

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: P938074

Luminaire Tested: SQ4-FB-125U-100D-940-1D-UNV-STD-W-4

Issue Date: 12/17/2024

**Test Information**

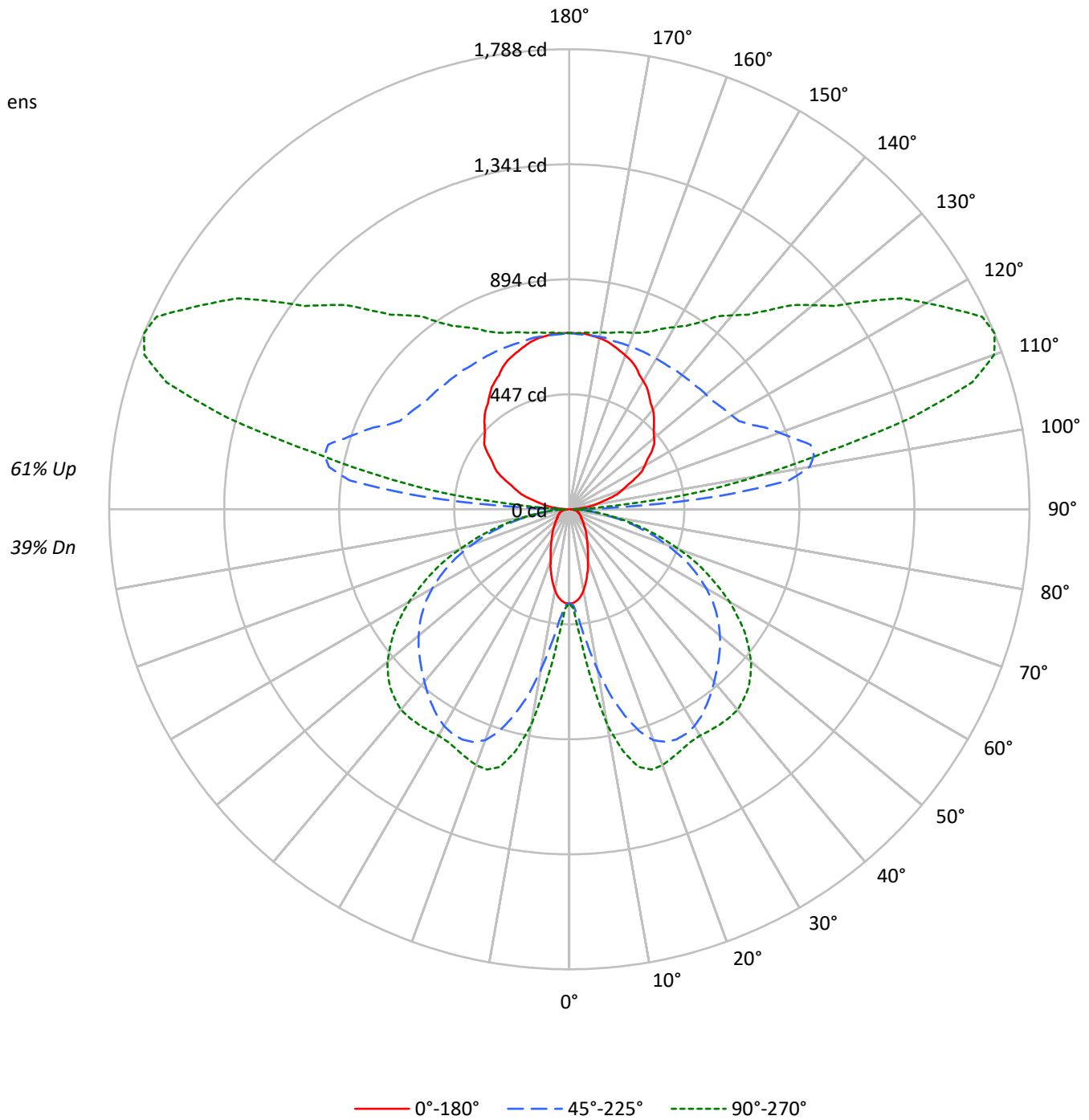
Test Method: LM-79-2019  
Report Number: P938074  
REPORT IS A COMBINATION OF REPORTS P933599 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-940-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7266.5 lumens  
Efficiency: N/A  
Efficacy: 112.8 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: Semi-Indirect  
  
Input Watts (W): 64.4  
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	95	95	95	95	77	77	77	61	61	61	46	46	46	39				39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32				32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26				26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21				21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18				18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10				10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8				8

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

	0°	45°	90°
0°	3386	3386	3386
5°	3305	3910	4552
10°	2993	5696	7546
15°	2541	7437	9111
20°	2067	8612	9285
25°	1722	9004	9097
30°	1450	9055	9080
35°	1280	8898	9314
40°	1114	8695	9557
45°	1006	8544	9595
50°	921	8407	9436
55°	879	8210	9018
60°	897	7839	8358
65°	929	7278	7450
70°	982	6336	6293
75°	1079	5153	4912
80°	1151	3559	3309
85°	969	1879	1694

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9595 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	0.6
10°-20°	209.2	2.9
20°-30°	365.9	5.0
30°-40°	471.1	6.5
40°-50°	526.2	7.2
50°-60°	503.9	6.9
60°-70°	399.4	5.5
70°-80°	234.8	3.2
80°-90°	67.9	0.9
90°-100°	333.9	4.6
100°-110°	877.9	12.1
110°-120°	910.3	12.5
120°-130°	730.2	10.0
130°-140°	572.9	7.9
140°-150°	439.7	6.1
150°-160°	316.7	4.4
160°-170°	193.8	2.7
170°-180°	65.5	0.9
0°-30°	622.3	8.6
0°-40°	1093.4	15.0
0°-60°	2123.5	29.2
0°-90°	2825.6	38.9
90°-120°	2122.2	29.2
90°-150°	3865.0	53.2
90°-180°	4441.0	61.1
0°-180°	7266.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	365	365	365	365	365	
5°	356	381	429	486	503	33
15°	266	492	828	1004	1036	74
25°	170	557	987	1030	1031	78
35°	115	533	929	982	1021	72
45°	79	425	821	941	983	61
55°	56	270	697	810	832	51
65°	45	143	517	582	590	44
75°	33	88	284	312	313	34
85°	12	27	70	77	79	12
90°	5	13	35	18	18	5
95°	44	173	575	297	202	49
105°	158	240	971	1474	1375	168
115°	281	341	777	1551	1770	277
125°	391	438	707	1195	1410	347
135°	466	513	685	965	1094	360
145°	540	575	676	823	887	338
155°	611	628	676	742	764	281
165°	659	668	676	703	712	186
175°	685	685	681	690	690	65
180°	685	685	685	685	685	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	364.9	364.9	367.3	368.4	370.7	372.0	374.3	376.6	383.7	384.9	387.2
5°	355.6	360.3	375.4	381.3	397.7	420.0	429.4	444.7	476.4	485.7	491.6
7.5°	341.4	352.0	389.6	399.0	440.0	498.7	523.3	556.2	606.6	631.3	651.2
10°	319.1	341.4	408.3	430.6	497.5	586.7	632.4	678.2	754.4	788.5	801.4
12.5°	294.5	330.9	428.3	458.7	555.0	685.3	740.4	790.9	877.7	923.4	930.4
15°	266.3	315.6	447.0	491.6	616.0	767.4	828.4	890.6	971.6	1004.4	1012.6
17.5°	241.7	303.9	464.6	511.6	663.0	841.3	903.5	955.1	1020.8	1043.1	1049.0
20°	211.2	285.1	476.4	537.4	712.3	895.3	955.1	995.0	1039.6	1053.7	1056.0
22.5°	188.9	265.2	483.4	546.7	745.0	928.1	978.6	1010.3	1040.7	1045.4	1046.6
25°	170.1	242.9	482.3	557.3	773.3	948.0	986.7	1010.3	1027.9	1030.2	1030.2
27.5°	152.6	218.3	477.6	559.7	794.3	952.7	983.3	999.7	1007.9	1012.6	1012.6
30°	137.3	194.7	465.8	555.0	803.7	948.0	972.7	980.9	989.1	996.2	999.7
32.5°	125.6	172.4	448.3	545.6	804.9	936.3	953.9	958.6	970.3	986.7	992.7
35°	115.0	150.2	428.3	532.7	797.9	917.6	929.3	934.0	957.4	982.1	990.3
37.5°	104.4	133.7	402.4	510.4	787.3	895.3	903.5	911.7	948.0	977.4	986.7
40°	93.9	119.7	372.0	485.7	770.9	868.3	875.3	888.3	936.3	970.3	979.7
42.5°	85.7	108.0	339.1	460.0	749.7	837.7	848.3	867.1	922.3	958.6	969.2
45°	78.6	96.2	303.9	424.7	722.7	806.1	821.3	847.2	905.8	941.0	950.4
47.5°	71.6	88.0	267.6	388.4	693.4	774.4	794.3	823.7	883.6	917.6	925.7
50°	65.7	79.8	231.1	349.7	661.7	740.4	763.9	794.3	855.4	887.0	897.6
52.5°	61.0	72.7	197.1	311.0	625.4	705.2	732.2	763.9	821.3	851.9	858.9
55°	56.3	66.9	167.8	269.9	587.9	667.6	697.0	727.4	783.8	809.6	814.3
57.5°	54.0	62.2	143.1	231.1	548.0	625.4	658.3	686.4	739.2	759.2	763.9
60°	50.4	58.7	124.4	198.3	504.6	585.5	613.7	641.8	686.4	702.9	706.3
62.5°	47.0	56.3	110.3	166.6	460.0	538.6	566.7	592.6	630.1	641.8	646.6
65°	44.6	54.0	99.7	143.1	414.2	489.3	517.4	539.7	570.3	582.0	584.3
67.5°	42.3	51.6	91.6	123.2	368.4	440.0	461.1	482.3	505.7	517.4	518.6
70°	38.7	49.3	84.4	109.1	321.5	383.7	401.3	423.6	442.3	448.3	451.7
72.5°	36.4	45.7	79.8	98.6	273.4	329.7	346.1	359.0	375.4	381.3	381.3
75°	32.9	41.0	75.1	88.0	224.1	269.9	284.0	296.9	309.7	312.1	308.6
77.5°	29.3	36.4	64.6	73.9	174.8	213.6	225.3	232.3	242.9	245.3	246.4
80°	24.6	31.7	50.4	57.5	126.7	157.3	165.4	171.3	180.7	180.7	183.0
82.5°	18.7	24.6	36.4	41.0	85.7	108.0	115.0	118.5	124.4	124.4	124.4
85°	11.7	15.3	23.4	27.0	51.6	65.7	70.4	71.6	76.3	77.4	77.4
87.5°	5.9	8.2	15.3	16.4	27.0	34.0	34.0	36.4	36.4	35.2	34.0
90°	4.6	8.3	12.0	12.9	20.2	30.0	34.9	31.0	23.3	17.5	17.5
92.5°	18.4	49.6	80.9	88.7	124.8	172.8	196.8	172.4	123.9	87.4	83.9
95°	44.1	101.3	158.6	172.9	307.0	485.7	575.2	513.3	389.5	296.6	286.0
97.5°	76.3	126.7	177.2	189.9	413.5	711.6	860.6	821.5	743.3	684.6	664.6
100°	101.1	147.0	192.7	204.2	452.3	783.0	948.5	951.3	957.1	961.3	937.5
102.5°	122.3	165.0	207.7	218.4	470.0	805.6	973.3	1023.2	1123.0	1197.7	1177.3
105°	158.2	194.4	230.5	239.6	483.2	808.2	970.6	1082.4	1305.9	1473.5	1462.5
107.5°	194.9	228.7	262.4	270.8	485.7	772.2	915.4	1071.4	1383.1	1617.0	1619.6
110°	219.8	250.2	280.6	288.2	482.0	740.3	869.4	1043.8	1392.4	1653.8	1665.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	244.1	273.1	302.1	309.4	482.1	712.4	827.6	1006.0	1362.8	1630.4	1648.0
115°	280.9	307.7	334.5	341.2	486.6	680.5	777.4	949.3	1293.0	1550.8	1575.1
117.5°	317.3	341.6	365.9	372.0	495.7	660.6	743.0	898.0	1208.2	1440.9	1467.9
120°	338.4	361.3	384.2	389.9	503.1	653.8	729.2	871.0	1154.3	1366.9	1393.2
122.5°	359.1	382.2	405.3	411.1	513.6	650.3	718.7	846.3	1101.5	1292.8	1318.8
125°	390.8	411.9	432.9	438.1	527.8	647.4	707.1	815.5	1032.3	1194.9	1218.8
127.5°	416.6	437.8	459.0	464.3	542.0	645.7	697.4	790.5	976.7	1116.3	1136.5
130°	430.3	453.2	476.1	481.8	552.5	646.7	693.8	776.6	942.3	1066.7	1085.2
132.5°	444.6	467.5	490.4	496.1	560.9	647.4	690.6	764.7	913.1	1024.4	1041.0
135°	465.8	486.6	507.4	512.6	570.1	646.7	685.1	747.3	871.5	964.6	979.0
137.5°	487.3	507.9	528.6	533.8	583.9	650.7	684.1	736.6	841.6	920.4	932.1
140°	505.3	524.3	543.3	548.1	592.4	651.4	680.9	726.3	817.0	885.1	896.1
142.5°	519.0	536.6	554.2	558.6	599.4	653.7	680.9	720.8	800.4	860.2	869.6
145°	540.3	555.5	570.9	574.7	608.5	653.7	676.3	708.9	774.1	823.0	830.2
147.5°	561.4	576.3	591.2	595.0	622.0	658.2	676.3	702.0	753.3	791.7	797.7
150°	575.2	588.7	602.2	605.5	629.1	660.6	676.3	698.0	741.3	773.8	778.6
152.5°	589.5	599.7	609.9	612.5	633.8	662.1	676.3	694.8	731.8	759.5	763.1
155°	610.6	618.1	625.7	627.5	643.8	665.5	676.3	691.0	720.4	742.5	744.9
157.5°	626.2	633.6	640.9	642.7	653.9	668.8	676.3	687.8	710.7	727.8	729.5
160°	636.8	642.5	648.2	649.7	658.5	670.4	676.3	686.1	705.7	720.4	721.4
162.5°	647.4	651.6	656.0	657.0	663.4	672.0	676.3	684.6	701.2	713.6	714.5
165°	658.8	662.7	666.6	667.6	670.5	674.3	676.3	682.3	694.1	702.9	703.9
167.5°	669.5	671.2	673.1	673.5	676.0	679.3	680.9	684.8	692.6	698.4	698.9
170°	676.3	678.2	680.0	680.5	680.7	680.8	680.9	684.8	692.6	698.4	698.4
172.5°	680.0	680.4	680.8	680.9	680.9	680.9	680.9	683.9	690.1	694.7	694.3
175°	685.1	685.1	685.1	685.1	683.7	681.8	680.9	682.9	686.7	689.6	689.6
177.5°	685.1	685.1	685.1	685.1	684.0	682.5	681.8	683.3	686.4	688.7	688.3
180°	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1	685.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	364.9	364.9
2.5°	389.6	387.2
5°	501.0	503.4
7.5°	674.7	673.5
10°	839.0	849.5
12.5°	958.6	961.0
15°	1031.4	1036.0
17.5°	1059.6	1060.7
20°	1060.7	1058.3
22.5°	1047.8	1045.4
25°	1032.6	1031.4
27.5°	1018.4	1019.6
30°	1012.6	1016.1
32.5°	1012.6	1018.4
35°	1015.0	1020.8
37.5°	1013.7	1020.8
40°	1009.1	1017.3
42.5°	996.2	1002.0
45°	976.3	983.3
47.5°	950.4	955.1
50°	917.6	922.3
52.5°	876.5	877.7
55°	827.2	831.9
57.5°	774.4	775.6
60°	715.7	719.3
62.5°	653.6	653.6
65°	587.9	590.2
67.5°	519.8	525.7
70°	450.6	451.7
72.5°	382.6	382.6
75°	312.1	313.3
77.5°	245.3	245.3
80°	181.9	183.0
82.5°	125.6	127.9
85°	78.6	78.6
87.5°	36.4	32.9
90°	17.5	17.5
92.5°	70.0	56.1
95°	243.9	201.8
97.5°	584.5	504.4
100°	842.1	746.6
102.5°	1095.5	1013.8
105°	1418.7	1374.7
107.5°	1630.3	1640.9
110°	1711.0	1756.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1718.2	1788.5
115°	1672.6	1770.1
117.5°	1576.0	1684.1
120°	1498.1	1603.2
122.5°	1422.3	1525.9
125°	1314.2	1409.6
127.5°	1216.9	1297.5
130°	1159.6	1234.1
132.5°	1107.6	1174.2
135°	1036.4	1093.7
137.5°	979.2	1026.2
140°	939.9	983.9
142.5°	907.4	945.3
145°	858.8	887.4
147.5°	821.3	845.0
150°	797.9	817.0
152.5°	777.6	792.2
155°	754.5	764.1
157.5°	736.2	743.0
160°	725.3	729.2
162.5°	718.2	721.9
165°	707.8	711.7
167.5°	700.5	702.1
170°	698.4	698.4
172.5°	692.9	691.5
175°	689.6	689.6
177.5°	686.7	685.1
180°	685.1	685.1



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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	4.12	4.91	5.16	5.96	7.38	17.26	18.05	18.30	19.10	20.52
	3H	4.82	5.53	5.87	6.59	8.03	19.08	19.79	20.13	20.85	22.29
	4H	5.11	5.79	6.17	6.85	8.30	19.71	20.39	20.77	21.45	22.89
	6H	5.36	5.99	6.43	7.05	8.51	20.12	20.75	21.19	21.81	23.27
	8H	5.43	6.02	6.50	7.10	8.56	20.24	20.83	21.31	21.91	23.37
	12H	5.44	6.01	6.52	7.08	8.56	20.29	20.86	21.38	21.94	23.41
4H	2H	11.30	11.98	12.37	13.04	14.49	17.52	18.20	18.59	19.27	20.71
	3H	12.86	13.43	13.94	14.52	15.98	19.55	20.12	20.63	21.21	22.66
	4H	12.96	13.48	14.04	14.56	16.04	20.30	20.83	21.39	21.90	23.38
	6H	12.96	13.41	14.05	14.52	15.99	20.83	21.28	21.92	22.38	23.85
	8H	12.94	13.36	14.03	14.45	15.94	20.98	21.40	22.07	22.49	23.98
	12H	12.89	13.27	14.00	14.38	15.88	21.06	21.44	22.17	22.55	24.04
8H	4H	14.39	14.81	15.48	15.90	17.39	20.36	20.78	21.45	21.87	23.36
	6H	14.63	14.97	15.74	16.11	17.59	20.97	21.32	22.09	22.46	23.94
	8H	14.64	14.95	15.76	16.07	17.57	21.18	21.49	22.30	22.61	24.11
	12H	14.61	14.88	15.73	15.99	17.53	21.32	21.58	22.44	22.70	24.24
12H	4H	14.52	14.90	15.63	16.01	17.51	20.31	20.69	21.42	21.80	23.29
	6H	14.88	15.18	16.00	16.30	17.81	20.96	21.26	22.08	22.38	23.88
	8H	14.95	15.21	16.07	16.33	17.87	21.17	21.44	22.30	22.56	24.10