

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: P937683

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937683  
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

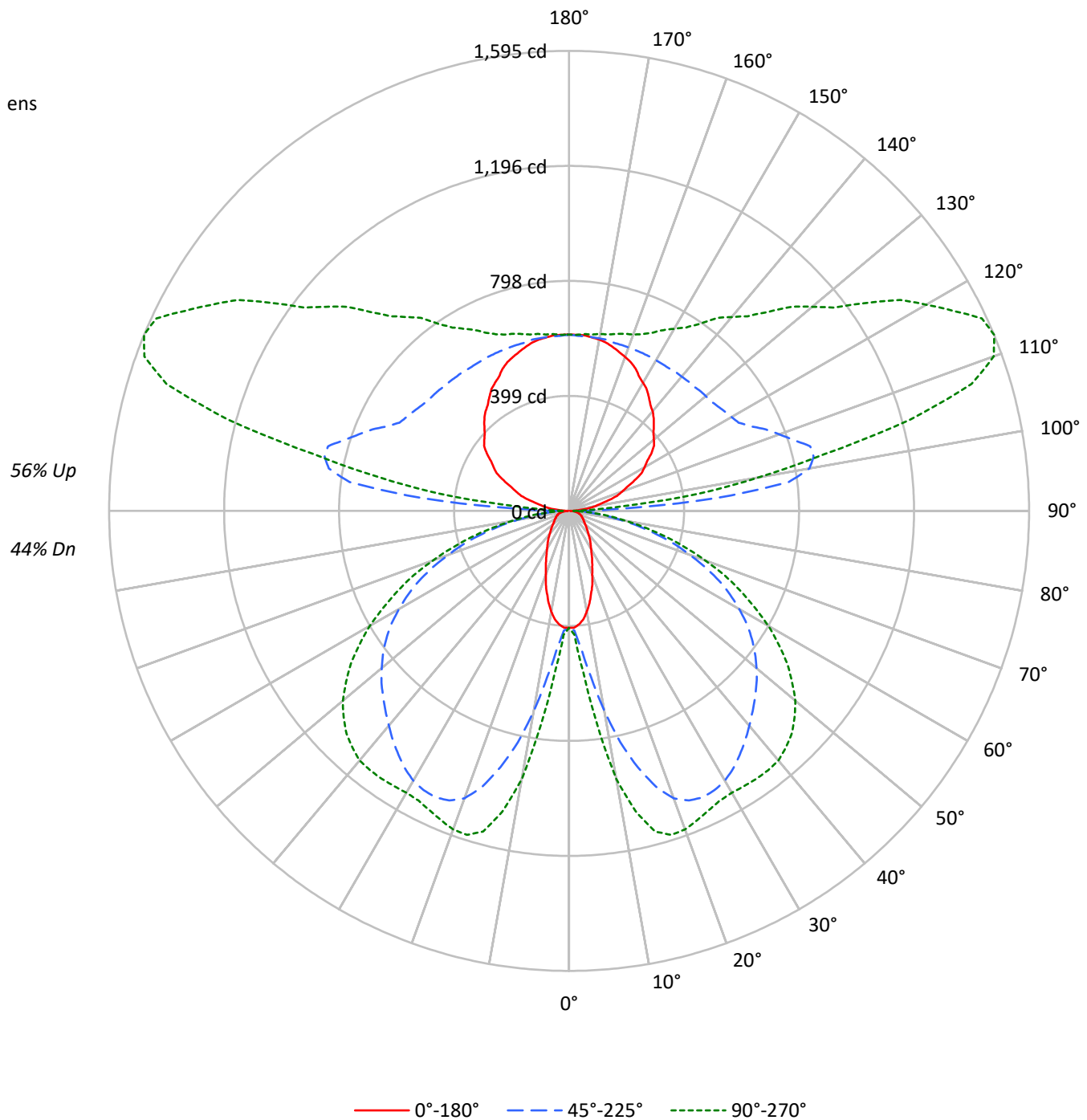
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7098.2 lumens  
Efficiency: N/A  
Efficacy: 122.4 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: General Diffuse

Input Watts (W): 58  
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: P937683  
CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-3000K

### 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

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

	0°	45°	90°
0°	3759	3759	3759
5°	3669	4342	5054
10°	3325	6325	8378
15°	2822	8258	10117
20°	2295	9562	10310
25°	1912	9998	10101
30°	1610	10055	10082
35°	1422	9879	10343
40°	1236	9654	10612
45°	1118	9487	10654
50°	1023	9335	10478
55°	976	9116	10013
60°	996	8704	9280
65°	1032	8082	8271
70°	1092	7035	6988
75°	1197	5721	5454
80°	1278	3953	3674
85°	1076	2087	1881

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10654 cd/sqm



TEST NUMBER: P937683

CATALOG NUMBER: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-4-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.4	0.7
10°-20°	232.3	3.3
20°-30°	406.3	5.7
30°-40°	523.0	7.4
40°-50°	584.2	8.2
50°-60°	559.6	7.9
60°-70°	443.5	6.2
70°-80°	260.8	3.7
80°-90°	74.8	1.1
90°-100°	297.9	4.2
100°-110°	783.1	11.0
110°-120°	812.0	11.4
120°-130°	651.3	9.2
130°-140°	511.1	7.2
140°-150°	392.3	5.5
150°-160°	282.5	4.0
160°-170°	172.8	2.4
170°-180°	58.4	0.8
0°-30°	691.0	9.7
0°-40°	1214.1	17.1
0°-60°	2357.8	33.2
0°-90°	3136.8	44.2
90°-120°	1893.0	26.7
90°-150°	3447.6	48.6
90°-180°	3961.0	55.8
0°-180°	7098.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	395	423	477	539	559	36
15°	296	546	920	1115	1150	82
25°	189	619	1096	1144	1145	87
35°	128	592	1032	1090	1134	80
45°	87	472	912	1045	1092	68
55°	62	300	774	899	924	57
65°	50	159	574	646	655	49
75°	36	98	315	347	348	38
85°	13	30	78	86	87	14
90°	4	11	31	16	16	4
95°	39	154	513	264	180	44
105°	141	214	866	1314	1226	150
115°	250	304	694	1383	1579	247
125°	349	391	631	1066	1257	309
135°	416	457	611	860	976	321
145°	482	513	603	734	792	302
155°	545	560	603	662	682	250
165°	588	595	603	627	635	166
175°	611	611	607	615	615	58
180°	611	611	611	611	611	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	405.1	405.1	407.8	409.1	411.7	413.0	415.6	418.2	426.1	427.3	429.9
5°	394.8	400.0	416.9	423.4	441.6	466.4	476.8	493.8	529.0	539.3	545.8
7.5°	379.1	390.9	432.6	443.0	488.6	553.7	581.0	617.5	673.5	700.9	723.0
10°	354.4	379.1	453.4	478.1	552.4	651.5	702.2	753.0	837.7	875.5	889.9
12.5°	327.1	367.4	475.5	509.4	616.2	760.9	822.1	878.1	974.6	1025.3	1033.1
15°	295.7	350.4	496.4	545.8	684.0	852.1	919.8	988.9	1078.8	1115.3	1124.3
17.5°	268.4	337.4	515.9	568.0	736.1	934.1	1003.2	1060.5	1133.5	1158.3	1164.8
20°	234.5	316.6	529.0	596.7	790.9	994.1	1060.5	1104.8	1154.3	1170.0	1172.6
22.5°	209.7	294.4	536.8	607.1	827.3	1030.6	1086.6	1121.8	1155.6	1160.8	1162.1
25°	188.9	269.7	535.5	618.8	858.6	1052.7	1095.6	1121.8	1141.3	1143.9	1143.9
27.5°	169.4	242.4	530.3	621.5	882.0	1057.9	1091.8	1110.0	1119.1	1124.3	1124.3
30°	152.4	216.2	517.3	616.2	892.4	1052.7	1080.1	1089.1	1098.3	1106.1	1110.0
32.5°	139.4	191.5	497.7	605.8	893.7	1039.6	1059.2	1064.4	1077.4	1095.6	1102.2
35°	127.7	166.7	475.5	591.5	885.9	1018.8	1031.8	1037.1	1063.1	1090.5	1099.6
37.5°	116.0	148.5	446.9	566.8	874.2	994.1	1003.2	1012.3	1052.7	1085.3	1095.6
40°	104.2	132.9	413.0	539.3	855.9	964.1	971.9	986.3	1039.6	1077.4	1087.9
42.5°	95.1	119.9	376.6	510.7	832.5	930.2	941.9	962.8	1024.1	1064.4	1076.1
45°	87.3	106.8	337.4	471.6	802.5	895.1	912.0	940.6	1005.8	1044.9	1055.3
47.5°	79.5	97.7	297.1	431.3	770.0	859.9	882.0	914.6	981.1	1018.8	1027.9
50°	73.0	88.6	256.7	388.3	734.8	822.1	848.2	882.0	949.8	984.9	996.6
52.5°	67.7	80.8	218.9	345.3	694.4	783.0	813.0	848.2	912.0	945.9	953.7
55°	62.5	74.2	186.4	299.6	652.7	741.3	773.9	807.7	870.3	898.9	904.2
57.5°	59.9	69.0	158.9	256.7	608.5	694.4	730.9	762.2	820.7	842.9	848.2
60°	56.0	65.2	138.1	220.2	560.2	650.1	681.4	712.7	762.2	780.4	784.3
62.5°	52.2	62.5	122.5	185.0	510.7	598.0	629.3	658.0	699.7	712.7	717.9
65°	49.5	59.9	110.7	158.9	459.9	543.3	574.5	599.3	633.2	646.2	648.8
67.5°	46.9	57.3	101.7	136.8	409.1	488.6	512.0	535.5	561.5	574.5	575.8
70°	43.0	54.7	93.8	121.2	356.9	426.1	445.6	470.3	491.1	497.7	501.6
72.5°	40.4	50.8	88.6	109.4	303.6	366.1	384.3	398.6	416.9	423.4	423.4
75°	36.5	45.6	83.4	97.7	248.9	299.6	315.3	329.6	343.9	346.6	342.6
77.5°	32.5	40.4	71.7	82.0	194.1	237.1	250.1	257.9	269.7	272.3	273.6
80°	27.3	35.2	56.0	63.8	140.7	174.6	183.7	190.2	200.7	200.7	203.2
82.5°	20.8	27.3	40.4	45.6	95.1	119.9	127.7	131.6	138.1	138.1	138.1
85°	13.0	17.0	26.0	30.0	57.3	73.0	78.2	79.5	84.7	86.0	86.0
87.5°	6.5	9.1	17.0	18.2	30.0	37.8	37.8	40.4	40.4	39.0	37.8
90°	4.1	7.4	10.6	11.4	18.0	26.8	31.2	27.7	20.8	15.6	15.6
92.5°	16.4	44.3	72.2	79.2	111.3	154.1	175.5	153.8	110.4	77.9	74.8
95°	39.3	90.4	141.5	154.2	273.8	433.2	513.0	457.8	347.4	264.5	255.2
97.5°	68.0	113.1	158.2	169.4	368.9	634.8	767.7	732.8	663.0	610.6	592.8
100°	90.2	131.0	171.9	182.1	403.5	698.6	846.1	848.7	853.7	857.5	836.2
102.5°	109.1	147.2	185.3	194.8	419.3	718.6	868.3	912.7	1001.7	1068.3	1050.1
105°	141.1	173.3	205.6	213.7	431.1	720.9	865.8	965.5	1164.9	1314.4	1304.7
107.5°	173.9	204.0	234.1	241.6	433.2	688.7	816.5	955.6	1233.8	1442.4	1444.8
110°	196.0	223.2	250.3	257.1	429.9	660.3	775.5	931.0	1242.0	1475.2	1485.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	217.8	243.6	269.5	276.0	430.1	635.5	738.2	897.4	1215.5	1454.3	1469.9
115°	250.5	274.4	298.3	304.3	434.0	607.1	693.6	846.9	1153.4	1383.4	1405.0
117.5°	283.0	304.7	326.4	331.8	442.1	589.2	662.8	801.1	1077.8	1285.3	1309.4
120°	301.8	322.2	342.6	347.8	448.6	583.2	650.5	776.9	1029.7	1219.3	1242.8
122.5°	320.4	341.0	361.6	366.7	458.1	580.1	641.0	754.8	982.5	1153.2	1176.3
125°	348.6	367.4	386.1	390.9	470.8	577.4	630.7	727.5	920.8	1065.9	1087.2
127.5°	371.5	390.5	409.5	414.2	483.5	575.9	622.2	705.2	871.2	995.8	1013.7
130°	383.8	404.3	424.7	429.8	492.8	576.9	618.9	692.9	840.7	951.5	968.1
132.5°	396.6	417.0	437.4	442.5	500.3	577.4	616.0	682.1	814.4	913.7	928.6
135°	415.5	434.0	452.7	457.3	508.6	576.9	611.1	666.5	777.3	860.4	873.2
137.5°	434.7	453.2	471.5	476.1	520.8	580.5	610.2	657.1	750.7	821.0	831.5
140°	450.7	467.7	484.6	488.9	528.4	581.0	607.4	647.8	728.8	789.5	799.3
142.5°	463.0	478.7	494.4	498.3	534.7	583.1	607.4	642.9	714.0	767.3	775.8
145°	481.9	495.6	509.2	512.6	542.9	583.2	603.3	632.4	690.5	734.1	740.5
147.5°	500.8	514.1	527.3	530.7	554.9	587.2	603.3	626.2	672.0	706.3	711.6
150°	513.0	525.0	537.1	540.1	561.2	589.3	603.3	622.7	661.2	690.2	694.4
152.5°	525.7	534.8	544.0	546.2	565.3	590.6	603.3	619.8	652.7	677.5	680.7
155°	544.7	551.4	558.2	559.9	574.3	593.7	603.3	616.4	642.7	662.3	664.5
157.5°	558.6	565.2	571.7	573.4	583.3	596.6	603.3	613.5	633.9	649.2	650.7
160°	568.0	573.2	578.2	579.5	587.5	598.0	603.3	612.1	629.6	642.7	643.6
162.5°	577.4	581.2	585.1	586.1	591.8	599.5	603.3	610.7	625.4	636.5	637.3
165°	587.7	591.1	594.6	595.4	598.1	601.6	603.3	608.7	619.2	627.1	628.0
167.5°	597.1	598.8	600.5	600.9	603.0	605.9	607.4	610.8	617.7	623.0	623.3
170°	603.3	604.9	606.6	607.0	607.1	607.3	607.4	610.8	617.7	623.0	623.0
172.5°	606.6	607.0	607.3	607.4	607.4	607.4	607.4	610.1	615.6	619.7	619.4
175°	611.1	611.1	611.1	611.1	609.8	608.2	607.4	609.2	612.6	615.2	615.2
177.5°	611.1	611.1	611.1	611.1	610.1	608.9	608.2	609.5	612.3	614.4	614.0
180°	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1	611.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	405.1	405.1
2.5°	432.6	429.9
5°	556.3	559.0
7.5°	749.2	747.8
10°	931.6	943.2
12.5°	1064.4	1067.0
15°	1145.2	1150.4
17.5°	1176.5	1177.8
20°	1177.8	1175.1
22.5°	1163.5	1160.8
25°	1146.5	1145.2
27.5°	1130.8	1132.1
30°	1124.3	1128.3
32.5°	1124.3	1130.8
35°	1127.0	1133.5
37.5°	1125.6	1133.5
40°	1120.5	1129.6
42.5°	1106.1	1112.6
45°	1084.0	1091.8
47.5°	1055.3	1060.5
50°	1018.8	1024.1
52.5°	973.2	974.6
55°	918.5	923.7
57.5°	859.9	861.2
60°	794.7	798.7
62.5°	725.7	725.7
65°	652.7	655.3
67.5°	577.2	583.7
70°	500.3	501.6
72.5°	424.8	424.8
75°	346.6	347.9
77.5°	272.3	272.3
80°	201.9	203.2
82.5°	139.4	142.0
85°	87.3	87.3
87.5°	40.4	36.5
90°	15.6	15.6
92.5°	62.4	50.0
95°	217.6	180.0
97.5°	521.3	449.9
100°	751.1	666.0
102.5°	977.2	904.4
105°	1265.4	1226.3
107.5°	1454.3	1463.7
110°	1526.2	1567.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1532.6	1595.3
115°	1492.0	1579.0
117.5°	1405.8	1502.3
120°	1336.4	1430.1
122.5°	1268.8	1361.2
125°	1172.3	1257.4
127.5°	1085.6	1157.4
130°	1034.4	1100.8
132.5°	988.0	1047.4
135°	924.4	975.6
137.5°	873.5	915.4
140°	838.5	877.6
142.5°	809.5	843.2
145°	766.0	791.6
147.5°	732.7	753.8
150°	711.6	728.8
152.5°	693.7	706.7
155°	673.0	681.6
157.5°	656.8	662.8
160°	647.0	650.5
162.5°	640.6	643.9
165°	631.4	634.9
167.5°	624.7	626.2
170°	623.0	623.0
172.5°	618.1	616.8
175°	615.2	615.2
177.5°	612.6	611.1
180°	611.1	611.1



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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	5.04	5.88	6.03	6.89	8.24	18.18	19.02	19.17	20.03	21.38
	3H	5.74	6.50	6.75	7.52	8.89	20.00	20.76	21.01	21.78	23.15
	4H	6.04	6.76	7.06	7.78	9.16	20.63	21.35	21.65	22.38	23.76
	6H	6.29	6.95	7.32	7.98	9.37	21.05	21.71	22.08	22.74	24.13
	8H	6.36	6.99	7.39	8.03	9.42	21.16	21.80	22.20	22.84	24.23
	12H	6.37	6.97	7.42	8.01	9.43	21.23	21.83	22.27	22.87	24.28
4H	2H	12.23	12.94	13.25	13.97	15.35	18.45	19.17	19.48	20.20	21.57
	3H	13.79	14.40	14.83	15.45	16.84	20.48	21.08	21.52	22.14	23.53
	4H	13.89	14.44	14.93	15.49	16.90	21.24	21.79	22.28	22.83	24.25
	6H	13.90	14.37	14.95	15.44	16.85	21.76	22.24	22.81	23.31	24.71
	8H	13.88	14.32	14.93	15.38	16.81	21.92	22.36	22.97	23.42	24.85
	12H	13.83	14.23	14.90	15.31	16.74	22.00	22.40	23.07	23.48	24.91
8H	4H	15.32	15.77	16.38	16.83	18.25	21.30	21.74	22.35	22.80	24.23
	6H	15.56	15.93	16.64	17.03	18.46	21.91	22.28	22.99	23.38	24.80
	8H	15.58	15.91	16.67	16.99	18.43	22.12	22.45	23.21	23.53	24.97
	12H	15.55	15.83	16.64	16.92	18.40	22.26	22.54	23.35	23.63	25.11
12H	4H	15.46	15.86	16.53	16.94	18.37	21.25	21.65	22.32	22.73	24.16
	6H	15.82	16.14	16.90	17.23	18.67	21.89	22.22	22.98	23.31	24.75
	8H	15.89	16.17	16.98	17.25	18.73	22.12	22.40	23.21	23.48	24.96