

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: P938258

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938258  
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-93050-1D-UNV-STD-W-4-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

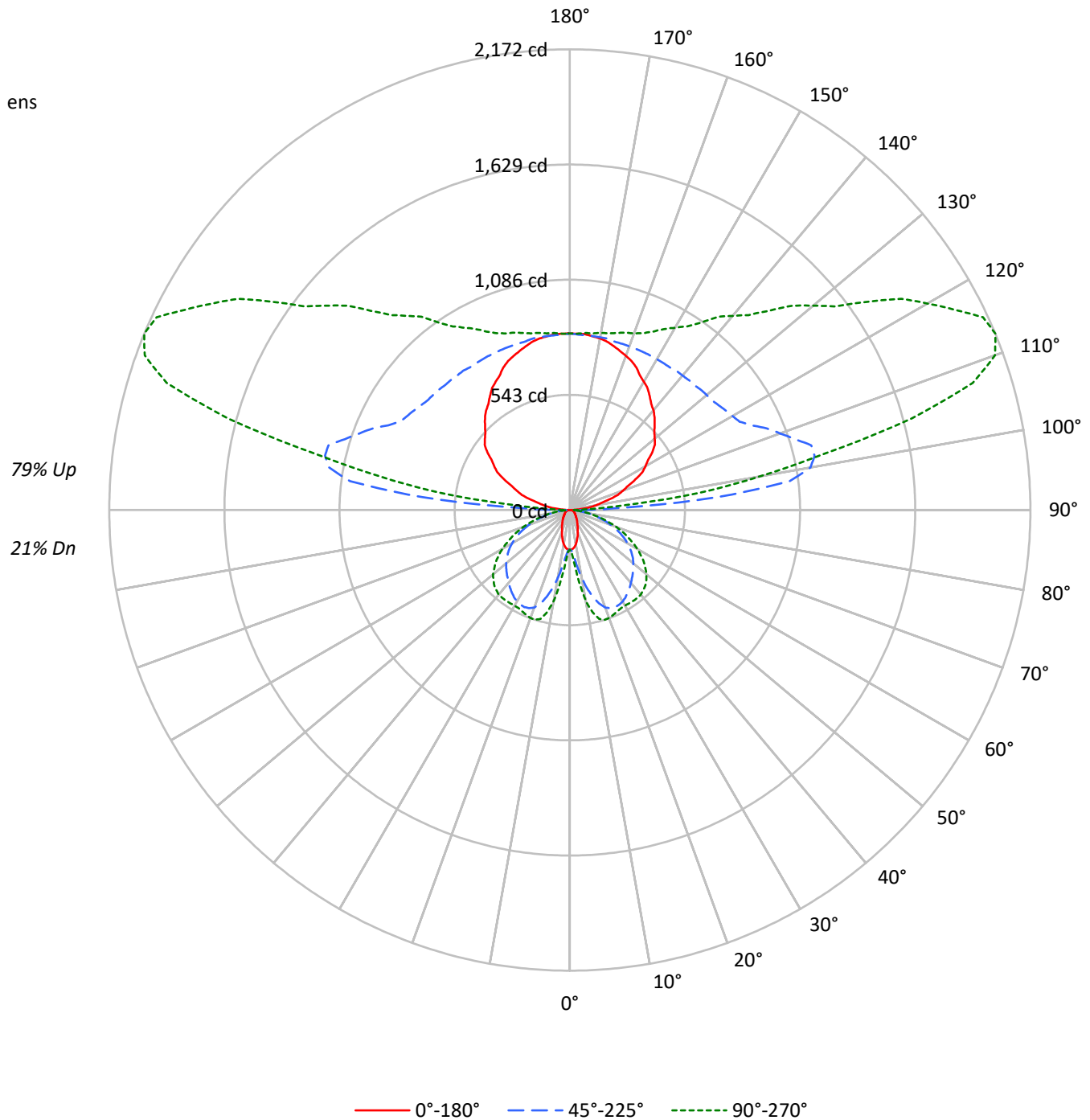
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6842.0 lumens  
Efficiency: N/A  
Efficacy: 123.1 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 (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	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°	1733	1733	1733
5°	1692	2002	2330
10°	1533	2916	3863
15°	1302	3806	4664
20°	1059	4408	4754
25°	881	4609	4657
30°	743	4635	4648
35°	655	4555	4768
40°	571	4451	4892
45°	515	4373	4911
50°	472	4303	4830
55°	450	4203	4616
60°	459	4013	4278
65°	475	3725	3813
70°	503	3243	3222
75°	551	2636	2515
80°	590	1823	1694
85°	497	964	866

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4911 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.2	0.4
10°-20°	107.1	1.6
20°-30°	187.3	2.7
30°-40°	241.1	3.5
40°-50°	269.3	3.9
50°-60°	258.0	3.8
60°-70°	204.4	3.0
70°-80°	120.2	1.8
80°-90°	36.6	0.5
90°-100°	405.6	5.9
100°-110°	1066.3	15.6
110°-120°	1105.6	16.2
120°-130°	886.8	13.0
130°-140°	695.8	10.2
140°-150°	534.1	7.8
150°-160°	384.6	5.6
160°-170°	235.3	3.4
170°-180°	79.5	1.2
0°-30°	318.6	4.7
0°-40°	559.7	8.2
0°-60°	1087.0	15.9
0°-90°	1448.2	21.2
90°-120°	2577.5	37.7
90°-150°	4694.3	68.6
90°-180°	5394.0	78.8
0°-180°	6842.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	187	187	187	187	187	
5°	182	195	220	249	258	17
15°	136	252	424	514	530	38
25°	87	285	505	527	528	40
35°	59	273	476	503	522	37
45°	40	217	420	482	503	31
55°	29	138	357	414	426	26
65°	23	73	265	298	302	23
75°	17	45	145	160	160	18
85°	6	14	36	40	40	6
90°	6	16	42	21	21	5
95°	54	210	699	360	245	60
105°	192	291	1179	1790	1670	204
115°	341	414	944	1884	2150	337
125°	475	532	859	1451	1712	421
135°	566	623	832	1172	1328	438
145°	656	698	821	1000	1078	411
155°	742	762	821	902	928	341
165°	800	811	821	854	864	226
175°	832	832	827	838	838	79
180°	832	832	832	832	832	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8
2.5°	186.8	186.8	188.0	188.6	189.8	190.4	191.6	192.8	196.4	197.0	198.2
5°	182.0	184.4	192.2	195.2	203.6	215.1	219.8	227.7	243.9	248.6	251.7
7.5°	174.8	180.2	199.4	204.2	225.3	255.3	267.9	284.7	310.5	323.1	333.3
10°	163.4	174.8	209.1	220.4	254.6	300.3	323.7	347.2	386.2	403.6	410.2
12.5°	150.8	169.4	219.3	234.8	284.1	350.8	379.0	404.9	449.3	472.7	476.3
15°	136.4	161.6	228.8	251.7	315.3	392.8	424.0	455.9	497.3	514.1	518.3
17.5°	123.7	155.6	237.9	261.9	339.3	430.6	462.5	488.9	522.5	534.0	536.9
20°	108.2	145.9	243.9	275.1	364.6	458.3	488.9	509.3	532.2	539.3	540.6
22.5°	96.7	135.7	247.5	279.9	381.4	475.1	500.9	517.1	532.7	535.1	535.8
25°	87.1	124.4	246.8	285.3	395.8	485.3	505.1	517.1	526.2	527.3	527.3
27.5°	78.1	111.7	244.4	286.5	406.7	487.7	503.3	511.8	516.0	518.3	518.3
30°	70.3	99.7	238.4	284.1	411.4	485.3	497.9	502.1	506.3	510.0	511.8
32.5°	64.3	88.3	229.5	279.2	412.0	479.3	488.3	490.7	496.7	505.1	508.1
35°	58.8	76.9	219.3	272.7	408.4	469.7	475.7	478.1	490.1	502.7	506.9
37.5°	53.5	68.5	206.0	261.3	403.0	458.3	462.5	466.7	485.3	500.3	505.1
40°	48.1	61.2	190.4	248.6	394.7	444.4	448.1	454.6	479.3	496.7	501.6
42.5°	43.9	55.2	173.6	235.5	383.8	428.9	434.2	443.9	472.1	490.7	496.1
45°	40.2	49.2	155.6	217.4	369.9	412.6	420.4	433.7	463.7	481.7	486.5
47.5°	36.6	45.0	137.0	198.8	355.0	396.4	406.7	421.6	452.3	469.7	473.9
50°	33.7	40.8	118.4	179.0	338.8	379.0	391.0	406.7	437.9	454.1	459.5
52.5°	31.2	37.2	100.9	159.2	320.2	361.0	374.8	391.0	420.4	436.0	439.7
55°	28.8	34.2	85.9	138.1	300.9	341.7	356.8	372.4	401.2	414.4	416.9
57.5°	27.7	31.9	73.2	118.4	280.5	320.2	336.9	351.3	378.4	388.6	391.0
60°	25.8	30.0	63.7	101.5	258.3	299.8	314.2	328.6	351.3	359.7	361.6
62.5°	24.0	28.8	56.5	85.3	235.5	275.7	290.1	303.3	322.5	328.6	330.9
65°	22.8	27.7	51.0	73.2	212.0	250.4	264.8	276.3	291.9	297.9	299.1
67.5°	21.7	26.4	46.8	63.0	188.6	225.3	236.0	246.8	258.8	264.8	265.5
70°	19.8	25.2	43.2	55.9	164.6	196.4	205.4	216.8	226.4	229.5	231.3
72.5°	18.6	23.5	40.8	50.5	139.9	168.8	177.2	183.8	192.2	195.2	195.2
75°	16.8	21.0	38.4	45.0	114.7	138.1	145.3	151.9	158.6	159.7	157.9
77.5°	15.0	18.6	33.0	37.9	89.5	109.3	115.3	118.9	124.4	125.5	126.1
80°	12.6	16.2	25.8	29.5	64.9	80.5	84.7	87.7	92.5	92.5	93.7
82.5°	9.6	12.6	18.6	21.0	43.9	55.2	58.8	60.7	63.7	63.7	63.7
85°	6.0	7.8	12.0	13.8	26.4	33.7	36.1	36.6	39.0	39.7	39.7
87.5°	3.0	4.2	7.8	8.4	13.8	17.5	17.5	18.6	18.6	18.0	17.5
90°	5.6	10.0	14.5	15.7	24.6	36.5	42.4	37.7	28.3	21.2	21.2
92.5°	22.3	60.3	98.3	107.8	151.5	209.8	239.0	209.4	150.4	106.1	101.9
95°	53.6	123.1	192.6	210.0	372.8	590.0	698.6	623.4	473.0	360.2	347.4
97.5°	92.7	154.0	215.3	230.6	502.2	864.3	1045.4	997.8	902.7	831.5	807.1
100°	122.8	178.4	234.0	247.9	549.3	951.1	1152.0	1155.5	1162.5	1167.7	1138.7
102.5°	148.5	200.5	252.3	265.3	570.9	978.4	1182.2	1242.7	1363.8	1454.7	1429.9
105°	192.1	236.1	280.0	291.0	586.9	981.4	1178.8	1314.5	1586.0	1789.7	1776.4
107.5°	236.8	277.7	318.7	328.9	589.9	937.8	1111.8	1301.2	1679.9	1964.0	1967.2
110°	266.9	303.9	340.9	350.2	585.4	899.1	1055.9	1267.7	1691.1	2008.6	2022.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	296.5	331.8	367.1	375.9	585.6	865.3	1005.2	1221.8	1655.2	1980.2	2001.5
115°	341.2	373.7	406.2	414.4	591.0	826.6	944.3	1153.0	1570.5	1883.6	1913.2
117.5°	385.3	414.9	444.4	451.8	602.0	802.3	902.4	1090.8	1467.5	1750.1	1782.9
120°	410.9	438.8	466.5	473.5	610.9	794.1	885.6	1057.7	1402.0	1660.2	1692.1
122.5°	436.1	464.1	492.2	499.2	623.8	789.8	872.8	1027.8	1337.8	1570.3	1601.7
125°	474.7	500.2	525.8	532.2	641.0	786.3	858.9	990.5	1253.8	1451.3	1480.3
127.5°	505.9	531.7	557.5	564.0	658.3	784.2	847.1	960.2	1186.3	1355.9	1380.3
130°	522.7	550.4	578.2	585.2	671.0	785.5	842.7	943.3	1144.6	1295.5	1318.1
132.5°	540.0	567.8	595.6	602.5	681.2	786.3	838.7	928.8	1109.0	1244.1	1264.4
135°	565.7	591.0	616.2	622.6	692.4	785.5	832.0	907.5	1058.3	1171.5	1189.0
137.5°	591.9	617.0	642.0	648.3	709.2	790.4	830.9	894.7	1022.3	1118.0	1132.2
140°	613.7	636.8	659.9	665.7	719.5	791.2	827.0	882.1	992.3	1074.9	1088.3
142.5°	630.5	651.8	673.1	678.5	728.0	794.0	827.0	875.4	972.2	1044.8	1056.3
145°	656.2	674.8	693.3	698.0	739.2	794.1	821.4	861.0	940.2	999.5	1008.2
147.5°	681.8	700.0	718.0	722.6	755.6	799.5	821.4	852.6	914.8	961.6	968.7
150°	698.6	715.0	731.3	735.4	764.1	802.3	821.4	847.8	900.3	939.8	945.6
152.5°	715.9	728.3	740.7	743.8	769.7	804.2	821.4	843.9	888.9	922.5	926.9
155°	741.6	750.8	759.9	762.3	782.0	808.3	821.4	839.4	875.1	901.8	904.8
157.5°	760.6	769.5	778.4	780.6	794.2	812.4	821.4	835.3	863.1	883.9	886.0
160°	773.4	780.4	787.3	789.0	799.9	814.3	821.4	833.4	857.2	875.0	876.2
162.5°	786.3	791.5	796.6	798.0	805.8	816.3	821.4	831.5	851.6	866.7	867.7
165°	800.2	804.9	809.6	810.8	814.4	819.1	821.4	828.6	843.0	853.8	854.9
167.5°	813.0	815.3	817.5	818.0	821.0	825.0	827.0	831.7	841.1	848.2	848.8
170°	821.4	823.7	825.9	826.5	826.6	826.9	827.0	831.7	841.1	848.2	848.2
172.5°	825.9	826.4	826.9	827.0	827.0	827.0	827.0	830.8	838.2	843.7	843.3
175°	832.0	832.0	832.0	832.0	830.3	828.1	827.0	829.3	834.1	837.7	837.7
177.5°	832.0	832.0	832.0	832.0	830.8	829.1	828.2	830.0	833.7	836.5	836.0
180°	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0	832.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	186.8	186.8
2.5°	199.4	198.2
5°	256.5	257.7
7.5°	345.3	344.8
10°	429.5	434.9
12.5°	490.7	491.9
15°	528.0	530.4
17.5°	542.4	543.0
20°	543.0	541.8
22.5°	536.4	535.1
25°	528.6	528.0
27.5°	521.3	522.0
30°	518.3	520.2
32.5°	518.3	521.3
35°	519.5	522.5
37.5°	518.9	522.5
40°	516.5	520.7
42.5°	510.0	512.9
45°	499.7	503.3
47.5°	486.5	488.9
50°	469.7	472.1
52.5°	448.6	449.3
55°	423.5	425.8
57.5°	396.4	397.0
60°	366.4	368.2
62.5°	334.6	334.6
65°	300.9	302.1
67.5°	266.1	269.0
70°	230.6	231.3
72.5°	195.8	195.8
75°	159.7	160.4
77.5°	125.5	125.5
80°	93.1	93.7
82.5°	64.3	65.4
85°	40.2	40.2
87.5°	18.6	16.8
90°	21.2	21.2
92.5°	85.0	68.1
95°	296.3	245.1
97.5°	709.9	612.6
100°	1022.8	906.9
102.5°	1330.6	1231.3
105°	1723.0	1669.7
107.5°	1980.1	1993.0
110°	2078.1	2133.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2086.9	2172.2
115°	2031.6	2149.9
117.5°	1914.2	2045.4
120°	1819.6	1947.2
122.5°	1727.6	1853.4
125°	1596.2	1712.1
127.5°	1478.1	1575.8
130°	1408.4	1498.8
132.5°	1345.2	1426.1
135°	1258.7	1328.5
137.5°	1189.3	1246.4
140°	1141.6	1195.0
142.5°	1102.2	1148.1
145°	1043.0	1077.8
147.5°	997.6	1026.4
150°	969.0	992.3
152.5°	944.6	962.1
155°	916.4	928.1
157.5°	894.1	902.4
160°	880.9	885.6
162.5°	872.2	876.7
165°	859.7	864.4
167.5°	850.7	852.7
170°	848.2	848.2
172.5°	841.6	839.9
175°	837.7	837.7
177.5°	834.0	832.0
180°	832.0	832.0



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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	0.49	1.14	2.77	12.47	13.13	13.63	14.28	15.91
	3H	0.01	0.61	1.19	1.77	3.41	14.28	14.87	15.45	16.03	17.68
	4H	0.30	0.87	1.49	2.03	3.68	14.90	15.47	16.08	16.63	18.28
	6H	0.54	1.06	1.73	2.23	3.89	15.31	15.83	16.50	16.99	18.65
	8H	0.60	1.10	1.80	2.28	3.93	15.42	15.91	16.61	17.09	18.74
	12H	0.62	1.09	1.81	2.26	3.93	15.47	15.94	16.67	17.11	18.79
4H	2H	6.49	7.06	7.68	8.22	9.87	12.72	13.28	13.91	14.45	16.09
	3H	8.04	8.52	9.24	9.70	11.36	14.73	15.20	15.92	16.39	18.05
	4H	8.13	8.57	9.33	9.74	11.42	15.48	15.91	16.67	17.09	18.77
	6H	8.13	8.50	9.33	9.70	11.37	15.99	16.37	17.19	17.56	19.23
	8H	8.10	8.45	9.30	9.64	11.32	16.14	16.49	17.34	17.68	19.36
	12H	8.05	8.36	9.26	9.56	11.25	16.22	16.53	17.43	17.73	19.42
8H	4H	9.55	9.90	10.75	11.08	12.77	15.52	15.87	16.72	17.06	18.74
	6H	9.78	10.07	11.00	11.30	12.98	16.13	16.42	17.35	17.65	19.33
	8H	9.80	10.05	11.02	11.25	12.96	16.34	16.59	17.56	17.80	19.50
	12H	9.75	9.97	10.98	11.18	12.91	16.46	16.68	17.69	17.89	19.62
12H	4H	9.68	9.99	10.89	11.19	12.88	15.46	15.78	16.68	16.98	18.67
	6H	10.03	10.28	11.25	11.49	13.19	16.11	16.36	17.33	17.57	19.27
	8H	10.09	10.31	11.32	11.52	13.25	16.32	16.54	17.55	17.75	19.48