

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: P936694

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

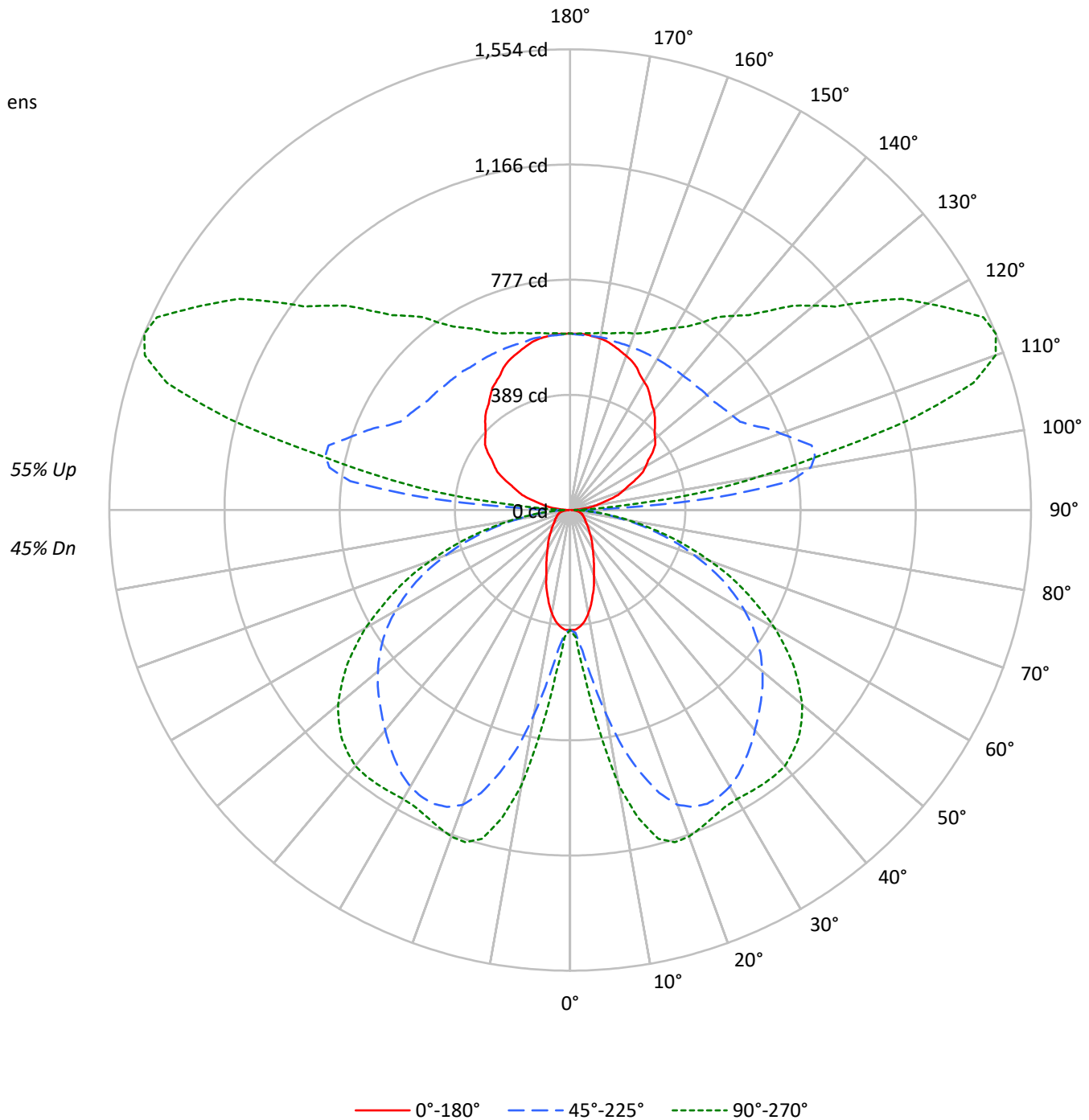
Test Method: LM-79-2019  
Report Number: P936694  
REPORT IS A COMBINATION OF REPORTS P933485 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-050U-050D-B2750-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6987.5 lumens  
Efficiency: N/A  
Efficacy: 123.0 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.8  
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	81	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	27	24	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	18
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	25	21	25	20	17	20	16	14	12
9	48	35	28	23	44	33	26	21	27	22	18	23	18	15	18	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	13	11	9

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

	0°	45°	90°
0°	1875	1875	1875
5°	1832	2168	2521
10°	1662	3160	4179
15°	1413	4128	5046
20°	1150	4784	5143
25°	959	5006	5039
30°	808	5037	5029
35°	715	4954	5159
40°	623	4845	5294
45°	564	4765	5314
50°	518	4694	5226
55°	496	4589	4994
60°	508	4388	4628
65°	528	4081	4126
70°	563	3559	3486
75°	623	2902	2720
80°	681	2012	1832
85°	606	1068	938

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5314 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	0.7
10°-20°	231.7	3.3
20°-30°	405.3	5.8
30°-40°	521.8	7.5
40°-50°	582.8	8.3
50°-60°	558.2	8.0
60°-70°	442.4	6.3
70°-80°	260.1	3.7
80°-90°	74.5	1.1
90°-100°	290.1	4.2
100°-110°	762.7	10.9
110°-120°	790.9	11.3
120°-130°	634.4	9.1
130°-140°	497.8	7.1
140°-150°	382.1	5.5
150°-160°	275.1	3.9
160°-170°	168.3	2.4
170°-180°	56.9	0.8
0°-30°	689.4	9.9
0°-40°	1211.2	17.3
0°-60°	2352.2	33.7
0°-90°	3129.3	44.8
90°-120°	1843.7	26.4
90°-150°	3357.9	48.1
90°-180°	3858.0	55.2
0°-180°	6987.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	394	422	476	538	558	36
15°	295	545	918	1112	1148	82
25°	188	617	1093	1141	1142	87
35°	127	590	1029	1088	1131	80
45°	87	470	910	1042	1089	67
55°	62	299	772	897	922	57
65°	49	158	573	645	654	49
75°	36	98	314	346	347	38
85°	13	30	78	86	87	14
90°	4	11	30	15	15	4
95°	38	150	500	258	175	43
105°	137	208	843	1280	1194	146
115°	244	296	676	1347	1538	241
125°	340	381	614	1038	1225	301
135°	405	445	595	838	950	313
145°	469	499	588	715	771	294
155°	530	545	588	645	664	244
165°	572	580	588	611	618	162
175°	595	595	592	599	599	56
180°	595	595	595	595	595	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2	404.2
2.5°	404.2	404.2	406.8	408.1	410.7	412.0	414.6	417.3	425.0	426.3	428.9
5°	393.8	399.0	415.9	422.4	440.6	465.3	475.7	492.5	527.7	538.1	544.6
7.5°	378.2	389.9	431.5	441.9	487.4	552.3	579.7	616.1	671.9	699.2	721.3
10°	353.5	378.2	452.3	477.0	551.1	649.8	700.6	751.3	835.7	873.4	887.7
12.5°	326.3	366.5	474.4	508.1	614.7	759.0	820.2	876.0	972.2	1022.9	1030.6
15°	295.1	349.6	495.2	544.6	682.4	850.0	917.6	986.4	1076.2	1112.5	1121.6
17.5°	267.7	336.6	514.7	566.7	734.3	931.9	1000.8	1058.0	1130.7	1155.4	1161.9
20°	233.9	315.8	527.7	595.3	789.0	991.7	1058.0	1102.1	1151.6	1167.2	1169.8
22.5°	209.2	293.7	535.5	605.6	825.3	1028.1	1083.9	1119.1	1152.8	1158.1	1159.3
25°	188.5	269.0	534.2	617.3	856.5	1050.2	1093.0	1119.1	1138.6	1141.2	1141.2
27.5°	169.0	241.8	529.0	620.0	879.9	1055.3	1089.2	1107.4	1116.5	1121.6	1121.6
30°	152.0	215.8	516.0	614.7	890.3	1050.2	1077.4	1086.5	1095.6	1103.5	1107.4
32.5°	139.1	191.1	496.5	604.4	891.6	1037.1	1056.7	1061.8	1074.8	1093.0	1099.5
35°	127.3	166.4	474.4	590.0	883.8	1016.4	1029.4	1034.6	1060.6	1087.9	1096.9
37.5°	115.7	148.2	445.8	565.4	872.1	991.7	1000.8	1009.9	1050.2	1082.7	1093.0
40°	104.0	132.6	412.0	538.1	853.9	961.8	969.6	983.9	1037.1	1074.8	1085.3
42.5°	94.9	119.6	375.6	509.5	830.5	928.0	939.7	960.5	1021.6	1061.8	1073.6
45°	87.1	106.6	336.6	470.4	800.6	892.9	909.8	938.4	1003.4	1042.4	1052.7
47.5°	79.3	97.5	296.3	430.2	768.1	857.9	879.9	912.4	978.7	1016.4	1025.5
50°	72.8	88.4	256.0	387.3	733.0	820.2	846.1	879.9	947.5	982.6	994.3
52.5°	67.5	80.6	218.3	344.4	692.7	781.1	811.1	846.1	909.8	943.6	951.4
55°	62.4	74.1	185.9	298.9	651.2	739.5	772.0	805.8	868.2	896.8	902.0
57.5°	59.8	68.9	158.5	256.0	607.0	692.7	729.2	760.4	818.8	840.9	846.1
60°	55.9	65.0	137.8	219.7	558.9	648.6	679.8	711.0	760.4	778.5	782.5
62.5°	52.0	62.4	122.2	184.6	509.5	596.6	627.7	656.4	698.0	711.0	716.2
65°	49.4	59.8	110.5	158.5	458.8	542.0	573.2	597.9	631.7	644.7	647.3
67.5°	46.8	57.2	101.4	136.4	408.1	487.4	510.8	534.2	560.2	573.2	574.4
70°	42.9	54.6	93.6	120.8	356.1	425.0	444.5	469.2	490.0	496.5	500.4
72.5°	40.3	50.7	88.4	109.2	302.8	365.2	383.4	397.7	415.9	422.4	422.4
75°	36.4	45.4	83.1	97.5	248.3	298.9	314.5	328.8	343.1	345.7	341.9
77.5°	32.5	40.3	71.5	81.9	193.7	236.5	249.5	257.4	269.0	271.6	273.0
80°	27.3	35.1	55.9	63.7	140.4	174.1	183.2	189.7	200.2	200.2	202.7
82.5°	20.8	27.3	40.3	45.4	94.9	119.6	127.3	131.3	137.8	137.8	137.8
85°	13.0	16.9	26.0	29.8	57.2	72.8	78.0	79.3	84.5	85.8	85.8
87.5°	6.5	9.1	16.9	18.2	29.8	37.7	37.7	40.3	40.3	39.0	37.7
90°	4.0	7.2	10.4	11.1	17.5	26.1	30.3	26.9	20.3	15.2	15.2
92.5°	16.0	43.1	70.3	77.1	108.4	150.1	170.9	149.8	107.6	75.9	72.9
95°	38.4	88.1	137.8	150.2	266.7	422.0	499.7	445.9	338.4	257.7	248.5
97.5°	66.3	110.1	154.0	164.9	359.2	618.2	747.8	713.8	645.7	594.8	577.3
100°	87.9	127.6	167.3	177.3	392.9	680.3	824.0	826.6	831.5	835.2	814.4
102.5°	106.3	143.4	180.4	189.7	408.3	699.9	845.6	889.0	975.6	1040.5	1022.8
105°	137.4	168.8	200.3	208.1	419.9	702.1	843.2	940.3	1134.6	1280.2	1270.6
107.5°	169.4	198.6	227.9	235.3	421.9	670.8	795.3	930.7	1201.7	1404.9	1407.2
110°	190.9	217.3	243.9	250.5	418.8	643.1	755.3	906.8	1209.6	1436.7	1446.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	212.1	237.3	262.5	268.8	418.9	619.0	719.0	873.9	1183.9	1416.4	1431.7
115°	244.1	267.3	290.6	296.4	422.8	591.3	675.5	824.8	1123.4	1347.3	1368.4
117.5°	275.6	296.7	317.8	323.2	430.6	573.8	645.5	780.2	1049.7	1251.9	1275.3
120°	294.0	313.9	333.8	338.8	437.0	568.0	633.5	756.6	1002.8	1187.5	1210.3
122.5°	311.9	332.0	352.0	357.1	446.1	564.9	624.3	735.2	957.0	1123.3	1145.7
125°	339.5	357.8	376.1	380.6	458.5	562.4	614.3	708.5	896.9	1038.2	1058.9
127.5°	361.9	380.3	398.7	403.4	470.9	561.0	605.9	686.8	848.6	969.9	987.3
130°	373.8	393.7	413.7	418.6	479.9	561.8	602.7	674.7	818.7	926.7	942.8
132.5°	386.2	406.1	426.1	431.0	487.3	562.4	600.0	664.4	793.3	889.9	904.4
135°	404.7	422.8	440.8	445.4	495.3	561.8	595.2	649.1	757.1	838.0	850.5
137.5°	423.5	441.4	459.3	463.8	507.3	565.3	594.4	640.0	731.3	799.7	809.9
140°	439.0	455.5	472.0	476.2	514.6	565.9	591.6	631.0	709.8	768.9	778.4
142.5°	451.0	466.2	481.5	485.3	520.7	567.9	591.6	626.2	695.5	747.4	755.6
145°	469.4	482.7	496.0	499.3	528.8	568.0	587.6	615.9	672.6	715.0	721.2
147.5°	487.7	500.7	513.7	516.9	540.4	571.9	587.6	609.9	654.4	687.8	692.9
150°	499.7	511.4	523.2	526.1	546.6	573.9	587.6	606.4	644.1	672.3	676.5
152.5°	512.1	521.0	529.8	532.1	550.6	575.3	587.6	603.7	635.8	659.9	663.1
155°	530.4	537.0	543.6	545.3	559.4	578.2	587.6	600.4	625.9	645.1	647.2
157.5°	544.0	550.4	556.8	558.4	568.1	581.1	587.6	597.5	617.3	632.3	633.7
160°	553.2	558.2	563.2	564.4	572.2	582.5	587.6	596.1	613.1	625.9	626.7
162.5°	562.4	566.2	569.9	570.8	576.5	583.9	587.6	594.8	609.2	620.0	620.7
165°	572.4	575.8	579.1	579.9	582.5	585.9	587.6	592.7	603.0	610.8	611.6
167.5°	581.6	583.1	584.8	585.2	587.3	590.1	591.6	595.0	601.7	606.8	607.2
170°	587.6	589.2	590.8	591.2	591.3	591.5	591.6	595.0	601.7	606.8	606.8
172.5°	590.8	591.2	591.5	591.6	591.6	591.6	591.6	594.3	599.6	603.6	603.3
175°	595.2	595.2	595.2	595.2	594.0	592.3	591.6	593.2	596.6	599.1	599.1
177.5°	595.2	595.2	595.2	595.2	594.2	592.9	592.3	593.7	596.3	598.4	598.0
180°	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	404.2	404.2
2.5°	431.5	428.9
5°	554.9	557.6
7.5°	747.3	746.0
10°	929.3	941.0
12.5°	1061.8	1064.4
15°	1142.5	1147.7
17.5°	1173.7	1174.9
20°	1174.9	1172.3
22.5°	1160.7	1158.1
25°	1143.7	1142.5
27.5°	1128.1	1129.5
30°	1121.6	1125.6
32.5°	1121.6	1128.1
35°	1124.2	1130.7
37.5°	1123.0	1130.7
40°	1117.7	1126.9
42.5°	1103.5	1110.0
45°	1081.4	1089.2
47.5°	1052.7	1058.0
50°	1016.4	1021.6
52.5°	970.8	972.2
55°	916.3	921.5
57.5°	857.9	859.1
60°	792.8	796.7
62.5°	723.9	723.9
65°	651.2	653.8
67.5°	575.8	582.3
70°	499.1	500.4
72.5°	423.7	423.7
75°	345.7	347.0
77.5°	271.6	271.6
80°	201.5	202.7
82.5°	139.1	141.7
85°	87.1	87.1
87.5°	40.3	36.4
90°	15.2	15.2
92.5°	60.8	48.7
95°	211.9	175.4
97.5°	507.8	438.2
100°	731.6	648.6
102.5°	951.8	880.7
105°	1232.5	1194.3
107.5°	1416.4	1425.6
110°	1486.4	1526.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	1492.7	1553.8
115°	1453.1	1537.8
117.5°	1369.3	1463.2
120°	1301.6	1392.8
122.5°	1235.8	1325.8
125°	1141.8	1224.7
127.5°	1057.3	1127.2
130°	1007.5	1072.1
132.5°	962.3	1020.2
135°	900.4	950.3
137.5°	850.8	891.6
140°	816.6	854.8
142.5°	788.4	821.2
145°	746.1	770.9
147.5°	713.6	734.2
150°	693.1	709.8
152.5°	675.7	688.3
155°	655.5	663.9
157.5°	639.6	645.5
160°	630.1	633.5
162.5°	623.9	627.1
165°	614.9	618.3
167.5°	608.5	610.0
170°	606.8	606.8
172.5°	602.0	600.8
175°	599.1	599.1
177.5°	596.6	595.2
180°	595.2	595.2



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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	2.69	3.54	3.68	4.55	5.89	15.87	16.72	16.87	17.73	19.07
	3H	3.40	4.16	4.40	5.18	6.54	17.71	18.47	18.71	19.49	20.85
	4H	3.69	4.42	4.71	5.44	6.81	18.36	19.08	19.37	20.10	21.47
	6H	3.94	4.61	4.97	5.64	7.02	18.79	19.45	19.81	20.48	21.86
	8H	4.01	4.65	5.05	5.69	7.07	18.91	19.54	19.94	20.59	21.96
	12H	4.03	4.63	5.07	5.67	7.07	18.97	19.58	20.01	20.62	22.02
4H	2H	9.91	10.63	10.93	11.65	13.02	16.15	16.87	17.17	17.89	19.26
	3H	11.47	12.08	12.51	13.13	14.51	18.19	18.80	19.22	19.85	21.23
	4H	11.57	12.12	12.61	13.17	14.57	18.96	19.51	20.00	20.55	21.96
	6H	11.58	12.06	12.63	13.12	14.52	19.50	19.97	20.54	21.04	22.44
	8H	11.56	12.00	12.61	13.06	14.48	19.66	20.10	20.71	21.16	22.58
	12H	11.51	11.92	12.58	12.99	14.41	19.75	20.16	20.82	21.23	22.65
8H	4H	13.01	13.46	14.06	14.52	15.93	19.02	19.46	20.07	20.52	21.94
	6H	13.25	13.62	14.33	14.72	16.14	19.64	20.02	20.72	21.12	22.53
	8H	13.27	13.60	14.35	14.68	16.11	19.86	20.19	20.95	21.27	22.71
	12H	13.24	13.53	14.33	14.61	16.08	20.01	20.30	21.09	21.37	22.85
12H	4H	13.16	13.56	14.22	14.63	16.05	18.97	19.37	20.04	20.45	21.87
	6H	13.51	13.84	14.59	14.92	16.36	19.63	19.95	20.71	21.04	22.47
	8H	13.58	13.87	14.67	14.95	16.42	19.86	20.14	20.94	21.22	22.70