

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: P936823

Luminaire Tested: SQ4-FB-050U-100D-927-1D-UNV-STD-W-6

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936823
REPORT IS A COMBINATION OF REPORTS P933479 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-100D-927-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

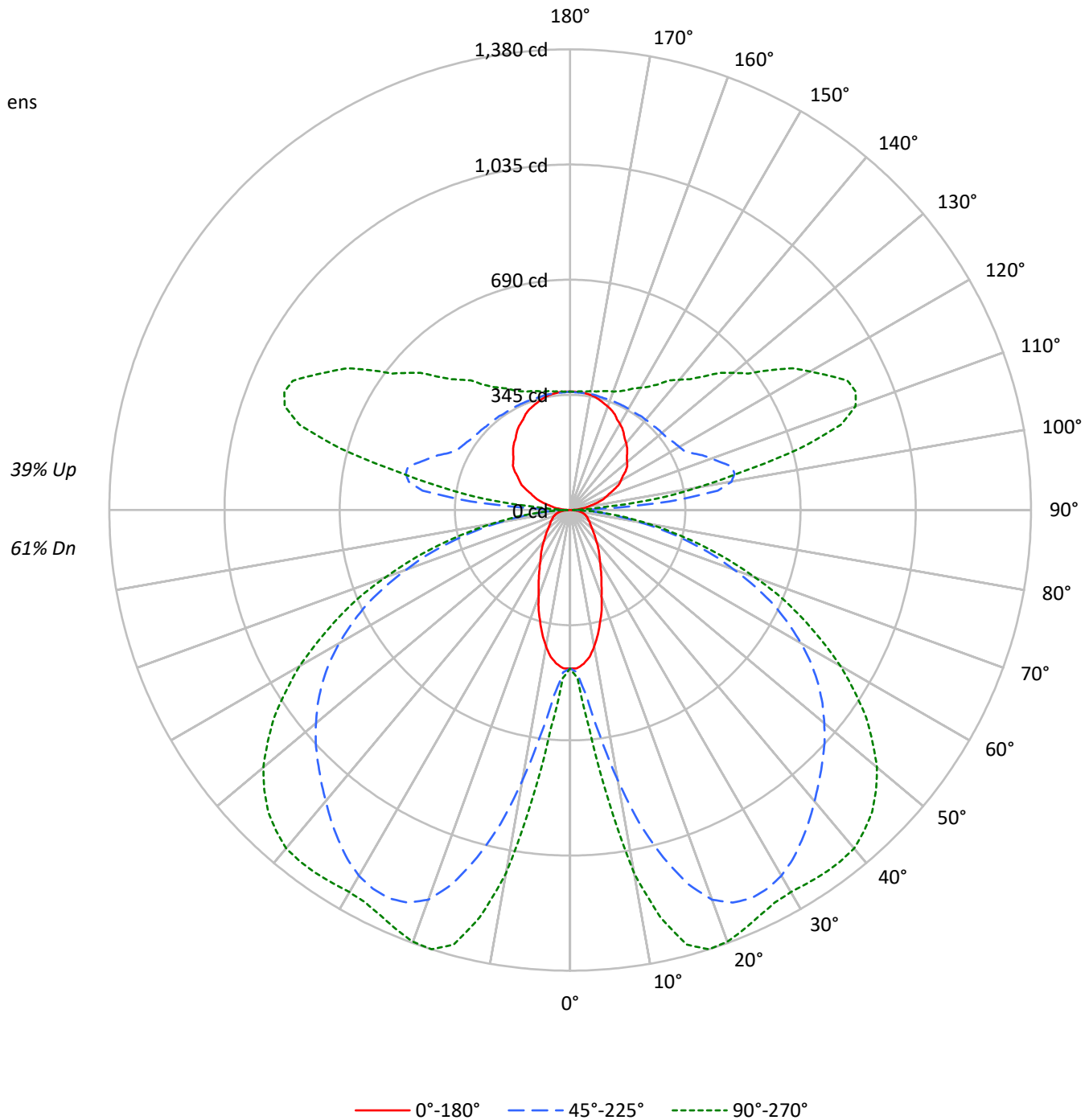
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5972.1 lumens
Efficiency: N/A
Efficacy: 88.1 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-Direct

Input Watts (W): 67.8
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	67	67	67	61
1	100	95	91	87	93	89	85	82	78	75	72	67	65	63	58	56	55	55	55	55	50
2	90	82	75	70	84	77	71	66	67	63	59	58	55	52	50	48	45	45	45	45	41
3	82	72	64	57	76	67	60	54	59	53	49	51	47	43	44	40	38	38	38	38	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	32	32	32	28
5	68	56	47	41	63	52	44	39	46	40	35	40	35	31	34	30	27	27	27	27	24
6	63	50	41	35	58	47	39	33	41	35	30	36	31	27	31	27	23	23	23	23	21
7	58	45	36	30	54	42	34	29	37	31	26	32	27	23	28	24	21	21	21	21	18
8	53	40	32	26	50	38	30	25	34	27	23	29	24	20	25	21	18	18	18	18	16
9	50	37	29	23	46	35	27	22	31	24	20	27	22	18	23	19	16	16	16	16	14
10	46	33	26	21	43	32	25	20	28	22	18	25	20	16	21	17	14	14	14	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2936	2936	2936
5°	2867	3392	3946
10°	2599	4944	6542
15°	2209	6458	7899
20°	1797	7482	8051
25°	1499	7827	7887
30°	1264	7874	7872
35°	1116	7742	8076
40°	972	7570	8286
45°	880	7443	8318
50°	807	7329	8181
55°	771	7161	7818
60°	789	6844	7246
65°	820	6363	6458
70°	872	5545	5457
75°	961	4517	4258
80°	1042	3128	2870
85°	906	1658	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8318 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.4	1.0
10°-20°	272.1	4.6
20°-30°	475.9	8.0
30°-40°	612.6	10.3
40°-50°	684.3	11.5
50°-60°	655.4	11.0
60°-70°	519.4	8.7
70°-80°	305.4	5.1
80°-90°	86.2	1.4
90°-100°	172.9	2.9
100°-110°	454.6	7.6
110°-120°	471.3	7.9
120°-130°	378.1	6.3
130°-140°	296.6	5.0
140°-150°	227.7	3.8
150°-160°	164.0	2.7
160°-170°	100.3	1.7
170°-180°	33.9	0.6
0°-30°	809.4	13.6
0°-40°	1422.0	23.8
0°-60°	2761.7	46.2
0°-90°	3672.7	61.5
90°-120°	1098.8	18.4
90°-150°	2001.2	33.5
90°-180°	2299.0	38.5
0°-180°	5972.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	462	496	558	632	655	43
15°	346	639	1077	1306	1347	96
25°	221	725	1283	1340	1341	102
35°	150	693	1209	1277	1328	93
45°	102	552	1068	1224	1279	79
55°	73	351	906	1053	1082	67
65°	58	186	673	757	768	57
75°	43	114	369	406	407	45
85°	15	35	92	101	102	16
90°	2	7	18	9	9	3
95°	23	90	298	154	104	25
105°	82	124	502	763	712	87
115°	146	177	403	803	916	144
125°	202	227	366	619	730	180
135°	241	265	355	499	566	187
145°	280	298	350	426	460	175
155°	316	325	350	384	396	145
165°	341	346	350	364	368	96
175°	355	355	353	357	357	34
180°	355	355	355	355	355	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6	474.6
2.5°	474.6	474.6	477.6	479.2	482.2	483.7	486.8	489.9	499.0	500.5	503.6
5°	462.4	468.5	488.3	496.0	517.3	546.3	558.5	578.3	619.5	631.8	639.4
7.5°	444.1	457.8	506.7	518.8	572.3	648.6	680.6	723.3	788.9	821.0	846.9
10°	415.0	444.1	531.1	560.0	647.0	763.0	822.5	882.0	981.2	1025.5	1042.3
12.5°	383.0	430.4	557.0	596.7	721.8	891.2	962.9	1028.5	1141.4	1201.0	1210.1
15°	346.4	410.5	581.4	639.4	801.1	998.0	1077.4	1158.2	1263.5	1306.2	1316.9
17.5°	314.4	395.2	604.3	665.4	862.2	1094.2	1175.0	1242.2	1327.6	1356.6	1364.2
20°	274.7	370.8	619.5	698.9	926.3	1164.3	1242.2	1294.1	1352.0	1370.4	1373.4
22.5°	245.7	344.9	628.7	711.1	969.0	1207.1	1272.7	1313.9	1353.6	1359.7	1361.2
25°	221.3	315.9	627.2	724.9	1005.6	1233.0	1283.4	1313.9	1336.8	1339.8	1339.8
27.5°	198.4	283.8	621.1	727.9	1033.1	1239.1	1278.7	1300.1	1310.8	1316.9	1316.9
30°	178.6	253.3	605.8	721.8	1045.3	1233.0	1265.0	1275.7	1286.4	1295.5	1300.1
32.5°	163.3	224.3	582.9	709.6	1046.8	1217.8	1240.6	1246.7	1262.0	1283.4	1291.0
35°	149.5	195.3	557.0	692.8	1037.7	1193.3	1208.6	1214.7	1245.2	1277.3	1287.9
37.5°	135.8	173.9	523.4	663.8	1023.9	1164.3	1175.0	1185.7	1233.0	1271.1	1283.4
40°	122.0	155.6	483.7	631.8	1002.5	1129.2	1138.4	1155.2	1217.8	1262.0	1274.2
42.5°	111.4	140.4	441.0	598.2	975.1	1089.6	1103.3	1127.7	1199.4	1246.7	1260.5
45°	102.3	125.1	395.2	552.4	940.0	1048.4	1068.2	1101.8	1178.0	1223.8	1236.1
47.5°	93.1	114.4	348.0	505.1	901.8	1007.2	1033.1	1071.2	1149.1	1193.3	1204.0
50°	85.5	103.8	300.6	454.8	860.6	962.9	993.5	1033.1	1112.4	1153.6	1167.4
52.5°	79.4	94.6	256.3	404.4	813.4	917.1	952.2	993.5	1068.2	1107.9	1117.0
55°	73.2	87.0	218.2	351.0	764.5	868.3	906.4	946.1	1019.3	1052.9	1059.1
57.5°	70.2	80.9	186.2	300.6	712.6	813.4	856.1	892.7	961.3	987.3	993.5
60°	65.6	76.3	161.8	257.9	656.2	761.5	798.1	834.7	892.7	914.1	918.6
62.5°	61.1	73.2	143.5	216.7	598.2	700.4	737.0	770.6	819.4	834.7	840.8
65°	58.0	70.2	129.7	186.2	538.7	636.3	673.0	701.9	741.7	756.9	759.9
67.5°	54.9	67.1	119.0	160.2	479.2	572.3	599.7	627.2	657.7	673.0	674.5
70°	50.4	64.1	109.9	141.9	418.1	499.0	521.9	550.9	575.3	582.9	587.5
72.5°	47.3	59.5	103.8	128.2	355.6	428.8	450.1	466.9	488.3	496.0	496.0
75°	42.7	53.4	97.6	114.4	291.4	351.0	369.3	386.1	402.9	405.9	401.3
77.5°	38.1	47.3	83.9	96.2	227.4	277.7	293.0	302.1	315.9	318.9	320.5
80°	32.0	41.2	65.6	74.8	164.8	204.5	215.1	222.8	235.0	235.0	238.1
82.5°	24.4	32.0	47.3	53.4	111.4	140.4	149.5	154.2	161.8	161.8	161.8
85°	15.2	19.9	30.5	35.1	67.1	85.5	91.6	93.1	99.2	100.7	100.7
87.5°	7.6	10.7	19.9	21.3	35.1	44.3	44.3	47.3	47.3	45.8	44.3
90°	2.4	4.3	6.2	6.7	10.5	15.6	18.1	16.1	12.0	9.0	9.0
92.5°	9.5	25.7	41.9	46.0	64.6	89.5	101.9	89.2	64.1	45.2	43.4
95°	22.9	52.4	82.1	89.5	158.9	251.6	297.8	265.8	201.7	153.5	148.1
97.5°	39.5	65.7	91.8	98.3	214.1	368.5	445.7	425.4	384.8	354.4	344.0
100°	52.4	76.1	99.8	105.7	234.2	405.5	491.1	492.6	495.6	497.8	485.5
102.5°	63.3	85.5	107.6	113.1	243.4	417.1	504.0	529.8	581.4	620.2	609.6
105°	81.9	100.6	119.4	124.0	250.2	418.4	502.5	560.4	676.1	763.0	757.3
107.5°	100.9	118.4	135.8	140.2	251.5	399.8	473.9	554.6	716.1	837.2	838.6
110°	113.8	129.5	145.3	149.2	249.6	383.3	450.1	540.4	721.0	856.3	862.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	126.4	141.4	156.5	160.2	249.6	368.9	428.5	520.9	705.6	844.2	853.2
115°	145.5	159.3	173.2	176.6	251.9	352.4	402.6	491.6	669.5	803.0	815.6
117.5°	164.2	176.9	189.4	192.6	256.6	342.0	384.7	465.0	625.6	746.1	760.1
120°	175.2	187.0	198.9	201.9	260.4	338.5	377.5	450.9	597.7	707.7	721.3
122.5°	186.0	197.9	209.8	212.8	265.9	336.6	372.1	438.1	570.3	669.4	682.8
125°	202.4	213.2	224.1	226.8	273.3	335.2	366.1	422.3	534.5	618.7	631.0
127.5°	215.7	226.7	237.7	240.5	280.7	334.3	361.1	409.3	505.7	578.0	588.4
130°	222.8	234.7	246.6	249.5	286.1	334.8	359.2	402.1	487.9	552.3	561.9
132.5°	230.2	242.1	253.9	256.9	290.4	335.2	357.6	396.0	472.8	530.4	539.0
135°	241.2	251.9	262.7	265.4	295.2	334.9	354.7	386.9	451.2	499.4	506.9
137.5°	252.3	263.0	273.7	276.4	302.3	336.9	354.2	381.4	435.7	476.6	482.6
140°	261.6	271.5	281.3	283.7	306.7	337.3	352.6	376.1	423.0	458.2	463.9
142.5°	268.7	277.8	286.9	289.2	310.3	338.5	352.6	373.2	414.4	445.4	450.3
145°	279.7	287.7	295.6	297.6	315.2	338.5	350.2	367.1	400.8	426.1	429.8
147.5°	290.7	298.4	306.2	308.1	322.1	340.8	350.2	363.4	390.0	409.9	413.0
150°	297.8	304.8	311.8	313.5	325.8	342.0	350.2	361.4	383.8	400.6	403.1
152.5°	305.2	310.5	315.8	317.1	328.1	342.8	350.2	359.7	378.9	393.2	395.1
155°	316.2	320.1	323.9	324.9	333.3	344.6	350.2	357.8	373.1	384.5	385.7
157.5°	324.2	328.0	331.9	332.8	338.6	346.3	350.2	356.1	368.0	376.8	377.7
160°	329.7	332.6	335.6	336.3	341.0	347.1	350.2	355.3	365.4	373.1	373.5
162.5°	335.2	337.4	339.6	340.2	343.5	348.0	350.2	354.5	363.1	369.4	369.9
165°	341.1	343.1	345.1	345.7	347.2	349.2	350.2	353.3	359.4	364.0	364.5
167.5°	346.6	347.5	348.5	348.7	350.0	351.7	352.6	354.6	358.6	361.6	361.8
170°	350.2	351.1	352.1	352.4	352.4	352.5	352.6	354.6	358.6	361.6	361.6
172.5°	352.1	352.4	352.5	352.6	352.6	352.6	352.6	354.1	357.3	359.7	359.5
175°	354.7	354.7	354.7	354.7	354.0	353.0	352.6	353.6	355.6	357.0	357.0
177.5°	354.7	354.7	354.7	354.7	354.2	353.4	353.0	353.8	355.4	356.6	356.4
180°	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7	354.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	474.6	474.6
2.5°	506.7	503.6
5°	651.6	654.7
7.5°	877.4	876.0
10°	1091.1	1104.8
12.5°	1246.7	1249.8
15°	1341.3	1347.4
17.5°	1378.0	1379.5
20°	1379.5	1376.5
22.5°	1362.7	1359.7
25°	1342.9	1341.3
27.5°	1324.6	1326.1
30°	1316.9	1321.5
32.5°	1316.9	1324.6
35°	1320.0	1327.6
37.5°	1318.5	1327.6
40°	1312.3	1323.0
42.5°	1295.5	1303.2
45°	1269.7	1278.7
47.5°	1236.1	1242.2
50°	1193.3	1199.4
52.5°	1139.9	1141.4
55°	1075.8	1081.9
57.5°	1007.2	1008.7
60°	930.9	935.4
62.5°	850.0	850.0
65°	764.5	767.5
67.5°	676.0	683.6
70°	586.0	587.5
72.5°	497.5	497.5
75°	405.9	407.4
77.5°	318.9	318.9
80°	236.5	238.1
82.5°	163.3	166.3
85°	102.3	102.3
87.5°	47.3	42.7
90°	9.0	9.0
92.5°	36.2	29.0
95°	126.3	104.5
97.5°	302.6	261.2
100°	436.1	386.6
102.5°	567.3	524.9
105°	734.6	711.8
107.5°	844.1	849.6
110°	885.9	909.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	889.7	926.0
115°	866.0	916.5
117.5°	816.0	872.0
120°	775.7	830.1
122.5°	736.5	790.1
125°	680.4	729.9
127.5°	630.1	671.8
130°	600.4	638.9
132.5°	573.5	608.0
135°	536.6	566.3
137.5°	507.0	531.4
140°	486.6	509.4
142.5°	469.9	489.4
145°	444.7	459.5
147.5°	425.3	437.5
150°	413.1	423.0
152.5°	402.6	410.2
155°	390.7	395.6
157.5°	381.2	384.7
160°	375.5	377.5
162.5°	371.8	373.8
165°	366.5	368.5
167.5°	362.7	363.5
170°	361.6	361.6
172.5°	358.7	358.0
175°	357.0	357.0
177.5°	355.6	354.7
180°	354.7	354.7



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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	5.73	6.75	6.57	7.62	8.72	18.89	19.92	19.73	20.79	21.88
	3H	6.44	7.37	7.30	8.25	9.37	20.74	21.66	21.59	22.54	23.66
	4H	6.75	7.62	7.62	8.51	9.64	21.39	22.26	22.26	23.15	24.28
	6H	7.01	7.82	7.89	8.71	9.85	21.82	22.63	22.71	23.52	24.67
	8H	7.08	7.85	7.97	8.76	9.91	21.94	22.72	22.84	23.63	24.77
	12H	7.10	7.84	8.00	8.75	9.92	22.02	22.75	22.91	23.66	24.83
4H	2H	12.95	13.83	13.83	14.71	15.84	19.19	20.06	20.06	20.95	22.08
	3H	14.54	15.27	15.42	16.19	17.33	21.24	21.97	22.13	22.89	24.04
	4H	14.64	15.31	15.54	16.22	17.39	22.01	22.68	22.91	23.60	24.77
	6H	14.66	15.24	15.57	16.18	17.35	22.56	23.14	23.47	24.08	25.25
	8H	14.64	15.18	15.56	16.12	17.30	22.72	23.26	23.64	24.20	25.38
	12H	14.60	15.09	15.54	16.05	17.24	22.82	23.31	23.76	24.26	25.45
8H	4H	16.09	16.64	17.01	17.57	18.76	22.09	22.63	23.00	23.56	24.75
	6H	16.34	16.79	17.29	17.77	18.95	22.72	23.17	23.66	24.14	25.33
	8H	16.36	16.76	17.32	17.73	18.93	22.94	23.34	23.89	24.30	25.51
	12H	16.34	16.69	17.30	17.65	18.90	23.09	23.44	24.05	24.40	25.65
12H	4H	16.24	16.73	17.18	17.69	18.88	22.05	22.54	22.99	23.49	24.68
	6H	16.60	17.00	17.56	17.97	19.17	22.70	23.10	23.66	24.07	25.27
	8H	16.68	17.03	17.64	17.99	19.24	22.94	23.29	23.90	24.25	25.50