

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: P936764

Luminaire Tested: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-6-5000K

Issue Date: 12/17/2024

**Test Information**

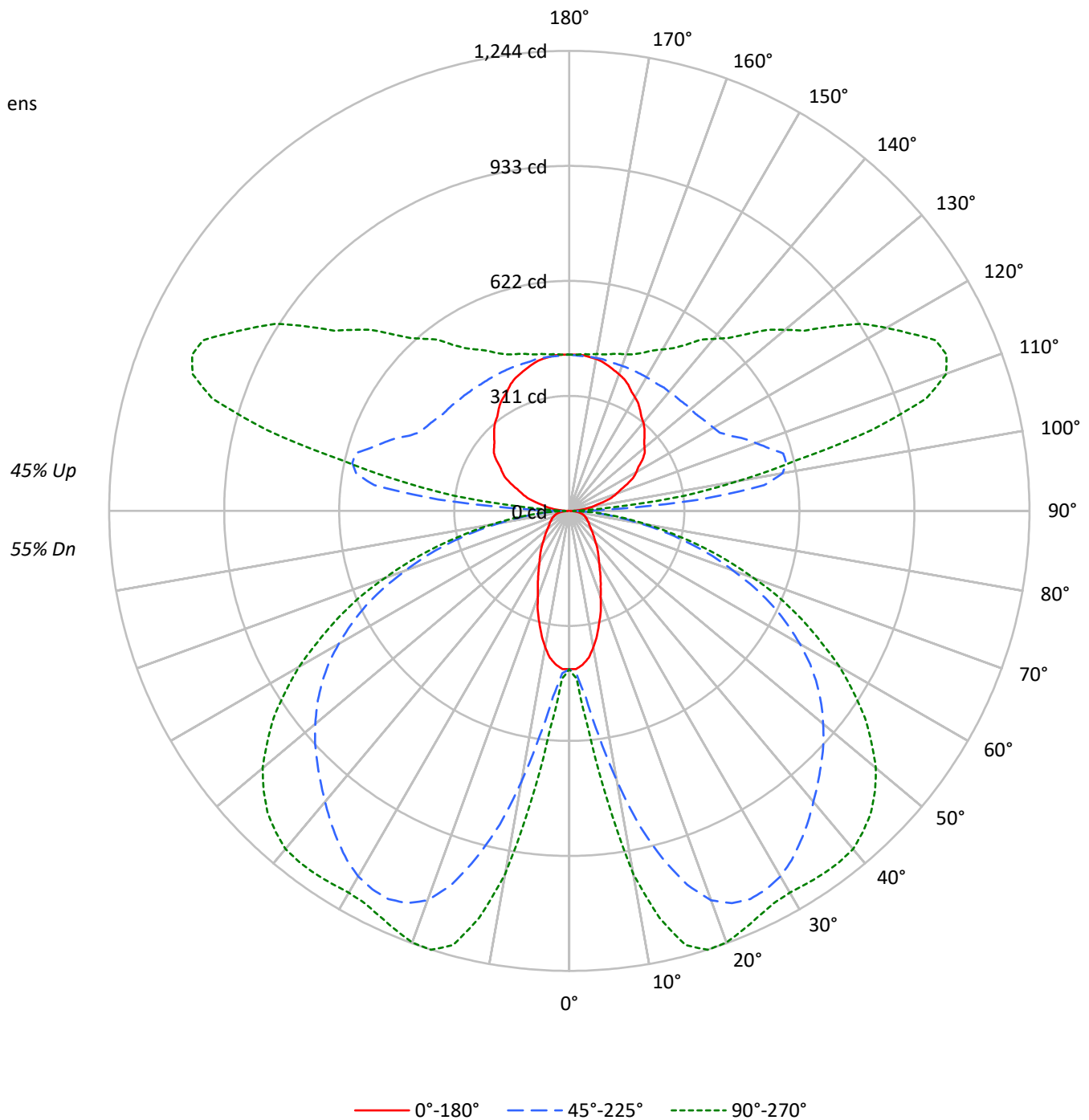
Test Method: LM-79-2019  
Report Number: P936764  
REPORT IS A COMBINATION OF REPORTS P933478 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-075D-93050-1D-UNV-STD-W-6-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6054.0 lumens  
Efficiency: N/A  
Efficacy: 110.9 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: General Diffuse  
  
Input Watts (W): 54.6  
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55			
1	98	94	89	86	91	87	83	80	75	72	69	63	61	59	53	51	50	45			
2	89	81	74	69	82	75	70	65	65	60	56	55	51	49	45	43	41	37			
3	81	71	63	57	74	66	59	53	56	51	47	48	44	40	40	37	34	30			
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25			
5	67	55	46	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21			
6	62	49	40	34	57	46	38	32	39	33	29	33	29	25	28	24	21	18			
7	57	44	36	30	52	41	34	28	35	29	25	30	25	22	25	22	19	16			
8	53	40	32	26	49	37	30	25	32	26	22	27	23	19	23	19	16	14			
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	15	12			
10	46	33	25	20	42	31	24	19	27	21	17	23	18	15	19	16	13	11			

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

	0°	45°	90°
0°	2648	2648	2648
5°	2586	3060	3559
10°	2345	4460	5901
15°	1992	5825	7127
20°	1621	6749	7263
25°	1352	7061	7116
30°	1140	7103	7102
35°	1007	6984	7286
40°	877	6828	7476
45°	793	6714	7505
50°	728	6610	7381
55°	696	6461	7053
60°	712	6174	6536
65°	739	5740	5827
70°	785	5002	4923
75°	866	4075	3841
80°	941	2823	2588
85°	823	1495	1324

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7505 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	0.9
10°-20°	245.4	4.1
20°-30°	429.3	7.1
30°-40°	552.7	9.1
40°-50°	617.3	10.2
50°-60°	591.2	9.8
60°-70°	468.5	7.7
70°-80°	275.5	4.6
80°-90°	78.2	1.3
90°-100°	206.1	3.4
100°-110°	541.8	8.9
110°-120°	561.8	9.3
120°-130°	450.6	7.4
130°-140°	353.5	5.8
140°-150°	271.4	4.5
150°-160°	195.4	3.2
160°-170°	119.6	2.0
170°-180°	40.4	0.7
0°-30°	730.1	12.1
0°-40°	1282.8	21.2
0°-60°	2491.3	41.2
0°-90°	3313.5	54.7
90°-120°	1309.6	21.6
90°-150°	2385.1	39.4
90°-180°	2740.0	45.3
0°-180°	6054.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	417	447	504	570	590	38
15°	312	577	972	1178	1216	87
25°	200	654	1158	1209	1210	92
35°	135	625	1090	1152	1198	84
45°	92	498	964	1104	1154	71
55°	66	317	818	950	976	60
65°	52	168	607	683	692	52
75°	38	103	333	366	368	40
85°	14	32	83	91	92	15
90°	3	8	22	11	11	3
95°	27	107	355	183	124	30
105°	98	148	599	909	848	103
115°	173	210	480	957	1092	171
125°	241	270	436	737	870	214
135°	287	316	423	595	675	222
145°	333	355	417	508	548	209
155°	377	387	417	458	472	173
165°	406	412	417	434	439	115
175°	423	423	420	426	426	40
180°	423	423	423	423	423	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1
2.5°	428.1	428.1	430.9	432.2	435.0	436.4	439.1	441.9	450.1	451.5	454.3
5°	417.1	422.6	440.5	447.4	466.6	492.8	503.8	521.7	558.9	569.9	576.8
7.5°	400.6	413.0	457.0	468.0	516.2	585.0	613.9	652.5	711.7	740.6	764.0
10°	374.4	400.6	479.0	505.2	583.7	688.3	742.0	795.6	885.1	925.0	940.2
12.5°	345.5	388.2	502.4	538.2	651.1	803.9	868.6	927.8	1029.7	1083.4	1091.7
15°	312.5	370.3	524.5	576.8	722.7	900.3	971.8	1044.9	1139.9	1178.4	1188.0
17.5°	283.6	356.5	545.1	600.2	777.7	987.0	1060.0	1120.6	1197.7	1223.8	1230.7
20°	247.8	334.5	558.9	630.5	835.6	1050.4	1120.6	1167.4	1219.7	1236.2	1239.0
22.5°	221.6	311.1	567.1	641.5	874.1	1088.9	1148.1	1185.3	1221.1	1226.6	1228.0
25°	199.6	284.9	565.8	653.9	907.1	1112.3	1157.8	1185.3	1205.9	1208.7	1208.7
27.5°	179.0	256.0	560.3	656.6	931.9	1117.8	1153.6	1172.9	1182.5	1188.0	1188.0
30°	161.1	228.5	546.5	651.1	942.9	1112.3	1141.2	1150.9	1160.5	1168.8	1172.9
32.5°	147.3	202.4	525.8	640.1	944.3	1098.6	1119.2	1124.7	1138.5	1157.8	1164.6
35°	134.9	176.2	502.4	625.0	936.0	1076.5	1090.3	1095.8	1123.4	1152.3	1161.9
37.5°	122.5	156.9	472.2	598.8	923.7	1050.4	1060.0	1069.7	1112.3	1146.8	1157.8
40°	110.1	140.4	436.4	569.9	904.4	1018.6	1026.9	1042.0	1098.6	1138.5	1149.5
42.5°	100.5	126.6	397.8	539.6	879.6	982.9	995.2	1017.3	1082.1	1124.7	1137.1
45°	92.2	112.9	356.5	498.3	848.0	945.7	963.6	993.9	1062.8	1104.1	1115.1
47.5°	84.0	103.2	313.9	455.6	813.5	908.5	931.9	966.3	1036.5	1076.5	1086.2
50°	77.1	93.6	271.2	410.2	776.4	868.6	896.1	931.9	1003.5	1040.7	1053.1
52.5°	71.6	85.3	231.3	364.8	733.7	827.3	859.0	896.1	963.6	999.4	1007.6
55°	66.1	78.5	196.8	316.6	689.6	783.3	817.7	853.5	919.5	949.8	955.3
57.5°	63.3	73.0	167.9	271.2	642.8	733.7	772.2	805.3	867.2	890.6	896.1
60°	59.2	68.8	145.9	232.6	591.9	686.9	719.9	753.0	805.3	824.5	828.7
62.5°	55.1	66.1	129.4	195.5	539.6	631.8	664.9	695.2	739.2	753.0	758.5
65°	52.3	63.3	117.0	167.9	485.9	574.0	607.1	633.2	669.0	682.8	685.5
67.5°	49.6	60.6	107.4	144.5	432.2	516.2	541.0	565.8	593.3	607.1	608.4
70°	45.4	57.8	99.1	128.0	377.2	450.1	470.8	496.9	519.0	525.8	530.0
72.5°	42.7	53.7	93.6	115.6	320.7	386.8	406.1	421.2	440.5	447.4	447.4
75°	38.5	48.2	88.1	103.2	262.9	316.6	333.1	348.3	363.4	366.2	362.0
77.5°	34.4	42.7	75.7	86.7	205.1	250.5	264.3	272.6	284.9	287.7	289.1
80°	28.9	37.2	59.2	67.5	148.7	184.5	194.1	201.0	212.0	212.0	214.7
82.5°	22.0	28.9	42.7	48.2	100.5	126.6	134.9	139.0	145.9	145.9	145.9
85°	13.8	17.9	27.5	31.7	60.6	77.1	82.6	84.0	89.5	90.9	90.9
87.5°	6.9	9.6	17.9	19.3	31.7	39.9	39.9	42.7	42.7	41.3	39.9
90°	2.8	5.1	7.4	8.0	12.5	18.5	21.6	19.2	14.3	10.7	10.7
92.5°	11.4	30.7	49.9	54.8	77.0	106.6	121.4	106.4	76.4	53.9	51.8
95°	27.3	62.5	97.8	106.6	189.4	299.8	355.0	316.8	240.3	183.0	176.5
97.5°	47.1	78.3	109.4	117.2	255.2	439.2	531.2	507.0	458.7	422.4	410.0
100°	62.4	90.7	118.9	126.0	279.1	483.3	585.3	587.0	590.6	593.3	578.6
102.5°	75.4	101.9	128.2	134.8	290.1	497.1	600.6	631.4	693.0	739.1	726.5
105°	97.6	119.9	142.2	147.8	298.2	498.7	598.9	667.9	805.8	909.3	902.6
107.5°	120.3	141.1	161.9	167.1	299.7	476.5	564.8	661.0	853.5	997.8	999.5
110°	135.6	154.4	173.2	177.8	297.4	456.8	536.5	644.0	859.2	1020.6	1027.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	150.7	168.6	186.5	191.0	297.5	439.7	510.7	620.8	841.0	1006.1	1016.9
115°	173.4	189.9	206.4	210.5	300.3	419.9	479.8	585.9	797.9	957.0	972.0
117.5°	195.7	210.8	225.8	229.5	305.9	407.6	458.5	554.2	745.6	889.2	905.9
120°	208.8	222.9	237.0	240.6	310.4	403.4	449.9	537.4	712.3	843.5	859.7
122.5°	221.6	235.8	250.1	253.7	316.9	401.2	443.4	522.2	679.7	797.8	813.8
125°	241.2	254.1	267.1	270.4	325.7	399.5	436.4	503.3	637.1	737.4	752.1
127.5°	257.0	270.2	283.3	286.6	334.5	398.5	430.4	487.8	602.7	688.8	701.2
130°	265.6	279.7	293.8	297.3	340.9	399.0	428.1	479.2	581.5	658.3	669.7
132.5°	274.4	288.5	302.7	306.1	346.2	399.5	426.2	472.0	563.5	632.1	642.4
135°	287.4	300.3	313.1	316.3	351.8	399.1	422.8	461.1	537.8	595.2	604.1
137.5°	300.7	313.5	326.1	329.4	360.3	401.5	422.1	454.5	519.3	568.0	575.2
140°	311.8	323.6	335.2	338.2	365.5	402.0	420.2	448.2	504.2	546.1	552.9
142.5°	320.3	331.1	341.9	344.7	369.8	403.4	420.2	444.8	493.9	530.8	536.7
145°	333.4	342.9	352.3	354.7	375.6	403.4	417.4	437.5	477.7	507.9	512.3
147.5°	346.4	355.6	364.9	367.2	383.9	406.2	417.4	433.2	464.8	488.6	492.3
150°	355.0	363.3	371.6	373.7	388.3	407.6	417.4	430.8	457.5	477.5	480.4
152.5°	363.7	370.0	376.3	377.9	391.0	408.6	417.4	428.7	451.6	468.7	470.9
155°	376.8	381.5	386.1	387.3	397.3	410.7	417.4	426.5	444.6	458.2	459.7
157.5°	386.4	390.9	395.5	396.6	403.5	412.8	417.4	424.4	438.6	449.1	450.1
160°	393.0	396.4	399.9	400.8	406.4	413.7	417.4	423.4	435.5	444.6	445.2
162.5°	399.5	402.1	404.8	405.4	409.4	414.7	417.4	422.5	432.7	440.3	440.9
165°	406.5	408.9	411.3	412.0	413.8	416.2	417.4	421.0	428.3	433.8	434.4
167.5°	413.1	414.2	415.3	415.6	417.2	419.2	420.2	422.6	427.4	430.9	431.2
170°	417.4	418.5	419.7	419.9	420.0	420.1	420.2	422.6	427.4	430.9	430.9
172.5°	419.7	419.9	420.1	420.2	420.2	420.2	420.2	422.0	425.8	428.7	428.5
175°	422.8	422.8	422.8	422.8	422.0	420.8	420.2	421.4	423.8	425.5	425.5
177.5°	422.8	422.8	422.8	422.8	422.1	421.2	420.8	421.7	423.6	425.0	424.7
180°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	428.1	428.1
2.5°	457.0	454.3
5°	587.8	590.5
7.5°	791.5	790.1
10°	984.2	996.6
12.5°	1124.7	1127.5
15°	1210.1	1215.6
17.5°	1243.1	1244.5
20°	1244.5	1241.7
22.5°	1229.3	1226.6
25°	1211.4	1210.1
27.5°	1194.9	1196.3
30°	1188.0	1192.2
32.5°	1188.0	1194.9
35°	1190.8	1197.7
37.5°	1189.4	1197.7
40°	1183.9	1193.6
42.5°	1168.8	1175.7
45°	1145.4	1153.6
47.5°	1115.1	1120.6
50°	1076.5	1082.1
52.5°	1028.3	1029.7
55°	970.5	976.0
57.5°	908.5	909.9
60°	839.7	843.8
62.5°	766.7	766.7
65°	689.6	692.4
67.5°	609.8	616.7
70°	528.6	530.0
72.5°	448.8	448.8
75°	366.2	367.5
77.5°	287.7	287.7
80°	213.4	214.7
82.5°	147.3	150.0
85°	92.2	92.2
87.5°	42.7	38.5
90°	10.7	10.7
92.5°	43.1	34.6
95°	150.5	124.5
97.5°	360.7	311.3
100°	519.7	460.8
102.5°	676.1	625.6
105°	875.5	848.3
107.5°	1006.0	1012.6
110°	1055.8	1084.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1060.3	1103.6
115°	1032.1	1092.3
117.5°	972.6	1039.3
120°	924.5	989.4
122.5°	877.8	941.6
125°	811.0	869.9
127.5°	750.9	800.7
130°	715.6	761.5
132.5°	683.5	724.6
135°	639.5	675.0
137.5°	604.3	633.3
140°	580.0	607.1
142.5°	560.0	583.3
145°	530.0	547.6
147.5°	506.8	521.4
150°	492.3	504.2
152.5°	479.9	488.9
155°	465.6	471.5
157.5°	454.4	458.5
160°	447.6	449.9
162.5°	443.2	445.4
165°	436.8	439.2
167.5°	432.2	433.2
170°	430.9	430.9
172.5°	427.6	426.7
175°	425.5	425.5
177.5°	423.8	422.8
180°	422.8	422.8



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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	4.80	5.75	5.71	6.68	7.88	17.97	18.92	18.88	19.85	21.05
	3H	5.52	6.37	6.44	7.31	8.53	19.81	20.66	20.73	21.61	22.83
	4H	5.82	6.63	6.75	7.57	8.81	20.46	21.26	21.39	22.21	23.44
	6H	6.07	6.82	7.02	7.77	9.02	20.89	21.63	21.83	22.59	23.83
	8H	6.15	6.86	7.10	7.83	9.07	21.01	21.72	21.96	22.69	23.93
	12H	6.17	6.84	7.12	7.81	9.08	21.08	21.75	22.04	22.72	23.99
4H	2H	12.02	12.83	12.96	13.78	15.01	18.26	19.06	19.19	20.01	21.24
	3H	13.60	14.28	14.55	15.25	16.50	20.30	20.98	21.25	21.96	23.20
	4H	13.70	14.32	14.66	15.29	16.56	21.07	21.69	22.03	22.66	23.93
	6H	13.71	14.25	14.69	15.24	16.51	21.61	22.15	22.58	23.14	24.41
	8H	13.69	14.19	14.67	15.18	16.47	21.77	22.27	22.75	23.26	24.55
	12H	13.65	14.11	14.65	15.11	16.40	21.87	22.32	22.86	23.33	24.62
8H	4H	15.15	15.65	16.12	16.64	17.92	21.14	21.64	22.11	22.63	23.91
	6H	15.39	15.81	16.39	16.84	18.12	21.77	22.18	22.77	23.21	24.50
	8H	15.41	15.78	16.42	16.80	18.10	21.99	22.35	23.00	23.37	24.67
	12H	15.39	15.71	16.40	16.72	18.07	22.13	22.46	23.15	23.47	24.81
12H	4H	15.29	15.75	16.29	16.75	18.04	21.10	21.55	22.09	22.55	23.84
	6H	15.65	16.02	16.66	17.04	18.34	21.75	22.12	22.76	23.14	24.44
	8H	15.73	16.05	16.74	17.06	18.41	21.99	22.31	23.00	23.32	24.67