

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: P937511

Luminaire Tested: SQ4-FB-100U-075D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

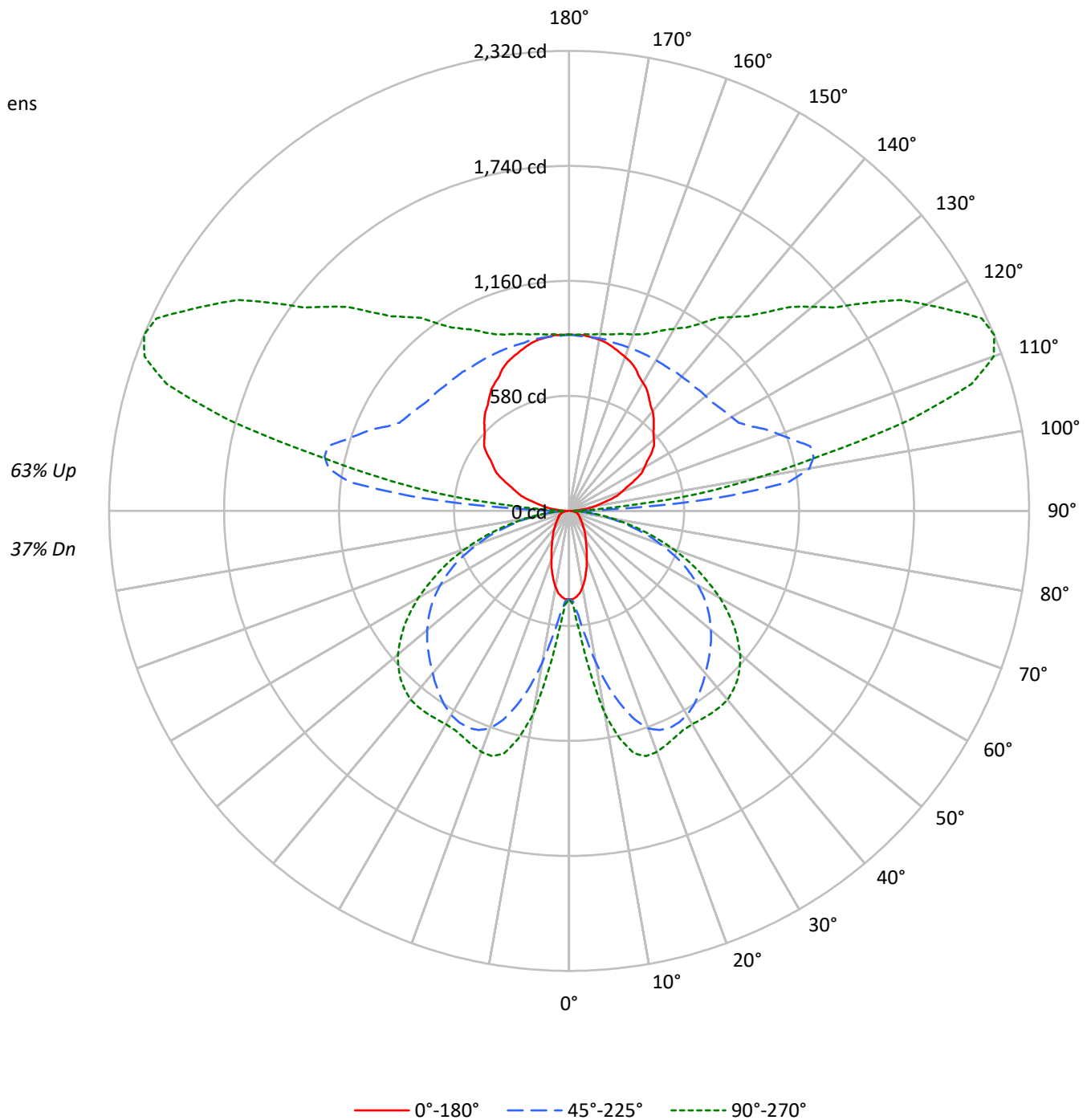
Test Method: LM-79-2019  
Report Number: P937511  
REPORT IS A COMBINATION OF REPORTS P933574 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-830-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9214.8 lumens  
Efficiency: N/A  
Efficacy: 124.9 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): 73.8  
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				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	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2759	2759	2759
5°	2694	3188	3708
10°	2443	4646	6148
15°	2075	6068	7424
20°	1689	7031	7566
25°	1408	7356	7413
30°	1187	7400	7398
35°	1049	7275	7590
40°	913	7113	7788
45°	827	6994	7818
50°	758	6886	7689
55°	725	6730	7347
60°	742	6432	6809
65°	770	5979	6070
70°	818	5211	5128
75°	905	4245	4002
80°	980	2941	2696
85°	853	1557	1380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.7	0.6
10°-20°	255.7	2.8
20°-30°	447.2	4.9
30°-40°	575.7	6.2
40°-50°	643.1	7.0
50°-60°	615.9	6.7
60°-70°	488.1	5.3
70°-80°	287.0	3.1
80°-90°	83.1	0.9
90°-100°	433.2	4.7
100°-110°	1138.9	12.4
110°-120°	1180.9	12.8
120°-130°	947.3	10.3
130°-140°	743.3	8.1
140°-150°	570.5	6.2
150°-160°	410.8	4.5
160°-170°	251.4	2.7
170°-180°	84.9	0.9
0°-30°	760.6	8.3
0°-40°	1336.4	14.5
0°-60°	2595.3	28.2
0°-90°	3453.5	37.5
90°-120°	2753.1	29.9
90°-150°	5014.1	54.4
90°-180°	5761.0	62.5
0°-180°	9214.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	434	466	525	594	615	40
15°	326	601	1012	1228	1266	91
25°	208	681	1206	1259	1261	96
35°	140	651	1136	1200	1248	88
45°	96	519	1004	1150	1202	74
55°	69	330	852	990	1017	63
65°	54	175	632	711	721	54
75°	40	108	347	381	383	42
85°	14	33	86	95	96	15
90°	6	17	45	23	23	6
95°	57	224	746	385	262	64
105°	205	311	1259	1912	1783	218
115°	364	442	1009	2012	2296	360
125°	507	568	917	1550	1829	450
135°	604	665	889	1251	1419	467
145°	701	746	877	1068	1151	439
155°	792	814	877	963	991	364
165°	855	866	877	912	923	241
175°	889	889	883	895	895	84
180°	889	889	889	889	889	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0	446.0
2.5°	446.0	446.0	448.8	450.3	453.1	454.6	457.4	460.3	468.9	470.4	473.2
5°	434.5	440.2	458.9	466.0	486.1	513.4	524.8	543.5	582.2	593.7	600.8
7.5°	417.3	430.2	476.1	487.6	537.8	609.4	639.6	679.7	741.4	771.5	795.9
10°	390.0	417.3	499.0	526.3	608.0	717.0	772.9	828.9	922.1	963.6	979.4
12.5°	359.9	404.4	523.4	560.7	678.3	837.5	904.9	966.5	1072.6	1128.7	1137.3
15°	325.5	385.7	546.4	600.8	752.8	937.8	1012.4	1088.5	1187.4	1227.6	1237.6
17.5°	295.4	371.4	567.9	625.2	810.2	1028.2	1104.3	1167.4	1247.7	1274.9	1282.1
20°	258.1	348.5	582.2	656.8	870.4	1094.2	1167.4	1216.1	1270.6	1287.8	1290.7
22.5°	230.9	324.1	590.8	668.2	910.6	1134.4	1196.1	1234.8	1272.1	1277.8	1279.2
25°	207.9	296.8	589.4	681.2	945.0	1158.8	1206.1	1234.8	1256.3	1259.1	1259.1
27.5°	186.4	266.7	583.6	684.0	970.8	1164.5	1201.8	1221.9	1231.9	1237.6	1237.6
30°	167.8	238.0	569.3	678.3	982.3	1158.8	1188.9	1198.9	1209.0	1217.6	1221.9
32.5°	153.4	210.8	547.8	666.8	983.7	1144.4	1165.9	1171.7	1186.0	1206.1	1213.3
35°	140.5	183.6	523.4	651.0	975.1	1121.5	1135.8	1141.6	1170.2	1200.4	1210.4
37.5°	127.6	163.5	491.9	623.8	962.2	1094.2	1104.3	1114.3	1158.8	1194.6	1206.1
40°	114.7	146.3	454.6	593.7	942.1	1061.2	1069.8	1085.5	1144.4	1186.0	1197.5
42.5°	104.7	131.9	414.4	562.1	916.3	1023.9	1036.8	1059.7	1127.2	1171.7	1184.6
45°	96.1	117.6	371.4	519.1	883.3	985.2	1003.8	1035.3	1107.1	1150.2	1161.6
47.5°	87.5	107.6	327.0	474.7	847.5	946.4	970.8	1006.7	1079.8	1121.5	1131.5
50°	80.3	97.5	282.5	427.3	808.8	904.9	933.5	970.8	1045.4	1084.1	1097.1
52.5°	74.6	88.9	240.9	380.0	764.3	861.8	894.8	933.5	1003.8	1041.1	1049.7
55°	68.8	81.7	205.1	329.8	718.4	815.9	851.8	889.1	957.9	989.5	995.2
57.5°	66.0	76.0	174.9	282.5	669.7	764.3	804.5	838.9	903.4	927.8	933.5
60°	61.7	71.7	152.0	242.3	616.6	715.6	750.0	784.4	838.9	859.0	863.3
62.5°	57.4	68.8	134.8	203.6	562.1	658.2	692.6	724.2	770.1	784.4	790.1
65°	54.5	66.0	121.9	174.9	506.2	598.0	632.4	659.6	696.9	711.3	714.1
67.5°	51.6	63.1	111.9	150.6	450.3	537.8	563.6	589.4	618.1	632.4	633.8
70°	47.3	60.2	103.2	133.4	392.9	468.9	490.4	517.7	540.6	547.8	552.1
72.5°	44.5	55.9	97.5	120.5	334.1	403.0	423.0	438.8	458.9	466.0	466.0
75°	40.2	50.2	91.8	107.6	273.9	329.8	347.0	362.8	378.6	381.4	377.1
77.5°	35.8	44.5	78.9	90.3	213.7	261.0	275.3	283.9	296.8	299.7	301.1
80°	30.1	38.7	61.7	70.3	154.9	192.2	202.2	209.4	220.8	220.8	223.7
82.5°	22.9	30.1	44.5	50.2	104.7	131.9	140.5	144.8	152.0	152.0	152.0
85°	14.3	18.6	28.7	33.0	63.1	80.3	86.0	87.5	93.2	94.6	94.6
87.5°	7.2	10.0	18.6	20.1	33.0	41.6	41.6	44.5	44.5	43.0	41.6
90°	5.9	10.7	15.5	16.7	26.3	39.0	45.3	40.2	30.2	22.7	22.7
92.5°	23.9	64.4	105.0	115.1	161.9	224.1	255.3	223.7	160.6	113.3	108.8
95°	57.3	131.4	205.7	224.3	398.3	630.2	746.2	665.9	505.2	384.7	371.0
97.5°	99.0	164.5	230.0	246.4	536.4	923.2	1116.6	1065.8	964.3	888.1	862.1
100°	131.3	190.6	250.0	264.8	586.7	1015.8	1230.5	1234.2	1241.7	1247.2	1216.2
102.5°	158.7	214.1	269.5	283.4	609.8	1045.1	1262.7	1327.4	1456.8	1553.8	1527.3
105°	205.2	252.1	299.0	310.8	626.9	1048.4	1259.1	1404.2	1694.1	1911.6	1897.4
107.5°	252.9	296.6	340.4	351.3	630.1	1001.7	1187.5	1389.8	1794.3	2097.8	2101.2
110°	285.1	324.6	364.1	374.0	625.3	960.4	1127.9	1354.0	1806.3	2145.5	2160.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	316.7	354.4	392.1	401.4	625.5	924.3	1073.6	1305.0	1767.9	2115.1	2137.8
115°	364.4	399.1	433.8	442.5	631.2	882.8	1008.6	1231.5	1677.5	2011.9	2043.5
117.5°	411.6	443.1	474.7	482.5	642.9	856.9	963.8	1165.1	1567.5	1869.3	1904.4
120°	439.0	468.7	498.4	505.8	652.6	848.2	946.0	1129.8	1497.5	1773.3	1807.3
122.5°	465.9	495.8	525.8	533.3	666.2	843.6	932.3	1097.9	1428.9	1677.2	1710.9
125°	507.0	534.3	561.6	568.4	684.8	839.8	917.4	1058.0	1339.3	1550.2	1581.2
127.5°	540.4	568.0	595.6	602.5	703.2	837.6	904.9	1025.6	1267.1	1448.2	1474.3
130°	558.3	588.0	617.7	625.1	716.8	839.0	900.1	1007.5	1222.5	1383.8	1407.9
132.5°	576.8	606.5	636.1	643.6	727.7	839.8	895.9	992.1	1184.6	1328.9	1350.5
135°	604.2	631.2	658.3	665.1	739.7	839.0	888.7	969.3	1130.5	1251.4	1270.0
137.5°	632.2	659.0	685.8	692.5	757.5	844.2	887.6	955.7	1091.9	1194.1	1209.3
140°	655.5	680.2	704.9	711.0	768.4	845.0	883.3	942.2	1059.9	1148.2	1162.4
142.5°	673.4	696.3	719.0	724.7	777.6	848.1	883.3	935.1	1038.4	1115.9	1128.2
145°	700.8	720.7	740.6	745.6	789.6	848.2	877.4	919.7	1004.3	1067.7	1076.9
147.5°	728.3	747.6	766.9	771.8	807.0	853.9	877.4	910.7	977.2	1027.1	1034.8
150°	746.2	763.7	781.1	785.5	816.1	857.0	877.4	905.5	961.6	1003.8	1010.0
152.5°	764.7	778.0	791.2	794.5	822.2	859.0	877.4	901.4	949.4	985.3	990.0
155°	792.1	801.9	811.6	814.1	835.3	863.4	877.4	896.5	934.7	963.3	966.4
157.5°	812.4	822.0	831.4	833.8	848.4	867.8	877.4	892.2	922.0	944.2	946.4
160°	826.1	833.5	841.0	842.8	854.4	869.8	877.4	890.1	915.6	934.7	935.9
162.5°	839.8	845.4	850.9	852.4	860.7	871.9	877.4	888.1	909.6	925.7	926.8
165°	854.8	859.7	864.8	866.0	869.9	874.9	877.4	885.1	900.5	912.0	913.3
167.5°	868.4	870.8	873.2	873.8	876.9	881.2	883.3	888.4	898.4	906.0	906.6
170°	877.4	879.8	882.2	882.8	883.0	883.2	883.3	888.4	898.4	906.0	906.0
172.5°	882.2	882.7	883.2	883.3	883.3	883.3	883.3	887.4	895.3	901.2	900.7
175°	888.7	888.7	888.7	888.7	886.9	884.5	883.3	885.8	890.9	894.7	894.7
177.5°	888.7	888.7	888.7	888.7	887.4	885.5	884.6	886.6	890.5	893.5	892.9
180°	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7	888.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	446.0	446.0
2.5°	476.1	473.2
5°	612.3	615.2
7.5°	824.6	823.1
10°	1025.3	1038.2
12.5°	1171.7	1174.5
15°	1260.6	1266.3
17.5°	1295.0	1296.4
20°	1296.4	1293.6
22.5°	1280.7	1277.8
25°	1262.0	1260.6
27.5°	1244.8	1246.2
30°	1237.6	1241.9
32.5°	1237.6	1244.8
35°	1240.5	1247.7
37.5°	1239.1	1247.7
40°	1233.3	1243.4
42.5°	1217.6	1224.7
45°	1193.2	1201.8
47.5°	1161.6	1167.4
50°	1121.5	1127.2
52.5°	1071.2	1072.6
55°	1011.0	1016.7
57.5°	946.4	947.9
60°	874.7	879.0
62.5°	798.7	798.7
65°	718.4	721.3
67.5°	635.3	642.4
70°	550.7	552.1
72.5°	467.5	467.5
75°	381.4	382.9
77.5°	299.7	299.7
80°	222.3	223.7
82.5°	153.4	156.3
85°	96.1	96.1
87.5°	44.5	40.2
90°	22.7	22.7
92.5°	90.7	72.8
95°	316.4	261.8
97.5°	758.2	654.3
100°	1092.4	968.6
102.5°	1421.2	1315.2
105°	1840.4	1783.4
107.5°	2115.1	2128.8
110°	2219.7	2279.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2229.0	2320.2
115°	2169.9	2296.4
117.5°	2044.6	2184.8
120°	1943.6	2079.9
122.5°	1845.3	1979.7
125°	1704.9	1828.7
127.5°	1578.8	1683.2
130°	1504.5	1600.9
132.5°	1437.0	1523.4
135°	1344.5	1419.0
137.5°	1270.3	1331.3
140°	1219.5	1276.5
142.5°	1177.3	1226.4
145°	1114.1	1151.2
147.5°	1065.6	1096.3
150°	1035.0	1059.9
152.5°	1008.9	1027.7
155°	978.8	991.3
157.5°	955.1	963.8
160°	941.0	946.0
162.5°	931.6	936.4
165°	918.3	923.3
167.5°	908.7	910.8
170°	906.0	906.0
172.5°	898.9	897.1
175°	894.7	894.7
177.5°	890.8	888.7
180°	888.7	888.7



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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	3.26	4.04	4.31	5.10	6.54	16.42	17.21	17.47	18.27	19.71
	3H	3.96	4.66	5.02	5.73	7.19	18.25	18.96	19.31	20.03	21.48
	4H	4.25	4.92	5.32	5.99	7.45	18.89	19.56	19.96	20.63	22.09
	6H	4.50	5.12	5.58	6.19	7.66	19.31	19.93	20.39	21.00	22.48
	8H	4.56	5.15	5.65	6.24	7.71	19.43	20.02	20.52	21.11	22.58
	12H	4.58	5.14	5.67	6.22	7.71	19.49	20.05	20.58	21.13	22.63
4H	2H	10.46	11.13	11.54	12.20	13.66	16.69	17.36	17.77	18.43	19.89
	3H	12.02	12.58	13.10	13.67	15.15	18.72	19.28	19.81	20.38	21.86
	4H	12.11	12.62	13.20	13.71	15.21	19.48	20.00	20.57	21.08	22.58
	6H	12.12	12.56	13.22	13.67	15.16	20.01	20.46	21.11	21.57	23.06
	8H	12.09	12.50	13.19	13.61	15.11	20.17	20.58	21.27	21.69	23.19
	12H	12.04	12.42	13.16	13.53	15.04	20.26	20.63	21.38	21.75	23.26
8H	4H	13.54	13.96	14.64	15.06	16.57	19.54	19.95	20.64	21.05	22.56
	6H	13.78	14.12	14.91	15.27	16.77	20.16	20.50	21.28	21.65	23.15
	8H	13.80	14.10	14.93	15.23	16.75	20.37	20.67	21.50	21.80	23.32
	12H	13.76	14.03	14.90	15.15	16.71	20.51	20.78	21.65	21.90	23.46
12H	4H	13.68	14.06	14.80	15.17	16.68	19.49	19.86	20.60	20.98	22.49
	6H	14.04	14.34	15.17	15.47	16.99	20.14	20.44	21.27	21.57	23.09
	8H	14.10	14.37	15.24	15.49	17.05	20.36	20.63	21.50	21.75	23.31