.1	856.9	871.8
132.5°	357.2	375.5	393.9	398.5	450.6	520.0	554.7	614.3	733.5	822.9	836.3
135°	374.2	390.9	407.7	411.9	458.0	519.6	550.4	600.3	700.0	774.9	786.4
137.5°	391.5	408.1	424.6	428.8	469.0	522.8	549.6	591.8	676.1	739.4	748.9
140°	405.9	421.2	436.5	440.3	475.9	523.3	547.0	583.4	656.3	711.0	719.8
142.5°	417.0	431.1	445.2	448.8	481.6	525.2	547.0	579.0	643.0	691.0	698.7
145°	434.0	446.3	458.6	461.7	488.9	525.3	543.4	569.6	621.9	661.1	666.9
147.5°	451.0	463.0	474.9	477.9	499.8	528.8	543.4	564.0	605.2	636.1	640.9
150°	462.0	472.9	483.7	486.4	505.4	530.8	543.4	560.8	595.5	621.6	625.4
152.5°	473.5	481.7	489.9	492.0	509.1	531.9	543.4	558.2	587.9	610.1	613.1
155°	490.5	496.6	502.7	504.2	517.3	534.7	543.4	555.2	578.8	596.5	598.4
157.5°	503.1	509.0	514.9	516.4	525.3	537.3	543.4	552.5	570.9	584.7	586.0
160°	511.6	516.2	520.7	521.9	529.1	538.6	543.4	551.3	567.0	578.8	579.6
162.5°	520.0	523.5	526.9	527.8	533.0	539.9	543.4	550.0	563.3	573.2	573.9
165°	529.2	532.4	535.5	536.3	538.7	541.8	543.4	548.2	557.7	564.8	565.6
167.5°	537.8	539.3	540.8	541.1	543.1	545.7	547.0	550.1	556.3	561.0	561.4
170°	543.4	544.8	546.3	546.7	546.7	546.9	547.0	550.1	556.3	561.0	561.0
172.5°	546.3	546.7	546.9	547.0	547.0	547.0	547.0	549.5	554.4	558.1	557.8
175°	550.4	550.4	550.4	550.4	549.2	547.7	547.0	548.6	551.7	554.0	554.0
177.5°	550.4	550.4	550.4	550.4	549.5	548.3	547.7	549.0	551.4	553.3	553.0
180°	550.4	550.4	550.4	550.4	550.4	550.4	550.4	550.4	550.4	550.4	550.4



TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	185.2	185.2
2.5°	197.8	196.6
5°	254.4	255.6
7.5°	342.5	342.0
10°	426.0	431.3
12.5°	486.7	487.9
15°	523.7	526.1
17.5°	538.0	538.6
20°	538.6	537.3
22.5°	532.0	530.8
25°	524.3	523.7
27.5°	517.1	517.7
30°	514.1	515.9
32.5°	514.1	517.1
35°	515.3	518.2
37.5°	514.7	518.2
40°	512.3	516.5
42.5°	505.8	508.7
45°	495.6	499.2
47.5°	482.5	484.9
50°	465.8	468.2
52.5°	445.0	445.6
55°	420.0	422.3
57.5°	393.2	393.7
60°	363.4	365.1
62.5°	331.8	331.8
65°	298.5	299.6
67.5°	263.9	266.8
70°	228.7	229.4
72.5°	194.2	194.2
75°	158.4	159.0
77.5°	124.5	124.5
80°	92.4	93.0
82.5°	63.8	64.9
85°	39.9	39.9
87.5°	18.5	16.7
90°	14.0	14.0
92.5°	56.2	45.0
95°	196.0	162.1
97.5°	469.5	405.2
100°	676.5	599.8
102.5°	880.1	814.5
105°	1139.7	1104.4
107.5°	1309.7	1318.2
110°	1374.5	1411.3



TEST NUMBER: P937474

CATALOG NUMBER: SQ4-FB-100U-050D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1380.3	1436.8
115°	1343.7	1422.0
117.5°	1266.1	1353.0
120°	1203.6	1288.0
122.5°	1142.7	1225.9
125°	1055.7	1132.5
127.5°	977.7	1042.3
130°	931.6	991.4
132.5°	889.8	943.3
135°	832.5	878.7
137.5°	786.7	824.4
140°	755.2	790.4
142.5°	729.0	759.4
145°	689.9	712.9
147.5°	659.9	678.9
150°	640.9	656.3
152.5°	624.7	636.4
155°	606.1	613.9
157.5°	591.5	596.9
160°	582.7	585.8
162.5°	576.9	579.9
165°	568.7	571.8
167.5°	562.6	564.0
170°	561.0	561.0
172.5°	556.7	555.5
175°	554.0	554.0
177.5°	551.7	550.4
180°	550.4	550.4



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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	0.50	1.21	1.61	2.32	3.87	13.64	14.36	14.76	15.47	17.01
	3H	1.19	1.83	2.31	2.95	4.51	15.45	16.10	16.58	17.22	18.78
	4H	1.48	2.10	2.62	3.22	4.78	16.08	16.69	17.21	17.81	19.38
	6H	1.73	2.29	2.87	3.42	4.99	16.49	17.05	17.63	18.18	19.76
	8H	1.79	2.33	2.94	3.47	5.04	16.60	17.14	17.75	18.28	19.85
	12H	1.80	2.31	2.95	3.45	5.04	16.66	17.17	17.81	18.30	19.89
4H	2H	7.67	8.28	8.81	9.41	10.97	13.90	14.51	15.04	15.63	17.20
	3H	9.23	9.74	10.38	10.89	12.47	15.91	16.43	17.06	17.57	19.15
	4H	9.32	9.79	10.47	10.93	12.52	16.66	17.13	17.81	18.27	19.87
	6H	9.32	9.72	10.48	10.88	12.47	17.18	17.59	18.34	18.75	20.33
	8H	9.29	9.67	10.45	10.82	12.43	17.33	17.71	18.49	18.86	20.47
	12H	9.24	9.59	10.42	10.75	12.36	17.41	17.75	18.58	18.92	20.53
8H	4H	10.74	11.12	11.90	12.27	13.87	16.71	17.09	17.87	18.24	19.85
	6H	10.98	11.29	12.15	12.48	14.08	17.32	17.63	18.50	18.83	20.43
	8H	10.99	11.26	12.17	12.44	14.06	17.53	17.81	18.71	18.98	20.60
	12H	10.95	11.19	12.14	12.36	14.02	17.66	17.90	18.85	19.07	20.73
12H	4H	10.87	11.21	12.05	12.38	13.99	16.66	17.00	17.83	18.16	19.77
	6H	11.23	11.50	12.41	12.67	14.29	17.30	17.58	18.49	18.75	20.37
	8H	11.29	11.53	12.48	12.70	14.35	17.52	17.76	18.71	18.93	20.58