

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: P937758

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

**Test Information**

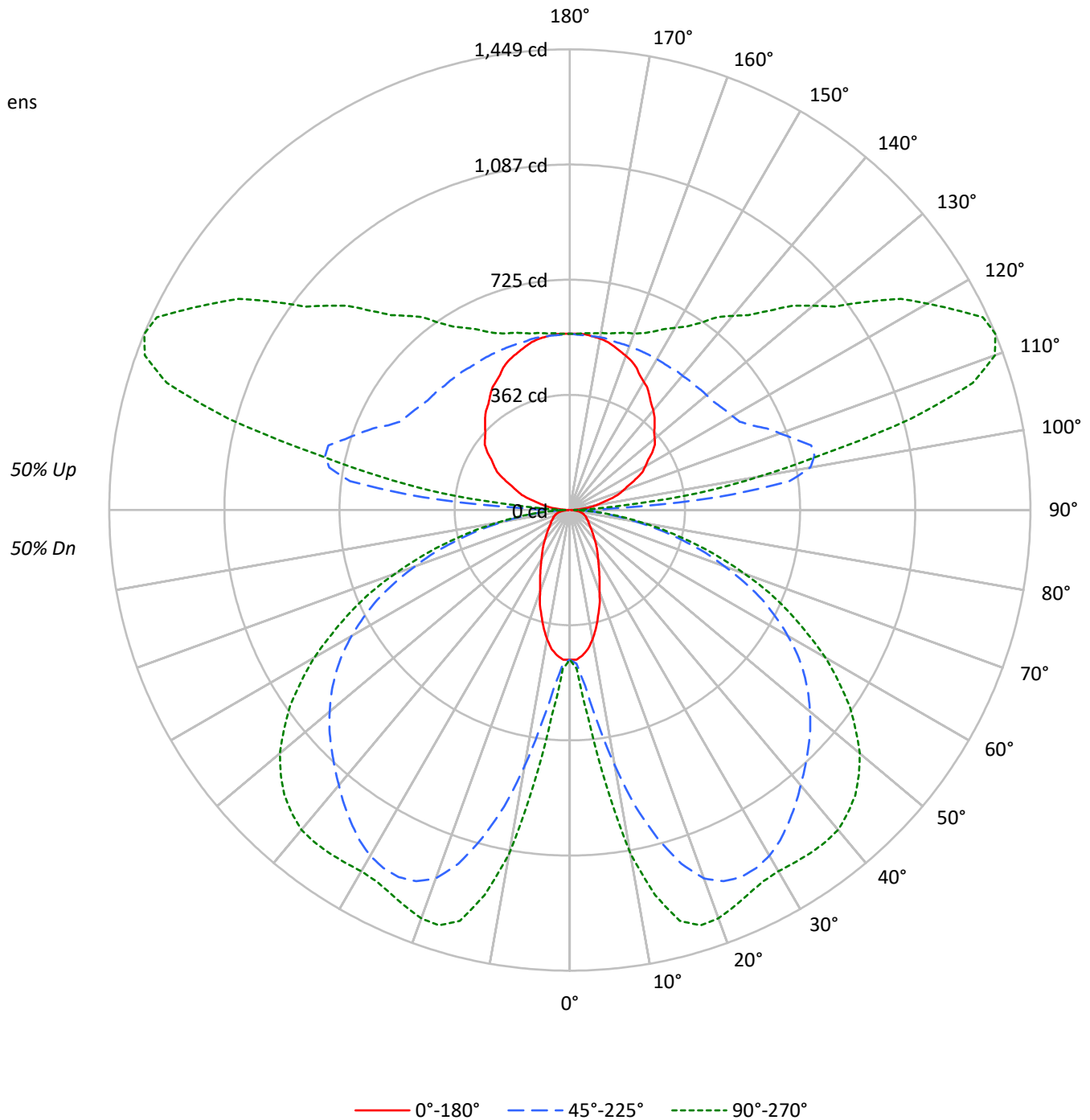
Test Method: LM-79-2019  
Report Number: P937758  
REPORT IS A COMBINATION OF REPORTS P933568 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-4-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7244.0 lumens  
Efficiency: N/A  
Efficacy: 105.3 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): 68.8  
Input Voltage (V): NR  
Input Current (Ain): 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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

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

	0°	45°	90°
0°	4371	4371	4371
5°	4266	5049	5876
10°	3865	7354	9742
15°	3282	9601	11764
20°	2669	11119	11989
25°	2223	11627	11746
30°	1873	11691	11724
35°	1652	11488	12026
40°	1438	11227	12339
45°	1299	11032	12389
50°	1190	10855	12184
55°	1136	10600	11643
60°	1160	10121	10791
65°	1200	9398	9618
70°	1269	8180	8126
75°	1390	6652	6341
80°	1488	4597	4274
85°	1250	2426	2187

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12389 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.9	0.8
10°-20°	270.1	3.7
20°-30°	472.5	6.5
30°-40°	608.2	8.4
40°-50°	679.3	9.4
50°-60°	650.7	9.0
60°-70°	515.7	7.1
70°-80°	303.2	4.2
80°-90°	86.4	1.2
90°-100°	270.5	3.7
100°-110°	711.1	9.8
110°-120°	737.3	10.2
120°-130°	591.4	8.2
130°-140°	464.0	6.4
140°-150°	356.2	4.9
150°-160°	256.5	3.5
160°-170°	156.9	2.2
170°-180°	53.0	0.7
0°-30°	803.5	11.1
0°-40°	1411.7	19.5
0°-60°	2741.7	37.8
0°-90°	3647.0	50.3
90°-120°	1718.9	23.7
90°-150°	3130.5	43.2
90°-180°	3597.0	49.7
0°-180°	7244.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	471	471	471	471	471	
5°	459	492	554	627	650	42
15°	344	635	1070	1297	1338	96
25°	220	720	1274	1330	1332	101
35°	148	688	1200	1268	1318	93
45°	102	548	1060	1215	1270	79
55°	73	348	900	1045	1074	66
65°	58	185	668	751	762	57
75°	42	114	367	403	404	44
85°	15	35	91	100	102	16
90°	4	10	28	14	14	4
95°	36	140	466	240	164	40
105°	128	194	786	1194	1114	136
115°	228	276	630	1256	1434	225
125°	317	355	573	968	1142	281
135°	377	415	555	781	886	292
145°	438	466	548	667	719	274
155°	495	508	548	601	619	227
165°	534	541	548	569	576	151
175°	555	555	552	559	559	53
180°	555	555	555	555	555	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	471.1	471.1	471.1	471.1	471.1	471.1	471.1	471.1	471.1	471.1	471.1
2.5°	471.1	471.1	474.2	475.7	478.7	480.2	483.3	486.3	495.4	496.9	499.9
5°	459.0	465.1	484.8	492.3	513.6	542.4	554.5	574.2	615.1	627.2	634.8
7.5°	440.9	454.5	503.0	515.1	568.1	643.8	675.7	718.1	783.2	815.0	840.8
10°	412.0	440.9	527.2	556.0	642.3	757.4	816.5	875.6	974.1	1018.1	1034.7
12.5°	380.2	427.2	552.9	592.3	716.6	884.7	955.9	1021.1	1133.2	1192.3	1201.3
15°	343.9	407.5	577.2	634.8	795.3	990.8	1069.5	1149.8	1254.4	1296.8	1307.4
17.5°	312.1	392.4	599.9	660.6	855.9	1086.2	1166.5	1233.2	1318.0	1346.8	1354.3
20°	272.7	368.2	615.1	693.9	919.6	1155.9	1233.2	1284.7	1342.3	1360.4	1363.5
22.5°	243.9	342.4	624.1	706.0	962.0	1198.3	1263.5	1304.4	1343.8	1349.9	1351.3
25°	219.7	313.6	622.7	719.6	998.4	1224.1	1274.1	1304.4	1327.1	1330.2	1330.2
27.5°	197.0	281.8	616.6	722.6	1025.6	1230.2	1269.6	1290.8	1301.3	1307.4	1307.4
30°	177.3	251.5	601.5	716.6	1037.8	1224.1	1255.9	1266.5	1277.1	1286.2	1290.8
32.5°	162.1	222.7	578.7	704.4	1039.3	1208.9	1231.7	1237.7	1252.9	1274.1	1281.6
35°	148.4	193.9	552.9	687.8	1030.1	1184.7	1199.8	1205.9	1236.2	1268.0	1278.6
37.5°	134.8	172.7	519.6	659.0	1016.5	1155.9	1166.5	1177.2	1224.1	1261.9	1274.1
40°	121.2	154.5	480.2	627.2	995.3	1121.0	1130.2	1146.8	1208.9	1252.9	1265.0
42.5°	110.6	139.4	437.8	593.9	968.0	1081.7	1095.3	1119.6	1190.8	1237.7	1251.4
45°	101.5	124.3	392.4	548.4	933.2	1040.8	1060.5	1093.8	1169.5	1215.0	1227.1
47.5°	92.4	113.6	345.4	501.5	895.3	999.9	1025.6	1063.5	1140.7	1184.7	1195.3
50°	84.9	103.1	298.4	451.4	854.4	955.9	986.3	1025.6	1104.4	1145.3	1159.0
52.5°	78.8	93.9	254.5	401.5	807.5	910.4	945.4	986.3	1060.5	1099.9	1108.9
55°	72.7	86.3	216.7	348.5	759.0	862.0	899.9	939.3	1012.0	1045.3	1051.4
57.5°	69.7	80.3	184.8	298.4	707.5	807.5	849.9	886.3	954.4	980.2	986.3
60°	65.2	75.7	160.6	256.1	651.4	756.0	792.4	828.7	886.3	907.5	912.0
62.5°	60.6	72.7	142.4	215.1	593.9	695.4	731.7	765.0	813.6	828.7	834.7
65°	57.6	69.7	128.7	184.8	534.8	631.7	668.1	696.9	736.3	751.4	754.5
67.5°	54.5	66.7	118.2	159.1	475.7	568.1	595.4	622.7	653.0	668.1	669.6
70°	50.0	63.7	109.0	140.9	415.1	495.4	518.1	546.9	571.1	578.7	583.3
72.5°	47.0	59.1	103.1	127.2	353.0	425.7	446.9	463.6	484.8	492.3	492.3
75°	42.4	53.0	97.0	113.6	289.4	348.5	366.6	383.3	399.9	403.0	398.4
77.5°	37.9	47.0	83.4	95.4	225.7	275.8	290.9	299.9	313.6	316.6	318.1
80°	31.8	40.9	65.2	74.2	163.6	203.0	213.6	221.1	233.3	233.3	236.4
82.5°	24.3	31.8	47.0	53.0	110.6	139.4	148.4	153.0	160.6	160.6	160.6
85°	15.1	19.7	30.3	34.8	66.7	84.9	90.9	92.4	98.5	100.0	100.0
87.5°	7.6	10.6	19.7	21.2	34.8	44.0	44.0	47.0	47.0	45.5	44.0
90°	3.8	6.7	9.7	10.4	16.4	24.4	28.3	25.2	18.9	14.1	14.1
92.5°	14.9	40.2	65.5	71.9	101.1	139.9	159.4	139.7	100.3	70.7	68.0
95°	35.7	82.1	128.5	140.0	248.6	393.4	465.8	415.7	315.4	240.2	231.7
97.5°	61.8	102.7	143.6	153.8	334.9	576.4	697.1	665.4	602.0	554.5	538.3
100°	81.9	119.0	156.1	165.4	366.4	634.3	768.3	770.6	775.2	778.7	759.3
102.5°	99.0	133.7	168.2	176.9	380.8	652.5	788.4	828.8	909.5	970.1	953.5
105°	128.1	157.4	186.7	194.0	391.4	654.6	786.2	876.7	1057.7	1193.5	1184.7
107.5°	157.9	185.2	212.5	219.4	393.4	625.4	741.4	867.7	1120.3	1309.8	1311.9
110°	178.0	202.7	227.3	233.5	390.4	599.6	704.2	845.4	1127.7	1339.5	1348.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	197.8	221.2	244.7	250.6	390.5	577.0	670.3	814.8	1103.7	1320.5	1334.7
115°	227.5	249.2	270.8	276.3	394.1	551.2	629.8	769.0	1047.3	1256.1	1275.8
117.5°	257.0	276.7	296.3	301.3	401.5	535.0	601.8	727.4	978.7	1167.1	1189.0
120°	274.1	292.6	311.1	315.8	407.4	529.6	590.6	705.4	935.0	1107.1	1128.5
122.5°	290.9	309.6	328.3	333.0	416.0	526.7	582.0	685.4	892.1	1047.2	1068.1
125°	316.6	333.6	350.6	354.9	427.5	524.3	572.7	660.6	836.1	967.8	987.2
127.5°	337.4	354.5	371.8	376.1	439.1	523.0	564.9	640.3	791.1	904.2	920.5
130°	348.5	367.1	385.6	390.3	447.5	523.8	562.0	629.1	763.3	864.0	879.0
132.5°	360.1	378.6	397.2	401.8	454.3	524.3	559.3	619.4	739.5	829.7	843.2
135°	377.3	394.1	411.0	415.2	461.8	523.8	554.9	605.2	705.8	781.2	792.9
137.5°	394.7	411.5	428.1	432.3	472.9	527.1	554.1	596.6	681.7	745.5	755.0
140°	409.2	424.6	440.0	443.9	479.8	527.6	551.5	588.2	661.7	716.9	725.7
142.5°	420.4	434.7	448.9	452.5	485.5	529.5	551.5	583.7	648.3	696.7	704.4
145°	437.5	450.0	462.3	465.5	493.0	529.6	547.8	574.3	627.0	666.6	672.4
147.5°	454.7	466.8	478.8	481.9	503.9	533.2	547.8	568.6	610.2	641.3	646.1
150°	465.8	476.8	487.7	490.5	509.6	535.1	547.8	565.4	600.4	626.7	630.6
152.5°	477.4	485.6	493.9	496.0	513.3	536.3	547.8	562.8	592.7	615.2	618.1
155°	494.6	500.7	506.8	508.4	521.5	539.1	547.8	559.7	583.6	601.4	603.4
157.5°	507.2	513.2	519.1	520.6	529.7	541.8	547.8	557.1	575.6	589.5	590.8
160°	515.8	520.4	525.0	526.2	533.4	543.0	547.8	555.8	571.7	583.6	584.4
162.5°	524.3	527.8	531.3	532.2	537.4	544.3	547.8	554.6	567.9	577.9	578.6
165°	533.6	536.7	539.9	540.7	543.1	546.2	547.8	552.7	562.3	569.4	570.2
167.5°	542.2	543.7	545.2	545.6	547.6	550.2	551.5	554.6	560.9	565.7	566.0
170°	547.8	549.3	550.8	551.2	551.2	551.4	551.5	554.6	560.9	565.7	565.7
172.5°	550.8	551.2	551.4	551.5	551.5	551.5	551.5	554.0	558.9	562.7	562.4
175°	554.9	554.9	554.9	554.9	553.8	552.2	551.5	553.1	556.3	558.6	558.6
177.5°	554.9	554.9	554.9	554.9	554.0	552.9	552.2	553.5	556.0	557.9	557.5
180°	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9	554.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	471.1	471.1
2.5°	503.0	499.9
5°	646.9	649.9
7.5°	871.1	869.6
10°	1083.1	1096.8
12.5°	1237.7	1240.7
15°	1331.7	1337.7
17.5°	1368.0	1369.6
20°	1369.6	1366.5
22.5°	1352.8	1349.9
25°	1333.1	1331.7
27.5°	1314.9	1316.5
30°	1307.4	1312.0
32.5°	1307.4	1314.9
35°	1310.5	1318.0
37.5°	1308.9	1318.0
40°	1302.9	1313.4
42.5°	1286.2	1293.7
45°	1260.4	1269.6
47.5°	1227.1	1233.2
50°	1184.7	1190.8
52.5°	1131.7	1133.2
55°	1068.0	1074.1
57.5°	999.9	1001.4
60°	924.1	928.7
62.5°	843.8	843.8
65°	759.0	762.0
67.5°	671.1	678.7
70°	581.8	583.3
72.5°	493.9	493.9
75°	403.0	404.5
77.5°	316.6	316.6
80°	234.8	236.4
82.5°	162.1	165.1
85°	101.5	101.5
87.5°	47.0	42.4
90°	14.1	14.1
92.5°	56.7	45.4
95°	197.6	163.5
97.5°	473.4	408.5
100°	682.0	604.8
102.5°	887.3	821.2
105°	1149.0	1113.5
107.5°	1320.5	1329.1
110°	1385.9	1422.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1391.7	1448.6
115°	1354.8	1433.8
117.5°	1276.5	1364.1
120°	1213.5	1298.6
122.5°	1152.1	1236.0
125°	1064.4	1141.8
127.5°	985.7	1050.9
130°	939.3	999.5
132.5°	897.1	951.1
135°	839.4	885.9
137.5°	793.2	831.2
140°	761.4	796.9
142.5°	735.1	765.7
145°	695.6	718.8
147.5°	665.3	684.5
150°	646.1	661.7
152.5°	629.9	641.7
155°	611.1	618.9
157.5°	596.4	601.8
160°	587.5	590.6
162.5°	581.7	584.6
165°	573.4	576.5
167.5°	567.3	568.6
170°	565.7	565.7
172.5°	561.3	560.1
175°	558.6	558.6
177.5°	556.3	554.9
180°	554.9	554.9



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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	6.15	7.05	7.09	8.02	9.28	19.29	20.19	20.23	21.16	22.42
	3H	6.86	7.67	7.81	8.65	9.93	21.11	21.93	22.07	22.90	24.19
	4H	7.16	7.93	8.13	8.91	10.20	21.75	22.52	22.72	23.50	24.80
	6H	7.41	8.12	8.39	9.11	10.42	22.17	22.88	23.15	23.87	25.18
	8H	7.48	8.16	8.47	9.16	10.47	22.29	22.96	23.28	23.97	25.27
	12H	7.50	8.14	8.50	9.14	10.47	22.35	22.99	23.34	23.99	25.32
4H	2H	13.34	14.11	14.32	15.09	16.39	19.57	20.34	20.55	21.32	22.61
	3H	14.92	15.56	15.91	16.57	17.88	21.60	22.25	22.59	23.26	24.57
	4H	15.01	15.60	16.01	16.61	17.94	22.36	22.95	23.36	23.95	25.29
	6H	15.03	15.54	16.04	16.57	17.89	22.89	23.40	23.90	24.43	25.76
	8H	15.01	15.48	16.02	16.50	17.85	23.05	23.52	24.06	24.54	25.89
	12H	14.97	15.40	15.99	16.43	17.78	23.13	23.57	24.16	24.60	25.95
8H	4H	16.45	16.93	17.46	17.95	19.29	22.43	22.90	23.44	23.92	25.27
	6H	16.70	17.09	17.73	18.15	19.50	23.04	23.44	24.08	24.50	25.84
	8H	16.72	17.06	17.76	18.11	19.47	23.26	23.61	24.30	24.65	26.01
	12H	16.69	16.99	17.73	18.04	19.44	23.40	23.70	24.44	24.74	26.15
12H	4H	16.60	17.03	17.62	18.06	19.41	22.38	22.81	23.41	23.85	25.20
	6H	16.95	17.30	18.00	18.35	19.71	23.03	23.38	24.07	24.42	25.79
	8H	17.02	17.33	18.07	18.37	19.78	23.25	23.56	24.30	24.60	26.01