

PHOTOMETRIC RESULTS

| | | | |
|-------------------|---|----------------------|------------------|
| Name: | TTP 50 LINE L0620 TUP 840 END HO | | |
| Number: | 90483L060-50 | Diameter: | 0 mm |
| Report: | 13-01-2020 | Length: | 620 mm |
| Meas.-no.: | 01 | Width: | 50 mm |
| Lamp type: | LED 840 - 01 | Height: | 50 mm |
| Number: | 1 | Power: | 27,79 W |
| Lamp flux: | 4100,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 13-01-2020 10:51:00 | Output ratio: | 89,8 % |

Protocol

LiTG-class: A42
UTE-class: 0,88 E + 0,02 T
IES-class: 48 - 80 - 96 - 98 - 90
TM5-class: BZ4

| | | |
|--|------------|----------|
| Divergences in the plane through maximum intensity: | Horizontal | Vertical |
| One half peak divergence | 114,2° | 112,9° |
| Half peak side angle (left) | -57,1° | -56,5° |
| Half peak side angle (right) | 57,1° | 56,5° |
| One tenth peak divergence | 155,1° | 159,4° |
| Tenth peak side angle (left) | -77,6° | -79,7° |
| Tenth peak side angle (right) | 77,6° | 79,7° |

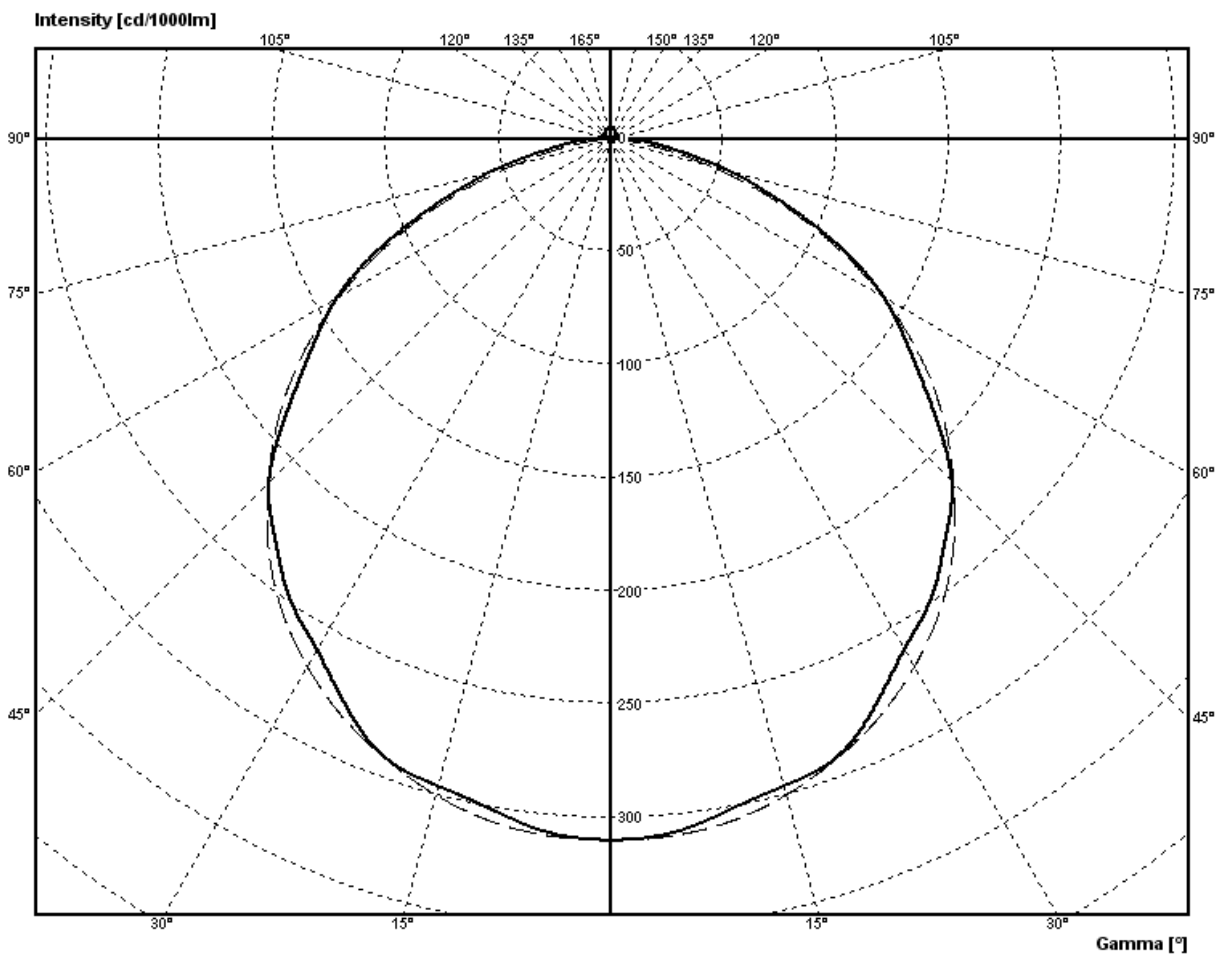
| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C-planes: | 0,0° | 15,0° | 30,0° | 45,0° | 60,0° | 75,0° | 90,0° | 105,0° | 120,0° | 135,0° |
| | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0°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

PHOTOMETRIC RESULTS

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|------------|----------------------------------|---------------|-----------------|
| Name: | TTP 50 LINE L0620 TUP 840 END HO | | |
| Number: | 90483L060-50 | Diameter: | 0 mm |
| Report: | 13-01-2020 | Length: | 620 mm |
| Meas.-no.: | 01 | Width: | 50 mm |
| Lamp type: | LED 840 - 01 | Height: | 50 mm |
| Number: | 1 | Power: | 27,79 W |
| Lamp flux: | 4100,00 lm | Operator: | INDELAGUE GROUP |
| Date: | 13-01-2020 10:51:00 | Output ratio: | 89,8 % |

Polar diagram TTP 50 LINE L0620 TUP 840 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 | 22,0 | 23,6 | 22,4 | 24,0 | 24,3 | 23,5 | 25,0 | 23,9 | 25,4 | 25,8 |
| 2H | 3H | 23,0 | 24,5 | 23,5 | 24,9 | 25,3 | 24,7 | 26,1 | 25,1 | 26,5 | 26,9 |
| 2H | 4H | 23,4 | 24,7 | 23,8 | 25,1 | 25,5 | 25,1 | 26,4 | 25,5 | 26,8 | 27,2 |
| 2H | 6H | 23,5 | 24,8 | 24,0 | 25,2 | 25,6 | 25,3 | 26,5 | 25,7 | 26,9 | 27,4 |
| 2H | 8H | 23,5 | 24,7 | 24,0 | 25,1 | 25,6 | 25,2 | 26,4 | 25,7 | 26,9 | 27,3 |
| 2H | 12H | 23,5 | 24,7 | 24,0 | 25,1 | 25,6 | 25,2 | 26,4 | 25,7 | 26,8 | 27,3 |
| 4H | 2H | 22,7 | 24,0 | 23,1 | 24,4 | 24,8 | 23,9 | 25,2 | 24,3 | 25,6 | 26,0 |
| 4H | 3H | 23,8 | 25,0 | 24,3 | 25,4 | 25,9 | 25,2 | 26,3 | 25,6 | 26,8 | 27,2 |
| 4H | 4H | 24,2 | 25,3 | 24,7 | 25,7 | 26,2 | 25,7 | 26,7 | 26,1 | 27,1 | 27,6 |
| 4H | 6H | 24,4 | 25,3 | 24,9 | 25,8 | 26,3 | 25,9 | 26,8 | 26,4 | 27,3 | 27,7 |
| 4H | 8H | 24,5 | 25,3 | 25,0 | 25,8 | 26,3 | 25,9 | 26,8 | 26,4 | 27,2 | 27,7 |
| 4H | 12H | 24,5 | 25,3 | 25,0 | 25,8 | 26,3 | 25,9 | 26,7 | 26,4 | 27,2 | 27,7 |
| 8H | 4H | 24,4 | 25,2 | 24,9 | 25,7 | 26,2 | 25,7 | 26,6 | 26,2 | 27,1 | 27,6 |
| 8H | 6H | 24,6 | 25,3 | 25,1 | 25,8 | 26,4 | 26,0 | 26,7 | 26,5 | 27,2 | 27,7 |
| 8H | 8H | 24,8 | 25,4 | 25,3 | 25,9 | 26,5 | 26,1 | 26,7 | 26,6 | 27,2 | 27,8 |
| 8H | 12H | 24,8 | 25,3 | 25,3 | 25,9 | 26,4 | 26,1 | 26,6 | 26,7 | 27,2 | 27,7 |
| 12H | 4H | 24,4 | 25,2 | 24,9 | 25,7 | 26,2 | 25,7 | 26,5 | 26,2 | 27,0 | 27,5 |
| 12H | 6H | 24,7 | 25,3 | 25,2 | 25,9 | 26,4 | 26,0 | 26,6 | 26,6 | 27,2 | 27,7 |
| 12H | 8H | 24,8 | 25,3 | 25,3 | 25,8 | 26,4 | 26,1 | 26,6 | 26,6 | 27,2 | 27,7 |

UGR values are corrected for lamp flux of 4100 lm by 4,9

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| Report: | 13-01-2020 | Length: | 620 mm |
| Meas.-no.: | 01 | Width: | 50 mm |
| Lamp type: | LED 840 - 01 | Height: | 50 mm |
| Number: | 1 | Power: | 27,79 W |
| Lamp flux: | 4100,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 13-01-2020 10:51:00 | Output ratio: | 89,8 % |

Luminance [cd/m²] TTP 50 LINE L0620 TUP 840 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 | 20252,5 | 20200,1 | 21029,2 | 22368,7 | 25400,9 | 29703,8 | 37577,6 | 29703,8 | 25400,9 |
| 50,00 | 17754,5 | 17982,2 | 18954,1 | 20555,7 | 23031,4 | 27824,3 | 36487,7 | 27824,3 | 23031,4 |
| 55,00 | 15525,1 | 15788,5 | 16491,5 | 18591,3 | 20550,0 | 25646,4 | 34912,2 | 25646,4 | 20550,0 |
| 60,00 | 13685,6 | 13617,0 | 14346,9 | 15633,8 | 18358,7 | 22575,0 | 32474,6 | 22575,0 | 18358,7 |
| 65,00 | 11201,4 | 11090,1 | 11770,0 | 13157,2 | 15131,3 | 18598,6 | 28822,0 | 18598,6 | 15131,3 |
| 70,00 | 8324,70 | 8436,83 | 8943,50 | 10166,4 | 11774,5 | 14394,6 | 23889,2 | 14394,6 | 11774,5 |
| 75,00 | 5860,24 | 5765,01 | 6183,43 | 7078,64 | 8436,52 | 10273,4 | 17260,5 | 10273,4 | 8436,52 |
| 80,00 | 3405,13 | 3450,49 | 3740,67 | 3955,20 | 4874,73 | 5875,01 | 10097,6 | 5875,01 | 4874,73 |
| 85,00 | 2013,61 | 1504,58 | 1706,90 | 1963,11 | 2175,72 | 2553,18 | 4006,25 | 2553,18 | 2175,72 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00 | 22368,7 | 21029,2 | 20200,1 | 20252,5 | 20200,1 | 21029,2 | 22368,7 | 25400,9 | 29703,8 |
| 50,00 | 20555,7 | 18954,1 | 17982,2 | 17754,5 | 17982,2 | 18954,1 | 20555,7 | 23031,4 | 27824,3 |
| 55,00 | 18591,3 | 16491,5 | 15788,5 | 15525,1 | 15788,5 | 16491,5 | 18591,3 | 20550,0 | 25646,4 |
| 60,00 | 15633,8 | 14346,9 | 13617,0 | 13685,6 | 13617,0 | 14346,9 | 15633,8 | 18358,7 | 22575,0 |
| 65,00 | 13157,2 | 11770,0 | 11090,1 | 11201,4 | 11090,1 | 11770,0 | 13157,2 | 15131,3 | 18598,6 |
| 70,00 | 10166,4 | 8943,50 | 8436,83 | 8324,70 | 8436,83 | 8943,50 | 10166,4 | 11774,5 | 14394,6 |
| 75,00 | 7078,64 | 6183,43 | 5765,01 | 5860,24 | 5765,01 | 6183,43 | 7078,64 | 8436,52 | 10273,4 |
| 80,00 | 3955,20 | 3740,67 | 3450,49 | 3405,13 | 3450,49 | 3740,67 | 3955,20 | 4874,73 | 5875,01 |
| 85,00 | 1963,11 | 1706,90 | 1504,58 | 2013,61 | 1504,58 | 1706,90 | 1963,11 | 2175,72 | 2553,18 |

| G/C [cd/ | 270,00 | 285,00 | 300,00 | 315,00 | 330,00 | 345,00 |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00 | 37577,6 | 29703,8 | 25400,9 | 22368,7 | 21029,2 | 20200,1 |
| 50,00 | 36487,7 | 27824,3 | 23031,4 | 20555,7 | 18954,1 | 17982,2 |
| 55,00 | 34912,2 | 25646,4 | 20550,0 | 18591,3 | 16491,5 | 15788,5 |
| 60,00 | 32474,6 | 22575,0 | 18358,7 | 15633,8 | 14346,9 | 13617,0 |
| 65,00 | 28822,0 | 18598,6 | 15131,3 | 13157,2 | 11770,0 | 11090,1 |
| 70,00 | 23889,2 | 14394,6 | 11774,5 | 10166,4 | 8943,50 | 8436,83 |
| 75,00 | 17260,5 | 10273,4 | 8436,52 | 7078,64 | 6183,43 | 5765,01 |
| 80,00 | 10097,6 | 5875,01 | 4874,73 | 3955,20 | 3740,67 | 3450,49 |
| 85,00 | 4006,25 | 2553,18 | 2175,72 | 1963,11 | 1706,90 | 1504,58 |

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