

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: P936221

Luminaire Tested: SQ4-FB-025U-050D-927-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

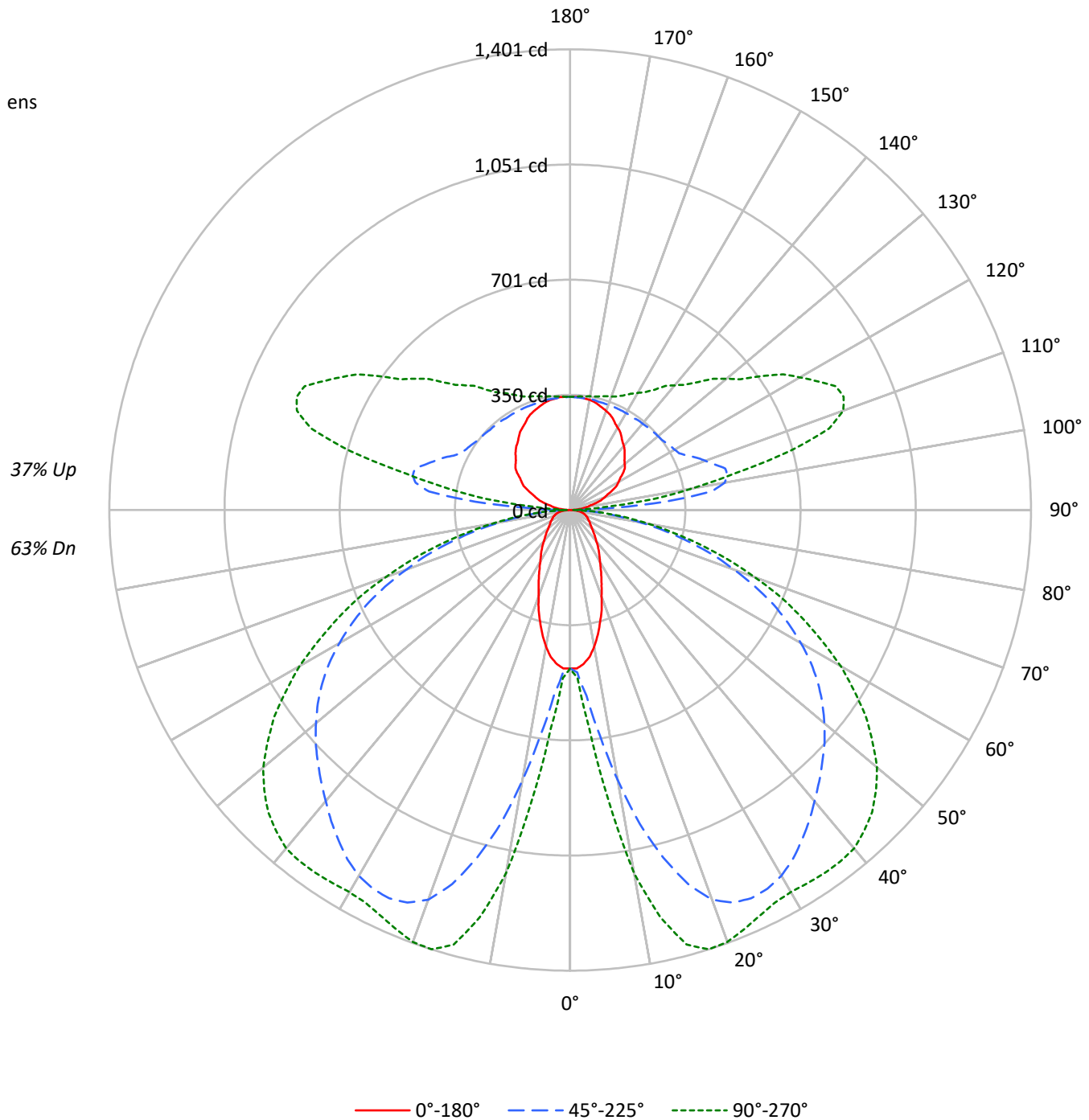
Test Method: LM-79-2019  
Report Number: P936221  
REPORT IS A COMBINATION OF REPORTS P933429 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-025U-050D-927-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5963.6 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 66  
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			
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
RCR																				
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63		
1	100	95	91	87	93	89	86	82	78	75	73	68	66	64	59	57	56	51		
2	90	82	76	70	84	77	71	66	68	63	59	59	55	52	51	48	46	42		
3	82	72	64	57	76	67	60	55	59	53	49	51	47	43	44	41	38	34		
4	75	63	54	48	69	59	52	46	52	46	41	45	40	37	39	35	32	29		
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	35	31	28	24		
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	24	21		
7	58	45	36	30	54	42	34	29	37	31	26	33	27	23	28	24	21	18		
8	53	40	32	26	50	38	31	25	34	27	23	30	24	21	26	22	18	16		
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	24	19	16	14		
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15	13		

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

	0°	45°	90°
0°	1491	1491	1491
5°	1457	1723	2003
10°	1322	2512	3321
15°	1124	3283	4010
20°	915	3805	4087
25°	764	3983	4004
30°	644	4009	3996
35°	570	3944	4100
40°	497	3858	4207
45°	450	3796	4223
50°	414	3740	4153
55°	396	3658	3969
60°	406	3499	3678
65°	424	3257	3279
70°	452	2842	2770
75°	503	2319	2161
80°	554	1610	1457
85°	502	855	745

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4223 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.3	1.0
10°-20°	276.2	4.6
20°-30°	483.2	8.1
30°-40°	622.0	10.4
40°-50°	694.8	11.7
50°-60°	665.4	11.2
60°-70°	527.4	8.8
70°-80°	310.1	5.2
80°-90°	87.5	1.5
90°-100°	168.0	2.8
100°-110°	441.8	7.4
110°-120°	458.1	7.7
120°-130°	367.4	6.2
130°-140°	288.3	4.8
140°-150°	221.3	3.7
150°-160°	159.4	2.7
160°-170°	97.5	1.6
170°-180°	32.9	0.6
0°-30°	821.8	13.8
0°-40°	1443.8	24.2
0°-60°	2804.0	47.0
0°-90°	3728.9	62.5
90°-120°	1067.9	17.9
90°-150°	1944.9	32.6
90°-180°	2235.0	37.5
0°-180°	5963.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	470	504	567	641	665	43
15°	352	649	1094	1326	1368	98
25°	225	736	1303	1360	1362	103
35°	152	703	1227	1297	1348	95
45°	104	561	1084	1242	1298	80
55°	74	356	920	1069	1098	68
65°	59	189	683	768	779	58
75°	43	116	375	412	414	45
85°	16	36	93	102	104	16
90°	2	6	18	9	9	3
95°	22	87	289	149	102	25
105°	80	120	488	742	692	84
115°	141	172	391	780	891	140
125°	197	220	356	601	709	175
135°	234	258	345	485	550	181
145°	272	289	340	414	446	170
155°	307	316	340	374	384	141
165°	332	336	340	354	358	94
175°	345	345	343	347	347	33
180°	345	345	345	345	345	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	481.9	481.9	484.9	486.5	489.6	491.1	494.3	497.3	506.7	508.2	511.3
5°	469.5	475.6	495.8	503.5	525.2	554.6	567.0	587.2	629.0	641.4	649.2
7.5°	450.8	464.8	514.4	526.8	581.0	658.5	691.0	734.4	801.0	833.5	859.9
10°	421.4	450.8	539.2	568.6	656.9	774.7	835.1	895.5	996.2	1041.2	1058.2
12.5°	388.8	436.9	565.5	605.8	732.8	904.8	977.7	1044.3	1158.9	1219.4	1228.6
15°	351.7	416.8	590.3	649.2	813.4	1013.2	1093.9	1175.9	1282.9	1326.2	1337.1
17.5°	319.2	401.2	613.5	675.5	875.4	1110.9	1193.0	1261.2	1348.0	1377.4	1385.2
20°	278.9	376.5	629.0	709.6	940.5	1182.2	1261.2	1313.9	1372.8	1391.3	1394.4
22.5°	249.5	350.1	638.3	722.0	983.8	1225.5	1292.1	1334.0	1374.3	1380.5	1382.0
25°	224.7	320.7	636.8	736.0	1021.0	1251.9	1303.0	1334.0	1357.2	1360.4	1360.4
27.5°	201.4	288.2	630.6	739.0	1048.9	1258.1	1298.4	1320.0	1330.9	1337.1	1337.1
30°	181.3	257.2	615.1	732.8	1061.3	1251.9	1284.4	1295.3	1306.1	1315.4	1320.0
32.5°	165.8	227.8	591.8	720.4	1062.8	1236.4	1259.6	1265.8	1281.3	1303.0	1310.8
35°	151.8	198.4	565.5	703.4	1053.6	1211.6	1227.1	1233.3	1264.3	1296.8	1307.6
37.5°	137.9	176.6	531.5	674.0	1039.6	1182.2	1193.0	1203.8	1251.9	1290.6	1303.0
40°	124.0	158.0	491.1	641.4	1017.9	1146.5	1155.8	1172.9	1236.4	1281.3	1293.7
42.5°	113.1	142.5	447.8	607.4	990.1	1106.3	1120.2	1145.0	1217.8	1265.8	1279.7
45°	103.8	127.0	401.2	560.9	954.4	1064.4	1084.5	1118.7	1196.1	1242.5	1254.9
47.5°	94.5	116.2	353.3	512.8	915.7	1022.6	1048.9	1087.6	1166.6	1211.6	1222.5
50°	86.8	105.3	305.2	461.7	873.8	977.7	1008.6	1048.9	1129.5	1171.3	1185.3
52.5°	80.5	96.1	260.3	410.6	825.8	931.2	966.8	1008.6	1084.5	1124.8	1134.1
55°	74.4	88.3	221.5	356.4	776.2	881.6	920.3	960.6	1035.0	1069.1	1075.2
57.5°	71.3	82.1	189.0	305.2	723.6	825.8	869.2	906.4	976.1	1002.5	1008.6
60°	66.6	77.5	164.2	261.9	666.2	773.2	810.3	847.5	906.4	928.1	932.7
62.5°	62.0	74.4	145.6	220.0	607.4	711.2	748.4	782.4	832.0	847.5	853.7
65°	58.9	71.3	131.7	189.0	546.9	646.1	683.3	712.7	753.0	768.5	771.5
67.5°	55.7	68.1	120.8	162.7	486.5	581.0	608.9	636.8	667.7	683.3	684.8
70°	51.1	65.1	111.6	144.1	424.5	506.7	529.9	559.3	584.1	591.8	596.5
72.5°	48.0	60.4	105.3	130.1	361.0	435.4	457.1	474.1	495.8	503.5	503.5
75°	43.4	54.2	99.2	116.2	295.9	356.4	374.9	392.0	409.0	412.1	407.5
77.5°	38.7	48.0	85.2	97.6	230.8	282.0	297.5	306.8	320.7	323.8	325.3
80°	32.6	41.8	66.6	75.9	167.3	207.6	218.4	226.2	238.6	238.6	241.7
82.5°	24.8	32.6	48.0	54.2	113.1	142.5	151.8	156.5	164.2	164.2	164.2
85°	15.5	20.2	31.0	35.7	68.1	86.8	92.9	94.5	100.7	102.3	102.3
87.5°	7.8	10.9	20.2	21.7	35.7	45.0	45.0	48.0	48.0	46.5	45.0
90°	2.3	4.2	6.0	6.5	10.2	15.1	17.6	15.6	11.7	8.8	8.8
92.5°	9.2	24.9	40.7	44.7	62.8	86.9	99.0	86.8	62.3	44.0	42.2
95°	22.2	51.0	79.8	87.0	154.5	244.5	289.4	258.3	196.0	149.2	143.9
97.5°	38.4	63.8	89.2	95.6	208.1	358.1	433.1	413.4	374.1	344.5	334.4
100°	50.9	73.9	96.9	102.7	227.6	394.1	477.3	478.8	481.6	483.8	471.8
102.5°	61.5	83.0	104.5	109.9	236.5	405.4	489.8	514.9	565.0	602.7	592.4
105°	79.6	97.8	116.0	120.5	243.2	406.6	488.4	544.6	657.1	741.5	736.0
107.5°	98.1	115.0	132.1	136.3	244.4	388.5	460.6	539.1	696.0	813.7	815.0
110°	110.6	125.9	141.2	145.1	242.6	372.5	437.5	525.2	700.6	832.2	838.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	122.9	137.4	152.1	155.7	242.6	358.5	416.5	506.3	685.8	820.4	829.3
115°	141.4	154.8	168.3	171.7	244.9	342.4	391.2	477.7	650.6	780.4	792.6
117.5°	159.6	171.9	184.1	187.2	249.4	332.4	373.9	452.0	608.1	725.1	738.7
120°	170.2	181.8	193.3	196.2	253.1	328.9	366.9	438.2	580.9	687.8	701.1
122.5°	180.7	192.3	203.9	206.8	258.4	327.2	361.6	425.8	554.2	650.6	663.6
125°	196.7	207.3	217.9	220.5	265.7	325.8	355.8	410.3	519.4	601.3	613.3
127.5°	209.6	220.3	231.0	233.7	272.8	324.9	351.0	397.8	491.5	561.7	571.9
130°	216.5	228.1	239.6	242.5	278.0	325.4	349.1	390.9	474.2	536.8	546.2
132.5°	223.8	235.2	246.8	249.6	282.3	325.8	347.5	384.8	459.5	515.5	523.9
135°	234.4	244.9	255.3	258.0	286.9	325.5	344.7	376.0	438.5	485.4	492.6
137.5°	245.2	255.6	266.0	268.6	293.8	327.5	344.3	370.7	423.5	463.2	469.1
140°	254.3	263.8	273.4	275.8	298.1	327.8	342.7	365.4	411.1	445.4	450.9
142.5°	261.2	270.0	278.9	281.1	301.6	328.9	342.7	362.7	402.8	432.9	437.7
145°	271.9	279.6	287.3	289.2	306.2	328.9	340.3	356.7	389.5	414.1	417.7
147.5°	282.5	290.0	297.5	299.4	313.0	331.3	340.3	353.3	379.1	398.4	401.4
150°	289.4	296.2	303.0	304.7	316.5	332.4	340.3	351.3	373.1	389.4	391.8
152.5°	296.6	301.8	306.8	308.2	318.9	333.2	340.3	349.7	368.3	382.2	384.1
155°	307.2	311.0	314.9	315.8	323.9	334.9	340.3	347.7	362.6	373.7	374.9
157.5°	315.1	318.8	322.6	323.5	329.1	336.6	340.3	346.1	357.6	366.2	367.1
160°	320.5	323.3	326.2	326.9	331.4	337.3	340.3	345.3	355.1	362.5	363.0
162.5°	325.8	327.9	330.1	330.6	333.9	338.2	340.3	344.5	352.8	359.1	359.5
165°	331.6	333.5	335.5	336.0	337.4	339.3	340.3	343.3	349.3	353.7	354.2
167.5°	336.9	337.8	338.7	339.0	340.2	341.8	342.7	344.6	348.5	351.4	351.7
170°	340.3	341.3	342.2	342.4	342.5	342.6	342.7	344.6	348.5	351.4	351.4
172.5°	342.2	342.4	342.6	342.7	342.7	342.7	342.7	344.2	347.3	349.6	349.4
175°	344.7	344.7	344.7	344.7	344.0	343.1	342.7	343.7	345.6	347.0	347.0
177.5°	344.7	344.7	344.7	344.7	344.2	343.5	343.1	343.9	345.4	346.6	346.3
180°	344.7	344.7	344.7	344.7	344.7	344.7	344.7	344.7	344.7	344.7	344.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	481.9	481.9
2.5°	514.4	511.3
5°	661.6	664.7
7.5°	890.9	889.4
10°	1107.8	1121.7
12.5°	1265.8	1268.9
15°	1361.9	1368.1
17.5°	1399.1	1400.6
20°	1400.6	1397.6
22.5°	1383.5	1380.5
25°	1363.4	1361.9
27.5°	1344.8	1346.4
30°	1337.1	1341.7
32.5°	1337.1	1344.8
35°	1340.2	1348.0
37.5°	1338.6	1348.0
40°	1332.4	1343.3
42.5°	1315.4	1323.2
45°	1289.1	1298.4
47.5°	1254.9	1261.2
50°	1211.6	1217.8
52.5°	1157.4	1158.9
55°	1092.3	1098.5
57.5°	1022.6	1024.1
60°	945.1	949.7
62.5°	863.0	863.0
65°	776.2	779.3
67.5°	686.4	694.1
70°	595.0	596.5
72.5°	505.1	505.1
75°	412.1	413.6
77.5°	323.8	323.8
80°	240.2	241.7
82.5°	165.8	168.9
85°	103.8	103.8
87.5°	48.0	43.4
90°	8.8	8.8
92.5°	35.3	28.3
95°	122.7	101.6
97.5°	294.1	253.8
100°	423.8	375.8
102.5°	551.2	510.1
105°	713.9	691.8
107.5°	820.4	825.7
110°	861.0	884.0





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	864.6	900.0
115°	841.7	890.7
117.5°	793.1	847.5
120°	753.9	806.7
122.5°	715.8	767.9
125°	661.3	709.3
127.5°	612.4	652.9
130°	583.6	621.0
132.5°	557.4	590.9
135°	521.5	550.4
137.5°	492.7	516.4
140°	473.0	495.1
142.5°	456.7	475.7
145°	432.1	446.5
147.5°	413.3	425.3
150°	401.5	411.1
152.5°	391.3	398.6
155°	379.7	384.5
157.5°	370.5	373.9
160°	365.0	366.9
162.5°	361.4	363.2
165°	356.2	358.1
167.5°	352.4	353.3
170°	351.4	351.4
172.5°	348.7	348.0
175°	347.0	347.0
177.5°	345.6	344.7
180°	344.7	344.7



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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	3.46	4.50	4.29	5.36	6.44	16.65	17.69	17.49	18.55	19.63
	3H	4.18	5.11	5.02	5.98	7.09	18.51	19.45	19.36	20.32	21.42
	4H	4.48	5.37	5.35	6.25	7.36	19.17	20.05	20.03	20.93	22.04
	6H	4.74	5.56	5.62	6.45	7.57	19.61	20.43	20.49	21.31	22.44
	8H	4.82	5.60	5.70	6.50	7.63	19.74	20.52	20.62	21.42	22.55
	12H	4.84	5.59	5.73	6.48	7.64	19.82	20.56	20.71	21.46	22.61
4H	2H	10.71	11.59	11.57	12.47	13.58	16.95	17.83	17.81	18.71	19.82
	3H	12.29	13.03	13.17	13.94	15.07	19.02	19.76	19.89	20.67	21.80
	4H	12.39	13.07	13.28	13.98	15.13	19.79	20.47	20.68	21.38	22.53
	6H	12.41	13.00	13.32	13.93	15.09	20.35	20.94	21.25	21.87	23.02
	8H	12.39	12.94	13.30	13.87	15.04	20.52	21.07	21.43	21.99	23.16
	12H	12.36	12.86	13.29	13.80	14.98	20.62	21.12	21.55	22.06	23.24
8H	4H	13.86	14.40	14.76	15.33	16.50	19.87	20.42	20.78	21.34	22.51
	6H	14.11	14.56	15.04	15.53	16.70	20.51	20.97	21.45	21.93	23.10
	8H	14.13	14.53	15.07	15.49	16.68	20.74	21.14	21.68	22.10	23.29
	12H	14.10	14.46	15.05	15.41	16.65	20.89	21.25	21.84	22.20	23.44
12H	4H	14.01	14.51	14.94	15.45	16.63	19.83	20.33	20.76	21.27	22.45
	6H	14.37	14.77	15.31	15.73	16.92	20.50	20.90	21.44	21.86	23.05
	8H	14.45	14.80	15.40	15.75	16.99	20.74	21.09	21.69	22.04	23.28