

## PHOTOMETRIC RESULTS

|                   |  |                      |                  |
|-------------------|--|----------------------|------------------|
| <b>Name:</b>      | <b>REBA 50 /W EXT L2528+INT IND BLINE 830 HO</b> |                      |                  |
| <b>Number:</b>    | 90521+90518L009                                  | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 09-03-2020                                       | <b>Length:</b>       | 2528 mm          |
| <b>Meas.-no.:</b> | 01   | <b>Width:</b>        | 90 mm            |
| <b>Lamp type:</b> | LED 830 - 01                                     | <b>Height:</b>       | 54 mm            |
| <b>Number:</b>    | 01   | <b>Power:</b>        | 65,74 W          |
| <b>Lamp flux:</b> | 9720,00 lm                                       | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 09-03-2020 17:01:21                              | <b>Output ratio:</b> | 57,0 %           |

## Protocol

**LiTG-class:** B11  
**UTE-class:** Not available  
**IES-class:** 10 - 32 - 64 - 69 - 57  
**TM5-class:** BZ10

|  |            |          |
|--|------------|----------|
| <b>Divergences in the plane through maximum intensity:</b> | Horizontal | Vertical |
| <b>One half peak divergence</b>                            | 11,5°      | 52,5°    |
| <b>Half peak side angle (left)</b>                         | 81,0°      | 45,9°    |
| <b>Half peak side angle (right)</b>                        | 92,5°      | 98,4°    |
| <b>One tenth peak divergence</b>                           | 0,0°       | 139,4°   |
| <b>Tenth peak side angle (left)</b>                        | -9999,0°   | 17,6°    |
| <b>Tenth peak side angle (right)</b>                       | -9999,0°   | 157,1°   |

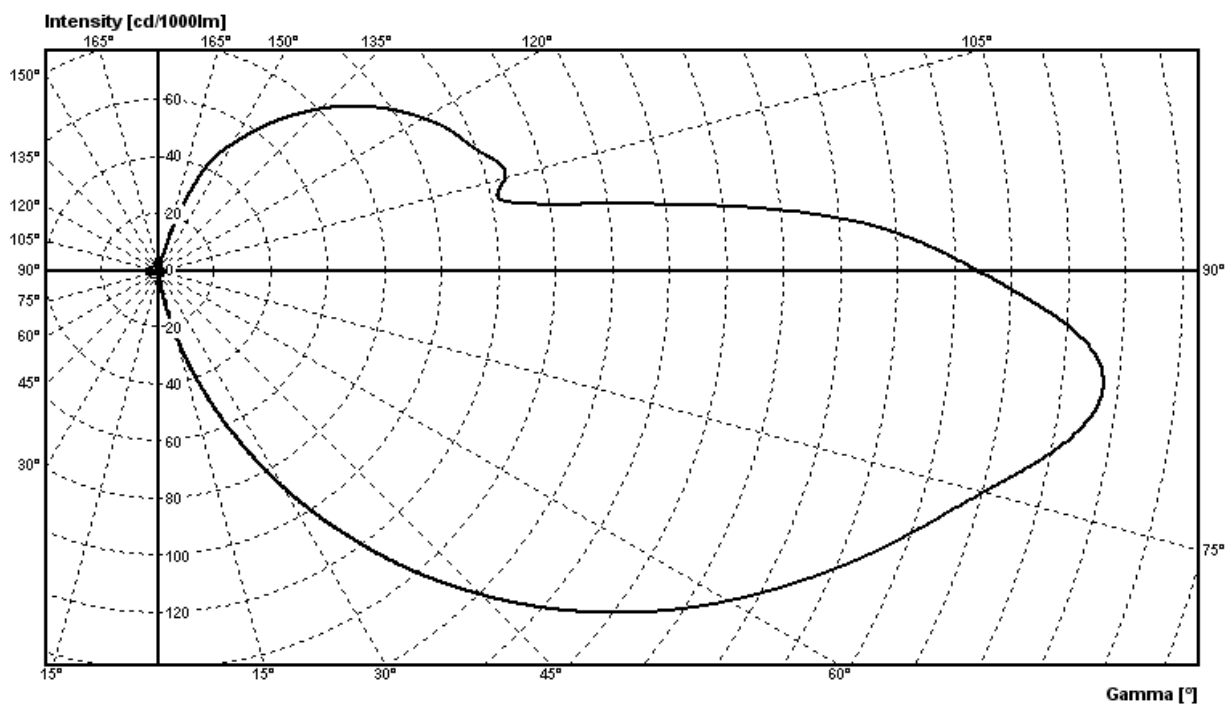
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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°  | 95,0°  |
|               | 100,0° | 105,0° | 110,0° | 115,0° | 120,0° | 125,0° | 130,0° | 135,0° | 140,0° | 145,0° |
|               | 150,0° | 155,0° | 160,0° | 165,0° | 170,0° | 175,0° | 180,0° |        |        |        |

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| Name:      | REBA 50 /W EXT L2528+INT IND BLINE 830 HO |               |                  |
| Number:    | 90521+90518L009                           | Diameter:     | 0 mm             |
| Report:    | 09-03-2020                                | Length:       | 2528 mm          |
| Meas.-no.: | 01  | Width:        | 90 mm            |
| Lamp type: | LED 830 - 01                              | Height:       | 54 mm            |
| Number:    | 01  | Power:        | 65,74 W          |
| Lamp flux: | 9720,00 lm                                | Operator:     | INDEL AGUE GROUP |
| Date:      | 09-03-2020 17:01:21                       | Output ratio: | 57,0 %           |

Polar diagram REBA 50 /W EXT L2528+INT IND BLINE 830 HO / Total in 15° C / 5° G



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| <b>Name:</b>      | <b>REBA 50 /W EXT L2528+INT IND BLINE 830 HO</b> |                      |                  |
| <b>Number:</b>    | 90521+90518L009                                  | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 09-03-2020                                       | <b>Length:</b>       | 2528 mm          |
| <b>Meas.-no.:</b> | 01   | <b>Width:</b>        | 90 mm            |
| <b>Lamp type:</b> | LED 830 - 01                                     | <b>Height:</b>       | 54 mm            |
| <b>Number:</b>    | 01   | <b>Power:</b>        | 65,74 W          |
| <b>Lamp flux:</b> | 9720,00 lm                                       | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 09-03-2020 17:01:21                              | <b>Output ratio:</b> | 57,0 %           |

## 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>  | 18,6             | 19,9       | 19,3       | 20,7       | 21,7       | 13,9           | 15,3       | 14,7       | 16,1       | 17,0       |
| <b>2H</b>                       | <b>3H</b>  | 22,0             | 23,3       | 22,7       | 24,1       | 25,0       | 16,0           | 17,3       | 16,7       | 18,1       | 19,1       |
| <b>2H</b>                       | <b>4H</b>  | 23,7             | 25,0       | 24,5       | 25,8       | 26,7       | 17,0           | 18,2       | 17,8       | 19,1       | 20,0       |
| <b>2H</b>                       | <b>6H</b>  | 25,5             | 26,7       | 26,3       | 27,5       | 28,5       | 18,0           | 19,2       | 18,7       | 20,0       | 21,0       |
| <b>2H</b>                       | <b>8H</b>  | 26,3             | 27,5       | 27,1       | 28,3       | 29,3       | 18,4           | 19,5       | 19,2       | 20,4       | 21,4       |
| <b>2H</b>                       | <b>12H</b> | 27,1             | 28,2       | 27,8       | 29,0       | 30,0       | 18,8           | 19,9       | 19,5       | 20,7       | 21,7       |
| <b>4H</b>                       | <b>2H</b>  | 19,2             | 20,5       | 20,0       | 21,3       | 22,3       | 17,0           | 18,2       | 17,7       | 19,0       | 20,0       |
| <b>4H</b>                       | <b>3H</b>  | 22,9             | 24,0       | 23,6       | 24,8       | 25,8       | 19,3           | 20,4       | 20,0       | 21,2       | 22,2       |
| <b>4H</b>                       | <b>4H</b>  | 24,9             | 25,9       | 25,6       | 26,7       | 27,8       | 20,4           | 21,5       | 21,2       | 22,3       | 23,3       |
| <b>4H</b>                       | <b>6H</b>  | 26,8             | 27,8       | 27,6       | 28,6       | 29,7       | 21,4           | 22,4       | 22,2       | 23,2       | 24,2       |
| <b>4H</b>                       | <b>8H</b>  | 27,8             | 28,7       | 28,6       | 29,6       | 30,6       | 21,8           | 22,7       | 22,6       | 23,6       | 24,6       |
| <b>4H</b>                       | <b>12H</b> | 28,7             | 29,6       | 29,5       | 30,4       | 31,5       | 22,2           | 23,0       | 23,0       | 23,9       | 24,9       |
| <b>8H</b>                       | <b>4H</b>  | 25,2             | 26,2       | 26,0       | 27,0       | 28,0       | 22,3           | 23,2       | 23,1       | 24,1       | 25,1       |
| <b>8H</b>                       | <b>6H</b>  | 27,5             | 28,3       | 28,3       | 29,1       | 30,2       | 23,6           | 24,5       | 24,5       | 25,3       | 26,4       |
| <b>8H</b>                       | <b>8H</b>  | 28,7             | 29,4       | 29,5       | 30,3       | 31,3       | 24,3           | 25,0       | 25,1       | 25,9       | 26,9       |
| <b>8H</b>                       | <b>12H</b> | 29,8             | 30,4       | 30,6       | 31,3       | 32,4       | 24,7           | 25,4       | 25,5       | 26,2       | 27,3       |
| <b>12H</b>                      | <b>4H</b>  | 25,3             | 26,2       | 26,1       | 27,0       | 28,1       | 22,8           | 23,7       | 23,6       | 24,5       | 25,6       |
| <b>12H</b>                      | <b>6H</b>  | 27,7             | 28,4       | 28,5       | 29,3       | 30,3       | 24,4           | 25,1       | 25,2       | 26,0       | 27,0       |
| <b>12H</b>                      | <b>8H</b>  | 28,9             | 29,5       | 29,7       | 30,4       | 31,5       | 25,1           | 25,7       | 25,9       | 26,6       | 27,7       |

UGR values are corrected for lamp flux of 9720 lm by 7,9

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| <b>Meas.-no.:</b> | 01   | <b>Width:</b>        | 90 mm            |
| <b>Lamp type:</b> | LED 830 - 01                                     | <b>Height:</b>       | 54 mm            |
| <b>Number:</b>    | 01   | <b>Power:</b>        | 65,74 W          |
| <b>Lamp flux:</b> | 9720,00 lm                                       | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 09-03-2020 17:01:21                              | <b>Output ratio:</b> | 57,0 %           |

Luminance [cd/m<sup>2</sup>] REBA 50 /W EXT L2528+INT IND BLINE 830 HO / Total 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    | 15925,8 | 15233,1 | 14350,6 | 12635,8 | 10265,6 | 5690,02 | 11655,3 | 446,16 | 248,11 |
| 50,00    | 16966,9 | 16237,5 | 15228,5 | 13519,9 | 11229,3 | 6617,58 | 12844,8 | 421,71 | 230,35 |
| 55,00    | 17936,7 | 17126,0 | 16084,0 | 14366,1 | 12096,4 | 7599,54 | 14376,0 | 413,41 | 243,55 |
| 60,00    | 18850,1 | 17958,7 | 16841,2 | 15113,7 | 12932,4 | 8568,10 | 16352,4 | 408,93 | 257,11 |
| 65,00    | 19791,6 | 18845,5 | 17623,0 | 15851,1 | 13690,3 | 9515,78 | 19058,1 | 417,19 | 271,34 |
| 70,00    | 20820,3 | 19817,2 | 18476,4 | 16634,2 | 14471,1 | 10445,1 | 22990,6 | 418,90 | 262,68 |
| 75,00    | 22025,6 | 20952,1 | 19525,7 | 17595,4 | 15386,5 | 11460,6 | 29546,4 | 428,10 | 279,76 |
| 80,00    | 23620,7 | 22517,5 | 21022,5 | 18843,8 | 16518,9 | 12594,6 | 42944,1 | 435,82 | 298,26 |
| 85,00    | 23582,9 | 22947,2 | 21598,2 | 20250,4 | 18022,0 | 13843,0 | 93794,2 | 446,69 | 295,82 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45,00    | 199,51 | 163,70 | 147,10 | 157,99 | 163,45 | 181,88 | 243,85 | 372,17 | 759,06 |
| 50,00    | 184,92 | 168,46 | 151,33 | 175,52 | 166,46 | 185,30 | 246,56 | 374,31 | 762,32 |
| 55,00    | 192,83 | 173,80 | 170,27 | 178,27 | 184,46 | 205,40 | 250,68 | 378,86 | 760,46 |
| 60,00    | 219,57 | 194,78 | 174,88 | 195,00 | 188,33 | 209,77 | 256,17 | 385,66 | 769,18 |
| 65,00    | 227,95 | 200,91 | 193,22 | 199,16 | 193,22 | 215,26 | 263,02 | 394,68 | 796,89 |
| 70,00    | 237,39 | 221,94 | 199,17 | 216,50 | 211,62 | 221,94 | 271,30 | 382,08 | 824,14 |
| 75,00    | 248,06 | 229,87 | 218,38 | 222,72 | 218,38 | 229,87 | 281,13 | 396,32 | 820,53 |
| 80,00    | 260,14 | 239,20 | 226,49 | 230,33 | 226,49 | 225,91 | 276,40 | 390,03 | 862,83 |
| 85,00    | 273,87 | 250,07 | 236,08 | 228,08 | 224,28 | 250,07 | 289,98 | 409,59 | 902,14 |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 16963,9 | 8552,41 | 13894,2 | 15983,2 | 17460,8 | 17864,6 |
| 50,00    | 19602,7 | 9942,60 | 15001,2 | 16930,6 | 18378,6 | 18779,8 |
| 55,00    | 22930,9 | 11437,5 | 16074,4 | 17760,0 | 19149,1 | 19594,9 |
| 60,00    | 27277,8 | 12647,6 | 16943,3 | 18553,7 | 19942,7 | 20433,9 |
| 65,00    | 33348,3 | 13781,4 | 17760,3 | 19340,5 | 20780,2 | 21344,5 |
| 70,00    | 42112,7 | 14875,4 | 18482,9 | 20161,1 | 21694,5 | 22331,7 |
| 75,00    | 56542,6 | 15706,0 | 19209,8 | 21084,7 | 22825,1 | 23596,9 |
| 80,00    | 83048,5 | 16191,2 | 20052,2 | 21965,5 | 23427,8 | 24245,9 |
| 85,00    | 149583, | 15340,7 | 18340,6 | 19783,3 | 20663,7 | 21448,0 |

## HEADQUARTERS

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