

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: P936647

Luminaire Tested: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936647
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-92765-1D-UNV-STD-W-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

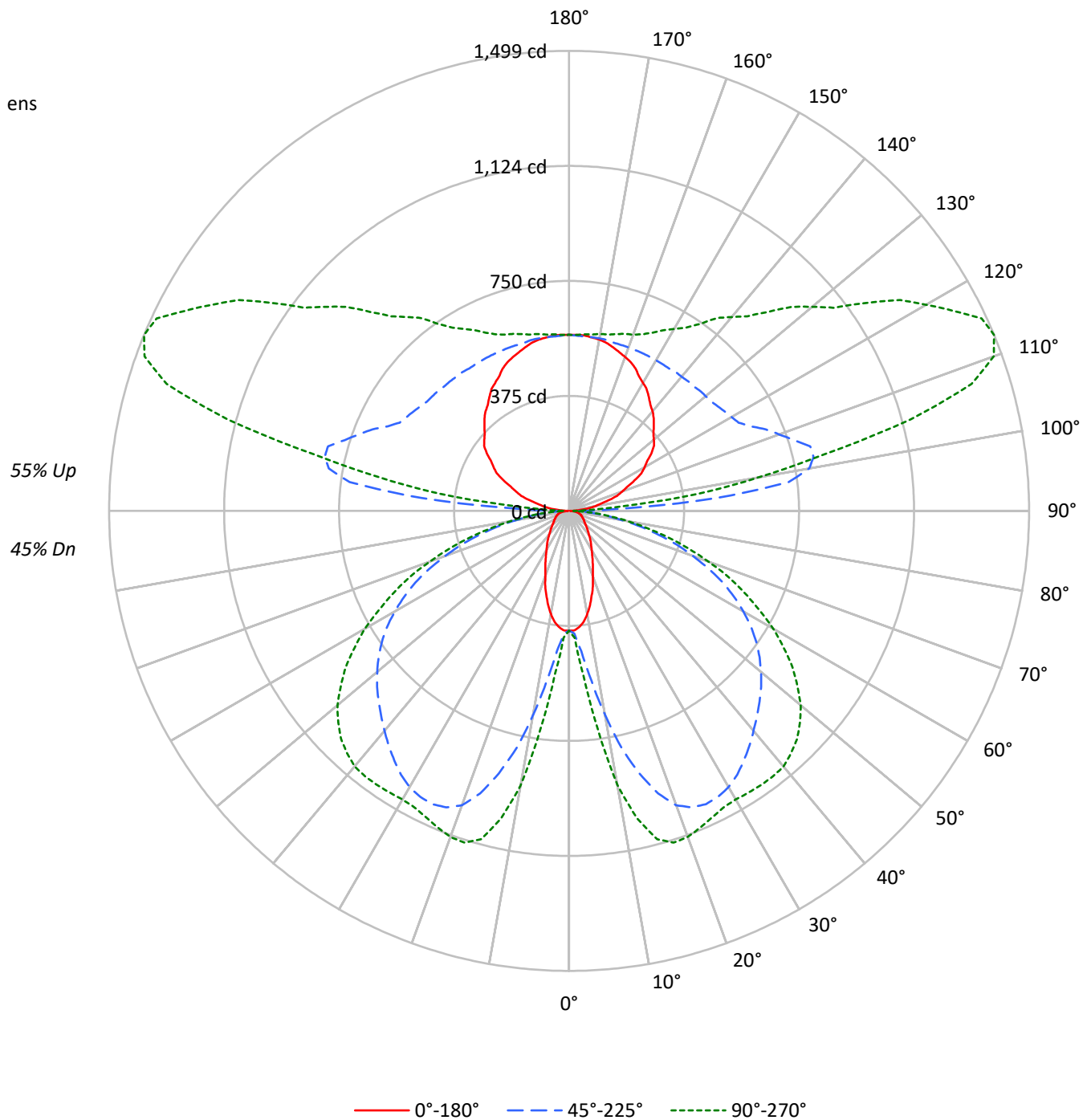
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6740.2 lumens
Efficiency: N/A
Efficacy: 118.7 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: P936647
CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

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°	1809	1809	1809
5°	1767	2091	2431
10°	1603	3048	4031
15°	1362	3982	4868
20°	1109	4614	4961
25°	925	4828	4860
30°	780	4859	4851
35°	689	4778	4976
40°	601	4674	5106
45°	544	4597	5126
50°	499	4528	5042
55°	478	4427	4818
60°	490	4232	4465
65°	510	3937	3980
70°	543	3433	3362
75°	601	2799	2624
80°	659	1942	1767
85°	582	1030	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5126 cd/sqm



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	0.7
10°-20°	223.5	3.3
20°-30°	391.0	5.8
30°-40°	503.3	7.5
40°-50°	562.2	8.3
50°-60°	538.5	8.0
60°-70°	426.7	6.3
70°-80°	250.9	3.7
80°-90°	71.9	1.1
90°-100°	279.8	4.2
100°-110°	735.7	10.9
110°-120°	762.9	11.3
120°-130°	611.9	9.1
130°-140°	480.1	7.1
140°-150°	368.5	5.5
150°-160°	265.4	3.9
160°-170°	162.4	2.4
170°-180°	54.9	0.8
0°-30°	665.0	9.9
0°-40°	1168.3	17.3
0°-60°	2268.9	33.7
0°-90°	3018.5	44.8
90°-120°	1778.5	26.4
90°-150°	3239.0	48.1
90°-180°	3722.0	55.2
0°-180°	6740.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	380	407	459	519	538	35
15°	285	525	885	1073	1107	79
25°	182	596	1054	1101	1102	84
35°	123	569	993	1049	1091	77
45°	84	454	878	1006	1051	65
55°	60	288	745	865	889	55
65°	48	153	553	622	631	47
75°	35	94	303	334	335	37
85°	12	29	75	83	84	13
90°	4	11	29	15	15	4
95°	37	145	482	248	169	41
105°	132	201	813	1235	1152	141
115°	236	286	652	1300	1483	233
125°	328	367	593	1001	1181	291
135°	390	430	574	808	917	302
145°	453	482	567	690	744	284
155°	512	526	567	622	640	235
165°	552	559	567	589	596	156
175°	574	574	571	578	578	54
180°	574	574	574	574	574	



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9	389.9
2.5°	389.9	389.9	392.4	393.7	396.1	397.4	400.0	402.5	410.0	411.2	413.7
5°	379.9	384.9	401.2	407.4	425.0	448.8	458.8	475.1	509.0	519.0	525.3
7.5°	364.8	376.1	416.2	426.2	470.2	532.8	559.1	594.3	648.1	674.5	695.8
10°	341.0	364.8	436.3	460.2	531.6	626.8	675.8	724.7	806.1	842.5	856.3
12.5°	314.7	353.5	457.6	490.2	593.0	732.2	791.1	845.0	937.8	986.7	994.2
15°	284.6	337.2	477.6	525.3	658.2	819.9	885.2	951.5	1038.1	1073.1	1081.9
17.5°	258.3	324.7	496.5	546.6	708.3	898.9	965.4	1020.5	1090.7	1114.5	1120.8
20°	225.6	304.6	509.0	574.2	761.0	956.6	1020.5	1063.1	1110.8	1125.9	1128.4
22.5°	201.8	283.3	516.5	584.2	796.1	991.7	1045.6	1079.5	1112.0	1117.1	1118.3
25°	181.8	259.5	515.3	595.5	826.2	1013.0	1054.3	1079.5	1098.3	1100.8	1100.8
27.5°	163.0	233.2	510.3	598.0	848.8	1018.0	1050.6	1068.2	1077.0	1081.9	1081.9
30°	146.7	208.2	497.7	593.0	858.8	1013.0	1039.3	1048.1	1056.9	1064.4	1068.2
32.5°	134.1	184.3	478.9	583.0	860.0	1000.4	1019.3	1024.3	1036.8	1054.3	1060.6
35°	122.8	160.5	457.6	569.1	852.5	980.4	992.9	998.0	1023.0	1049.4	1058.1
37.5°	111.6	142.9	430.1	545.4	841.2	956.6	965.4	974.2	1013.0	1044.3	1054.3
40°	100.3	127.9	397.4	519.0	823.7	927.8	935.3	949.1	1000.4	1036.8	1046.9
42.5°	91.5	115.3	362.3	491.5	801.1	895.2	906.5	926.5	985.5	1024.3	1035.6
45°	84.0	102.8	324.7	453.8	772.3	861.3	877.6	905.2	967.9	1005.5	1015.5
47.5°	76.5	94.0	285.8	415.0	740.9	827.5	848.8	880.1	944.1	980.4	989.2
50°	70.2	85.2	246.9	373.6	707.1	791.1	816.2	848.8	914.0	947.8	959.1
52.5°	65.1	77.8	210.6	332.2	668.2	753.5	782.3	816.2	877.6	910.2	917.7
55°	60.2	71.5	179.3	288.4	628.1	713.4	744.7	777.3	837.5	865.1	870.1
57.5°	57.7	66.5	152.9	246.9	585.5	668.2	703.4	733.5	789.8	811.1	816.2
60°	53.9	62.7	132.9	211.9	539.1	625.6	655.7	685.8	733.5	750.9	754.8
62.5°	50.2	60.2	117.9	178.1	491.5	575.5	605.5	633.2	673.3	685.8	690.8
65°	47.7	57.7	106.6	152.9	442.6	522.8	552.9	576.7	609.3	621.9	624.4
67.5°	45.1	55.1	97.8	131.6	393.7	470.2	492.7	515.3	540.4	552.9	554.1
70°	41.4	52.6	90.3	116.6	343.5	410.0	428.7	452.6	472.7	478.9	482.7
72.5°	38.9	48.9	85.2	105.3	292.1	352.3	369.9	383.6	401.2	407.4	407.4
75°	35.1	43.8	80.2	94.0	239.5	288.4	303.4	317.1	331.0	333.5	329.8
77.5°	31.3	38.9	69.0	79.0	186.8	228.2	240.7	248.3	259.5	262.0	263.3
80°	26.4	33.8	53.9	61.4	135.4	168.0	176.8	183.0	193.1	193.1	195.5
82.5°	20.1	26.4	38.9	43.8	91.5	115.3	122.8	126.7	132.9	132.9	132.9
85°	12.5	16.3	25.1	28.8	55.1	70.2	75.2	76.5	81.5	82.7	82.7
87.5°	6.3	8.8	16.3	17.6	28.8	36.4	36.4	38.9	38.9	37.6	36.4
90°	3.8	6.9	10.0	10.7	16.9	25.1	29.3	26.0	19.5	14.7	14.7
92.5°	15.4	41.6	67.9	74.4	104.6	144.8	164.9	144.5	103.8	73.2	70.3
95°	37.0	85.0	132.9	144.9	257.2	407.1	482.0	430.2	326.4	248.5	239.8
97.5°	63.9	106.2	148.5	159.1	346.5	596.3	721.3	688.5	622.9	573.7	556.9
100°	84.8	123.1	161.4	171.1	379.0	656.3	794.9	797.3	802.1	805.6	785.6
102.5°	102.5	138.3	174.0	183.0	393.9	675.1	815.7	857.5	941.1	1003.7	986.6
105°	132.5	162.8	193.2	200.8	405.0	677.3	813.4	907.0	1094.4	1234.9	1225.7
107.5°	163.4	191.6	219.8	226.9	407.0	647.1	767.1	897.8	1159.1	1355.1	1357.4
110°	184.1	209.7	235.3	241.6	404.0	620.4	728.6	874.7	1166.8	1385.9	1395.5



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	204.6	228.9	253.2	259.3	404.1	597.1	693.6	843.0	1142.0	1366.3	1381.0
115°	235.5	257.9	280.3	285.9	407.8	570.4	651.6	795.6	1083.6	1299.6	1320.0
117.5°	265.8	286.2	306.6	311.7	415.4	553.5	622.6	752.6	1012.6	1207.5	1230.2
120°	283.6	302.8	322.0	326.8	421.6	547.9	611.1	729.8	967.3	1145.5	1167.4
122.5°	300.9	320.2	339.6	344.4	430.3	544.9	602.2	709.2	923.1	1083.5	1105.2
125°	327.5	345.1	362.8	367.2	442.3	542.5	592.6	683.5	865.2	1001.4	1021.4
127.5°	349.1	366.9	384.6	389.1	454.3	541.1	584.5	662.5	818.5	935.5	952.4
130°	360.6	379.8	399.0	403.8	463.0	541.9	581.4	650.8	789.7	893.9	909.5
132.5°	372.6	391.7	411.0	415.8	470.1	542.5	578.8	640.9	765.2	858.4	872.4
135°	390.3	407.8	425.2	429.6	477.7	541.9	574.1	626.2	730.3	808.3	820.4
137.5°	408.5	425.8	443.1	447.4	489.3	545.3	573.3	617.4	705.4	771.4	781.2
140°	423.4	439.4	455.3	459.3	496.4	545.9	570.6	608.7	684.7	741.7	750.8
142.5°	435.0	449.7	464.5	468.1	502.3	547.8	570.6	604.0	670.8	720.9	728.9
145°	452.8	465.6	478.5	481.7	510.1	547.9	566.8	594.1	648.8	689.7	695.7
147.5°	470.4	483.0	495.5	498.6	521.3	551.7	566.8	588.3	631.2	663.5	668.4
150°	482.0	493.3	504.6	507.5	527.3	553.6	566.8	584.9	621.3	648.5	652.5
152.5°	494.0	502.6	511.1	513.2	531.1	554.9	566.8	582.3	613.3	636.5	639.6
155°	511.7	518.0	524.4	526.0	539.6	557.7	566.8	579.1	603.7	622.2	624.3
157.5°	524.7	530.9	537.1	538.7	548.0	560.5	566.8	576.3	595.5	609.9	611.3
160°	533.6	538.5	543.3	544.5	551.9	561.9	566.8	575.0	591.4	603.7	604.6
162.5°	542.5	546.1	549.7	550.6	556.1	563.3	566.8	573.7	587.6	598.0	598.8
165°	552.1	555.4	558.6	559.4	561.9	565.1	566.8	571.8	581.7	589.1	590.0
167.5°	561.0	562.5	564.1	564.5	566.5	569.2	570.6	573.9	580.5	585.3	585.7
170°	566.8	568.3	569.9	570.3	570.4	570.5	570.6	573.9	580.5	585.3	585.3
172.5°	569.9	570.3	570.5	570.6	570.6	570.6	570.6	573.3	578.4	582.2	581.9
175°	574.1	574.1	574.1	574.1	573.0	571.4	570.6	572.2	575.5	577.9	577.9
177.5°	574.1	574.1	574.1	574.1	573.2	571.9	571.4	572.7	575.2	577.2	576.8
180°	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1	574.1



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	389.9	389.9
2.5°	416.2	413.7
5°	535.3	537.8
7.5°	720.8	719.6
10°	896.4	907.7
12.5°	1024.3	1026.8
15°	1102.0	1107.1
17.5°	1132.1	1133.3
20°	1133.3	1130.8
22.5°	1119.6	1117.1
25°	1103.2	1102.0
27.5°	1088.2	1089.5
30°	1081.9	1085.8
32.5°	1081.9	1088.2
35°	1084.4	1090.7
37.5°	1083.2	1090.7
40°	1078.2	1087.0
42.5°	1064.4	1070.7
45°	1043.1	1050.6
47.5°	1015.5	1020.5
50°	980.4	985.5
52.5°	936.5	937.8
55°	883.9	888.9
57.5°	827.5	828.7
60°	764.8	768.5
62.5°	698.3	698.3
65°	628.1	630.6
67.5°	555.4	561.7
70°	481.5	482.7
72.5°	408.7	408.7
75°	333.5	334.7
77.5°	262.0	262.0
80°	194.3	195.5
82.5°	134.1	136.7
85°	84.0	84.0
87.5°	38.9	35.1
90°	14.7	14.7
92.5°	58.6	47.0
95°	204.4	169.2
97.5°	489.8	422.7
100°	705.7	625.7
102.5°	918.1	849.6
105°	1188.9	1152.0
107.5°	1366.3	1375.1
110°	1433.8	1472.3



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	1439.9	1498.8
115°	1401.7	1483.4
117.5°	1320.8	1411.4
120°	1255.5	1343.5
122.5°	1192.0	1278.9
125°	1101.4	1181.4
127.5°	1019.9	1087.3
130°	971.8	1034.2
132.5°	928.3	984.1
135°	868.5	916.7
137.5°	820.7	860.0
140°	787.7	824.5
142.5°	760.5	792.2
145°	719.7	743.7
147.5°	688.3	708.2
150°	668.6	684.7
152.5°	651.8	663.9
155°	632.3	640.4
157.5°	617.0	622.6
160°	607.8	611.1
162.5°	601.9	604.9
165°	593.2	596.4
167.5°	587.0	588.4
170°	585.3	585.3
172.5°	580.7	579.5
175°	577.9	577.9
177.5°	575.5	574.1
180°	574.1	574.1



TEST NUMBER: P936647

CATALOG NUMBER: SQ4-FB-050U-050D-92765-1D-UNV-STD-W-8-5000K

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	2.57	3.42	3.56	4.43	5.77	15.75	16.60	16.74	17.61	18.95
	3H	3.27	4.03	4.27	5.05	6.41	17.59	18.35	18.59	19.37	20.73
	4H	3.57	4.29	4.58	5.31	6.68	18.23	18.95	19.25	19.98	21.35
	6H	3.82	4.49	4.85	5.51	6.89	18.66	19.33	19.69	20.35	21.74
	8H	3.89	4.52	4.92	5.57	6.94	18.78	19.42	19.81	20.46	21.84
	12H	3.90	4.51	4.94	5.55	6.95	18.85	19.45	19.89	20.49	21.89
4H	2H	9.78	10.51	10.81	11.53	12.90	16.02	16.74	17.04	17.77	19.14
	3H	11.35	11.96	12.38	13.01	14.39	18.07	18.67	19.10	19.72	21.10
	4H	11.44	12.00	12.48	13.04	14.45	18.83	19.39	19.87	20.43	21.83
	6H	11.45	11.93	12.50	13.00	14.40	19.37	19.85	20.42	20.91	22.31
	8H	11.43	11.88	12.48	12.94	14.35	19.53	19.98	20.58	21.04	22.45
	12H	11.39	11.79	12.46	12.86	14.29	19.62	20.03	20.69	21.10	22.52
8H	4H	12.89	13.33	13.94	14.39	15.81	18.89	19.34	19.94	20.40	21.81
	6H	13.13	13.50	14.20	14.60	16.01	19.52	19.89	20.59	20.99	22.40
	8H	13.15	13.47	14.23	14.56	15.99	19.74	20.07	20.82	21.15	22.58
	12H	13.11	13.40	14.20	14.48	15.95	19.88	20.17	20.97	21.25	22.72
12H	4H	13.03	13.44	14.10	14.51	15.93	18.84	19.25	19.91	20.32	21.74
	6H	13.39	13.71	14.47	14.80	16.23	19.50	19.83	20.58	20.91	22.35
	8H	13.46	13.74	14.54	14.82	16.30	19.73	20.02	20.82	21.10	22.57