

## PHOTOMETRIC RESULTS

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>TTP 50 LINE L1460 TUP 840 SRT/MID LO</b> |                      |                  |
| <b>Number:</b>    | 90485L150-58                                | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 07-01-2020                                  | <b>Length:</b>       | 1460 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 50 mm            |
| <b>Lamp type:</b> | LED 840 - 01                                | <b>Height:</b>       | 50 mm            |
| <b>Number:</b>    | 1   | <b>Power:</b>        | 28,24 W          |
| <b>Lamp flux:</b> | 4750,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 07-01-2020 17:57:05                         | <b>Output ratio:</b> | 95,5 %           |

## Protocol

**LiTG-class:** A42  
**UTE-class:** 0,94 E + 0,02 T  
**IES-class:** 47 - 80 - 96 - 98 - 96  
**TM5-class:** BZ4

|  |            |          |
|--|------------|----------|
| <b>Divergences in the plane through maximum intensity:</b> | Horizontal | Vertical |
| <b>One half peak divergence</b>                            | 116,5°     | 113,0°   |
| <b>Half peak side angle (left)</b>                         | -58,3°     | -56,5°   |
| <b>Half peak side angle (right)</b>                        | 58,3°      | 56,5°    |
| <b>One tenth peak divergence</b>                           | 157,5°     | 159,0°   |
| <b>Tenth peak side angle (left)</b>                        | -78,7°     | -79,5°   |
| <b>Tenth peak side angle (right)</b>                       | 78,7°      | 79,5°    |

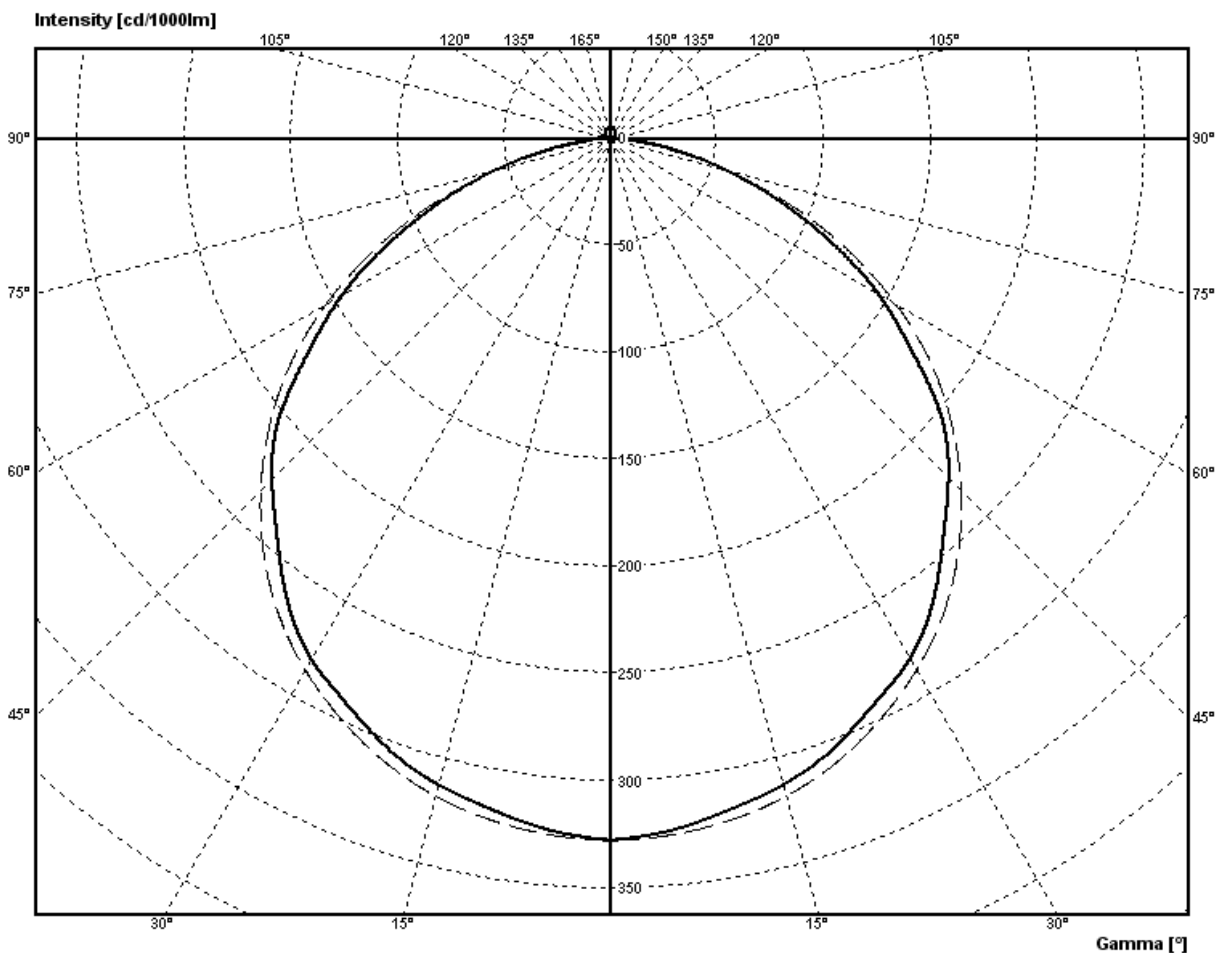
|                  |        |        |        |        |        |        |        |        |        |        |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>C-planes:</b> | 0,0°   | 15,0°  | 30,0°  | 45,0°  | 60,0°  | 75,0°  | 90,0°  | 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:      | TTP 50 LINE L1460 TUP 840 SRT/MID LO |               |                 |
| Number:    | 90485L150-58                         | Diameter:     | 0 mm            |
| Report:    | 07-01-2020                           | Length:       | 1460 mm         |
| Meas.-no.: | 01                                   | Width:        | 50 mm           |
| Lamp type: | LED 840 - 01                         | Height:       | 50 mm           |
| Number:    | 1                                    | Power:        | 28,24 W         |
| Lamp flux: | 4750,00 lm                           | Operator:     | INDELAGUE GROUP |
| Date:      | 07-01-2020 17:57:05                  | Output ratio: | 95,5 %          |

Polar diagram TTP 50 LINE L1460 TUP 840 SRT/MID LO / Total in 15° C / 5° G



## PHOTOMETRIC RESULTS

|                   |   |                      |                  |
|-------------------|---|----------------------|------------------|
| <b>Name:</b>      | <b>TTP 50 LINE L1460 TUP 840 SRT/MID LO</b> |                      |                  |
| <b>Number:</b>    | 90485L150-58                                | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 07-01-2020                                  | <b>Length:</b>       | 1460 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 50 mm            |
| <b>Lamp type:</b> | LED 840 - 01                                | <b>Height:</b>       | 50 mm            |
| <b>Number:</b>    | 1   | <b>Power:</b>        | 28,24 W          |
| <b>Lamp flux:</b> | 4750,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 07-01-2020 17:57:05                         | <b>Output ratio:</b> | 95,5 %           |

## 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>  | 19,7             | 21,3       | 20,1       | 21,7       | 22,1       | 21,5           | 23,0       | 21,9       | 23,4       | 23,8       |
| <b>2H</b>                       | <b>3H</b>  | 20,7             | 22,2       | 21,1       | 22,6       | 22,9       | 22,8           | 24,3       | 23,3       | 24,7       | 25,1       |
| <b>2H</b>                       | <b>4H</b>  | 21,0             | 22,4       | 21,5       | 22,8       | 23,2       | 23,3           | 24,7       | 23,7       | 25,0       | 25,5       |
| <b>2H</b>                       | <b>6H</b>  | 21,2             | 22,5       | 21,6       | 22,9       | 23,3       | 23,6           | 24,8       | 24,0       | 25,2       | 25,7       |
| <b>2H</b>                       | <b>8H</b>  | 21,2             | 22,4       | 21,6       | 22,8       | 23,3       | 23,6           | 24,8       | 24,0       | 25,2       | 25,7       |
| <b>2H</b>                       | <b>12H</b> | 21,2             | 22,3       | 21,6       | 22,7       | 23,2       | 23,6           | 24,7       | 24,0       | 25,2       | 25,6       |
| <b>4H</b>                       | <b>2H</b>  | 20,4             | 21,8       | 20,9       | 22,2       | 22,6       | 21,8           | 23,2       | 22,3       | 23,6       | 24,0       |
| <b>4H</b>                       | <b>3H</b>  | 21,5             | 22,7       | 22,0       | 23,1       | 23,6       | 23,3           | 24,5       | 23,7       | 24,9       | 25,3       |
| <b>4H</b>                       | <b>4H</b>  | 21,9             | 23,0       | 22,4       | 23,4       | 23,9       | 23,9           | 24,9       | 24,3       | 25,3       | 25,8       |
| <b>4H</b>                       | <b>6H</b>  | 22,1             | 23,0       | 22,6       | 23,5       | 24,0       | 24,1           | 25,0       | 24,6       | 25,5       | 26,0       |
| <b>4H</b>                       | <b>8H</b>  | 22,2             | 23,0       | 22,7       | 23,5       | 24,0       | 24,2           | 25,0       | 24,7       | 25,5       | 26,0       |
| <b>4H</b>                       | <b>12H</b> | 22,2             | 23,0       | 22,7       | 23,4       | 24,0       | 24,2           | 25,0       | 24,7       | 25,5       | 26,0       |
| <b>8H</b>                       | <b>4H</b>  | 22,1             | 23,0       | 22,6       | 23,4       | 23,9       | 23,9           | 24,7       | 24,4       | 25,2       | 25,7       |
| <b>8H</b>                       | <b>6H</b>  | 22,3             | 23,1       | 22,9       | 23,6       | 24,1       | 24,2           | 24,9       | 24,7       | 25,4       | 26,0       |
| <b>8H</b>                       | <b>8H</b>  | 22,5             | 23,1       | 23,0       | 23,6       | 24,2       | 24,3           | 25,0       | 24,9       | 25,5       | 26,0       |
| <b>8H</b>                       | <b>12H</b> | 22,5             | 23,0       | 23,0       | 23,5       | 24,1       | 24,4           | 24,9       | 24,9       | 25,4       | 26,0       |
| <b>12H</b>                      | <b>4H</b>  | 22,1             | 22,9       | 22,6       | 23,4       | 23,9       | 23,9           | 24,7       | 24,4       | 25,2       | 25,7       |
| <b>12H</b>                      | <b>6H</b>  | 22,4             | 23,0       | 23,0       | 23,6       | 24,1       | 24,2           | 24,9       | 24,8       | 25,4       | 25,9       |
| <b>12H</b>                      | <b>8H</b>  | 22,5             | 23,0       | 23,0       | 23,5       | 24,1       | 24,3           | 24,9       | 24,9       | 25,4       | 26,0       |

UGR values are corrected for lamp flux of 4750 lm by 5,4

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| <b>Number:</b>    | 90485L150-58                                | <b>Diameter:</b>     | 0 mm             |
| <b>Report:</b>    | 07-01-2020                                  | <b>Length:</b>       | 1460 mm          |
| <b>Meas.-no.:</b> | 01  | <b>Width:</b>        | 50 mm            |
| <b>Lamp type:</b> | LED 840 - 01                                | <b>Height:</b>       | 50 mm            |
| <b>Number:</b>    | 1   | <b>Power:</b>        | 28,24 W          |
| <b>Lamp flux:</b> | 4750,00 lm                                  | <b>Operator:</b>     | INDEL AGUE GROUP |
| <b>Date:</b>      | 07-01-2020 17:57:05                         | <b>Output ratio:</b> | 95,5 %           |

Luminance [cd/m<sup>2</sup>] TTP 50 LINE L1460 TUP 840 SRT/MID LO / 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    | 10355,8 | 10501,8 | 11015,1 | 12015,9 | 13598,9 | 16076,7 | 20725,4 | 16076,7 | 13598,9 |
| 50,00    | 9388,98 | 9465,36 | 9994,38 | 10928,3 | 12648,5 | 15130,8 | 20379,2 | 15130,8 | 12648,5 |
| 55,00    | 8079,74 | 8230,40 | 8831,28 | 9841,85 | 11372,4 | 13880,8 | 19886,6 | 13880,8 | 11372,4 |
| 60,00    | 6928,01 | 6977,05 | 7510,25 | 8564,79 | 9971,22 | 12398,5 | 18961,8 | 12398,5 | 9971,22 |
| 65,00    | 5589,01 | 5680,43 | 6098,42 | 6957,74 | 8403,72 | 10814,5 | 17527,8 | 10814,5 | 8403,72 |
| 70,00    | 4254,29 | 4326,65 | 4576,42 | 5306,33 | 6555,71 | 8636,63 | 15406,6 | 8636,63 | 6555,71 |
| 75,00    | 2933,15 | 3058,56 | 3227,78 | 3795,10 | 4568,30 | 6084,71 | 12147,4 | 6084,71 | 4568,30 |
| 80,00    | 1716,84 | 1799,73 | 1960,31 | 2203,16 | 2684,75 | 3614,05 | 8044,21 | 3614,05 | 2684,75 |
| 85,00    | 645,63  | 656,13  | 782,15  | 847,46  | 1139,47 | 1469,65 | 4100,54 | 1469,65 | 1139,47 |

| G/C [cd/ | 135,00  | 150,00  | 165,00  | 180,00  | 195,00  | 210,00  | 225,00  | 240,00  | 255,00  |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00    | 12015,9 | 11015,1 | 10501,8 | 10355,8 | 10501,8 | 11015,1 | 12015,9 | 13598,9 | 16076,7 |
| 50,00    | 10928,3 | 9994,38 | 9465,36 | 9388,98 | 9465,36 | 9994,38 | 10928,3 | 12648,5 | 15130,8 |
| 55,00    | 9841,85 | 8831,28 | 8230,40 | 8079,74 | 8230,40 | 8831,28 | 9841,85 | 11372,4 | 13880,8 |
| 60,00    | 8564,79 | 7510,25 | 6977,05 | 6928,01 | 6977,05 | 7510,25 | 8564,79 | 9971,22 | 12398,5 |
| 65,00    | 6957,74 | 6098,42 | 5680,43 | 5589,01 | 5680,43 | 6098,42 | 6957,74 | 8403,72 | 10814,5 |
| 70,00    | 5306,33 | 4576,42 | 4326,65 | 4254,29 | 4326,65 | 4576,42 | 5306,33 | 6555,71 | 8636,63 |
| 75,00    | 3795,10 | 3227,78 | 3058,56 | 2933,15 | 3058,56 | 3227,78 | 3795,10 | 4568,30 | 6084,71 |
| 80,00    | 2203,16 | 1960,31 | 1799,73 | 1716,84 | 1799,73 | 1960,31 | 2203,16 | 2684,75 | 3614,05 |
| 85,00    | 847,46  | 782,15  | 656,13  | 645,63  | 656,13  | 782,15  | 847,46  | 1139,47 | 1469,65 |

| G/C [cd/ | 270,00  | 285,00  | 300,00  | 315,00  | 330,00  | 345,00  |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00    | 20725,4 | 16076,7 | 13598,9 | 12015,9 | 11015,1 | 10501,8 |
| 50,00    | 20379,2 | 15130,8 | 12648,5 | 10928,3 | 9994,38 | 9465,36 |
| 55,00    | 19886,6 | 13880,8 | 11372,4 | 9841,85 | 8831,28 | 8230,40 |
| 60,00    | 18961,8 | 12398,5 | 9971,22 | 8564,79 | 7510,25 | 6977,05 |
| 65,00    | 17527,8 | 10814,5 | 8403,72 | 6957,74 | 6098,42 | 5680,43 |
| 70,00    | 15406,6 | 8636,63 | 6555,71 | 5306,33 | 4576,42 | 4326,65 |
| 75,00    | 12147,4 | 6084,71 | 4568,30 | 3795,10 | 3227,78 | 3058,56 |
| 80,00    | 8044,21 | 3614,05 | 2684,75 | 2203,16 | 1960,31 | 1799,73 |
| 85,00    | 4100,54 | 1469,65 | 1139,47 | 847,46  | 782,15  | 656,13  |

## HEADQUARTERS

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