

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: P938250

Luminaire Tested: SQ4-FB-150U-050D-930-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938250  
REPORT IS A COMBINATION OF REPORTS P933629 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-930-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

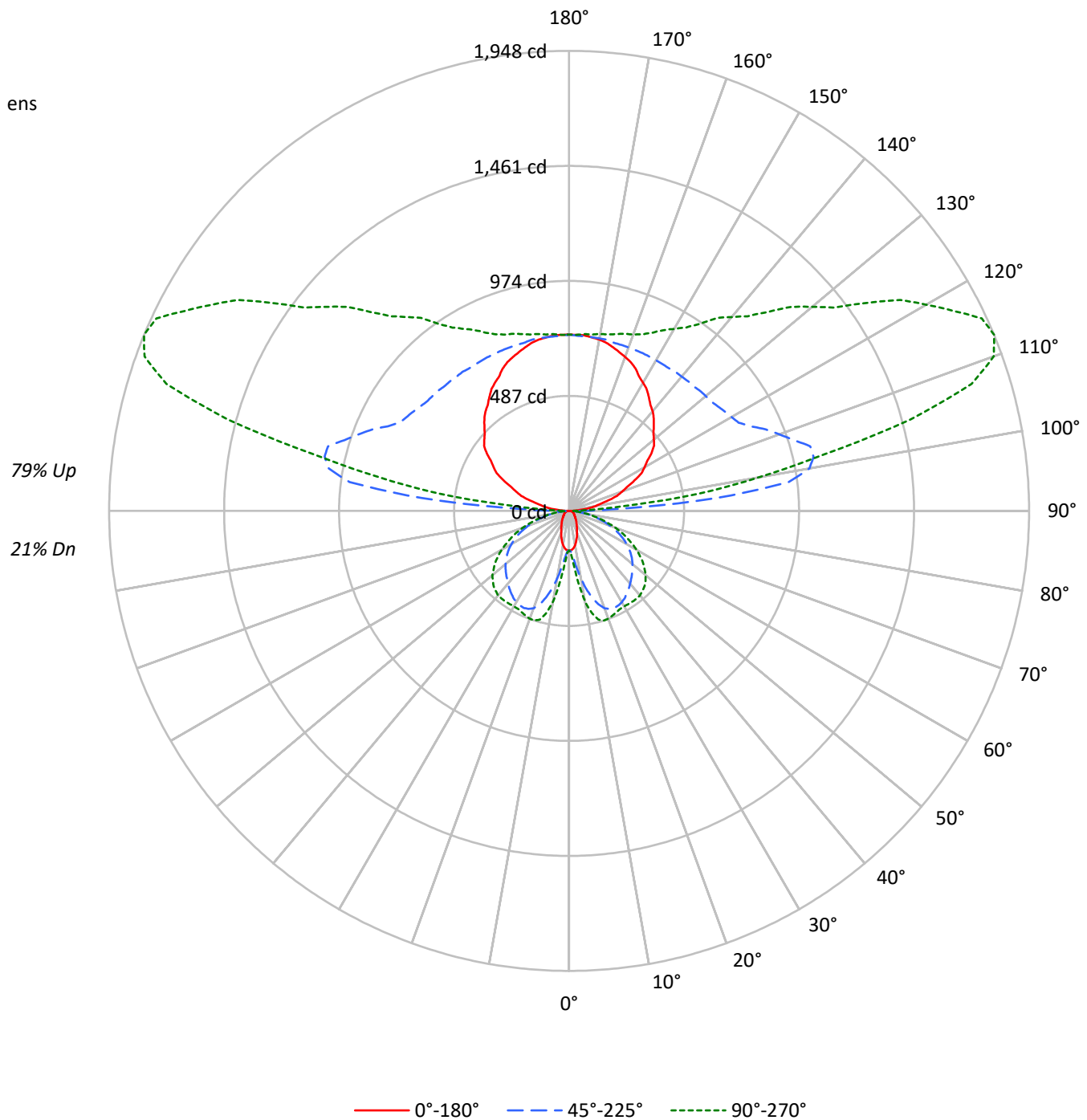
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6136.6 lumens  
Efficiency: N/A  
Efficacy: 110.4 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): 55.6  
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	50	30	10	50	30	10	0				
RCR																															
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21													
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17													
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14													
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12													
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10													
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8													
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7													
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6													
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5													
9	45	34	26	21	40	30	24	19	23	18	15	17	13	11	10	9	7	5													
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4													

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

	0°	45°	90°
0°	1554	1554	1554
5°	1517	1795	2090
10°	1374	2616	3464
15°	1167	3414	4183
20°	949	3954	4263
25°	790	4135	4176
30°	665	4157	4169
35°	588	4085	4276
40°	511	3992	4387
45°	462	3923	4405
50°	423	3860	4332
55°	405	3769	4140
60°	411	3599	3837
65°	427	3341	3419
70°	449	2908	2889
75°	495	2364	2254
80°	529	1636	1521
85°	447	865	778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4405 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.7	0.4
10°-20°	96.0	1.6
20°-30°	168.0	2.7
30°-40°	216.3	3.5
40°-50°	241.6	3.9
50°-60°	231.4	3.8
60°-70°	183.4	3.0
70°-80°	107.8	1.8
80°-90°	32.8	0.5
90°-100°	363.8	5.9
100°-110°	956.4	15.6
110°-120°	991.6	16.2
120°-130°	795.4	13.0
130°-140°	624.1	10.2
140°-150°	479.0	7.8
150°-160°	345.0	5.6
160°-170°	211.1	3.4
170°-180°	71.3	1.2
0°-30°	285.7	4.7
0°-40°	502.0	8.2
0°-60°	974.9	15.9
0°-90°	1298.9	21.2
90°-120°	2311.7	37.7
90°-150°	4210.3	68.6
90°-180°	4838.0	78.8
0°-180°	6136.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	168	168	168	168	168	
5°	163	175	197	223	231	15
15°	122	226	380	461	476	34
25°	78	256	453	473	474	36
35°	53	245	427	451	469	33
45°	36	195	377	432	451	28
55°	26	124	320	372	382	24
65°	20	66	238	267	271	20
75°	15	40	130	143	144	16
85°	5	12	32	36	36	6
90°	5	14	38	19	19	4
95°	48	188	627	323	220	53
105°	172	261	1057	1605	1498	183
115°	306	372	847	1689	1928	302
125°	426	477	770	1302	1536	378
135°	507	558	746	1051	1192	393
145°	588	626	737	896	967	369
155°	665	684	737	809	832	306
165°	718	727	737	766	775	203
175°	746	746	742	751	751	71
180°	746	746	746	746	746	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5	167.5
2.5°	167.5	167.5	168.6	169.1	170.2	170.8	171.8	172.9	176.2	176.7	177.8
5°	163.2	165.4	172.4	175.1	182.6	192.9	197.1	204.2	218.7	223.0	225.7
7.5°	156.7	161.6	178.8	183.2	202.0	228.9	240.3	255.4	278.5	289.8	299.0
10°	146.5	156.7	187.5	197.7	228.4	269.3	290.4	311.4	346.4	362.0	367.9
12.5°	135.2	151.9	196.7	210.6	254.8	314.6	339.9	363.1	402.9	424.0	427.2
15°	122.3	144.9	205.2	225.7	282.8	352.3	380.3	408.9	446.1	461.1	464.9
17.5°	111.0	139.6	213.4	234.9	304.3	386.2	414.8	438.5	468.6	478.9	481.6
20°	97.0	130.9	218.7	246.8	327.0	411.1	438.5	456.8	477.3	483.7	484.9
22.5°	86.7	121.7	221.9	251.0	342.1	426.1	449.3	463.8	477.8	480.0	480.5
25°	78.1	111.5	221.4	255.9	355.0	435.2	453.1	463.8	471.9	473.0	473.0
27.5°	70.0	100.2	219.2	257.0	364.7	437.4	451.4	459.0	462.8	464.9	464.9
30°	63.0	89.5	213.8	254.8	369.0	435.2	446.5	450.3	454.1	457.4	459.0
32.5°	57.7	79.2	205.8	250.5	369.5	429.8	438.0	440.1	445.5	453.1	455.7
35°	52.8	69.0	196.7	244.6	366.3	421.3	426.6	428.8	439.6	450.9	454.7
37.5°	47.9	61.4	184.8	234.3	361.4	411.1	414.8	418.6	435.2	448.7	453.1
40°	43.1	54.9	170.8	223.0	354.0	398.6	401.9	407.8	429.8	445.5	449.8
42.5°	39.3	49.5	155.7	211.2	344.2	384.6	389.5	398.1	423.4	440.1	444.9
45°	36.1	44.2	139.6	195.0	331.8	370.1	377.1	389.0	415.9	432.0	436.4
47.5°	32.8	40.4	122.9	178.3	318.4	355.6	364.7	378.1	405.7	421.3	425.0
50°	30.2	36.6	106.2	160.5	303.9	339.9	350.7	364.7	392.7	407.3	412.1
52.5°	28.0	33.4	90.5	142.8	287.2	323.8	336.1	350.7	377.1	391.1	394.4
55°	25.9	30.7	77.0	123.9	269.9	306.5	320.0	334.0	359.8	371.7	373.9
57.5°	24.8	28.6	65.7	106.2	251.6	287.2	302.2	315.1	339.3	348.5	350.7
60°	23.1	26.9	57.1	91.1	231.7	268.8	281.8	294.7	315.1	322.6	324.3
62.5°	21.5	25.9	50.7	76.5	211.2	247.2	260.2	272.1	289.2	294.7	296.8
65°	20.5	24.8	45.8	65.7	190.2	224.6	237.5	247.8	261.8	267.2	268.3
67.5°	19.4	23.7	42.0	56.5	169.1	202.0	211.7	221.4	232.1	237.5	238.1
70°	17.7	22.6	38.8	50.1	147.6	176.2	184.2	194.5	203.1	205.8	207.4
72.5°	16.7	21.0	36.6	45.3	125.5	151.4	158.9	164.9	172.4	175.1	175.1
75°	15.1	18.9	34.4	40.4	102.9	123.9	130.3	136.3	142.2	143.3	141.6
77.5°	13.5	16.7	29.6	34.0	80.3	98.0	103.4	106.6	111.5	112.6	113.1
80°	11.3	14.5	23.1	26.4	58.2	72.2	76.0	78.6	82.9	82.9	84.1
82.5°	8.6	11.3	16.7	18.9	39.3	49.5	52.8	54.4	57.1	57.1	57.1
85°	5.4	7.0	10.8	12.4	23.7	30.2	32.4	32.8	35.0	35.6	35.6
87.5°	2.7	3.8	7.0	7.5	12.4	15.7	15.7	16.7	16.7	16.1	15.7
90°	5.0	9.0	13.0	14.1	22.1	32.8	38.1	33.8	25.4	19.0	19.0
92.5°	20.0	54.0	88.2	96.7	135.9	188.1	214.3	187.8	134.9	95.2	91.4
95°	48.1	110.4	172.7	188.3	334.4	529.2	626.6	559.1	424.2	323.0	311.6
97.5°	83.1	138.1	193.1	206.9	450.4	775.2	937.6	894.9	809.7	745.7	723.9
100°	110.2	160.0	209.9	222.4	492.6	853.0	1033.2	1036.4	1042.6	1047.3	1021.3
102.5°	133.2	179.8	226.3	237.9	512.1	877.5	1060.3	1114.6	1223.2	1304.7	1282.5
105°	172.3	211.8	251.1	261.0	526.4	880.2	1057.2	1179.0	1422.5	1605.2	1593.2
107.5°	212.4	249.1	285.9	295.0	529.1	841.1	997.2	1167.0	1506.7	1761.5	1764.4
110°	239.4	272.5	305.8	314.1	525.1	806.4	947.1	1137.0	1516.7	1801.5	1814.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	266.0	297.6	329.2	337.1	525.2	776.1	901.5	1095.9	1484.5	1776.0	1795.1
115°	306.0	335.2	364.3	371.6	530.1	741.3	846.9	1034.1	1408.5	1689.4	1715.9
117.5°	345.6	372.1	398.6	405.2	539.9	719.6	809.3	978.3	1316.2	1569.6	1599.1
120°	368.6	393.6	418.4	424.7	547.9	712.2	794.3	948.7	1257.4	1489.0	1517.6
122.5°	391.1	416.3	441.5	447.8	559.5	708.4	782.8	921.8	1199.8	1408.4	1436.6
125°	425.8	448.6	471.6	477.3	574.9	705.2	770.3	888.4	1124.5	1301.7	1327.7
127.5°	453.8	476.9	500.0	505.8	590.4	703.3	759.8	861.2	1064.0	1216.1	1238.0
130°	468.8	493.7	518.6	524.8	601.8	704.5	755.8	846.0	1026.6	1161.9	1182.2
132.5°	484.3	509.3	534.2	540.4	611.0	705.2	752.3	833.0	994.7	1115.8	1134.0
135°	507.3	530.1	552.7	558.4	621.0	704.5	746.2	813.9	949.2	1050.7	1066.4
137.5°	530.9	553.3	575.8	581.5	636.1	708.9	745.3	802.4	916.9	1002.7	1015.5
140°	550.5	571.2	591.9	597.0	645.3	709.6	741.7	791.1	890.0	964.1	976.0
142.5°	565.5	584.6	603.7	608.5	652.9	712.1	741.7	785.2	872.0	937.1	947.4
145°	588.5	605.2	621.8	626.0	663.0	712.2	736.8	772.2	843.2	896.5	904.3
147.5°	611.5	627.8	644.0	648.1	677.7	717.1	736.8	764.7	820.5	862.4	868.8
150°	626.6	641.3	655.9	659.6	685.3	719.6	736.8	760.4	807.5	842.9	848.1
152.5°	642.1	653.2	664.3	667.1	690.3	721.3	736.8	756.9	797.2	827.4	831.3
155°	665.1	673.4	681.6	683.7	701.3	724.9	736.8	752.8	784.9	808.9	811.5
157.5°	682.1	690.2	698.1	700.1	712.3	728.6	736.8	749.2	774.1	792.8	794.6
160°	693.6	699.9	706.2	707.7	717.4	730.3	736.8	747.4	768.8	784.8	785.8
162.5°	705.2	709.9	714.5	715.7	722.7	732.1	736.8	745.7	763.8	777.3	778.3
165°	717.7	721.9	726.2	727.2	730.4	734.7	736.8	743.2	756.1	765.7	766.8
167.5°	729.2	731.2	733.2	733.7	736.4	740.0	741.7	746.0	754.4	760.8	761.2
170°	736.8	738.8	740.8	741.2	741.4	741.7	741.7	746.0	754.4	760.8	760.8
172.5°	740.8	741.2	741.7	741.7	741.7	741.7	741.7	745.1	751.8	756.7	756.3
175°	746.2	746.2	746.2	746.2	744.7	742.7	741.7	743.8	748.1	751.3	751.3
177.5°	746.2	746.2	746.2	746.2	745.1	743.6	742.8	744.5	747.8	750.2	749.8
180°	746.2	746.2	746.2	746.2	746.2	746.2	746.2	746.2	746.2	746.2	746.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	167.5	167.5
2.5°	178.8	177.8
5°	230.1	231.1
7.5°	309.7	309.2
10°	385.2	390.0
12.5°	440.1	441.2
15°	473.5	475.7
17.5°	486.5	487.0
20°	487.0	485.9
22.5°	481.1	480.0
25°	474.1	473.5
27.5°	467.6	468.1
30°	464.9	466.5
32.5°	464.9	467.6
35°	466.0	468.6
37.5°	465.4	468.6
40°	463.3	467.0
42.5°	457.4	460.0
45°	448.2	451.4
47.5°	436.4	438.5
50°	421.3	423.4
52.5°	402.4	402.9
55°	379.8	381.9
57.5°	355.6	356.1
60°	328.6	330.2
62.5°	300.1	300.1
65°	269.9	270.9
67.5°	238.7	241.3
70°	206.9	207.4
72.5°	175.6	175.6
75°	143.3	143.8
77.5°	112.6	112.6
80°	83.5	84.1
82.5°	57.7	58.7
85°	36.1	36.1
87.5°	16.7	15.1
90°	19.0	19.0
92.5°	76.2	61.1
95°	265.7	219.9
97.5°	636.7	549.4
100°	917.3	813.4
102.5°	1193.4	1104.4
105°	1545.4	1497.5
107.5°	1775.9	1787.5
110°	1863.8	1913.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1871.7	1948.2
115°	1822.1	1928.2
117.5°	1716.8	1834.5
120°	1632.0	1746.4
122.5°	1549.5	1662.3
125°	1431.6	1535.6
127.5°	1325.7	1413.4
130°	1263.2	1344.2
132.5°	1206.5	1279.1
135°	1128.9	1191.5
137.5°	1066.7	1117.9
140°	1023.9	1071.8
142.5°	988.6	1029.7
145°	935.5	966.7
147.5°	894.7	920.6
150°	869.1	890.0
152.5°	847.2	862.9
155°	822.0	832.4
157.5°	802.0	809.3
160°	790.1	794.3
162.5°	782.3	786.3
165°	771.0	775.3
167.5°	763.0	764.8
170°	760.8	760.8
172.5°	754.8	753.3
175°	751.3	751.3
177.5°	748.0	746.2
180°	746.2	746.2



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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	0.00	0.00	0.12	0.77	2.40	12.09	12.75	13.26	13.91	15.54
	3H	0.00	0.23	0.81	1.40	3.04	13.90	14.49	15.07	15.66	17.30
	4H	0.00	0.50	1.11	1.66	3.31	14.52	15.09	15.71	16.25	17.90
	6H	0.17	0.69	1.36	1.85	3.51	14.93	15.45	16.12	16.62	18.28
	8H	0.23	0.73	1.42	1.91	3.56	15.04	15.54	16.23	16.71	18.36
	12H	0.24	0.71	1.44	1.89	3.56	15.09	15.56	16.29	16.74	18.41
4H	2H	6.11	6.68	7.30	7.84	9.49	12.34	12.91	13.53	14.07	15.72
	3H	7.67	8.14	8.86	9.33	10.99	14.35	14.83	15.55	16.01	17.67
	4H	7.75	8.19	8.95	9.36	11.04	15.10	15.54	16.30	16.71	18.39
	6H	7.75	8.12	8.95	9.32	10.99	15.61	15.99	16.81	17.19	18.85
	8H	7.72	8.07	8.92	9.26	10.94	15.76	16.11	16.96	17.30	18.99
	12H	7.67	7.99	8.88	9.19	10.87	15.84	16.16	17.05	17.36	19.04
8H	4H	9.17	9.52	10.37	10.71	12.39	15.14	15.49	16.34	16.68	18.37
	6H	9.40	9.69	10.62	10.92	12.60	15.75	16.04	16.97	17.27	18.95
	8H	9.42	9.67	10.64	10.88	12.58	15.96	16.21	17.18	17.42	19.12
	12H	9.38	9.60	10.60	10.80	12.53	16.09	16.31	17.31	17.51	19.24
12H	4H	9.30	9.62	10.51	10.82	12.50	15.09	15.40	16.30	16.60	18.29
	6H	9.65	9.91	10.88	11.11	12.81	15.73	15.98	16.95	17.19	18.89
	8H	9.71	9.93	10.94	11.14	12.87	15.94	16.16	17.17	17.37	19.10