

## DMX protocol

| Robin BMFL Blade - DMX protocol |   |  |  |                 |
|---------------------------------|---|--|--|-----------------|
| version 1.2                     |   | Mode 1 - Standard 16 bit, Mode 2 - Reduced 8 bit |  |                 |
| Mode/channel                    |   | DMX Value  | Function   | Type of control |
| 1                               | 2 |  |  |                 |
| 1                               | 1 |  | <b>Pan</b>   |                 |
|                                 |   | 0 - 255  | Pan movement by 540°   | proportional    |
| 2                               | 2 |  | <b>Pan Fine</b>  |                 |
|                                 |   | 0 - 255  | Fine control of pan movement   | proportional    |
| 3                               | 3 |  | <b>Tilt</b>  |                 |
|                                 |   | 0 - 255  | Tilt movement by 270°  | proportional    |
| 4                               | 4 |  | <b>Tilt fine</b>   |                 |
|                                 |   | 0 - 255  | Fine control of tilt movement  | proportional    |
| 5                               | 5 |  | <b>Pan/Tilt speed , Pan/Tilt time</b>  |                 |
|                                 |   | 0  | Standard mode  | step            |
|                                 |   | 1  | Max. Speed Mode  | step            |
|                                 |   |  | <b>Pan/Tilt speed mode</b>   |                 |
|                                 |   | 2 - 255  | Speed from max. to min.  | proportional    |
|                                 |   |  | <b>Pan/Tilt time mode</b>  |                 |
|                                 |   | 2 - 255  | Time from 0.2 s to 25.5 sec.   | proportional    |
| 6                               | 6 |  | <b>Power/Special functions</b>   |                 |
|                                 |   | 0 - 9  | Reserved   |                 |
|                                 |   |  | <i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe“ channel 47/41 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden except DMX Input.</i> |                 |
|                                 |   | 10-14  | DMX input: Wired DMX *   | step            |
|                                 |   | 15-19  | DMX input: Wireless DMX *  | step            |
|                                 |   |  | * function is active only 10 seconds after switching the fixture on  |                 |
|                                 |   | 20-24  | Graphic display On   | step            |
|                                 |   | 25-29  | Graphic display Off  | step            |
|                                 |   | 30-34  | Reserved   |                 |
|                                 |   | 35-39  | Lamp power 1500W   | step            |
|                                 |   | 40-44  | Lamp power 1700W   | step            |
|                                 |   | 45-49  | Quiet mode   | step            |
|                                 |   | 50-54  | Dimmer curve: Square law   | step            |
|                                 |   | 55-59  | Dimmer curve: Linear   | step            |
|                                 |   | 60-64  | Fans mode: Auto  | step            |
|                                 |   | 65-69  | Fans mode: High  | step            |
|                                 |   | 70-79  | Reserved   |                 |
|                                 |   | 90 - 94  | Pan/Tilt speed mode  | step            |
|                                 |   | 95-99  | Pan/Tilt time mode   | step            |
|                                 |   | 100 - 104  | Blackout while pan/tilt moving   | step            |
|                                 |   | 105 -109   | Disabled blackout while pan/tilt moving  | step            |
|                                 |   | 110-114  | Blackout while colour wheels moving  | step            |
|                                 |   | 115 -119   | Disabled blackout while colour wheels moving   | step            |
|                                 |   | 120-129  | Reserved   |                 |
|                                 |   |  | <i>To activate following functions, stop in DMX value for at least 3 seconds.</i>  |                 |
|                                 |   | 130 - 139  | Lamp On  | step            |
|                                 |   | 140 - 149  | Pan/Tilt reset   | step            |
|                                 |   | 150 - 159  | Colour system reset  | step            |

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| Mode/channel |          | DMX Value | Function   | Type of control |
|--------------|----------|-----------|--|-----------------|
| 1            | 2        |           |  |                 |
|              |          | 160 - 169 | Gobo wheels reset                                  | step            |
|              |          | 170 - 179 | Dimmer/Shutter reset                               | step            |
|              |          | 180 - 189 | Zoom/focus/frost/prism reset                       | step            |
|              |          | 190 - 199 | Iris/framing shutters/effect wheel reset           | step            |
|              |          | 200 - 209 | Total reset  | step            |
|              |          | 210 - 229 | Reserved   |                 |
|              |          | 230 - 239 | Lamp Off   | step            |
|              |          | 240 - 255 | Reserved   | step            |
| <b>7</b>     | <b>7</b> |           | <b>Colour wheel 1</b>                              |                 |
|              |          |           | <b><i>Continual positioning</i></b>                |                 |
|              |          | 0         | Open/white   | proportional    |
|              |          | 18        | Deep red   | proportional    |
|              |          | 37        | Deep blue  | proportional    |
|              |          | 55        | Orange   | proportional    |
|              |          | 73        | Green  | proportional    |
|              |          | 91        | Magenta  | proportional    |
|              |          | 110       | Congo blue (UV)                                    | proportional    |
|              |          | 128-129   | White  | step            |
|              |          |           | <b><i>Positioning</i></b>                          |                 |
|              |          | 130-139   | Deep red   | step            |
|              |          | 140-149   | Deep blue  | step            |
|              |          | 150-159   | Orange   | step            |
|              |          | 160-169   | Green  | step            |
|              |          | 170-179   | Magenta  | step            |
|              |          | 180-189   | Congo blue (UV)                                    | step            |
|              |          | 190 - 215 | Forwards rainbow effect from fast to slow          | proportional    |
|              |          | 216 - 217 | No rotation  | step            |
|              |          | 218 - 243 | Backwards rainbow effect from slow to fast         | proportional    |
|              |          | 244 - 249 | Random colour selection by audio control           | step            |
|              |          |           | (Set microphone sensitivity in menu „Personality“) |                 |
|              |          | 250 - 255 | Auto random colour selection from fast to slow     | proportional    |
| <b>8</b>     | <b>*</b> |           | <b>Colour wheel 1 - fine positioning</b>           |                 |
|              |          | 0 - 255   | Fine positioning                                   | proportional    |
| <b>9</b>     | <b>8</b> |           | <b>Colour wheel 2</b>                              |                 |
|              |          |           | <b><i>Continual positioning</i></b>                |                 |
|              |          | 0         | Open/white   | proportional    |
|              |          | 18        | Pink   | proportional    |
|              |          | 37        | Lavander   | proportional    |
|              |          | 55        | Laser green  | proportional    |
|              |          | 73        | CTB  | proportional    |
|              |          | 91        | minus 1/1 green                                    | proportional    |
|              |          | 110       | minus 1/2 green                                    | proportional    |
|              |          | 128-129   | White  | step            |
|              |          |           | <b><i>Positioning</i></b>                          |                 |
|              |          | 130-139   | Pink   | step            |
|              |          | 140-149   | Lavander   | step            |
|              |          | 150-159   | Laser green  | step            |
|              |          | 160-169   | CTB  | step            |
|              |          | 170-179   | minus 1/1 green                                    | step            |

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|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           | 180-189   | minus 1/2 green   | step            |
|              |           | 190 - 215 | Forwards rainbow effect from fast to slow                       | proportional    |
|              |           | 216 - 217 | No rotation   | step            |
|              |           | 218 - 243 | Backwards rainbow effect from slow to fast                      | proportional    |
|              |           | 244 - 249 | Random colour selection by audio control                        | step            |
|              |           |           | (Set microphone sensitivity in menu „Personality“)              |                 |
|              |           | 250 - 255 | Auto random colour selection from fast to slow                  | proportional    |
| <b>10</b>    | <b>*</b>  |           | <b>Colour wheel 2 - fine positioning</b>                        |                 |
|              |           | 0 - 255   | Fine positioning  | proportional    |
| <b>11</b>    | <b>9</b>  |           | <b>Cyan</b>   |                 |
|              |           | 0 - 255   | Cyan (0-white, 255-full cyan)                                   | proportional    |
| <b>12</b>    | <b>10</b> |           | <b>Magenta</b>  |                 |
|              |           | 0 - 255   | Magenta (0-white, 255-full magenta)                             | proportional    |
| <b>13</b>    | <b>11</b> |           | <b>Yellow</b>   |                 |
|              |           | 0 - 255   | Yellow (0-white, 255-full yellow)                               | proportional    |
| <b>14</b>    | <b>12</b> |           | <b>CTO filter</b>   |                 |
|              |           | 0 - 255   | (0-6000K, 255-2700K)  | proportional    |
| <b>15</b>    | <b>13</b> |           | <b>CMY +CTO + CW1+CW2 macros</b>                                |                 |
|              |           |           | See table "Colour macros" to find components of each colour     |                 |
|              |           |           | The following channels are disabled: 7-14 (Mode 1),7-12 (Mode2) |                 |
|              |           | 0 - 7     | No function   | step            |
|              |           | 8 - 9     | Colour Macro 1  | step            |
|              |           | 10-11     | Colour Macro 2  | step            |
|              |           | 12-13     | Colour Macro 3  | step            |
|              |           | 14-15     | Colour Macro 4  | step            |
|              |           | 16-17     | Colour Macro 5  | step            |
|              |           | 18-19     | Colour Macro 6  | step            |
|              |           | 20-21     | Colour Macro 7  | step            |
|              |           | 22-23     | Colour Macro 8  | step            |
|              |           | 24-25     | Colour Macro 9  | step            |
|              |           | 26-27     | Colour Macro 10   | step            |
|              |           | 28-29     | Colour Macro 11   | step            |
|              |           | 30-31     | Colour Macro 12   | step            |
|              |           | 32-33     | Colour Macro 13   | step            |
|              |           | 34-35     | Colour Macro 14   | step            |
|              |           | 36-37     | Colour Macro 15   | step            |
|              |           | 38-39     | Colour Macro 16   | step            |
|              |           | 40-41     | Colour Macro 17   | step            |
|              |           | 42-43     | Colour Macro 18   | step            |
|              |           | 44-45     | Colour Macro 19   | step            |
|              |           | 46-47     | Colour Macro 20   | step            |
|              |           | 48-49     | Colour Macro 21   | step            |
|              |           | 50-51     | Colour Macro 22   | step            |
|              |           | 52-53     | Colour Macro 23   | step            |
|              |           | 54-55     | Colour Macro 24   | step            |
|              |           | 56-57     | Colour Macro 25   | step            |
|              |           | 58-59     | Colour Macro 26   | step            |
|              |           | 60-61     | Colour Macro 27   | step            |
|              |           | 62-63     | Colour Macro 28   | step            |

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|--------------|---|-----------|------------------------------|-----------------|
| 1            | 2 |           |                              |                 |
|              |   | 64-65     | Colour Macro 29              | step            |
|              |   | 66-67     | Colour Macro 30              | step            |
|              |   |           | <b>LEE colour swatches</b>   |                 |
|              |   | 68-69     | LEE 4 (Medium Bastard Amber) | step            |
|              |   | 70-71     | LEE 10 (Medium Yellow)       | step            |
|              |   | 72-73     | LEE 19 (Fire)                | step            |
|              |   | 74-75     | LEE 26 (Bright Red)          | step            |
|              |   | 76-77     | LEE 58 (Lavender)            | step            |
|              |   | 78-79     | LEE 68 (Sky Blue)            | step            |
|              |   | 80-81     | LEE 71 (Tokyo Blue)          | step            |
|              |   | 82-83     | LEE 79 (Just Blue)           | step            |
|              |   | 84-85     | LEE 88 (Lime Green)          | step            |
|              |   | 86-87     | LEE 90 (Dark Yellow Green)   | step            |
|              |   | 88-89     | LEE 100 (Spring Yellow)      | step            |
|              |   | 90-91     | LEE 101 (Yellow)             | step            |
|              |   | 92-93     | LEE 102 (Light Amber)        | step            |
|              |   | 94-95     | LEE 103 (Straw)              | step            |
|              |   | 96-97     | Lee 104 (Deep Amber)         | step            |
|              |   | 98-99     | LEE 105 (Orange)             | step            |
|              |   | 100-101   | LEE 106 (Primary Red)        | step            |
|              |   | 102-103   | LEE 111 (Dark Pink)          | step            |
|              |   | 104-105   | LEE 115 (Peacock Blue)       | step            |
|              |   | 106-107   | LEE 116 (Medium Blue-Green)  | step            |
|              |   | 108-109   | LEE 117 (Steel Blue)         | step            |
|              |   | 110-111   | LEE 118 (Light Blue)         | step            |
|              |   | 112-113   | LEE 119 (Dark Blue)          | step            |
|              |   | 114-115   | LEE 120 (Deep Blue)          | step            |
|              |   | 116-117   | LEE 121 (LEE Green)          | step            |
|              |   | 118-119   | LEE 128 (Bright Pink)        | step            |
|              |   | 120-121   | LEE 131 (Marine Blue)        | step            |
|              |   | 122-123   | LEE 132 (Medium Blue)        | step            |
|              |   | 124-125   | LEE 134 (Golden Amber)       | step            |
|              |   | 126-127   | LEE 135 (Deep Golden Amber)  | step            |
|              |   | 128-129   | LEE 136 (Pale Lavender)      | step            |
|              |   | 130-131   | LEE 137 (Special Lavender)   | step            |
|              |   | 132-133   | LEE 138 (Pale Green)         | step            |
|              |   | 134-135   | LEE 139 (Primary Green)      | step            |
|              |   | 136-137   | LEE 141 (Bright Blue)        | step            |
|              |   | 138-139   | LEE 147 (Apricot)            | step            |
|              |   | 140-141   | LEE 148 (Bright Rose)        | step            |
|              |   | 142-143   | LEE 152 (Pale Gold)          | step            |
|              |   | 144-145   | LEE 154 (Pale Rose)          | step            |
|              |   | 146-147   | LEE 157 (Pink)               | step            |
|              |   | 148-149   | LEE 158 (Deep Orange)        | step            |
|              |   | 150-151   | LEE 162 (Bastard Amber)      | step            |
|              |   | 152-153   | LEE 164 (Flame Red)          | step            |
|              |   | 154-155   | LEE 165 (Daylight Blue)      | step            |
|              |   | 156-157   | LEE 169 (Lilac Tint)         | step            |
|              |   | 158-159   | LEE 170 (Deep Lavender)      | step            |

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| Mode/channel |           | DMX Value | Function  | Type of control |
|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           | 160-161   | LEE 172 (Lagoon Blue)   | step            |
|              |           | 162-163   | LEE 179 (Chrome Orange)   | step            |
|              |           | 164-165   | LEE 180 (Dark Lavender)   | step            |
|              |           | 166-167   | LEE 181 (Congo Blue)  | step            |
|              |           | 168-169   | LEE 197 (Alice Blue)  | step            |
|              |           | 170-171   | LEE 201 (Full C.T. Blue)  | step            |
|              |           | 172-173   | LEE 202 (Half C.T. Blue)  | step            |
|              |           | 174-175   | LEE 203 (Quarter C.T. Blue)   | step            |
|              |           | 176-177   | LEE 204 (Full C.T. Orange)  | step            |
|              |           | 178-179   | LEE 205 (Half C.T. Orange)  | step            |
|              |           | 180-181   | LEE 206 (Quarter C.T. Orange)   | step            |
|              |           | 182-183   | LEE 247 (LEE Minus Green)   | step            |
|              |           | 184-185   | LEE 248 (Half Minus Green)  | step            |
|              |           | 186-187   | LEE 281 (Three Quarter C.T. Blue)   | step            |
|              |           | 188-189   | LEE 285 (Three Quarter C.T. Orange)   | step            |
|              |           | 190-191   | LEE 352 (Glacier Blue)  | step            |
|              |           | 192-193   | LEE 353 (Lighter Blue)  | step            |
|              |           | 194-195   | LEE 715 (Cabana Blue)   | step            |
|              |           | 196-197   | LEE 778 (Millennium Gold)   | step            |
|              |           | 198-199   | LEE 793 (Vanity Fair)   | step            |
|              |           | 200-243   | Reserved  |                 |
|              |           | 244 - 249 | Random macro selection by audio control<br>(Set microphone sensitivity in menu "PErsonality") | step            |
|              |           | 250 - 255 | Auto random macro selection from fast to slow   | proportional    |
| <b>16</b>    | <b>14</b> |           | <b>Effect Speed</b>   |                 |
|              |           |           | <i>Speed of CMY&amp;CTO movement and Rot./Static Gobo selection</i>                           |                 |
|              |           | 0-255     | Speed of CMY+CTO movement from max. to min.   | proportional    |
|              |           | 0-255     | Speed of Rot. gobo & Static gobo selection from max. to min.                                  | proportional    |
| <b>17</b>    | <b>15</b> |           | <b>CMY+CTO+Colour wheel time</b>  |                 |
|              |           | 0         | Function is off   | step            |
|              |           | 1 - 255   | Time of CMY, CTO and Colour wheel movement (0.1sec-->25.5sec.)                                | proportional    |
| <b>18</b>    | <b>16</b> |           | <b>Framing shutters+Zoom+Focus+Frost+Iris+Prism time</b>                                      |                 |
|              |           | 0         | Function is off   | step            |
|              |           | 1 - 255   | Time of framing shutters, zoom, focus, iris and frost movement (0.1 sec-->25.5 sec.)          | proportional    |
|              |           | 1-50      | Time of prism movement (0.1 sec-->5 sec.)   | proportional    |
| <b>19</b>    | <b>17</b> |           | <b>Effect wheel positioning</b>   |                 |
|              |           | 0-19      | No function   | step            |
|              |           | 20-127    | Proportional indexing (73-center)   | proportional    |
|              |           | 128-170   | Ramping from open to full position ( max--->min. speed)                                       | proportional    |
|              |           | 171-213   | Ramping from open to half position ( max. --->min. speed)                                     | proportional    |
|              |           | 214-255   | Ramp. from half position to full position ( max. --->min. speed)                              | proportional    |
| <b>20</b>    | <b>18</b> |           | <b>Effect wheel rotation</b>  |                 |
|              |           | 0         | No rotation   | step            |
|              |           | 1 - 127   | Forwards rotation from fast to slow   | proportional    |
|              |           | 128       | No rotation - <u>default</u>  | step            |
|              |           | 129 -255  | Backwards rotation from slow to fast  | proportional    |
| <b>21</b>    | <b>19</b> |           | <b>Effect wheel animations</b>  |                 |

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| Mode/channel |           | DMX Value | Function  | Type of control |
|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           | 0-7       | No animation  |                 |
|              |           |           | <b>Note</b> : Set suitable DMX value at <b>Focus</b> channel to get desired animation. All animations were created at distance 5 m from screen with zoom=128DMX, Focus=200DMX                                     |                 |
|              |           |           | <b>Coloured animations.</b> <i>The channels are blocked: Colour wheel 1 and 2, CMY+CMY macros, Effect wheel positioning, Effect wheel rotation, stat. Gobo, Rotat. gobo, gobo rotation, Prism, Prism rotation</i> |                 |
|              |           | 8-9       | Animation Macro 1   | step            |
|              |           | 10-11     | Animation Macro 2   | step            |
|              |           | 12-13     | Animation Macro 3   | step            |
|              |           | 14-15     | Animation Macro 4   | step            |
|              |           | 16-17     | Animation Macro 5   | step            |
|              |           | 18-19     | Animation Macro 6   | step            |
|              |           | 20-21     | Animation Macro 7   | step            |
|              |           | 22-23     | Animation Macro 8   | step            |
|              |           | 24-25     | Animation Macro 9   | step            |
|              |           | 26-27     | Animation Macro 10  | step            |
|              |           |           | <b>Black and white animations.</b> <i>The channels are blocked: Effect wheel positioning, Effect wheel rotation, stat. Gobo, Rotat. gobo, gobo rotation, Prism, Prism rotation</i>                                |                 |
|              |           | 28-29     | Animation Macro 1   | step            |
|              |           | 30-31     | Animation Macro 2   | step            |
|              |           | 32-33     | Animation Macro 3   | step            |
|              |           | 34-35     | Animation Macro 4   | step            |
|              |           | 36-37     | Animation Macro 5   | step            |
|              |           | 38-39     | Animation Macro 6   | step            |
|              |           | 40-41     | Animation Macro 7   | step            |
|              |           | 42-43     | Animation Macro 8   | step            |
|              |           | 44-45     | Animation Macro 9   | step            |
|              |           | 46-47     | Animation Macro 10  | step            |
|              |           | 48-255    | Reserved  |                 |
| <b>22</b>    | <b>20</b> |           | <b>Static gobo wheel</b>  |                 |
|              |           | 0-7       | Open/hole   | step            |
|              |           |           | <b><u>Positioning</u></b>   |                 |
|              |           | 8-19      | Gobo 1  | step            |
|              |           | 20-31     | Gobo 2  | step            |
|              |           | 32-43     | Gobo 3  | step            |
|              |           | 44-55     | Gobo 4  | step            |
|              |           | 56-67     | Gobo 5  | step            |
|              |           | 68-79     | Gobo 6  | step            |
|              |           | 80-91     | Gobo 7  | step            |
|              |           | 92-103    | Gobo 8  | step            |
|              |           |           | <b><u>Shaking gobos from slow to fast</u></b>   |                 |
|              |           | 104-115   | Gobo 1  | proportional    |
|              |           | 116-127   | Gobo 2  | proportional    |
|              |           | 128-139   | Gobo 3  | proportional    |
|              |           | 140-151   | Gobo 4  | proportional    |
|              |           | 152-163   | Gobo 5  | proportional    |
|              |           | 164-175   | Gobo 6  | proportional    |

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|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           | 176-187   | Gobo 7  | proportional    |
|              |           | 188-199   | Gobo 8  | proportional    |
|              |           | 200 - 201 | Open/hole   | step            |
|              |           | 202 - 222 | Forwards gobo wheel rotation from fast to slow  | proportional    |
|              |           | 223 - 243 | Backwards gobo wheel rotation from slow to fast   | proportional    |
|              |           | 244 - 249 | Random gobo selection by audio control  | step            |
|              |           |           | <i>(Set microphone sensitivity in menu „Personality“)</i>   |                 |
|              |           | 250 - 255 | Auto random gobo selection from fast to slow  | proportional    |
| <b>23</b>    | <b>21</b> |           | <b>Rotating gobo wheel</b>  |                 |
|              |           |           | <i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i> |                 |
|              |           |           | <b><i>Index - set indexing on channel 24/22</i></b>   |                 |
|              |           | 0-4       | Open/hole   | step            |
|              |           | 5-8       | Gobo 1  | step            |
|              |           | 9-13      | Gobo 2  | step            |
|              |           | 14-17     | Gobo 3  | step            |
|              |           | 18-22     | Gobo 4  | step            |
|              |           | 23-26     | Gobo 5  | step            |
|              |           | 27-31     | Gobo 6  | step            |
|              |           |           | <b><i>Rotation - set rotation on channel 27/24</i></b>  |                 |
|              |           | 32-35     | Gobo 1  | step            |
|              |           | 36-40     | Gobo 2  | step            |
|              |           | 41-44     | Gobo 3  | step            |
|              |           | 45-49     | Gobo 4  | step            |
|              |           | 50-54     | Gobo 5  | step            |
|              |           | 55-59     | Gobo 6  | step            |
|              |           |           | <b><i>Shaking gobos from slow to fast</i></b>   |                 |
|              |           |           | <b><i>Index - set indexing on channel 24/22</i></b>   |                 |
|              |           | 60-71     | Gobo 1  | proportional    |
|              |           | 72-83     | Gobo 2  | proportional    |
|              |           | 84-95     | Gobo 3  | proportional    |
|              |           | 96-106    | Gobo 4  | proportional    |
|              |           | 107-118   | Gobo 5  | proportional    |
|              |           | 119-129   | Gobo 6  | proportional    |
|              |           |           | <b><i>Shaking gobos from slow to fast</i></b>   |                 |
|              |           |           | <b><i>Rotation - set rotation on channel 24/22</i></b>  |                 |
|              |           | 130-141   | Gobo 1  | proportional    |
|              |           | 142-153   | Gobo 2  | proportional    |
|              |           | 154-165   | Gobo 3  | proportional    |
|              |           | 166-176   | Gobo 4  | proportional    |
|              |           | 177-188   | Gobo 5  | proportional    |
|              |           | 189-199   | Gobo 6  | proportional    |
|              |           | 200 - 201 | Open/hole   | step            |
|              |           | 202 - 221 | Forwards gobo wheel rotation from fast to slow  | proportional    |
|              |           | 222-223   | No rotation   |                 |
|              |           | 224 - 243 | Backwards gobo wheel rotation from slow to fast   | proportional    |
|              |           | 244 - 249 | Random gobo selection by audio control  | step            |
|              |           |           | <i>(Set microphone sensitivity in menu „Personality“)</i>   |                 |
|              |           | 250 - 255 | Auto random gobo selection from fast to slow  | proportional    |

DMX protocol

| Mode/channel |           | DMX Value | Function  | Type of control |
|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
| <b>24</b>    | <b>22</b> |           | <b>Rot. Gobo indexing/rotation</b>                                |                 |
|              |           |           | <b>Gobo indexing - set position on channel 23/21</b>              |                 |
|              |           | 0 - 255   | Gobo indexing   | proportional    |
|              |           |           | <b>Gobo rotation - set position on channel 23/21</b>              |                 |
|              |           | 0         | No rotation   | step            |
|              |           | 1 - 127   | Forwards gobo rotation from fast to slow                          | proportional    |
|              |           | 128       | No rotation - <u>default</u>                                      | step            |
|              |           | 129 - 255 | Backwards gobo rotation from slow to fast                         | proportional    |
| <b>25</b>    | <b>*</b>  |           | <b>Rot. Gobo indexing/rotation - fine</b>                         |                 |
|              |           | 0-255     | Fine indexing (rotation)  | proportional    |
| <b>26</b>    | <b>23</b> |           | <b>Prism</b>  |                 |
|              |           | 0 - 19    | Open position (hole)  | step            |
|              |           | 20 -49    | 6-facet linear prism -indexing                                    | step            |
|              |           | 50 - 75   | 6-facet linear prism - rotation                                   | step            |
|              |           | 76 - 105  | 6-facet circular prism- Indexing                                  | step            |
|              |           | 106-127   | 6-facet circular prism-rotation                                   | step            |
|              |           |           | <b>Prism/gobo macros</b>  |                 |
|              |           |           | The channels are blocked: Prism, prism rot., rot. gobo, gobo rot. |                 |
|              |           | 128 - 135 | Macro 1   | step            |
|              |           | 136 - 143 | Macro 2   | step            |
|              |           | 144 - 151 | Macro 3   | step            |
|              |           | 152 - 159 | Macro 4   | step            |
|              |           | 160 - 167 | Macro 5   | step            |
|              |           | 168 - 175 | Macro 6   | step            |
|              |           | 176 - 183 | Macro 7   | step            |
|              |           | 184 - 191 | Macro 8   | step            |
|              |           | 192 - 199 | Macro 9   | step            |
|              |           | 200 - 207 | Macro 10  | step            |
|              |           | 208 - 215 | Macro 11  | step            |
|              |           | 216 - 223 | Macro 12  | step            |
|              |           | 224 - 231 | Macro 13  | step            |
|              |           | 232 - 239 | Macro 14  | step            |
|              |           | 240 - 247 | Macro 15  | step            |
|              |           | 248 - 255 | Macro 16  | step            |
| <b>27</b>    | <b>24</b> |           | <b>Prism rotation</b>   |                 |
|              |           | 0         | No rotation   | step            |
|              |           | 1 - 127   | Forwards rotation from fast to slow                               | proportional    |
|              |           | 128       | No rotation - <u>default</u>                                      | step            |
|              |           | 129-255   | Backwards rotation from slow to fast                              | proportional    |
| <b>28</b>    | <b>25</b> |           | <b>Frost</b>  |                 |
|              |           | 0         | Open- <u>default</u>  | step            |
|              |           |           | <b>Light</b>  |                 |
|              |           | 1-50      | Frost from 0% to 100%   | proportional    |
|              |           | 51-53     | 100% frost  | step            |
|              |           | 54-63     | Pulse closing from slow to fast                                   | proportional    |
|              |           | 64-73     | Pulse opening from fast to slow                                   | proportional    |
|              |           | 74-83     | Ramping from fast to slow   | proportional    |
|              |           | 84-86     | Open  | step            |



DMX protocol

| Mode/channel |           | DMX Value | Function                                      | Type of control |
|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           |           | <b>Medium</b>                                 |                 |
|              |           | 87-136    | Frost from 0% to 100%                         | proportional    |
|              |           | 137-139   | 100% frost                                    | step            |
|              |           | 140-149   | Pulse closing from slow to fast               | proportional    |
|              |           | 150-159   | Pulse opening from fast to slow               | proportional    |
|              |           | 160-169   | Ramping from fast to slow                     | proportional    |
|              |           | 170-172   | Open  | step            |
|              |           |           | <b>Heavy</b>                                  |                 |
|              |           | 173-222   | Frost from 0% to 100%                         | proportional    |
|              |           | 223-225   | 100% frost                                    | step            |
|              |           | 226-235   | Pulse closing from slow to fast               | proportional    |
|              |           | 236-245   | Pulse opening from fast to slow               | proportional    |
|              |           | 246-255   | Ramping from fast to slow                     | proportional    |
| <b>29</b>    | <b>26</b> |           | <b>Iris</b>                                   |                 |
|              |           | 0         | Open  | step            |
|              |           | 1 - 179   | From max.diameter to min.diameter             | proportional    |
|              |           | 180 - 191 | Closed  | step            |
|              |           |           | <b>Pulse effects with Iris blackout:</b>      |                 |
|              |           | 192 -219  | Pulse opening from slow to fast               | proportional    |
|              |           | 220 - 247 | Pulse closing from fast to slow               | proportional    |
|              |           | 248 - 249 | Random pulse opening (fast)                   | step            |
|              |           | 250 - 251 | Random pulse opening (slow)                   | step            |
|              |           | 252 - 253 | Random pulse closing (fast)                   | step            |
|              |           | 254 - 255 | Random pulse closing (slow)                   | step            |
| <b>30</b>    | <b>*</b>  |           | <b>Iris - fine</b>                            |                 |
|              |           | 0 - 255   | Fine iris movement                            | proportional    |
| <b>31</b>    | <b>27</b> |           | <b>Zoom</b>                                   |                 |
|              |           | 0 - 255   | Zoom from max. to min.beam angle              | proportional    |
| <b>32</b>    | <b>*</b>  |           | <b>Zoom - fine</b>                            |                 |
|              |           | 0-255     | Fine zooming                                  | proportional    |
| <b>33</b>    | <b>28</b> |           | <b>Focus</b>                                  |                 |
|              |           | 0 - 255   | Continuous adjustment from far to near        | proportional    |
| <b>34</b>    | <b>*</b>  |           | <b>Focus - fine</b>                           |                 |
|              |           | 0- 255    | Fine focusing                                 | proportional    |
| <b>35</b>    | <b>29</b> |           | <b>Reserved</b>                               |                 |
|              |           |           | Reserved for autofocus                        |                 |
| <b>36</b>    | <b>30</b> |           | <b>Framing shutters module rotation</b>       |                 |
|              |           | 0-127     | Rotation from left (0°) to 45°                | proportional    |
|              |           | 128       | 45°   | step            |
|              |           | 129-255   | Rotation from 45° to right (90°)              | proportional    |
| <b>37</b>    | <b>31</b> |           | <b>Framing shutter 1- movement</b>            |                 |
|              |           | 0-255     | Movement from Outward to Inward               | proportional    |
| <b>38</b>    | <b>32</b> |           | <b>Framing shutter 1- swivelling</b>          |                 |
|              |           | 0-127     | Swivelling from -25 degrees towards 0 degrees | proportional    |
|              |           | 128       | 0 degrees (default)                           | step            |
|              |           | 129-255   | Swivelling from 0 degrees to +25 degrees      | proportional    |
| <b>39</b>    | <b>33</b> |           | <b>Framing shutter 2- movement</b>            |                 |
|              |           | 0-255     | Movement from Outward to Inward               | proportional    |
| <b>40</b>    | <b>34</b> |           | <b>Framing shutter 2- swivelling</b>          |                 |

DMX protocol

| Mode/channel |           | DMX Value | Function                                      | Type of control |
|--------------|-----------|-----------|---|-----------------|
| 1            | 2         |           |   |                 |
|              |           | 0-127     | Swivelling from -25 degrees towards 0 degrees | proportional    |
|              |           | 128       | 0 degrees (default)                           | step            |
|              |           | 129-255   | Swivelling from 0 degrees to +25 degrees      | proportional    |
| <b>41</b>    | <b>35</b> |           | <b>Framing shutter 3 movement</b>             |                 |
|              |           | 0-255     | Movement from Outward to Inward               | proportional    |
| <b>42</b>    | <b>36</b> |           | <b>Framing shutter 3- swivelling</b>          |                 |
|              |           | 0-127     | Swivelling from -25 degrees towards 0 degrees | proportional    |
|              |           | 128       | 0 degrees (default)                           | step            |
|              |           | 129-255   | Swivelling from 0 degrees to +25 degrees      | proportional    |
| <b>43</b>    | <b>37</b> |           | <b>Framing shutter 4 movement</b>             |                 |
|              |           | 0-255     | Movement from Outward to Inward               | proportional    |
| <b>44</b>    | <b>38</b> |           | <b>Framing shutter 4- swivelling</b>          |                 |
|              |           | 0-127     | Swivelling from -25 degrees towards 0 degrees | proportional    |
|              |           | 128       | 0 degrees (default)                           | step            |
|              |           | 129-255   | Swivelling from 0 degrees to +25 degrees      | proportional    |
| <b>45</b>    | <b>39</b> |           | <b>Framing shutters macros</b>                |                 |
|              |           | 0-3       | No function                                   |                 |
|              |           | 4-7       | Macro 1                                       | step            |
|              |           | 8-11      | Macro 2                                       | step            |
|              |           | 12-15     | Macro 3                                       | step            |
|              |           | 16-19     | Macro 4                                       | step            |
|              |           | 20-23     | Macro 5                                       | step            |
|              |           | 24-27     | Macro 6                                       | step            |
|              |           | 28-31     | Macro 7                                       | step            |
|              |           | 32-35     | Macro 8                                       | step            |
|              |           | 36-39     | Macro 9                                       | step            |
|              |           | 40-43     | Macro 10                                      | step            |
|              |           | 44-47     | Macro 11                                      | step            |
|              |           | 48-51     | Macro 12                                      | step            |
|              |           | 52-55     | Macro 13                                      | step            |
|              |           | 56-59     | Macro 14                                      | step            |
|              |           | 60-63     | Macro 15                                      | step            |
|              |           | 64-67     | Macro 16                                      | step            |
|              |           | 68-71     | Macro 17                                      | step            |
|              |           | 72-75     | Macro 18                                      | step            |
|              |           | 76-79     | Macro 19                                      | step            |
|              |           | 80-83     | Macro 20                                      | step            |
|              |           | 84-87     | Macro 21                                      | step            |
|              |           | 88-91     | Macro 22                                      | step            |
|              |           | 92-95     | Macro 23                                      | step            |
|              |           | 96-99     | Macro 24                                      | step            |
|              |           | 100-103   | Macro 25                                      | step            |
|              |           | 104-107   | Macro 26                                      | step            |
|              |           | 108-111   | Macro 27                                      | step            |
|              |           | 112-115   | Macro 28                                      | step            |
|              |           | 116-119   | Macro 29                                      | step            |
|              |           | 120-123   | Macro 30                                      | step            |
|              |           | 124-127   | Macro 31                                      | step            |
|              |           | 128-131   | Macro 32                                      | step            |

## DMX protocol

| Mode/channel   |           | DMX Value | Function  | Type of control |
|--|-----------|-----------|---|-----------------|
| 1  | 2         |           |   |                 |
|  |           | 132-135   | Macro 33  | step            |
|  |           | 136-139   | Macro 34  | step            |
|  |           | 140-143   | Macro 35  | step            |
|  |           | 144-147   | Macro 36  | step            |
|  |           | 148-151   | Macro 37  | step            |
|  |           | 152-155   | Macro 38  | step            |
|  |           | 156-159   | Macro 39  | step            |
|  |           | 160-163   | Macro 40  | step            |
|  |           | 164-167   | Macro 41  | step            |
|  |           | 168-171   | Macro 42  | step            |
|  |           | 172-175   | Macro 43  | step            |
|  |           | 176-179   | Macro 44  | step            |
|  |           | 180-183   | Macro 45  | step            |
|  |           | 184-187   | Macro 46  | step            |
|  |           | 188-191   | Macro 47  | step            |
|  |           | 192-195   | Macro 48  | step            |
|  |           | 196-199   | Macro 49  | step            |
|  |           | 200-203   | Macro 50  | step            |
|  |           | 204-207   | Macro 51  | step            |
|  |           | 208-211   | Macro 52  | step            |
|  |           | 212-255   | Reserved  |                 |
| <b>46</b>  | <b>40</b> |           | <b>Framing shutters macro speed</b>                       |                 |
|  |           | 0- 255    | Speed from slow to fast.                                  | proportional    |
| <b>47</b>  | <b>41</b> |           | <b>Shutter/ strobe</b>                                    |                 |
|  |           | 0 - 31    | Shutter closed  | step            |
|  |           | 32 - 63   | Shutter open  | step            |
|  |           | 64 - 95   | Strobe-effect from slow to fast                           | proportional    |
|  |           | 96 - 127  | Shutter open  | step            |
|  |           | 128 - 143 | Opening pulse in sequences from slow to fast              | proportional    |
|  |           | 144 - 159 | Closing pulse in sequences from fast to slow              | proportional    |
|  |           | 160 - 191 | Shutter open, Electronic strobing „ZAP” from slow to fast | proportional    |
|  |           | 192 - 223 | Random strobe-effect from slow to fast                    | proportional    |
|  |           | 224 - 255 | Shutter open  | step            |
| <b>48</b>  | <b>42</b> |           | <b>Dimmer intensity</b>                                   |                 |
|  |           | 0 - 255   | Dimmer intensity from 0% to 100%                          | proportional    |
| <b>49</b>  | <b>*</b>  |           | <b>Dimmer intensity - fine</b>                            |                 |
|  |           | 0 - 255   | Fine dimming  | proportional    |
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| All Specifications subject to change without notice              |           |           |   |                 |
|  |           |           |   |                 |

| Colour macros                |            |                    |            |                    |             |                |               |            |
|------------------------------|------------|--------------------|------------|--------------------|-------------|----------------|---------------|------------|
| Color name                   | CW1<br>DMX | CW1<br>fine<br>DMX | CW2<br>DMX | CW2<br>fine<br>DMX | Cyan<br>DMX | Magenta<br>DMX | Yellow<br>DMX | CTO<br>DMX |
| Colour Macro 1               | 0          | 0                  | 0          | 0                  | 0           | 116            | 0             | 95         |
| Colour Macro 2               | 0          | 0                  | 0          | 0                  | 0           | 148            | 0             | 108        |
| Colour Macro 3               | 0          | 0                  | 0          | 0                  | 0           | 196            | 0             | 108        |
| Colour Macro 4               | 0          | 0                  | 0          | 0                  | 0           | 255            | 0             | 98         |
| Colour Macro 5               | 0          | 0                  | 0          | 0                  | 0           | 255            | 0             | 215        |
| Colour Macro 6               | 0          | 0                  | 0          | 0                  | 0           | 255            | 161           | 0          |
| Colour Macro 7               | 0          | 0                  | 0          | 0                  | 0           | 255            | 210           | 0          |
| Colour Macro 8               | 0          | 0                  | 0          | 0                  | 0           | 255            | 255           | 0          |
| Colour Macro 9               | 0          | 0                  | 0          | 0                  | 0           | 220            | 255           | 0          |
| Colour Macro 10              | 0          | 0                  | 0          | 0                  | 0           | 192            | 255           | 0          |
| Colour Macro 11              | 0          | 0                  | 0          | 0                  | 0           | 144            | 255           | 0          |
| Colour Macro 12              | 0          | 0                  | 0          | 0                  | 0           | 97             | 255           | 0          |
| Colour Macro 13              | 0          | 0                  | 0          | 0                  | 0           | 0              | 255           | 95         |
| Colour Macro 14              | 0          | 0                  | 0          | 0                  | 0           | 0              | 255           | 65         |
| Colour Macro 15              | 0          | 0                  | 0          | 0                  | 0           | 0              | 255           | 0          |
| Colour Macro 16              | 0          | 0                  | 0          | 0                  | 91          | 0              | 255           | 0          |
| Colour Macro 17              | 0          | 0                  | 0          | 0                  | 152         | 0              | 255           | 0          |
| Colour Macro 18              | 0          | 0                  | 0          | 0                  | 213         | 0              | 255           | 0          |
| Colour Macro 19              | 0          | 0                  | 0          | 0                  | 255         | 0              | 231           | 0          |
| Colour Macro 20              | 0          | 0                  | 0          | 0                  | 255         | 0              | 188           | 0          |
| Colour Macro 21              | 0          | 0                  | 0          | 0                  | 255         | 0              | 90            | 0          |
| Colour Macro 22              | 0          | 0                  | 0          | 0                  | 255         | 0              | 70            | 0          |
| Colour Macro 23              | 0          | 0                  | 0          | 0                  | 255         | 0              | 0             | 0          |
| Colour Macro 24              | 0          | 0                  | 0          | 0                  | 255         | 57             | 0             | 0          |
| Colour Macro 25              | 0          | 0                  | 0          | 0                  | 255         | 83             | 0             | 0          |
| Colour Macro 26              | 0          | 0                  | 0          | 0                  | 255         | 127            | 0             | 0          |
| Colour Macro 27              | 0          | 0                  | 0          | 0                  | 255         | 166            | 0             | 0          |
| Colour Macro 28              | 0          | 0                  | 0          | 0                  | 255         | 226            | 0             | 0          |
| Colour Macro 29              | 0          | 0                  | 0          | 0                  | 255         | 255            | 0             | 0          |
| Colour Macro 30              | 0          | 0                  | 0          | 0                  | 255         | 255            | 95            | 0          |
| LEE 4 (Medium Bastard Amber) | 0          | 0                  | 0          | 0                  | 0           | 94             | 107           | 0          |
| LEE 10 (Medium Yellow)       | 0          | 0                  | 0          | 0                  | 110         | 0              | 255           | 0          |
| LEE 19 (Fire)                | 0          | 0                  | 0          | 0                  | 0           | 222            | 236           | 0          |
| LEE 26 (Bright Red)          | 175        | 0                  | 0          | 0                  | 0           | 255            | 221           | 255        |
| LEE 58 (Lavender)            | 0          | 0                  | 0          | 0                  | 200         | 166            | 0             | 0          |
| LEE 68 (Sky Blue)            | 0          | 0                  | 0          | 0                  | 226         | 125            | 0             | 0          |
| LEE 71 (Tokyo Blue)          | 145        | 0                  | 0          | 0                  | 241         | 116            | 0             | 0          |
| LEE 79 (Just Blue)           | 0          | 0                  | 0          | 0                  | 254         | 149            | 0             | 0          |
| LEE 88 (Lime Green)          | 0          | 0                  | 155        | 0                  | 89          | 0              | 134           | 0          |
| LEE 90 (Dark Yellow Green)   | 0          | 0                  | 0          | 0                  | 228         | 0              | 236           | 0          |
| LEE 100 (Spring Yellow)      | 0          | 0                  | 0          | 0                  | 128         | 0              | 231           | 0          |
| LEE 101 (Yellow)             | 0          | 0                  | 0          | 0                  | 97          | 0              | 245           | 0          |
| LEE 102 (Light Amber)        | 0          | 0                  | 0          | 0                  | 84          | 0              | 190           | 0          |
| LEE 103 (Straw)              | 0          | 0                  | 0          | 0                  | 0           | 52             | 106           | 0          |
| Lee 104 (Deep Amber)         | 0          | 0                  | 0          | 0                  | 0           | 9              | 218           | 0          |
| LEE 105 (Orange)             | 0          | 0                  | 0          | 0                  | 0           | 132            | 242           | 0          |

|                                     |     |   |     |   |     |     |     |     |
|-------------------------------------|-----|---|-----|---|-----|-----|-----|-----|
| LEE 106 (Primary Red)               | 155 | 0 | 135 | 0 | 91  | 255 | 0   | 255 |
| LEE 111 (Dark Pink)                 | 0   | 0 | 0   | 0 | 0   | 152 | 80  | 0   |
| LEE 115 (Peacock Blue)              | 0   | 0 | 0   | 0 | 200 | 0   | 124 | 0   |
| LEE 116 (Medium Blue-Green)         | 0   | 0 | 0   | 0 | 236 | 0   | 145 | 0   |
| LEE 117 (Steel Blue)                | 0   | 0 | 0   | 0 | 106 | 7   | 0   | 0   |
| LEE 118 (Light Blue)                | 0   | 0 | 0   | 0 | 196 | 76  | 0   | 0   |
| LEE 119 (Dark Blue)                 | 0   | 0 | 145 | 0 | 238 | 47  | 0   | 0   |
| LEE 120 (Deep Blue)                 | 145 | 0 | 0   | 0 | 79  | 1   | 0   | 0   |
| LEE 121 (LEE Green)                 | 0   | 0 | 0   | 0 | 182 | 0   | 225 | 70  |
| LEE 128 (Bright Pink)               | 0   | 0 | 0   | 0 | 89  | 216 | 0   | 0   |
| LEE 131 (Marine Blue)               | 0   | 0 | 0   | 0 | 173 | 0   | 125 | 0   |
| LEE 132 (Medium Blue)               | 0   | 0 | 0   | 0 | 255 | 136 | 0   | 0   |
| LEE 134 (Golden Amber)              | 0   | 0 | 0   | 0 | 0   | 108 | 176 | 0   |
| LEE 135 (Deep Golden Amber)         | 0   | 0 | 0   | 0 | 0   | 193 | 246 | 0   |
| LEE 136 (Pale Lavender)             | 0   | 0 | 0   | 0 | 104 | 105 | 0   | 0   |
| LEE 137 (Special Lavender)          | 0   | 0 | 0   | 0 | 155 | 117 | 0   | 0   |
| LEE 138 (Pale Green)                | 0   | 0 | 0   | 0 | 143 | 0   | 179 | 0   |
| LEE 139 (Primary Green)             | 0   | 0 | 0   | 0 | 216 | 0   | 236 | 0   |
| LEE 141 (Bright Blue)               | 0   | 0 | 0   | 0 | 217 | 74  | 0   | 0   |
| LEE 147 (Apricot)                   | 0   | 0 | 0   | 0 | 0   | 99  | 143 | 0   |
| LEE 148 (Bright Rose)               | 0   | 0 | 0   | 0 | 0   | 210 | 110 | 0   |
| LEE 152 (Pale Gold)                 | 0   | 0 | 0   | 0 | 0   | 86  | 103 | 0   |
| LEE 154 (Pale Rose)                 | 0   | 0 | 0   | 0 | 0   | 93  | 101 | 0   |
| LEE 157 (Pink)                      | 0   | 0 | 0   | 0 | 0   | 159 | 117 | 0   |
| LEE 158 (Deep Orange)               | 0   | 0 | 0   | 0 | 0   | 156 | 231 | 0   |
| LEE 162 (Bastard Amber)             | 0   | 0 | 0   | 0 | 0   | 83  | 100 | 0   |
| LEE 164 (Flame Red)                 | 0   | 0 | 0   | 0 | 0   | 217 | 210 | 0   |
| LEE 165 (Daylight Blue)             | 0   | 0 | 0   | 0 | 191 | 94  | 0   | 0   |
| LEE 169 (Lilac Tint)                | 0   | 0 | 0   | 0 | 76  | 85  | 0   | 0   |
| LEE 170 (Deep Lavender)             | 0   | 0 | 0   | 0 | 118 | 123 | 0   | 0   |
| LEE 172 (Lagoon Blue)               | 0   | 0 | 0   | 0 | 191 | 0   | 80  | 0   |
| LEE 179 (Chrome Orange)             | 0   | 0 | 0   | 0 | 0   | 90  | 251 | 0   |
| LEE 180 (Dark Lavender)             | 0   | 0 | 0   | 0 | 206 | 166 | 0   | 0   |
| LEE 181 (Congo Blue)                | 145 | 0 | 145 | 0 | 131 | 0   | 103 | 0   |
| LEE 197 (Alice Blue)                | 0   | 0 | 0   | 0 | 203 | 137 | 0   | 0   |
| LEE 201 (Full C.T. Blue)            | 0   | 0 | 0   | 0 | 123 | 95  | 0   | 0   |
| LEE 202 (Half C.T. Blue)            | 0   | 0 | 0   | 0 | 96  | 75  | 0   | 0   |
| LEE 203 (Quarter C.T. Blue)         | 0   | 0 | 0   | 0 | 73  | 59  | 0   | 0   |
| LEE 204 (Full C.T. Orange)          | 0   | 0 | 0   | 0 | 0   | 71  | 142 | 0   |
| LEE 205 (Half C.T. Orange)          | 0   | 0 | 0   | 0 | 0   | 49  | 106 | 0   |
| LEE 206 (Quarter C.T. Orange)       | 0   | 0 | 0   | 0 | 0   | 12  | 93  | 0   |
| LEE 247 (LEE Minus Green)           | 0   | 0 | 0   | 0 | 0   | 99  | 72  | 0   |
| LEE 248 (Half Minus Green)          | 0   | 0 | 0   | 0 | 0   | 83  | 71  | 0   |
| LEE 281 (Three Quarter C.T. Blue)   | 0   | 0 | 0   | 0 | 111 | 81  | 0   | 0   |
| LEE 285 (Three Quarter C.T. Orange) | 0   | 0 | 0   | 0 | 0   | 49  | 124 | 0   |
| LEE 352 (Glacier Blue)              | 0   | 0 | 0   | 0 | 171 | 83  | 0   | 0   |
| LEE 353 (Lighter Blue)              | 0   | 0 | 0   | 0 | 153 | 0   | 77  | 0   |
| LEE 715 (Cabana Blue)               | 0   | 0 | 0   | 0 | 248 | 155 | 0   | 0   |
| LEE 778 (Millennium Gold)           | 0   | 0 | 0   | 0 | 0   | 171 | 240 | 0   |
| LEE 793 (Vanity Fair)               | 0   | 0 | 0   | 0 | 72  | 222 | 18  | 0   |