

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: P938106

Luminaire Tested: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

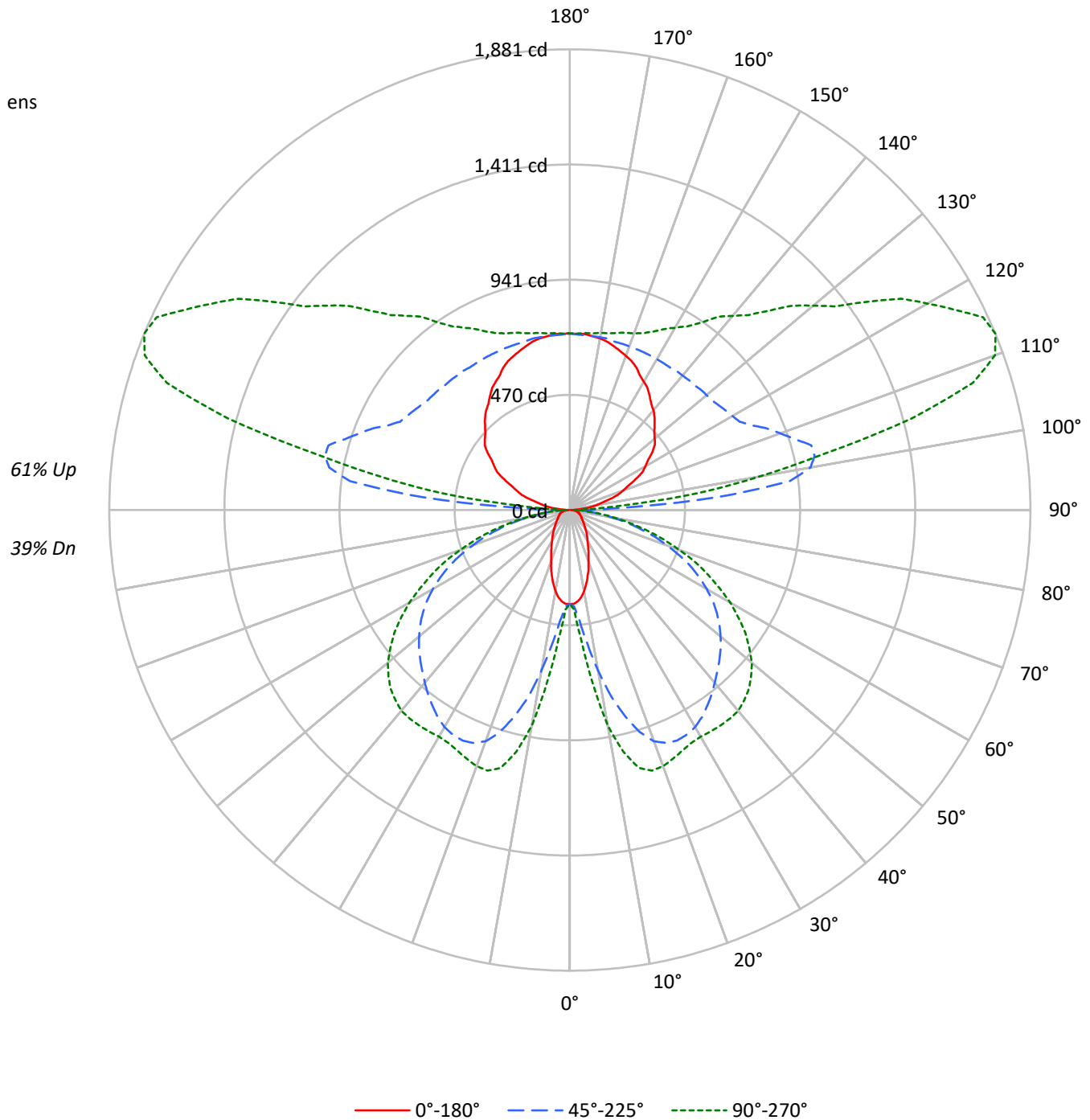
Test Method: LM-79-2019  
Report Number: P938106  
REPORT IS A COMBINATION OF REPORTS P933599 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4  
Description: CORELITE 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: 118.7 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): 64.4  
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

TEST NUMBER: P938106  
CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32				32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26				26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21				21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18				18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10				10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8				8

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

	0°	45°	90°
0°	3561	3561	3561
5°	3476	4113	4788
10°	3149	5991	7936
15°	2673	7822	9583
20°	2173	9058	9766
25°	1812	9472	9568
30°	1525	9524	9551
35°	1347	9358	9797
40°	1171	9145	10052
45°	1059	8987	10092
50°	969	8842	9925
55°	925	8635	9485
60°	945	8245	8790
65°	977	7656	7835
70°	1033	6664	6619
75°	1135	5420	5166
80°	1212	3745	3480
85°	1019	1978	1782

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10092 cd/sqm



TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.6	0.6
10°-20°	220.0	2.9
20°-30°	384.9	5.0
30°-40°	495.5	6.5
40°-50°	553.4	7.2
50°-60°	530.0	6.9
60°-70°	420.1	5.5
70°-80°	247.0	3.2
80°-90°	71.4	0.9
90°-100°	351.2	4.6
100°-110°	923.4	12.1
110°-120°	957.5	12.5
120°-130°	768.0	10.0
130°-140°	602.6	7.9
140°-150°	462.5	6.1
150°-160°	333.1	4.4
160°-170°	203.8	2.7
170°-180°	68.9	0.9
0°-30°	654.6	8.6
0°-40°	1150.0	15.0
0°-60°	2233.5	29.2
0°-90°	2972.0	38.9
90°-120°	2232.1	29.2
90°-150°	4065.2	53.2
90°-180°	4671.0	61.1
0°-180°	7643.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	384	384	384	384	384	
5°	374	401	452	511	530	35
15°	280	517	871	1056	1090	78
25°	179	586	1038	1084	1085	82
35°	121	560	977	1033	1074	76
45°	83	447	864	990	1034	64
55°	59	284	733	852	875	54
65°	47	151	544	612	621	47
75°	35	93	299	328	330	36
85°	12	28	74	81	83	13
90°	5	14	37	18	18	5
95°	46	182	605	312	212	52
105°	166	252	1021	1550	1446	176
115°	295	359	818	1631	1862	292
125°	411	461	744	1257	1483	365
135°	490	539	721	1015	1150	379
145°	568	604	711	866	933	356
155°	642	660	711	781	804	295
165°	693	702	711	739	749	196
175°	721	721	716	725	725	68
180°	721	721	721	721	721	



TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8	383.8
2.5°	383.8	383.8	386.3	387.5	389.9	391.3	393.7	396.1	403.6	404.8	407.2
5°	374.0	378.9	394.9	401.1	418.3	441.8	451.7	467.7	501.1	510.9	517.1
7.5°	359.1	370.2	409.7	419.6	462.8	524.5	550.4	585.0	638.0	664.0	684.9
10°	335.7	359.1	429.5	452.9	523.2	617.1	665.2	713.3	793.5	829.3	842.9
12.5°	309.8	348.0	450.5	482.5	583.8	720.8	778.8	831.8	923.2	971.3	978.6
15°	280.1	331.9	470.2	517.1	647.9	807.2	871.3	936.7	1021.9	1056.4	1065.0
17.5°	254.2	319.6	488.7	538.1	697.3	884.9	950.3	1004.6	1073.7	1097.2	1103.3
20°	222.1	299.9	501.1	565.3	749.2	941.7	1004.6	1046.5	1093.4	1108.3	1110.7
22.5°	198.7	278.9	508.5	575.1	783.6	976.2	1029.3	1062.6	1094.6	1099.6	1100.8
25°	179.0	255.4	507.3	586.2	813.3	997.1	1037.9	1062.6	1081.1	1083.5	1083.5
27.5°	160.5	229.6	502.3	588.7	835.5	1002.1	1034.2	1051.5	1060.1	1065.0	1065.0
30°	144.4	204.8	490.0	583.8	845.4	997.1	1023.1	1031.7	1040.4	1047.8	1051.5
32.5°	132.1	181.4	471.5	573.8	846.6	984.8	1003.3	1008.3	1020.6	1037.9	1044.1
35°	121.0	157.9	450.5	560.3	839.2	965.1	977.4	982.4	1007.0	1033.0	1041.6
37.5°	109.8	140.7	423.3	536.9	828.1	941.7	950.3	958.9	997.1	1028.1	1037.9
40°	98.7	125.9	391.3	510.9	810.8	913.3	920.6	934.3	984.8	1020.6	1030.5
42.5°	90.1	113.6	356.7	483.8	788.6	881.1	892.3	912.1	970.1	1008.3	1019.4
45°	82.7	101.2	319.6	446.7	760.2	847.9	863.9	891.0	952.8	989.8	999.7
47.5°	75.3	92.6	281.4	408.5	729.4	814.5	835.5	866.4	929.3	965.1	973.7
50°	69.1	84.0	243.1	367.8	696.0	778.8	803.4	835.5	899.7	933.0	944.1
52.5°	64.2	76.5	207.3	327.1	657.8	741.7	770.1	803.4	863.9	896.0	903.4
55°	59.2	70.3	176.5	283.8	618.3	702.2	733.1	765.1	824.4	851.5	856.5
57.5°	56.8	65.4	150.6	243.1	576.4	657.8	692.4	722.0	777.5	798.5	803.4
60°	53.1	61.7	130.9	208.6	530.7	615.8	645.5	675.1	722.0	739.3	742.9
62.5°	49.4	59.2	116.0	175.2	483.8	566.5	596.1	623.3	662.8	675.1	680.0
65°	46.9	56.8	104.9	150.6	435.6	514.6	544.2	567.7	599.8	612.1	614.6
67.5°	44.5	54.3	96.3	129.5	387.5	462.8	485.0	507.3	531.9	544.2	545.5
70°	40.7	51.8	88.8	114.8	338.1	403.6	422.1	445.5	465.2	471.5	475.1
72.5°	38.3	48.1	84.0	103.7	287.6	346.8	364.1	377.6	394.9	401.1	401.1
75°	34.6	43.2	79.0	92.6	235.7	283.8	298.7	312.2	325.8	328.3	324.6
77.5°	30.8	38.3	67.9	77.7	183.9	224.6	237.0	244.3	255.4	258.0	259.2
80°	25.9	33.3	53.1	60.4	133.3	165.4	174.0	180.2	190.1	190.1	192.5
82.5°	19.7	25.9	38.3	43.2	90.1	113.6	121.0	124.7	130.9	130.9	130.9
85°	12.3	16.1	24.7	28.4	54.3	69.1	74.1	75.3	80.2	81.4	81.4
87.5°	6.2	8.6	16.1	17.3	28.4	35.8	35.8	38.3	38.3	37.0	35.8
90°	4.9	8.7	12.6	13.5	21.3	31.6	36.7	32.6	24.5	18.4	18.4
92.5°	19.3	52.2	85.1	93.3	131.2	181.8	207.0	181.4	130.3	91.9	88.3
95°	46.4	106.6	166.8	181.8	322.9	510.9	605.0	539.9	409.7	312.0	300.8
97.5°	80.2	133.3	186.4	199.7	434.9	748.4	905.2	864.0	781.8	720.0	699.0
100°	106.4	154.6	202.7	214.7	475.7	823.6	997.6	1000.6	1006.7	1011.1	986.0
102.5°	128.6	173.5	218.5	229.7	494.4	847.3	1023.8	1076.2	1181.1	1259.8	1238.3
105°	166.3	204.5	242.5	252.0	508.3	850.0	1020.9	1138.5	1373.5	1549.9	1538.3
107.5°	205.0	240.5	276.0	284.9	510.9	812.2	962.9	1126.9	1454.8	1700.7	1703.5
110°	231.2	263.2	295.1	303.2	507.0	778.7	914.5	1097.8	1464.5	1739.5	1751.5



TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	256.8	287.3	317.7	325.4	507.1	749.3	870.5	1058.1	1433.4	1714.8	1733.3
115°	295.4	323.6	351.8	358.8	511.8	715.7	817.7	998.4	1360.0	1631.1	1656.7
117.5°	333.7	359.3	384.9	391.3	521.4	694.8	781.5	944.6	1270.8	1515.5	1543.9
120°	355.9	380.0	404.1	410.1	529.1	687.7	767.0	916.1	1214.1	1437.7	1465.4
122.5°	377.7	402.0	426.3	432.3	540.2	684.0	755.9	890.1	1158.5	1359.8	1387.1
125°	411.1	433.2	455.3	460.8	555.2	680.9	743.7	857.8	1085.8	1256.8	1281.9
127.5°	438.1	460.5	482.8	488.4	570.1	679.1	733.6	831.4	1027.3	1174.1	1195.3
130°	452.6	476.7	500.8	506.8	581.1	680.2	729.7	816.9	991.2	1121.9	1141.4
132.5°	467.7	491.8	515.8	521.8	590.0	680.9	726.4	804.4	960.4	1077.5	1094.9
135°	489.9	511.8	533.7	539.2	599.6	680.2	720.6	786.0	916.6	1014.6	1029.7
137.5°	512.6	534.2	556.0	561.4	614.1	684.4	719.6	774.8	885.2	968.1	980.4
140°	531.4	551.4	571.4	576.5	623.1	685.2	716.2	763.9	859.4	930.9	942.5
142.5°	545.9	564.4	582.9	587.6	630.4	687.6	716.2	758.1	841.9	904.8	914.7
145°	568.2	584.3	600.5	604.5	640.1	687.6	711.3	745.6	814.2	865.6	873.2
147.5°	590.5	606.2	621.9	625.8	654.3	692.3	711.3	738.3	792.3	832.8	839.0
150°	605.0	619.1	633.3	636.9	661.7	694.8	711.3	734.1	779.7	813.9	818.9
152.5°	620.0	630.7	641.5	644.2	666.6	696.4	711.3	730.8	769.7	798.9	802.7
155°	642.2	650.2	658.1	660.1	677.2	699.9	711.3	726.8	757.8	781.0	783.5
157.5°	658.7	666.4	674.1	676.0	687.8	703.5	711.3	723.4	747.5	765.5	767.3
160°	669.8	675.7	681.8	683.3	692.7	705.1	711.3	721.6	742.2	757.8	758.8
162.5°	680.9	685.4	689.9	691.1	697.8	706.9	711.3	720.0	737.5	750.6	751.5
165°	692.9	697.0	701.2	702.2	705.3	709.3	711.3	717.6	730.0	739.4	740.4
167.5°	704.1	706.0	708.0	708.4	711.1	714.5	716.2	720.3	728.4	734.6	735.1
170°	711.3	713.3	715.3	715.7	715.9	716.1	716.2	720.3	728.4	734.6	734.6
172.5°	715.3	715.6	716.1	716.2	716.2	716.2	716.2	719.4	725.8	730.7	730.3
175°	720.6	720.6	720.6	720.6	719.1	717.1	716.2	718.2	722.3	725.3	725.3
177.5°	720.6	720.6	720.6	720.6	719.5	717.9	717.1	718.7	722.0	724.4	723.9
180°	720.6	720.6	720.6	720.6	720.6	720.6	720.6	720.6	720.6	720.6	720.6



TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	383.8	383.8
2.5°	409.7	407.2
5°	527.0	529.5
7.5°	709.7	708.3
10°	882.4	893.5
12.5°	1008.3	1010.8
15°	1084.8	1089.7
17.5°	1114.4	1115.7
20°	1115.7	1113.1
22.5°	1102.1	1099.6
25°	1086.1	1084.8
27.5°	1071.2	1072.4
30°	1065.0	1068.8
32.5°	1065.0	1071.2
35°	1067.6	1073.7
37.5°	1066.3	1073.7
40°	1061.4	1070.0
42.5°	1047.8	1053.9
45°	1026.8	1034.2
47.5°	999.7	1004.6
50°	965.1	970.1
52.5°	921.9	923.2
55°	870.0	875.0
57.5°	814.5	815.8
60°	752.8	756.5
62.5°	687.4	687.4
65°	618.3	620.7
67.5°	546.8	552.9
70°	473.9	475.1
72.5°	402.4	402.4
75°	328.3	329.5
77.5°	258.0	258.0
80°	191.3	192.5
82.5°	132.1	134.5
85°	82.7	82.7
87.5°	38.3	34.6
90°	18.4	18.4
92.5°	73.6	59.0
95°	256.6	212.3
97.5°	614.8	530.5
100°	885.7	785.3
102.5°	1152.3	1066.3
105°	1492.2	1445.9
107.5°	1714.7	1725.9
110°	1799.6	1847.7





TEST NUMBER: P938106

CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1807.2	1881.2
115°	1759.3	1861.8
117.5°	1657.7	1771.3
120°	1575.8	1686.2
122.5°	1496.0	1605.0
125°	1382.2	1482.6
127.5°	1280.0	1364.7
130°	1219.7	1298.0
132.5°	1165.0	1235.0
135°	1090.1	1150.4
137.5°	1029.9	1079.3
140°	988.6	1034.9
142.5°	954.5	994.2
145°	903.3	933.3
147.5°	863.9	888.8
150°	839.2	859.4
152.5°	817.9	833.2
155°	793.6	803.7
157.5°	774.4	781.5
160°	762.9	767.0
162.5°	755.4	759.2
165°	744.5	748.6
167.5°	736.7	738.4
170°	734.6	734.6
172.5°	728.8	727.3
175°	725.3	725.3
177.5°	722.3	720.6
180°	720.6	720.6



TEST NUMBER: P938106  
 CATALOG NUMBER: SQ4-FB-125U-100D-B50-1D-UNV-STD-W-4

**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	4.30	5.09	5.34	6.14	7.56	17.43	18.23	18.47	19.28	20.70
	3H	5.00	5.71	6.05	6.77	8.21	19.25	19.97	20.30	21.03	22.46
	4H	5.29	5.97	6.35	7.03	8.48	19.88	20.56	20.95	21.62	23.07
	6H	5.54	6.16	6.61	7.23	8.69	20.30	20.92	21.37	21.99	23.45
	8H	5.60	6.20	6.68	7.28	8.73	20.41	21.01	21.49	22.09	23.54
	12H	5.62	6.19	6.70	7.26	8.74	20.47	21.04	21.55	22.11	23.59
4H	2H	11.48	12.16	12.54	13.22	14.66	17.70	18.38	18.77	19.44	20.89
	3H	13.04	13.61	14.12	14.70	16.15	19.72	20.29	20.80	21.38	22.84
	4H	13.13	13.65	14.21	14.73	16.21	20.48	21.00	21.56	22.08	23.56
	6H	13.14	13.59	14.23	14.69	16.16	21.00	21.45	22.09	22.55	24.03
	8H	13.12	13.53	14.21	14.63	16.12	21.16	21.57	22.25	22.67	24.16
	12H	13.07	13.45	14.18	14.56	16.05	21.24	21.62	22.35	22.73	24.22
8H	4H	14.56	14.98	15.65	16.08	17.56	20.53	20.95	21.63	22.05	23.54
	6H	14.80	15.15	15.91	16.28	17.77	21.15	21.50	22.26	22.63	24.12
	8H	14.82	15.12	15.94	16.24	17.75	21.36	21.66	22.48	22.78	24.29
	12H	14.78	15.05	15.91	16.17	17.71	21.49	21.76	22.62	22.88	24.42
12H	4H	14.70	15.08	15.81	16.19	17.68	20.48	20.86	21.59	21.97	23.47
	6H	15.06	15.36	16.18	16.48	17.98	21.13	21.44	22.25	22.55	24.06
	8H	15.12	15.39	16.25	16.50	18.05	21.35	21.62	22.48	22.73	24.28