

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: P937591

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937591
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-B2750-1D-UNV-STD-W-6-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

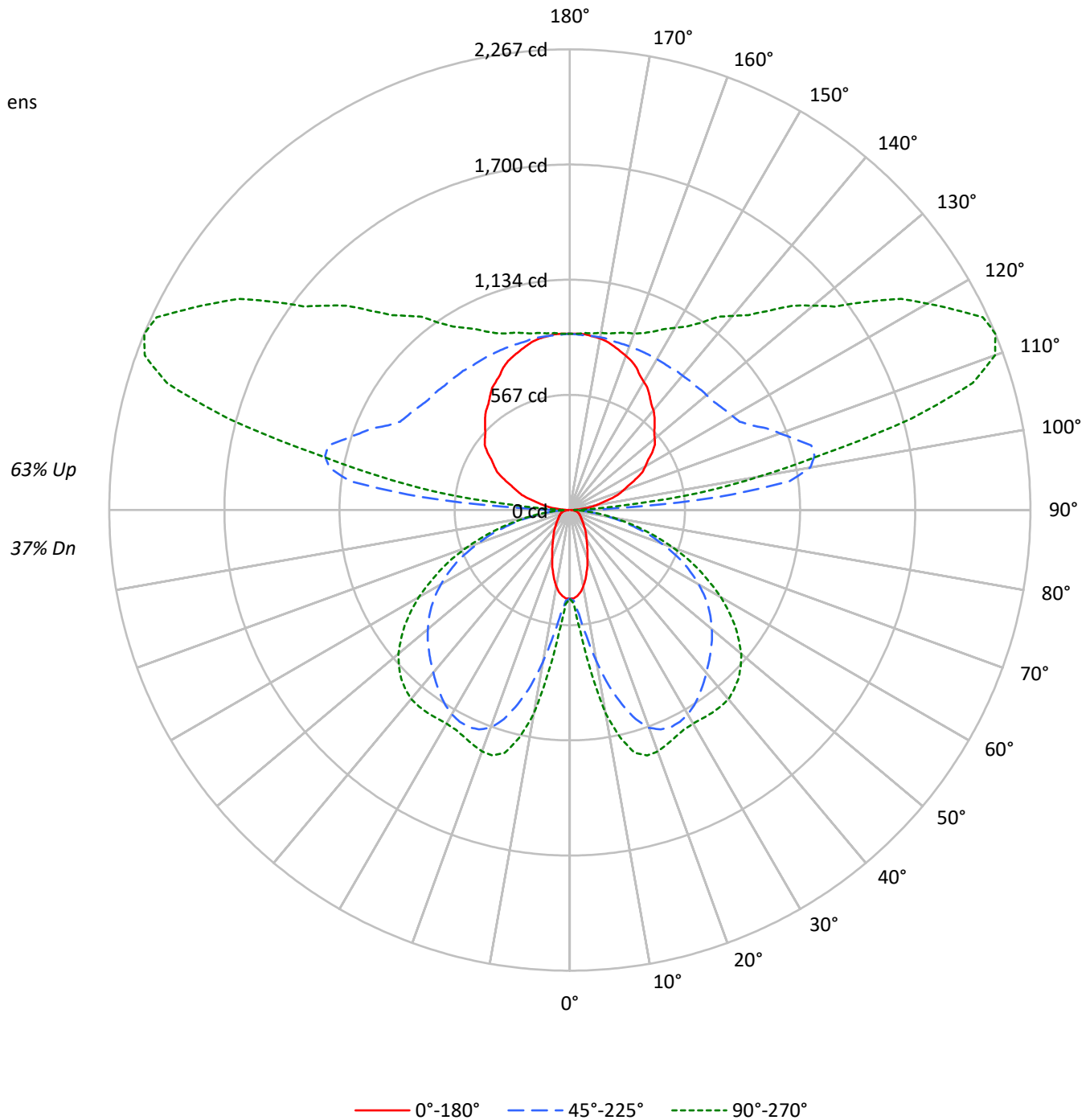
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9002.8 lumens
Efficiency: N/A
Efficacy: 122.0 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): 73.8
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	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°	2695	2695	2695
5°	2632	3115	3623
10°	2387	4539	6006
15°	2028	5929	7253
20°	1650	6869	7392
25°	1376	7186	7242
30°	1160	7230	7228
35°	1025	7108	7415
40°	893	6949	7609
45°	808	6833	7638
50°	741	6728	7512
55°	708	6575	7178
60°	724	6283	6652
65°	752	5841	5930
70°	799	5090	5010
75°	882	4147	3910
80°	957	2872	2635
85°	835	1522	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.4	0.6
10°-20°	249.8	2.8
20°-30°	437.0	4.9
30°-40°	562.5	6.2
40°-50°	628.3	7.0
50°-60°	601.7	6.7
60°-70°	476.9	5.3
70°-80°	280.4	3.1
80°-90°	81.2	0.9
90°-100°	423.2	4.7
100°-110°	1112.7	12.4
110°-120°	1153.8	12.8
120°-130°	925.5	10.3
130°-140°	726.2	8.1
140°-150°	557.4	6.2
150°-160°	401.4	4.5
160°-170°	245.6	2.7
170°-180°	83.0	0.9
0°-30°	743.1	8.3
0°-40°	1305.6	14.5
0°-60°	2535.6	28.2
0°-90°	3374.1	37.5
90°-120°	2689.7	29.9
90°-150°	4898.7	54.4
90°-180°	5629.0	62.5
0°-180°	9002.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	436	436	436	436	436	
5°	424	455	513	580	601	39
15°	318	587	989	1199	1237	89
25°	203	666	1178	1230	1232	94
35°	137	636	1110	1173	1219	86
45°	94	507	981	1124	1174	73
55°	67	322	832	967	993	61
65°	53	171	618	695	705	53
75°	39	105	339	373	374	41
85°	14	32	84	92	94	15
90°	6	16	44	22	22	6
95°	56	219	729	376	256	62
105°	200	304	1230	1868	1742	212
115°	356	432	985	1966	2244	352
125°	495	555	896	1515	1787	440
135°	590	650	868	1223	1386	457
145°	685	728	857	1043	1125	429
155°	774	795	857	941	968	356
165°	835	846	857	891	902	236
175°	868	868	863	874	874	82
180°	868	868	868	868	868	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7	435.7
2.5°	435.7	435.7	438.5	439.9	442.7	444.1	446.9	449.7	458.1	459.5	462.3
5°	424.5	430.1	448.3	455.3	474.9	501.6	512.8	531.0	568.8	580.0	587.0
7.5°	407.7	420.3	465.1	476.3	525.4	595.4	624.8	664.1	724.3	753.7	777.6
10°	381.1	407.7	487.5	514.2	594.0	700.5	755.1	809.8	900.8	941.5	956.9
12.5°	351.7	395.1	511.4	547.8	662.7	818.2	884.0	944.3	1047.9	1102.7	1111.1
15°	318.0	376.9	533.8	587.0	735.5	916.3	989.1	1063.5	1160.1	1199.3	1209.2
17.5°	288.6	362.9	554.8	610.8	791.6	1004.5	1078.9	1140.5	1219.0	1245.6	1252.6
20°	252.2	340.4	568.8	641.7	850.4	1069.1	1140.5	1188.1	1241.4	1258.2	1261.0
22.5°	225.6	316.6	577.2	652.9	889.6	1108.3	1168.5	1206.4	1242.8	1248.4	1249.8
25°	203.1	290.0	575.8	665.5	923.3	1132.1	1178.3	1206.4	1227.4	1230.2	1230.2
27.5°	182.1	260.6	570.2	668.3	948.5	1137.7	1174.1	1193.7	1203.6	1209.2	1209.2
30°	163.9	232.6	556.2	662.7	959.7	1132.1	1161.5	1171.3	1181.1	1189.5	1193.7
32.5°	149.9	205.9	535.2	651.5	961.1	1118.1	1139.1	1144.7	1158.7	1178.3	1185.3
35°	137.3	179.3	511.4	636.1	952.7	1095.7	1109.7	1115.3	1143.3	1172.7	1182.5
37.5°	124.7	159.7	480.5	609.4	940.1	1069.1	1078.9	1088.7	1132.1	1167.1	1178.3
40°	112.1	142.9	444.1	580.0	920.5	1036.7	1045.1	1060.6	1118.1	1158.7	1169.9
42.5°	102.3	128.9	404.9	549.2	895.2	1000.3	1012.9	1035.3	1101.3	1144.7	1157.3
45°	93.9	114.9	362.9	507.2	863.0	962.5	980.7	1011.5	1081.7	1123.7	1134.9
47.5°	85.5	105.1	319.4	463.7	828.0	924.7	948.5	983.5	1055.0	1095.7	1105.5
50°	78.5	95.3	276.0	417.5	790.2	884.0	912.1	948.5	1021.3	1059.2	1071.9
52.5°	72.9	86.9	235.4	371.3	746.7	842.0	874.2	912.1	980.7	1017.1	1025.5
55°	67.2	79.9	200.3	322.2	701.9	797.2	832.2	868.6	935.9	966.7	972.3
57.5°	64.4	74.3	170.9	276.0	654.3	746.7	786.0	819.6	882.6	906.4	912.1
60°	60.2	70.0	148.5	236.8	602.4	699.1	732.7	766.3	819.6	839.2	843.4
62.5°	56.0	67.2	131.7	198.9	549.2	643.1	676.7	707.5	752.3	766.3	772.0
65°	53.2	64.4	119.1	170.9	494.6	584.2	617.8	644.5	680.9	694.9	697.7
67.5°	50.4	61.6	109.3	147.1	439.9	525.4	550.6	575.8	603.8	617.8	619.2
70°	46.2	58.8	100.9	130.3	383.9	458.1	479.1	505.8	528.2	535.2	539.4
72.5°	43.4	54.6	95.3	117.7	326.4	393.7	413.3	428.7	448.3	455.3	455.3
75°	39.2	49.0	89.7	105.1	267.6	322.2	339.0	354.5	369.9	372.7	368.5
77.5°	35.0	43.4	77.1	88.3	208.7	255.0	269.0	277.4	290.0	292.8	294.2
80°	29.4	37.8	60.2	68.6	151.3	187.7	197.5	204.5	215.8	215.8	218.6
82.5°	22.4	29.4	43.4	49.0	102.3	128.9	137.3	141.5	148.5	148.5	148.5
85°	14.0	18.2	28.0	32.2	61.6	78.5	84.1	85.5	91.1	92.5	92.5
87.5°	7.0	9.8	18.2	19.6	32.2	40.6	40.6	43.4	43.4	42.0	40.6
90°	5.8	10.5	15.1	16.3	25.7	38.1	44.3	39.3	29.5	22.1	22.1
92.5°	23.4	63.0	102.6	112.5	158.1	218.9	249.4	218.6	156.9	110.7	106.3
95°	55.9	128.4	201.0	219.1	389.1	615.7	729.0	650.5	493.5	375.8	362.5
97.5°	96.8	160.7	224.7	240.7	524.1	902.0	1090.9	1041.3	942.1	867.7	842.3
100°	128.2	186.2	244.2	258.7	573.2	992.5	1202.2	1205.8	1213.1	1218.5	1188.2
102.5°	155.0	209.2	263.3	276.8	595.8	1021.0	1233.6	1296.9	1423.2	1518.0	1492.2
105°	200.4	246.3	292.2	303.6	612.5	1024.3	1230.2	1371.9	1655.1	1867.6	1853.7
107.5°	247.0	289.8	332.6	343.2	615.6	978.6	1160.2	1357.8	1753.0	2049.5	2052.8
110°	278.5	317.1	355.8	365.4	610.9	938.3	1101.9	1322.8	1764.7	2096.1	2110.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	309.4	346.2	383.0	392.2	611.1	903.0	1048.9	1275.0	1727.2	2066.4	2088.6
115°	356.0	389.9	423.8	432.3	616.7	862.5	985.4	1203.2	1638.9	1965.6	1996.5
117.5°	402.1	432.9	463.7	471.4	628.1	837.1	941.7	1138.3	1531.4	1826.3	1860.5
120°	428.9	457.9	486.9	494.2	637.5	828.6	924.2	1103.8	1463.0	1732.5	1765.7
122.5°	455.1	484.4	513.7	521.0	650.9	824.2	910.8	1072.6	1396.0	1638.6	1671.5
125°	495.3	522.0	548.7	555.4	669.0	820.5	896.3	1033.7	1308.4	1514.6	1544.8
127.5°	528.0	554.9	581.9	588.6	687.1	818.4	884.0	1002.0	1237.9	1414.9	1440.4
130°	545.5	574.5	603.5	610.7	700.3	819.7	879.4	984.3	1194.4	1352.0	1375.5
132.5°	563.5	592.5	621.5	628.8	711.0	820.5	875.3	969.3	1157.3	1298.4	1319.5
135°	590.3	616.7	643.2	649.8	722.6	819.7	868.2	947.0	1104.5	1222.6	1240.8
137.5°	617.7	643.8	670.1	676.6	740.1	824.8	867.1	933.7	1066.8	1166.7	1181.5
140°	640.4	664.5	688.6	694.6	750.7	825.6	863.0	920.6	1035.5	1121.7	1135.7
142.5°	657.9	680.2	702.5	708.1	759.7	828.6	863.0	913.5	1014.5	1090.3	1102.2
145°	684.7	704.1	723.6	728.4	771.4	828.6	857.2	898.5	981.2	1043.1	1052.2
147.5°	711.5	730.4	749.3	754.0	788.4	834.2	857.2	889.7	954.7	1003.5	1011.0
150°	729.0	746.1	763.2	767.5	797.4	837.2	857.2	884.7	939.5	980.7	986.8
152.5°	747.1	760.1	773.0	776.2	803.2	839.2	857.2	880.7	927.6	962.7	967.3
155°	773.9	783.4	793.0	795.4	816.0	843.5	857.2	875.9	913.2	941.1	944.2
157.5°	793.7	803.1	812.3	814.6	828.8	847.8	857.2	871.7	900.7	922.5	924.7
160°	807.1	814.4	821.6	823.4	834.7	849.8	857.2	869.6	894.5	913.2	914.4
162.5°	820.5	825.9	831.4	832.8	840.9	851.8	857.2	867.7	888.7	904.4	905.5
165°	835.1	839.9	844.9	846.1	849.8	854.8	857.2	864.7	879.7	891.0	892.3
167.5°	848.4	850.8	853.1	853.7	856.8	861.0	863.0	868.0	877.8	885.2	885.7
170°	857.2	859.6	861.9	862.5	862.6	862.9	863.0	868.0	877.8	885.2	885.2
172.5°	861.9	862.4	862.9	863.0	863.0	863.0	863.0	866.9	874.7	880.5	880.0
175°	868.2	868.2	868.2	868.2	866.5	864.1	863.0	865.4	870.4	874.1	874.1
177.5°	868.2	868.2	868.2	868.2	866.9	865.2	864.2	866.2	870.0	872.9	872.4
180°	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2	868.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	435.7	435.7
2.5°	465.1	462.3
5°	598.2	601.0
7.5°	805.6	804.2
10°	1001.7	1014.3
12.5°	1144.7	1147.5
15°	1231.6	1237.2
17.5°	1265.2	1266.6
20°	1266.6	1263.8
22.5°	1251.2	1248.4
25°	1233.0	1231.6
27.5°	1216.2	1217.6
30°	1209.2	1213.4
32.5°	1209.2	1216.2
35°	1212.0	1219.0
37.5°	1210.6	1219.0
40°	1205.0	1214.8
42.5°	1189.5	1196.5
45°	1165.7	1174.1
47.5°	1134.9	1140.5
50°	1095.7	1101.3
52.5°	1046.5	1047.9
55°	987.7	993.3
57.5°	924.7	926.1
60°	854.6	858.8
62.5°	780.4	780.4
65°	701.9	704.7
67.5°	620.6	627.6
70°	538.0	539.4
72.5°	456.7	456.7
75°	372.7	374.1
77.5°	292.8	292.8
80°	217.2	218.6
82.5°	149.9	152.7
85°	93.9	93.9
87.5°	43.4	39.2
90°	22.1	22.1
92.5°	88.6	71.1
95°	309.2	255.8
97.5°	740.8	639.2
100°	1067.3	946.3
102.5°	1388.5	1284.9
105°	1798.0	1742.4
107.5°	2066.4	2079.8
110°	2168.7	2226.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2177.7	2266.8
115°	2120.0	2243.6
117.5°	1997.5	2134.6
120°	1898.9	2032.0
122.5°	1802.8	1934.1
125°	1665.7	1786.6
127.5°	1542.5	1644.5
130°	1469.8	1564.1
132.5°	1403.9	1488.3
135°	1313.6	1386.3
137.5°	1241.1	1300.7
140°	1191.4	1247.1
142.5°	1150.2	1198.1
145°	1088.5	1124.7
147.5°	1041.0	1071.1
150°	1011.1	1035.5
152.5°	985.7	1004.0
155°	956.3	968.5
157.5°	933.2	941.7
160°	919.3	924.2
162.5°	910.2	914.9
165°	897.2	902.1
167.5°	887.8	889.8
170°	885.2	885.2
172.5°	878.2	876.5
175°	874.1	874.1
177.5°	870.3	868.2
180°	868.2	868.2



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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	3.18	3.96	4.23	5.02	6.46	16.34	17.13	17.39	18.19	19.63
	3H	3.88	4.58	4.94	5.65	7.11	18.17	18.88	19.23	19.95	21.40
	4H	4.17	4.84	5.24	5.91	7.37	18.81	19.48	19.88	20.55	22.01
	6H	4.42	5.03	5.50	6.11	7.58	19.23	19.85	20.31	20.92	22.40
	8H	4.48	5.07	5.57	6.16	7.63	19.35	19.94	20.43	21.03	22.49
	12H	4.50	5.06	5.59	6.14	7.63	19.41	19.97	20.50	21.05	22.55
4H	2H	10.38	11.04	11.45	12.11	13.58	16.61	17.28	17.69	18.35	19.81
	3H	11.94	12.50	13.02	13.59	15.07	18.64	19.20	19.73	20.30	21.77
	4H	12.03	12.54	13.12	13.63	15.13	19.40	19.92	20.49	21.00	22.50
	6H	12.03	12.48	13.13	13.59	15.08	19.93	20.38	21.03	21.49	22.97
	8H	12.01	12.42	13.11	13.53	15.03	20.09	20.50	21.19	21.61	23.11
	12H	11.96	12.34	13.08	13.45	14.96	20.18	20.55	21.30	21.67	23.18
8H	4H	13.46	13.88	14.56	14.98	16.48	19.46	19.87	20.56	20.97	22.48
	6H	13.70	14.04	14.82	15.19	16.69	20.08	20.42	21.20	21.56	23.07
	8H	13.72	14.02	14.85	15.14	16.67	20.29	20.59	21.42	21.72	23.24
	12H	13.68	13.95	14.82	15.07	16.63	20.43	20.70	21.57	21.82	23.38
12H	4H	13.60	13.98	14.72	15.09	16.60	19.40	19.78	20.52	20.90	22.41
	6H	13.96	14.26	15.09	15.38	16.91	20.06	20.36	21.19	21.49	23.01
	8H	14.02	14.29	15.16	15.41	16.97	20.28	20.55	21.42	21.67	23.23