

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: P938431

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938431
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-4-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

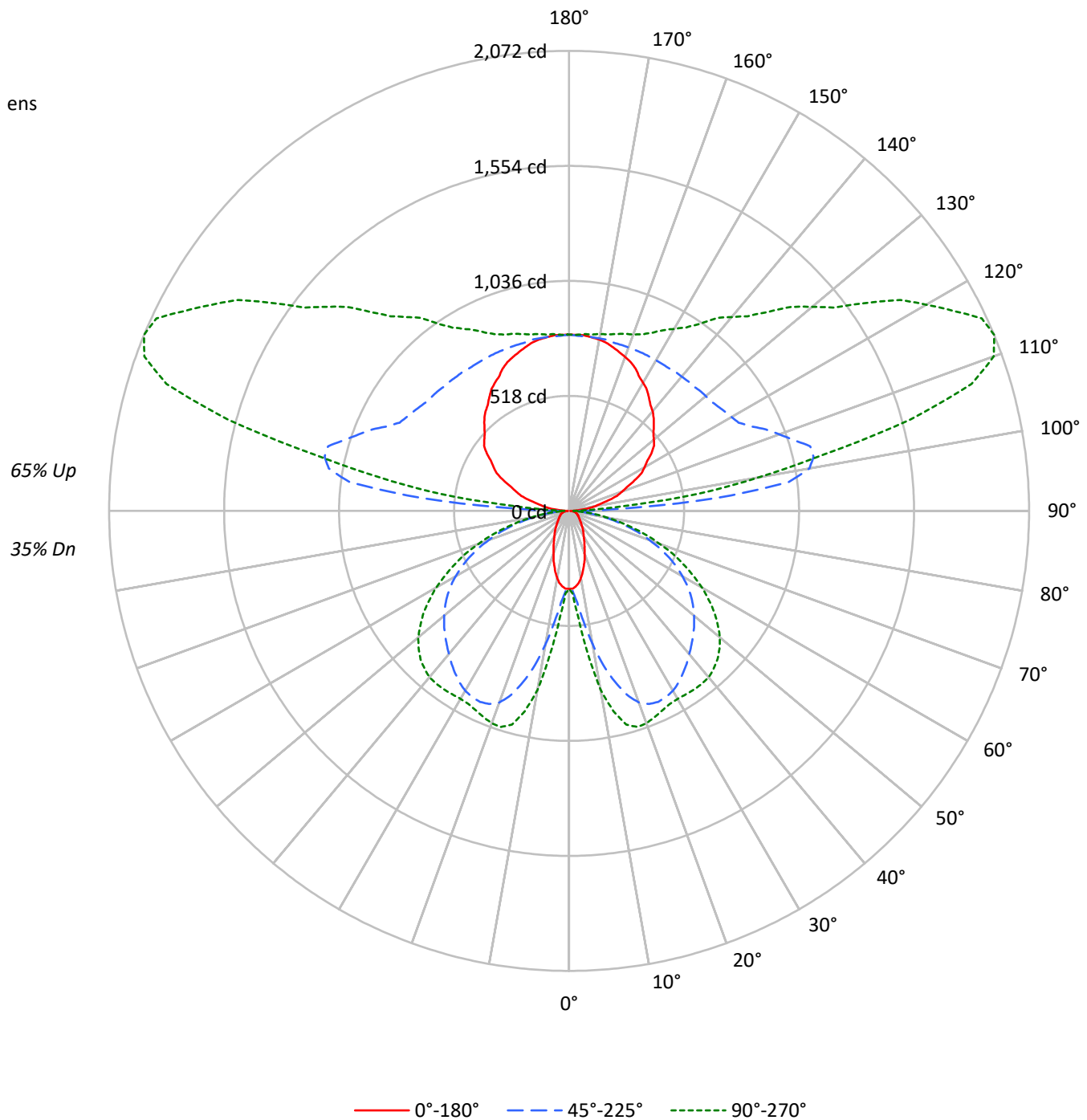
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7864.0 lumens
Efficiency: N/A
Efficacy: 108.6 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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CATALOG NUMBER: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-4-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P938431

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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	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°	3257	3257	3257
5°	3179	3762	4378
10°	2880	5479	7258
15°	2445	7153	8763
20°	1987	8284	8931
25°	1657	8661	8751
30°	1394	8710	8734
35°	1231	8558	8960
40°	1071	8363	9193
45°	968	8218	9229
50°	886	8086	9076
55°	847	7897	8673
60°	863	7540	8038
65°	894	7001	7166
70°	944	6094	6053
75°	1036	4957	4724
80°	1109	3424	3182
85°	936	1807	1629

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	0.6
10°-20°	201.2	2.6
20°-30°	352.0	4.5
30°-40°	453.1	5.8
40°-50°	506.1	6.4
50°-60°	484.7	6.2
60°-70°	384.1	4.9
70°-80°	225.9	2.9
80°-90°	65.8	0.8
90°-100°	386.9	4.9
100°-110°	1017.2	12.9
110°-120°	1054.8	13.4
120°-130°	846.0	10.8
130°-140°	663.8	8.4
140°-150°	509.5	6.5
150°-160°	367.0	4.7
160°-170°	224.5	2.9
170°-180°	75.9	1.0
0°-30°	598.6	7.6
0°-40°	1051.7	13.4
0°-60°	2042.5	26.0
0°-90°	2718.3	34.6
90°-120°	2458.9	31.3
90°-150°	4478.3	56.9
90°-180°	5146.0	65.4
0°-180°	7864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	351	351	351	351	351	
5°	342	367	413	467	484	32
15°	256	473	797	966	996	71
25°	164	536	949	991	992	75
35°	111	512	894	945	982	69
45°	76	408	790	905	946	58
55°	54	260	670	779	800	49
65°	43	138	498	560	568	43
75°	32	85	273	300	301	33
85°	11	26	68	74	76	12
90°	5	15	40	20	20	5
95°	51	200	666	344	234	57
105°	183	278	1124	1707	1593	194
115°	326	395	901	1797	2051	321
125°	453	508	819	1384	1633	402
135°	540	594	794	1118	1267	418
145°	626	666	784	954	1028	392
155°	708	727	784	860	885	325
165°	763	774	784	814	825	215
175°	794	794	789	799	799	75
180°	794	794	794	794	794	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
2.5°	351.0	351.0	353.3	354.4	356.6	357.8	360.0	362.2	369.1	370.2	372.4
5°	342.0	346.5	361.1	366.8	382.6	404.0	413.1	427.7	458.2	467.2	472.8
7.5°	328.4	338.6	374.7	383.8	423.2	479.7	503.3	534.9	583.5	607.2	626.3
10°	307.0	328.4	392.7	414.2	478.5	564.3	608.3	652.3	725.7	758.4	770.9
12.5°	283.3	318.2	411.9	441.2	533.8	659.1	712.2	760.7	844.2	888.2	895.0
15°	256.2	303.6	430.0	472.8	592.5	738.1	796.8	856.6	934.5	966.1	974.0
17.5°	232.5	292.3	446.9	492.1	637.7	809.2	869.0	918.7	981.9	1003.3	1009.0
20°	203.1	274.3	458.2	516.9	685.1	861.1	918.7	957.1	999.9	1013.5	1015.7
22.5°	181.7	255.0	465.0	525.9	716.6	892.7	941.2	971.7	1001.0	1005.6	1006.7
25°	163.7	233.6	463.9	536.1	743.8	911.9	949.1	971.7	988.7	990.9	990.9
27.5°	146.7	209.9	459.4	538.4	764.0	916.4	945.8	961.6	969.4	974.0	974.0
30°	132.0	187.3	448.1	533.8	773.1	911.9	935.6	943.5	951.4	958.2	961.6
32.5°	120.8	165.9	431.2	524.8	774.2	900.6	917.5	922.0	933.3	949.1	954.8
35°	110.6	144.4	411.9	512.4	767.4	882.6	893.8	898.4	920.9	944.7	952.5
37.5°	100.4	128.6	387.1	491.0	757.3	861.1	869.0	876.9	911.9	940.1	949.1
40°	90.3	115.1	357.8	467.2	741.5	835.2	841.9	854.4	900.6	933.3	942.4
42.5°	82.4	103.9	326.2	442.4	721.1	805.8	815.9	834.1	887.1	922.0	932.2
45°	75.6	92.5	292.3	408.5	695.2	775.4	790.0	814.8	871.3	905.1	914.2
47.5°	68.8	84.6	257.3	373.6	667.0	744.9	764.0	792.3	849.9	882.6	890.4
50°	63.2	76.8	222.3	336.4	636.5	712.2	734.7	764.0	822.8	853.2	863.4
52.5°	58.7	70.0	189.6	299.1	601.6	678.3	704.2	734.7	790.0	819.4	826.1
55°	54.2	64.3	161.4	259.6	565.4	642.1	670.4	699.7	753.9	778.7	783.2
57.5°	51.9	59.8	137.7	222.3	527.1	601.6	633.2	660.2	711.0	730.2	734.7
60°	48.5	56.5	119.7	190.7	485.3	563.1	590.3	617.4	660.2	676.0	679.4
62.5°	45.2	54.2	106.1	160.2	442.4	518.0	545.1	570.0	606.1	617.4	621.9
65°	42.9	51.9	95.9	137.7	398.4	470.6	497.7	519.1	548.5	559.8	562.0
67.5°	40.7	49.6	88.1	118.5	354.4	423.2	443.5	463.9	486.4	497.7	498.8
70°	37.2	47.4	81.2	105.0	309.2	369.1	386.0	407.4	425.4	431.2	434.5
72.5°	35.0	44.0	76.8	94.8	263.0	317.1	332.9	345.3	361.1	366.8	366.8
75°	31.6	39.5	72.3	84.6	215.6	259.6	273.2	285.5	297.9	300.2	296.8
77.5°	28.2	35.0	62.1	71.1	168.2	205.4	216.7	223.4	233.6	235.9	237.0
80°	23.7	30.5	48.5	55.3	121.9	151.3	159.1	164.8	173.8	173.8	176.0
82.5°	18.0	23.7	35.0	39.5	82.4	103.9	110.6	114.0	119.7	119.7	119.7
85°	11.3	14.7	22.5	26.0	49.6	63.2	67.7	68.8	73.4	74.5	74.5
87.5°	5.6	7.9	14.7	15.8	26.0	32.7	32.7	35.0	35.0	33.8	32.7
90°	5.3	9.6	13.8	14.9	23.5	34.8	40.5	36.0	27.0	20.2	20.2
92.5°	21.3	57.5	93.8	102.8	144.5	200.1	228.0	199.8	143.5	101.2	97.2
95°	51.2	117.4	183.7	200.3	355.7	562.9	666.5	594.7	451.2	343.6	331.4
97.5°	88.4	146.9	205.4	220.0	479.1	824.6	997.3	951.9	861.2	793.2	770.0
100°	117.2	170.2	223.3	236.5	524.0	907.3	1099.0	1102.3	1109.0	1114.0	1086.3
102.5°	141.7	191.2	240.7	253.1	544.7	933.4	1127.8	1185.5	1301.1	1387.8	1364.1
105°	183.3	225.2	267.1	277.6	559.9	936.3	1124.5	1254.0	1513.1	1707.4	1694.7
107.5°	225.9	265.0	304.1	313.8	562.8	894.7	1060.7	1241.3	1602.6	1873.6	1876.7
110°	254.6	289.9	325.3	334.0	558.5	857.7	1007.4	1209.4	1613.3	1916.2	1929.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	282.9	316.5	350.2	358.6	558.7	825.5	958.9	1165.6	1579.0	1889.1	1909.4
115°	325.5	356.5	387.5	395.3	563.8	788.5	900.8	1099.9	1498.2	1796.9	1825.2
117.5°	367.6	395.8	424.0	431.0	574.3	765.4	860.9	1040.6	1400.0	1669.6	1700.9
120°	392.0	418.6	445.1	451.7	582.8	757.5	844.9	1009.1	1337.5	1583.8	1614.2
122.5°	416.0	442.8	469.6	476.3	595.1	753.5	832.7	980.5	1276.2	1498.1	1528.0
125°	452.9	477.2	501.6	507.7	611.6	750.1	819.4	944.9	1196.1	1384.5	1412.2
127.5°	482.7	507.3	531.9	538.0	628.0	748.1	808.2	916.1	1131.7	1293.5	1316.8
130°	498.6	525.1	551.6	558.3	640.2	749.3	803.9	899.9	1091.9	1235.9	1257.4
132.5°	515.1	541.7	568.2	574.8	649.9	750.1	800.1	886.1	1058.0	1186.9	1206.2
135°	539.6	563.8	587.9	594.0	660.6	749.3	793.7	865.7	1009.7	1117.6	1134.3
137.5°	564.7	588.6	612.5	618.5	676.6	754.0	792.7	853.5	975.2	1066.5	1080.1
140°	585.5	607.5	629.6	635.0	686.4	754.8	789.0	841.5	946.6	1025.5	1038.2
142.5°	601.5	621.8	642.1	647.3	694.5	757.4	789.0	835.2	927.5	996.8	1007.7
145°	626.0	643.8	661.4	665.9	705.2	757.5	783.7	821.4	896.9	953.5	961.8
147.5°	650.4	667.8	685.0	689.4	720.8	762.7	783.7	813.4	872.7	917.3	924.2
150°	666.5	682.1	697.7	701.6	728.9	765.4	783.7	808.8	858.9	896.6	902.1
152.5°	683.0	694.8	706.6	709.6	734.3	767.2	783.7	805.1	848.0	880.1	884.3
155°	707.5	716.3	725.0	727.2	746.0	771.1	783.7	800.7	834.8	860.4	863.2
157.5°	725.6	734.1	742.6	744.7	757.7	775.0	783.7	796.9	823.4	843.3	845.2
160°	737.8	744.5	751.1	752.7	763.1	776.8	783.7	795.0	817.7	834.7	835.8
162.5°	750.1	755.0	760.0	761.3	768.7	778.7	783.7	793.2	812.4	826.8	827.8
165°	763.4	767.9	772.4	773.5	776.9	781.4	783.7	790.5	804.2	814.5	815.6
167.5°	775.6	777.8	779.9	780.4	783.2	787.1	789.0	793.5	802.5	809.2	809.7
170°	783.7	785.8	787.9	788.4	788.6	788.9	789.0	793.5	802.5	809.2	809.2
172.5°	787.9	788.4	788.9	789.0	789.0	789.0	789.0	792.5	799.6	804.9	804.5
175°	793.7	793.7	793.7	793.7	792.1	790.0	789.0	791.2	795.7	799.1	799.1
177.5°	793.7	793.7	793.7	793.7	792.5	790.9	790.1	791.9	795.4	798.0	797.5
180°	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7	793.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	351.0	351.0
2.5°	374.7	372.4
5°	481.9	484.2
7.5°	649.0	647.8
10°	807.0	817.1
12.5°	922.0	924.3
15°	992.1	996.5
17.5°	1019.1	1020.3
20°	1020.3	1017.9
22.5°	1007.9	1005.6
25°	993.2	992.1
27.5°	979.6	980.7
30°	974.0	977.4
32.5°	974.0	979.6
35°	976.3	981.9
37.5°	975.1	981.9
40°	970.6	978.5
42.5°	958.2	963.8
45°	939.0	945.8
47.5°	914.2	918.7
50°	882.6	887.1
52.5°	843.0	844.2
55°	795.6	800.1
57.5°	744.9	746.0
60°	688.4	691.8
62.5°	628.6	628.6
65°	565.4	567.7
67.5°	500.0	505.6
70°	433.4	434.5
72.5°	368.0	368.0
75°	300.2	301.3
77.5°	235.9	235.9
80°	174.9	176.0
82.5°	120.8	123.0
85°	75.6	75.6
87.5°	35.0	31.6
90°	20.2	20.2
92.5°	81.1	65.0
95°	282.6	233.9
97.5°	677.2	584.4
100°	975.8	865.1
102.5°	1269.4	1174.7
105°	1643.8	1592.9
107.5°	1889.0	1901.3
110°	1982.5	2035.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1990.9	2072.3
115°	1938.1	2051.0
117.5°	1826.1	1951.3
120°	1735.9	1857.6
122.5°	1648.1	1768.1
125°	1522.7	1633.3
127.5°	1410.1	1503.4
130°	1343.6	1429.8
132.5°	1283.3	1360.5
135°	1200.8	1267.4
137.5°	1134.6	1189.0
140°	1089.1	1140.0
142.5°	1051.5	1095.2
145°	995.1	1028.2
147.5°	951.7	979.2
150°	924.4	946.6
152.5°	901.1	917.8
155°	874.3	885.4
157.5°	853.0	860.9
160°	840.4	844.9
162.5°	832.1	836.4
165°	820.1	824.7
167.5°	811.6	813.5
170°	809.2	809.2
172.5°	802.9	801.3
175°	799.1	799.1
177.5°	795.6	793.7
180°	793.7	793.7



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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	3.49	4.25	4.56	5.33	6.80	16.62	17.39	17.70	18.46	19.94
	3H	4.18	4.87	5.27	5.95	7.45	18.44	19.12	19.52	20.21	21.70
	4H	4.48	5.13	5.57	6.22	7.71	19.07	19.72	20.16	20.81	22.31
	6H	4.72	5.32	5.83	6.41	7.92	19.48	20.08	20.59	21.17	22.68
	8H	4.79	5.36	5.89	6.47	7.97	19.60	20.17	20.70	21.27	22.78
	12H	4.80	5.34	5.91	6.45	7.97	19.65	20.19	20.76	21.30	22.82
4H	2H	10.66	11.31	11.76	12.40	13.90	16.89	17.54	17.99	18.63	20.12
	3H	12.22	12.77	13.33	13.88	15.39	18.91	19.45	20.02	20.57	22.08
	4H	12.32	12.81	13.43	13.92	15.45	19.66	20.16	20.77	21.27	22.80
	6H	12.32	12.75	13.44	13.88	15.40	20.18	20.61	21.30	21.74	23.26
	8H	12.29	12.70	13.41	13.82	15.35	20.33	20.74	21.45	21.86	23.39
	12H	12.25	12.61	13.38	13.74	15.29	20.41	20.78	21.55	21.91	23.46
8H	4H	13.74	14.14	14.86	15.26	16.80	19.71	20.11	20.83	21.23	22.77
	6H	13.98	14.31	15.12	15.47	17.01	20.33	20.66	21.47	21.82	23.36
	8H	14.00	14.29	15.14	15.43	16.98	20.54	20.83	21.68	21.97	23.53
	12H	13.96	14.21	15.11	15.35	16.94	20.67	20.92	21.82	22.06	23.65
12H	4H	13.88	14.24	15.01	15.37	16.92	19.66	20.03	20.80	21.16	22.70
	6H	14.23	14.52	15.38	15.66	17.22	20.31	20.60	21.46	21.74	23.30
	8H	14.30	14.55	15.45	15.69	17.28	20.53	20.78	21.68	21.92	23.51