

## PHOTOMETRIC RESULTS

|                   |  |                      |                  |
|-------------------|--|----------------------|------------------|
| <b>Name:</b>      | REBA 50 /T EXT LINE L1682 MID+INT SYM BFLEX 830 HO |                      |                  |
| <b>Number:</b>    | 90507+90499L006                                    | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 21-01-2020   | <b>Length:</b>       | 1682 mm          |
| <b>Meas.-no.:</b> | 01   | <b>Width:</b>        | 70 mm            |
| <b>Lamp type:</b> | LED 830 - 01                                       | <b>Height:</b>       | 114 mm           |
| <b>Number:</b>    | 01   | <b>Power:</b>        | 43,57 W          |
| <b>Lamp flux:</b> | 6480,00 lm   | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 25-01-2020 10:34:48                                | <b>Output ratio:</b> | 64,3 %           |

## Protocol

**LiTG-class:** A40  
**UTE-class:** 0,64 E  
**IES-class:** 45 - 76 - 93 - 100 - 64  
**TM5-class:** BZ4/0.75/BZ5

## Divergences in the plane through maximum intensity:

|                               | Horizontal | Vertical |
|-------------------------------|------------|----------|
| One half peak divergence      | 110,0°     | 113,3°   |
| Half peak side angle (left)   | -55,0°     | -56,7°   |
| Half peak side angle (right)  | 55,0°      | 56,7°    |
| One tenth peak divergence     | 163,8°     | 175,2°   |
| Tenth peak side angle (left)  | -81,9°     | -87,6°   |
| Tenth peak side angle (right) | 81,9°      | 87,6°    |

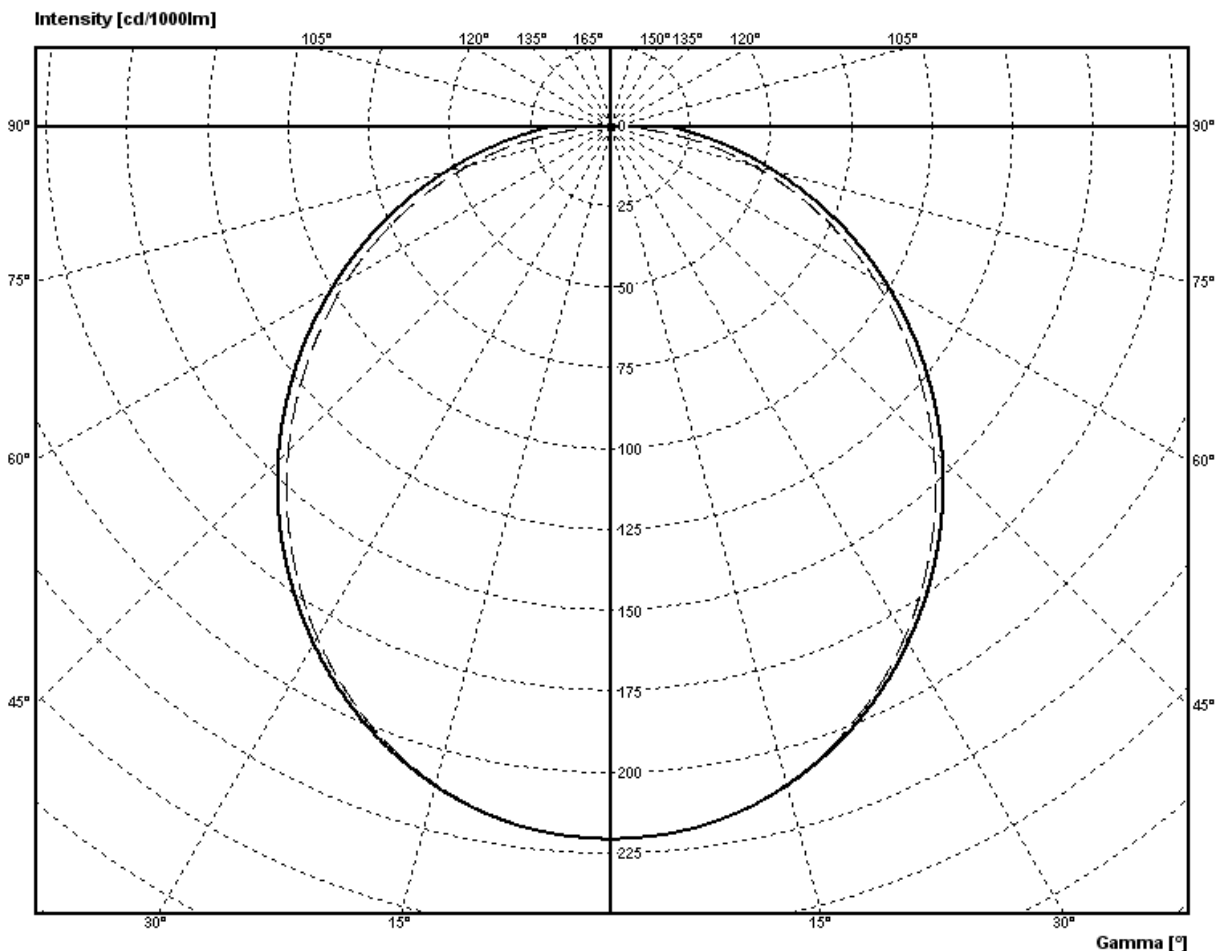
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 105,0° | 120,0° | 135,0° |
|                  | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0° | 270,0° | 285,0° |
|                  | 300,0° | 315,0° | 330,0° | 345,0° |        |        |        |        |        |        |

|               |       |       |       |       |       |       |       |       |       |       |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Gamma:</b> | 0,0°  | 5,0°  | 10,0° | 15,0° | 20,0° | 25,0° | 30,0° | 35,0° | 40,0° | 45,0° |
|               | 50,0° | 55,0° | 60,0° | 65,0° | 70,0° | 75,0° | 80,0° | 85,0° | 90,0° |       |

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| Number:    | 90507+90499L006                                    | Diameter:     | 0 mm            |
| Report:    | 21-01-2020   | Length:       | 1682 mm         |
| Meas.-no.: | 01   | Width:        | 70 mm           |
| Lamp type: | LED 830 - 01                                       | Height:       | 114 mm          |
| Number:    | 01   | Power:        | 43,57 W         |
| Lamp flux: | 6480,00 lm   | Operator:     | INDELAGUE GROUP |
| Date:      | 25-01-2020 10:34:48                                | Output ratio: | 64,3 %          |

Polar diagram REBA 50 /T EXT LINE L1682 MID+INT SYM BFLEX 830 HO / Direct in  
15° C / 5° G



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| <b>Number:</b>    | 90507+90499L006   | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 21-01-2020  | <b>Length:</b>       | 1682 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 70 mm            |
| <b>Lamp type:</b> | LED 830 - 01  | <b>Height:</b>       | 114 mm           |
| <b>Number:</b>    | 01  | <b>Power:</b>        | 43,57 W          |
| <b>Lamp flux:</b> | 6480,00 lm  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 25-01-2020 10:34:48                                       | <b>Output ratio:</b> | 64,3 %           |

## UGR Unified Glare Ratios

|                                 |            |                  |            |            |            |            |                |            |            |            |            |
|---------------------------------|------------|------------------|------------|------------|------------|------------|----------------|------------|------------|------------|------------|
| <b>Ceiling reflectance</b>      |            | <b>0,7</b>       | <b>0,7</b> | <b>0,5</b> | <b>0,5</b> | <b>0,3</b> | <b>0,7</b>     | <b>0,7</b> | <b>0,5</b> | <b>0,5</b> | <b>0,3</b> |
| <b>Wall reflectance</b>         |            | <b>0,5</b>       | <b>0,3</b> | <b>0,5</b> | <b>0,3</b> | <b>0,3</b> | <b>0,5</b>     | <b>0,3</b> | <b>0,5</b> | <b>0,3</b> | <b>0,3</b> |
| <b>Floor cavity reflectance</b> |            | <b>0,2</b>       | <b>0,2</b> | <b>0,2</b> | <b>0,2</b> | <b>0,2</b> | <b>0,2</b>     | <b>0,2</b> | <b>0,2</b> | <b>0,2</b> | <b>0,2</b> |
| <b>Room dimension</b>           |            | Viewed crosswise |            |            |            |            | Viewed endwise |            |            |            |            |
| <b>2H</b>                       | <b>2H</b>  | 17,1             | 18,8       | 17,5       | 19,1       | 19,4       | 19,5           | 21,1       | 19,8       | 21,4       | 21,8       |
| <b>2H</b>                       | <b>3H</b>  | 18,3             | 19,8       | 18,7       | 20,2       | 20,5       | 21,1           | 22,6       | 21,4       | 22,9       | 23,3       |
| <b>2H</b>                       | <b>4H</b>  | 18,8             | 20,2       | 19,2       | 20,6       | 20,9       | 21,7           | 23,2       | 22,1       | 23,5       | 23,9       |
| <b>2H</b>                       | <b>6H</b>  | 19,1             | 20,5       | 19,5       | 20,8       | 21,2       | 22,3           | 23,6       | 22,7       | 24,0       | 24,4       |
| <b>2H</b>                       | <b>8H</b>  | 19,2             | 20,5       | 19,6       | 20,9       | 21,3       | 22,4           | 23,7       | 22,8       | 24,1       | 24,5       |
| <b>2H</b>                       | <b>12H</b> | 19,3             | 20,6       | 19,7       | 20,9       | 21,3       | 22,5           | 23,7       | 22,9       | 24,1       | 24,5       |
| <b>4H</b>                       | <b>2H</b>  | 17,9             | 19,3       | 18,2       | 19,6       | 20,0       | 19,7           | 21,2       | 20,1       | 21,5       | 21,9       |
| <b>4H</b>                       | <b>3H</b>  | 19,2             | 20,4       | 19,6       | 20,8       | 21,2       | 21,4           | 22,7       | 21,9       | 23,1       | 23,5       |
| <b>4H</b>                       | <b>4H</b>  | 19,8             | 20,9       | 20,2       | 21,3       | 21,7       | 22,3           | 23,4       | 22,7       | 23,8       | 24,2       |
| <b>4H</b>                       | <b>6H</b>  | 20,2             | 21,2       | 20,6       | 21,6       | 22,1       | 22,8           | 23,8       | 23,3       | 24,2       | 24,7       |
| <b>4H</b>                       | <b>8H</b>  | 20,4             | 21,3       | 20,8       | 21,7       | 22,2       | 23,0           | 23,9       | 23,5       | 24,4       | 24,8       |
| <b>4H</b>                       | <b>12H</b> | 20,5             | 21,4       | 21,0       | 21,8       | 22,3       | 23,2           | 24,0       | 23,6       | 24,5       | 25,0       |
| <b>8H</b>                       | <b>4H</b>  | 20,0             | 21,0       | 20,5       | 21,4       | 21,9       | 22,3           | 23,2       | 22,8       | 23,7       | 24,1       |
| <b>8H</b>                       | <b>6H</b>  | 20,6             | 21,3       | 21,0       | 21,8       | 22,3       | 22,9           | 23,7       | 23,4       | 24,2       | 24,7       |
| <b>8H</b>                       | <b>8H</b>  | 20,9             | 21,5       | 21,4       | 22,0       | 22,5       | 23,2           | 23,9       | 23,8       | 24,4       | 24,9       |
| <b>8H</b>                       | <b>12H</b> | 21,1             | 21,6       | 21,6       | 22,2       | 22,7       | 23,4           | 24,0       | 23,9       | 24,5       | 25,0       |
| <b>12H</b>                      | <b>4H</b>  | 20,1             | 20,9       | 20,5       | 21,4       | 21,9       | 22,3           | 23,2       | 22,8       | 23,6       | 24,1       |
| <b>12H</b>                      | <b>6H</b>  | 20,7             | 21,4       | 21,2       | 21,9       | 22,3       | 23,0           | 23,7       | 23,5       | 24,2       | 24,7       |
| <b>12H</b>                      | <b>8H</b>  | 20,9             | 21,5       | 21,5       | 22,0       | 22,5       | 23,3           | 23,9       | 23,8       | 24,4       | 24,9       |

UGR values are corrected for lamp flux of 6480 lm by 6,5

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| <b>Number:</b>    | 01  | <b>Power:</b>        | 43,57 W          |
| <b>Lamp flux:</b> | 6480,00 lm  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 25-01-2020 10:34:48                                       | <b>Output ratio:</b> | 64,3 %           |

Luminance [cd/m<sup>2</sup>] REBA 50 /T EXT LINE L1682 MID+INT SYM BFLEX 830 HO / Direct  
in 15° C / 5° G

| G/C [cd/ | 0,00    | 15,00   | 30,00   | 45,00   | 60,00   | 75,00   | 90,00   | 105,00  | 120,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 4958,40 | 5051,99 | 5384,44 | 6067,92 | 7340,93 | 9828,56 | 15685,0 | 9828,56 | 7340,93 |
| 50,00    | 4308,50 | 4398,16 | 4692,95 | 5323,22 | 6505,81 | 8935,81 | 15193,1 | 8935,81 | 6505,81 |
| 55,00    | 3712,92 | 3792,78 | 4053,75 | 4618,16 | 5704,37 | 8028,08 | 14666,2 | 8028,08 | 5704,37 |
| 60,00    | 3155,31 | 3221,53 | 3452,03 | 3942,30 | 4927,83 | 7104,65 | 14128,7 | 7104,65 | 4927,83 |
| 65,00    | 2630,10 | 2683,29 | 2874,13 | 3297,38 | 4149,97 | 6130,67 | 13442,9 | 6130,67 | 4149,97 |
| 70,00    | 2128,06 | 2171,25 | 2322,55 | 2658,76 | 3379,11 | 5121,31 | 12653,8 | 5121,31 | 3379,11 |
| 75,00    | 1654,39 | 1680,53 | 1789,48 | 2037,27 | 2592,25 | 4016,05 | 11541,1 | 4016,05 | 2592,25 |
| 80,00    | 1227,51 | 1240,50 | 1301,47 | 1444,13 | 1797,29 | 2796,22 | 9800,45 | 2796,22 | 1797,29 |
| 85,00    | 863,70  | 860,09  | 878,12  | 925,47  | 1065,54 | 1495,63 | 6469,92 | 1495,63 | 1065,54 |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 6067,92 | 5384,44 | 5051,99 | 4958,40 | 5051,99 | 5384,44 | 6067,92 | 7340,93 | 9828,56 |
| 50,00    | 5323,22 | 4692,95 | 4398,16 | 4308,50 | 4398,16 | 4692,95 | 5323,22 | 6505,81 | 8935,81 |
| 55,00    | 4618,16 | 4053,75 | 3792,78 | 3712,92 | 3792,78 | 4053,75 | 4618,16 | 5704,37 | 8028,08 |
| 60,00    | 3942,30 | 3452,03 | 3221,53 | 3155,31 | 3221,53 | 3452,03 | 3942,30 | 4927,83 | 7104,65 |
| 65,00    | 3297,38 | 2874,13 | 2683,29 | 2630,10 | 2683,29 | 2874,13 | 3297,38 | 4149,97 | 6130,67 |
| 70,00    | 2658,76 | 2322,55 | 2171,25 | 2128,06 | 2171,25 | 2322,55 | 2658,76 | 3379,11 | 5121,31 |
| 75,00    | 2037,27 | 1789,48 | 1680,53 | 1654,39 | 1680,53 | 1789,48 | 2037,27 | 2592,25 | 4016,05 |
| 80,00    | 1444,13 | 1301,47 | 1240,50 | 1227,51 | 1240,50 | 1301,47 | 1444,13 | 1797,29 | 2796,22 |
| 85,00    | 925,47  | 878,12  | 860,09  | 863,70  | 860,09  | 878,12  | 925,47  | 1065,54 | 1495,63 |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 15685,0 | 9828,56 | 7340,93 | 6067,92 | 5384,44 | 5051,99 |
| 50,00    | 15193,1 | 8935,81 | 6505,81 | 5323,22 | 4692,95 | 4398,16 |
| 55,00    | 14666,2 | 8028,08 | 5704,37 | 4618,16 | 4053,75 | 3792,78 |
| 60,00    | 14128,7 | 7104,65 | 4927,83 | 3942,30 | 3452,03 | 3221,53 |
| 65,00    | 13442,9 | 6130,67 | 4149,97 | 3297,38 | 2874,13 | 2683,29 |
| 70,00    | 12653,8 | 5121,31 | 3379,11 | 2658,76 | 2322,55 | 2171,25 |
| 75,00    | 11541,1 | 4016,05 | 2592,25 | 2037,27 | 1789,48 | 1680,53 |
| 80,00    | 9800,45 | 2796,22 | 1797,29 | 1444,13 | 1301,47 | 1240,50 |
| 85,00    | 6469,92 | 1495,63 | 1065,54 | 925,47  | 878,12  | 860,09  |

## HEADQUARTERS

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