

**PHOTOMETRIC RESULTS**

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>REBA _E LED Line 37W bGLARE [1402mm]</b> |                      |                  |
| <b>Number:</b>    | 01  | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 08-02-2018                                  | <b>Length:</b>       | 1402 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 62 mm            |
| <b>Lamp type:</b> | LED 840 - 01                                | <b>Height:</b>       | 85 mm            |
| <b>Number:</b>    | 1   | <b>Power:</b>        | 36,74 W          |
| <b>Lamp flux:</b> | 5067,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 08-02-2018 10:31:37                         | <b>Output ratio:</b> | 60,4 %           |

**Protocol**

**LiTG-class:** A50  
**UTE-class:** 0,60 C  
**IES-class:** 65 - 90 - 98 - 100 - 60  
**TM5-class:** B22

**Divergences in the plane through maximum intensity:**

|                                      | Horizontal | Vertical |
|--------------------------------------|------------|----------|
| <b>One half peak divergence</b>      | 75,9°      | 75,3°    |
| <b>Half peak side angle (left)</b>   | -37,9°     | -37,7°   |
| <b>Half peak side angle (right)</b>  | 37,9°      | 37,7°    |
| <b>One tenth peak divergence</b>     | 129,1°     | 130,9°   |
| <b>Tenth peak side angle (left)</b>  | -64,5°     | -65,4°   |
| <b>Tenth peak side angle (right)</b> | 64,5°      | 65,4°    |

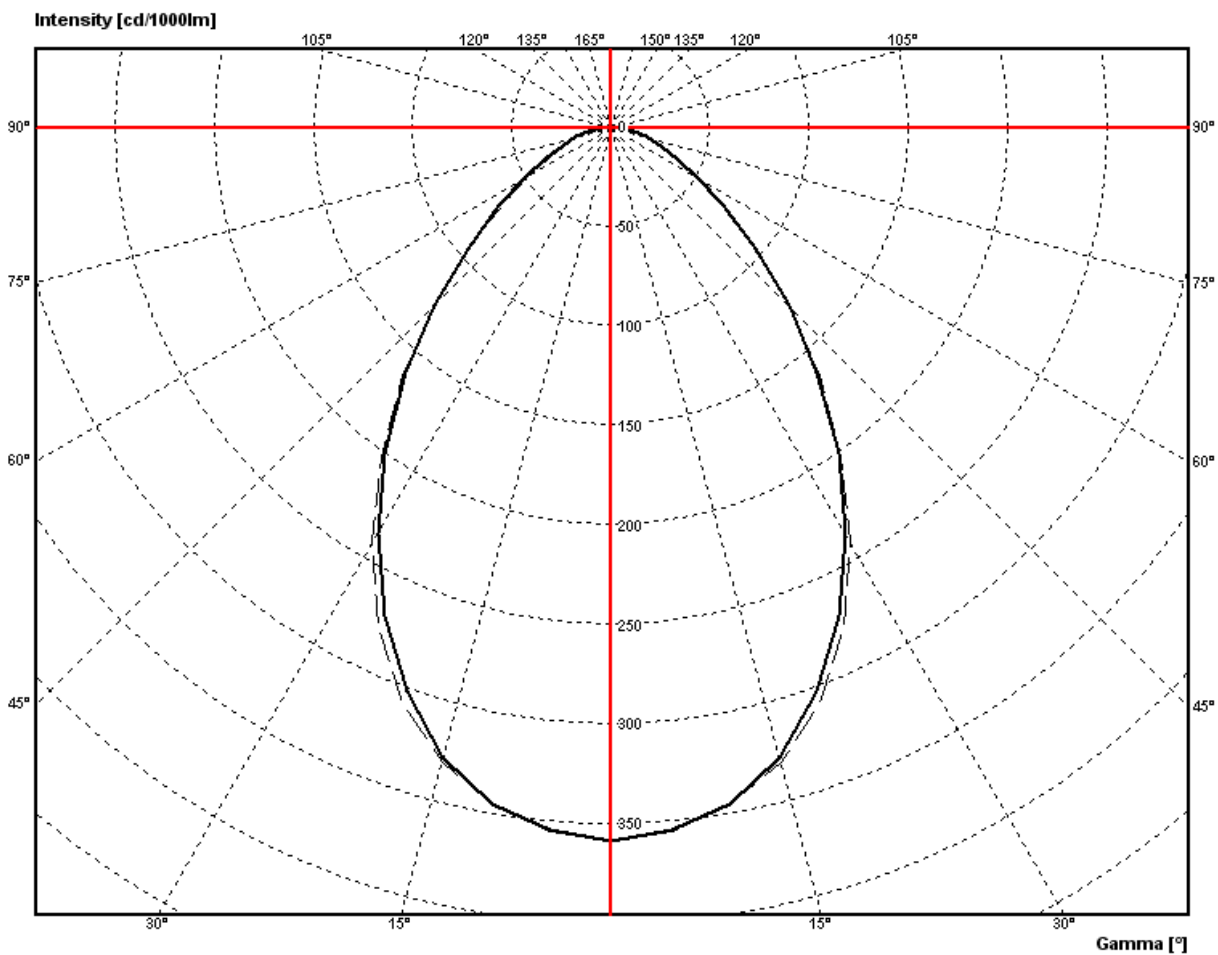
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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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| <b>Name:</b>      | REBA _E LED Line 37W bGLARE [1402mm] |                      |                 |
| <b>Number:</b>    | 01                                   | <b>Diameter:</b>     | 0 mm            |
| <b>Report:</b>    | 08-02-2018                           | <b>Length:</b>       | 1402 mm         |
| <b>Meas.-no.:</b> | 01                                   | <b>Width:</b>        | 62 mm           |
| <b>Lamp type:</b> | LED 840 - 01                         | <b>Height:</b>       | 85 mm           |
| <b>Number:</b>    | 1                                    | <b>Power:</b>        | 36,74 W         |
| <b>Lamp flux:</b> | 5067,00 lm                           | <b>Operator:</b>     | INDELAGUE GROUP |
| <b>Date:</b>      | 08-02-2018 10:31:37                  | <b>Output ratio:</b> | 60,4 %          |

Polar diagram REBA \_E LED Line 37W bGLARE [1402mm] / Direct in 15° C / 5° G



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| <b>Number:</b>    | 01  | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 08-02-2018                                  | <b>Length:</b>       | 1402 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 62 mm            |
| <b>Lamp type:</b> | LED 840 - 01                                | <b>Height:</b>       | 85 mm            |
| <b>Number:</b>    | 1   | <b>Power:</b>        | 36,74 W          |
| <b>Lamp flux:</b> | 5067,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 08-02-2018 10:31:37                         | <b>Output ratio:</b> | 60,4 %           |

**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>           |            | <b>Viewed crosswise</b> |            |            |            |            | <b>Viewed endwise</b> |            |            |            |            |
| <b>2H</b>                       | <b>2H</b>  | 15,8                    | 17,2       | 16,1       | 17,5       | 17,8       | 17,7                  | 19,1       | 18,0       | 19,4       | 19,7       |
| <b>2H</b>                       | <b>3H</b>  | 16,1                    | 17,4       | 16,5       | 17,8       | 18,1       | 18,3                  | 19,5       | 18,6       | 19,9       | 20,2       |
| <b>2H</b>                       | <b>4H</b>  | 16,3                    | 17,4       | 16,7       | 17,8       | 18,2       | 18,5                  | 19,7       | 18,9       | 20,0       | 20,4       |
| <b>2H</b>                       | <b>6H</b>  | 16,3                    | 17,4       | 16,7       | 17,8       | 18,2       | 18,7                  | 19,8       | 19,1       | 20,2       | 20,6       |
| <b>2H</b>                       | <b>8H</b>  | 16,3                    | 17,3       | 16,7       | 17,7       | 18,1       | 18,7                  | 19,8       | 19,2       | 20,2       | 20,6       |
| <b>2H</b>                       | <b>12H</b> | 16,3                    | 17,3       | 16,7       | 17,7       | 18,1       | 18,8                  | 19,8       | 19,2       | 20,1       | 20,6       |
| <b>4H</b>                       | <b>2H</b>  | 16,1                    | 17,2       | 16,5       | 17,6       | 18,0       | 17,7                  | 18,9       | 18,1       | 19,3       | 19,6       |
| <b>4H</b>                       | <b>3H</b>  | 16,5                    | 17,5       | 16,9       | 17,9       | 18,3       | 18,4                  | 19,4       | 18,8       | 19,8       | 20,2       |
| <b>4H</b>                       | <b>4H</b>  | 16,7                    | 17,6       | 17,2       | 18,0       | 18,5       | 18,7                  | 19,6       | 19,2       | 20,0       | 20,5       |
| <b>4H</b>                       | <b>6H</b>  | 16,8                    | 17,6       | 17,3       | 18,0       | 18,5       | 19,0                  | 19,7       | 19,4       | 20,2       | 20,6       |
| <b>4H</b>                       | <b>8H</b>  | 16,8                    | 17,5       | 17,3       | 18,0       | 18,5       | 19,0                  | 19,8       | 19,5       | 20,2       | 20,7       |
| <b>4H</b>                       | <b>12H</b> | 16,8                    | 17,5       | 17,3       | 17,9       | 18,4       | 19,1                  | 19,8       | 19,6       | 20,2       | 20,7       |
| <b>8H</b>                       | <b>4H</b>  | 16,8                    | 17,5       | 17,2       | 17,9       | 18,4       | 18,7                  | 19,4       | 19,2       | 19,9       | 20,3       |
| <b>8H</b>                       | <b>6H</b>  | 16,9                    | 17,5       | 17,4       | 17,9       | 18,4       | 18,9                  | 19,5       | 19,4       | 20,0       | 20,5       |
| <b>8H</b>                       | <b>8H</b>  | 17,0                    | 17,5       | 17,5       | 18,0       | 18,5       | 19,1                  | 19,6       | 19,6       | 20,1       | 20,6       |
| <b>8H</b>                       | <b>12H</b> | 17,0                    | 17,4       | 17,5       | 17,9       | 18,4       | 19,2                  | 19,6       | 19,7       | 20,1       | 20,6       |
| <b>12H</b>                      | <b>4H</b>  | 16,8                    | 17,4       | 17,2       | 17,9       | 18,4       | 18,7                  | 19,3       | 19,1       | 19,8       | 20,3       |
| <b>12H</b>                      | <b>6H</b>  | 16,9                    | 17,4       | 17,4       | 17,9       | 18,4       | 19,0                  | 19,5       | 19,5       | 20,0       | 20,5       |
| <b>12H</b>                      | <b>8H</b>  | 17,0                    | 17,4       | 17,5       | 17,9       | 18,4       | 19,1                  | 19,5       | 19,6       | 20,0       | 20,5       |

UGR values are corrected for lamp flux of 5067 lm by 5,6

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| <b>Number:</b>    | 1   | <b>Power:</b>        | 36,74 W          |
| <b>Lamp flux:</b> | 5067,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 08-02-2018 10:31:37                         | <b>Output ratio:</b> | 60,4 %           |

Luminance [cd/m<sup>2</sup>] REBA \_E LED Line 37W bGLARE [1402mm] / Direct in 15° C / 5° 

| G/C [cd/ | 0,00    | 15,00   | 30,00   | 45,00   | 60,00   | 75,00   | 90,00   | 105,00  | 120,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 4929,44 | 5038,38 | 5516,41 | 6235,43 | 7335,10 | 9216,60 | 13249,5 | 9216,60 | 7335,10 |
| 50,00    | 3603,37 | 3698,69 | 4053,64 | 4602,59 | 5466,93 | 7001,48 | 10564,4 | 7001,48 | 5466,93 |
| 55,00    | 2588,97 | 2648,15 | 2959,54 | 3348,82 | 4002,24 | 5237,10 | 8401,48 | 5237,10 | 4002,24 |
| 60,00    | 1883,91 | 1904,24 | 2161,67 | 2424,46 | 2907,87 | 3949,13 | 6889,78 | 3949,13 | 2907,87 |
| 65,00    | 1374,82 | 1374,91 | 1538,85 | 1750,64 | 2131,63 | 2961,36 | 5672,70 | 2961,36 | 2131,63 |
| 70,00    | 994,25  | 1011,32 | 1109,82 | 1253,83 | 1585,18 | 2255,59 | 4750,20 | 2255,59 | 1585,18 |
| 75,00    | 700,23  | 721,61  | 780,55  | 887,74  | 1150,52 | 1728,27 | 4166,66 | 1728,27 | 1150,52 |
| 80,00    | 447,34  | 452,04  | 507,65  | 559,50  | 750,73  | 1206,56 | 3510,32 | 1206,56 | 750,73  |
| 85,00    | 204,95  | 209,06  | 244,32  | 267,47  | 361,60  | 603,64  | 2539,94 | 603,64  | 361,60  |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 6235,43 | 5516,41 | 5038,38 | 4929,44 | 5038,38 | 5516,41 | 6235,43 | 7335,10 | 9216,60 |
| 50,00    | 4602,59 | 4053,64 | 3698,69 | 3603,37 | 3698,69 | 4053,64 | 4602,59 | 5466,93 | 7001,48 |
| 55,00    | 3348,82 | 2959,54 | 2648,15 | 2588,97 | 2648,15 | 2959,54 | 3348,82 | 4002,24 | 5237,10 |
| 60,00    | 2424,46 | 2161,67 | 1904,24 | 1883,91 | 1904,24 | 2161,67 | 2424,46 | 2907,87 | 3949,13 |
| 65,00    | 1750,64 | 1538,85 | 1374,91 | 1374,82 | 1374,91 | 1538,85 | 1750,64 | 2131,63 | 2961,36 |
| 70,00    | 1253,83 | 1109,82 | 1011,32 | 994,25  | 1011,32 | 1109,82 | 1253,83 | 1585,18 | 2255,59 |
| 75,00    | 887,74  | 780,55  | 721,61  | 700,23  | 721,61  | 780,55  | 887,74  | 1150,52 | 1728,27 |
| 80,00    | 559,50  | 507,65  | 452,04  | 447,34  | 452,04  | 507,65  | 559,50  | 750,73  | 1206,56 |
| 85,00    | 267,47  | 244,32  | 209,06  | 204,95  | 209,06  | 244,32  | 267,47  | 361,60  | 603,64  |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 13249,5 | 9216,60 | 7335,10 | 6235,43 | 5516,41 | 5038,38 |
| 50,00    | 10564,4 | 7001,48 | 5466,93 | 4602,59 | 4053,64 | 3698,69 |
| 55,00    | 8401,48 | 5237,10 | 4002,24 | 3348,82 | 2959,54 | 2648,15 |
| 60,00    | 6889,78 | 3949,13 | 2907,87 | 2424,46 | 2161,67 | 1904,24 |
| 65,00    | 5672,70 | 2961,36 | 2131,63 | 1750,64 | 1538,85 | 1374,91 |
| 70,00    | 4750,20 | 2255,59 | 1585,18 | 1253,83 | 1109,82 | 1011,32 |
| 75,00    | 4166,66 | 1728,27 | 1150,52 | 887,74  | 780,55  | 721,61  |
| 80,00    | 3510,32 | 1206,56 | 750,73  | 559,50  | 507,65  | 452,04  |
| 85,00    | 2539,94 | 603,64  | 361,60  | 267,47  | 244,32  | 209,06  |

**HEADQUARTERS**

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