

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: P938457

Luminaire Tested: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938457
REPORT IS A COMBINATION OF REPORTS P933631 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-93050-1D-UNV-STD-W-4-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

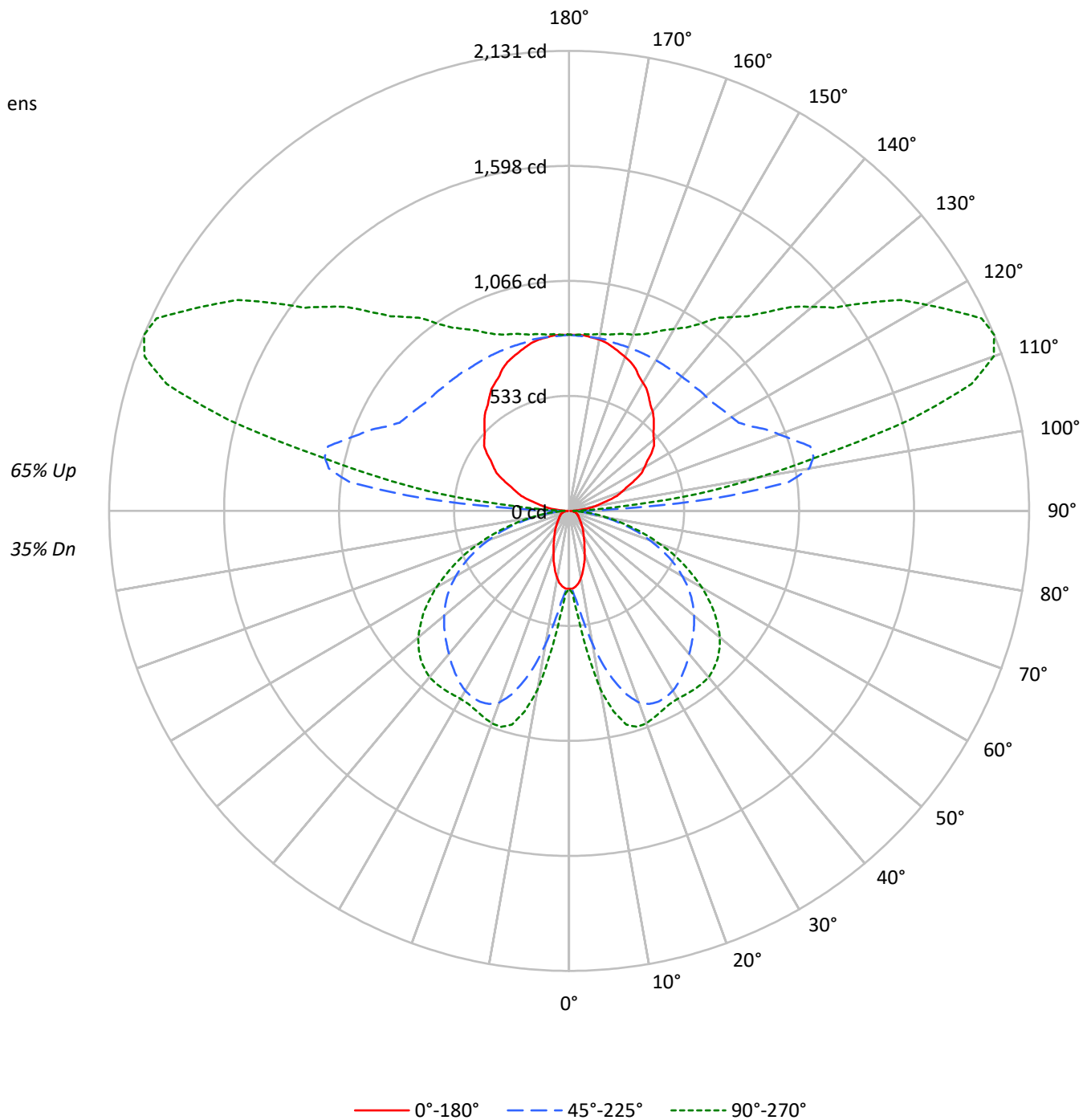
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8086.5 lumens
Efficiency: N/A
Efficacy: 111.7 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): 72.4
Input Voltage (V): NR
Input Current (A_{in}): 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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3349	3349	3349
5°	3269	3867	4502
10°	2962	5634	7463
15°	2514	7356	9011
20°	2044	8518	9184
25°	1703	8907	8998
30°	1434	8956	8980
35°	1266	8800	9213
40°	1101	8599	9453
45°	995	8450	9490
50°	911	8315	9333
55°	870	8120	8919
60°	888	7753	8266
65°	919	7200	7368
70°	972	6266	6225
75°	1066	5097	4858
80°	1137	3521	3272
85°	961	1858	1674

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9490 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	0.6
10°-20°	206.9	2.6
20°-30°	361.9	4.5
30°-40°	465.9	5.8
40°-50°	520.4	6.4
50°-60°	498.4	6.2
60°-70°	395.0	4.9
70°-80°	232.3	2.9
80°-90°	67.6	0.8
90°-100°	397.9	4.9
100°-110°	1046.0	12.9
110°-120°	1084.6	13.4
120°-130°	870.0	10.8
130°-140°	682.6	8.4
140°-150°	523.9	6.5
150°-160°	377.3	4.7
160°-170°	230.9	2.9
170°-180°	78.0	1.0
0°-30°	615.5	7.6
0°-40°	1081.5	13.4
0°-60°	2100.3	26.0
0°-90°	2795.2	34.6
90°-120°	2528.5	31.3
90°-150°	4605.1	56.9
90°-180°	5291.0	65.4
0°-180°	8086.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	361	361	361	361	361	
5°	352	377	425	480	498	32
15°	263	486	819	993	1025	73
25°	168	551	976	1019	1020	78
35°	114	527	919	971	1010	71
45°	78	420	812	931	972	60
55°	56	267	689	801	823	51
65°	44	142	512	576	584	44
75°	32	87	281	309	310	34
85°	12	27	70	77	78	12
90°	5	15	42	21	21	5
95°	53	206	685	353	240	58
105°	188	285	1156	1756	1638	200
115°	335	406	926	1848	2109	331
125°	466	522	843	1424	1680	413
135°	555	611	816	1149	1303	429
145°	644	685	806	980	1057	403
155°	728	748	806	885	910	334
165°	785	795	806	838	848	222
175°	816	816	811	822	822	77
180°	816	816	816	816	816	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	360.9	360.9	360.9	360.9	360.9	360.9	360.9	360.9	360.9	360.9	360.9
2.5°	360.9	360.9	363.3	364.4	366.7	367.9	370.2	372.5	379.5	380.7	382.9
5°	351.7	356.3	371.3	377.1	393.4	415.4	424.7	439.9	471.2	480.4	486.2
7.5°	337.7	348.2	385.3	394.6	435.2	493.3	517.6	550.1	600.0	624.4	644.1
10°	315.7	337.7	403.8	425.9	492.0	580.3	625.5	670.8	746.2	779.8	792.7
12.5°	291.3	327.3	423.6	453.7	548.9	677.8	732.3	782.2	868.1	913.3	920.3
15°	263.4	312.1	442.1	486.2	609.3	759.0	819.4	880.8	960.9	993.4	1001.5
17.5°	239.1	300.6	459.5	506.0	655.7	832.1	893.6	944.7	1009.7	1031.7	1037.5
20°	208.9	282.0	471.2	531.5	704.5	885.5	944.7	984.1	1028.2	1042.2	1044.5
22.5°	186.8	262.3	478.1	540.8	736.9	918.0	967.9	999.2	1029.4	1034.0	1035.2
25°	168.3	240.2	477.0	551.2	764.8	937.7	976.0	999.2	1016.6	1018.9	1018.9
27.5°	150.9	215.9	472.4	553.6	785.6	942.3	972.5	988.8	996.9	1001.5	1001.5
30°	135.8	192.6	460.8	548.9	795.0	937.7	962.1	970.2	978.3	985.3	988.8
32.5°	124.2	170.6	443.4	539.6	796.1	926.1	943.5	948.1	959.7	976.0	981.9
35°	113.7	148.5	423.6	526.9	789.2	907.5	919.1	923.8	947.0	971.4	979.5
37.5°	103.3	132.3	398.0	504.8	778.7	885.5	893.6	901.8	937.7	966.7	976.0
40°	92.8	118.4	367.9	480.4	762.5	858.8	865.7	878.6	926.1	959.7	969.0
42.5°	84.8	106.8	335.4	455.0	741.5	828.6	839.0	857.7	912.2	948.1	958.6
45°	77.7	95.1	300.6	420.1	714.8	797.3	812.3	837.9	896.0	930.7	940.0
47.5°	70.8	87.0	264.6	384.2	685.9	766.0	785.6	814.7	873.9	907.5	915.6
50°	65.0	79.0	228.6	345.9	654.5	732.3	755.5	785.6	846.1	877.3	887.8
52.5°	60.3	71.9	195.0	307.6	618.6	697.5	724.2	755.5	812.3	842.6	849.5
55°	55.7	66.1	166.0	266.9	581.4	660.3	689.4	719.5	775.3	800.7	805.4
57.5°	53.4	61.5	141.6	228.6	542.0	618.6	651.1	678.9	731.1	750.9	755.5
60°	49.9	58.1	123.0	196.1	499.1	579.1	607.0	634.8	678.9	695.2	698.6
62.5°	46.5	55.7	109.1	164.8	455.0	532.7	560.5	586.1	623.2	634.8	639.5
65°	44.1	53.4	98.6	141.6	409.6	483.9	511.8	533.8	564.0	575.6	577.9
67.5°	41.8	51.0	90.6	121.8	364.4	435.2	456.1	477.0	500.2	511.8	512.9
70°	38.3	48.7	83.5	107.9	317.9	379.5	396.9	418.9	437.5	443.4	446.8
72.5°	36.0	45.2	79.0	97.5	270.4	326.1	342.4	355.1	371.3	377.1	377.1
75°	32.5	40.6	74.3	87.0	221.7	266.9	280.9	293.6	306.4	308.7	305.2
77.5°	29.0	36.0	63.9	73.1	172.9	211.2	222.8	229.8	240.2	242.6	243.7
80°	24.3	31.4	49.9	56.8	125.3	155.5	163.6	169.4	178.7	178.7	181.0
82.5°	18.5	24.3	36.0	40.6	84.8	106.8	113.7	117.3	123.0	123.0	123.0
85°	11.6	15.1	23.2	26.7	51.0	65.0	69.6	70.8	75.4	76.6	76.6
87.5°	5.8	8.1	15.1	16.2	26.7	33.6	33.6	36.0	36.0	34.8	33.6
90°	5.4	9.8	14.2	15.4	24.2	35.8	41.6	37.0	27.8	20.8	20.8
92.5°	21.9	59.1	96.4	105.7	148.6	205.8	234.4	205.4	147.6	104.1	100.0
95°	52.6	120.8	188.9	206.0	365.7	578.8	685.3	611.6	464.0	353.3	340.8
97.5°	90.9	151.1	211.2	226.3	492.6	847.9	1025.5	978.9	885.6	815.7	791.8
100°	120.5	175.0	229.6	243.2	538.8	933.0	1130.1	1133.5	1140.4	1145.5	1117.0
102.5°	145.7	196.7	247.5	260.2	560.1	959.8	1159.7	1219.1	1337.9	1427.1	1402.7
105°	188.5	231.6	274.6	285.4	575.7	962.8	1156.4	1289.5	1555.9	1755.7	1742.6
107.5°	232.3	272.4	312.7	322.7	578.7	920.0	1090.7	1276.4	1648.0	1926.6	1929.8
110°	261.8	298.1	334.5	343.5	574.3	882.0	1035.9	1243.6	1658.9	1970.5	1984.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	290.9	325.5	360.1	368.7	574.5	848.9	986.1	1198.6	1623.7	1942.5	1963.4
115°	334.7	366.6	398.5	406.5	579.8	810.8	926.3	1131.1	1540.6	1847.8	1876.8
117.5°	378.0	407.0	436.0	443.2	590.6	787.0	885.2	1070.0	1439.6	1716.8	1749.0
120°	403.1	430.5	457.7	464.5	599.3	779.0	868.8	1037.6	1375.3	1628.6	1659.9
122.5°	427.8	455.3	482.9	489.7	611.9	774.8	856.3	1008.3	1312.4	1540.5	1571.3
125°	465.7	490.7	515.8	522.1	628.9	771.3	842.6	971.7	1230.0	1423.7	1452.2
127.5°	496.3	521.6	546.9	553.2	645.8	769.3	831.0	942.0	1163.7	1330.1	1354.1
130°	512.8	540.0	567.2	574.1	658.3	770.5	826.7	925.4	1122.8	1270.9	1293.0
132.5°	529.7	557.0	584.2	591.1	668.3	771.3	822.8	911.1	1088.0	1220.5	1240.3
135°	554.9	579.8	604.5	610.8	679.3	770.5	816.2	890.2	1038.2	1149.3	1166.4
137.5°	580.6	605.2	629.8	636.0	695.7	775.4	815.2	877.7	1002.8	1096.7	1110.7
140°	602.1	624.7	647.4	653.0	705.8	776.2	811.3	865.3	973.4	1054.5	1067.6
142.5°	618.5	639.4	660.3	665.6	714.1	778.9	811.3	858.8	953.7	1025.0	1036.2
145°	643.7	662.0	680.2	684.7	725.1	779.0	805.8	844.7	922.3	980.5	989.1
147.5°	668.8	686.7	704.4	708.9	741.2	784.3	805.8	836.4	897.4	943.3	950.3
150°	685.3	701.4	717.4	721.4	749.5	787.0	805.8	831.7	883.2	922.0	927.7
152.5°	702.3	714.5	726.6	729.7	755.1	788.9	805.8	827.9	872.0	905.0	909.3
155°	727.5	736.5	745.5	747.8	767.1	792.9	805.8	823.4	858.5	884.7	887.6
157.5°	746.1	754.9	763.6	765.8	779.1	797.0	805.8	819.5	846.7	867.1	869.2
160°	758.7	765.5	772.4	774.0	784.7	798.8	805.8	817.5	840.9	858.4	859.5
162.5°	771.3	776.4	781.5	782.8	790.5	800.7	805.8	815.7	835.4	850.2	851.2
165°	785.0	789.6	794.2	795.4	798.9	803.6	805.8	812.9	827.0	837.5	838.7
167.5°	797.6	799.8	802.0	802.5	805.4	809.4	811.3	815.9	825.2	832.1	832.6
170°	805.8	808.0	810.2	810.8	810.9	811.2	811.3	815.9	825.2	832.1	832.1
172.5°	810.2	810.7	811.2	811.3	811.3	811.3	811.3	815.0	822.3	827.7	827.3
175°	816.2	816.2	816.2	816.2	814.5	812.3	811.3	813.6	818.2	821.7	821.7
177.5°	816.2	816.2	816.2	816.2	815.0	813.3	812.4	814.3	817.9	820.6	820.1
180°	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2	816.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	360.9	360.9
2.5°	385.3	382.9
5°	495.5	497.9
7.5°	667.3	666.1
10°	829.8	840.2
12.5°	948.1	950.5
15°	1020.1	1024.7
17.5°	1048.0	1049.1
20°	1049.1	1046.8
22.5°	1036.4	1034.0
25°	1021.3	1020.1
27.5°	1007.3	1008.5
30°	1001.5	1005.0
32.5°	1001.5	1007.3
35°	1003.9	1009.7
37.5°	1002.7	1009.7
40°	998.1	1006.2
42.5°	985.3	991.1
45°	965.6	972.5
47.5°	940.0	944.7
50°	907.5	912.2
52.5°	866.9	868.1
55°	818.1	822.8
57.5°	766.0	767.1
60°	707.9	711.4
62.5°	646.4	646.4
65°	581.4	583.7
67.5°	514.2	520.0
70°	445.6	446.8
72.5°	378.4	378.4
75°	308.7	309.9
77.5°	242.6	242.6
80°	179.9	181.0
82.5°	124.2	126.5
85°	77.7	77.7
87.5°	36.0	32.5
90°	20.8	20.8
92.5°	83.4	66.8
95°	290.6	240.5
97.5°	696.4	600.9
100°	1003.4	889.6
102.5°	1305.3	1207.9
105°	1690.3	1637.9
107.5°	1942.5	1955.1
110°	2038.6	2093.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2047.2	2130.9
115°	1993.0	2109.1
117.5°	1877.8	2006.6
120°	1785.1	1910.2
122.5°	1694.8	1818.2
125°	1565.8	1679.6
127.5°	1450.0	1545.9
130°	1381.7	1470.3
132.5°	1319.6	1399.0
135°	1234.8	1303.2
137.5°	1166.7	1222.7
140°	1119.9	1172.3
142.5°	1081.3	1126.2
145°	1023.2	1057.3
147.5°	978.6	1006.9
150°	950.6	973.4
152.5°	926.6	943.8
155°	899.0	910.4
157.5°	877.2	885.2
160°	864.2	868.8
162.5°	855.6	860.0
165°	843.3	848.0
167.5°	834.6	836.5
170°	832.1	832.1
172.5°	825.6	823.9
175°	821.7	821.7
177.5°	818.1	816.2
180°	816.2	816.2



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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	3.58	4.35	4.66	5.42	6.90	16.72	17.48	17.79	18.56	20.03
	3H	4.28	4.96	5.36	6.05	7.54	18.54	19.22	19.62	20.31	21.80
	4H	4.57	5.22	5.67	6.31	7.81	19.17	19.82	20.26	20.91	22.40
	6H	4.82	5.42	5.92	6.51	8.02	19.58	20.18	20.68	21.27	22.78
	8H	4.88	5.45	5.99	6.56	8.06	19.69	20.26	20.80	21.37	22.87
	12H	4.90	5.44	6.01	6.54	8.07	19.75	20.29	20.86	21.39	22.92
4H	2H	10.76	11.41	11.86	12.50	14.00	16.98	17.63	18.08	18.72	20.22
	3H	12.32	12.86	13.43	13.98	15.49	19.01	19.55	20.11	20.66	22.17
	4H	12.41	12.91	13.52	14.02	15.55	19.76	20.26	20.87	21.36	22.89
	6H	12.42	12.85	13.54	13.97	15.50	20.28	20.71	21.40	21.84	23.36
	8H	12.39	12.79	13.51	13.91	15.45	20.43	20.83	21.55	21.95	23.49
	12H	12.34	12.71	13.48	13.84	15.38	20.51	20.88	21.65	22.01	23.55
8H	4H	13.84	14.24	14.96	15.36	16.90	19.81	20.21	20.93	21.33	22.87
	6H	14.08	14.41	15.22	15.57	17.10	20.42	20.75	21.56	21.92	23.45
	8H	14.09	14.38	15.24	15.52	17.08	20.63	20.92	21.78	22.07	23.62
	12H	14.06	14.31	15.21	15.45	17.04	20.76	21.02	21.92	22.16	23.75
12H	4H	13.97	14.34	15.11	15.47	17.01	19.76	20.12	20.90	21.25	22.80
	6H	14.33	14.62	15.48	15.76	17.32	20.41	20.70	21.55	21.84	23.39
	8H	14.39	14.65	15.55	15.79	17.38	20.62	20.88	21.77	22.02	23.61