

Summary of Confirmed Levels from Equipment List

Manufacturer	Unit/Model	SPL at 1m (3ft)	
		Indoor Levels	Outdoor Levels
Rinnai	SENSEI	48-49	52-53
LG	LMU240HV		50-54
	LMU36CHV		52-55
	LMU363HV		51-54
	LMU481HV		53-55
	LA120HSV5/ LSU120HSV5	21-41	47-51
	LS090HFV5	21-41	47-51
Goodman	GSXC18		
Mitsubishi	PV FY-P12NAMU-E1	27-35	
	PV FY-P48NAMU-E	35-43	
	PV FY-P36NAMU-E1	35-43	
	PVA-A36AA7	32-40	52-53
	PUZ-A36NKA7(-BS)		49-51
	PVA-A42AA7/ PUZ-A42NKA7(-BS)	34-42	52-53
	PUY-A42NKA7(-BS)	34-45	52
	PUMY-P36NKMU3(-BS)		49-53
	MXZ-2C20NA		50-54
	MXZ-2C20NA2		50-54
	MXZ-3C24NA		51-55
	MXZ-3C24NA2		51-55
	MXZ-3C24NA3-U1		51-55
	MXZ-3C30NA2		52-56
	MXZ-3C30NA3		52-56
	MXZ-4C36NA2-U1		54-56
	MXZ-5C42NA2		56-58
	MXZ-5C42NAHZ2		50-54
	MXZ-8C60NA		58-59
	MXZ-8C60NA2		58-59
	MXZ-8C48NA		51-54
	MXZ-8C48NA2		51-54
	MXZ-SM48NAM-U1		51-54
	MXZ-SM60NAM-U1		58-59
	MLZ-KP18NA/ SUZ-KA18NA2	26-48	54-55
	MUZ-WR12NA		51
	SVZ-KP24NA/ SUZ-KA24NAHZ	33-41	52-53
	SVZ-KP36NA/ SUZ-KA36NAHZ	35-42	52-53
	SVZ-KP36NA/ SUZ-KA36NA2	35-43	55
	SUZ-KA18NA(H)2	26-48	54-55
	SUZ-KA36NA2		54-55
	MSZ-GL18NA/ MUZ-GL18NA-U1	28-49	54-55
	MSZ-GL12NA/ MUZ-GL12NA	19-45	49-51
	MSZ-GL15NA/ MUZ-GL15NA	26-49	49-51
	MSZ-GL42NA	41-53	55
	MSZ-GL09NA/ MUZ-GL09NA	19-43	48-50
	MSZ-GL06NA	19-43	
	MSZ-FS09NA	40-42	

Carrier	MSZ-FS06NA	40-42		
	MSZ-FS15NA/ MUZ-FS15NA	25-46	51-55	
	MSZ-JP12WA/ MUZ-JP12WA	22-45	49-51	
	MSZ-WR09NA/ MUZ-WR09NA	22-43	48-50	
	38MARBQ12AA3			56
	38MARBQ24AA3			62
	38MARBQ30AA3			61.5
	38MARBQ36AA3			61.5
	38MA*R		52.5-60.5	
	38MURA		54-62	
	38MPRAQ24AA3			62
	38MGRQ30D			62
	38MGRQ18B3			62
	38MGRQ48E			64
	38MBRBQ48AA3			62.9
	34SCA5			65
	24VNA6			
	25VNA8			
	25HBC5			
	25VNA448A**3			
	25HHA4			
	25TPA7			
	40MAQ/ 38MAQ	27-46	55.5-63	
	40MBAAQ24XA3	35.8-45.2		
	50VT-C			
	N4H424GKG			
	FX4D			
Bryant	40MBDQ		38	57.3
	288BNV			
	226A			
	284ANV			
	214DNA024P00			
	224ANS			
	214DNA036P00			
	214A			
	214D			
	38MARB		54-62	
Samsung	38MURA		54-62	
	AR09JSALBWKXCV/ AR09JSALBWKNCV		29	53
	AM060MXMDCH/AA		58-60	
	AC024KNZDCH/AA	35-41		
Daikin	AC024JXADCH/AA			50
	FTX18NMVJU/ RX18NMVJU			54
	FTKB12AXVJU/ RKB12AXVJU	32-42		48
	2MX18AXVJU		51-56	
Blueridge	2MXS18NMVJUA		50-51	
	BMY917C			54.5
Lennox	XC16 Elite			

	EL18XPV-036			
	EL16XP1 Elite			
	ML14XP1 Merit			
	MLB048			65
	MLA018		56-59	
	16HPX Merit		67-75	
	MPB mini-split		62-63	
RUUD	Professional Ultra Hybrid			49
American Standard	4A6L6030A1 (Silver 15 models)			
	Silver 16 models			
	4A619036A100H (Platinum 19 models)			
	4A6V8036A100 (Platinum 18 models)			
	4A6L9036A1000A		45-54	
Gree	GMV5 series		48-67	
	GMV VRF			56
	FLEXX24/36HP230V1A			55
	GMV-60WL/C-T(U)			63
RHEEM	Professional Prestige ProTerra Hybrid			49
	RIWH09AVSA/ ROSH09AVSA	23-43	47-48	
Fujitsu	ARU18RLF	27-32		
	18RLFCD	27-32	52-55	
	48LMAS1			55
	24GLXM			55
Payne	FMC4X2400AL			54
Tempstar	NH4A448AKA			
Trane	4TWR7036B-SUB-1C-EN			
TOSOT	TU36-24WADU		60-62	
	TU36-24AADU		49	
Bosch	IDS BOVA15			
	Climate 500	22.5-47.5	53-63	
Voltex	AL Smart Hybrid Electric		45	
DuctlessAire	13 SEER Ductless Mini Split	35-50	55-60	
Pioneer	Diamante Ultra	27-39	50-52	
	DC Inverter + heat pump	32-50	50-58	
Sanco2	water heater			37

Heat Pump Summary:

SWL

Sound Power	Max SPL at 3 feet	Distance to 40 dBA	Distance to 50 dBA
68-74	53	13 40.3	5 48.6
	54	15 40.0	5 49.6
	55	17 39.9	6 49.0
	54	15 40.0	5 49.6
	55	17 39.9	6 49.0
	51	11 39.7	4 48.5
	51	11 39.7	4 48.5
	63	41 40.3	13 50.3

53	13 40.3	5 48.6
51	11 39.7	4 48.5
53	13 40.3	5 48.6
52	12 40.0	4 49.5
53	13 40.3	5 48.6
54	15 40.0	5 49.6
54	15 40.0	5 49.6
55	17 39.9	6 49.0
55	17 39.9	6 49.0
55	17 39.9	6 49.0
56	18 40.4	6 50.0
56	18 40.4	6 50.0
56	18 40.4	6 50.0
58	23 40.3	8 49.5
54	15 40.0	5 49.6
59	26 40.2	9 49.5
59	26 40.2	9 49.5
54	15 40.0	5 49.6
54	15 40.0	5 49.6
54	15 40.0	5 49.6
59	26 40.2	9 49.5
55	17 39.9	6 49.0
51	11 39.7	4 48.5
53	13 40.3	5 48.6
53	13 40.3	5 48.6
55	17 39.9	6 49.0
55	17 39.9	6 49.0
55	17 39.9	6 49.0
55	17 39.9	6 49.0
51	11 39.7	4 48.5
51	11 39.7	4 48.5
55	17 39.9	6 49.0
50	10 39.5	3 50.0

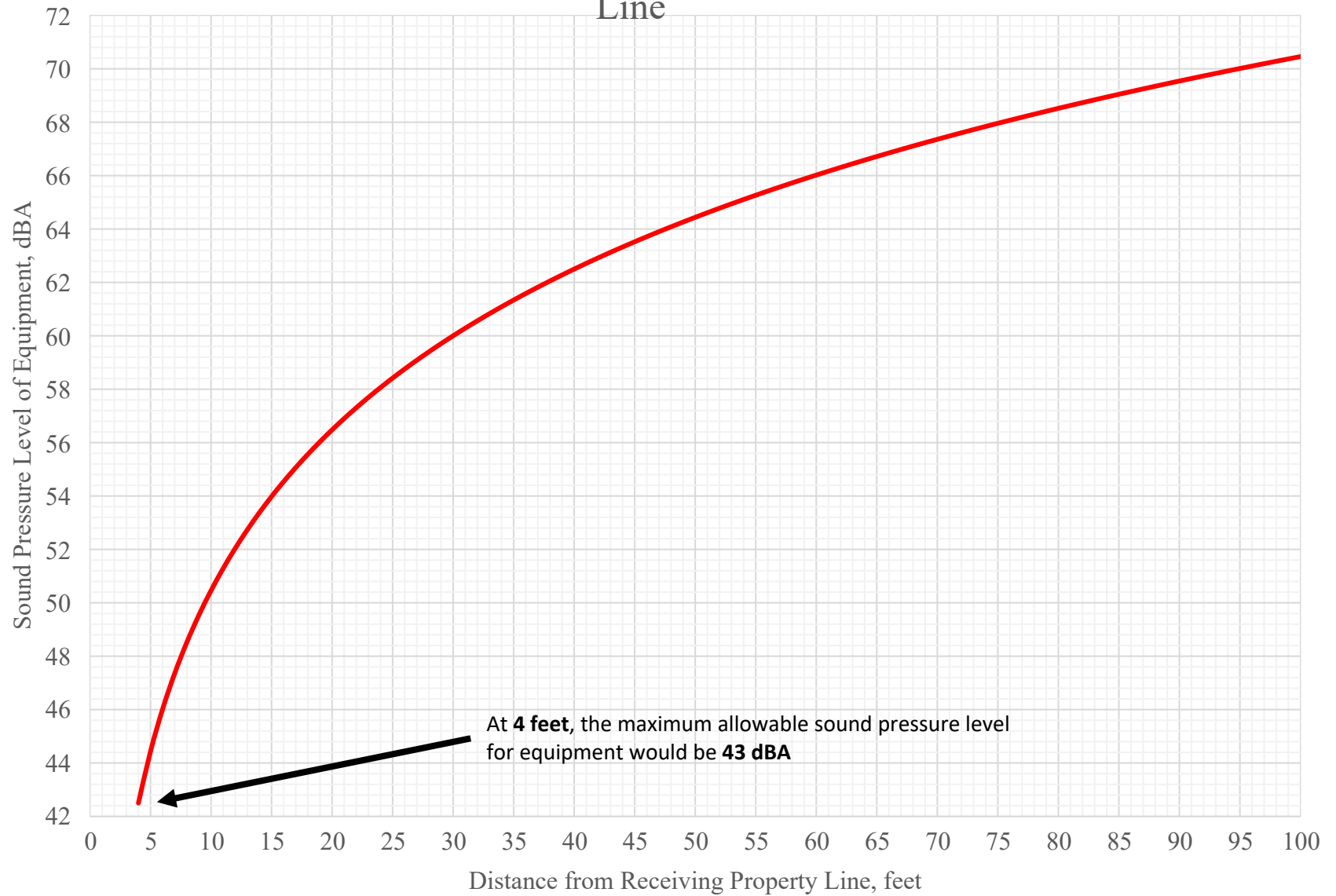
		55	17 39.9	6 49.0
		51	11 39.7	4 48.5
		50	10 39.5	3 50.0
		56	18 40.4	6 50.0
		62	36 40.4	12 50.0
		61.5	34 40.4	11 50.2
		61.5	34 40.4	11 50.2
		60.5	31 40.2	10 50.0
		62	36 40.4	12 50.0
		62	36 40.4	12 50.0
		62	36 40.4	12 50.0
		62	36 40.4	12 50.0
		64	46 40.3	15 50.0
		62.9	40 40.4	13 50.2
		65	51 40.4	17 49.9
51-68		57	21 40.1	7 49.6
55-73		62	36 40.4	12 50.0
68-74		63	41 40.3	13 50.3
56-72		61	32 40.4	11 49.7
69-74		63	41 40.3	13 50.3
71-74		63	41 40.3	13 50.3
		63	41 40.3	13 50.3
73-75		64	46 40.3	15 50.0
68-79		68	72 40.4	23 50.3
64.7-70		59	26 40.2	9 49.5
		57.3	21 40.4	7 49.9
57-73		62	36 40.4	12 50.0
70-75		64	46 40.3	15 50.0
56-72		61	32 40.4	11 49.7
	76	65	51 40.4	17 49.9
69-74		63	41 40.3	13 50.3
	77	66	57 40.4	18 50.4
72-77		66	57 40.4	18 50.4
68-79		68	72 40.4	23 50.3
		62	36 40.4	12 50.0
		62	36 40.4	12 50.0
		53	13 40.3	5 48.6
		60	29 40.3	10 49.5
		50	10 39.5	3 50.0
		54	15 40.0	5 49.6
		48	8 39.5	3 48.0
		56	18 40.4	6 50.0
		51	11 39.7	4 48.5
		54.5	16 40.0	5 50.1
74-78		67	64 40.4	21 50.1

	61	50	10 39.5	
	71	60	29 40.3	10 49.5
	76	65	51 40.4	17 49.9
		65	51 40.4	17 49.9
		59	26 40.2	9 49.5
		75	161 40.4	51 50.4
		63	41 40.3	13 50.3
		49	9 39.5	3 49.0
69-75		64	46 40.3	15 50.0
69-74		63	41 40.3	13 50.3
43-57		46	6 40.0	2 49.5
56-74		63	41 40.3	13 50.3
		54	15 40.0	5 49.6
		67	64 40.4	21 50.1
		56	18 40.4	6 50.0
		55	17 39.9	6 49.0
		63	41 40.3	13 50.3
		49	9 39.5	3 49.0
		48	8 39.5	3 48.0
		55	17 39.9	6 49.0
		55	17 39.9	6 49.0
		55	17 39.9	6 49.0
		54	15 40.0	5 49.6
	70	59	26 40.2	9 49.5
	72	61	32 40.4	11 49.7
		62	36 40.4	12 50.0
59-80		69	81 40.4	26 50.2
		63	41 40.3	13 50.3
		60	29 40.3	10 49.5
		52	12 40.0	4 49.5
		58	23 40.3	8 49.5
		37	3 37.0	1 46.5
min		46	6	2
max		75	161	51
median		56	18	6
average		58	28	9

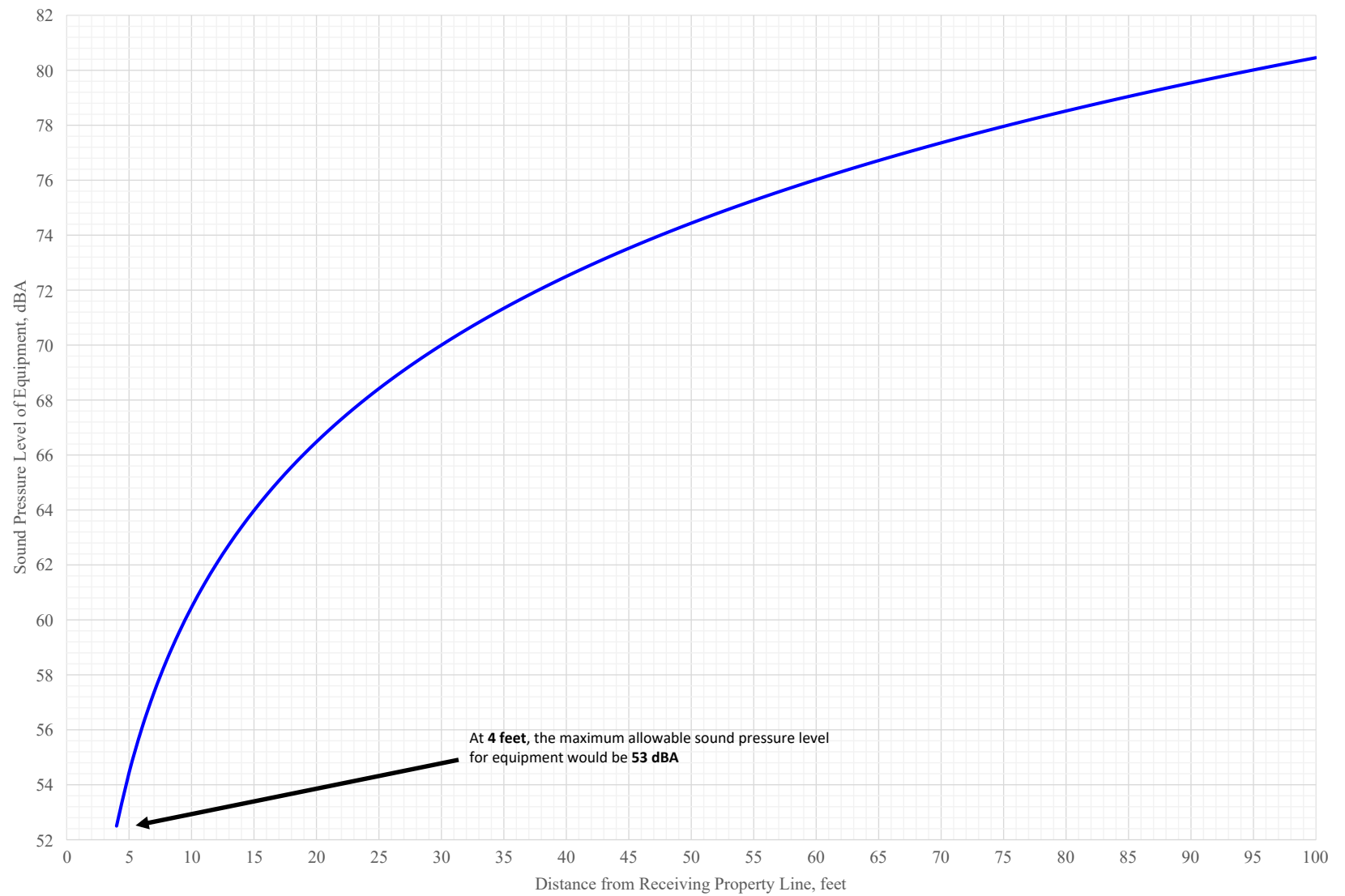
for equipment to meet thresholds at 4ft: 43 dBA

53 dBA

Allowable Equipment Noise Level to Meet 40 dBA Limit at Property Line



Allowable Equipment Noise Level to Meet 50 dBA Limit at Property Line



Summary Table

Sound Pressure Levels	Min Dist to 40 dBA, feet	Min Distance to 50 dBA, feet
under 40 dBA	3	1
40-50 dBA	3 to 10	1 to 3
50-55 dBA	10 to 20	3 to 6
55-60 dBA	20 to 30	6 to 10
60-65 dBA	30 to 55	10 to 20
65-70 dBA	55 to 100	20 to 30
above 70 dBA	more than 100	more than 30

Detailed Table - by feet Distance from Receiving Property Line, feet	Manufacturer's Sound Pressure Level (Measured at a Nominal 3 feet)	
	SPL to meet 40 dBA, dBA	SPL to meet 50 dBA, dBA
4	42.5	52.5
5	44.4	54.4
6	46.0	56.0
7	47.4	57.4
8	48.5	58.5
9	49.5	59.5
10	50.5	60.5
11	51.3	61.3
12	52.0	62.0
13	52.7	62.7
14	53.4	63.4
15	54.0	64.0
16	54.5	64.5
17	55.1	65.1
18	55.6	65.6
19	56.0	66.0
20	56.5	66.5
21	56.9	66.9
22	57.3	67.3
23	57.7	67.7
24	58.1	68.1
25	58.4	68.4
26	58.8	68.8
27	59.1	69.1
28	59.4	69.4
29	59.7	69.7
30	60.0	70.0
31	60.3	70.3
32	60.6	70.6
33	60.8	70.8
34	61.1	71.1
35	61.3	71.3
36	61.6	71.6
37	61.8	71.8
38	62.1	72.1
39	62.3	72.3
40	62.5	72.5
41	62.7	72.7
42	62.9	72.9
43	63.1	73.1
44	63.3	73.3
45	63.5	73.5
46	63.7	73.7
47	63.9	73.9
48	64.1	74.1

49	64.3	74.3
50	64.4	74.4
51	64.6	74.6
52	64.8	74.8
53	64.9	74.9
54	65.1	75.1
55	65.3	75.3
56	65.4	75.4
57	65.6	75.6
58	65.7	75.7
59	65.9	75.9
60	66.0	76.0
61	66.2	76.2
62	66.3	76.3
63	66.4	76.4
64	66.6	76.6
65	66.7	76.7
66	66.8	76.8
67	67.0	77.0
68	67.1	77.1
69	67.2	77.2
70	67.4	77.4
71	67.5	77.5
72	67.6	77.6
73	67.7	77.7
74	67.8	77.8
75	68.0	78.0
76	68.1	78.1
77	68.2	78.2
78	68.3	78.3
79	68.4	78.4
80	68.5	78.5
81	68.6	78.6
82	68.7	78.7
83	68.8	78.8
84	68.9	78.9
85	69.0	79.0
86	69.1	79.1
87	69.2	79.2
88	69.3	79.3
89	69.4	79.4
90	69.5	79.5
91	69.6	79.6
92	69.7	79.7
93	69.8	79.8
94	69.9	79.9
95	70.0	80.0
96	70.1	80.1

97	70.2	80.2
98	70.3	80.3
99	70.4	80.4
100	70.5	80.5