

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: P937461

Luminaire Tested: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-6-3000K

Issue Date: 12/17/2024

**Test Information**

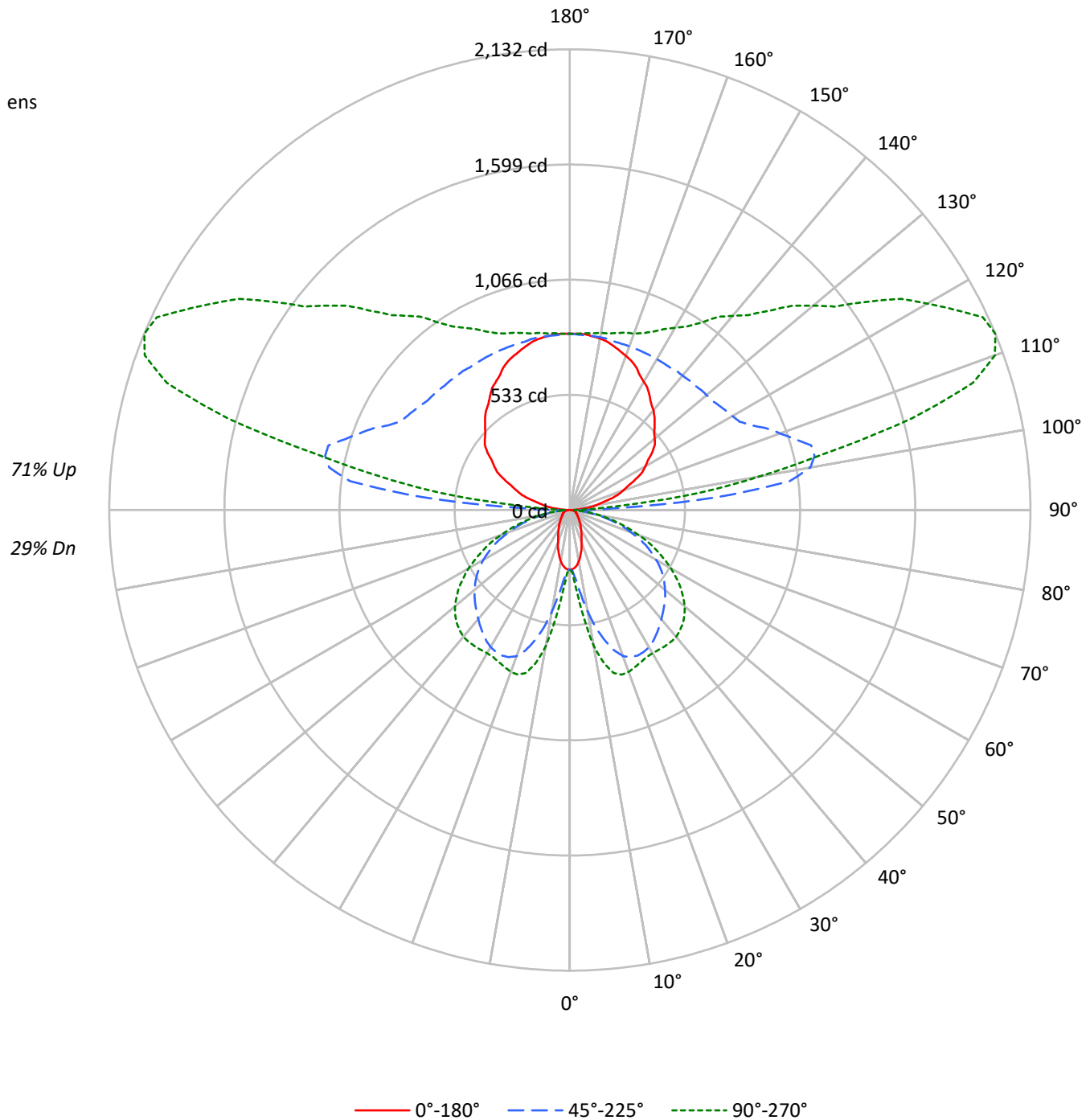
Test Method: LM-79-2019  
Report Number: P937461  
REPORT IS A COMBINATION OF REPORTS P933573 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-6-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7421.7 lumens  
Efficiency: N/A  
Efficacy: 120.1 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 (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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CATALOG NUMBER: SQ4-FB-100U-050D-93050-1D-UNV-STD-W-6-3000K

### 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	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°	1699	1699	1699
5°	1660	1964	2285
10°	1505	2862	3787
15°	1278	3738	4573
20°	1041	4332	4661
25°	868	4531	4567
30°	732	4559	4558
35°	646	4482	4675
40°	563	4383	4798
45°	509	4309	4816
50°	466	4242	4736
55°	447	4146	4527
60°	457	3963	4195
65°	475	3684	3739
70°	505	3210	3160
75°	558	2615	2465
80°	602	1811	1661
85°	531	959	850

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4816 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.5	0.5
10°-20°	157.5	2.1
20°-30°	275.5	3.7
30°-40°	354.7	4.8
40°-50°	396.2	5.3
50°-60°	379.4	5.1
60°-70°	300.7	4.1
70°-80°	176.8	2.4
80°-90°	52.2	0.7
90°-100°	398.0	5.4
100°-110°	1046.4	14.1
110°-120°	1085.0	14.6
120°-130°	870.3	11.7
130°-140°	682.9	9.2
140°-150°	524.1	7.1
150°-160°	377.5	5.1
160°-170°	231.0	3.1
170°-180°	78.0	1.1
0°-30°	468.6	6.3
0°-40°	823.3	11.1
0°-60°	1598.8	21.5
0°-90°	2128.6	28.7
90°-120°	2529.3	34.1
90°-150°	4606.6	62.1
90°-180°	5293.0	71.3
0°-180°	7421.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	275	275	275	275	275	
5°	268	287	323	366	379	25
15°	200	370	624	756	780	56
25°	128	420	743	776	777	59
35°	87	401	700	739	769	54
45°	59	320	618	708	740	46
55°	42	203	525	610	626	39
65°	34	108	390	438	444	33
75°	25	66	214	235	236	26
85°	9	20	53	58	59	9
90°	5	15	42	21	21	5
95°	53	206	686	353	241	58
105°	188	286	1157	1756	1638	200
115°	335	407	927	1848	2110	331
125°	466	522	843	1424	1680	414
135°	555	611	816	1150	1304	429
145°	644	685	806	981	1058	403
155°	728	748	806	885	911	334
165°	785	796	806	838	848	222
175°	816	816	812	822	822	78
180°	816	816	816	816	816	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7	274.7
2.5°	274.7	274.7	276.5	277.4	279.2	280.1	281.8	283.6	288.9	289.8	291.5
5°	267.7	271.2	282.7	287.1	299.5	316.3	323.3	334.8	358.7	365.7	370.2
7.5°	257.1	265.1	293.3	300.4	331.3	375.5	394.0	418.8	456.7	475.3	490.4
10°	240.3	257.1	307.4	324.3	374.6	441.7	476.2	510.6	568.1	593.6	603.4
12.5°	221.8	249.2	322.4	345.4	417.9	515.9	557.5	595.5	660.8	695.3	700.5
15°	200.5	237.7	336.6	370.2	463.8	577.7	623.7	670.6	731.5	756.2	762.5
17.5°	182.0	228.8	349.8	385.2	499.1	633.4	680.2	719.2	768.6	785.4	789.8
20°	159.1	214.7	358.7	404.6	536.3	674.1	719.2	749.2	782.7	793.4	795.1
22.5°	142.2	199.6	364.0	411.7	561.0	698.8	736.8	760.6	783.6	787.1	788.0
25°	128.1	182.9	363.1	419.7	582.2	713.8	743.0	760.6	773.9	775.6	775.6
27.5°	114.9	164.3	359.6	421.4	598.1	717.4	740.3	752.7	758.9	762.5	762.5
30°	103.4	146.7	350.7	417.9	605.1	713.8	732.4	738.6	744.7	750.1	752.7
32.5°	94.5	129.9	337.4	410.8	606.0	705.0	718.3	721.8	730.6	743.0	747.4
35°	86.6	113.1	322.4	401.1	600.8	690.9	699.7	703.3	720.9	739.4	745.6
37.5°	78.6	100.7	303.0	384.3	592.8	674.1	680.2	686.5	713.8	735.9	743.0
40°	70.7	90.1	280.1	365.7	580.5	653.7	659.1	668.7	705.0	730.6	737.7
42.5°	64.5	81.2	255.3	346.3	564.5	630.8	638.7	652.8	694.4	721.8	729.7
45°	59.2	72.5	228.8	319.8	544.2	606.9	618.4	637.8	682.0	708.5	715.6
47.5°	53.9	66.2	201.4	292.4	522.1	583.1	598.1	620.2	665.2	690.9	697.0
50°	49.4	60.1	174.1	263.2	498.3	557.5	575.1	598.1	644.1	667.9	675.9
52.5°	45.9	54.8	148.4	234.2	470.9	530.9	551.3	575.1	618.4	641.4	646.7
55°	42.4	50.3	126.3	203.2	442.6	502.7	524.8	547.7	590.1	609.5	613.1
57.5°	40.7	46.8	107.8	174.1	412.5	470.9	495.6	516.8	556.6	571.6	575.1
60°	38.0	44.2	93.6	149.3	379.9	440.8	462.1	483.2	516.8	529.2	531.8
62.5°	35.3	42.4	83.1	125.4	346.3	405.5	426.7	446.2	474.4	483.2	486.8
65°	33.6	40.7	75.1	107.8	311.9	368.4	389.6	406.4	429.3	438.2	439.9
67.5°	31.8	38.9	68.9	92.7	277.4	331.3	347.2	363.1	380.7	389.6	390.5
70°	29.2	37.1	63.6	82.1	242.1	288.9	302.1	318.9	333.1	337.4	340.2
72.5°	27.4	34.4	60.1	74.2	205.9	248.2	260.6	270.3	282.7	287.1	287.1
75°	24.8	30.9	56.6	66.2	168.7	203.2	213.8	223.5	233.2	235.0	232.3
77.5°	22.0	27.4	48.6	55.7	131.7	160.8	169.6	175.0	182.9	184.6	185.5
80°	18.5	23.9	38.0	43.3	95.4	118.4	124.5	129.0	136.0	136.0	137.8
82.5°	14.1	18.5	27.4	30.9	64.5	81.2	86.6	89.2	93.6	93.6	93.6
85°	8.9	11.5	17.7	20.3	38.9	49.4	53.0	53.9	57.4	58.3	58.3
87.5°	4.4	6.1	11.5	12.4	20.3	25.6	25.6	27.4	27.4	26.5	25.6
90°	5.4	9.8	14.2	15.4	24.2	35.8	41.6	37.0	27.8	20.8	20.8
92.5°	22.0	59.2	96.4	105.7	148.7	205.9	234.5	205.5	147.6	104.1	100.0
95°	52.6	120.8	189.0	206.0	365.9	579.0	685.5	611.7	464.1	353.4	340.9
97.5°	91.0	151.2	211.3	226.3	492.8	848.2	1025.9	979.2	885.9	815.9	792.1
100°	120.6	175.1	229.7	243.3	539.0	933.3	1130.5	1133.9	1140.7	1145.8	1117.4
102.5°	145.8	196.7	247.6	260.3	560.3	960.2	1160.1	1219.5	1338.4	1427.5	1403.2
105°	188.5	231.6	274.7	285.5	576.0	963.2	1156.8	1290.0	1556.4	1756.3	1743.2
107.5°	232.3	272.5	312.8	322.8	578.9	920.3	1091.0	1276.9	1648.5	1927.3	1930.4
110°	261.9	298.2	334.5	343.6	574.5	882.3	1036.2	1243.9	1659.5	1971.1	1984.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	291.0	325.6	360.2	368.8	574.7	849.1	986.3	1199.0	1624.2	1943.2	1964.1
115°	334.8	366.7	398.6	406.6	579.9	811.0	926.6	1131.4	1541.2	1848.4	1877.5
117.5°	378.1	407.1	436.1	443.3	590.7	787.2	885.5	1070.4	1440.1	1717.3	1749.6
120°	403.3	430.6	457.9	464.7	599.5	779.2	869.1	1038.0	1375.8	1629.2	1660.4
122.5°	428.0	455.5	483.1	489.9	612.1	775.0	856.5	1008.6	1312.8	1540.9	1571.8
125°	465.8	490.9	516.0	522.2	629.1	771.6	842.8	972.0	1230.4	1424.3	1452.7
127.5°	496.5	521.8	547.2	553.5	646.1	769.6	831.3	942.2	1164.1	1330.5	1354.5
130°	512.9	540.2	567.5	574.3	658.6	770.8	826.9	925.6	1123.2	1271.3	1293.5
132.5°	529.9	557.2	584.4	591.3	668.6	771.6	823.1	911.5	1088.3	1220.9	1240.8
135°	555.1	579.9	604.8	611.0	679.5	770.8	816.5	890.5	1038.6	1149.7	1166.8
137.5°	580.8	605.4	630.1	636.2	696.0	775.6	815.4	878.0	1003.2	1097.1	1111.1
140°	602.3	624.9	647.6	653.2	706.0	776.3	811.6	865.7	973.8	1054.8	1067.9
142.5°	618.7	639.7	660.6	665.8	714.4	779.1	811.6	859.1	954.0	1025.2	1036.5
145°	643.9	662.2	680.4	685.0	725.4	779.2	806.1	844.9	922.7	980.9	989.4
147.5°	669.1	686.8	704.6	709.1	741.4	784.5	806.1	836.7	897.8	943.6	950.7
150°	685.5	701.6	717.7	721.7	749.8	787.3	806.1	831.9	883.5	922.2	927.9
152.5°	702.6	714.8	726.9	730.0	755.3	789.2	806.1	828.2	872.2	905.3	909.6
155°	727.8	736.7	745.7	748.0	767.4	793.2	806.1	823.7	858.7	885.0	887.9
157.5°	746.4	755.2	763.9	766.1	779.4	797.2	806.1	819.7	847.0	867.5	869.5
160°	758.9	765.8	772.6	774.3	784.9	799.1	806.1	817.8	841.1	858.7	859.9
162.5°	771.6	776.7	781.8	783.1	790.7	801.0	806.1	815.9	835.7	850.5	851.5
165°	785.3	789.9	794.5	795.7	799.2	803.8	806.1	813.1	827.3	837.9	839.0
167.5°	797.8	800.0	802.2	802.8	805.7	809.6	811.6	816.2	825.4	832.4	832.9
170°	806.1	808.3	810.5	811.0	811.2	811.5	811.6	816.2	825.4	832.4	832.4
172.5°	810.5	810.9	811.5	811.6	811.6	811.6	811.6	815.2	822.5	828.0	827.5
175°	816.5	816.5	816.5	816.5	814.8	812.6	811.6	813.8	818.5	822.0	822.0
177.5°	816.5	816.5	816.5	816.5	815.2	813.6	812.7	814.5	818.1	820.9	820.3
180°	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	274.7	274.7
2.5°	293.3	291.5
5°	377.2	379.0
7.5°	508.0	507.1
10°	631.7	639.6
12.5°	721.8	723.5
15°	776.6	780.1
17.5°	797.8	798.6
20°	798.6	796.9
22.5°	788.9	787.1
25°	777.5	776.6
27.5°	766.8	767.7
30°	762.5	765.1
32.5°	762.5	766.8
35°	764.2	768.6
37.5°	763.3	768.6
40°	759.7	766.0
42.5°	750.1	754.5
45°	735.1	740.3
47.5°	715.6	719.2
50°	690.9	694.4
52.5°	660.0	660.8
55°	622.8	626.4
57.5°	583.1	584.0
60°	538.9	541.6
62.5°	492.1	492.1
65°	442.6	444.3
67.5°	391.4	395.8
70°	339.3	340.2
72.5°	288.0	288.0
75°	235.0	235.9
77.5°	184.6	184.6
80°	136.9	137.8
82.5°	94.5	96.3
85°	59.2	59.2
87.5°	27.4	24.8
90°	20.8	20.8
92.5°	83.4	66.8
95°	290.7	240.6
97.5°	696.6	601.1
100°	1003.6	889.9
102.5°	1305.7	1208.3
105°	1690.8	1638.5
107.5°	1943.2	1955.8
110°	2039.3	2093.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2047.8	2131.6
115°	1993.6	2109.8
117.5°	1878.4	2007.3
120°	1785.7	1910.8
122.5°	1695.3	1818.8
125°	1566.4	1680.1
127.5°	1450.5	1546.4
130°	1382.2	1470.8
132.5°	1320.2	1399.6
135°	1235.2	1303.7
137.5°	1167.1	1223.1
140°	1120.4	1172.7
142.5°	1081.6	1126.7
145°	1023.6	1057.7
147.5°	979.0	1007.2
150°	950.8	973.8
152.5°	926.9	944.2
155°	899.3	910.7
157.5°	877.5	885.5
160°	864.5	869.1
162.5°	855.9	860.3
165°	843.7	848.3
167.5°	834.8	836.8
170°	832.4	832.4
172.5°	825.9	824.2
175°	822.0	822.0
177.5°	818.4	816.5
180°	816.5	816.5



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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	0.47	1.19	1.59	2.30	3.85	13.63	14.35	14.75	15.46	17.01
	3H	1.17	1.81	2.29	2.93	4.49	15.46	16.10	16.58	17.22	18.78
	4H	1.46	2.07	2.59	3.19	4.76	16.09	16.70	17.23	17.83	19.39
	6H	1.70	2.26	2.84	3.39	4.96	16.51	17.07	17.65	18.20	19.78
	8H	1.76	2.30	2.91	3.44	5.01	16.63	17.16	17.77	18.30	19.87
	12H	1.77	2.28	2.92	3.42	5.01	16.69	17.19	17.84	18.33	19.92
4H	2H	7.66	8.27	8.80	9.39	10.96	13.89	14.50	15.03	15.63	17.19
	3H	9.21	9.73	10.36	10.87	12.45	15.92	16.43	17.07	17.58	19.16
	4H	9.30	9.77	10.45	10.91	12.51	16.68	17.15	17.83	18.28	19.88
	6H	9.30	9.71	10.46	10.87	12.46	17.20	17.61	18.36	18.77	20.35
	8H	9.28	9.65	10.43	10.81	12.41	17.36	17.73	18.51	18.89	20.49
	12H	9.23	9.57	10.40	10.73	12.34	17.44	17.78	18.61	18.95	20.56
8H	4H	10.73	11.11	11.89	12.26	13.86	16.72	17.10	17.88	18.25	19.86
	6H	10.97	11.28	12.14	12.47	14.07	17.34	17.65	18.52	18.85	20.45
	8H	10.98	11.25	12.16	12.43	14.05	17.56	17.83	18.74	19.00	20.62
	12H	10.94	11.18	12.13	12.35	14.01	17.69	17.93	18.88	19.10	20.75
12H	4H	10.87	11.21	12.04	12.37	13.98	16.67	17.01	17.84	18.17	19.78
	6H	11.22	11.49	12.40	12.67	14.29	17.32	17.60	18.50	18.77	20.39
	8H	11.28	11.52	12.47	12.69	14.35	17.54	17.78	18.73	18.95	20.61