

## PHOTOMETRIC RESULTS

|                   |                                      |                      |                  |
|-------------------|--------------------------------------|----------------------|------------------|
| <b>Name:</b>      | <b>CONCEPT O 65 D1500 LIGHT+ 830</b> |                      |                  |
| <b>Number:</b>    | 90635L150                            | <b>Diameter:</b>     | 1500 mm          |
| <b>Report:</b>    | 09-06-2021                           | <b>Length:</b>       | 0 mm             |
| <b>Meas.-no.:</b> | 01                                   | <b>Width:</b>        | 0 mm             |
| <b>Lamp type:</b> | LED 830 - 01                         | <b>Height:</b>       | 85 mm            |
| <b>Number:</b>    | 1                                    | <b>Power:</b>        | 90,83 W          |
| <b>Lamp flux:</b> | 13640,00 lm                          | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 09-06-2021 8:56:58                   | <b>Output ratio:</b> | 63,1 %           |

## Protocol

**LiTG-class:** A40  
**UTE-class:** 0,63 E  
**IES-class:** 49 - 79 - 95 - 100 - 63  
**TM5-class:** BZ4

|  |            |          |
|--|------------|----------|
| <b>Divergences in the plane through maximum intensity:</b> | Horizontal | Vertical |
| <b>One half peak divergence</b>                            | 103,6°     | 104,2°   |
| <b>Half peak side angle (left)</b>                         | -51,8°     | -52,1°   |
| <b>Half peak side angle (right)</b>                        | 51,8°      | 52,1°    |
| <b>One tenth peak divergence</b>                           | 161,4°     | 161,5°   |
| <b>Tenth peak side angle (left)</b>                        | -80,7°     | -80,8°   |
| <b>Tenth peak side angle (right)</b>                       | 80,7°      | 80,8°    |

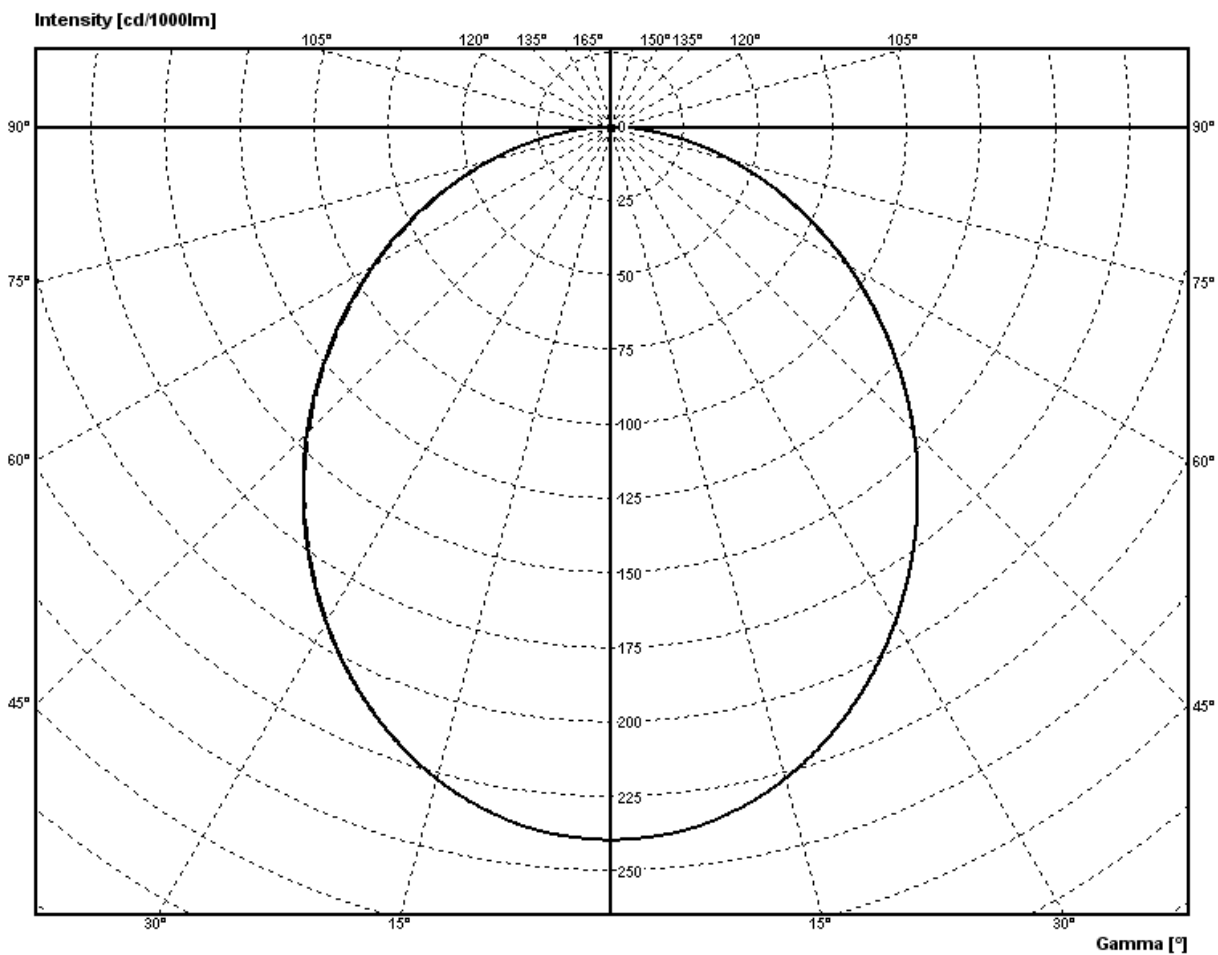
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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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|            |                               |               |                 |
|------------|-------------------------------|---------------|-----------------|
| Name:      | CONCEPT O 65 D1500 LIGHT+ 830 |               |                 |
| Number:    | 90635L150                     | Diameter:     | 1500 mm         |
| Report:    | 09-06-2021                    | Length:       | 0 mm            |
| Meas.-no.: | 01                            | Width:        | 0 mm            |
| Lamp type: | LED 830 - 01                  | Height:       | 85 mm           |
| Number:    | 1                             | Power:        | 90,83 W         |
| Lamp flux: | 13640,00 lm                   | Operator:     | INDELAGUE GROUP |
| Date:      | 09-06-2021 8:56:58            | Output ratio: | 63,1 %          |

Polar diagram CONCEPT O 65 D1500 LIGHT+ 830 / Direct in 15° C / 5° G



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|                   |                                      |                      |                 |
|-------------------|--------------------------------------|----------------------|-----------------|
| <b>Name:</b>      | <b>CONCEPT O 65 D1500 LIGHT+ 830</b> |                      |                 |
| <b>Number:</b>    | 90635L150                            | <b>Diameter:</b>     | 1500 mm         |
| <b>Report:</b>    | 09-06-2021                           | <b>Length:</b>       | 0 mm            |
| <b>Meas.-no.:</b> | 01                                   | <b>Width:</b>        | 0 mm            |
| <b>Lamp type:</b> | LED 830 - 01                         | <b>Height:</b>       | 85 mm           |
| <b>Number:</b>    | 1                                    | <b>Power:</b>        | 90,83 W         |
| <b>Lamp flux:</b> | 13640,00 lm                          | <b>Operator:</b>     | INDELAGUE GROUP |
| <b>Date:</b>      | 09-06-2021 8:56:58                   | <b>Output ratio:</b> | 63,1 %          |

## 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>  | 13,8             | 15,4       | 14,1       | 15,7       | 16,0       | 13,7           | 15,3       | 14,1       | 15,6       | 16,0       |
| <b>2H</b>                       | <b>3H</b>  | 15,3             | 16,8       | 15,7       | 17,2       | 17,5       | 15,3           | 16,7       | 15,6       | 17,1       | 17,4       |
| <b>2H</b>                       | <b>4H</b>  | 16,0             | 17,4       | 16,4       | 17,8       | 18,1       | 15,9           | 17,3       | 16,3       | 17,6       | 18,0       |
| <b>2H</b>                       | <b>6H</b>  | 16,6             | 17,8       | 17,0       | 18,2       | 18,6       | 16,4           | 17,7       | 16,8       | 18,1       | 18,5       |
| <b>2H</b>                       | <b>8H</b>  | 16,7             | 18,0       | 17,1       | 18,3       | 18,7       | 16,6           | 17,8       | 17,0       | 18,2       | 18,6       |
| <b>2H</b>                       | <b>12H</b> | 16,8             | 18,0       | 17,2       | 18,4       | 18,8       | 16,7           | 17,9       | 17,1       | 18,3       | 18,7       |
| <b>4H</b>                       | <b>2H</b>  | 14,5             | 15,9       | 14,9       | 16,2       | 16,6       | 14,4           | 15,8       | 14,8       | 16,2       | 16,5       |
| <b>4H</b>                       | <b>3H</b>  | 16,2             | 17,4       | 16,6       | 17,8       | 18,2       | 16,1           | 17,3       | 16,6       | 17,7       | 18,1       |
| <b>4H</b>                       | <b>4H</b>  | 17,1             | 18,1       | 17,5       | 18,5       | 19,0       | 17,0           | 18,0       | 17,4       | 18,4       | 18,9       |
| <b>4H</b>                       | <b>6H</b>  | 17,7             | 18,6       | 18,2       | 19,1       | 19,5       | 17,6           | 18,5       | 18,0       | 19,0       | 19,4       |
| <b>4H</b>                       | <b>8H</b>  | 17,9             | 18,8       | 18,4       | 19,3       | 19,7       | 17,8           | 18,7       | 18,3       | 19,1       | 19,6       |
| <b>4H</b>                       | <b>12H</b> | 18,1             | 18,9       | 18,6       | 19,4       | 19,9       | 18,0           | 18,8       | 18,5       | 19,3       | 19,8       |
| <b>8H</b>                       | <b>4H</b>  | 17,4             | 18,2       | 17,8       | 18,7       | 19,1       | 17,3           | 18,2       | 17,7       | 18,6       | 19,1       |
| <b>8H</b>                       | <b>6H</b>  | 18,1             | 18,9       | 18,6       | 19,3       | 19,8       | 18,0           | 18,8       | 18,5       | 19,2       | 19,7       |
| <b>8H</b>                       | <b>8H</b>  | 18,5             | 19,2       | 19,0       | 19,7       | 20,2       | 18,4           | 19,0       | 18,9       | 19,6       | 20,0       |
| <b>8H</b>                       | <b>12H</b> | 18,8             | 19,3       | 19,3       | 19,8       | 20,3       | 18,7           | 19,2       | 19,2       | 19,7       | 20,2       |
| <b>12H</b>                      | <b>4H</b>  | 17,4             | 18,2       | 17,9       | 18,7       | 19,2       | 17,3           | 18,1       | 17,8       | 18,6       | 19,1       |
| <b>12H</b>                      | <b>6H</b>  | 18,3             | 18,9       | 18,8       | 19,4       | 19,9       | 18,1           | 18,8       | 18,7       | 19,3       | 19,8       |
| <b>12H</b>                      | <b>8H</b>  | 18,6             | 19,2       | 19,1       | 19,7       | 20,2       | 18,5           | 19,1       | 19,0       | 19,6       | 20,1       |

UGR values are corrected for lamp flux of 13640 lm by 9,1

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| Report:    | 09-06-2021                    | Length:       | 0 mm             |
| Meas.-no.: | 01                            | Width:        | 0 mm             |
| Lamp type: | LED 830 - 01                  | Height:       | 85 mm            |
| Number:    | 1                             | Power:        | 90,83 W          |
| Lamp flux: | 13640,00 lm                   | Operator:     | INDEL AGUE GROUP |
| Date:      | 09-06-2021 8:56:58            | Output ratio: | 63,1 %           |

Luminance [cd/m<sup>2</sup>] CONCEPT O 65 D1500 LIGHT+ 830 / 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    | 1618,99 | 1615,91 | 1617,47 | 1612,39 | 1610,81 | 1609,67 | 1608,05 | 1609,67 | 1610,81 |
| 50,00    | 1566,73 | 1566,21 | 1565,95 | 1561,70 | 1559,40 | 1555,30 | 1555,72 | 1555,30 | 1559,40 |
| 55,00    | 1515,33 | 1514,64 | 1511,77 | 1507,47 | 1504,08 | 1501,37 | 1497,83 | 1501,37 | 1504,08 |
| 60,00    | 1460,47 | 1457,56 | 1457,93 | 1449,90 | 1448,70 | 1442,13 | 1443,31 | 1442,13 | 1448,70 |
| 65,00    | 1402,96 | 1397,95 | 1396,08 | 1388,61 | 1383,51 | 1379,22 | 1376,60 | 1379,22 | 1383,51 |
| 70,00    | 1339,10 | 1338,31 | 1334,91 | 1326,15 | 1316,74 | 1309,31 | 1311,40 | 1309,31 | 1316,74 |
| 75,00    | 1275,36 | 1267,16 | 1264,73 | 1249,87 | 1241,49 | 1230,00 | 1234,40 | 1230,00 | 1241,49 |
| 80,00    | 1193,10 | 1184,10 | 1176,65 | 1159,41 | 1142,58 | 1130,44 | 1173,02 | 1130,44 | 1142,58 |
| 85,00    | 1084,06 | 1087,62 | 1089,35 | 1081,99 | 1105,45 | 1101,42 | 1165,10 | 1101,42 | 1105,45 |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 1612,39 | 1617,47 | 1615,91 | 1618,99 | 1615,91 | 1617,47 | 1612,39 | 1610,81 | 1609,67 |
| 50,00    | 1561,70 | 1565,95 | 1566,21 | 1566,73 | 1566,21 | 1565,95 | 1561,70 | 1559,40 | 1555,30 |
| 55,00    | 1507,47 | 1511,77 | 1514,64 | 1515,33 | 1514,64 | 1511,77 | 1507,47 | 1504,08 | 1501,37 |
| 60,00    | 1449,90 | 1457,93 | 1457,56 | 1460,47 | 1457,56 | 1457,93 | 1449,90 | 1448,70 | 1442,13 |
| 65,00    | 1388,61 | 1396,08 | 1397,95 | 1402,96 | 1397,95 | 1396,08 | 1388,61 | 1383,51 | 1379,22 |
| 70,00    | 1326,15 | 1334,91 | 1338,31 | 1339,10 | 1338,31 | 1334,91 | 1326,15 | 1316,74 | 1309,31 |
| 75,00    | 1249,87 | 1264,73 | 1267,16 | 1275,36 | 1267,16 | 1264,73 | 1249,87 | 1241,49 | 1230,00 |
| 80,00    | 1159,41 | 1176,65 | 1184,10 | 1193,10 | 1184,10 | 1176,65 | 1159,41 | 1142,58 | 1130,44 |
| 85,00    | 1081,99 | 1089,35 | 1087,62 | 1084,06 | 1087,62 | 1089,35 | 1081,99 | 1105,45 | 1101,42 |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 1608,05 | 1609,67 | 1610,81 | 1612,39 | 1617,47 | 1615,91 |
| 50,00    | 1555,72 | 1555,30 | 1559,40 | 1561,70 | 1565,95 | 1566,21 |
| 55,00    | 1497,83 | 1501,37 | 1504,08 | 1507,47 | 1511,77 | 1514,64 |
| 60,00    | 1443,31 | 1442,13 | 1448,70 | 1449,90 | 1457,93 | 1457,56 |
| 65,00    | 1376,60 | 1379,22 | 1383,51 | 1388,61 | 1396,08 | 1397,95 |
| 70,00    | 1311,40 | 1309,31 | 1316,74 | 1326,15 | 1334,91 | 1338,31 |
| 75,00    | 1234,40 | 1230,00 | 1241,49 | 1249,87 | 1264,73 | 1267,16 |
| 80,00    | 1173,02 | 1130,44 | 1142,58 | 1159,41 | 1176,65 | 1184,10 |
| 85,00    | 1165,10 | 1101,42 | 1105,45 | 1081,99 | 1089,35 | 1087,62 |

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