

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: P936692

Luminaire Tested: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936692
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-W2A-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

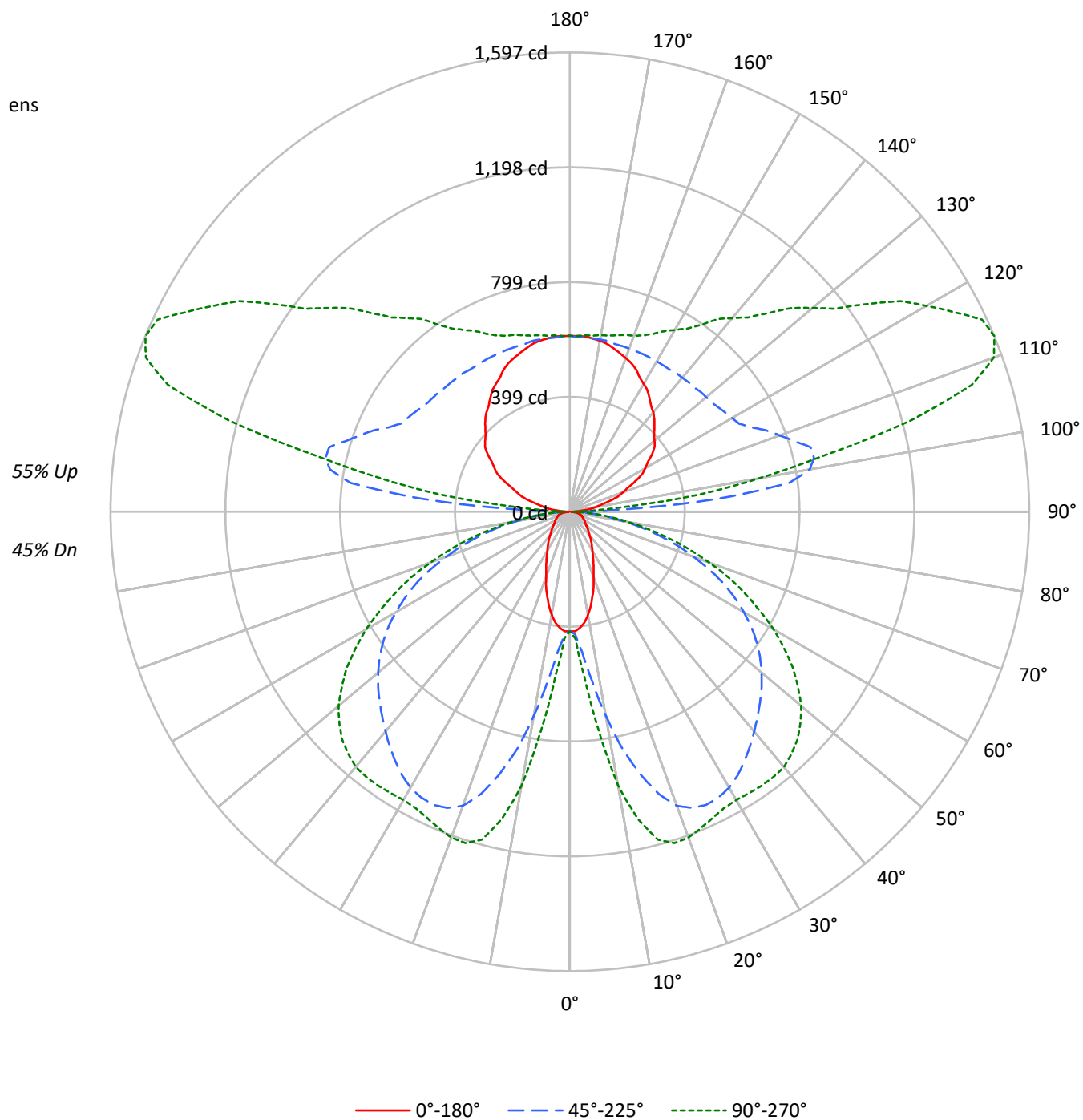
Lumens per Lamp: N/A
Luminaire Lumens: 7182.2 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

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

TEST NUMBER: P936692

CATALOG NUMBER: SQ4-FB-050U-050D-B2750-1D-UNV-W2A-W-8-2700K

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
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°	1927	1927	1927
5°	1883	2228	2591
10°	1708	3248	4295
15°	1452	4243	5187
20°	1182	4917	5286
25°	986	5145	5179
30°	831	5178	5169
35°	735	5092	5302
40°	641	4980	5441
45°	580	4898	5462
50°	532	4825	5372
55°	509	4717	5134
60°	522	4510	4757
65°	543	4195	4241
70°	578	3658	3583
75°	641	2983	2796
80°	701	2068	1884
85°	619	1098	964

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5462 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	0.7
10°-20°	238.2	3.3
20°-30°	416.6	5.8
30°-40°	536.3	7.5
40°-50°	599.1	8.3
50°-60°	573.8	8.0
60°-70°	454.7	6.3
70°-80°	267.4	3.7
80°-90°	76.6	1.1
90°-100°	298.2	4.2
100°-110°	784.0	10.9
110°-120°	812.9	11.3
120°-130°	652.0	9.1
130°-140°	511.6	7.1
140°-150°	392.7	5.5
150°-160°	282.8	3.9
160°-170°	173.0	2.4
170°-180°	58.5	0.8
0°-30°	708.6	9.9
0°-40°	1244.9	17.3
0°-60°	2417.7	33.7
0°-90°	3216.4	44.8
90°-120°	1895.1	26.4
90°-150°	3451.4	48.1
90°-180°	3966.0	55.2
0°-180°	7182.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	405	434	489	553	573	37
15°	303	560	943	1144	1180	84
25°	194	635	1124	1173	1174	89
35°	131	606	1058	1118	1162	82
45°	90	484	935	1071	1120	69
55°	64	307	794	922	947	58
65°	51	163	589	663	672	50
75°	37	100	323	355	357	39
85°	13	31	80	88	90	14
90°	4	12	31	16	16	4
95°	39	154	514	265	180	44
105°	141	214	867	1316	1228	150
115°	251	305	694	1385	1581	248
125°	349	391	632	1067	1259	310
135°	416	458	612	861	977	322
145°	482	513	604	735	792	302
155°	545	560	604	663	682	251
165°	588	596	604	628	636	166
175°	612	612	608	616	616	58
180°	612	612	612	612	612	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4	415.4
2.5°	415.4	415.4	418.1	419.5	422.1	423.5	426.2	428.9	436.8	438.1	440.8
5°	404.8	410.2	427.5	434.2	452.9	478.3	488.9	506.3	542.4	553.1	559.8
7.5°	388.7	400.8	443.5	454.2	501.0	567.7	595.8	633.3	690.6	718.7	741.4
10°	363.3	388.7	464.9	490.3	566.4	667.9	720.1	772.2	859.0	897.7	912.4
12.5°	335.4	376.7	487.6	522.3	631.9	780.2	843.0	900.4	999.3	1051.4	1059.3
15°	303.3	359.4	509.0	559.8	701.4	873.7	943.2	1013.9	1106.2	1143.5	1152.9
17.5°	275.2	346.0	529.1	582.5	754.8	957.9	1028.7	1087.4	1162.2	1187.6	1194.3
20°	240.4	324.6	542.4	611.8	810.9	1019.3	1087.4	1132.9	1183.6	1199.7	1202.4
22.5°	215.0	301.9	550.4	622.5	848.3	1056.8	1114.1	1150.3	1184.9	1190.3	1191.6
25°	193.7	276.5	549.1	634.6	880.4	1079.5	1123.5	1150.3	1170.3	1173.0	1173.0
27.5°	173.7	248.5	543.7	637.2	904.5	1084.7	1119.5	1138.2	1147.6	1152.9	1152.9
30°	156.3	221.8	530.4	631.9	915.1	1079.5	1107.5	1116.8	1126.2	1134.2	1138.2
32.5°	142.9	196.4	510.4	621.2	916.4	1066.0	1086.1	1091.4	1104.8	1123.5	1130.2
35°	130.9	171.0	487.6	606.5	908.5	1044.7	1058.1	1063.4	1090.1	1118.2	1127.5
37.5°	118.9	152.3	458.3	581.2	896.4	1019.3	1028.7	1038.0	1079.5	1112.8	1123.5
40°	106.9	136.3	423.5	553.1	877.7	988.6	996.6	1011.3	1066.0	1104.8	1115.5
42.5°	97.5	122.9	386.0	523.7	853.7	953.9	965.9	987.2	1050.1	1091.4	1103.5
45°	89.5	109.6	346.0	483.6	822.9	917.8	935.1	964.5	1031.4	1071.4	1082.1
47.5°	81.5	100.2	304.6	442.2	789.5	881.8	904.5	937.8	1006.0	1044.7	1054.1
50°	74.8	90.8	263.1	398.1	753.5	843.0	869.7	904.5	973.9	1009.9	1022.0
52.5°	69.4	82.9	224.4	354.0	712.0	802.9	833.7	869.7	935.1	969.9	977.9
55°	64.1	76.2	191.0	307.3	669.3	760.1	793.5	828.3	892.4	921.8	927.2
57.5°	61.5	70.8	162.9	263.1	623.9	712.0	749.5	781.6	841.6	864.3	869.7
60°	57.5	66.8	141.6	225.8	574.5	666.6	698.7	730.8	781.6	800.2	804.3
62.5°	53.5	64.1	125.6	189.7	523.7	613.2	645.2	674.7	717.4	730.8	736.1
65°	50.8	61.5	113.5	162.9	471.6	557.1	589.1	614.5	649.3	662.6	665.3
67.5°	48.1	58.8	104.2	140.2	419.5	501.0	525.0	549.1	575.8	589.1	590.4
70°	44.1	56.1	96.2	124.2	366.0	436.8	456.9	482.3	503.7	510.4	514.3
72.5°	41.4	52.1	90.8	112.2	311.2	375.4	394.1	408.8	427.5	434.2	434.2
75°	37.4	46.7	85.5	100.2	255.2	307.3	323.3	337.9	352.7	355.4	351.4
77.5°	33.4	41.4	73.5	84.2	199.1	243.1	256.5	264.5	276.5	279.2	280.6
80°	28.1	36.1	57.5	65.4	144.3	179.0	188.3	195.0	205.8	205.8	208.4
82.5°	21.4	28.1	41.4	46.7	97.5	122.9	130.9	135.0	141.6	141.6	141.6
85°	13.3	17.3	26.7	30.7	58.8	74.8	80.2	81.5	86.9	88.1	88.1
87.5°	6.7	9.4	17.3	18.7	30.7	38.7	38.7	41.4	41.4	40.0	38.7
90°	4.1	7.4	10.7	11.5	18.0	26.8	31.2	27.7	20.8	15.6	15.6
92.5°	16.4	44.3	72.3	79.3	111.5	154.3	175.7	154.0	110.6	78.0	74.9
95°	39.4	90.5	141.6	154.4	274.1	433.8	513.6	458.4	347.8	264.8	255.5
97.5°	68.1	113.1	158.3	169.5	369.2	635.4	768.6	733.7	663.7	611.3	593.4
100°	90.3	131.2	172.0	182.3	403.9	699.3	847.0	849.6	854.7	858.5	837.1
102.5°	109.3	147.4	185.5	195.0	419.7	719.4	869.2	913.7	1002.8	1069.5	1051.3
105°	141.2	173.5	205.9	213.9	431.6	721.7	866.7	966.5	1166.2	1315.9	1306.1
107.5°	174.1	204.2	234.3	241.8	433.7	689.5	817.4	956.7	1235.1	1444.0	1446.4
110°	196.2	223.4	250.7	257.5	430.5	661.0	776.4	932.1	1243.3	1476.8	1487.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	218.0	243.9	269.8	276.3	430.6	636.2	739.0	898.3	1216.9	1455.9	1471.6
115°	250.9	274.8	298.7	304.7	434.6	607.8	694.3	847.8	1154.7	1384.8	1406.6
117.5°	283.3	305.0	326.7	332.2	442.6	589.8	663.4	802.0	1079.0	1286.7	1310.8
120°	302.2	322.6	343.1	348.2	449.2	583.9	651.2	777.7	1030.8	1220.6	1244.0
122.5°	320.6	341.2	361.8	367.0	458.6	580.7	641.7	755.7	983.6	1154.6	1177.7
125°	349.0	367.7	386.5	391.2	471.3	578.1	631.5	728.3	921.9	1067.1	1088.4
127.5°	372.0	390.9	409.9	414.6	484.1	576.6	622.8	706.0	872.2	996.9	1014.8
130°	384.3	404.7	425.2	430.3	493.3	577.5	619.5	693.5	841.5	952.5	969.1
132.5°	397.0	417.4	437.9	443.0	500.9	578.1	616.7	683.0	815.4	914.7	929.6
135°	415.9	434.6	453.1	457.8	509.1	577.5	611.7	667.2	778.2	861.3	874.2
137.5°	435.3	453.7	472.1	476.7	521.4	581.1	610.9	657.9	751.7	822.0	832.5
140°	451.2	468.2	485.2	489.4	529.0	581.7	608.1	648.6	729.6	790.3	800.1
142.5°	463.5	479.2	494.9	498.8	535.3	583.8	608.1	643.6	714.8	768.2	776.7
145°	482.5	496.1	509.9	513.2	543.5	583.9	604.0	633.1	691.3	734.9	741.3
147.5°	501.3	514.6	528.0	531.3	555.5	587.8	604.0	626.9	672.6	707.0	712.2
150°	513.6	525.7	537.7	540.7	561.8	589.9	604.0	623.3	662.0	691.0	695.3
152.5°	526.4	535.5	544.6	546.9	565.9	591.3	604.0	620.5	653.5	678.3	681.6
155°	545.2	552.0	558.8	560.4	575.0	594.3	604.0	617.1	643.3	663.0	665.2
157.5°	559.2	565.7	572.3	574.0	584.0	597.3	604.0	614.1	634.6	649.9	651.4
160°	568.6	573.8	578.9	580.2	588.1	598.7	604.0	612.7	630.2	643.3	644.2
162.5°	578.1	582.0	585.7	586.7	592.5	600.2	604.0	611.3	626.2	637.2	638.0
165°	588.3	591.8	595.2	596.1	598.7	602.2	604.0	609.3	619.8	627.8	628.7
167.5°	597.8	599.4	601.1	601.5	603.7	606.6	608.1	611.5	618.5	623.7	624.1
170°	604.0	605.6	607.3	607.7	607.8	608.0	608.1	611.5	618.5	623.7	623.7
172.5°	607.3	607.7	608.0	608.1	608.1	608.1	608.1	610.8	616.3	620.4	620.1
175°	611.7	611.7	611.7	611.7	610.5	608.9	608.1	609.8	613.2	615.8	615.8
177.5°	611.7	611.7	611.7	611.7	610.7	609.5	608.9	610.2	612.9	615.0	614.6
180°	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	415.4	415.4
2.5°	443.5	440.8
5°	570.4	573.1
7.5°	768.1	766.8
10°	955.2	967.2
12.5°	1091.4	1094.1
15°	1174.3	1179.7
17.5°	1206.4	1207.6
20°	1207.6	1205.0
22.5°	1193.0	1190.3
25°	1175.6	1174.3
27.5°	1159.5	1160.9
30°	1152.9	1157.0
32.5°	1152.9	1159.5
35°	1155.6	1162.2
37.5°	1154.3	1162.2
40°	1148.9	1158.2
42.5°	1134.2	1140.9
45°	1111.5	1119.5
47.5°	1082.1	1087.4
50°	1044.7	1050.1
52.5°	997.9	999.3
55°	941.8	947.2
57.5°	881.8	883.1
60°	814.9	818.9
62.5°	744.1	744.1
65°	669.3	672.0
67.5°	591.8	598.5
70°	513.0	514.3
72.5°	435.6	435.6
75°	355.4	356.7
77.5°	279.2	279.2
80°	207.1	208.4
82.5°	142.9	145.6
85°	89.5	89.5
87.5°	41.4	37.4
90°	15.6	15.6
92.5°	62.4	50.1
95°	217.8	180.3
97.5°	521.9	450.4
100°	752.0	666.7
102.5°	978.3	905.3
105°	1266.8	1227.6
107.5°	1455.9	1465.3
110°	1527.9	1568.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1534.3	1597.1
115°	1493.6	1580.7
117.5°	1407.4	1504.0
120°	1337.8	1431.7
122.5°	1270.2	1362.7
125°	1173.6	1258.8
127.5°	1086.7	1158.6
130°	1035.5	1102.0
132.5°	989.1	1048.6
135°	925.5	976.8
137.5°	874.5	916.4
140°	839.3	878.6
142.5°	810.3	844.1
145°	766.9	792.4
147.5°	733.5	754.7
150°	712.4	729.6
152.5°	694.5	707.5
155°	673.8	682.4
157.5°	657.5	663.4
160°	647.7	651.2
162.5°	641.3	644.6
165°	632.1	635.5
167.5°	625.5	627.0
170°	623.7	623.7
172.5°	618.8	617.5
175°	615.8	615.8
177.5°	613.2	611.7
180°	611.7	611.7

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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	2.79	3.64	3.78	4.65	5.99	15.97	16.82	16.96	17.83	19.17
	3H	3.49	4.26	4.50	5.27	6.64	17.81	18.57	18.81	19.59	20.95
	4H	3.79	4.51	4.81	5.54	6.90	18.45	19.18	19.47	20.20	21.57
	6H	4.04	4.71	5.07	5.73	7.12	18.88	19.55	19.91	20.58	21.96
	8H	4.11	4.74	5.14	5.79	7.16	19.00	19.64	20.03	20.68	22.06
	12H	4.12	4.73	5.16	5.77	7.17	19.07	19.67	20.11	20.71	22.11
4H	2H	10.00	10.73	11.03	11.75	13.12	16.24	16.96	17.26	17.99	19.36
	3H	11.57	12.18	12.60	13.23	14.61	18.29	18.89	19.32	19.94	21.32
	4H	11.66	12.22	12.70	13.26	14.67	19.05	19.61	20.09	20.65	22.05
	6H	11.67	12.15	12.72	13.22	14.62	19.59	20.07	20.64	21.14	22.54
	8H	11.65	12.10	12.70	13.16	14.57	19.75	20.20	20.80	21.26	22.67
	12H	11.61	12.01	12.68	13.08	14.51	19.85	20.25	20.91	21.32	22.74
8H	4H	13.11	13.56	14.16	14.61	16.03	19.11	19.56	20.16	20.62	22.03
	6H	13.35	13.72	14.42	14.82	16.23	19.74	20.11	20.81	21.21	22.62
	8H	13.37	13.69	14.45	14.78	16.21	19.96	20.29	21.04	21.37	22.80
	12H	13.33	13.62	14.42	14.70	16.17	20.10	20.39	21.19	21.47	22.94
12H	4H	13.25	13.66	14.32	14.73	16.15	19.06	19.47	20.13	20.54	21.96
	6H	13.61	13.93	14.69	15.02	16.45	19.72	20.05	20.80	21.13	22.57
	8H	13.68	13.96	14.76	15.04	16.52	19.95	20.24	21.04	21.32	22.79