

PHOTOMETRIC RESULTS

| | | | |
|-------------------|---|----------------------|------------------|
| Name: | TTP 70 LINE L0620 TOP 830 END LO | | |
| Number: | 90488L060-50 | Diameter: | 0 mm |
| Report: | 14-01-2020 | Length: | 620 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 830 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 12,66 W |
| Lamp flux: | 1720,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 14-01-2020 10:59:26 | Output ratio: | 85,3 % |

Protocol

LiTG-class: A31
UTE-class: 0,77 G + 0,08 T
IES-class: 42 - 71 - 90 - 90 - 85
TM5-class: BZ5

Divergences in the plane through maximum intensity:

| | Horizontal | Vertical |
|-------------------------------|------------|----------|
| One half peak divergence | 102,3° | 130,2° |
| Half peak side angle (left) | -51,1° | -65,1° |
| Half peak side angle (right) | 51,1° | 65,1° |
| One tenth peak divergence | 156,4° | 226,5° |
| Tenth peak side angle (left) | -78,2° | -113,3° |
| Tenth peak side angle (right) | 78,2° | 113,3° |

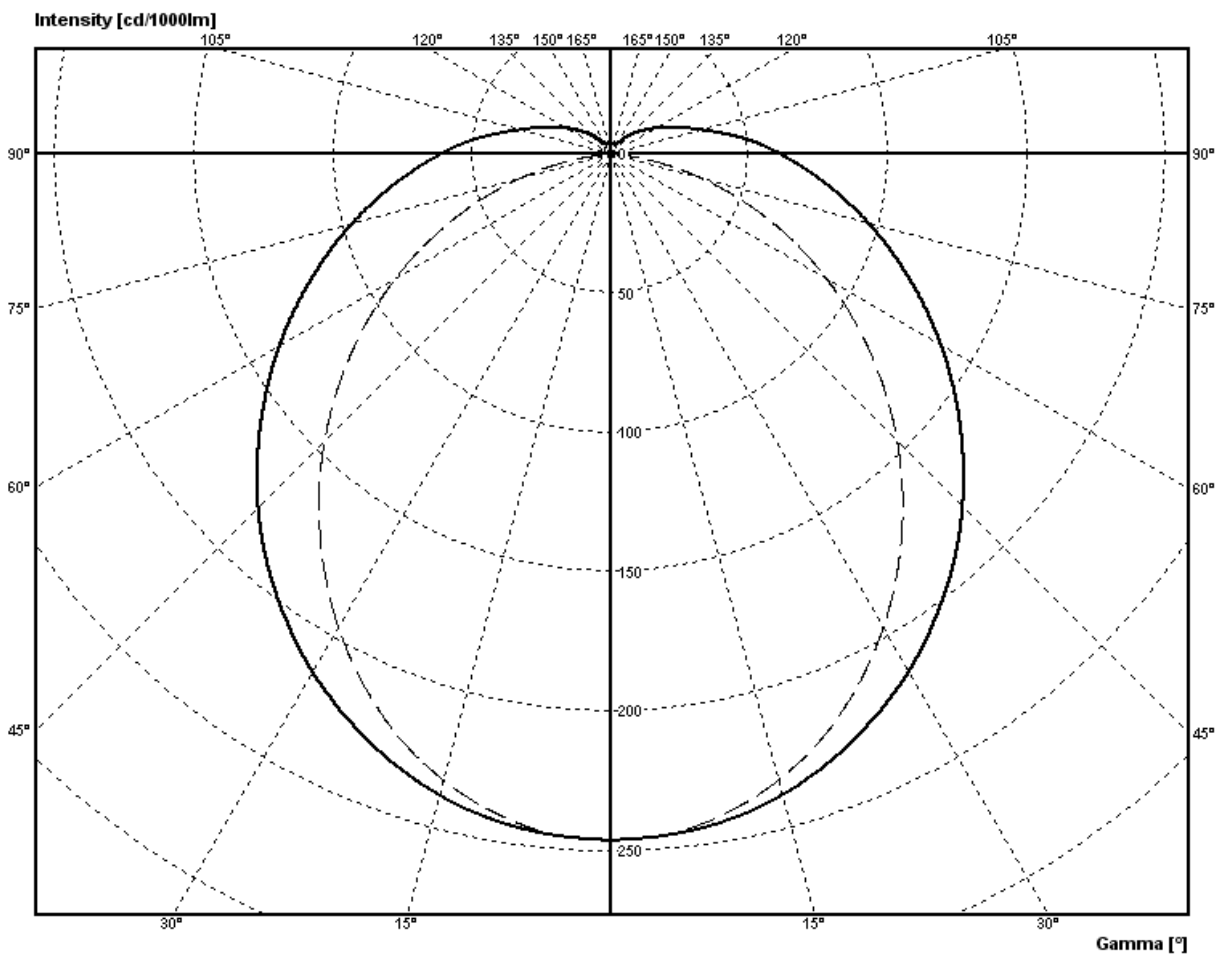
| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C-planes: | 0,0° | 15,0° | 30,0° | 45,0° | 60,0° | 75,0° | 90,0° | 105,0° | 120,0° | 135,0° |
| | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0° | 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 L0620 TOP 830 END LO / 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 | 17,0 | 18,5 | 17,5 | 19,0 | 19,5 | 16,7 | 18,1 | 17,2 | 18,6 | 19,2 |
| 2H | 3H | 18,8 | 20,1 | 19,3 | 20,6 | 21,2 | 18,0 | 19,3 | 18,5 | 19,9 | 20,4 |
| 2H | 4H | 19,6 | 20,9 | 20,2 | 21,4 | 22,0 | 18,4 | 19,7 | 19,0 | 20,3 | 20,9 |
| 2H | 6H | 20,4 | 21,7 | 21,0 | 22,2 | 22,8 | 18,8 | 20,0 | 19,3 | 20,5 | 21,1 |
| 2H | 8H | 20,8 | 22,0 | 21,3 | 22,5 | 23,1 | 18,8 | 20,0 | 19,4 | 20,5 | 21,2 |
| 2H | 12H | 21,1 | 22,3 | 21,7 | 22,8 | 23,4 | 18,8 | 20,0 | 19,4 | 20,5 | 21,1 |
| 4H | 2H | 17,6 | 18,9 | 18,1 | 19,4 | 20,0 | 17,3 | 18,6 | 17,8 | 19,1 | 19,7 |
| 4H | 3H | 19,6 | 20,7 | 20,1 | 21,2 | 21,9 | 18,8 | 19,9 | 19,3 | 20,5 | 21,1 |
| 4H | 4H | 20,6 | 21,6 | 21,2 | 22,2 | 22,9 | 19,4 | 20,4 | 20,0 | 21,0 | 21,7 |
| 4H | 6H | 21,6 | 22,5 | 22,2 | 23,1 | 23,7 | 19,8 | 20,7 | 20,4 | 21,3 | 22,0 |
| 4H | 8H | 22,0 | 22,9 | 22,6 | 23,5 | 24,2 | 19,9 | 20,8 | 20,6 | 21,4 | 22,1 |
| 4H | 12H | 22,5 | 23,3 | 23,1 | 23,9 | 24,6 | 20,0 | 20,8 | 20,6 | 21,4 | 22,1 |
| 8H | 4H | 20,9 | 21,7 | 21,5 | 22,3 | 23,0 | 19,8 | 20,7 | 20,4 | 21,3 | 22,0 |
| 8H | 6H | 22,0 | 22,8 | 22,7 | 23,4 | 24,1 | 20,4 | 21,1 | 21,0 | 21,8 | 22,5 |
| 8H | 8H | 22,7 | 23,3 | 23,3 | 24,0 | 24,7 | 20,7 | 21,3 | 21,3 | 22,0 | 22,7 |
| 8H | 12H | 23,3 | 23,9 | 23,9 | 24,5 | 25,2 | 20,8 | 21,4 | 21,5 | 22,0 | 22,7 |
| 12H | 4H | 20,9 | 21,7 | 21,5 | 22,3 | 23,0 | 19,9 | 20,7 | 20,6 | 21,3 | 22,0 |
| 12H | 6H | 22,2 | 22,8 | 22,8 | 23,5 | 24,2 | 20,6 | 21,3 | 21,3 | 21,9 | 22,6 |
| 12H | 8H | 22,8 | 23,4 | 23,5 | 24,0 | 24,8 | 20,9 | 21,5 | 21,6 | 22,1 | 22,8 |

UGR values are corrected for lamp flux of 1720 lm by 1,9

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| Lamp flux: | 1720,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 14-01-2020 10:59:26 | Output ratio: | 85,3 % |

Luminance [cd/m²] TTP 70 LINE L0620 TOP 830 END 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 | 5081,09 | 5027,25 | 5030,03 | 5135,96 | 5450,05 | 6124,79 | 7418,94 | 6124,79 | 5450,05 |
| 50,00 | 4712,70 | 4652,96 | 4636,01 | 4707,40 | 4975,26 | 5626,76 | 6994,95 | 5626,76 | 4975,26 |
| 55,00 | 4364,95 | 4300,67 | 4260,00 | 4291,55 | 4500,87 | 5112,78 | 6534,25 | 5112,78 | 4500,87 |
| 60,00 | 4039,57 | 3965,48 | 3904,14 | 3893,05 | 4044,44 | 4567,54 | 6023,85 | 4567,54 | 4044,44 |
| 65,00 | 3725,27 | 3651,54 | 3570,33 | 3515,14 | 3588,98 | 3993,24 | 5428,91 | 3993,24 | 3588,98 |
| 70,00 | 3433,04 | 3352,30 | 3252,09 | 3158,24 | 3148,07 | 3373,47 | 4704,29 | 3373,47 | 3148,07 |
| 75,00 | 3158,62 | 3075,85 | 2960,94 | 2826,25 | 2727,82 | 2731,60 | 3796,72 | 2731,60 | 2727,82 |
| 80,00 | 2902,23 | 2821,38 | 2696,50 | 2528,75 | 2337,27 | 2090,63 | 2641,98 | 2090,63 | 2337,27 |
| 85,00 | 2669,12 | 2590,45 | 2454,39 | 2257,76 | 1986,01 | 1508,04 | 1290,12 | 1508,04 | 1986,01 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00 | 5135,96 | 5030,03 | 5027,25 | 5081,09 | 5027,25 | 5030,03 | 5135,96 | 5450,05 | 6124,79 |
| 50,00 | 4707,40 | 4636,01 | 4652,96 | 4712,70 | 4652,96 | 4636,01 | 4707,40 | 4975,26 | 5626,76 |
| 55,00 | 4291,55 | 4260,00 | 4300,67 | 4364,95 | 4300,67 | 4260,00 | 4291,55 | 4500,87 | 5112,78 |
| 60,00 | 3893,05 | 3904,14 | 3965,48 | 4039,57 | 3965,48 | 3904,14 | 3893,05 | 4044,44 | 4567,54 |
| 65,00 | 3515,14 | 3570,33 | 3651,54 | 3725,27 | 3651,54 | 3570,33 | 3515,14 | 3588,98 | 3993,24 |
| 70,00 | 3158,24 | 3252,09 | 3352,30 | 3433,04 | 3352,30 | 3252,09 | 3158,24 | 3148,07 | 3373,47 |
| 75,00 | 2826,25 | 2960,94 | 3075,85 | 3158,62 | 3075,85 | 2960,94 | 2826,25 | 2727,82 | 2731,60 |
| 80,00 | 2528,75 | 2696,50 | 2821,38 | 2902,23 | 2821,38 | 2696,50 | 2528,75 | 2337,27 | 2090,63 |
| 85,00 | 2257,76 | 2454,39 | 2590,45 | 2669,12 | 2590,45 | 2454,39 | 2257,76 | 1986,01 | 1508,04 |

| G/C [cd/ | 270,00 | 285,00 | 300,00 | 315,00 | 330,00 | 345,00 |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00 | 7418,94 | 6124,79 | 5450,05 | 5135,96 | 5030,03 | 5027,25 |
| 50,00 | 6994,95 | 5626,76 | 4975,26 | 4707,40 | 4636,01 | 4652,96 |
| 55,00 | 6534,25 | 5112,78 | 4500,87 | 4291,55 | 4260,00 | 4300,67 |
| 60,00 | 6023,85 | 4567,54 | 4044,44 | 3893,05 | 3904,14 | 3965,48 |
| 65,00 | 5428,91 | 3993,24 | 3588,98 | 3515,14 | 3570,33 | 3651,54 |
| 70,00 | 4704,29 | 3373,47 | 3148,07 | 3158,24 | 3252,09 | 3352,30 |
| 75,00 | 3796,72 | 2731,60 | 2727,82 | 2826,25 | 2960,94 | 3075,85 |
| 80,00 | 2641,98 | 2090,63 | 2337,27 | 2528,75 | 2696,50 | 2821,38 |
| 85,00 | 1290,12 | 1508,04 | 1986,01 | 2257,76 | 2454,39 | 2590,45 |

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