

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: P937659

Luminaire Tested: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937659  
REPORT IS A COMBINATION OF REPORTS P933567 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-4-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

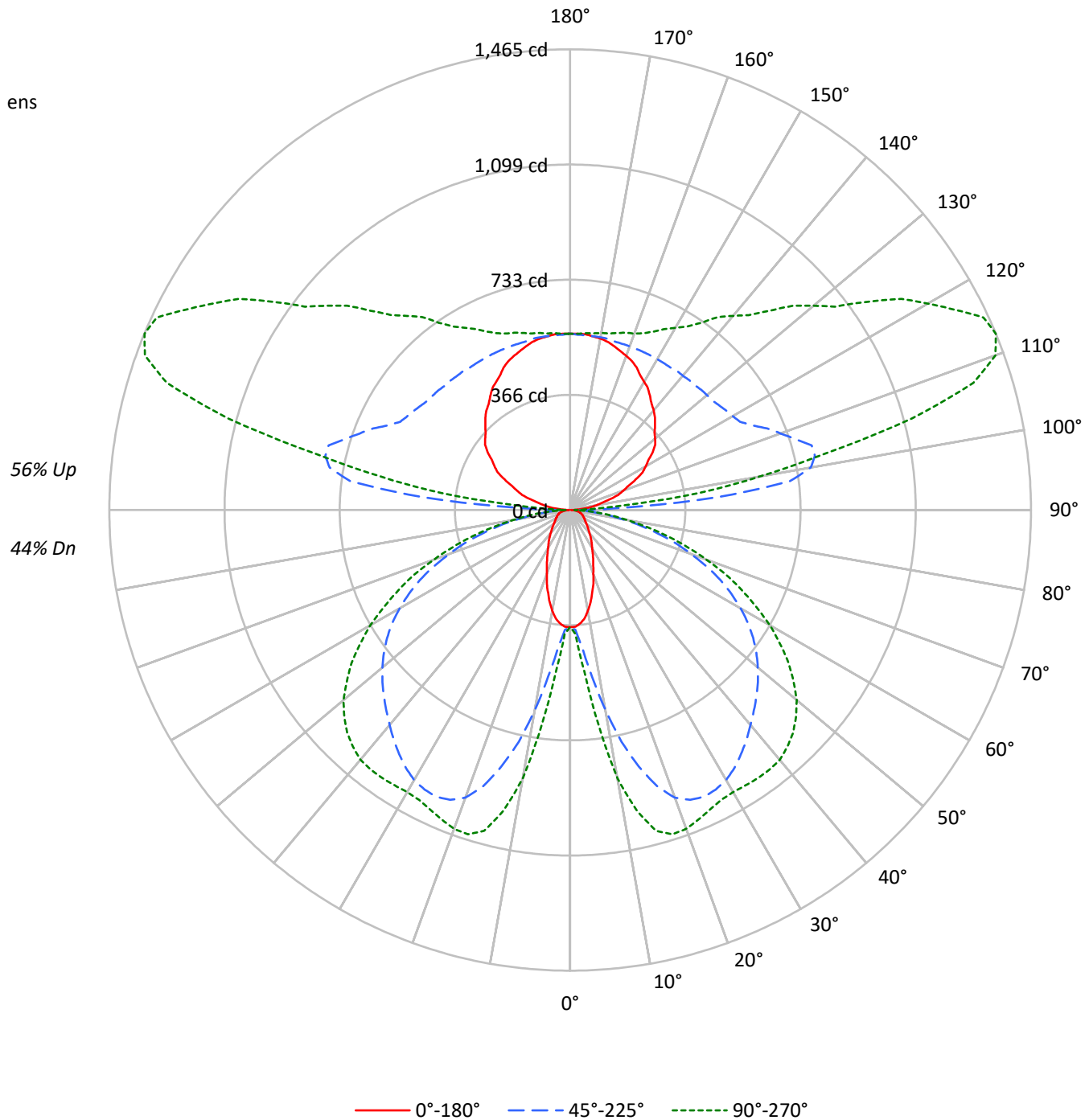
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6516.3 lumens  
Efficiency: N/A  
Efficacy: 112.3 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: General Diffuse

Input Watts (W): 58  
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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CATALOG NUMBER: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-4-4000K

### 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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

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

	0°	45°	90°
0°	3451	3451	3451
5°	3368	3986	4639
10°	3052	5807	7691
15°	2591	7581	9287
20°	2106	8779	9465
25°	1755	9179	9273
30°	1478	9230	9256
35°	1305	9070	9495
40°	1135	8863	9742
45°	1026	8709	9780
50°	939	8569	9619
55°	897	8369	9192
60°	914	7991	8519
65°	946	7419	7594
70°	1003	6457	6416
75°	1099	5253	5006
80°	1175	3628	3374
85°	985	1916	1726

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9780 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	0.7
10°-20°	213.2	3.3
20°-30°	373.0	5.7
30°-40°	480.2	7.4
40°-50°	536.3	8.2
50°-60°	513.7	7.9
60°-70°	407.1	6.2
70°-80°	239.4	3.7
80°-90°	68.6	1.1
90°-100°	273.4	4.2
100°-110°	718.9	11.0
110°-120°	745.4	11.4
120°-130°	597.9	9.2
130°-140°	469.2	7.2
140°-150°	360.1	5.5
150°-160°	259.3	4.0
160°-170°	158.7	2.4
170°-180°	53.6	0.8
0°-30°	634.4	9.7
0°-40°	1114.5	17.1
0°-60°	2164.5	33.2
0°-90°	2879.7	44.2
90°-120°	1737.8	26.7
90°-150°	3165.0	48.6
90°-180°	3637.0	55.8
0°-180°	6516.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	362	389	438	495	513	33
15°	272	501	844	1024	1056	76
25°	173	568	1006	1050	1051	80
35°	117	543	947	1001	1041	73
45°	80	433	837	959	1002	62
55°	57	275	710	825	848	52
65°	45	146	527	593	602	45
75°	34	90	290	318	319	35
85°	12	28	72	79	80	13
90°	4	10	29	14	14	4
95°	36	142	471	243	165	40
105°	130	196	795	1207	1126	137
115°	230	279	637	1270	1450	227
125°	320	359	579	978	1154	284
135°	381	420	561	790	896	295
145°	442	471	554	674	727	277
155°	500	514	554	608	626	230
165°	540	547	554	576	583	152
175°	561	561	558	565	565	53
180°	561	561	561	561	561	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9	371.9
2.5°	371.9	371.9	374.4	375.6	377.9	379.2	381.5	383.9	391.1	392.3	394.7
5°	362.4	367.2	382.7	388.7	405.4	428.1	437.7	453.3	485.6	495.1	501.1
7.5°	348.0	358.8	397.1	406.7	448.5	508.3	533.4	566.9	618.3	643.5	663.8
10°	325.3	348.0	416.2	438.9	507.1	598.0	644.7	691.3	769.0	803.7	816.9
12.5°	300.2	337.3	436.6	467.6	565.7	698.5	754.7	806.1	894.7	941.3	948.4
15°	271.5	321.7	455.7	501.1	627.9	782.2	844.4	907.8	990.3	1023.8	1032.2
17.5°	246.4	309.7	473.6	521.5	675.8	857.5	920.9	973.6	1040.6	1063.3	1069.3
20°	215.2	290.6	485.6	547.8	726.0	912.6	973.6	1014.2	1059.7	1074.1	1076.4
22.5°	192.5	270.3	492.8	557.3	759.4	946.1	997.5	1029.8	1060.8	1065.6	1066.8
25°	173.4	247.6	491.6	568.1	788.2	966.3	1005.8	1029.8	1047.7	1050.1	1050.1
27.5°	155.5	222.5	486.8	570.5	809.7	971.1	1002.3	1019.0	1027.4	1032.2	1032.2
30°	139.9	198.5	474.8	565.7	819.3	966.3	991.5	999.8	1008.3	1015.4	1019.0
32.5°	128.0	175.8	456.9	556.1	820.4	954.4	972.3	977.1	989.1	1005.8	1011.9
35°	117.2	153.1	436.6	543.0	813.3	935.3	947.3	952.0	975.9	1001.1	1009.4
37.5°	106.4	136.3	410.2	520.3	802.5	912.6	920.9	929.3	966.3	996.3	1005.8
40°	95.7	122.0	379.2	495.1	785.8	885.1	892.2	905.4	954.4	989.1	998.7
42.5°	87.3	110.1	345.7	468.9	764.2	853.9	864.7	883.9	940.1	977.1	987.9
45°	80.1	98.0	309.7	432.9	736.7	821.7	837.2	863.5	923.4	959.2	968.8
47.5°	73.0	89.7	272.7	395.9	706.8	789.4	809.7	839.6	900.6	935.3	943.6
50°	67.0	81.4	235.6	356.5	674.5	754.7	778.6	809.7	871.9	904.2	914.9
52.5°	62.2	74.1	200.9	317.0	637.5	718.8	746.3	778.6	837.2	868.3	875.5
55°	57.4	68.2	171.1	275.1	599.2	680.5	710.5	741.5	799.0	825.2	830.0
57.5°	55.0	63.4	145.9	235.6	558.6	637.5	671.0	699.7	753.5	773.8	778.6
60°	51.4	59.8	126.8	202.1	514.3	596.8	625.6	654.3	699.7	716.4	720.0
62.5°	47.9	57.4	112.4	169.8	468.9	549.0	577.7	604.0	642.3	654.3	659.0
65°	45.4	55.0	101.6	145.9	422.2	498.7	527.4	550.2	581.3	593.2	595.6
67.5°	43.1	52.6	93.3	125.5	375.6	448.5	470.1	491.6	515.5	527.4	528.6
70°	39.5	50.2	86.1	111.2	327.7	391.1	409.0	431.8	450.9	456.9	460.5
72.5°	37.1	46.6	81.4	100.5	278.7	336.1	352.8	366.0	382.7	388.7	388.7
75°	33.5	41.8	76.6	89.7	228.5	275.1	289.5	302.6	315.7	318.2	314.5
77.5°	29.9	37.1	65.8	75.3	178.2	217.7	229.6	236.8	247.6	250.0	251.2
80°	25.1	32.3	51.4	58.6	129.2	160.3	168.6	174.6	184.2	184.2	186.6
82.5°	19.1	25.1	37.1	41.8	87.3	110.1	117.2	120.8	126.8	126.8	126.8
85°	11.9	15.6	23.9	27.5	52.6	67.0	71.8	73.0	77.8	78.9	78.9
87.5°	6.0	8.3	15.6	16.7	27.5	34.7	34.7	37.1	37.1	35.8	34.7
90°	3.8	6.8	9.8	10.5	16.6	24.6	28.6	25.4	19.1	14.3	14.3
92.5°	15.0	40.6	66.3	72.7	102.2	141.5	161.1	141.2	101.4	71.5	68.7
95°	36.1	83.0	129.9	141.6	251.4	397.7	471.0	420.3	318.9	242.9	234.3
97.5°	62.5	103.8	145.2	155.5	338.6	582.7	704.8	672.7	608.6	560.6	544.2
100°	82.8	120.3	157.8	167.2	370.4	641.3	776.7	779.1	783.7	787.2	767.7
102.5°	100.1	135.1	170.1	178.9	385.0	659.7	797.1	837.9	919.6	980.7	964.0
105°	129.5	159.1	188.7	196.1	395.7	661.8	794.8	886.3	1069.4	1206.7	1197.7
107.5°	159.7	187.3	214.9	221.8	397.7	632.3	749.6	877.3	1132.6	1324.2	1326.3
110°	179.9	204.9	229.8	236.1	394.7	606.2	711.9	854.7	1140.1	1354.2	1363.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	200.0	223.7	247.4	253.4	394.8	583.4	677.7	823.8	1115.9	1335.0	1349.4
115°	230.0	251.9	273.8	279.3	398.5	557.3	636.7	777.4	1058.9	1269.9	1289.9
117.5°	259.8	279.7	299.6	304.6	405.9	540.9	608.4	735.4	989.4	1180.0	1202.1
120°	277.1	295.8	314.5	319.3	411.8	535.4	597.1	713.2	945.3	1119.3	1140.9
122.5°	294.1	313.0	331.9	336.6	420.5	532.5	588.4	692.9	901.9	1058.7	1079.9
125°	320.1	337.3	354.5	358.8	432.2	530.1	579.0	667.8	845.3	978.5	998.0
127.5°	341.1	358.4	375.9	380.3	443.9	528.7	571.2	647.4	799.8	914.1	930.6
130°	352.4	371.1	389.9	394.6	452.4	529.6	568.2	636.1	771.7	873.5	888.7
132.5°	364.1	382.8	401.5	406.2	459.3	530.1	565.5	626.2	747.7	838.8	852.5
135°	381.4	398.5	415.6	419.8	466.9	529.6	561.0	611.9	713.5	789.8	801.6
137.5°	399.1	416.0	432.8	437.1	478.1	532.9	560.2	603.2	689.2	753.7	763.3
140°	413.7	429.3	444.9	448.8	485.1	533.4	557.6	594.7	669.0	724.8	733.7
142.5°	425.1	439.5	453.8	457.5	490.9	535.3	557.6	590.2	655.4	704.4	712.2
145°	442.4	454.9	467.4	470.6	498.4	535.4	553.9	580.6	633.9	673.9	679.8
147.5°	459.7	472.0	484.1	487.2	509.4	539.0	553.9	574.9	616.9	648.4	653.3
150°	471.0	482.0	493.0	495.8	515.2	541.0	553.9	571.6	607.0	633.6	637.5
152.5°	482.6	491.0	499.4	501.5	518.9	542.2	553.9	569.0	599.2	621.9	624.9
155°	500.0	506.2	512.4	514.0	527.3	545.0	553.9	565.9	590.0	608.0	610.0
157.5°	512.8	518.8	524.8	526.4	535.5	547.7	553.9	563.2	581.9	596.0	597.3
160°	521.5	526.2	530.8	532.0	539.3	549.0	553.9	561.9	577.9	590.0	590.8
162.5°	530.1	533.6	537.1	538.0	543.3	550.3	553.9	560.7	574.1	584.3	585.0
165°	539.5	542.6	545.8	546.6	549.1	552.2	553.9	558.8	568.4	575.7	576.5
167.5°	548.2	549.7	551.2	551.6	553.6	556.2	557.6	560.7	567.1	571.9	572.2
170°	553.9	555.3	556.9	557.2	557.3	557.5	557.6	560.7	567.1	571.9	571.9
172.5°	556.9	557.2	557.5	557.6	557.6	557.6	557.6	560.1	565.1	568.9	568.6
175°	561.0	561.0	561.0	561.0	559.8	558.3	557.6	559.2	562.4	564.7	564.7
177.5°	561.0	561.0	561.0	561.0	560.1	558.9	558.3	559.6	562.1	564.0	563.6
180°	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	371.9	371.9
2.5°	397.1	394.7
5°	510.7	513.1
7.5°	687.7	686.5
10°	855.2	865.9
12.5°	977.1	979.6
15°	1051.3	1056.1
17.5°	1080.0	1081.2
20°	1081.2	1078.8
22.5°	1068.1	1065.6
25°	1052.5	1051.3
27.5°	1038.1	1039.3
30°	1032.2	1035.8
32.5°	1032.2	1038.1
35°	1034.6	1040.6
37.5°	1033.3	1040.6
40°	1028.6	1037.0
42.5°	1015.4	1021.4
45°	995.1	1002.3
47.5°	968.8	973.6
50°	935.3	940.1
52.5°	893.4	894.7
55°	843.2	848.0
57.5°	789.4	790.6
60°	729.6	733.2
62.5°	666.2	666.2
65°	599.2	601.6
67.5°	529.9	535.9
70°	459.3	460.5
72.5°	389.9	389.9
75°	318.2	319.3
77.5°	250.0	250.0
80°	185.4	186.6
82.5°	128.0	130.3
85°	80.1	80.1
87.5°	37.1	33.5
90°	14.3	14.3
92.5°	57.3	45.9
95°	199.8	165.3
97.5°	478.6	413.0
100°	689.6	611.4
102.5°	897.1	830.2
105°	1161.7	1125.7
107.5°	1335.0	1343.7
110°	1401.1	1438.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1407.0	1464.6
115°	1369.7	1449.5
117.5°	1290.6	1379.1
120°	1226.9	1312.8
122.5°	1164.8	1249.6
125°	1076.1	1154.4
127.5°	996.6	1062.5
130°	949.6	1010.5
132.5°	907.0	961.6
135°	848.6	895.7
137.5°	801.9	840.4
140°	769.7	805.7
142.5°	743.1	774.1
145°	703.2	726.7
147.5°	672.6	692.0
150°	653.3	669.0
152.5°	636.8	648.7
155°	617.9	625.7
157.5°	602.9	608.4
160°	594.0	597.1
162.5°	588.1	591.1
165°	579.7	582.8
167.5°	573.5	574.9
170°	571.9	571.9
172.5°	567.4	566.3
175°	564.7	564.7
177.5°	562.4	561.0
180°	561.0	561.0



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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	4.74	5.58	5.74	6.60	7.95	17.88	18.72	18.88	19.74	21.09
	3H	5.44	6.20	6.45	7.23	8.59	19.70	20.46	20.71	21.48	22.85
	4H	5.74	6.46	6.76	7.49	8.86	20.34	21.06	21.36	22.08	23.46
	6H	5.99	6.65	7.02	7.69	9.07	20.75	21.42	21.79	22.45	23.84
	8H	6.06	6.69	7.10	7.74	9.12	20.87	21.50	21.90	22.55	23.93
	12H	6.08	6.68	7.12	7.72	9.13	20.93	21.53	21.97	22.57	23.98
4H	2H	11.93	12.65	12.96	13.67	15.05	18.15	18.87	19.18	19.90	21.27
	3H	13.50	14.10	14.53	15.15	16.54	20.18	20.78	21.22	21.84	23.23
	4H	13.59	14.14	14.64	15.19	16.60	20.94	21.49	21.98	22.54	23.95
	6H	13.60	14.08	14.66	15.15	16.55	21.46	21.94	22.52	23.01	24.42
	8H	13.58	14.02	14.63	15.08	16.51	21.62	22.06	22.67	23.13	24.55
	12H	13.53	13.94	14.61	15.01	16.44	21.70	22.11	22.78	23.18	24.61
8H	4H	15.02	15.47	16.08	16.53	17.95	21.00	21.44	22.05	22.50	23.93
	6H	15.27	15.63	16.34	16.74	18.16	21.61	21.98	22.69	23.09	24.51
	8H	15.28	15.61	16.37	16.70	18.14	21.83	22.15	22.91	23.24	24.68
	12H	15.25	15.54	16.34	16.62	18.10	21.96	22.25	23.05	23.33	24.81
12H	4H	15.16	15.57	16.24	16.64	18.07	20.95	21.35	22.02	22.43	23.86
	6H	15.52	15.85	16.61	16.93	18.37	21.60	21.92	22.68	23.01	24.45
	8H	15.59	15.87	16.68	16.96	18.44	21.82	22.10	22.91	23.19	24.67