

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: P938257

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

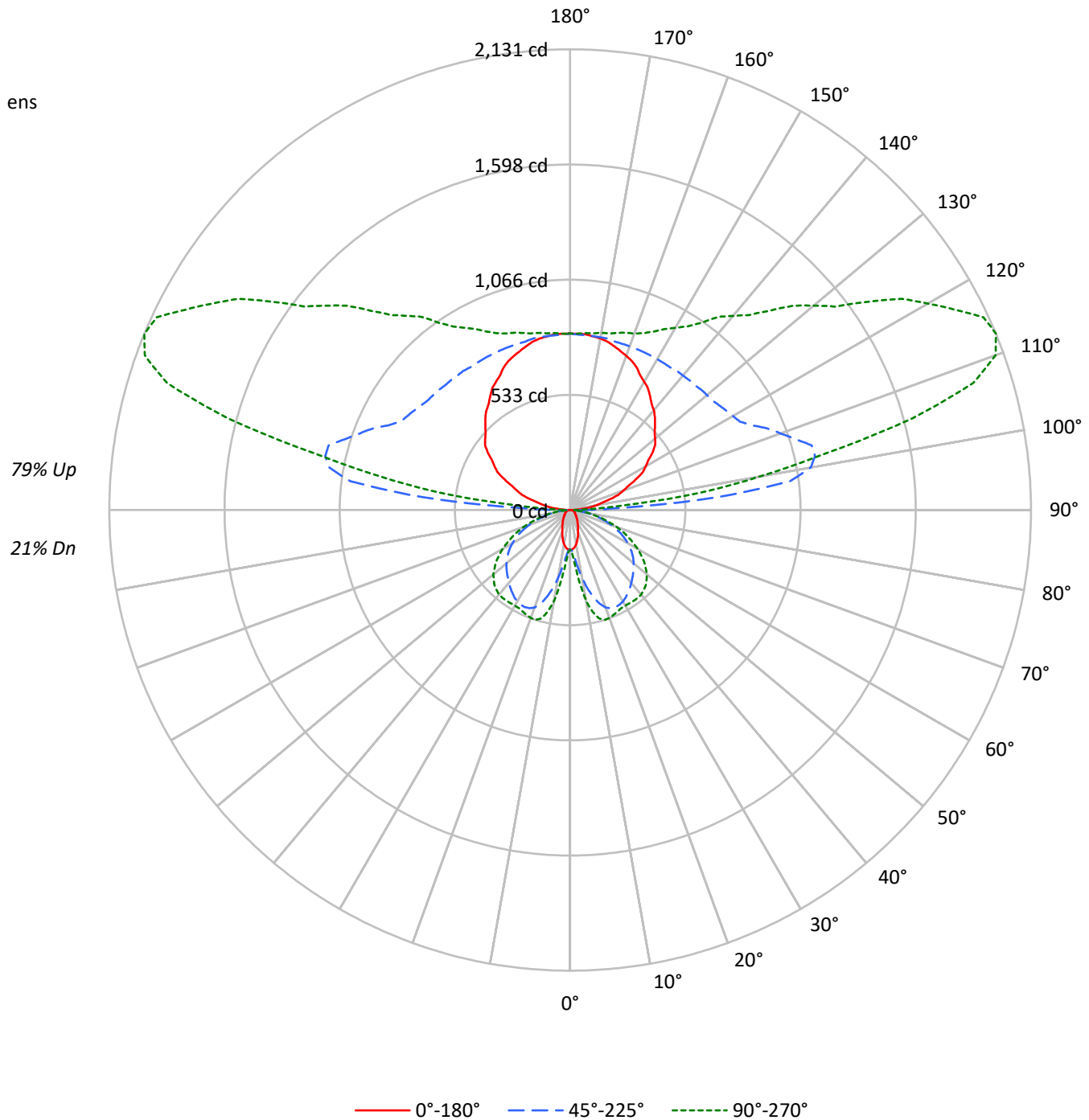
Test Method: LM-79-2019  
Report Number: P938257  
REPORT IS A COMBINATION OF REPORTS P933629 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6712.0 lumens  
Efficiency: N/A  
Efficacy: 120.7 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





TEST NUMBER: P938257

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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°	1700	1700	1700
5°	1660	1963	2286
10°	1504	2861	3789
15°	1277	3735	4576
20°	1038	4324	4663
25°	865	4522	4568
30°	728	4547	4560
35°	642	4468	4677
40°	560	4367	4799
45°	504	4291	4818
50°	463	4222	4738
55°	442	4123	4528
60°	450	3937	4197
65°	467	3655	3740
70°	493	3181	3161
75°	541	2586	2466
80°	580	1788	1663
85°	489	945	849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.7	0.4
10°-20°	105.1	1.6
20°-30°	183.8	2.7
30°-40°	236.5	3.5
40°-50°	264.2	3.9
50°-60°	253.1	3.8
60°-70°	200.5	3.0
70°-80°	117.9	1.8
80°-90°	35.9	0.5
90°-100°	397.9	5.9
100°-110°	1046.0	15.6
110°-120°	1084.6	16.2
120°-130°	870.0	13.0
130°-140°	682.6	10.2
140°-150°	523.9	7.8
150°-160°	377.3	5.6
160°-170°	230.9	3.4
170°-180°	78.0	1.2
0°-30°	312.5	4.7
0°-40°	549.1	8.2
0°-60°	1066.3	15.9
0°-90°	1420.7	21.2
90°-120°	2528.5	37.7
90°-150°	4605.1	68.6
90°-180°	5291.0	78.8
0°-180°	6712.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	183	183	183	183	183	
5°	179	192	216	244	253	16
15°	134	247	416	504	520	37
25°	86	280	496	517	518	39
35°	58	268	467	493	513	36
45°	39	213	412	472	494	31
55°	28	136	350	407	418	26
65°	22	72	260	292	296	22
75°	16	44	142	157	157	17
85°	6	14	35	39	39	6
90°	5	15	42	21	21	5
95°	53	206	685	353	240	58
105°	188	285	1156	1756	1638	200
115°	335	406	926	1848	2109	331
125°	466	522	843	1424	1680	413
135°	555	611	816	1149	1303	429
145°	644	685	806	980	1057	403
155°	728	748	806	885	910	334
165°	785	795	806	838	848	222
175°	816	816	811	822	822	77
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°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
2.5°	183.2	183.2	184.4	185.0	186.2	186.8	188.0	189.1	192.7	193.2	194.5
5°	178.6	180.9	188.6	191.5	199.7	211.0	215.6	223.4	239.2	243.9	246.9
7.5°	171.4	176.8	195.6	200.3	221.0	250.4	262.8	279.3	304.6	317.0	327.0
10°	160.3	171.4	205.1	216.2	249.8	294.6	317.6	340.6	378.9	395.9	402.4
12.5°	147.9	166.2	215.1	230.4	278.7	344.1	371.8	397.2	440.7	463.7	467.3
15°	133.8	158.5	224.5	246.9	309.3	385.3	416.0	447.2	487.9	504.3	508.4
17.5°	121.4	152.6	233.4	256.9	332.9	422.5	453.7	479.6	512.6	523.8	526.7
20°	106.1	143.2	239.2	269.9	357.6	449.6	479.6	499.7	522.1	529.1	530.3
22.5°	94.9	133.2	242.8	274.6	374.2	466.0	491.4	507.3	522.6	525.0	525.6
25°	85.5	122.0	242.1	279.9	388.3	476.0	495.5	507.3	516.2	517.3	517.3
27.5°	76.6	109.6	239.8	281.1	398.9	478.4	493.8	502.0	506.2	508.4	508.4
30°	68.9	97.8	233.9	278.7	403.6	476.0	488.4	492.6	496.7	500.3	502.0
32.5°	63.1	86.6	225.1	273.9	404.2	470.2	479.0	481.4	487.3	495.5	498.4
35°	57.7	75.4	215.1	267.5	400.7	460.8	466.6	469.0	480.8	493.2	497.3
37.5°	52.4	67.2	202.1	256.3	395.3	449.6	453.7	457.9	476.0	490.8	495.5
40°	47.2	60.1	186.8	243.9	387.2	436.0	439.6	446.0	470.2	487.3	492.0
42.5°	43.0	54.2	170.3	231.0	376.5	420.7	426.0	435.5	463.1	481.4	486.7
45°	39.4	48.3	152.6	213.3	362.9	404.8	412.5	425.4	454.9	472.5	477.3
47.5°	35.9	44.2	134.4	195.1	348.2	388.9	398.9	413.6	443.7	460.8	464.9
50°	33.0	40.1	116.1	175.6	332.3	371.8	383.6	398.9	429.6	445.5	450.7
52.5°	30.7	36.5	99.0	156.2	314.1	354.1	367.7	383.6	412.5	427.7	431.3
55°	28.3	33.6	84.2	135.5	295.2	335.2	350.0	365.3	393.6	406.6	408.9
57.5°	27.1	31.3	71.8	116.1	275.2	314.1	330.5	344.6	371.2	381.2	383.6
60°	25.3	29.4	62.4	99.6	253.4	294.1	308.2	322.3	344.6	352.9	354.7
62.5°	23.5	28.3	55.4	83.7	231.0	270.4	284.6	297.6	316.4	322.3	324.6
65°	22.4	27.1	50.1	71.8	208.0	245.7	259.8	271.0	286.3	292.2	293.4
67.5°	21.3	25.9	45.9	61.8	185.0	221.0	231.5	242.1	253.9	259.8	260.4
70°	19.4	24.8	42.4	54.8	161.4	192.7	201.5	212.7	222.1	225.1	226.9
72.5°	18.3	23.0	40.1	49.5	137.3	165.6	173.8	180.3	188.6	191.5	191.5
75°	16.5	20.6	37.7	44.2	112.5	135.5	142.5	149.0	155.5	156.7	154.9
77.5°	14.8	18.3	32.4	37.2	87.8	107.2	113.1	116.6	122.0	123.1	123.8
80°	12.4	15.9	25.3	28.9	63.7	79.0	83.1	86.0	90.7	90.7	92.0
82.5°	9.4	12.4	18.3	20.6	43.0	54.2	57.7	59.5	62.4	62.4	62.4
85°	5.9	7.6	11.8	13.5	25.9	33.0	35.4	35.9	38.3	38.9	38.9
87.5°	3.0	4.1	7.6	8.3	13.5	17.1	17.1	18.3	18.3	17.7	17.1
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°	21.9	59.1	96.4	105.7	148.6	205.8	234.4	205.4	147.6	104.1	100.0
95°	52.6	120.8	188.9	206.0	365.7	578.8	685.3	611.6	464.0	353.3	340.8
97.5°	90.9	151.1	211.2	226.3	492.6	847.9	1025.5	978.9	885.6	815.7	791.8
100°	120.5	175.0	229.6	243.2	538.8	933.0	1130.1	1133.5	1140.4	1145.5	1117.0
102.5°	145.7	196.7	247.5	260.2	560.1	959.8	1159.7	1219.1	1337.9	1427.1	1402.7
105°	188.5	231.6	274.6	285.4	575.7	962.8	1156.4	1289.5	1555.9	1755.7	1742.6
107.5°	232.3	272.4	312.7	322.7	578.7	920.0	1090.7	1276.4	1648.0	1926.6	1929.8
110°	261.8	298.1	334.5	343.5	574.3	882.0	1035.9	1243.6	1658.9	1970.5	1984.1



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	290.9	325.5	360.1	368.7	574.5	848.9	986.1	1198.6	1623.7	1942.5	1963.4
115°	334.7	366.6	398.5	406.5	579.8	810.8	926.3	1131.1	1540.6	1847.8	1876.8
117.5°	378.0	407.0	436.0	443.2	590.6	787.0	885.2	1070.0	1439.6	1716.8	1749.0
120°	403.1	430.5	457.7	464.5	599.3	779.0	868.8	1037.6	1375.3	1628.6	1659.9
122.5°	427.8	455.3	482.9	489.7	611.9	774.8	856.3	1008.3	1312.4	1540.5	1571.3
125°	465.7	490.7	515.8	522.1	628.9	771.3	842.6	971.7	1230.0	1423.7	1452.2
127.5°	496.3	521.6	546.9	553.2	645.8	769.3	831.0	942.0	1163.7	1330.1	1354.1
130°	512.8	540.0	567.2	574.1	658.3	770.5	826.7	925.4	1122.8	1270.9	1293.0
132.5°	529.7	557.0	584.2	591.1	668.3	771.3	822.8	911.1	1088.0	1220.5	1240.3
135°	554.9	579.8	604.5	610.8	679.3	770.5	816.2	890.2	1038.2	1149.3	1166.4
137.5°	580.6	605.2	629.8	636.0	695.7	775.4	815.2	877.7	1002.8	1096.7	1110.7
140°	602.1	624.7	647.4	653.0	705.8	776.2	811.3	865.3	973.4	1054.5	1067.6
142.5°	618.5	639.4	660.3	665.6	714.1	778.9	811.3	858.8	953.7	1025.0	1036.2
145°	643.7	662.0	680.2	684.7	725.1	779.0	805.8	844.7	922.3	980.5	989.1
147.5°	668.8	686.7	704.4	708.9	741.2	784.3	805.8	836.4	897.4	943.3	950.3
150°	685.3	701.4	717.4	721.4	749.5	787.0	805.8	831.7	883.2	922.0	927.7
152.5°	702.3	714.5	726.6	729.7	755.1	788.9	805.8	827.9	872.0	905.0	909.3
155°	727.5	736.5	745.5	747.8	767.1	792.9	805.8	823.4	858.5	884.7	887.6
157.5°	746.1	754.9	763.6	765.8	779.1	797.0	805.8	819.5	846.7	867.1	869.2
160°	758.7	765.5	772.4	774.0	784.7	798.8	805.8	817.5	840.9	858.4	859.5
162.5°	771.3	776.4	781.5	782.8	790.5	800.7	805.8	815.7	835.4	850.2	851.2
165°	785.0	789.6	794.2	795.4	798.9	803.6	805.8	812.9	827.0	837.5	838.7
167.5°	797.6	799.8	802.0	802.5	805.4	809.4	811.3	815.9	825.2	832.1	832.6
170°	805.8	808.0	810.2	810.8	810.9	811.2	811.3	815.9	825.2	832.1	832.1
172.5°	810.2	810.7	811.2	811.3	811.3	811.3	811.3	815.0	822.3	827.7	827.3
175°	816.2	816.2	816.2	816.2	814.5	812.3	811.3	813.6	818.2	821.7	821.7
177.5°	816.2	816.2	816.2	816.2	815.0	813.3	812.4	814.3	817.9	820.6	820.1
180°	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	183.2	183.2
2.5°	195.6	194.5
5°	251.6	252.8
7.5°	338.8	338.2
10°	421.3	426.6
12.5°	481.4	482.5
15°	517.9	520.3
17.5°	532.1	532.7
20°	532.7	531.5
22.5°	526.2	525.0
25°	518.5	517.9
27.5°	511.4	512.0
30°	508.4	510.3
32.5°	508.4	511.4
35°	509.7	512.6
37.5°	509.1	512.6
40°	506.7	510.8
42.5°	500.3	503.2
45°	490.2	493.8
47.5°	477.3	479.6
50°	460.8	463.1
52.5°	440.1	440.7
55°	415.4	417.7
57.5°	388.9	389.4
60°	359.4	361.2
62.5°	328.2	328.2
65°	295.2	296.3
67.5°	261.0	263.9
70°	226.3	226.9
72.5°	192.1	192.1
75°	156.7	157.3
77.5°	123.1	123.1
80°	91.3	92.0
82.5°	63.1	64.2
85°	39.4	39.4
87.5°	18.3	16.5
90°	20.8	20.8
92.5°	83.4	66.8
95°	290.6	240.5
97.5°	696.4	600.9
100°	1003.4	889.6
102.5°	1305.3	1207.9
105°	1690.3	1637.9
107.5°	1942.5	1955.1
110°	2038.6	2093.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2047.2	2130.9
115°	1993.0	2109.1
117.5°	1877.8	2006.6
120°	1785.1	1910.2
122.5°	1694.8	1818.2
125°	1565.8	1679.6
127.5°	1450.0	1545.9
130°	1381.7	1470.3
132.5°	1319.6	1399.0
135°	1234.8	1303.2
137.5°	1166.7	1222.7
140°	1119.9	1172.3
142.5°	1081.3	1126.2
145°	1023.2	1057.3
147.5°	978.6	1006.9
150°	950.6	973.4
152.5°	926.6	943.8
155°	899.0	910.4
157.5°	877.2	885.2
160°	864.2	868.8
162.5°	855.6	860.0
165°	843.3	848.0
167.5°	834.6	836.5
170°	832.1	832.1
172.5°	825.6	823.9
175°	821.7	821.7
177.5°	818.1	816.2
180°	816.2	816.2



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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	0.42	1.07	2.70	12.40	13.06	13.57	14.22	15.85
	3H	0.00	0.54	1.12	1.70	3.35	14.21	14.80	15.38	15.97	17.61
	4H	0.24	0.80	1.42	1.97	3.61	14.83	15.40	16.02	16.56	18.21
	6H	0.48	1.00	1.67	2.16	3.82	15.24	15.76	16.43	16.93	18.59
	8H	0.54	1.04	1.73	2.22	3.87	15.35	15.85	16.54	17.02	18.68
	12H	0.55	1.02	1.75	2.19	3.87	15.40	15.87	16.60	17.05	18.72
4H	2H	6.43	6.99	7.62	8.15	9.80	12.65	13.22	13.84	14.38	16.03
	3H	7.98	8.45	9.17	9.64	11.30	14.66	15.14	15.86	16.32	17.98
	4H	8.06	8.50	9.26	9.67	11.35	15.41	15.85	16.61	17.02	18.70
	6H	8.06	8.44	9.26	9.63	11.30	15.93	16.30	17.13	17.50	19.16
	8H	8.03	8.38	9.23	9.57	11.26	16.08	16.42	17.27	17.61	19.30
	12H	7.98	8.30	9.20	9.50	11.19	16.15	16.47	17.36	17.67	19.36
8H	4H	9.48	9.83	10.68	11.02	12.70	15.45	15.80	16.65	16.99	18.68
	6H	9.71	10.00	10.93	11.23	12.91	16.06	16.35	17.28	17.58	19.26
	8H	9.73	9.98	10.95	11.19	12.89	16.27	16.52	17.49	17.73	19.43
	12H	9.69	9.91	10.91	11.11	12.85	16.40	16.62	17.62	17.82	19.55
12H	4H	9.61	9.93	10.82	11.13	12.82	15.40	15.71	16.61	16.91	18.60
	6H	9.97	10.22	11.19	11.42	13.13	16.04	16.29	17.26	17.50	19.20
	8H	10.03	10.25	11.25	11.45	13.18	16.25	16.47	17.48	17.68	19.41