

# Colorimetric Report

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|                  |                                         |
|------------------|-----------------------------------------|
| Date             | Friday, November 6, 2020                |
| Tester           | Manuel Findeis                          |
| Display          | BenQ EW3280U                            |
| Sensor           | X-Rite i1 Display Pro (Corr.: WLED, XR) |
| Testchart        | In accordance with ISO 12646:2007 (1)   |
| Target           | ITU-R BT.709                            |
| Display Profile  | Not considered                          |
| Rendering Intent | -                                       |

(1) Five equally spaced code values for each channel

|                                     |                         |
|-------------------------------------|-------------------------|
| White Point (CCT)                   | 6368 Kelvin             |
| White Point XYZ (normalized)        | 94.59 100.00 105.93     |
| DeltaE to D50/ D65                  | 17.65/ 1.99             |
| Assumed Target Whitepoint (2)       | 6400 Kelvin             |
| DeltaE to Assumed Target Whitepoint | 1.14                    |
| Brightness                          | 83.19 cd/m <sup>2</sup> |
| Black Point                         | 0.09 cd/m <sup>2</sup>  |
| Contrast (x:1)                      | 924:1                   |
| Gradation (Average)                 | 2.40                    |

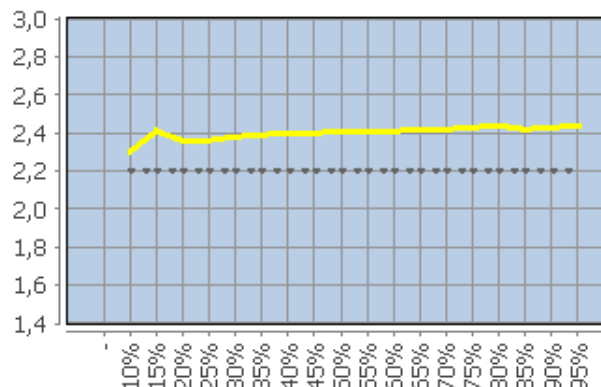
(2) Daylight

|  | Percent     | Kelvin | Delta C | Delta E | Gamma |
|--|-------------|--------|---------|---------|-------|
|  | 5           | -      | -       | -       | -     |
|  | 10          | 7009   | 0.92    | 1.51    | 2.30  |
|  | 15          | 6689   | 1.03    | 3.76    | 2.41  |
|  | 20          | 6527   | 0.81    | 3.06    | 2.36  |
|  | 25          | 6460   | 0.41    | 3.05    | 2.36  |
|  | 30          | 6424   | 0.22    | 3.39    | 2.38  |
|  | 35          | 6424   | 0.32    | 3.56    | 2.39  |
|  | 40          | 6409   | 0.31    | 3.56    | 2.40  |
|  | 45          | 6410   | 0.32    | 3.41    | 2.40  |
|  | 50          | 6434   | 0.38    | 3.35    | 2.41  |
|  | 55          | 6378   | 0.62    | 3.13    | 2.41  |
|  | 60          | 6380   | 0.42    | 2.90    | 2.41  |
|  | 65          | 6400   | 0.40    | 2.66    | 2.42  |
|  | 70          | 6379   | 0.24    | 2.36    | 2.42  |
|  | 75          | 6373   | 0.12    | 2.10    | 2.43  |
|  | 80          | 6363   | 0.27    | 1.80    | 2.44  |
|  | 85          | 6387   | 0.17    | 1.23    | 2.42  |
|  | 90          | 6395   | 0.22    | 0.87    | 2.43  |
|  | 95          | 6366   | 0.39    | 0.60    | 2.44  |
|  | 100 (3)     | 6368   | -       | -       | -     |
|  | Average (4) | -      | 0.39    | 2.63    | 2.4   |
|  | Maximum (4) | -      | 1.03    | 3.76    | -     |
|  | Range (4)   | -      | 1.1     | -       | -     |

(3) Visual adaptation to display whitepoint is assumed

(4) Only luminance > 1% considered

### Corresponding Gamma



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| Sensor           | X-Rite i1 Display Pro (Corr.: WLED, XR) |
| Testchart        | In accordance with ISO 12646:2007 (1)   |
| Target           | ITU-R BT.709                            |
| Display Profile  | Not considered                          |
| Rendering Intent | -                                       |

(1) Five equally spaced code values for each channel

|  | RGB        | Delta C | Delta H | Delta L | Delta E94 |
|--|------------|---------|---------|---------|-----------|
|  | 0 0 0      | 0.86    | 0.00    | 1.00    | 1.32      |
|  | 0 0 63     | 6.78    | 1.10    | 0.42    | 2.49      |
|  | 0 0 127    | 6.73    | 0.52    | 0.20    | 1.49      |
|  | 0 0 191    | 4.15    | 0.19    | 0.00    | 0.71      |
|  | 0 0 255    | 2.43    | 0.07    | 1.27    | 1.32      |
|  | 0 63 0     | 6.29    | 1.67    | 2.69    | 3.60      |
|  | 0 63 63    | 2.16    | 0.59    | 2.68    | 2.97      |
|  | 0 63 127   | 0.81    | 1.92    | 2.36    | 2.64      |
|  | 0 63 191   | 0.04    | 2.05    | 1.49    | 1.75      |
|  | 0 63 255   | 2.47    | 2.40    | 0.34    | 1.03      |
|  | 0 127 0    | 4.98    | 0.42    | 2.87    | 3.11      |
|  | 0 127 63   | 3.05    | 1.24    | 2.87    | 3.08      |
|  | 0 127 127  | 2.76    | 0.26    | 2.78    | 3.02      |
|  | 0 127 191  | 0.24    | 3.84    | 2.37    | 3.34      |
|  | 0 127 255  | 4.65    | 5.27    | 1.61    | 3.17      |
|  | 0 191 0    | 4.52    | 0.21    | 1.85    | 2.03      |
|  | 0 191 63   | 1.79    | 1.80    | 1.86    | 2.06      |
|  | 0 191 127  | 0.95    | 1.98    | 1.83    | 2.13      |
|  | 0 191 191  | 2.54    | 0.34    | 1.66    | 1.90      |
|  | 0 191 255  | 0.41    | 4.85    | 1.17    | 3.11      |
|  | 0 255 0    | 1.47    | 0.27    | 0.16    | 0.30      |
|  | 0 255 63   | 0.61    | 1.67    | 0.14    | 0.65      |
|  | 0 255 127  | 1.61    | 2.88    | 0.11    | 1.28      |
|  | 0 255 191  | 0.58    | 2.68    | 0.16    | 1.36      |
|  | 0 255 255  | 1.83    | 0.28    | 0.42    | 0.72      |
|  | 63 0 0     | 5.32    | 2.39    | 1.33    | 3.02      |
|  | 63 0 63    | 4.62    | 0.53    | 1.49    | 2.22      |
|  | 63 0 127   | 4.56    | 0.75    | 1.36    | 1.75      |
|  | 63 0 191   | 3.08    | 0.44    | 0.67    | 0.88      |
|  | 63 0 255   | 1.62    | 0.59    | 0.75    | 0.81      |
|  | 63 63 0    | 5.55    | 0.50    | 3.05    | 3.77      |
|  | 63 63 63   | 0.44    | 0.08    | 3.03    | 3.06      |
|  | 63 63 127  | 0.46    | 0.55    | 2.70    | 2.73      |
|  | 63 63 191  | 0.48    | 1.08    | 1.85    | 1.92      |
|  | 63 63 255  | 2.93    | 1.66    | 0.69    | 1.05      |
|  | 63 127 0   | 3.57    | 1.01    | 3.16    | 3.32      |
|  | 63 127 63  | 1.39    | 0.05    | 3.13    | 3.17      |
|  | 63 127 127 | 0.99    | 0.17    | 3.03    | 3.07      |
|  | 63 127 191 | 1.27    | 2.81    | 2.65    | 3.21      |
|  | 63 127 255 | 4.76    | 3.72    | 1.84    | 2.79      |
|  | 63 191 0   | 3.37    | 1.03    | 2.02    | 2.16      |
|  | 63 191 63  | 0.52    | 0.58    | 2.03    | 2.05      |
|  | 63 191 127 | 0.01    | 1.33    | 2.03    | 2.16      |
|  | 63 191 191 | 1.18    | 0.15    | 1.82    | 1.88      |
|  | 63 191 255 | 1.18    | 4.54    | 1.34    | 3.08      |
|  | 63 255 0   | 0.60    | 0.75    | 0.03    | 0.29      |
|  | 63 255 63  | 1.28    | 0.87    | 0.01    | 0.39      |

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| Date             | Friday, November 6, 2020                |
| Tester           | Manuel Findeis                          |
| Display          | BenQ EW3280U                            |
| Sensor           | X-Rite i1 Display Pro (Corr.: WLED, XR) |
| Testchart        | In accordance with ISO 12646:2007 (1)   |
| Target           | ITU-R BT.709                            |
| Display Profile  | Not considered                          |
| Rendering Intent | -                                       |

(1) Five equally spaced code values for each channel

|  | RGB         | Delta C | Delta H | Delta L | Delta E94 |
|--|-------------|---------|---------|---------|-----------|
|  | 63 255 127  | 2.35    | 2.19    | 0.04    | 1.06      |
|  | 63 255 191  | 1.66    | 2.22    | 0.04    | 1.22      |
|  | 63 255 255  | 0.84    | 0.15    | 0.29    | 0.41      |
|  | 127 0 0     | 4.64    | 1.85    | 2.43    | 2.89      |
|  | 127 0 63    | 2.49    | 0.76    | 2.53    | 2.68      |
|  | 127 0 127   | 3.01    | 0.29    | 2.32    | 2.44      |
|  | 127 0 191   | 2.64    | 1.27    | 1.43    | 1.60      |
|  | 127 0 255   | 0.48    | 1.54    | 0.20    | 0.58      |
|  | 127 63 0    | 3.58    | 1.84    | 3.23    | 3.57      |
|  | 127 63 63   | 0.80    | 0.10    | 3.23    | 3.25      |
|  | 127 63 127  | 0.81    | 0.24    | 2.99    | 3.00      |
|  | 127 63 191  | 0.36    | 0.47    | 2.33    | 2.34      |
|  | 127 63 255  | 3.19    | 0.06    | 1.31    | 1.42      |
|  | 127 127 0   | 3.14    | 0.79    | 3.44    | 3.58      |
|  | 127 127 63  | 1.00    | 0.28    | 3.39    | 3.42      |
|  | 127 127 127 | 0.26    | 0.10    | 3.31    | 3.32      |
|  | 127 127 191 | 1.86    | 0.52    | 2.99    | 3.09      |
|  | 127 127 255 | 5.18    | 1.72    | 2.15    | 2.61      |
|  | 127 191 0   | 2.75    | 1.58    | 2.28    | 2.46      |
|  | 127 191 63  | 0.19    | 0.46    | 2.30    | 2.31      |
|  | 127 191 127 | 1.12    | 0.34    | 2.23    | 2.28      |
|  | 127 191 191 | 0.00    | 0.19    | 2.09    | 2.09      |
|  | 127 191 255 | 2.53    | 2.40    | 1.58    | 2.40      |
|  | 127 255 0   | 0.41    | 2.23    | 0.24    | 0.88      |
|  | 127 255 63  | 2.23    | 0.59    | 0.26    | 0.53      |
|  | 127 255 127 | 3.84    | 0.44    | 0.28    | 0.92      |
|  | 127 255 191 | 3.00    | 1.29    | 0.17    | 1.15      |
|  | 127 255 255 | 0.52    | 0.02    | 0.05    | 0.20      |
|  | 191 0 0     | 2.06    | 0.48    | 2.02    | 2.07      |
|  | 191 0 63    | 1.18    | 2.62    | 1.97    | 2.36      |
|  | 191 0 127   | 3.05    | 1.62    | 1.90    | 2.17      |
|  | 191 0 191   | 2.67    | 0.49    | 1.45    | 1.55      |
|  | 191 0 255   | 0.44    | 1.85    | 0.60    | 0.90      |
|  | 191 63 0    | 0.56    | 0.73    | 2.72    | 2.74      |
|  | 191 63 63   | 0.56    | 0.81    | 2.67    | 2.71      |
|  | 191 63 127  | 0.49    | 0.92    | 2.69    | 2.73      |
|  | 191 63 191  | 0.30    | 0.37    | 2.33    | 2.34      |
|  | 191 63 255  | 2.56    | 1.13    | 1.48    | 1.60      |
|  | 191 127 0   | 1.63    | 1.97    | 3.17    | 3.34      |
|  | 191 127 63  | 0.19    | 1.17    | 3.17    | 3.25      |
|  | 191 127 127 | 1.10    | 0.18    | 3.15    | 3.20      |
|  | 191 127 191 | 2.28    | 0.10    | 2.85    | 2.95      |
|  | 191 127 255 | 4.75    | 0.09    | 2.12    | 2.39      |
|  | 191 191 0   | 2.55    | 0.23    | 2.27    | 2.34      |
|  | 191 191 63  | 0.29    | 0.07    | 2.29    | 2.29      |
|  | 191 191 127 | 1.06    | 0.07    | 2.29    | 2.33      |
|  | 191 191 191 | 0.10    | 0.05    | 2.10    | 2.10      |

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|------------------|-----------------------------------------|
| Date             | Friday, November 6, 2020                |
| Tester           | Manuel Findeis                          |
| Display          | BenQ EW3280U                            |
| Sensor           | X-Rite i1 Display Pro (Corr.: WLED, XR) |
| Testchart        | In accordance with ISO 12646:2007 (1)   |
| Target           | ITU-R BT.709                            |
| Display Profile  | Not considered                          |
| Rendering Intent | -                                       |

(1) Five equally spaced code values for each channel

|  | RGB             | Delta C | Delta H | Delta L | Delta E94 |
|--|-----------------|---------|---------|---------|-----------|
|  | 191 191 255     | 3.28    | 0.53    | 1.69    | 2.17      |
|  | 191 255 0       | 0.32    | 2.42    | 0.35    | 1.03      |
|  | 191 255 63      | 2.37    | 1.41    | 0.38    | 0.85      |
|  | 191 255 127     | 3.67    | 0.45    | 0.41    | 1.02      |
|  | 191 255 191     | 3.39    | 0.11    | 0.33    | 1.27      |
|  | 191 255 255     | 1.11    | 0.00    | 0.12    | 0.59      |
|  | 255 0 0         | 2.08    | 2.97    | 0.83    | 1.47      |
|  | 255 0 63        | 1.55    | 3.94    | 0.87    | 1.90      |
|  | 255 0 127       | 0.64    | 4.14    | 0.89    | 2.04      |
|  | 255 0 191       | 1.87    | 1.95    | 0.71    | 1.13      |
|  | 255 0 255       | 0.04    | 0.47    | 0.26    | 0.31      |
|  | 255 63 0        | 3.26    | 0.60    | 1.63    | 1.75      |
|  | 255 63 63       | 3.08    | 1.65    | 1.64    | 1.91      |
|  | 255 63 127      | 1.61    | 2.70    | 1.64    | 2.10      |
|  | 255 63 191      | 0.64    | 1.47    | 1.45    | 1.59      |
|  | 255 63 255      | 2.40    | 0.23    | 0.92    | 1.01      |
|  | 255 127 0       | 1.78    | 3.39    | 2.27    | 2.74      |
|  | 255 127 63      | 3.52    | 1.63    | 2.29    | 2.56      |
|  | 255 127 127     | 3.34    | 0.47    | 2.25    | 2.47      |
|  | 255 127 191     | 2.73    | 0.67    | 2.08    | 2.25      |
|  | 255 127 255     | 4.47    | 0.10    | 1.56    | 1.86      |
|  | 255 191 0       | 0.78    | 2.72    | 1.76    | 2.14      |
|  | 255 191 63      | 1.78    | 2.21    | 1.80    | 2.13      |
|  | 255 191 127     | 2.54    | 1.16    | 1.78    | 2.10      |
|  | 255 191 191     | 2.16    | 0.23    | 1.68    | 1.98      |
|  | 255 191 255     | 3.41    | 0.11    | 1.31    | 1.80      |
|  | 255 255 0       | 0.13    | 0.24    | 0.15    | 0.18      |
|  | 255 255 63      | 1.86    | 0.01    | 0.20    | 0.43      |
|  | 255 255 127     | 3.14    | 0.01    | 0.20    | 0.85      |
|  | 255 255 191     | 2.43    | 0.03    | 0.19    | 1.02      |
|  | 255 255 255 (1) | -       | -       | -       | -         |
|  | Average (2)     | 2.11    | 1.15    | 1.62    | 2.01      |
|  | Maximum (2)     | 6.78    | 5.27    | 3.44    | 3.77      |

(1) Visual adaptation to display whitepoint is assumed; CIELAB reference values are adapted (Bradford transformation) to display whitepoint  
(2) Without Black

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| Testchart        | In accordance with ISO 12646:2007 (1)   |
| Target           | ITU-R BT.709                            |
| Display Profile  | Not considered                          |
| Rendering Intent | -                                       |

(1) Five equally spaced code values for each channel

| Property             | Device adjustments |
|----------------------|--------------------|
| Backlight brightness |                    |
| Brightness           |                    |
| Contrast             |                    |
| RGB Gain             |                    |
| Gradation            |                    |
| Other                | Bildmodus: REC.709 |