

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: P938231

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938231  
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-92765-1D-UNV-STD-W-4-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

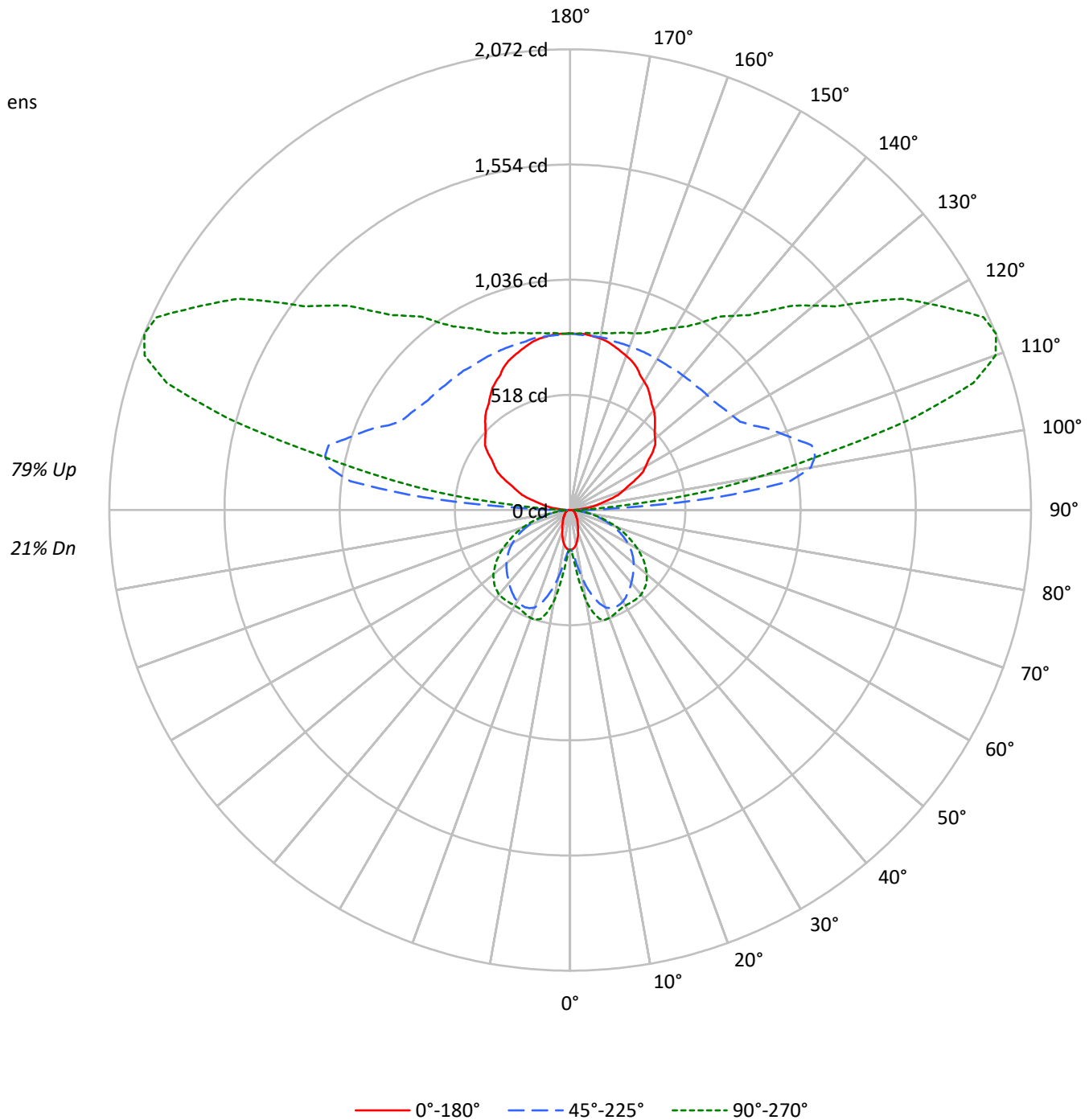
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6527.3 lumens  
Efficiency: N/A  
Efficacy: 117.4 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 (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°	1654	1654	1654
5°	1613	1910	2222
10°	1463	2782	3684
15°	1241	3631	4450
20°	1010	4205	4534
25°	841	4398	4443
30°	708	4422	4434
35°	625	4345	4549
40°	545	4247	4667
45°	492	4172	4686
50°	450	4105	4608
55°	430	4010	4403
60°	438	3828	4081
65°	454	3555	3638
70°	480	3093	3073
75°	528	2515	2399
80°	562	1739	1616
85°	472	918	827

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4686 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	0.4
10°-20°	102.2	1.6
20°-30°	178.7	2.7
30°-40°	230.0	3.5
40°-50°	256.9	3.9
50°-60°	246.1	3.8
60°-70°	195.0	3.0
70°-80°	114.7	1.8
80°-90°	34.9	0.5
90°-100°	386.9	5.9
100°-110°	1017.2	15.6
110°-120°	1054.8	16.2
120°-130°	846.0	13.0
130°-140°	663.8	10.2
140°-150°	509.5	7.8
150°-160°	367.0	5.6
160°-170°	224.5	3.4
170°-180°	75.9	1.2
0°-30°	303.9	4.7
0°-40°	533.9	8.2
0°-60°	1037.0	15.9
0°-90°	1381.6	21.2
90°-120°	2458.9	37.7
90°-150°	4478.3	68.6
90°-180°	5146.0	78.8
0°-180°	6527.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	178	178	178	178	178	
5°	174	186	210	237	246	16
15°	130	240	404	490	506	36
25°	83	272	482	503	504	38
35°	56	260	454	480	498	35
45°	38	207	401	460	480	30
55°	28	132	340	395	406	25
65°	22	70	253	284	288	22
75°	16	43	139	152	153	17
85°	6	13	34	38	38	6
90°	5	15	40	20	20	5
95°	51	200	666	344	234	57
105°	183	278	1124	1707	1593	194
115°	326	395	901	1797	2051	321
125°	453	508	819	1384	1633	402
135°	540	594	794	1118	1267	418
145°	626	666	784	954	1028	392
155°	708	727	784	860	885	325
165°	763	774	784	814	825	215
175°	794	794	789	799	799	75
180°	794	794	794	794	794	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	178.2	178.2	178.2	178.2	178.2	178.2	178.2	178.2	178.2	178.2	178.2
2.5°	178.2	178.2	179.4	179.9	181.1	181.7	182.8	183.9	187.4	187.9	189.1
5°	173.6	176.0	183.4	186.2	194.2	205.2	209.7	217.2	232.7	237.2	240.1
7.5°	166.7	171.9	190.2	194.8	214.9	243.5	255.6	271.6	296.2	308.3	318.0
10°	155.9	166.7	199.4	210.3	242.9	286.5	308.9	331.2	368.5	385.0	391.4
12.5°	143.8	161.6	209.2	224.0	271.0	334.6	361.6	386.2	428.6	451.0	454.4
15°	130.1	154.2	218.3	240.1	300.8	374.7	404.5	434.9	474.5	490.4	494.5
17.5°	118.0	148.4	226.9	249.8	323.7	410.8	441.2	466.4	498.5	509.4	512.2
20°	103.2	139.2	232.7	262.5	347.8	437.2	466.4	485.9	507.7	514.5	515.7
22.5°	92.2	129.5	236.1	267.0	363.9	453.2	477.9	493.3	508.2	510.5	511.1
25°	83.1	118.6	235.5	272.2	377.6	462.9	481.9	493.3	502.0	503.1	503.1
27.5°	74.5	106.6	233.2	273.3	387.9	465.2	480.2	488.2	492.2	494.5	494.5
30°	67.0	95.1	227.5	271.0	392.5	462.9	475.0	479.0	483.0	486.5	488.2
32.5°	61.3	84.2	218.9	266.4	393.1	457.2	465.8	468.1	473.9	481.9	484.7
35°	56.1	73.4	209.2	260.2	389.7	448.1	453.8	456.1	467.5	479.6	483.6
37.5°	51.0	65.3	196.5	249.2	384.4	437.2	441.2	445.3	462.9	477.3	481.9
40°	45.9	58.4	181.7	237.2	376.5	424.0	427.5	433.7	457.2	473.9	478.5
42.5°	41.9	52.7	165.6	224.6	366.2	409.1	414.3	423.5	450.4	468.1	473.3
45°	38.4	47.0	148.4	207.4	352.9	393.7	401.1	413.7	442.4	459.5	464.1
47.5°	34.9	43.0	130.7	189.7	338.7	378.2	387.9	402.2	431.5	448.1	452.1
50°	32.1	38.9	112.9	170.7	323.2	361.6	373.0	387.9	417.8	433.2	438.3
52.5°	29.8	35.5	96.3	151.9	305.4	344.4	357.5	373.0	401.1	416.0	419.5
55°	27.5	32.6	81.9	131.8	287.1	326.0	340.4	355.2	382.7	395.4	397.7
57.5°	26.4	30.4	69.9	112.9	267.6	305.4	321.4	335.2	361.0	370.7	373.0
60°	24.6	28.6	60.7	96.9	246.4	286.0	299.7	313.5	335.2	343.2	345.0
62.5°	22.9	27.5	53.9	81.4	224.6	263.0	276.7	289.4	307.7	313.5	315.7
65°	21.8	26.4	48.7	69.9	202.3	238.9	252.7	263.6	278.4	284.2	285.4
67.5°	20.7	25.2	44.7	60.1	179.9	214.9	225.1	235.5	246.9	252.7	253.2
70°	18.9	24.1	41.3	53.3	157.0	187.4	195.9	206.9	216.0	218.9	220.6
72.5°	17.8	22.4	38.9	48.2	133.5	161.0	169.0	175.4	183.4	186.2	186.2
75°	16.1	20.1	36.6	43.0	109.4	131.8	138.6	144.9	151.3	152.4	150.7
77.5°	14.3	17.8	31.5	36.1	85.4	104.3	110.0	113.4	118.6	119.7	120.3
80°	12.0	15.5	24.6	28.1	61.9	76.8	80.8	83.6	88.2	88.2	89.4
82.5°	9.1	12.0	17.8	20.1	41.9	52.7	56.1	57.9	60.7	60.7	60.7
85°	5.7	7.4	11.4	13.2	25.2	32.1	34.4	34.9	37.2	37.8	37.8
87.5°	2.9	4.0	7.4	8.0	13.2	16.7	16.7	17.8	17.8	17.2	16.7
90°	5.3	9.6	13.8	14.9	23.5	34.8	40.5	36.0	27.0	20.2	20.2
92.5°	21.3	57.5	93.8	102.8	144.5	200.1	228.0	199.8	143.5	101.2	97.2
95°	51.2	117.4	183.7	200.3	355.7	562.9	666.5	594.7	451.2	343.6	331.4
97.5°	88.4	146.9	205.4	220.0	479.1	824.6	997.3	951.9	861.2	793.2	770.0
100°	117.2	170.2	223.3	236.5	524.0	907.3	1099.0	1102.3	1109.0	1114.0	1086.3
102.5°	141.7	191.2	240.7	253.1	544.7	933.4	1127.8	1185.5	1301.1	1387.8	1364.1
105°	183.3	225.2	267.1	277.6	559.9	936.3	1124.5	1254.0	1513.1	1707.4	1694.7
107.5°	225.9	265.0	304.1	313.8	562.8	894.7	1060.7	1241.3	1602.6	1873.6	1876.7
110°	254.6	289.9	325.3	334.0	558.5	857.7	1007.4	1209.4	1613.3	1916.2	1929.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	282.9	316.5	350.2	358.6	558.7	825.5	958.9	1165.6	1579.0	1889.1	1909.4
115°	325.5	356.5	387.5	395.3	563.8	788.5	900.8	1099.9	1498.2	1796.9	1825.2
117.5°	367.6	395.8	424.0	431.0	574.3	765.4	860.9	1040.6	1400.0	1669.6	1700.9
120°	392.0	418.6	445.1	451.7	582.8	757.5	844.9	1009.1	1337.5	1583.8	1614.2
122.5°	416.0	442.8	469.6	476.3	595.1	753.5	832.7	980.5	1276.2	1498.1	1528.0
125°	452.9	477.2	501.6	507.7	611.6	750.1	819.4	944.9	1196.1	1384.5	1412.2
127.5°	482.7	507.3	531.9	538.0	628.0	748.1	808.2	916.1	1131.7	1293.5	1316.8
130°	498.6	525.1	551.6	558.3	640.2	749.3	803.9	899.9	1091.9	1235.9	1257.4
132.5°	515.1	541.7	568.2	574.8	649.9	750.1	800.1	886.1	1058.0	1186.9	1206.2
135°	539.6	563.8	587.9	594.0	660.6	749.3	793.7	865.7	1009.7	1117.6	1134.3
137.5°	564.7	588.6	612.5	618.5	676.6	754.0	792.7	853.5	975.2	1066.5	1080.1
140°	585.5	607.5	629.6	635.0	686.4	754.8	789.0	841.5	946.6	1025.5	1038.2
142.5°	601.5	621.8	642.1	647.3	694.5	757.4	789.0	835.2	927.5	996.8	1007.7
145°	626.0	643.8	661.4	665.9	705.2	757.5	783.7	821.4	896.9	953.5	961.8
147.5°	650.4	667.8	685.0	689.4	720.8	762.7	783.7	813.4	872.7	917.3	924.2
150°	666.5	682.1	697.7	701.6	728.9	765.4	783.7	808.8	858.9	896.6	902.1
152.5°	683.0	694.8	706.6	709.6	734.3	767.2	783.7	805.1	848.0	880.1	884.3
155°	707.5	716.3	725.0	727.2	746.0	771.1	783.7	800.7	834.8	860.4	863.2
157.5°	725.6	734.1	742.6	744.7	757.7	775.0	783.7	796.9	823.4	843.3	845.2
160°	737.8	744.5	751.1	752.7	763.1	776.8	783.7	795.0	817.7	834.7	835.8
162.5°	750.1	755.0	760.0	761.3	768.7	778.7	783.7	793.2	812.4	826.8	827.8
165°	763.4	767.9	772.4	773.5	776.9	781.4	783.7	790.5	804.2	814.5	815.6
167.5°	775.6	777.8	779.9	780.4	783.2	787.1	789.0	793.5	802.5	809.2	809.7
170°	783.7	785.8	787.9	788.4	788.6	788.9	789.0	793.5	802.5	809.2	809.2
172.5°	787.9	788.4	788.9	789.0	789.0	789.0	789.0	792.5	799.6	804.9	804.5
175°	793.7	793.7	793.7	793.7	792.1	790.0	789.0	791.2	795.7	799.1	799.1
177.5°	793.7	793.7	793.7	793.7	792.5	790.9	790.1	791.9	795.4	798.0	797.5
180°	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	178.2	178.2
2.5°	190.2	189.1
5°	244.7	245.8
7.5°	329.4	328.9
10°	409.7	414.8
12.5°	468.1	469.3
15°	503.7	506.0
17.5°	517.4	518.0
20°	518.0	516.8
22.5°	511.7	510.5
25°	504.3	503.7
27.5°	497.4	498.0
30°	494.5	496.2
32.5°	494.5	497.4
35°	495.7	498.5
37.5°	495.1	498.5
40°	492.7	496.8
42.5°	486.5	489.3
45°	476.7	480.2
47.5°	464.1	466.4
50°	448.1	450.4
52.5°	428.0	428.6
55°	404.0	406.2
57.5°	378.2	378.7
60°	349.5	351.2
62.5°	319.2	319.2
65°	287.1	288.2
67.5°	253.8	256.7
70°	220.0	220.6
72.5°	186.8	186.8
75°	152.4	153.0
77.5°	119.7	119.7
80°	88.8	89.4
82.5°	61.3	62.4
85°	38.4	38.4
87.5°	17.8	16.1
90°	20.2	20.2
92.5°	81.1	65.0
95°	282.6	233.9
97.5°	677.2	584.4
100°	975.8	865.1
102.5°	1269.4	1174.7
105°	1643.8	1592.9
107.5°	1889.0	1901.3
110°	1982.5	2035.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1990.9	2072.3
115°	1938.1	2051.0
117.5°	1826.1	1951.3
120°	1735.9	1857.6
122.5°	1648.1	1768.1
125°	1522.7	1633.3
127.5°	1410.1	1503.4
130°	1343.6	1429.8
132.5°	1283.3	1360.5
135°	1200.8	1267.4
137.5°	1134.6	1189.0
140°	1089.1	1140.0
142.5°	1051.5	1095.2
145°	995.1	1028.2
147.5°	951.7	979.2
150°	924.4	946.6
152.5°	901.1	917.8
155°	874.3	885.4
157.5°	853.0	860.9
160°	840.4	844.9
162.5°	832.1	836.4
165°	820.1	824.7
167.5°	811.6	813.5
170°	809.2	809.2
172.5°	802.9	801.3
175°	799.1	799.1
177.5°	795.6	793.7
180°	793.7	793.7



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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	0.33	0.98	2.61	12.30	12.97	13.47	14.12	15.75
	3H	0.00	0.45	1.03	1.61	3.26	14.11	14.71	15.28	15.87	17.51
	4H	0.15	0.71	1.33	1.87	3.52	14.74	15.30	15.92	16.47	18.11
	6H	0.39	0.91	1.58	2.07	3.73	15.14	15.67	16.33	16.83	18.49
	8H	0.45	0.94	1.64	2.12	3.77	15.25	15.75	16.44	16.93	18.58
	12H	0.46	0.93	1.65	2.10	3.77	15.31	15.78	16.50	16.95	18.62
4H	2H	6.33	6.90	7.52	8.06	9.71	12.55	13.12	13.74	14.28	15.93
	3H	7.88	8.35	9.08	9.54	11.20	14.57	15.04	15.76	16.23	17.89
	4H	7.97	8.40	9.16	9.58	11.26	15.31	15.75	16.51	16.92	18.60
	6H	7.97	8.34	9.17	9.54	11.20	15.83	16.20	17.03	17.40	19.07
	8H	7.94	8.29	9.14	9.48	11.16	15.98	16.33	17.18	17.51	19.20
	12H	7.89	8.20	9.10	9.40	11.09	16.05	16.37	17.27	17.57	19.26
8H	4H	9.38	9.73	10.58	10.92	12.61	15.36	15.71	16.56	16.89	18.58
	6H	9.62	9.91	10.84	11.14	12.82	15.96	16.25	17.18	17.48	19.16
	8H	9.63	9.88	10.86	11.09	12.79	16.17	16.42	17.40	17.63	19.33
	12H	9.59	9.81	10.82	11.02	12.75	16.30	16.52	17.53	17.73	19.46
12H	4H	9.51	9.83	10.73	11.03	12.72	15.30	15.62	16.51	16.82	18.50
	6H	9.87	10.12	11.09	11.33	13.03	15.94	16.20	17.17	17.40	19.10
	8H	9.93	10.15	11.16	11.36	13.09	16.16	16.38	17.38	17.58	19.31