

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: P937823

Luminaire Tested: SQ4-FB-125U-050D-927-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

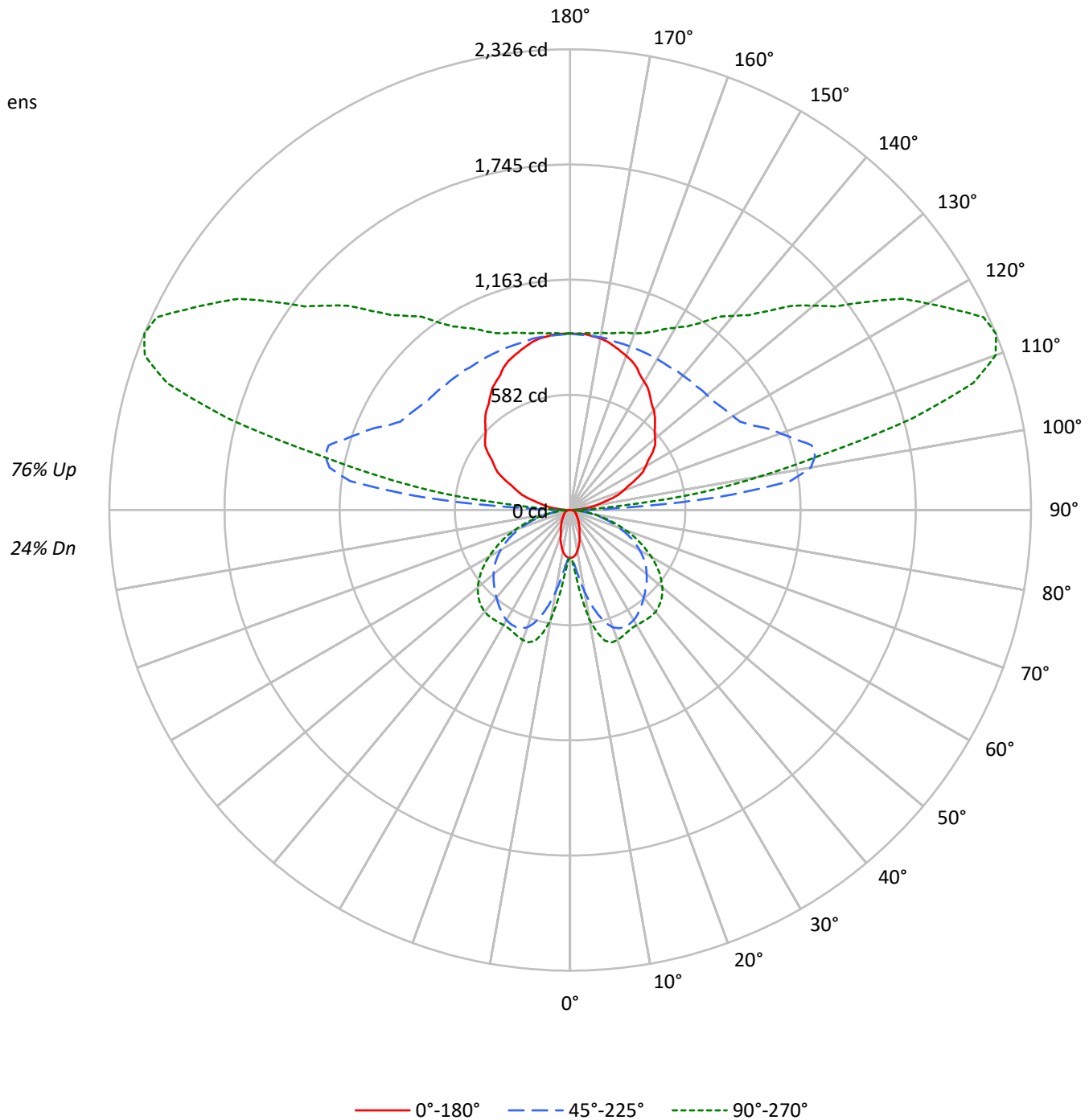
Test Method: LM-79-2019  
Report Number: P937823  
REPORT IS A COMBINATION OF REPORTS P933605 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7643.0 lumens  
Efficiency: N/A  
Efficacy: 107.0 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): 71.4  
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	50	30	10	0
RCR																					
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24			24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20			20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16			16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	21	20	19	13			13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11			11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10			10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8			8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7			7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6			6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6			6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5			5

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

	0°	45°	90°
0°	1490	1490	1490
5°	1455	1721	2003
10°	1320	2509	3320
15°	1121	3277	4009
20°	912	3797	4086
25°	761	3972	4003
30°	641	3997	3995
35°	567	3929	4099
40°	494	3842	4206
45°	447	3778	4222
50°	410	3719	4153
55°	392	3635	3969
60°	400	3474	3678
65°	415	3230	3278
70°	443	2815	2770
75°	488	2292	2161
80°	527	1588	1456
85°	465	842	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4222 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.2	0.4
10°-20°	138.1	1.8
20°-30°	241.5	3.2
30°-40°	310.9	4.1
40°-50°	347.3	4.5
50°-60°	332.6	4.4
60°-70°	263.6	3.4
70°-80°	155.0	2.0
80°-90°	46.5	0.6
90°-100°	434.3	5.7
100°-110°	1141.9	14.9
110°-120°	1184.0	15.5
120°-130°	949.7	12.4
130°-140°	745.2	9.7
140°-150°	572.0	7.5
150°-160°	411.9	5.4
160°-170°	252.0	3.3
170°-180°	85.1	1.1
0°-30°	410.8	5.4
0°-40°	721.7	9.4
0°-60°	1401.7	18.3
0°-90°	1866.8	24.4
90°-120°	2760.2	36.1
90°-150°	5027.1	65.8
90°-180°	5776.0	75.6
0°-180°	7643.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	241	241	241	241	241	
5°	235	252	283	321	332	22
15°	176	325	547	663	684	49
25°	112	368	651	680	681	52
35°	76	352	613	648	674	47
45°	52	280	542	621	649	40
55°	37	178	460	534	549	34
65°	29	94	342	384	390	29
75°	22	58	187	206	207	23
85°	8	18	46	51	52	8
90°	6	17	45	23	23	5
95°	57	225	748	386	262	64
105°	206	312	1262	1917	1788	218
115°	365	444	1011	2017	2302	361
125°	508	570	920	1554	1834	451
135°	606	667	891	1255	1423	469
145°	703	748	880	1070	1154	440
155°	794	816	880	966	994	365
165°	857	868	880	914	926	242
175°	891	891	886	897	897	85
180°	891	891	891	891	891	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9	240.9
2.5°	240.9	240.9	242.4	243.2	244.8	245.6	247.1	248.6	253.3	254.0	255.6
5°	234.7	237.8	247.9	251.7	262.6	277.3	283.4	293.5	314.5	320.6	324.6
7.5°	225.4	232.4	257.1	263.3	290.4	329.2	345.4	367.1	400.4	416.7	429.9
10°	210.7	225.4	269.5	284.3	328.4	387.2	417.5	447.7	498.0	520.4	529.0
12.5°	194.4	218.4	282.7	302.8	366.4	452.3	488.7	522.1	579.3	609.5	614.2
15°	175.8	208.4	295.1	324.6	406.6	506.5	546.8	587.9	641.3	663.0	668.4
17.5°	159.5	200.6	306.7	337.7	437.6	555.3	596.4	630.5	673.8	688.5	692.4
20°	139.4	188.2	314.5	354.7	470.2	591.0	630.5	656.8	686.2	695.5	697.1
22.5°	124.7	175.0	319.1	360.9	491.8	612.6	646.0	666.8	687.0	690.1	690.8
25°	112.3	160.3	318.3	367.9	510.4	625.8	651.3	666.8	678.4	680.0	680.0
27.5°	100.7	144.1	315.2	369.4	524.4	628.9	649.0	659.9	665.3	668.4	668.4
30°	90.6	128.6	307.5	366.4	530.5	625.8	642.1	647.5	652.9	657.6	659.9
32.5°	82.9	113.9	295.8	360.1	531.3	618.1	629.7	632.8	640.5	651.3	655.3
35°	75.9	99.2	282.7	351.7	526.7	605.7	613.4	616.5	632.0	648.3	653.7
37.5°	68.9	88.3	265.7	337.0	519.7	591.0	596.4	601.8	625.8	645.2	651.3
40°	62.0	79.0	245.6	320.6	508.9	573.1	577.8	586.3	618.1	640.5	646.7
42.5°	56.5	71.2	223.8	303.6	494.9	553.0	559.9	572.3	608.8	632.8	639.7
45°	51.9	63.5	200.6	280.4	477.1	532.1	542.2	559.2	597.9	621.2	627.3
47.5°	47.3	58.1	176.6	256.3	457.8	511.2	524.4	543.7	583.2	605.7	611.1
50°	43.4	52.7	152.6	230.8	436.8	488.7	504.2	524.4	564.6	585.5	592.5
52.5°	40.3	48.0	130.1	205.3	412.8	465.5	483.3	504.2	542.2	562.3	567.0
55°	37.2	44.1	110.7	178.1	388.0	440.7	460.1	480.2	517.4	534.4	537.5
57.5°	35.7	41.0	94.5	152.6	361.7	412.8	434.5	453.1	487.9	501.1	504.2
60°	33.3	38.7	82.1	130.9	333.0	386.5	405.1	423.7	453.1	463.9	466.2
62.5°	31.0	37.2	72.8	110.0	303.6	355.5	374.1	391.2	415.9	423.7	426.7
65°	29.4	35.7	65.8	94.5	273.4	322.9	341.6	356.3	376.4	384.2	385.7
67.5°	27.9	34.1	60.4	81.3	243.2	290.4	304.4	318.3	333.8	341.6	342.3
70°	25.6	32.5	55.7	72.0	212.2	253.3	264.9	279.6	292.0	295.8	298.2
72.5°	24.0	30.2	52.7	65.1	180.5	217.6	228.5	237.0	247.9	251.7	251.7
75°	21.7	27.1	49.6	58.1	147.9	178.1	187.4	196.0	204.4	206.1	203.7
77.5°	19.3	24.0	42.6	48.8	115.4	141.0	148.7	153.4	160.3	161.9	162.6
80°	16.2	20.9	33.3	38.0	83.6	103.8	109.2	113.1	119.3	119.3	120.8
82.5°	12.4	16.2	24.0	27.1	56.5	71.2	75.9	78.2	82.1	82.1	82.1
85°	7.8	10.1	15.5	17.8	34.1	43.4	46.5	47.3	50.4	51.1	51.1
87.5°	3.8	5.4	10.1	10.9	17.8	22.5	22.5	24.0	24.0	23.3	22.5
90°	6.0	10.8	15.6	16.7	26.3	39.0	45.4	40.3	30.3	22.7	22.7
92.5°	23.9	64.6	105.3	115.4	162.2	224.7	255.9	224.3	161.1	113.7	109.1
95°	57.4	131.8	206.2	224.8	399.2	631.9	748.1	667.6	506.5	385.7	372.0
97.5°	99.3	164.9	230.5	246.9	537.8	925.6	1119.5	1068.6	966.8	890.4	864.4
100°	131.6	191.1	250.6	265.5	588.2	1018.6	1233.7	1237.4	1244.9	1250.4	1219.4
102.5°	159.1	214.6	270.2	284.1	611.4	1047.7	1266.0	1330.8	1460.5	1557.8	1531.2
105°	205.7	252.8	299.8	311.5	628.5	1051.1	1262.4	1407.8	1698.5	1916.6	1902.3
107.5°	253.6	297.4	341.3	352.2	631.7	1004.3	1190.7	1393.5	1799.0	2103.2	2106.6
110°	285.8	325.4	365.0	374.9	626.9	962.8	1130.8	1357.5	1811.0	2151.1	2165.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	317.5	355.3	393.0	402.5	627.1	926.6	1076.4	1308.4	1772.5	2120.5	2143.4
115°	365.4	400.2	435.0	443.8	632.9	885.1	1011.2	1234.8	1681.8	2017.1	2048.8
117.5°	412.6	444.3	475.9	483.8	644.6	859.1	966.4	1168.1	1571.6	1874.2	1909.3
120°	440.1	469.9	499.7	507.1	654.2	850.3	948.4	1132.7	1501.3	1777.9	1812.0
122.5°	467.1	497.1	527.1	534.6	668.0	845.8	934.7	1100.7	1432.7	1681.6	1715.3
125°	508.3	535.7	563.0	569.9	686.5	842.0	919.8	1060.8	1342.7	1554.2	1585.3
127.5°	541.8	569.4	597.1	604.0	705.1	839.8	907.2	1028.3	1270.4	1452.0	1478.2
130°	559.7	589.5	619.2	626.7	718.6	841.1	902.4	1010.2	1225.7	1387.4	1411.6
132.5°	578.3	608.1	637.8	645.3	729.6	842.0	898.2	994.7	1187.6	1332.3	1354.0
135°	605.8	632.9	660.0	666.7	741.5	841.2	891.0	971.8	1133.4	1254.6	1273.3
137.5°	633.9	660.7	687.6	694.3	759.5	846.4	889.8	958.1	1094.7	1197.2	1212.4
140°	657.2	681.9	706.6	712.8	770.4	847.2	885.7	944.6	1062.7	1151.2	1165.5
142.5°	675.1	698.0	720.9	726.6	779.6	850.3	885.7	937.5	1041.1	1118.9	1131.2
145°	702.6	722.6	742.5	747.5	791.6	850.3	879.6	922.1	1006.9	1070.5	1079.8
147.5°	730.2	749.6	769.0	773.8	809.1	856.2	879.6	913.0	979.7	1029.8	1037.5
150°	748.1	765.7	783.2	787.6	818.3	859.2	879.6	907.8	964.2	1006.5	1012.7
152.5°	766.6	779.9	793.3	796.6	824.3	861.2	879.6	903.7	951.8	987.9	992.6
155°	794.2	804.0	813.8	816.3	837.4	865.6	879.6	898.8	937.1	965.8	969.0
157.5°	814.5	824.1	833.6	836.0	850.5	869.9	879.6	894.5	924.3	946.6	948.8
160°	828.2	835.7	843.2	845.0	856.5	871.9	879.6	892.4	917.9	937.1	938.3
162.5°	842.0	847.5	853.2	854.5	862.9	874.1	879.6	890.4	911.9	928.1	929.3
165°	856.9	862.0	867.1	868.3	872.1	877.1	879.6	887.3	902.8	914.4	915.6
167.5°	870.7	873.1	875.5	876.1	879.3	883.5	885.7	890.7	900.8	908.4	908.9
170°	879.6	882.0	884.4	885.0	885.3	885.5	885.7	890.7	900.8	908.4	908.4
172.5°	884.4	885.0	885.5	885.7	885.7	885.7	885.7	889.7	897.6	903.6	903.1
175°	891.0	891.0	891.0	891.0	889.3	886.9	885.7	888.2	893.3	897.0	897.0
177.5°	891.0	891.0	891.0	891.0	889.7	887.7	886.8	888.8	892.8	895.8	895.3
180°	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0	891.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	240.9	240.9
2.5°	257.1	255.6
5°	330.7	332.3
7.5°	445.4	444.6
10°	553.8	560.7
12.5°	632.8	634.3
15°	680.8	683.9
17.5°	699.4	700.2
20°	700.2	698.6
22.5°	691.6	690.1
25°	681.6	680.8
27.5°	672.3	673.1
30°	668.4	670.7
32.5°	668.4	672.3
35°	670.0	673.8
37.5°	669.2	673.8
40°	666.1	671.5
42.5°	657.6	661.4
45°	644.4	649.0
47.5°	627.3	630.5
50°	605.7	608.8
52.5°	578.6	579.3
55°	546.0	549.2
57.5°	511.2	512.0
60°	472.5	474.8
62.5°	431.4	431.4
65°	388.0	389.5
67.5°	343.1	347.0
70°	297.5	298.2
72.5°	252.5	252.5
75°	206.1	206.8
77.5°	161.9	161.9
80°	120.0	120.8
82.5°	82.9	84.4
85°	51.9	51.9
87.5°	24.0	21.7
90°	22.7	22.7
92.5°	91.0	72.9
95°	317.2	262.5
97.5°	760.2	656.0
100°	1095.3	971.2
102.5°	1424.9	1318.6
105°	1845.2	1788.0
107.5°	2120.4	2134.3
110°	2225.5	2285.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2234.8	2326.2
115°	2175.6	2302.3
117.5°	2049.9	2190.5
120°	1948.6	2085.2
122.5°	1850.0	1984.8
125°	1709.4	1833.5
127.5°	1582.9	1687.6
130°	1508.4	1605.1
132.5°	1440.7	1527.3
135°	1348.0	1422.7
137.5°	1273.6	1334.7
140°	1222.6	1279.7
142.5°	1180.3	1229.5
145°	1117.0	1154.2
147.5°	1068.4	1099.2
150°	1037.7	1062.7
152.5°	1011.5	1030.3
155°	981.4	993.9
157.5°	957.6	966.4
160°	943.4	948.4
162.5°	934.1	938.9
165°	920.7	925.7
167.5°	911.0	913.1
170°	908.4	908.4
172.5°	901.3	899.4
175°	897.0	897.0
177.5°	893.2	891.0
180°	891.0	891.0



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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	0.06	0.52	1.19	2.79	12.54	13.22	13.68	14.36	15.95
	3H	0.06	0.68	1.22	1.82	3.43	14.36	14.97	15.51	16.12	17.73
	4H	0.35	0.94	1.52	2.08	3.70	14.99	15.58	16.15	16.72	18.33
	6H	0.59	1.13	1.76	2.28	3.90	15.41	15.95	16.58	17.09	18.72
	8H	0.66	1.17	1.83	2.33	3.95	15.52	16.03	16.69	17.20	18.81
	12H	0.67	1.15	1.84	2.31	3.95	15.58	16.07	16.76	17.22	18.86
4H	2H	6.56	7.14	7.73	8.29	9.90	12.79	13.38	13.96	14.52	16.13
	3H	8.11	8.60	9.28	9.77	11.39	14.81	15.30	15.99	16.47	18.10
	4H	8.20	8.65	9.37	9.81	11.45	15.57	16.02	16.75	17.18	18.82
	6H	8.20	8.58	9.38	9.76	11.40	16.09	16.48	17.28	17.66	19.30
	8H	8.17	8.53	9.35	9.70	11.35	16.25	16.61	17.43	17.78	19.43
	12H	8.12	8.44	9.31	9.63	11.28	16.33	16.66	17.53	17.84	19.50
8H	4H	9.62	9.98	10.80	11.16	12.81	15.62	15.98	16.80	17.15	18.80
	6H	9.86	10.15	11.06	11.37	13.02	16.23	16.53	17.43	17.75	19.39
	8H	9.87	10.13	11.08	11.32	12.99	16.45	16.71	17.65	17.90	19.57
	12H	9.83	10.06	11.04	11.25	12.95	16.58	16.81	17.79	18.00	19.70
12H	4H	9.76	10.08	10.95	11.27	12.92	15.56	15.89	16.76	17.07	18.73
	6H	10.11	10.37	11.32	11.56	13.23	16.21	16.47	17.42	17.66	19.33
	8H	10.17	10.40	11.38	11.59	13.29	16.43	16.66	17.64	17.85	19.55