

PHOTOMETRIC RESULTS

| | | | |
|-------------------|---|----------------------|------------------|
| Name: | TTP 70 LINE L1460 TUP 830 END HO | | |
| Number: | 90487L150-50 | Diameter: | 0 mm |
| Report: | 08-01-2020 | Length: | 1460 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 830 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 66,91 W |
| Lamp flux: | 9250,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 08-01-2020 9:04:25 | Output ratio: | 90,9 % |

Protocol

LiTG-class: A42
UTE-class: 0,89 E + 0,02 T
IES-class: 47 - 79 - 96 - 98 - 91
TM5-class: BZ4

| | | |
|--|------------|----------|
| Divergences in the plane through maximum intensity: | Horizontal | Vertical |
| One half peak divergence | 111,3° | 116,5° |
| Half peak side angle (left) | -55,6° | -58,3° |
| Half peak side angle (right) | 55,6° | 58,3° |
| One tenth peak divergence | 154,2° | 162,7° |
| Tenth peak side angle (left) | -77,1° | -81,4° |
| Tenth peak side angle (right) | 77,1° | 81,4° |

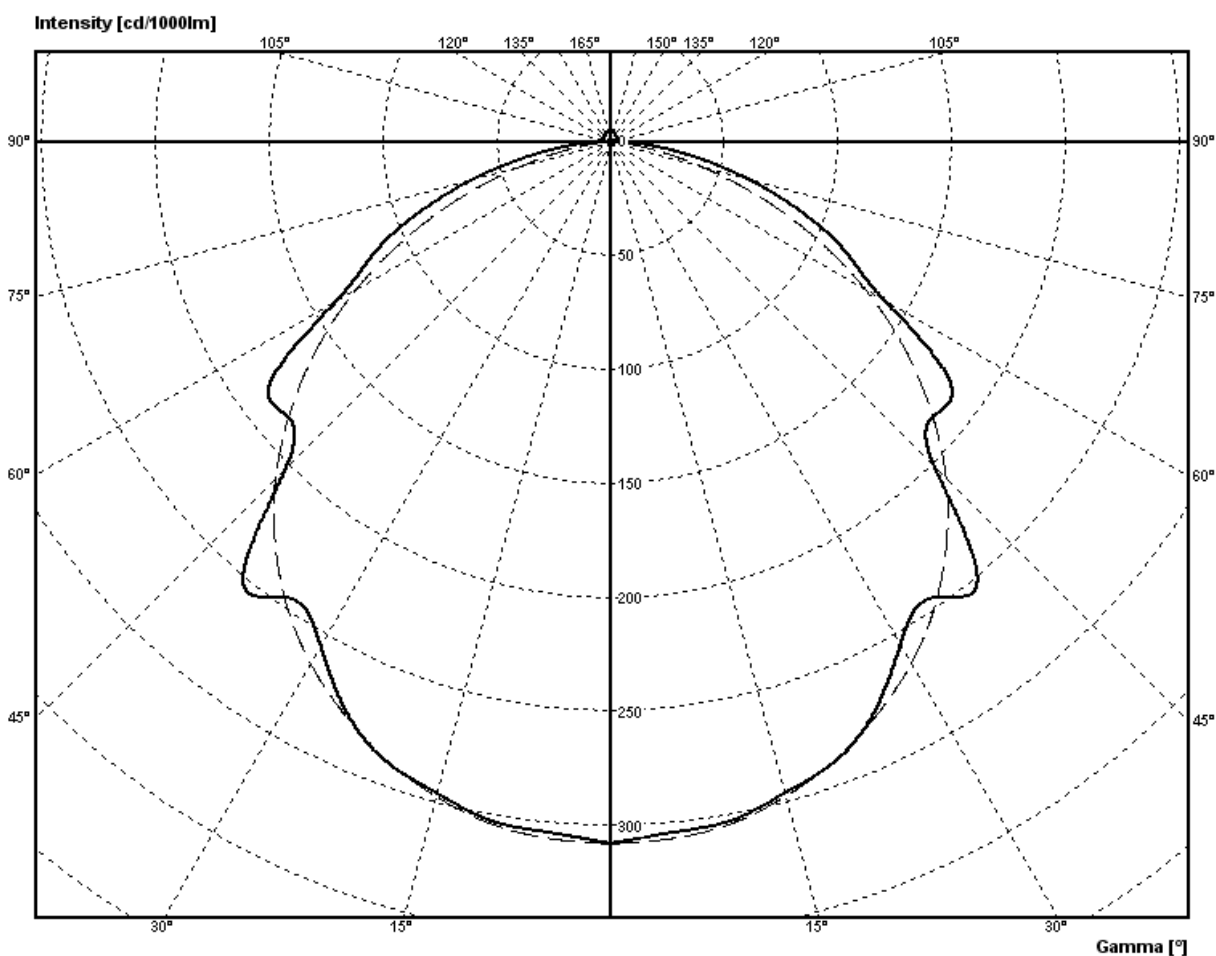
| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C-planes: | 0,0° | 15,0° | 30,0° | 45,0° | 60,0° | 75,0° | 90,0° | 105,0° | 120,0° | 135,0° |
| | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0° | 270,0° | 285,0° |
| | 300,0° | 315,0° | 330,0° | 345,0° | | | | | | |

| | | | | | | | | | | |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Gamma: | 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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Polar diagram TTP 70 LINE L1460 TUP 830 END HO / Total in 15° C / 5° G



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UGR Unified Glare Ratios

| | | | | | | | | | | | |
|---------------------------------|------------|------------------|------------|------------|------------|------------|----------------|------------|------------|------------|------------|
| Ceiling reflectance | | 0,7 | 0,7 | 0,5 | 0,5 | 0,3 | 0,7 | 0,7 | 0,5 | 0,5 | 0,3 |
| Wall reflectance | | 0,5 | 0,3 | 0,5 | 0,3 | 0,3 | 0,5 | 0,3 | 0,5 | 0,3 | 0,3 |
| Floor cavity reflectance | | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 | 0,2 |
| Room dimension | | Viewed crosswise | | | | | Viewed endwise | | | | |
| 2H | 2H | 20,9 | 22,4 | 21,2 | 22,8 | 23,2 | 22,0 | 23,6 | 22,4 | 23,9 | 24,3 |
| 2H | 3H | 22,0 | 23,4 | 22,4 | 23,8 | 24,2 | 23,2 | 24,7 | 23,6 | 25,1 | 25,4 |
| 2H | 4H | 22,4 | 23,7 | 22,8 | 24,1 | 24,5 | 23,7 | 25,1 | 24,1 | 25,5 | 25,9 |
| 2H | 6H | 22,6 | 23,8 | 23,0 | 24,3 | 24,7 | 23,9 | 25,2 | 24,4 | 25,6 | 26,1 |
| 2H | 8H | 22,6 | 23,8 | 23,0 | 24,2 | 24,7 | 23,9 | 25,2 | 24,4 | 25,6 | 26,0 |
| 2H | 12H | 22,6 | 23,7 | 23,0 | 24,2 | 24,6 | 23,9 | 25,1 | 24,4 | 25,5 | 26,0 |
| 4H | 2H | 21,5 | 22,9 | 21,9 | 23,3 | 23,7 | 22,4 | 23,8 | 22,8 | 24,2 | 24,6 |
| 4H | 3H | 22,8 | 23,9 | 23,2 | 24,4 | 24,8 | 23,8 | 25,0 | 24,2 | 25,4 | 25,8 |
| 4H | 4H | 23,3 | 24,3 | 23,8 | 24,8 | 25,3 | 24,4 | 25,4 | 24,9 | 25,9 | 26,4 |
| 4H | 6H | 23,5 | 24,4 | 24,0 | 24,9 | 25,4 | 24,7 | 25,6 | 25,2 | 26,1 | 26,6 |
| 4H | 8H | 23,6 | 24,4 | 24,1 | 24,9 | 25,4 | 24,7 | 25,6 | 25,2 | 26,1 | 26,6 |
| 4H | 12H | 23,6 | 24,4 | 24,1 | 24,9 | 25,4 | 24,8 | 25,6 | 25,3 | 26,0 | 26,6 |
| 8H | 4H | 23,5 | 24,3 | 24,0 | 24,8 | 25,3 | 24,5 | 25,4 | 25,0 | 25,9 | 26,4 |
| 8H | 6H | 23,8 | 24,5 | 24,3 | 25,0 | 25,5 | 24,8 | 25,6 | 25,4 | 26,1 | 26,6 |
| 8H | 8H | 23,9 | 24,5 | 24,5 | 25,1 | 25,6 | 25,0 | 25,6 | 25,5 | 26,2 | 26,7 |
| 8H | 12H | 24,0 | 24,5 | 24,5 | 25,0 | 25,6 | 25,0 | 25,5 | 25,6 | 26,1 | 26,7 |
| 12H | 4H | 23,5 | 24,3 | 24,0 | 24,7 | 25,3 | 24,5 | 25,3 | 25,0 | 25,8 | 26,3 |
| 12H | 6H | 23,9 | 24,5 | 24,4 | 25,0 | 25,6 | 24,9 | 25,5 | 25,5 | 26,1 | 26,6 |
| 12H | 8H | 24,0 | 24,5 | 24,5 | 25,0 | 25,6 | 25,0 | 25,5 | 25,6 | 26,1 | 26,6 |

UGR values are corrected for lamp flux of 9250 lm by 7,7

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| Lamp type: | LED 830 - 01 | Height: | 70 mm |
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| Lamp flux: | 9250,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 08-01-2020 9:04:25 | Output ratio: | 90,9 % |

Luminance [cd/m²] TTP 70 LINE L1460 TUP 830 END 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 | 12944,2 | 14112,4 | 14871,5 | 15051,2 | 17276,8 | 20388,6 | 25548,7 | 20388,6 | 17276,8 |
| 50,00 | 12010,0 | 12305,5 | 12673,2 | 15123,5 | 15607,2 | 19166,4 | 24571,3 | 19166,4 | 15607,2 |
| 55,00 | 11866,7 | 11625,5 | 11920,0 | 12335,7 | 14160,9 | 17461,3 | 23330,2 | 17461,3 | 14160,9 |
| 60,00 | 9246,43 | 9428,03 | 10395,6 | 11490,5 | 12512,7 | 15415,9 | 21646,9 | 15415,9 | 12512,7 |
| 65,00 | 7816,78 | 8058,48 | 8309,54 | 9538,76 | 10359,1 | 12816,8 | 19238,0 | 12816,8 | 10359,1 |
| 70,00 | 6307,20 | 6456,64 | 6809,26 | 7341,24 | 8759,61 | 10519,8 | 16018,5 | 10519,8 | 8759,61 |
| 75,00 | 4594,95 | 4618,69 | 4946,62 | 5545,05 | 6127,74 | 9896,47 | 11937,6 | 9896,47 | 6127,74 |
| 80,00 | 2857,41 | 2824,02 | 3062,38 | 3471,50 | 4095,17 | 4861,76 | 7349,62 | 4861,76 | 4095,17 |
| 85,00 | 1326,03 | 1072,36 | 1266,68 | 1466,67 | 1922,93 | 2338,97 | 3553,74 | 2338,97 | 1922,93 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00 | 15051,2 | 14871,5 | 14112,4 | 12944,2 | 14112,4 | 14871,5 | 15051,2 | 17276,8 | 20388,6 |
| 50,00 | 15123,5 | 12673,2 | 12305,5 | 12010,0 | 12305,5 | 12673,2 | 15123,5 | 15607,2 | 19166,4 |
| 55,00 | 12335,7 | 11920,0 | 11625,5 | 11866,7 | 11625,5 | 11920,0 | 12335,7 | 14160,9 | 17461,3 |
| 60,00 | 11490,5 | 10395,6 | 9428,03 | 9246,43 | 9428,03 | 10395,6 | 11490,5 | 12512,7 | 15415,9 |
| 65,00 | 9538,76 | 8309,54 | 8058,48 | 7816,78 | 8058,48 | 8309,54 | 9538,76 | 10359,1 | 12816,8 |
| 70,00 | 7341,24 | 6809,26 | 6456,64 | 6307,20 | 6456,64 | 6809,26 | 7341,24 | 8759,61 | 10519,8 |
| 75,00 | 5545,05 | 4946,62 | 4618,69 | 4594,95 | 4618,69 | 4946,62 | 5545,05 | 6127,74 | 9896,47 |
| 80,00 | 3471,50 | 3062,38 | 2824,02 | 2857,41 | 2824,02 | 3062,38 | 3471,50 | 4095,17 | 4861,76 |
| 85,00 | 1466,67 | 1266,68 | 1072,36 | 1326,03 | 1072,36 | 1266,68 | 1466,67 | 1922,93 | 2338,97 |

| G/C [cd/ | 270,00 | 285,00 | 300,00 | 315,00 | 330,00 | 345,00 |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00 | 25548,7 | 20388,6 | 17276,8 | 15051,2 | 14871,5 | 14112,4 |
| 50,00 | 24571,3 | 19166,4 | 15607,2 | 15123,5 | 12673,2 | 12305,5 |
| 55,00 | 23330,2 | 17461,3 | 14160,9 | 12335,7 | 11920,0 | 11625,5 |
| 60,00 | 21646,9 | 15415,9 | 12512,7 | 11490,5 | 10395,6 | 9428,03 |
| 65,00 | 19238,0 | 12816,8 | 10359,1 | 9538,76 | 8309,54 | 8058,48 |
| 70,00 | 16018,5 | 10519,8 | 8759,61 | 7341,24 | 6809,26 | 6456,64 |
| 75,00 | 11937,6 | 9896,47 | 6127,74 | 5545,05 | 4946,62 | 4618,69 |
| 80,00 | 7349,62 | 4861,76 | 4095,17 | 3471,50 | 3062,38 | 2824,02 |
| 85,00 | 3553,74 | 2338,97 | 1922,93 | 1466,67 | 1266,68 | 1072,36 |

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