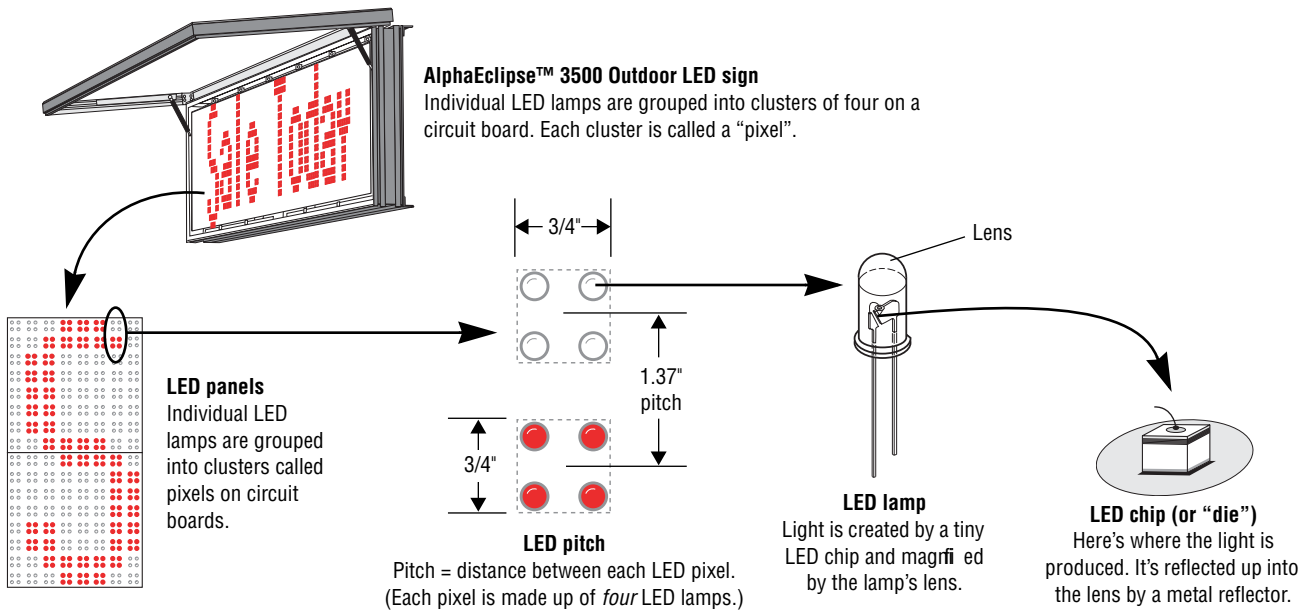


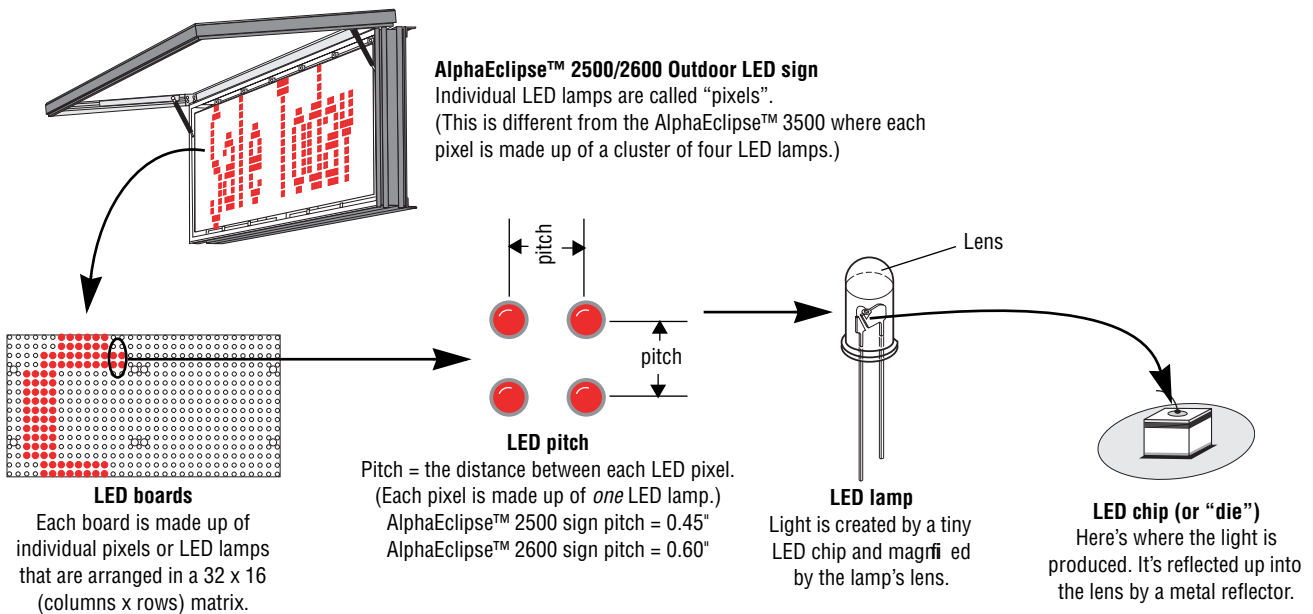
FYI

- LED signs are more readable, both day and night, than incandescents (US Dept. of Transportation 1998 study)
- LEDs will last far longer than incandescent lights. For example, with the AlphaEclipse™ sign, after 100,000 hours (over 11 years) of continuous use, we can be 98.33% certain that all the sign's LEDs will still be working.
- LEDs use much less power than incandescent lights. A pixel on an AlphaEclipse™ sign uses only 40% as much power as a comparable incandescent bulb.

Anatomy of an AlphaEclipse™ 3500 sign



Anatomy of an AlphaEclipse™ 2500/2600 sign



Character sizes on AlphaEclipse™ signs

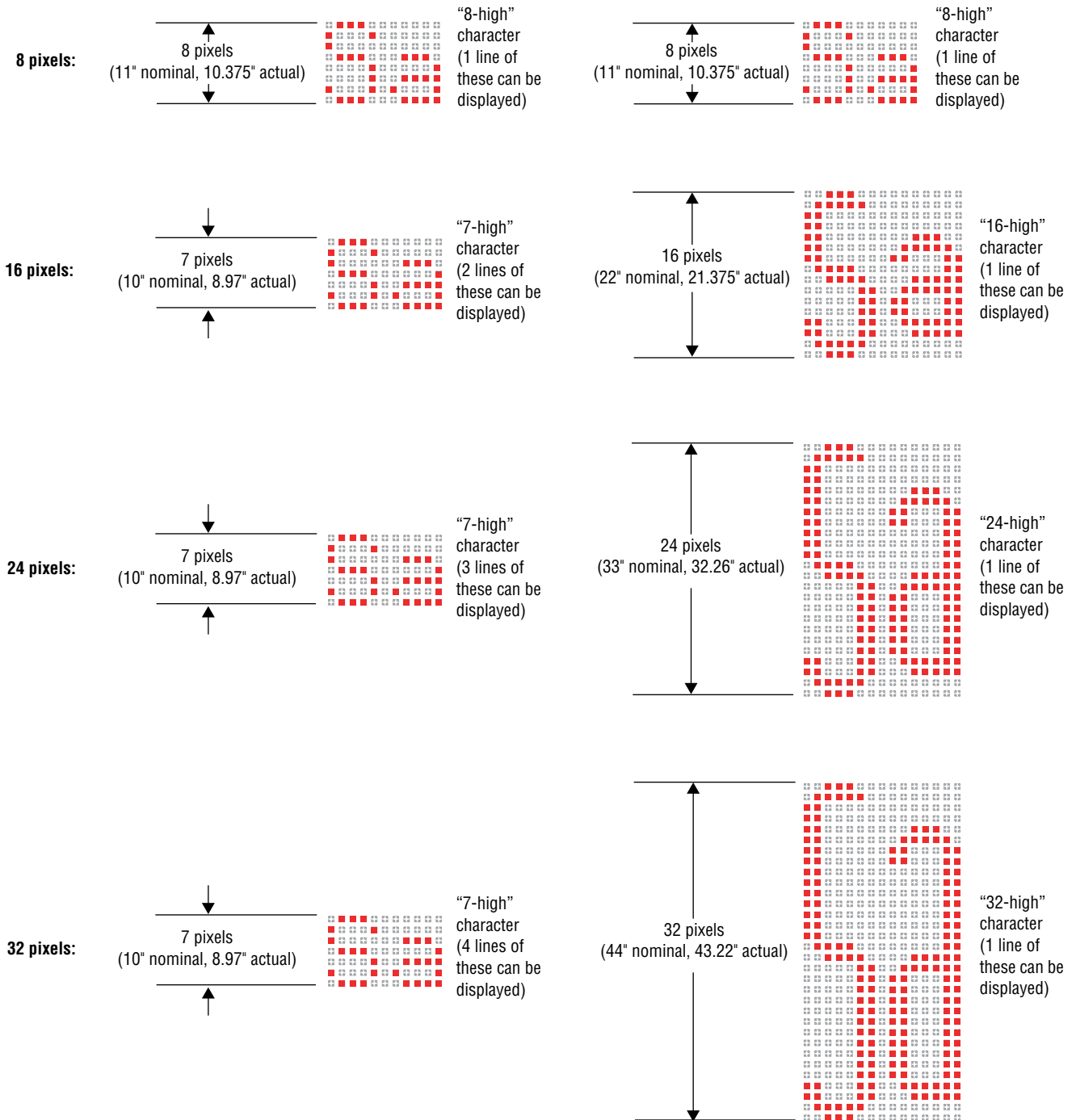


AlphaEclipse™ 3500 sign character sizes:

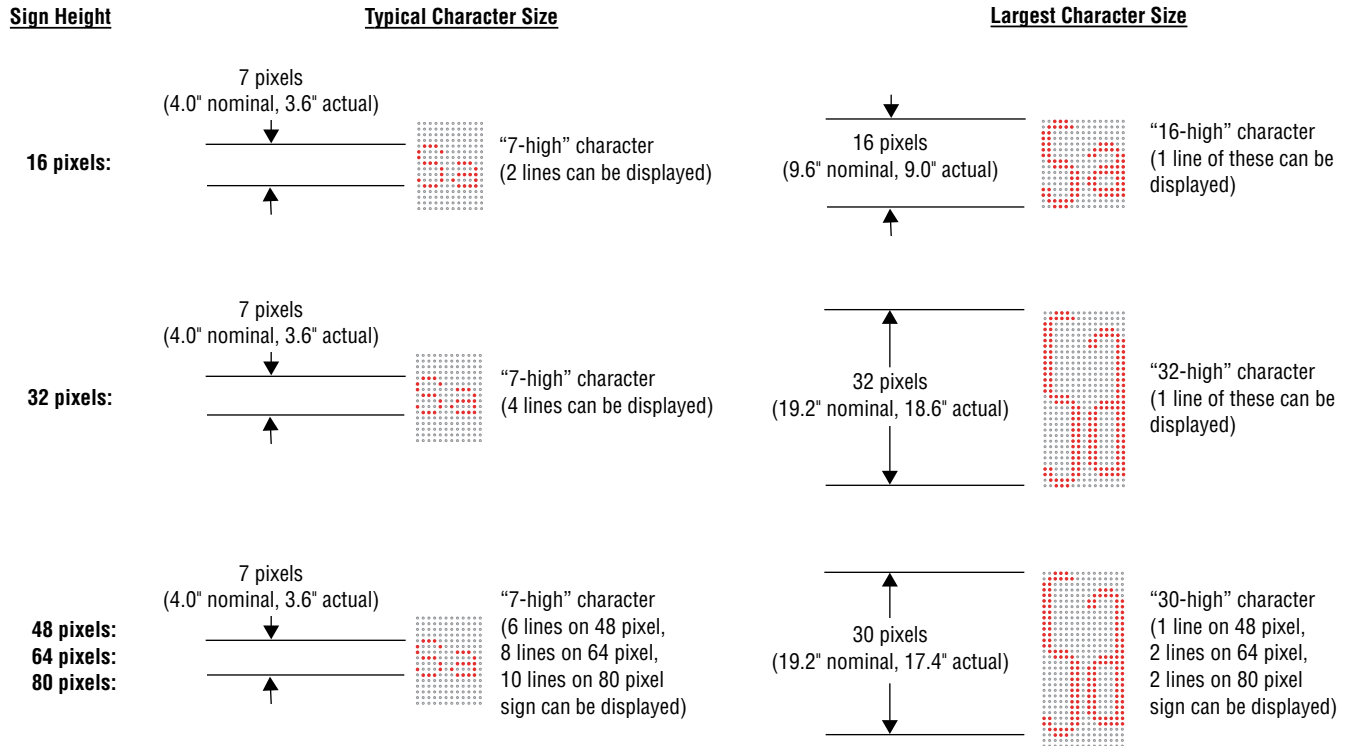
Sign Height

Typical Character Size

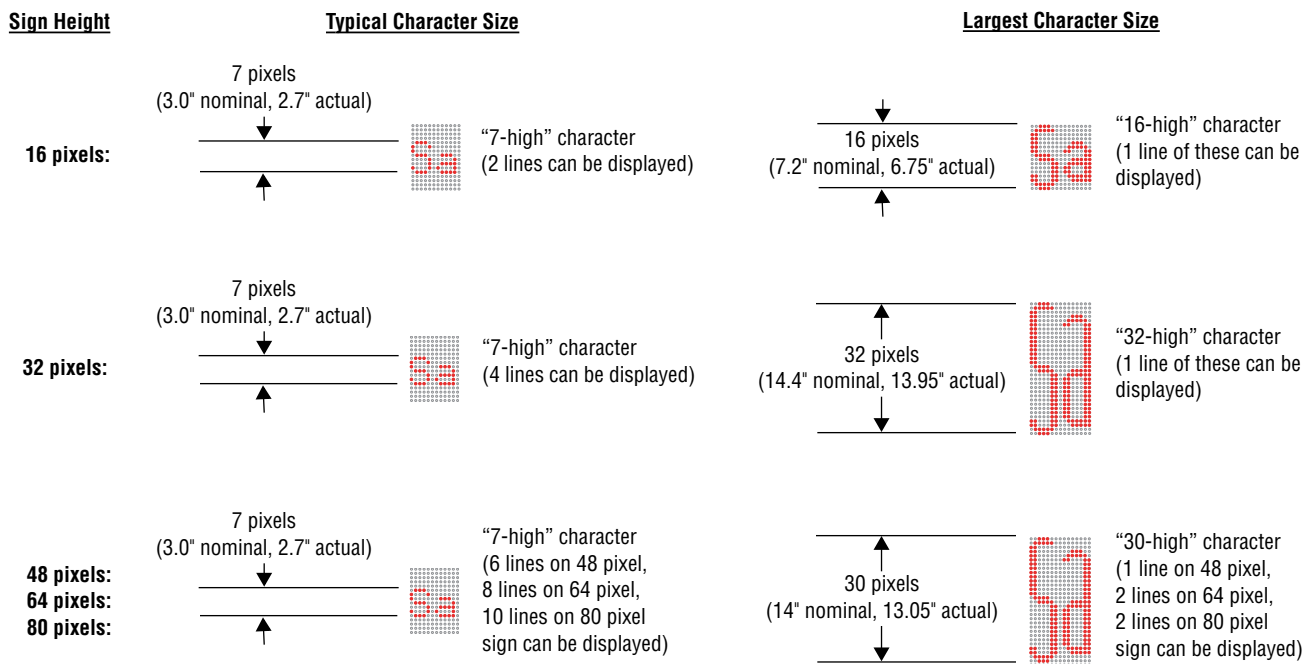
Largest Character Size



AlphaEclipse™ 2600 sign character sizes:



AlphaEclipse™ 2500 sign character sizes:



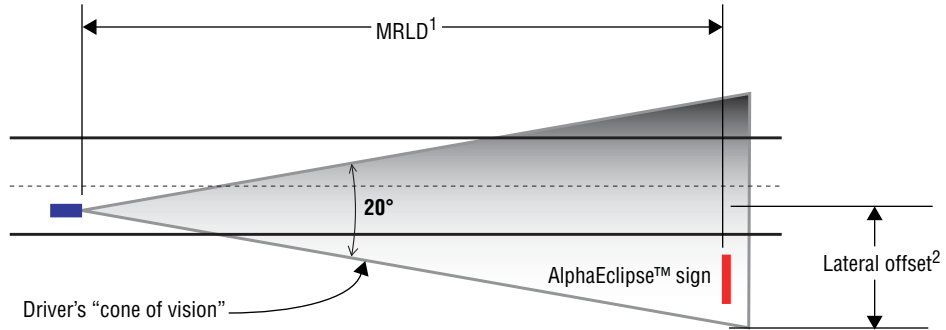
How to select an AlphaEclipse™ sign

1. How far must the sign be visible?

The audience for an outdoor sign is probably someone in an automobile who is travelling towards the sign. If this is the case, then the driver's speed and the sign's character size are critical for selecting a sign. Why?

Because, first, the faster you drive towards a sign, the less time you have to read and understand a sign's message. This is called the Decision Site Distance (DSD). Recent research suggests a DSD = 5.5 seconds.

Second, the text on a sign is readable only so far. The farther away you are from a sign, the harder it is to read until, finally, at some distance it becomes illegible. Legibility Index (LI) is a way of determining how far a sign can be read. LI is based on the character height of a sign.



(1) Someone in a car travelling at . . .		(2) Needs this MRLD ¹	(3) Then select a sign with . . .		(4) AlphaEclipse™ sign model		
MPH	ft/sec	ft	Character size (in)	Lateral offset ² (ft)	3500	2600	2500
75	110	605	20	0 - 53	4-line 3-line 2-line	5-line 4-line 3-line 2-line	5-line 4-line 3-line 2-line 1-line
70	103	565	19	0 - 50			
65	95	524	17	0 - 46			
60	88	484	16	0 - 43			
55	81	444	15	0 - 39			
50	73	403	13	0 - 35			
45	66	363	12	0 - 32			
40	59	323	11	0 - 28			
35	51	282	9	0 - 25	1-line	1-line	2-line 1-line
30	44	242	8	0 - 21			
25	37	202	7	0 - 18			

¹MRLD (Minimum Required Legibility Distance) — minimum distance required for a sign to be readable. This is based on the Legibility Index (LI) used. In this table an LI = 30 is used. This means that for each 1-inch of character height, a sign can be read up to 30 feet. For example, with LI = 30, a 10-inch character is readable up to 300 feet (30 x 10). Until recently an LI = 50 was the "gold standard". However, this is based on someone having 20/20 vision. Today, in light of the fact of an ageing population, a more realistic value would be LI = 30 which is based on someone with 20/40 vision.

²Lateral offset — the sign's setback from the road. This is a range that allows the sign to fall into a driver's cone of vision.

2. How much information needs to be displayed?

While an electronic sign could display an endless stream of messages, it's highly desirable to have an entire message displayed in as short a time as possible. Basically, longer messages = a longer sign.

To estimate an average message length, create several messages that would be appropriate for a particular application (e.g., "Tune-up special \$49.85"). Then use the following chart as a guide:

Model	Lines	Length x Height (columns x rows)	Maximum Characters per Line for each character size							
			4 x 5	5 x 7	8 x 10	7 x 15	7 x 16	8 x 20	7 x 24	7 x 32
AlphaEclipse™ 3500 sign	1	64 x 8	13	10	-	-	-	-	-	-
		80 x 8	16	13	-	-	-	-	-	-
		96 x 8	19	16	-	-	-	-	-	-
		112 x 8	22	18	-	-	-	-	-	-
		128 x 8	26	21	-	-	-	-	-	-
		144 x 8	29	24	-	-	-	-	-	-
	2	64 x 16	-	10	-	-	7	-	-	-
		80 x 16	-	13	-	-	8	-	-	-
		96 x 16	-	16	-	-	10	-	-	-
		112 x 16	-	18	-	-	12	-	-	-
		128 x 16	-	21	-	-	14	-	-	-
		144 x 16	-	24	-	-	16	-	-	-
	3	64 x 24	12	10	7	7	-	7	7	-
		80 x 24	16	13	8	8	-	8	8	-
		96 x 24	19	16	10	10	-	10	10	-
		112 x 24	22	18	12	12	-	12	12	-
		128 x 24	25	21	14	14	-	14	14	-
	4	64 x 32	12	10	7	7	-	7	-	7
		80 x 32	16	13	8	8	-	8	-	8
		96 x 32	19	16	10	10	-	10	-	10
112 x 32		22	18	12	12	-	12	-	12	
128 x 32		25	21	14	14	-	14	-	14	
AlphaEclipse™ 2600/2500 sign	1	96 x 16	19	16	10	-	10	-	-	-
		128 x 16	25	21	14	-	14	-	-	-
		160 x 16	32	26	17	-	17	-	-	-
		192 x 16	38	32	21	-	21	-	-	-
	2	96 x 32	19	16	10	10	-	10	-	10
		128 x 32	25	21	14	14	-	14	-	14
		160 x 32	32	26	17	17	-	17	-	17
		192 x 32	38	32	21	21	-	21	-	21
	3	96 x 48	19	16	10	10	-	10	-	10
		128 x 48	25	21	14	14	-	14	-	14
		160 x 48	32	26	17	17	-	17	-	17
		192 x 48	38	32	21	21	-	21	-	21
	4	96 x 64	19	16	10	10	-	10	-	10
		128 x 64	25	21	14	14	-	14	-	14
		160 x 64	32	26	17	17	-	17	-	17
		192 x 64	38	32	21	21	-	21	-	21
	5	96 x 80	19	16	10	10	-	10	-	10
		128 x 80	25	21	14	14	-	14	-	14
		160 x 80	32	26	17	17	-	17	-	17
		192 x 80	38	32	21	21	-	21	-	21

