

## PHOTOMETRIC RESULTS

|                   |  |                      |                  |
|-------------------|--|----------------------|------------------|
| <b>Name:</b>      | REBA 50 /E EXT LINE L2809 SRT/END+INT SYM BLINE 830 HO |                      |                  |
| <b>Number:</b>    | 90506-83+90497L010                                     | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 24-01-2020   | <b>Length:</b>       | 2809 mm          |
| <b>Meas.-no.:</b> | 01   | <b>Width:</b>        | 62 mm            |
| <b>Lamp type:</b> | LED 830 - 01   | <b>Height:</b>       | 72 mm            |
| <b>Number:</b>    | 1  | <b>Power:</b>        | 73,6 W           |
| <b>Lamp flux:</b> | 10800,00 lm  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 24-01-2020 16:26:13                                    | <b>Output ratio:</b> | 63,5 %           |

## Protocol

**LiTG-class:** A40  
**UTE-class:** 0,63 E  
**IES-class:** 49 - 80 - 95 - 100 - 63  
**TM5-class:** BZ5/0.75/BZ4

## Divergences in the plane through maximum intensity:

|                               | Horizontal | Vertical |
|-------------------------------|------------|----------|
| One half peak divergence      | 102,6°     | 100,7°   |
| Half peak side angle (left)   | -51,3°     | -50,3°   |
| Half peak side angle (right)  | 51,3°      | 50,3°    |
| One tenth peak divergence     | 157,4°     | 160,5°   |
| Tenth peak side angle (left)  | -78,7°     | -80,3°   |
| Tenth peak side angle (right) | 78,7°      | 80,3°    |

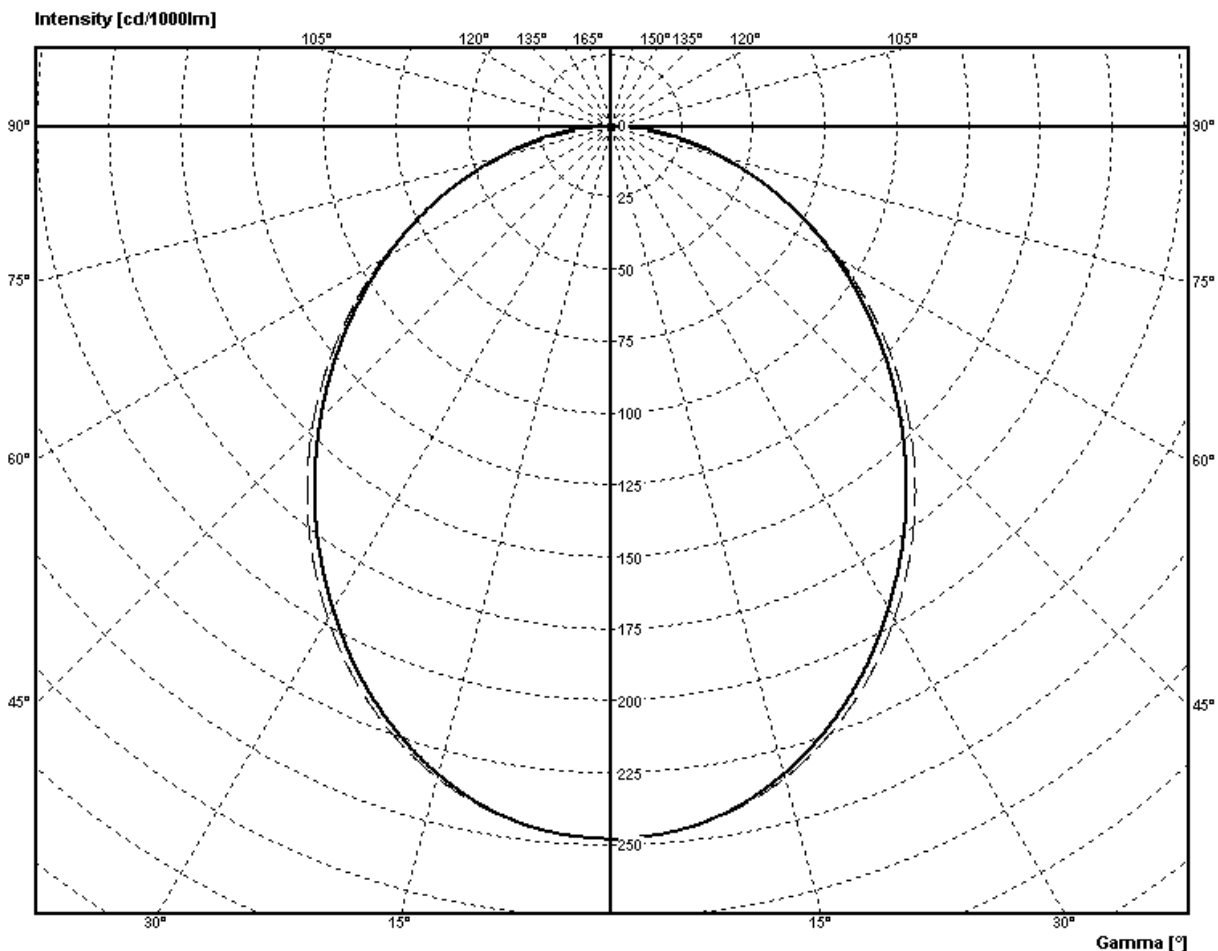
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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:    | 90506-83+90497L010                                     | Diameter:     | 0 mm            |
| Report:    | 24-01-2020   | Length:       | 2809 mm         |
| Meas.-no.: | 01   | Width:        | 62 mm           |
| Lamp type: | LED 830 - 01   | Height:       | 72 mm           |
| Number:    | 1  | Power:        | 73,6 W          |
| Lamp flux: | 10800,00 lm  | Operator:     | INDELAGUE GROUP |
| Date:      | 24-01-2020 16:26:13                                    | Output ratio: | 63,5 %          |

Polar diagram REBA 50 /E EXT LINE L2809 SRT/END+INT SYM BLINE 830 HO / Direct  
in 15° C / 5° G



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| <b>Number:</b>    | 1  | <b>Power:</b>        | 73,6 W           |
| <b>Lamp flux:</b> | 10800,00 lm  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 24-01-2020 16:26:13                                    | <b>Output ratio:</b> | 63,5 %           |

## 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>  | 18,0             | 19,6       | 18,4       | 19,9       | 20,2       | 20,2           | 21,8       | 20,6       | 22,2       | 22,5       |
| <b>2H</b>                       | <b>3H</b>  | 19,0             | 20,5       | 19,4       | 20,8       | 21,1       | 21,6           | 23,1       | 22,0       | 23,5       | 23,8       |
| <b>2H</b>                       | <b>4H</b>  | 19,3             | 20,7       | 19,7       | 21,1       | 21,4       | 22,2           | 23,6       | 22,6       | 23,9       | 24,3       |
| <b>2H</b>                       | <b>6H</b>  | 19,6             | 20,9       | 20,0       | 21,2       | 21,6       | 22,6           | 23,8       | 23,0       | 24,2       | 24,6       |
| <b>2H</b>                       | <b>8H</b>  | 19,6             | 20,8       | 20,0       | 21,2       | 21,6       | 22,6           | 23,9       | 23,0       | 24,3       | 24,7       |
| <b>2H</b>                       | <b>12H</b> | 19,6             | 20,8       | 20,0       | 21,2       | 21,6       | 22,7           | 23,9       | 23,1       | 24,2       | 24,7       |
| <b>4H</b>                       | <b>2H</b>  | 18,7             | 20,1       | 19,1       | 20,4       | 20,8       | 20,5           | 21,9       | 20,9       | 22,3       | 22,6       |
| <b>4H</b>                       | <b>3H</b>  | 19,8             | 21,0       | 20,2       | 21,4       | 21,8       | 22,0           | 23,2       | 22,4       | 23,6       | 24,0       |
| <b>4H</b>                       | <b>4H</b>  | 20,3             | 21,3       | 20,7       | 21,7       | 22,2       | 22,7           | 23,7       | 23,1       | 24,2       | 24,6       |
| <b>4H</b>                       | <b>6H</b>  | 20,5             | 21,5       | 21,0       | 21,9       | 22,3       | 23,1           | 24,0       | 23,6       | 24,5       | 24,9       |
| <b>4H</b>                       | <b>8H</b>  | 20,6             | 21,5       | 21,1       | 21,9       | 22,4       | 23,2           | 24,1       | 23,7       | 24,5       | 25,0       |
| <b>4H</b>                       | <b>12H</b> | 20,7             | 21,5       | 21,2       | 21,9       | 22,4       | 23,3           | 24,1       | 23,8       | 24,6       | 25,1       |
| <b>8H</b>                       | <b>4H</b>  | 20,5             | 21,4       | 21,0       | 21,8       | 22,3       | 22,7           | 23,6       | 23,2       | 24,0       | 24,5       |
| <b>8H</b>                       | <b>6H</b>  | 20,8             | 21,5       | 21,3       | 22,0       | 22,5       | 23,2           | 23,9       | 23,7       | 24,4       | 24,9       |
| <b>8H</b>                       | <b>8H</b>  | 21,0             | 21,6       | 21,5       | 22,1       | 22,6       | 23,4           | 24,0       | 23,9       | 24,5       | 25,0       |
| <b>8H</b>                       | <b>12H</b> | 21,1             | 21,6       | 21,6       | 22,1       | 22,6       | 23,5           | 24,0       | 24,0       | 24,5       | 25,0       |
| <b>12H</b>                      | <b>4H</b>  | 20,5             | 21,3       | 21,0       | 21,8       | 22,3       | 22,7           | 23,5       | 23,2       | 24,0       | 24,5       |
| <b>12H</b>                      | <b>6H</b>  | 20,9             | 21,5       | 21,4       | 22,0       | 22,5       | 23,2           | 23,9       | 23,7       | 24,4       | 24,9       |
| <b>12H</b>                      | <b>8H</b>  | 21,0             | 21,6       | 21,6       | 22,1       | 22,6       | 23,4           | 23,9       | 23,9       | 24,5       | 25,0       |

UGR values are corrected for lamp flux of 10800 lm by 8,3

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| <b>Lamp flux:</b> | 10800,00 lm   | <b>Operator:</b>     | INDEL AGUE GROUP |
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Luminance [cd/m<sup>2</sup>] REBA 50 /E EXT LINE L2809 SRT/END+INT SYM BLINE 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    | 6584,45 | 6714,82 | 7192,39 | 8074,70 | 9578,65 | 12142,6 | 16971,5 | 12142,6 | 9578,65 |
| 50,00    | 5683,82 | 5803,72 | 6239,68 | 7068,04 | 8514,38 | 11068,3 | 16263,0 | 11068,3 | 8514,38 |
| 55,00    | 4843,54 | 4950,46 | 5345,49 | 6105,11 | 7446,35 | 9963,31 | 15509,7 | 9963,31 | 7446,35 |
| 60,00    | 4060,74 | 4147,99 | 4495,38 | 5169,50 | 6412,35 | 8793,91 | 14698,8 | 8793,91 | 6412,35 |
| 65,00    | 3302,90 | 3379,47 | 3678,20 | 4247,19 | 5347,25 | 7536,28 | 13736,5 | 7536,28 | 5347,25 |
| 70,00    | 2579,28 | 2639,70 | 2872,39 | 3333,51 | 4251,03 | 6171,14 | 12476,6 | 6171,14 | 4251,03 |
| 75,00    | 1886,19 | 1924,71 | 2096,21 | 2424,19 | 3107,85 | 4641,58 | 10863,8 | 4641,58 | 3107,85 |
| 80,00    | 1240,08 | 1257,26 | 1362,99 | 1557,09 | 1983,15 | 3025,34 | 8685,39 | 3025,34 | 1983,15 |
| 85,00    | 697,83  | 695,87  | 738,76  | 807,24  | 998,16  | 1441,11 | 5883,83 | 1441,11 | 998,16  |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 8074,70 | 7192,39 | 6714,82 | 6584,45 | 6714,82 | 7192,39 | 8074,70 | 9578,65 | 12142,6 |
| 50,00    | 7068,04 | 6239,68 | 5803,72 | 5683,82 | 5803,72 | 6239,68 | 7068,04 | 8514,38 | 11068,3 |
| 55,00    | 6105,11 | 5345,49 | 4950,46 | 4843,54 | 4950,46 | 5345,49 | 6105,11 | 7446,35 | 9963,31 |
| 60,00    | 5169,50 | 4495,38 | 4147,99 | 4060,74 | 4147,99 | 4495,38 | 5169,50 | 6412,35 | 8793,91 |
| 65,00    | 4247,19 | 3678,20 | 3379,47 | 3302,90 | 3379,47 | 3678,20 | 4247,19 | 5347,25 | 7536,28 |
| 70,00    | 3333,51 | 2872,39 | 2639,70 | 2579,28 | 2639,70 | 2872,39 | 3333,51 | 4251,03 | 6171,14 |
| 75,00    | 2424,19 | 2096,21 | 1924,71 | 1886,19 | 1924,71 | 2096,21 | 2424,19 | 3107,85 | 4641,58 |
| 80,00    | 1557,09 | 1362,99 | 1257,26 | 1240,08 | 1257,26 | 1362,99 | 1557,09 | 1983,15 | 3025,34 |
| 85,00    | 807,24  | 738,76  | 695,87  | 697,83  | 695,87  | 738,76  | 807,24  | 998,16  | 1441,11 |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 16971,5 | 12142,6 | 9578,65 | 8074,70 | 7192,39 | 6714,82 |
| 50,00    | 16263,0 | 11068,3 | 8514,38 | 7068,04 | 6239,68 | 5803,72 |
| 55,00    | 15509,7 | 9963,31 | 7446,35 | 6105,11 | 5345,49 | 4950,46 |
| 60,00    | 14698,8 | 8793,91 | 6412,35 | 5169,50 | 4495,38 | 4147,99 |
| 65,00    | 13736,5 | 7536,28 | 5347,25 | 4247,19 | 3678,20 | 3379,47 |
| 70,00    | 12476,6 | 6171,14 | 4251,03 | 3333,51 | 2872,39 | 2639,70 |
| 75,00    | 10863,8 | 4641,58 | 3107,85 | 2424,19 | 2096,21 | 1924,71 |
| 80,00    | 8685,39 | 3025,34 | 1983,15 | 1557,09 | 1362,99 | 1257,26 |
| 85,00    | 5883,83 | 1441,11 | 998,16  | 807,24  | 738,76  | 695,87  |

## HEADQUARTERS

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