

## PHOTOMETRIC RESULTS

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>REBA 50 /T EXT LINE L1682 MID+INT SYM BLINE 830 HO</b> |                      |                  |
| <b>Number:</b>    | 90507+90497L006   | <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 11:01:41                                       | <b>Output ratio:</b> | 63,6 %           |

## Protocol

**LiTG-class:** A40  
**UTE-class:** 0,64 E  
**IES-class:** 49 - 80 - 95 - 100 - 64  
**TM5-class:** BZ5/0.75/BZ4

## Divergences in the plane through maximum intensity:

|                               | Horizontal | Vertical |
|-------------------------------|------------|----------|
| One half peak divergence      | 103,3°     | 100,9°   |
| Half peak side angle (left)   | -51,7°     | -50,4°   |
| Half peak side angle (right)  | 51,7°      | 50,4°    |
| One tenth peak divergence     | 157,7°     | 160,5°   |
| Tenth peak side angle (left)  | -78,9°     | -80,3°   |
| Tenth peak side angle (right) | 78,9°      | 80,3°    |

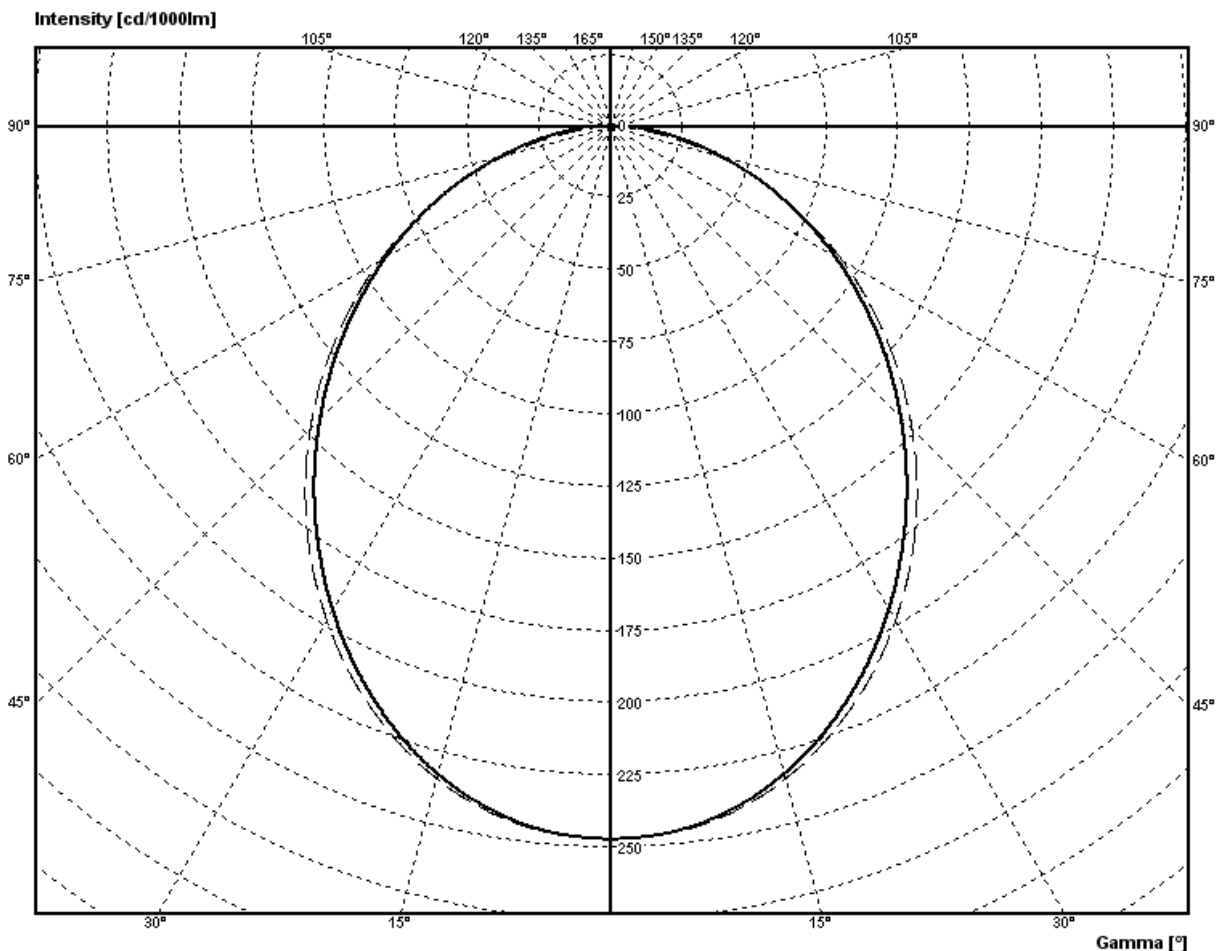
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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° |       |

## PHOTOMETRIC RESULTS

|            |  |               |                  |
|------------|--|---------------|------------------|
| Name:      | REBA 50 /T EXT LINE L1682 MID+INT SYM BLINE 830 HO |               |                  |
| Number:    | 90507+90497L006                                    | 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:     | INDEL AGUE GROUP |
| Date:      | 25-01-2020 11:01:41                                | Output ratio: | 63,6 %           |

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



## PHOTOMETRIC RESULTS

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>REBA 50 /T EXT LINE L1682 MID+INT SYM BLINE 830 HO</b> |                      |                  |
| <b>Number:</b>    | 90507+90497L006   | <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 11:01:41                                       | <b>Output ratio:</b> | 63,6 %           |

## 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>  | 16,9                    | 18,5       | 17,2       | 18,8       | 19,1       | 19,6                  | 21,2       | 19,9       | 21,5       | 21,8       |
| <b>2H</b>                       | <b>3H</b>  | 17,8                    | 19,3       | 18,2       | 19,6       | 20,0       | 21,0                  | 22,4       | 21,3       | 22,8       | 23,1       |
| <b>2H</b>                       | <b>4H</b>  | 18,1                    | 19,5       | 18,5       | 19,9       | 20,2       | 21,5                  | 22,9       | 21,9       | 23,2       | 23,6       |
| <b>2H</b>                       | <b>6H</b>  | 18,4                    | 19,6       | 18,8       | 20,0       | 20,4       | 21,8                  | 23,1       | 22,2       | 23,5       | 23,9       |
| <b>2H</b>                       | <b>8H</b>  | 18,4                    | 19,6       | 18,8       | 20,0       | 20,4       | 21,9                  | 23,1       | 22,3       | 23,5       | 23,9       |
| <b>2H</b>                       | <b>12H</b> | 18,4                    | 19,6       | 18,8       | 19,9       | 20,3       | 21,9                  | 23,1       | 22,3       | 23,5       | 23,9       |
| <b>4H</b>                       | <b>2H</b>  | 17,6                    | 18,9       | 18,0       | 19,3       | 19,7       | 19,8                  | 21,2       | 20,2       | 21,5       | 21,9       |
| <b>4H</b>                       | <b>3H</b>  | 18,6                    | 19,8       | 19,0       | 20,2       | 20,6       | 21,3                  | 22,5       | 21,7       | 22,8       | 23,2       |
| <b>4H</b>                       | <b>4H</b>  | 19,1                    | 20,1       | 19,5       | 20,5       | 21,0       | 21,9                  | 22,9       | 22,3       | 23,4       | 23,8       |
| <b>4H</b>                       | <b>6H</b>  | 19,3                    | 20,2       | 19,8       | 20,7       | 21,1       | 22,3                  | 23,2       | 22,7       | 23,7       | 24,1       |
| <b>4H</b>                       | <b>8H</b>  | 19,4                    | 20,2       | 19,8       | 20,7       | 21,1       | 22,4                  | 23,3       | 22,9       | 23,7       | 24,2       |
| <b>4H</b>                       | <b>12H</b> | 19,4                    | 20,2       | 19,9       | 20,7       | 21,2       | 22,5                  | 23,3       | 23,0       | 23,7       | 24,2       |
| <b>8H</b>                       | <b>4H</b>  | 19,3                    | 20,1       | 19,7       | 20,6       | 21,0       | 21,9                  | 22,8       | 22,4       | 23,2       | 23,7       |
| <b>8H</b>                       | <b>6H</b>  | 19,6                    | 20,3       | 20,0       | 20,8       | 21,3       | 22,3                  | 23,1       | 22,8       | 23,5       | 24,0       |
| <b>8H</b>                       | <b>8H</b>  | 19,7                    | 20,4       | 20,2       | 20,9       | 21,4       | 22,5                  | 23,2       | 23,0       | 23,7       | 24,2       |
| <b>8H</b>                       | <b>12H</b> | 19,8                    | 20,3       | 20,3       | 20,8       | 21,4       | 22,6                  | 23,2       | 23,1       | 23,7       | 24,2       |
| <b>12H</b>                      | <b>4H</b>  | 19,3                    | 20,1       | 19,8       | 20,5       | 21,0       | 21,9                  | 22,7       | 22,4       | 23,2       | 23,7       |
| <b>12H</b>                      | <b>6H</b>  | 19,6                    | 20,3       | 20,2       | 20,8       | 21,3       | 22,4                  | 23,0       | 22,9       | 23,5       | 24,0       |
| <b>12H</b>                      | <b>8H</b>  | 19,8                    | 20,3       | 20,3       | 20,8       | 21,3       | 22,5                  | 23,1       | 23,1       | 23,6       | 24,1       |

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

## PHOTOMETRIC RESULTS

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>REBA 50 /T EXT LINE L1682 MID+INT SYM BLINE 830 HO</b> |                      |                  |
| <b>Number:</b>    | 90507+90497L006   | <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 11:01:41                                       | <b>Output ratio:</b> | 63,6 %           |

Luminance [cd/m<sup>2</sup>] REBA 50 /T EXT LINE L1682 MID+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    | 4855,25 | 4974,31 | 5360,37 | 6144,31 | 7554,63 | 10222,0 | 16386,0 | 10222,0 | 7554,63 |
| 50,00    | 4121,10 | 4227,75 | 4570,95 | 5281,91 | 6580,14 | 9144,52 | 15625,6 | 9144,52 | 6580,14 |
| 55,00    | 3453,08 | 3547,39 | 3847,00 | 4479,15 | 5649,12 | 8060,46 | 14787,1 | 8060,46 | 5649,12 |
| 60,00    | 2849,20 | 2920,32 | 3183,20 | 3717,20 | 4759,49 | 6953,58 | 13879,4 | 6953,58 | 4759,49 |
| 65,00    | 2279,86 | 2343,26 | 2553,39 | 2999,98 | 3870,17 | 5811,15 | 12756,6 | 5811,15 | 3870,17 |
| 70,00    | 1751,44 | 1798,68 | 1961,57 | 2307,89 | 3002,75 | 4617,48 | 11392,6 | 4617,48 | 3002,75 |
| 75,00    | 1251,70 | 1287,02 | 1400,98 | 1641,03 | 2144,91 | 3349,97 | 9672,79 | 3349,97 | 2144,91 |
| 80,00    | 810,39  | 824,25  | 894,14  | 1031,90 | 1333,32 | 2096,62 | 7298,85 | 2096,62 | 1333,32 |
| 85,00    | 438,81  | 439,42  | 467,70  | 517,98  | 639,61  | 945,56  | 4322,86 | 945,56  | 639,61  |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 6144,31 | 5360,37 | 4974,31 | 4855,25 | 4974,31 | 5360,37 | 6144,31 | 7554,63 | 10222,0 |
| 50,00    | 5281,91 | 4570,95 | 4227,75 | 4121,10 | 4227,75 | 4570,95 | 5281,91 | 6580,14 | 9144,52 |
| 55,00    | 4479,15 | 3847,00 | 3547,39 | 3453,08 | 3547,39 | 3847,00 | 4479,15 | 5649,12 | 8060,46 |
| 60,00    | 3717,20 | 3183,20 | 2920,32 | 2849,20 | 2920,32 | 3183,20 | 3717,20 | 4759,49 | 6953,58 |
| 65,00    | 2999,98 | 2553,39 | 2343,26 | 2279,86 | 2343,26 | 2553,39 | 2999,98 | 3870,17 | 5811,15 |
| 70,00    | 2307,89 | 1961,57 | 1798,68 | 1751,44 | 1798,68 | 1961,57 | 2307,89 | 3002,75 | 4617,48 |
| 75,00    | 1641,03 | 1400,98 | 1287,02 | 1251,70 | 1287,02 | 1400,98 | 1641,03 | 2144,91 | 3349,97 |
| 80,00    | 1031,90 | 894,14  | 824,25  | 810,39  | 824,25  | 894,14  | 1031,90 | 1333,32 | 2096,62 |
| 85,00    | 517,98  | 467,70  | 439,42  | 438,81  | 439,42  | 467,70  | 517,98  | 639,61  | 945,56  |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 16386,0 | 10222,0 | 7554,63 | 6144,31 | 5360,37 | 4974,31 |
| 50,00    | 15625,6 | 9144,52 | 6580,14 | 5281,91 | 4570,95 | 4227,75 |
| 55,00    | 14787,1 | 8060,46 | 5649,12 | 4479,15 | 3847,00 | 3547,39 |
| 60,00    | 13879,4 | 6953,58 | 4759,49 | 3717,20 | 3183,20 | 2920,32 |
| 65,00    | 12756,6 | 5811,15 | 3870,17 | 2999,98 | 2553,39 | 2343,26 |
| 70,00    | 11392,6 | 4617,48 | 3002,75 | 2307,89 | 1961,57 | 1798,68 |
| 75,00    | 9672,79 | 3349,97 | 2144,91 | 1641,03 | 1400,98 | 1287,02 |
| 80,00    | 7298,85 | 2096,62 | 1333,32 | 1031,90 | 894,14  | 824,25  |
| 85,00    | 4322,86 | 945,56  | 639,61  | 517,98  | 467,70  | 439,42  |

## HEADQUARTERS

INDÚSTRIA ELÉTRICA DE ÁGUEDA S.A.

Rua da Mina 465 | Covão | Zona industrial EN1 Norte

3750-792 Trofa ÁGUEDA | PORTUGAL

www.indelague.com | www.roxolighting.com

indelague@indelague.pt | roxo.london@roxolighting.com

Tel. (+351) 234 612 310

Fax (+351) 234 624 058