

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: P938058

Luminaire Tested: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-4-3500K

Issue Date: 12/17/2024

**Test Information**

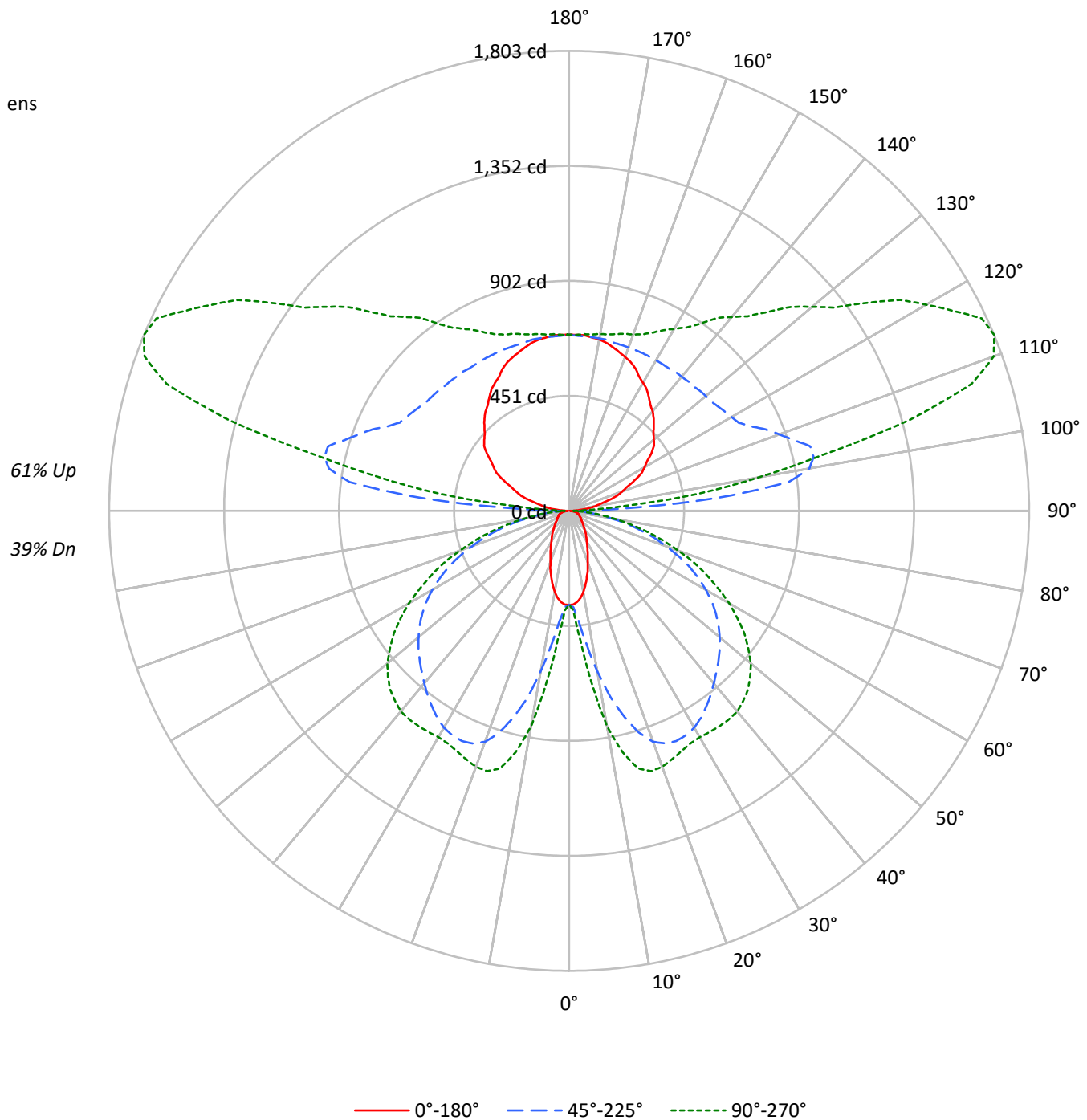
Test Method: LM-79-2019  
Report Number: P938058  
REPORT IS A COMBINATION OF REPORTS P933599 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-4-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7326.4 lumens  
Efficiency: N/A  
Efficacy: 113.8 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				
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			
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			

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

	0°	45°	90°
0°	3414	3414	3414
5°	3332	3943	4590
10°	3019	5743	7608
15°	2562	7498	9186
20°	2083	8683	9361
25°	1736	9079	9172
30°	1462	9130	9155
35°	1290	8970	9392
40°	1122	8766	9636
45°	1014	8614	9674
50°	929	8476	9514
55°	887	8277	9091
60°	905	7904	8426
65°	936	7339	7510
70°	990	6388	6344
75°	1085	5195	4952
80°	1161	3590	3336
85°	977	1895	1706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.6	0.6
10°-20°	210.9	2.9
20°-30°	368.9	5.0
30°-40°	474.9	6.5
40°-50°	530.5	7.2
50°-60°	508.1	6.9
60°-70°	402.7	5.5
70°-80°	236.8	3.2
80°-90°	68.4	0.9
90°-100°	336.7	4.6
100°-110°	885.2	12.1
110°-120°	917.8	12.5
120°-130°	736.2	10.0
130°-140°	577.7	7.9
140°-150°	443.4	6.1
150°-160°	319.3	4.4
160°-170°	195.4	2.7
170°-180°	66.0	0.9
0°-30°	627.5	8.6
0°-40°	1102.4	15.0
0°-60°	2141.0	29.2
0°-90°	2848.8	38.9
90°-120°	2139.6	29.2
90°-150°	3896.9	53.2
90°-180°	4478.0	61.1
0°-180°	7326.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	358	384	433	490	508	33
15°	268	496	835	1013	1045	75
25°	172	562	995	1039	1040	79
35°	116	537	937	990	1029	72
45°	79	428	828	949	991	61
55°	57	272	703	816	839	52
65°	45	144	522	587	595	45
75°	33	89	286	315	316	35
85°	12	27	71	78	79	13
90°	5	13	35	18	18	5
95°	44	174	580	299	204	49
105°	160	242	979	1486	1386	169
115°	283	344	784	1564	1785	280
125°	394	442	713	1205	1421	350
135°	470	517	691	973	1103	363
145°	545	579	682	830	895	341
155°	616	633	682	749	770	283
165°	664	673	682	709	718	187
175°	691	691	686	695	695	66
180°	691	691	691	691	691	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9	367.9
2.5°	367.9	367.9	370.3	371.5	373.8	375.0	377.4	379.7	386.9	388.0	390.4
5°	358.5	363.2	378.5	384.4	401.0	423.5	433.0	448.4	480.3	489.7	495.6
7.5°	344.2	354.9	392.8	402.3	443.6	502.8	527.6	560.7	611.6	636.5	656.5
10°	321.8	344.2	411.7	434.1	501.6	591.5	637.6	683.7	760.7	794.9	808.0
12.5°	297.0	333.6	431.8	462.5	559.6	690.9	746.5	797.4	884.9	931.0	938.1
15°	268.5	318.2	450.7	495.6	621.1	773.7	835.2	897.9	979.6	1012.7	1020.9
17.5°	243.7	306.4	468.4	515.8	668.4	848.2	910.9	963.0	1029.3	1051.7	1057.6
20°	212.9	287.5	480.3	541.8	718.1	902.7	963.0	1003.2	1048.1	1062.4	1064.7
22.5°	190.4	267.3	487.4	551.2	751.2	935.8	986.6	1018.6	1049.3	1054.1	1055.2
25°	171.5	244.9	486.2	561.9	779.6	955.8	994.9	1018.6	1036.3	1038.7	1038.7
27.5°	153.8	220.1	481.5	564.3	800.9	960.6	991.4	1007.9	1016.2	1020.9	1020.9
30°	138.4	196.3	469.7	559.6	810.3	955.8	980.7	989.0	997.3	1004.4	1007.9
32.5°	126.6	173.9	452.0	550.1	811.5	944.0	961.7	966.5	978.3	994.9	1000.9
35°	115.9	151.4	431.8	537.1	804.4	925.1	936.9	941.7	965.3	990.2	998.5
37.5°	105.3	134.8	405.8	514.6	793.8	902.7	910.9	919.2	955.8	985.5	994.9
40°	94.6	120.7	375.0	489.7	777.2	875.4	882.5	895.6	944.0	978.3	987.8
42.5°	86.4	108.9	341.9	463.8	755.9	844.6	855.3	874.3	929.9	966.5	977.1
45°	79.2	97.0	306.4	428.2	728.7	812.8	828.1	854.1	913.3	948.8	958.3
47.5°	72.2	88.7	269.8	391.6	699.1	780.8	800.9	830.5	890.8	925.1	933.4
50°	66.3	80.5	233.0	352.6	667.2	746.5	770.1	800.9	862.5	894.3	905.0
52.5°	61.5	73.3	198.8	313.5	630.6	711.0	738.2	770.1	828.1	858.9	865.9
55°	56.8	67.4	169.2	272.1	592.7	673.1	702.7	733.4	790.3	816.3	821.0
57.5°	54.4	62.7	144.3	233.0	552.5	630.6	663.7	692.1	745.3	765.4	770.1
60°	50.9	59.2	125.4	199.9	508.7	590.3	618.8	647.1	692.1	708.6	712.1
62.5°	47.4	56.8	111.2	168.0	463.8	543.0	571.4	597.4	635.3	647.1	651.9
65°	44.9	54.4	100.5	144.3	417.6	493.3	521.7	544.2	575.0	586.8	589.1
67.5°	42.6	52.0	92.3	124.2	371.5	443.6	464.9	486.2	509.9	521.7	522.9
70°	39.0	49.7	85.1	110.0	324.1	386.9	404.6	427.1	446.0	452.0	455.4
72.5°	36.7	46.1	80.5	99.4	275.7	332.4	349.0	362.0	378.5	384.4	384.4
75°	33.1	41.4	75.7	88.7	226.0	272.1	286.3	299.3	312.3	314.7	311.1
77.5°	29.5	36.7	65.1	74.5	176.3	215.3	227.1	234.2	244.9	247.3	248.4
80°	24.8	32.0	50.9	57.9	127.8	158.6	166.8	172.7	182.2	182.2	184.5
82.5°	18.9	24.8	36.7	41.4	86.4	108.9	115.9	119.5	125.4	125.4	125.4
85°	11.8	15.4	23.6	27.2	52.0	66.3	71.0	72.2	76.9	78.1	78.1
87.5°	5.9	8.2	15.4	16.6	27.2	34.3	34.3	36.7	36.7	35.5	34.3
90°	4.7	8.3	12.1	13.0	20.4	30.3	35.2	31.2	23.5	17.6	17.6
92.5°	18.5	50.0	81.6	89.4	125.8	174.2	198.4	173.9	124.9	88.1	84.6
95°	44.5	102.2	159.9	174.3	309.5	489.7	579.9	517.5	392.7	299.0	288.4
97.5°	76.9	127.8	178.7	191.4	416.9	717.4	867.7	828.3	749.4	690.2	670.1
100°	102.0	148.2	194.3	205.8	456.0	789.5	956.3	959.1	965.0	969.3	945.2
102.5°	123.3	166.3	209.4	220.2	473.9	812.2	981.4	1031.7	1132.2	1207.6	1187.0
105°	159.5	196.0	232.4	241.6	487.2	814.8	978.6	1091.3	1316.6	1485.7	1474.6
107.5°	196.5	230.5	264.6	273.1	489.7	778.6	923.0	1080.2	1394.5	1630.3	1633.0
110°	221.6	252.3	282.9	290.6	486.0	746.4	876.6	1052.3	1403.8	1667.4	1679.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	246.1	275.4	304.6	311.9	486.1	718.3	834.4	1014.3	1374.0	1643.8	1661.5
115°	283.2	310.2	337.3	344.0	490.6	686.1	783.8	957.1	1303.7	1563.6	1588.1
117.5°	319.9	344.4	369.0	375.0	499.8	666.0	749.1	905.4	1218.2	1452.7	1480.0
120°	341.2	364.3	387.4	393.1	507.2	659.2	735.2	878.1	1163.8	1378.2	1404.7
122.5°	362.1	385.3	408.6	414.4	517.8	655.6	724.6	853.2	1110.5	1303.5	1329.6
125°	394.0	415.2	436.5	441.7	532.2	652.7	712.9	822.3	1040.8	1204.7	1228.8
127.5°	420.0	441.4	462.8	468.2	546.5	651.0	703.2	797.0	984.8	1125.5	1145.8
130°	433.9	457.0	480.1	485.8	557.1	652.1	699.5	783.0	950.1	1075.4	1094.2
132.5°	448.3	471.4	494.5	500.2	565.6	652.7	696.3	771.0	920.6	1032.8	1049.6
135°	469.6	490.6	511.6	516.9	574.8	652.1	690.7	753.4	878.7	972.6	987.1
137.5°	491.3	512.1	533.0	538.2	588.7	656.1	689.7	742.7	848.6	928.0	939.8
140°	509.4	528.6	547.8	552.6	597.3	656.8	686.5	732.3	823.8	892.4	903.5
142.5°	523.3	541.0	558.8	563.2	604.3	659.1	686.5	726.7	807.0	867.3	876.8
145°	544.7	560.1	575.6	579.4	613.6	659.1	681.9	714.7	780.4	829.8	837.0
147.5°	566.0	581.1	596.1	599.9	627.2	663.6	681.9	707.7	759.5	798.3	804.3
150°	579.9	593.5	607.1	610.5	634.3	666.0	681.9	703.7	747.4	780.2	785.0
152.5°	594.3	604.6	614.9	617.5	639.0	667.5	681.9	700.5	737.8	765.8	769.4
155°	615.6	623.2	630.8	632.7	649.1	670.9	681.9	696.7	726.4	748.7	751.1
157.5°	631.4	638.8	646.1	648.0	659.3	674.3	681.9	693.4	716.5	733.8	735.5
160°	642.0	647.8	653.6	655.0	664.0	675.9	681.9	691.7	711.5	726.4	727.4
162.5°	652.7	657.0	661.4	662.4	668.9	677.6	681.9	690.2	706.9	719.5	720.4
165°	664.2	668.2	672.1	673.1	676.1	679.9	681.9	687.9	699.8	708.7	709.7
167.5°	675.0	676.8	678.6	679.1	681.6	684.9	686.5	690.5	698.3	704.2	704.6
170°	681.9	683.7	685.6	686.1	686.3	686.4	686.5	690.5	698.3	704.2	704.2
172.5°	685.6	686.0	686.4	686.5	686.5	686.5	686.5	689.6	695.7	700.4	700.0
175°	690.7	690.7	690.7	690.7	689.3	687.4	686.5	688.5	692.3	695.3	695.3
177.5°	690.7	690.7	690.7	690.7	689.7	688.1	687.4	688.9	692.1	694.4	694.0
180°	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7	690.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	367.9	367.9
2.5°	392.8	390.4
5°	505.1	507.6
7.5°	680.3	679.0
10°	845.9	856.5
12.5°	966.5	968.9
15°	1039.9	1044.6
17.5°	1068.3	1069.5
20°	1069.5	1067.0
22.5°	1056.5	1054.1
25°	1041.1	1039.9
27.5°	1026.8	1028.0
30°	1020.9	1024.5
32.5°	1020.9	1026.8
35°	1023.3	1029.3
37.5°	1022.1	1029.3
40°	1017.4	1025.7
42.5°	1004.4	1010.3
45°	984.3	991.4
47.5°	958.3	963.0
50°	925.1	929.9
52.5°	883.7	884.9
55°	834.0	838.7
57.5°	780.8	782.0
60°	721.6	725.2
62.5°	658.9	658.9
65°	592.7	595.0
67.5°	524.1	530.0
70°	454.3	455.4
72.5°	385.7	385.7
75°	314.7	315.9
77.5°	247.3	247.3
80°	183.4	184.5
82.5°	126.6	128.9
85°	79.2	79.2
87.5°	36.7	33.1
90°	17.6	17.6
92.5°	70.6	56.6
95°	245.9	203.5
97.5°	589.3	508.5
100°	849.0	752.8
102.5°	1104.5	1022.2
105°	1430.4	1386.0
107.5°	1643.7	1654.4
110°	1725.1	1771.2





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1732.3	1803.2
115°	1686.4	1784.7
117.5°	1589.0	1698.0
120°	1510.5	1616.4
122.5°	1434.0	1538.5
125°	1325.0	1421.2
127.5°	1226.9	1308.1
130°	1169.2	1244.2
132.5°	1116.7	1183.9
135°	1044.9	1102.8
137.5°	987.3	1034.6
140°	947.7	992.0
142.5°	914.9	953.1
145°	865.9	894.7
147.5°	828.1	852.0
150°	804.4	823.8
152.5°	784.0	798.7
155°	760.7	770.4
157.5°	742.3	749.1
160°	731.3	735.2
162.5°	724.1	727.8
165°	713.7	717.6
167.5°	706.2	707.8
170°	704.2	704.2
172.5°	698.6	697.2
175°	695.3	695.3
177.5°	692.3	690.7
180°	690.7	690.7



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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	4.15	4.94	5.19	5.99	7.41	17.28	18.08	18.32	19.13	20.55
	3H	4.85	5.56	5.90	6.62	8.06	19.10	19.82	20.15	20.88	22.32
	4H	5.14	5.82	6.20	6.88	8.33	19.74	20.42	20.80	21.48	22.92
	6H	5.39	6.02	6.46	7.08	8.54	20.15	20.78	21.22	21.84	23.30
	8H	5.46	6.05	6.53	7.13	8.59	20.26	20.86	21.34	21.94	23.39
	12H	5.47	6.04	6.55	7.11	8.59	20.32	20.89	21.40	21.96	23.44
4H	2H	11.33	12.01	12.40	13.07	14.51	17.55	18.23	18.62	19.29	20.74
	3H	12.89	13.46	13.97	14.55	16.01	19.58	20.15	20.65	21.24	22.69
	4H	12.99	13.51	14.07	14.59	16.07	20.33	20.85	21.41	21.93	23.41
	6H	12.99	13.44	14.08	14.54	16.02	20.85	21.30	21.95	22.41	23.88
	8H	12.97	13.39	14.06	14.48	15.97	21.01	21.43	22.10	22.52	24.01
	12H	12.92	13.30	14.03	14.41	15.90	21.09	21.47	22.20	22.58	24.07
8H	4H	14.41	14.83	15.51	15.93	17.42	20.39	20.81	21.48	21.90	23.39
	6H	14.65	15.00	15.77	16.14	17.62	21.00	21.35	22.12	22.49	23.97
	8H	14.67	14.98	15.79	16.09	17.60	21.21	21.52	22.33	22.64	24.14
	12H	14.64	14.90	15.76	16.02	17.56	21.35	21.61	22.47	22.73	24.27
12H	4H	14.55	14.93	15.66	16.04	17.53	20.34	20.72	21.45	21.83	23.32
	6H	14.91	15.21	16.03	16.33	17.84	20.98	21.29	22.10	22.41	23.91
	8H	14.97	15.24	16.10	16.36	17.90	21.20	21.47	22.33	22.59	24.13