## UB Series Legend Packet



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The primary purpose of this Legend Packet is to let our customers know that NKK Switches provides full support regarding your legending requirements. The packet is designed to provide information to make your legending choices easy and concise, and to let you know that our availability can range from answering a few questions to guiding you through the entire process. Feel free to acquaint yourself with the following pages specific to your applications, then contact us and let us know how we may be of further assistance. We look forward to serving all you legending needs.

## Customer Request Form

UB Series Legend Instructions

| 1 Customer Information | Today's Date |  |
| :--- | :--- | :--- |
| Company Name | Phone ( ) |  |
| Address |  | Fax ( ) |
| City | State | Zip Code |
| Contact Person | Email |  |

Important! Please complete one Request Form for each legend requested.

## 2 Switch

Switch Part Number

## Quantity Requested

## Cap Part Number

Refer to Legend Packet page UB3 if you need assistance.

## 3 Surface



See Legend Packet page UB3 if you need more information on printable surfaces.
4 Font Style and Size
$\square$ Helvetica Light
Helvetica Regular
$\qquad$


## Cap Types and Combinations

## UB Series Legend Instructions

## Opaque Caps for Nonilluminated

AT4073
Square

AT4116
Rectangular


Legend on Cap


Legend on Cap

Full Face Illuminated Caps for Bright LED

AT4074
Square

AT4075
Square


Lens

Film Insert

Diffuser

AT4117
Rectangular

AT4118 Rectangular

Legend on Lens or Film Insert

Legend on Lens or Film Insert


Full Face Illuminated Cap for Super Bright LED
AT4074
Square

AT4075
Square


Lens

Film Insert

Diffuser

Legend on Lens or Film Insert

Spot Illuminated Caps

AT4119
Square


Cap

Legend on Cap

AT4 120
Rectangular


Legend on Cap

Orientation of Legends on Square and Rectangular Switches


SயITㄷHES

## UB Series Legend Instructions

The following tables display Helvetica font styles in graduated point sizes. These tables can give you an idea at a glance which size might be most compatible for your legend. For more detailed information on each font style and individual character widths, see pages UB6 through UB9.

HELVETICA LIGHT

| Actual Font <br> and Size | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWVI |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | $.063^{\prime \prime}$ | $.075^{\prime \prime}$ | $.084^{\prime \prime}$ | $.092^{\prime \prime}$ | $.100^{\prime \prime}$ | $.111^{\prime \prime}$ | $.120^{\prime \prime}$ | $.141^{\prime \prime}$ | $.161^{\prime \prime}$ | $.189^{\prime \prime}$ | $.211^{\prime \prime}$ | $.231^{\prime \prime}$ |

See page UB6 for the Helvetica Light Font Style table.

## HELVETICA REGULAR

| Actual Font <br> and Size | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWVI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | $.064^{\prime \prime}$ | $.077^{\prime \prime}$ | $.086^{\prime \prime}$ | $.096^{\prime \prime}$ | $.107^{\prime \prime}$ | $.118^{\prime \prime}$ | $.129^{\prime \prime}$ | $.149^{\prime \prime}$ | $.171^{\prime \prime}$ | $.189^{\prime \prime}$ | $.214^{\prime \prime}$ | $.250^{\prime \prime}$ |

See page UB7 for the Helvetica Regular Font Style table.

## HELVETICA BOLD

| Actual Font <br> and Size |  |  | EwI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWVI | EW I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $.086^{\prime \prime}$ | $.096^{\prime \prime}$ | $.107^{\prime \prime}$ | $.117^{\prime \prime}$ | $.128^{\prime \prime}$ | $.149^{\prime \prime}$ | $.170^{\prime \prime}$ | $.191^{\prime \prime}$ | $.203^{\prime \prime}$ | $.234^{\prime \prime}$ |

See page UB8 for the Helvetica Bold Font Style table.

HELVETICA BLACK

| Actual Font <br> and Size |  |  | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWMI | EVI |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $.084^{\prime \prime}$ | $.095^{\prime \prime}$ | $.106^{\prime \prime}$ | $.116^{\prime \prime}$ | $.126^{\prime \prime}$ | $.149^{\prime \prime}$ | $.169^{\prime \prime}$ | $.189^{\prime \prime}$ | $.211^{\prime \prime}$ | $.229^{\prime \prime}$ |

See page uB9 for the Helvetica Black Font Style table.

Note: Minimum distance between characters on any font style is critical to legibility and cannot be less than $.015^{\prime \prime}$. Remember to include this dimension between each character width when calculating overall legend length.


Note: Minimum distance between characters is critical to legibility and cannot be less than $.015^{\prime \prime}$.

Helvetica Regular
UB Series Legend Instructions

| Actual Font and Size | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | $E W I$ | $E W$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | .064" | .077" | .086" | .096" | .107" | .118" | .129" | .149 | .171 | .189" | .214" | .250" |
| Character | Character Widths in Inches |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { A } \\ & \text { B } \\ & \text { C } \end{aligned}$ | $\begin{aligned} & .054 \\ & .045 \\ & .053 \end{aligned}$ | $\begin{aligned} & .063 \\ & .054 \\ & .062 \end{aligned}$ | $\begin{aligned} & .072 \\ & .061 \\ & .069 \end{aligned}$ | $\begin{aligned} & .081 \\ & .069 \\ & .079 \\ & \hline \end{aligned}$ | $\begin{aligned} & .089 \\ & .076 \\ & .088 \end{aligned}$ | $\begin{aligned} & .097 \\ & .084 \\ & .096 \end{aligned}$ | $\begin{aligned} & .108 \\ & .091 \\ & \hline \end{aligned}$ | $\begin{aligned} & .126 \\ & .105 \\ & .122 \end{aligned}$ | $\begin{aligned} & .142 \\ & .122 \\ & .139 \end{aligned}$ | $\begin{aligned} & .159 \\ & .139 \\ & .159 \end{aligned}$ | $\begin{aligned} & .178 \\ & .151 \\ & .176 \end{aligned}$ | $\begin{aligned} & .196 \\ & .167 \\ & .194 \end{aligned}$ |
| $\begin{aligned} & \hline D \\ & E \\ & F \end{aligned}$ | $\begin{aligned} & .048 \\ & .044 \\ & .042 \end{aligned}$ | $\begin{aligned} & .056 \\ & .052 \\ & .056 \end{aligned}$ | $\begin{aligned} & .065 \\ & .059 \\ & .056 \end{aligned}$ | $\begin{aligned} & .073 \\ & .066 \\ & .063 \end{aligned}$ | $\begin{aligned} & .082 \\ & .074 \\ & .069 \end{aligned}$ | $\begin{aligned} & .090 \\ & .081 \\ & .076 \end{aligned}$ | $\begin{aligned} & .097 \\ & .086 \\ & .082 \end{aligned}$ | $\begin{aligned} & .112 \\ & .103 \\ & .095 \end{aligned}$ | $\begin{aligned} & .129 \\ & .116 \\ & .102 \end{aligned}$ | $\begin{aligned} & .145 \\ & .132 \\ & .123 \end{aligned}$ | $\begin{aligned} & .161 \\ & .145 \\ & .136 \end{aligned}$ | $\begin{aligned} & .178 \\ & .160 \\ & .149 \end{aligned}$ |
| $\begin{aligned} & \mathrm{G} \\ & \mathrm{H} \\ & \mathrm{I} \end{aligned}$ | $\begin{aligned} & .056 \\ & .048 \\ & .009 \end{aligned}$ | $\begin{aligned} & .064 \\ & .056 \\ & .010 \end{aligned}$ | $\begin{aligned} & .075 \\ & .063 \\ & .011 \end{aligned}$ | $\begin{aligned} & .085 \\ & .071 \\ & .010 \end{aligned}$ | $\begin{aligned} & .094 \\ & .079 \\ & .014 \end{aligned}$ | $\begin{aligned} & .103 \\ & .087 \\ & .013 \end{aligned}$ | $\begin{aligned} & .111 \\ & .094 \\ & .016 \end{aligned}$ | $\begin{aligned} & .130 \\ & .109 \\ & .019 \end{aligned}$ | $\begin{aligned} & .147 \\ & .125 \\ & .020 \end{aligned}$ | $\begin{aligned} & .167 \\ & .140 \\ & .024 \end{aligned}$ | $\begin{aligned} & .185 \\ & .157 \\ & .028 \end{aligned}$ | $\begin{aligned} & .204 \\ & .173 \\ & .029 \end{aligned}$ |
| $\begin{aligned} & \hline \text { J } \\ & \text { K } \end{aligned}$ | $\begin{aligned} & .035 \\ & .049 \\ & .039 \end{aligned}$ | $\begin{aligned} & .041 \\ & .057 \\ & .043 \end{aligned}$ | $\begin{aligned} & .047 \\ & .064 \\ & .051 \end{aligned}$ | $\begin{aligned} & .051 \\ & .073 \\ & .057 \end{aligned}$ | $\begin{aligned} & .057 \\ & .081 \\ & .063 \end{aligned}$ | $\begin{aligned} & .064 \\ & .088 \\ & .069 \end{aligned}$ | $\begin{aligned} & .070 \\ & .097 \\ & .076 \end{aligned}$ | $\begin{aligned} & .081 \\ & .111 \\ & .088 \end{aligned}$ | $\begin{aligned} & .090 \\ & .127 \\ & .102 \end{aligned}$ | $\begin{aligned} & .102 \\ & .144 \\ & .111 \end{aligned}$ | $\begin{aligned} & .115 \\ & .162 \\ & .127 \end{aligned}$ | $\begin{aligned} & .127 \\ & .178 \\ & .139 \end{aligned}$ |
| $\begin{aligned} & M \\ & \mathrm{~N} \\ & \mathrm{O} \end{aligned}$ | $\begin{array}{r} .059 \\ .049 \\ .059 \\ \hline \end{array}$ | $\begin{array}{r} .067 \\ .058 \\ .069 \\ \hline \end{array}$ | $\begin{aligned} & .077 \\ & .064 \\ & .079 \end{aligned}$ | $\begin{array}{r} .086 \\ .072 \\ .089 \\ \hline \end{array}$ | $\begin{aligned} & .096 \\ & .079 \\ & .097 \\ & \hline \end{aligned}$ | $\begin{aligned} & .107 \\ & .087 \\ & .109 \\ & \hline \end{aligned}$ | $\begin{aligned} & .116 \\ & .096 \\ & .117 \end{aligned}$ | $\begin{aligned} & .134 \\ & .111 \\ & .138 \end{aligned}$ | $\begin{aligned} & .155 \\ & .129 \\ & .156 \end{aligned}$ | $\begin{aligned} & .173 \\ & .141 \\ & .177 \end{aligned}$ | $\begin{aligned} & .191 \\ & .160 \\ & .198 \\ & \hline \end{aligned}$ | $\begin{aligned} & .211 \\ & .175 \\ & .215 \end{aligned}$ |
| $\begin{aligned} & \hline P \\ & Q \\ & R \end{aligned}$ | $\begin{aligned} & \hline .044 \\ & .058 \\ & .050 \end{aligned}$ | $\begin{aligned} & .052 \\ & .069 \\ & .058 \end{aligned}$ | $\begin{aligned} & .058 \\ & .079 \\ & .067 \end{aligned}$ | $\begin{aligned} & .066 \\ & .089 \\ & .075 \end{aligned}$ | $\begin{aligned} & .074 \\ & .099 \\ & .082 \end{aligned}$ | $\begin{aligned} & .082 \\ & .088 \\ & \hline \end{aligned}$ | $\begin{aligned} & .089 \\ & .117 \\ & .098 \end{aligned}$ | $\begin{aligned} & .103 \\ & .139 \\ & .113 \end{aligned}$ | $\begin{aligned} & .115 \\ & .157 \\ & .130 \end{aligned}$ | $\begin{aligned} & .133 \\ & .177 \\ & .147 \end{aligned}$ | $\begin{aligned} & .148 \\ & .198 \\ & .164 \end{aligned}$ | $\begin{aligned} & .161 \\ & .216 \\ & .181 \end{aligned}$ |
| $\begin{aligned} & \hline S \\ & T \\ & U \\ & \hline \end{aligned}$ | $\begin{aligned} & .048 \\ & .049 \\ & .048 \end{aligned}$ | $\begin{aligned} & .056 \\ & .056 \\ & .056 \end{aligned}$ | $\begin{aligned} & .064 \\ & .063 \\ & .063 \end{aligned}$ | $\begin{aligned} & .072 \\ & .071 \\ & .071 \end{aligned}$ | $\begin{aligned} & .080 \\ & .080 \\ & .078 \\ & \hline \end{aligned}$ | $\begin{aligned} & .088 \\ & .089 \\ & .087 \end{aligned}$ | $\begin{aligned} & .096 \\ & .097 \\ & .094 \end{aligned}$ | $\begin{array}{r} .111 \\ .111 \\ .110 \\ \hline \end{array}$ | $\begin{aligned} & .126 \\ & .127 \\ & .126 \\ & \hline \end{aligned}$ | $\begin{aligned} & .142 \\ & .142 \\ & .139 \end{aligned}$ | $\begin{aligned} & .161 \\ & .161 \\ & .158 \\ & \hline \end{aligned}$ | $\begin{aligned} & .161 \\ & .176 \\ & .177 \end{aligned}$ |
| $\begin{aligned} & \hline v \\ & w \\ & X \end{aligned}$ | $\begin{aligned} & .052 \\ & .076 \\ & .053 \end{aligned}$ | $\begin{aligned} & .060 \\ & .089 \\ & .062 \end{aligned}$ | $\begin{aligned} & .071 \\ & .101 \\ & .071 \end{aligned}$ | $\begin{aligned} & .077 \\ & .114 \\ & .080 \end{aligned}$ | $\begin{aligned} & .086 \\ & .128 \\ & .088 \end{aligned}$ | $\begin{aligned} & .097 \\ & .138 \\ & .098 \end{aligned}$ | $\begin{aligned} & .103 \\ & .153 \\ & .106 \end{aligned}$ | $\begin{aligned} & .120 \\ & .178 \\ & .122 \end{aligned}$ | $\begin{aligned} & .138 \\ & .204 \\ & .140 \end{aligned}$ | $\begin{aligned} & .154 \\ & .227 \\ & .156 \end{aligned}$ | $\begin{aligned} & .173 \\ & .251 \\ & .174 \end{aligned}$ | $\begin{aligned} & .189 \\ & .880 \\ & .193 \end{aligned}$ |
| $\begin{aligned} & Y \\ & Z \\ & Z \\ & 1 \end{aligned}$ | $\begin{aligned} & .054 \\ & .047 \\ & .021 \\ & \hline \end{aligned}$ | $\begin{aligned} & .064 \\ & .054 \\ & .023 \end{aligned}$ | $\begin{aligned} & .073 \\ & .063 \\ & .029 \end{aligned}$ | $\begin{aligned} & .083 \\ & .070 \\ & .031 \\ & \hline \end{aligned}$ | $\begin{aligned} & .090 \\ & .078 \\ & .035 \\ & \hline \end{aligned}$ | $\begin{aligned} & .100 \\ & .086 \\ & .038 \\ & \hline \end{aligned}$ | $\begin{aligned} & .109 \\ & .094 \\ & .041 \end{aligned}$ | $\begin{aligned} & .126 \\ & .108 \\ & .046 \end{aligned}$ | $\begin{aligned} & .146 \\ & .124 \\ & .056 \\ & \hline \end{aligned}$ | $\begin{array}{r} .162 \\ .139 \\ .063 \\ \hline \end{array}$ | $\begin{array}{r} .181 \\ .155 \\ .068 \\ \hline \end{array}$ | $\begin{array}{r} .200 \\ .172 \\ .076 \\ \hline \end{array}$ |
| $\begin{aligned} & 2 \\ & 3 \\ & 4 \end{aligned}$ | $\begin{aligned} & \hline .041 \\ & .041 \\ & .042 \end{aligned}$ | $\begin{aligned} & .047 \\ & .046 \\ & .048 \end{aligned}$ | $\begin{aligned} & .055 \\ & .054 \\ & .056 \end{aligned}$ | $\begin{aligned} & .061 \\ & .060 \\ & .062 \end{aligned}$ | $\begin{aligned} & .066 \\ & .067 \\ & .069 \end{aligned}$ | $\begin{aligned} & .074 \\ & .072 \\ & .076 \end{aligned}$ | $\begin{aligned} & .078 \\ & .080 \\ & .082 \end{aligned}$ | $\begin{aligned} & .093 \\ & .094 \\ & .096 \end{aligned}$ | $\begin{aligned} & .107 \\ & .107 \\ & \hline \end{aligned}$ | $\begin{aligned} & .119 \\ & .119 \\ & .122 \end{aligned}$ | $\begin{aligned} & .134 \\ & .133 \\ & .138 \end{aligned}$ | $\begin{aligned} & .146 \\ & .146 \\ & .151 \end{aligned}$ |
| $\begin{aligned} & 5 \\ & 6 \\ & 7 \\ & \hline \end{aligned}$ | $\begin{aligned} & .041 \\ & .040 \\ & .041 \end{aligned}$ | $\begin{aligned} & .048 \\ & .046 \\ & .047 \end{aligned}$ | $\begin{aligned} & .054 \\ & .054 \\ & .053 \end{aligned}$ | $\begin{aligned} & .061 \\ & .060 \\ & .060 \end{aligned}$ | $\begin{aligned} & .067 \\ & .066 \\ & .069 \end{aligned}$ | $\begin{aligned} & .074 \\ & .072 \\ & .072 \end{aligned}$ | $\begin{aligned} & .080 \\ & .080 \\ & .080 \end{aligned}$ | $\begin{aligned} & .093 \\ & .092 \\ & .093 \end{aligned}$ | $\begin{aligned} & .107 \\ & .107 \\ & .105 \end{aligned}$ | $\begin{aligned} & .120 \\ & .119 \\ & .118 \end{aligned}$ | $\begin{aligned} & .134 \\ & .131 \\ & .133 \end{aligned}$ | $\begin{aligned} & .148 \\ & .145 \\ & .145 \end{aligned}$ |
| $\begin{aligned} & \hline 8 \\ & 9 \\ & 0 \end{aligned}$ | $\begin{aligned} & .040 \\ & .040 \\ & .040 \\ & \hline \end{aligned}$ | $\begin{aligned} & .046 \\ & .046 \\ & .045 \end{aligned}$ | $\begin{aligned} & \hline .053 \\ & .053 \\ & .052 \end{aligned}$ | $\begin{aligned} & .060 \\ & .059 \\ & .059 \\ & \hline \end{aligned}$ | $\begin{aligned} & .066 \\ & .065 \\ & .065 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .073 \\ & .072 \\ & .071 \\ & \hline \end{aligned}$ | $\begin{aligned} & .079 \\ & .080 \\ & .077 \end{aligned}$ | $\begin{aligned} & .092 \\ & .092 \\ & .090 \\ & \hline \end{aligned}$ | $\begin{aligned} & .107 \\ & .105 \\ & .102 \end{aligned}$ | $\begin{aligned} & .119 \\ & .119 \\ & .116 \end{aligned}$ | $\begin{array}{r} .133 \\ .132 \\ .129 \\ \hline \end{array}$ | $\begin{aligned} & .147 \\ & .145 \\ & .141 \end{aligned}$ |
| + | $\begin{aligned} & \hline .009 \\ & .008 \\ & .041 \\ & \hline \end{aligned}$ | $\begin{aligned} & .011 \\ & .011 \\ & .048 \end{aligned}$ | $\begin{aligned} & \hline .012 \\ & .012 \\ & .054 \end{aligned}$ | $\begin{aligned} & .014 \\ & .014 \\ & .061 \end{aligned}$ | $\begin{aligned} & \hline .015 \\ & .017 \\ & .068 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .016 \\ & .017 \\ & .074 \\ & \hline \end{aligned}$ | $\begin{aligned} & .017 \\ & .018 \\ & .081 \end{aligned}$ | $\begin{aligned} & .020 \\ & .020 \\ & .095 \\ & \hline \end{aligned}$ | $\begin{array}{r} .023 \\ .024 \\ .110 \\ \hline \end{array}$ | $\begin{aligned} & .027 \\ & .026 \\ & .122 \end{aligned}$ | $\begin{aligned} & .029 \\ & .030 \\ & .134 \end{aligned}$ | $\begin{aligned} & .031 \\ & .023 \\ & .149 \end{aligned}$ |
| / | .020 .025 | $\begin{aligned} & \hline .023 \\ & \hline .029 \end{aligned}$ | $\begin{aligned} & .026 \\ & .033 \end{aligned}$ | $\begin{aligned} & .030 \\ & .039 \end{aligned}$ | $\begin{aligned} & \hline .034 \\ & .041 \end{aligned}$ | $\begin{aligned} & \hline .037 \\ & .045 \end{aligned}$ | $\begin{aligned} & \hline .041 \\ & .050 \end{aligned}$ | $\begin{aligned} & .048 \\ & .056 \end{aligned}$ | $\begin{aligned} & .054 \\ & .065 \end{aligned}$ | $\begin{aligned} & \hline .061 \\ & .074 \end{aligned}$ | $\begin{aligned} & .066 \\ & .081 \end{aligned}$ | $\begin{aligned} & .074 \\ & .089 \end{aligned}$ |

Note: Minimum distance between characters is critical to legibility and cannot be less than $.015^{\prime \prime}$.

Helvetica Bold
UB Series Legend Instructions

| Actual Font and Size |  |  | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | $E W$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | n/a | n/a | .086" | .096" | .107" | .117" | 128" | .149 ${ }^{\prime \prime}$ | .170" | .191" | 203" | . 234 " |
| Character | Character Widths in Inches |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { A } \\ & \text { B } \\ & \text { C } \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\begin{aligned} & \hline .076 \\ & .065 \\ & .073 \\ & \hline \end{aligned}$ | $\begin{aligned} & .085 \\ & .073 \\ & .081 \end{aligned}$ | $\begin{aligned} & .095 \\ & .082 \\ & .089 \\ & \hline \end{aligned}$ | $\begin{aligned} & .105 \\ & .089 \\ & .098 \\ & \hline \end{aligned}$ | $\begin{array}{r} .113 \\ .097 \\ .107 \\ \hline \end{array}$ | $\begin{array}{r} .132 \\ .114 \\ .125 \\ \hline \end{array}$ | $\begin{aligned} & .150 \\ & .129 \\ & .144 \end{aligned}$ | $\begin{array}{r} .170 \\ .146 \\ .162 \\ \hline \end{array}$ | $\begin{array}{r} .189 \\ .163 \\ .179 \\ \hline \end{array}$ | $\begin{array}{r} .208 \\ .179 \\ .196 \\ \hline \end{array}$ |
| $\begin{aligned} & \hline D \\ & E \\ & F \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .068 \\ & .062 \\ & .057 \end{aligned}$ | $\begin{aligned} & .076 \\ & .069 \\ & .065 \end{aligned}$ | $\begin{aligned} & .085 \\ & .076 \\ & .072 \end{aligned}$ | $\begin{aligned} & .093 \\ & .084 \\ & .079 \end{aligned}$ | $\begin{aligned} & .102 \\ & .092 \\ & .086 \end{aligned}$ | $\begin{aligned} & .119 \\ & .107 \\ & .101 \end{aligned}$ | $\begin{aligned} & .135 \\ & .122 \\ & .115 \end{aligned}$ | $\begin{aligned} & .151 \\ & .137 \\ & .129 \end{aligned}$ | $\begin{aligned} & .168 \\ & .152 \\ & .143 \end{aligned}$ | $\begin{aligned} & .186 \\ & .168 \\ & .157 \end{aligned}$ |
| $\begin{aligned} & \mathrm{G} \\ & \mathrm{H} \\ & \mathrm{I} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .075 \\ & .065 \\ & .017 \end{aligned}$ | $\begin{aligned} & .084 \\ & .075 \\ & .019 \\ & \hline \end{aligned}$ | $\begin{aligned} & .094 \\ & .083 \\ & .022 \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline .103 \\ .090 \\ .023 \\ \hline \end{array}$ | $\begin{array}{r} .112 \\ .099 \\ .026 \\ \hline \end{array}$ | $\begin{aligned} & .130 \\ & .116 \\ & .030 \end{aligned}$ | $\begin{array}{r} .149 \\ .131 \\ .034 \\ \hline \end{array}$ | $\begin{aligned} & .168 \\ & .148 \\ & .038 \end{aligned}$ | $\begin{aligned} & .186 \\ & .164 \\ & .043 \end{aligned}$ | $\begin{aligned} & .205 \\ & .181 \\ & .047 \end{aligned}$ |
| $\begin{aligned} & \mathrm{J} \\ & \mathrm{~K} \\ & \mathrm{~L} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .052 \\ & .073 \\ & .056 \end{aligned}$ | $\begin{aligned} & .059 \\ & .082 \\ & .063 \\ & \hline \end{aligned}$ | $\begin{aligned} & .065 \\ & .090 \\ & .070 \end{aligned}$ | $\begin{aligned} & .071 \\ & .099 \\ & .076 \end{aligned}$ | $\begin{aligned} & .077 \\ & .109 \\ & .084 \end{aligned}$ | $\begin{aligned} & .091 \\ & .126 \\ & .098 \end{aligned}$ | $\begin{aligned} & .103 \\ & .143 \\ & .111 \end{aligned}$ | $\begin{aligned} & .116 \\ & .162 \\ & .126 \end{aligned}$ | $\begin{aligned} & .129 \\ & .180 \\ & .140 \end{aligned}$ | $\begin{aligned} & .142 \\ & .198 \\ & .154 \end{aligned}$ |
| $\begin{aligned} & M \\ & N \\ & \mathrm{~N} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .080 \\ & .067 \\ & .079 \\ & \hline \end{aligned}$ | $\begin{aligned} & .089 \\ & .075 \\ & .088 \end{aligned}$ | $\begin{aligned} & .100 \\ & .083 \\ & .097 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline .109 \\ .091 \\ .107 \\ \hline \end{array}$ | $\begin{aligned} & .120 \\ & .100 \\ & .118 \end{aligned}$ | $\begin{array}{r} .140 \\ .116 \\ .137 \\ \hline \end{array}$ | $\begin{array}{r} .159 \\ .132 \\ .156 \\ \hline \end{array}$ | $\begin{array}{r} .179 \\ .148 \\ .176 \\ \hline \end{array}$ | $\begin{array}{r} .199 \\ .166 \\ .195 \\ \hline \end{array}$ | $\begin{array}{r} .219 \\ .182 \\ .215 \\ \hline \end{array}$ |
| $\begin{aligned} & \mathrm{P} \\ & \mathrm{Q} \\ & \mathrm{R} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .063 \\ & .077 \\ & .067 \end{aligned}$ | $\begin{aligned} & .070 \\ & .088 \\ & .076 \end{aligned}$ | $\begin{aligned} & .078 \\ & .098 \\ & .083 \end{aligned}$ | $\begin{aligned} & .086 \\ & .088 \\ & .092 \end{aligned}$ | $\begin{aligned} & .095 \\ & .118 \\ & .100 \end{aligned}$ | $\begin{aligned} & .109 \\ & .137 \\ & .116 \end{aligned}$ | $\begin{aligned} & .124 \\ & .157 \\ & .133 \end{aligned}$ | $\begin{aligned} & .140 \\ & .175 \\ & .149 \end{aligned}$ | $\begin{aligned} & .155 \\ & .195 \\ & .167 \end{aligned}$ | $\begin{aligned} & .171 \\ & .216 \\ & .184 \end{aligned}$ |
| $\begin{aligned} & \mathrm{S} \\ & \mathrm{~T} \\ & \mathrm{U} \\ & \hline \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .068 \\ & .065 \\ & .065 \\ & \hline \end{aligned}$ | $\begin{aligned} & .076 \\ & .074 \\ & .073 \end{aligned}$ | $\begin{aligned} & .084 \\ & .082 \\ & .082 \\ & \hline \end{aligned}$ | $\begin{array}{r} .092 \\ .089 \\ .089 \\ \hline \end{array}$ | $\begin{array}{r} .102 \\ .098 \\ .098 \\ \hline \end{array}$ | $\begin{array}{r} .118 \\ .115 \\ .114 \\ \hline \end{array}$ | $\begin{array}{r} .135 \\ .131 \\ .129 \\ \hline \end{array}$ | $\begin{array}{r} .151 \\ .147 \\ .145 \\ \hline \end{array}$ | $\begin{array}{r} .168 \\ .163 \\ .162 \\ \hline \end{array}$ | $\begin{array}{r} .185 \\ .180 \\ .177 \\ \hline \end{array}$ |
| $\begin{aligned} & \hline v \\ & w \\ & X \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .069 \\ & .102 \\ & .070 \end{aligned}$ | $\begin{aligned} & .078 \\ & .116 \\ & .081 \end{aligned}$ | $\begin{aligned} & .087 \\ & .129 \\ & .089 \end{aligned}$ | $\begin{aligned} & .096 \\ & .142 \\ & .098 \end{aligned}$ | $\begin{aligned} & .104 \\ & .155 \\ & .106 \end{aligned}$ | $\begin{aligned} & .122 \\ & .180 \\ & .122 \end{aligned}$ | $\begin{aligned} & .140 \\ & .206 \\ & .140 \end{aligned}$ | $\begin{aligned} & .157 \\ & .230 \\ & .159 \end{aligned}$ | $\begin{aligned} & .175 \\ & .256 \\ & .176 \end{aligned}$ | $\begin{aligned} & .191 \\ & .281 \\ & .193 \end{aligned}$ |
| $\begin{aligned} & Y \\ & Y \\ & Z \\ & 1 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .069 \\ & .062 \\ & .035 \end{aligned}$ | $\begin{aligned} & .078 \\ & .069 \\ & .039 \end{aligned}$ | $\begin{aligned} & .087 \\ & .077 \\ & .043 \end{aligned}$ | $\begin{aligned} & .096 \\ & .084 \\ & .049 \end{aligned}$ | $\begin{aligned} & .105 \\ & .092 \\ & .053 \end{aligned}$ | $\begin{aligned} & .122 \\ & .108 \\ & .060 \end{aligned}$ | $\begin{array}{r} .139 \\ .122 \\ .069 \end{array}$ | $\begin{aligned} & .156 \\ & .138 \\ & .078 \end{aligned}$ | $\begin{array}{r} .175 \\ .153 \\ .086 \end{array}$ | $\begin{aligned} & .191 \\ & .168 \\ & .096 \end{aligned}$ |
| $\begin{aligned} & 2 \\ & 3 \\ & 4 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .054 \\ & .055 \\ & .056 \\ & \hline \end{aligned}$ | $\begin{aligned} & .061 \\ & .062 \\ & .063 \\ & \hline \end{aligned}$ | $\begin{aligned} & .067 \\ & .069 \\ & .069 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline .074 \\ .076 \\ .077 \\ \hline \end{array}$ | $\begin{aligned} & .082 \\ & .082 \\ & .083 \end{aligned}$ | $\begin{aligned} & .094 \\ & .095 \\ & .098 \\ & \hline \end{aligned}$ | $\begin{aligned} & .107 \\ & .109 \\ & .112 \end{aligned}$ | $\begin{array}{r} .122 \\ .122 \\ .125 \\ \hline \end{array}$ | $\begin{aligned} & .135 \\ & .136 \\ & .140 \end{aligned}$ | $\begin{array}{r} .148 \\ .149 \\ .153 \end{array}$ |
| $\begin{aligned} & \hline 5 \\ & 6 \\ & 7 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .056 \\ & .055 \\ & .056 \end{aligned}$ | $\begin{aligned} & .062 \\ & .063 \\ & .063 \end{aligned}$ | $\begin{aligned} & .069 \\ & .069 \\ & .070 \end{aligned}$ | $\begin{aligned} & .076 \\ & .076 \\ & .077 \\ & \hline \end{aligned}$ | $\begin{aligned} & .083 \\ & .082 \\ & .084 \end{aligned}$ | $\begin{aligned} & .096 \\ & .096 \\ & .098 \end{aligned}$ | $\begin{aligned} & .109 \\ & .109 \\ & .112 \end{aligned}$ | $\begin{aligned} & .122 \\ & .122 \\ & .119 \end{aligned}$ | $\begin{aligned} & .136 \\ & .138 \\ & .140 \end{aligned}$ | $\begin{aligned} & .151 \\ & .149 \\ & .154 \end{aligned}$ |
| $\begin{aligned} & 8 \\ & 9 \\ & 0 \\ & \hline \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .056 \\ & .055 \\ & .055 \end{aligned}$ | $\begin{aligned} & .063 \\ & .061 \\ & .062 \end{aligned}$ | $\begin{aligned} & .069 \\ & .069 \\ & .069 \end{aligned}$ | $\begin{aligned} & .078 \\ & .076 \\ & .076 \end{aligned}$ | $\begin{aligned} & .085 \\ & .083 \\ & .081 \end{aligned}$ | $\begin{aligned} & .099 \\ & .096 \\ & .096 \end{aligned}$ | $\begin{aligned} & .112 \\ & .109 \\ & .109 \end{aligned}$ | $\begin{aligned} & .127 \\ & .122 \\ & .122 \end{aligned}$ | $\begin{aligned} & .140 \\ & .135 \\ & .137 \end{aligned}$ | $\begin{aligned} & .154 \\ & .149 \\ & .150 \end{aligned}$ |
| + | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .017 \\ & .017 \\ & .054 \end{aligned}$ | $\begin{aligned} & .019 \\ & .020 \\ & .061 \end{aligned}$ | $\begin{aligned} & .021 \\ & .022 \\ & .068 \end{aligned}$ | $\begin{aligned} & .023 \\ & .023 \\ & .075 \end{aligned}$ | $\begin{aligned} & .026 \\ & .026 \\ & .081 \end{aligned}$ | $\begin{aligned} & .030 \\ & .030 \\ & .096 \end{aligned}$ | $\begin{aligned} & .033 \\ & .034 \\ & .108 \end{aligned}$ | $\begin{aligned} & .038 \\ & .038 \\ & .122 \end{aligned}$ | $\begin{aligned} & .043 \\ & .043 \\ & .135 \end{aligned}$ | $\begin{aligned} & .047 \\ & .047 \\ & .148 \end{aligned}$ |
| 1 | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & \hline .031 \\ & .030 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .034 \\ & .035 \end{aligned}$ | $\begin{aligned} & \hline .038 \\ & .038 \end{aligned}$ | $\begin{aligned} & .042 \\ & .043 \end{aligned}$ | $\begin{aligned} & .046 \\ & .046 \end{aligned}$ | $\begin{aligned} & .054 \\ & .054 \end{aligned}$ | $\begin{aligned} & .061 \\ & .062 \end{aligned}$ | $\begin{aligned} & .069 \\ & .069 \end{aligned}$ | $\begin{aligned} & .078 \\ & .076 \end{aligned}$ | $\begin{aligned} & .084 \\ & .084 \end{aligned}$ |

Note: Minimum distance between characters is critical to legibility and cannot be less than $.015^{\prime \prime}$.

| Actual Font and Size |  |  | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EWI | EM | EW |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Font Size in Points | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 14 | 16 | 18 | 20 | 22 |
| Character Height | n/a | $\mathrm{n} / \mathrm{a}$ | .084" | .095" | .106" | .116" | .126" | .149 ${ }^{\prime \prime}$ | .169" | .189" | 211" | .229" |
| Character | Character Widths in Inches |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { A } \\ & \text { B } \\ & \text { C } \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .085 \\ & .075 \\ & .082 \end{aligned}$ | $\begin{aligned} & .096 \\ & .084 \\ & .091 \\ & \hline \end{aligned}$ | $\begin{aligned} & .106 \\ & .093 \\ & .102 \end{aligned}$ | $\begin{array}{r} .116 \\ .102 \\ .112 \\ \hline \end{array}$ | $\begin{array}{r} .127 \\ .111 \\ .122 \\ \hline \end{array}$ | $\begin{array}{r} .148 \\ .129 \\ .142 \\ \hline \end{array}$ | $\begin{array}{r} .170 \\ .147 \\ .162 \\ \hline \end{array}$ | $\begin{array}{r} .186 \\ .167 \\ .182 \\ \hline \end{array}$ | $\begin{array}{r} .211 \\ .184 \\ .203 \\ \hline \end{array}$ | $\begin{aligned} & .233 \\ & .203 \\ & .222 \end{aligned}$ |
| $\begin{aligned} & \hline D \\ & \hline E \\ & F \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .078 \\ & .068 \\ & .063 \end{aligned}$ | $\begin{aligned} & .088 \\ & .076 \\ & .071 \end{aligned}$ | $\begin{aligned} & .097 \\ & .084 \\ & .079 \end{aligned}$ | $\begin{aligned} & .107 \\ & .093 \\ & .087 \end{aligned}$ | $\begin{aligned} & .115 \\ & .101 \\ & .094 \end{aligned}$ | $\begin{aligned} & .136 \\ & .117 \\ & .110 \end{aligned}$ | $\begin{aligned} & .155 \\ & .134 \\ & .125 \end{aligned}$ | $\begin{aligned} & .174 \\ & .151 \\ & .141 \end{aligned}$ | $\begin{aligned} & .193 \\ & .168 \\ & .157 \end{aligned}$ | $\begin{aligned} & .214 \\ & .184 \\ & .173 \end{aligned}$ |
| $\begin{aligned} & \mathrm{G} \\ & \mathrm{H} \\ & \mathrm{I} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .082 \\ & .078 \\ & .027 \end{aligned}$ | $\begin{aligned} & .092 \\ & .088 \\ & .030 \end{aligned}$ | $\begin{aligned} & .102 \\ & .097 \\ & .034 \end{aligned}$ | $\begin{aligned} & .112 \\ & .108 \\ & .037 \end{aligned}$ | $\begin{aligned} & .122 \\ & .117 \\ & .040 \end{aligned}$ | $\begin{aligned} & .141 \\ & .136 \\ & .047 \end{aligned}$ | $\begin{aligned} & .162 \\ & .155 \\ & .053 \end{aligned}$ | $\begin{aligned} & .183 \\ & .175 \\ & .060 \end{aligned}$ | $\begin{aligned} & .203 \\ & .194 \\ & .067 \end{aligned}$ | $\begin{aligned} & .223 \\ & .212 \\ & .072 \end{aligned}$ |
| $\begin{aligned} & \text { J } \\ & \text { K } \\ & \text { L } \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .065 \\ & .084 \\ & .063 \end{aligned}$ | $\begin{aligned} & .072 \\ & .095 \\ & .071 \end{aligned}$ | $\begin{aligned} & .081 \\ & .04 \\ & .079 \end{aligned}$ | $\begin{aligned} & .088 \\ & .116 \\ & .087 \end{aligned}$ | $\begin{aligned} & .096 \\ & .125 \\ & .094 \end{aligned}$ | $\begin{aligned} & .112 \\ & .147 \\ & .110 \end{aligned}$ | $\begin{aligned} & .127 \\ & .167 \\ & .125 \end{aligned}$ | $\begin{aligned} & .142 \\ & .188 \\ & .141 \end{aligned}$ | $\begin{aligned} & .159 \\ & .210 \\ & .157 \end{aligned}$ | $\begin{aligned} & .175 \\ & .230 \\ & .171 \end{aligned}$ |
| $\begin{aligned} & \mathrm{M} \\ & \mathrm{~N} \\ & \mathrm{O} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{array}{r} .092 \\ .078 \\ .085 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline .103 \\ .087 \\ \hline .095 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline .115 \\ .097 \\ .106 \\ \hline \end{array}$ | $\begin{aligned} & .126 \\ & .108 \\ & .116 \\ & \hline \end{aligned}$ | $\begin{aligned} & .139 \\ & .116 \\ & .126 \\ & \hline \end{aligned}$ | $\begin{aligned} & .161 \\ & .136 \\ & .148 \end{aligned}$ | $\begin{aligned} & .184 \\ & .155 \\ & .168 \end{aligned}$ | $\begin{aligned} & .208 \\ & .175 \\ & .190 \end{aligned}$ | $\begin{aligned} & .230 \\ & .194 \\ & .211 \end{aligned}$ | $\begin{aligned} & .251 \\ & .214 \\ & .231 \end{aligned}$ |
| $\begin{aligned} & \hline \mathrm{P} \\ & \mathrm{Q} \\ & \mathrm{R} \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .074 \\ & .085 \\ & .076 \end{aligned}$ | $\begin{aligned} & \hline .083 \\ & .095 \\ & .087 \end{aligned}$ | $\begin{aligned} & .092 \\ & .066 \\ & .096 \end{aligned}$ | $\begin{aligned} & .101 \\ & .116 \\ & .105 \end{aligned}$ | $\begin{aligned} & .109 \\ & .126 \\ & .115 \end{aligned}$ | $\begin{aligned} & .128 \\ & .147 \\ & .135 \end{aligned}$ | $\begin{aligned} & .146 \\ & .168 \\ & .153 \end{aligned}$ | $\begin{aligned} & .165 \\ & .189 \\ & .172 \end{aligned}$ | $\begin{aligned} & .183 \\ & .211 \\ & .192 \end{aligned}$ | $\begin{aligned} & .200 \\ & .230 \\ & .212 \end{aligned}$ |
| $\begin{aligned} & \mathrm{S} \\ & \mathrm{~T} \\ & \mathrm{U} \\ & \hline \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .074 \\ & .074 \\ & .078 \\ & \hline \end{aligned}$ | $\begin{aligned} & .083 \\ & .084 \\ & .088 \end{aligned}$ | $\begin{array}{r} .092 \\ .093 \\ .097 \\ \hline \end{array}$ | $\begin{aligned} & .101 \\ & .102 \\ & .108 \\ & \hline \end{aligned}$ | $\begin{array}{r} .109 \\ .110 \\ .116 \\ \hline \end{array}$ | $\begin{array}{r} .129 \\ .129 \\ .135 \\ \hline \end{array}$ | $\begin{array}{r} .147 \\ .147 \\ .155 \\ \hline \end{array}$ | $\begin{array}{r} .165 \\ .166 \\ .175 \\ \hline \end{array}$ | $\begin{aligned} & .182 \\ & .185 \\ & .194 \end{aligned}$ | $\begin{array}{r} .201 \\ .203 \\ .211 \\ \hline \end{array}$ |
| $\begin{aligned} & \hline v \\ & w \\ & X \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .083 \\ & .111 \\ & .086 \end{aligned}$ | $\begin{array}{\|l\|} \hline .093 \\ .124 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline .102 \\ .138 \\ .106 \\ \hline \end{array}$ | $\begin{aligned} & .112 \\ & .152 \\ & .117 \end{aligned}$ | $\begin{aligned} & .123 \\ & .167 \\ & .128 \end{aligned}$ | $\begin{aligned} & .142 \\ & .194 \\ & .149 \end{aligned}$ | $\begin{aligned} & .164 \\ & .221 \\ & .171 \end{aligned}$ | $\begin{aligned} & .184 \\ & .250 \\ & .190 \end{aligned}$ | $\begin{aligned} & .205 \\ & .275 \\ & .213 \end{aligned}$ | $\begin{aligned} & .226 \\ & .303 \\ & .234 \end{aligned}$ |
| $\begin{aligned} & Y \\ & Z \\ & Z \\ & 1 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .086 \\ & .073 \\ & .042 \end{aligned}$ | $\begin{aligned} & .098 \\ & .082 \\ & .047 \end{aligned}$ | $\begin{aligned} & .109 \\ & .090 \\ & .052 \end{aligned}$ | $\begin{aligned} & .119 \\ & .100 \\ & .058 \end{aligned}$ | $\begin{aligned} & .129 \\ & .069 \end{aligned}$ | $\begin{aligned} & .150 \\ & .127 \\ & .073 \end{aligned}$ | $\begin{array}{r} .172 \\ .145 \\ .083 \\ \hline \end{array}$ | $\begin{aligned} & .194 \\ & .163 \\ & .094 \end{aligned}$ | $\begin{array}{r} .215 \\ .181 \\ .104 \\ \hline \end{array}$ | $\begin{aligned} & .237 \\ & .199 \\ & .113 \end{aligned}$ |
| $\begin{aligned} & 2 \\ & 3 \\ & 4 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .068 \\ & .069 \\ & .069 \end{aligned}$ | $\begin{aligned} & .076 \\ & .076 \\ & .076 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline .083 \\ .083 \\ .086 \\ \hline \end{array}$ | $\begin{aligned} & .091 \\ & .092 \\ & .094 \end{aligned}$ | $\begin{aligned} & .100 \\ & .101 \\ & .102 \end{aligned}$ | $\begin{aligned} & .117 \\ & .117 \\ & .120 \end{aligned}$ | $\begin{aligned} & .132 \\ & .133 \\ & .136 \end{aligned}$ | $\begin{aligned} & .149 \\ & .150 \\ & .154 \end{aligned}$ | $\begin{aligned} & .167 \\ & .167 \\ & .170 \end{aligned}$ | $\begin{aligned} & .183 \\ & .184 \\ & .188 \end{aligned}$ |
| $\begin{aligned} & 5 \\ & 6 \\ & 7 \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .069 \\ & .069 \\ & .064 \end{aligned}$ | $\begin{aligned} & .076 \\ & .077 \\ & .072 \end{aligned}$ | $\begin{aligned} & .085 \\ & .086 \\ & .080 \end{aligned}$ | $\begin{aligned} & .094 \\ & .095 \\ & .088 \end{aligned}$ | $\begin{aligned} & .102 \\ & .103 \\ & .096 \end{aligned}$ | $\begin{aligned} & .120 \\ & .121 \\ & .111 \end{aligned}$ | $\begin{aligned} & .136 \\ & .137 \\ & .127 \end{aligned}$ | $\begin{aligned} & .153 \\ & .154 \\ & .142 \end{aligned}$ | $\begin{aligned} & .170 \\ & .171 \\ & .158 \end{aligned}$ | $\begin{aligned} & .186 \\ & .189 \\ & .175 \end{aligned}$ |
| $\begin{aligned} & \hline 8 \\ & 9 \\ & 0 \\ & \hline \end{aligned}$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .069 \\ & .069 \\ & .069 \end{aligned}$ | $\begin{aligned} & .077 \\ & .077 \\ & .076 \end{aligned}$ | $\begin{array}{\|l\|} \hline .085 \\ .085 \\ .085 \\ \hline \end{array}$ | $\begin{aligned} & .094 \\ & .096 \\ & .095 \end{aligned}$ | $\begin{aligned} & .102 \\ & .102 \\ & .103 \\ & \hline \end{aligned}$ | $\begin{aligned} & .120 \\ & .121 \\ & .119 \end{aligned}$ | $\begin{aligned} & .135 \\ & .136 \\ & .136 \end{aligned}$ | $\begin{array}{r} .154 \\ .155 \\ .154 \\ \hline \end{array}$ | $\begin{aligned} & \hline .170 \\ & .170 \\ & .171 \end{aligned}$ | $\begin{aligned} & .186 \\ & .189 \\ & .189 \end{aligned}$ |
| + | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & \hline .023 \\ & .023 \\ & .056 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline .027 \\ .027 \\ \hline .063 \\ \hline \end{array}$ | $\begin{aligned} & .030 \\ & .030 \\ & .071 \end{aligned}$ | $\begin{array}{r} .033 \\ .033 \\ .077 \\ \hline \end{array}$ | $\begin{aligned} & .036 \\ & .037 \\ & .084 \\ & \hline \end{aligned}$ | $\begin{aligned} & .042 \\ & .042 \\ & .098 \\ & \hline \end{aligned}$ | $\begin{array}{r} .048 \\ .048 \\ .114 \\ \hline \end{array}$ | $\begin{aligned} & .053 \\ & .054 \\ & .127 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .060 \\ & .060 \\ & .141 \end{aligned}$ | $\begin{array}{r} .066 \\ .066 \\ .155 \\ \hline \end{array}$ |
| $/$ | $\mathrm{n} / \mathrm{a}$ | n/a | $\begin{aligned} & .030 \\ & .039 \end{aligned}$ | $\begin{aligned} & \hline .034 \\ & .043 \end{aligned}$ | $\begin{aligned} & .037 \\ & .049 \end{aligned}$ | $\begin{aligned} & .042 \\ & .052 \end{aligned}$ | $\begin{aligned} & .045 \\ & .058 \end{aligned}$ | $\begin{aligned} & .053 \\ & .068 \end{aligned}$ | $\begin{aligned} & .061 \\ & .077 \end{aligned}$ | $\begin{aligned} & .068 \\ & .086 \end{aligned}$ | $\begin{aligned} & .076 \\ & .096 \end{aligned}$ | $\begin{aligned} & .083 \\ & .104 \end{aligned}$ |

Note: Minimum distance between characters is critical to legibility and cannot be less than $.015^{\prime \prime}$.

## UB Series Legend Instructions

Note: All gray areas represent printable surfaces.

## Square Cap Lens

1 line maximum height . $413^{\prime \prime}$ 2 lines maximum height .191" 3 lines maximum height .117" Maximum width . $413^{\prime \prime}$

## Square Film Insert

1 line maximum height $.346^{\prime \prime}$ 2 lines maximum height . $158^{\prime \prime}$ 3 lines maximum height .095" Maximum width $.346^{\prime \prime}$



## Rectangular Cap Lens

1 line maximum height $.413^{\prime \prime}$ 2 lines maximum height .191" 3 lines maximum height .117" Maximum width .609"

## Rectangular Film Insert

1 line maximum height $.346^{\prime \prime}$ 2 lines maximum height . $158^{\prime \prime}$ 3 lines maximum height .095" Maximum width $.543^{\prime \prime}$


Square Spot Illuminated Cap 1 line maximum height $.260^{\prime \prime}$ 2 lines maximum height . 115" Maximum width . $412^{\prime \prime}$

## Rectangular Spot Illuminated

1 line maximum height $.260^{\prime \prime}$ 2 lines maximum height . $115^{\prime \prime}$ Maximum width .609"


