

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: P938434

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938434
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-92765-1D-UNV-STD-W-4-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

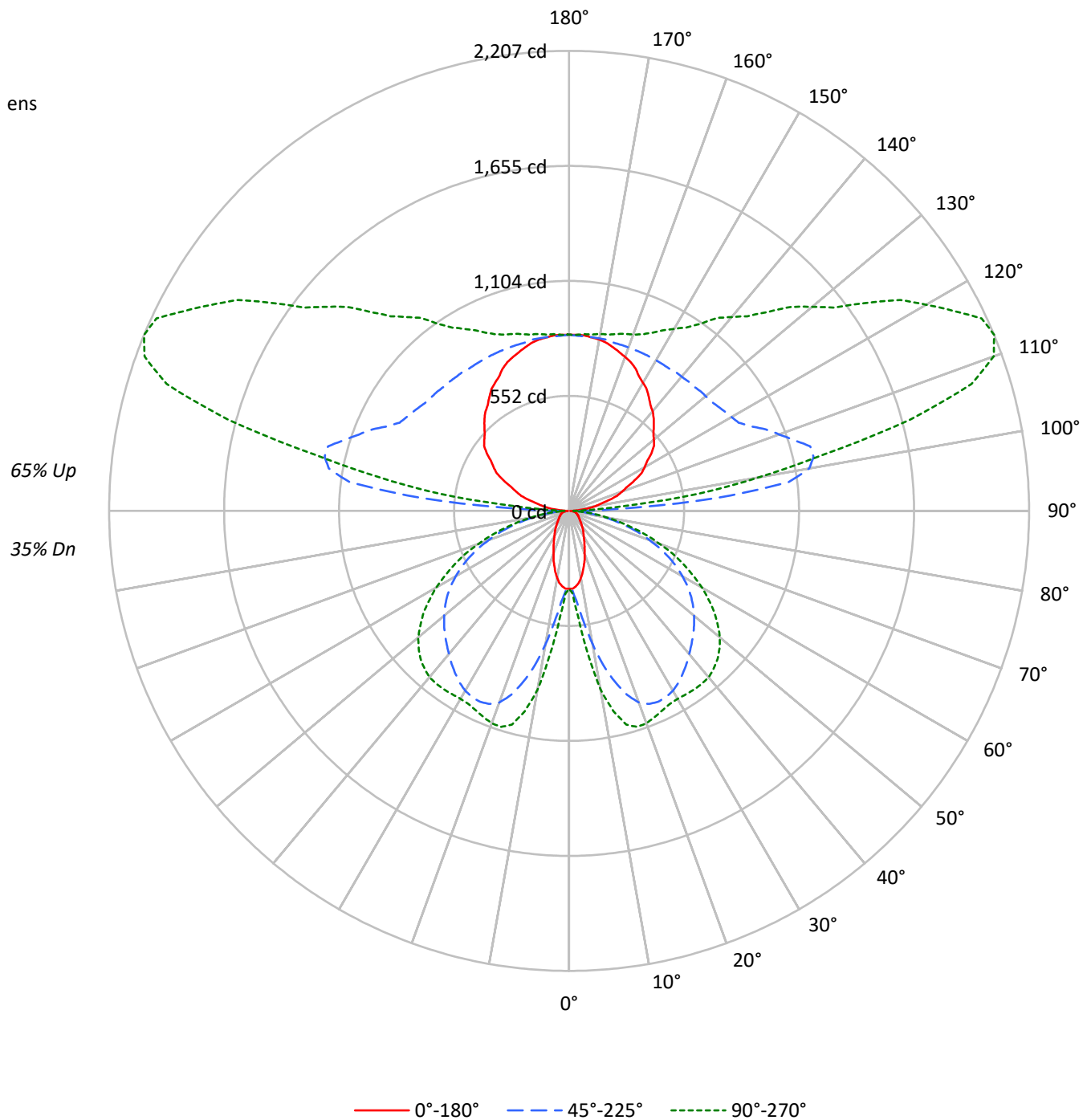
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8375.1 lumens
Efficiency: N/A
Efficacy: 115.7 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 (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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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-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	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°	3469	3469	3469
5°	3385	4006	4663
10°	3067	5835	7729
15°	2603	7618	9333
20°	2117	8822	9511
25°	1764	9224	9319
30°	1485	9276	9301
35°	1311	9114	9542
40°	1140	8906	9790
45°	1031	8752	9828
50°	943	8612	9666
55°	901	8410	9236
60°	920	8030	8561
65°	952	7456	7630
70°	1008	6490	6446
75°	1105	5278	5031
80°	1179	3648	3390
85°	994	1924	1734

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	0.6
10°-20°	214.3	2.6
20°-30°	374.8	4.5
30°-40°	482.5	5.8
40°-50°	539.0	6.4
50°-60°	516.2	6.2
60°-70°	409.1	4.9
70°-80°	240.6	2.9
80°-90°	70.1	0.8
90°-100°	412.1	4.9
100°-110°	1083.4	12.9
110°-120°	1123.3	13.4
120°-130°	901.0	10.8
130°-140°	707.0	8.4
140°-150°	542.6	6.5
150°-160°	390.8	4.7
160°-170°	239.1	2.9
170°-180°	80.8	1.0
0°-30°	637.5	7.6
0°-40°	1120.0	13.4
0°-60°	2175.2	26.0
0°-90°	2895.0	34.6
90°-120°	2618.8	31.3
90°-150°	4769.4	56.9
90°-180°	5480.0	65.4
0°-180°	8375.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	364	391	440	498	516	34
15°	273	504	849	1029	1061	76
25°	174	571	1011	1055	1056	80
35°	118	546	952	1006	1046	74
45°	80	435	841	964	1007	62
55°	58	276	714	829	852	53
65°	46	147	530	596	604	45
75°	34	90	291	320	321	35
85°	12	28	72	79	80	13
90°	6	16	43	22	22	5
95°	54	213	710	366	249	60
105°	195	296	1198	1818	1696	207
115°	347	421	959	1914	2184	342
125°	482	541	873	1474	1740	428
135°	575	633	845	1190	1350	445
145°	667	709	835	1016	1095	418
155°	754	774	835	916	943	346
165°	813	824	835	867	878	229
175°	845	845	840	851	851	80
180°	845	845	845	845	845	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8	373.8
2.5°	373.8	373.8	376.2	377.4	379.8	381.0	383.4	385.8	393.1	394.2	396.6
5°	364.2	369.0	384.6	390.6	407.4	430.3	439.9	455.5	488.0	497.6	503.6
7.5°	349.8	360.6	399.1	408.7	450.7	510.9	536.0	569.7	621.4	646.7	667.0
10°	326.9	349.8	418.3	441.1	509.6	601.0	647.8	694.7	772.8	807.7	820.9
12.5°	301.7	338.9	438.7	469.9	568.5	702.0	758.5	810.1	899.1	945.9	953.1
15°	272.8	323.3	457.9	503.6	631.0	786.1	848.6	912.3	995.2	1028.9	1037.3
17.5°	247.6	311.3	475.9	524.0	679.1	861.8	925.5	978.4	1045.7	1068.6	1074.6
20°	216.3	292.1	488.0	550.5	729.6	917.1	978.4	1019.2	1064.9	1079.4	1081.7
22.5°	193.5	271.6	495.2	560.1	763.2	950.8	1002.4	1034.9	1066.1	1070.9	1072.1
25°	174.3	248.8	494.0	570.9	792.1	971.1	1010.8	1034.9	1052.9	1055.3	1055.3
27.5°	156.3	223.6	489.2	573.3	813.7	975.9	1007.2	1024.1	1032.4	1037.3	1037.3
30°	140.6	199.5	477.2	568.5	823.3	971.1	996.4	1004.8	1013.2	1020.4	1024.1
32.5°	128.6	176.7	459.2	558.9	824.5	959.1	977.1	982.0	994.0	1010.8	1016.9
35°	117.8	153.8	438.7	545.7	817.3	939.9	951.9	956.8	980.8	1006.1	1014.4
37.5°	107.0	137.0	412.2	522.9	806.5	917.1	925.5	933.9	971.1	1001.2	1010.8
40°	96.1	122.6	381.0	497.6	789.7	889.4	896.6	909.9	959.1	994.0	1003.6
42.5°	87.8	110.6	347.4	471.2	768.0	858.2	869.0	888.3	944.7	982.0	992.8
45°	80.5	98.5	311.3	435.1	740.4	825.8	841.3	867.8	927.9	963.9	973.6
47.5°	73.3	90.1	274.1	397.9	710.3	793.3	813.7	843.8	905.1	939.9	948.3
50°	67.3	81.8	236.8	358.2	677.9	758.5	782.5	813.7	876.3	908.6	919.5
52.5°	62.5	74.5	201.9	318.6	640.7	722.3	750.0	782.5	841.3	872.6	879.8
55°	57.7	68.5	171.9	276.4	602.2	683.9	714.0	745.2	802.9	829.3	834.1
57.5°	55.3	63.7	146.6	236.8	561.3	640.7	674.3	703.1	757.2	777.6	782.5
60°	51.7	60.1	127.4	203.1	516.9	599.7	628.7	657.5	703.1	720.0	723.5
62.5°	48.1	57.7	113.0	170.6	471.2	551.7	580.5	607.0	645.5	657.5	662.3
65°	45.7	55.3	102.2	146.6	424.3	501.2	530.0	552.9	584.2	596.2	598.5
67.5°	43.3	52.8	93.8	126.2	377.4	450.7	472.4	494.0	518.0	530.0	531.2
70°	39.7	50.5	86.5	111.8	329.3	393.1	411.1	433.9	453.1	459.2	462.7
72.5°	37.3	46.8	81.8	101.0	280.1	337.7	354.6	367.8	384.6	390.6	390.6
75°	33.7	42.0	77.0	90.1	229.6	276.4	290.9	304.1	317.3	319.7	316.1
77.5°	30.0	37.3	66.1	75.7	179.1	218.8	230.8	238.0	248.8	251.2	252.4
80°	25.2	32.5	51.7	58.9	129.8	161.1	169.5	175.5	185.1	185.1	187.5
82.5°	19.2	25.2	37.3	42.0	87.8	110.6	117.8	121.4	127.4	127.4	127.4
85°	12.0	15.6	24.0	27.7	52.8	67.3	72.1	73.3	78.1	79.3	79.3
87.5°	6.0	8.4	15.6	16.8	27.7	34.8	34.8	37.3	37.3	36.0	34.8
90°	5.6	10.2	14.7	15.9	25.0	37.1	43.1	38.3	28.7	21.6	21.6
92.5°	22.6	61.2	99.9	109.5	153.9	213.1	242.8	212.8	152.8	107.8	103.5
95°	54.5	125.1	195.7	213.3	378.8	599.5	709.8	633.4	480.6	365.9	352.9
97.5°	94.1	156.5	218.8	234.3	510.2	878.2	1062.1	1013.8	917.2	844.8	820.0
100°	124.8	181.3	237.8	251.9	558.1	966.3	1170.4	1174.0	1181.1	1186.3	1156.9
102.5°	150.9	203.7	256.3	269.5	580.1	994.1	1201.1	1262.6	1385.7	1478.0	1452.8
105°	195.2	239.9	284.4	295.6	596.3	997.1	1197.6	1335.5	1611.4	1818.4	1804.8
107.5°	240.6	282.2	323.8	334.2	599.4	952.8	1129.6	1322.0	1706.8	1995.4	1998.7
110°	271.2	308.7	346.4	355.8	594.8	913.5	1072.8	1288.0	1718.1	2040.8	2054.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	301.3	337.1	373.0	381.9	595.0	879.2	1021.2	1241.4	1681.6	2011.8	2033.5
115°	346.7	379.7	412.7	421.0	600.5	839.8	959.4	1171.4	1595.6	1913.7	1943.8
117.5°	391.5	421.5	451.5	459.0	611.6	815.1	916.8	1108.2	1491.0	1778.1	1811.5
120°	417.5	445.8	474.0	481.1	620.6	806.8	899.8	1074.6	1424.4	1686.7	1719.1
122.5°	443.1	471.6	500.1	507.2	633.7	802.5	886.8	1044.3	1359.2	1595.4	1627.3
125°	482.3	508.2	534.2	540.7	651.3	798.8	872.6	1006.3	1273.9	1474.5	1504.0
127.5°	514.0	540.2	566.4	573.0	668.9	796.8	860.7	975.6	1205.3	1377.6	1402.4
130°	531.0	559.2	587.4	594.5	681.8	798.0	856.2	958.4	1162.9	1316.2	1339.2
132.5°	548.6	576.9	605.1	612.2	692.1	798.8	852.1	943.7	1126.8	1264.0	1284.6
135°	574.7	600.5	626.1	632.6	703.5	798.0	845.3	922.0	1075.3	1190.3	1208.0
137.5°	601.4	626.8	652.3	658.7	720.5	803.0	844.2	909.0	1038.6	1135.9	1150.3
140°	623.6	647.0	670.5	676.3	731.0	803.8	840.2	896.2	1008.2	1092.1	1105.7
142.5°	640.6	662.2	683.9	689.3	739.6	806.7	840.2	889.4	987.8	1061.5	1073.2
145°	666.7	685.6	704.4	709.2	751.0	806.8	834.6	874.8	955.2	1015.5	1024.3
147.5°	692.7	711.2	729.5	734.2	767.6	812.3	834.6	866.2	929.5	977.0	984.2
150°	709.8	726.4	743.0	747.2	776.3	815.1	834.6	861.3	914.7	954.8	960.8
152.5°	727.3	740.0	752.5	755.7	782.0	817.0	834.6	857.4	903.1	937.3	941.7
155°	753.5	762.8	772.1	774.5	794.5	821.2	834.6	852.8	889.1	916.3	919.3
157.5°	772.7	781.8	790.8	793.1	806.9	825.4	834.6	848.7	876.9	898.1	900.2
160°	785.7	792.8	799.9	801.7	812.7	827.3	834.6	846.7	870.9	889.0	890.2
162.5°	798.8	804.1	809.4	810.8	818.7	829.3	834.6	844.8	865.2	880.5	881.6
165°	813.0	817.8	822.6	823.8	827.4	832.2	834.6	841.9	856.5	867.4	868.6
167.5°	826.0	828.3	830.6	831.1	834.1	838.2	840.2	845.1	854.6	861.8	862.3
170°	834.6	836.9	839.1	839.7	839.9	840.1	840.2	845.1	854.6	861.8	861.8
172.5°	839.1	839.6	840.1	840.2	840.2	840.2	840.2	844.1	851.6	857.2	856.8
175°	845.3	845.3	845.3	845.3	843.6	841.3	840.2	842.6	847.4	851.1	851.1
177.5°	845.3	845.3	845.3	845.3	844.1	842.3	841.4	843.3	847.1	849.9	849.3
180°	845.3	845.3	845.3	845.3	845.3	845.3	845.3	845.3	845.3	845.3	845.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	373.8	373.8
2.5°	399.1	396.6
5°	513.2	515.7
7.5°	691.1	689.9
10°	859.4	870.2
12.5°	982.0	984.4
15°	1056.5	1061.3
17.5°	1085.4	1086.6
20°	1086.6	1084.1
22.5°	1073.4	1070.9
25°	1057.7	1056.5
27.5°	1043.3	1044.4
30°	1037.3	1040.9
32.5°	1037.3	1043.3
35°	1039.7	1045.7
37.5°	1038.4	1045.7
40°	1033.7	1042.1
42.5°	1020.4	1026.4
45°	1000.1	1007.2
47.5°	973.6	978.4
50°	939.9	944.7
52.5°	897.8	899.1
55°	847.3	852.1
57.5°	793.3	794.5
60°	733.2	736.8
62.5°	669.5	669.5
65°	602.2	604.5
67.5°	532.5	538.5
70°	461.5	462.7
72.5°	391.9	391.9
75°	319.7	320.9
77.5°	251.2	251.2
80°	186.3	187.5
82.5°	128.6	131.0
85°	80.5	80.5
87.5°	37.3	33.7
90°	21.6	21.6
92.5°	86.3	69.2
95°	301.0	249.1
97.5°	721.3	622.4
100°	1039.2	921.4
102.5°	1351.9	1251.0
105°	1750.6	1696.4
107.5°	2011.8	2024.9
110°	2111.4	2167.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2120.3	2207.0
115°	2064.1	2184.3
117.5°	1944.8	2078.2
120°	1848.7	1978.4
122.5°	1755.2	1883.0
125°	1621.7	1739.5
127.5°	1501.7	1601.1
130°	1430.9	1522.7
132.5°	1366.7	1449.0
135°	1278.9	1349.7
137.5°	1208.4	1266.3
140°	1159.9	1214.1
142.5°	1119.9	1166.4
145°	1059.7	1095.0
147.5°	1013.5	1042.8
150°	984.5	1008.2
152.5°	959.7	977.5
155°	931.1	942.9
157.5°	908.5	916.8
160°	895.0	899.8
162.5°	886.2	890.7
165°	873.4	878.3
167.5°	864.3	866.3
170°	861.8	861.8
172.5°	855.1	853.3
175°	851.1	851.1
177.5°	847.3	845.3
180°	845.3	845.3



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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	3.70	4.46	4.78	5.54	7.02	16.84	17.61	17.92	18.68	20.16
	3H	4.40	5.08	5.48	6.17	7.66	18.66	19.34	19.74	20.43	21.92
	4H	4.69	5.34	5.79	6.43	7.93	19.29	19.94	20.38	21.03	22.52
	6H	4.94	5.54	6.04	6.63	8.14	19.70	20.30	20.81	21.39	22.90
	8H	5.01	5.57	6.11	6.68	8.19	19.81	20.38	20.92	21.49	22.99
	12H	5.02	5.56	6.13	6.66	8.19	19.87	20.41	20.98	21.51	23.04
4H	2H	10.88	11.53	11.98	12.62	14.12	17.11	17.76	18.21	18.84	20.34
	3H	12.44	12.99	13.55	14.10	15.61	19.13	19.67	20.24	20.79	22.30
	4H	12.53	13.03	13.65	14.14	15.67	19.88	20.38	20.99	21.48	23.01
	6H	12.54	12.97	13.66	14.10	15.62	20.40	20.83	21.52	21.96	23.48
	8H	12.51	12.91	13.63	14.03	15.57	20.55	20.95	21.67	22.07	23.61
	12H	12.46	12.83	13.60	13.96	15.50	20.63	21.00	21.77	22.13	23.67
8H	4H	13.96	14.36	15.08	15.48	17.02	19.93	20.33	21.05	21.45	22.99
	6H	14.20	14.53	15.34	15.69	17.23	20.54	20.88	21.69	22.04	23.57
	8H	14.21	14.50	15.36	15.65	17.20	20.76	21.05	21.90	22.19	23.74
	12H	14.18	14.43	15.33	15.57	17.16	20.89	21.14	22.04	22.28	23.87
12H	4H	14.09	14.46	15.23	15.59	17.13	19.88	20.24	21.02	21.38	22.92
	6H	14.45	14.74	15.60	15.88	17.44	20.53	20.82	21.67	21.96	23.52
	8H	14.52	14.77	15.67	15.91	17.50	20.74	21.00	21.90	22.14	23.73