

PHOTOMETRIC RESULTS

| | | | |
|-------------------|--------------------------------|----------------------|------------------|
| Name: | TTP 70 L1180 TUP 830 HO | | |
| Number: | 90475L120 | Diameter: | 0 mm |
| Report: | 10-01-2020 | Length: | 1180 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 830 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 54 W |
| Lamp flux: | 7400,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 10-01-2020 11:06:59 | Output ratio: | 89,4 % |

Protocol

LiTG-class: A42
UTE-class: 0,87 E + 0,03 T
IES-class: 46 - 78 - 95 - 97 - 89
TM5-class: BZ4/0.75/BZ5/1.00/BZ4/2.00/BZ5

| | | |
|--|------------|----------|
| Divergences in the plane through maximum intensity: | Horizontal | Vertical |
| One half peak divergence | 108,0° | 117,0° |
| Half peak side angle (left) | -54,0° | -58,5° |
| Half peak side angle (right) | 54,0° | 58,5° |
| One tenth peak divergence | 154,1° | 163,5° |
| Tenth peak side angle (left) | -77,1° | -81,8° |
| Tenth peak side angle (right) | 77,1° | 81,8° |

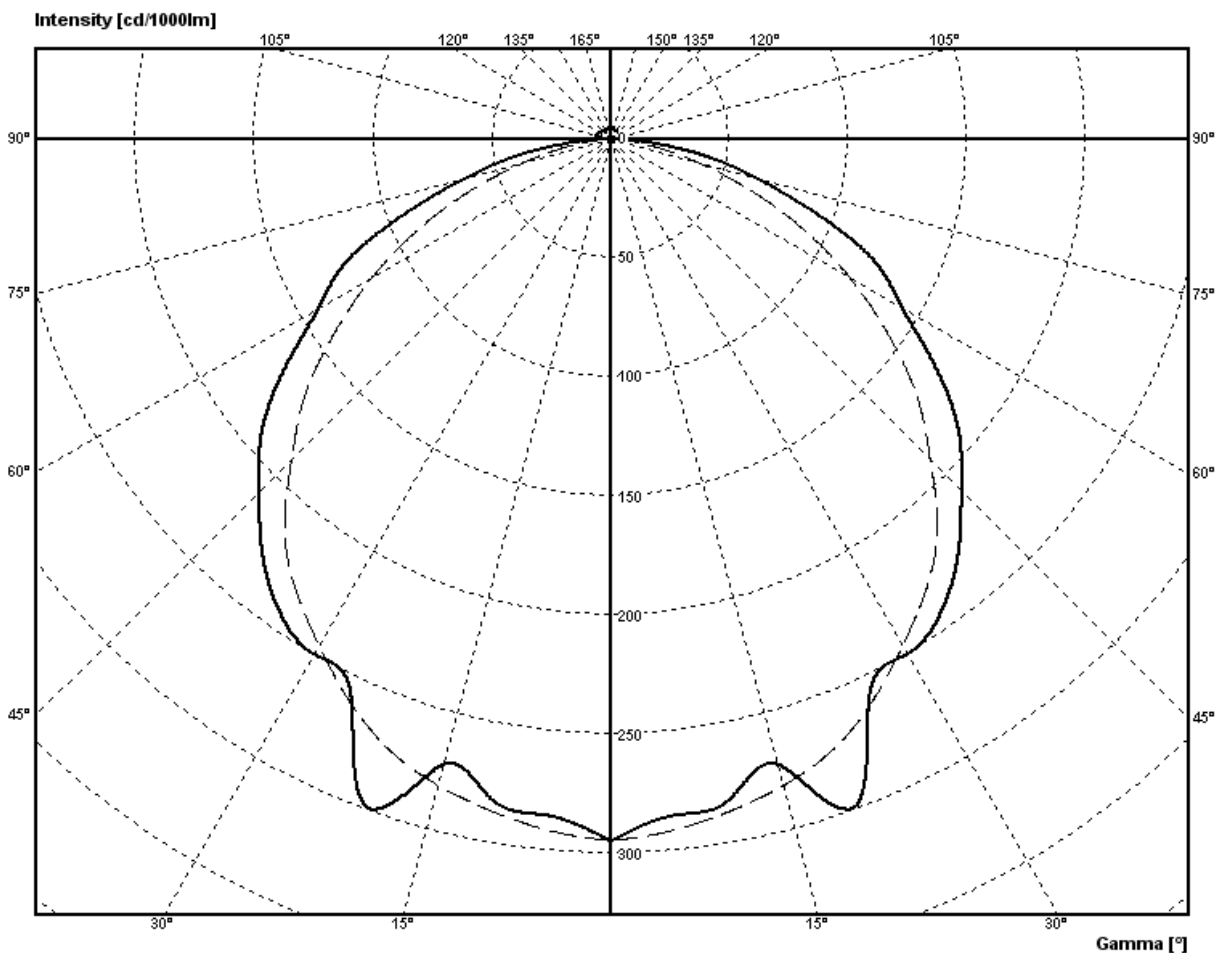
| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C-planes: | 0,0° | 15,0° | 30,0° | 45,0° | 60,0° | 75,0° | 90,0° | 105,0° | 120,0° | 135,0° |
| | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0° | 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 L1180 TUP 830 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 | 20,8 | 22,4 | 21,2 | 22,7 | 23,1 | 21,6 | 23,2 | 22,0 | 23,6 | 24,0 |
| 2H | 3H | 22,0 | 23,5 | 22,5 | 23,9 | 24,3 | 22,8 | 24,2 | 23,2 | 24,6 | 25,0 |
| 2H | 4H | 22,4 | 23,8 | 22,9 | 24,2 | 24,6 | 23,2 | 24,5 | 23,6 | 24,9 | 25,4 |
| 2H | 6H | 22,7 | 23,9 | 23,1 | 24,4 | 24,8 | 23,4 | 24,7 | 23,9 | 25,1 | 25,6 |
| 2H | 8H | 22,7 | 23,9 | 23,2 | 24,4 | 24,8 | 23,4 | 24,6 | 23,9 | 25,1 | 25,5 |
| 2H | 12H | 22,7 | 23,9 | 23,2 | 24,3 | 24,8 | 23,4 | 24,6 | 23,9 | 25,0 | 25,5 |
| 4H | 2H | 21,5 | 22,8 | 21,9 | 23,2 | 23,7 | 22,1 | 23,5 | 22,6 | 23,9 | 24,3 |
| 4H | 3H | 22,9 | 24,0 | 23,3 | 24,5 | 25,0 | 23,4 | 24,6 | 23,9 | 25,0 | 25,5 |
| 4H | 4H | 23,4 | 24,4 | 23,9 | 24,9 | 25,4 | 24,0 | 25,0 | 24,5 | 25,5 | 26,0 |
| 4H | 6H | 23,7 | 24,6 | 24,2 | 25,1 | 25,6 | 24,2 | 25,2 | 24,8 | 25,7 | 26,2 |
| 4H | 8H | 23,8 | 24,6 | 24,3 | 25,1 | 25,6 | 24,3 | 25,2 | 24,8 | 25,7 | 26,2 |
| 4H | 12H | 23,8 | 24,6 | 24,3 | 25,1 | 25,6 | 24,4 | 25,2 | 24,9 | 25,7 | 26,2 |
| 8H | 4H | 23,6 | 24,5 | 24,1 | 25,0 | 25,5 | 24,1 | 25,0 | 24,7 | 25,5 | 26,0 |
| 8H | 6H | 24,0 | 24,7 | 24,5 | 25,2 | 25,8 | 24,5 | 25,2 | 25,0 | 25,7 | 26,3 |
| 8H | 8H | 24,1 | 24,8 | 24,7 | 25,3 | 25,9 | 24,7 | 25,3 | 25,2 | 25,9 | 26,4 |
| 8H | 12H | 24,2 | 24,7 | 24,8 | 25,3 | 25,9 | 24,8 | 25,3 | 25,3 | 25,8 | 26,4 |
| 12H | 4H | 23,6 | 24,4 | 24,1 | 24,9 | 25,5 | 24,1 | 24,9 | 24,7 | 25,4 | 26,0 |
| 12H | 6H | 24,1 | 24,7 | 24,6 | 25,2 | 25,8 | 24,6 | 25,2 | 25,1 | 25,8 | 26,3 |
| 12H | 8H | 24,2 | 24,7 | 24,8 | 25,3 | 25,9 | 24,7 | 25,2 | 25,3 | 25,8 | 26,4 |

UGR values are corrected for lamp flux of 7400 lm by 7,0

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| Date: | 10-01-2020 11:06:59 | Output ratio: | 89,4 % |

Luminance [cd/m²] TTP 70 L1180 TUP 830 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 | 13312,0 | 13579,3 | 14039,0 | 14816,8 | 16175,0 | 17865,4 | 22834,6 | 17865,4 | 16175,0 |
| 50,00 | 12242,5 | 12404,0 | 12804,7 | 13668,6 | 14631,1 | 16673,5 | 21998,5 | 16673,5 | 14631,1 |
| 55,00 | 10804,8 | 11027,6 | 11449,7 | 12369,9 | 13602,5 | 17382,9 | 20538,1 | 17382,9 | 13602,5 |
| 60,00 | 9344,44 | 9619,98 | 9944,52 | 10862,6 | 12222,3 | 15277,1 | 18891,9 | 15277,1 | 12222,3 |
| 65,00 | 8357,66 | 8486,59 | 8789,63 | 9157,21 | 10445,5 | 11473,0 | 16774,1 | 11473,0 | 10445,5 |
| 70,00 | 6510,61 | 6622,28 | 7212,95 | 7885,67 | 8454,40 | 9800,27 | 13992,3 | 9800,27 | 8454,40 |
| 75,00 | 4650,83 | 4862,69 | 5083,69 | 5850,56 | 6696,41 | 7471,17 | 10585,0 | 7471,17 | 6696,41 |
| 80,00 | 3018,29 | 3114,05 | 3413,38 | 3757,99 | 4598,08 | 4963,33 | 7086,29 | 4963,33 | 4598,08 |
| 85,00 | 1131,38 | 1533,51 | 1745,54 | 2034,16 | 2469,21 | 3360,21 | 3676,15 | 3360,21 | 2469,21 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00 | 14816,8 | 14039,0 | 13579,3 | 13312,0 | 13579,3 | 14039,0 | 14816,8 | 16175,0 | 17865,4 |
| 50,00 | 13668,6 | 12804,7 | 12404,0 | 12242,5 | 12404,0 | 12804,7 | 13668,6 | 14631,1 | 16673,5 |
| 55,00 | 12369,9 | 11449,7 | 11027,6 | 10804,8 | 11027,6 | 11449,7 | 12369,9 | 13602,5 | 17382,9 |
| 60,00 | 10862,6 | 9944,52 | 9619,98 | 9344,44 | 9619,98 | 9944,52 | 10862,6 | 12222,3 | 15277,1 |
| 65,00 | 9157,21 | 8789,63 | 8486,59 | 8357,66 | 8486,59 | 8789,63 | 9157,21 | 10445,5 | 11473,0 |
| 70,00 | 7885,67 | 7212,95 | 6622,28 | 6510,61 | 6622,28 | 7212,95 | 7885,67 | 8454,40 | 9800,27 |
| 75,00 | 5850,56 | 5083,69 | 4862,69 | 4650,83 | 4862,69 | 5083,69 | 5850,56 | 6696,41 | 7471,17 |
| 80,00 | 3757,99 | 3413,38 | 3114,05 | 3018,29 | 3114,05 | 3413,38 | 3757,99 | 4598,08 | 4963,33 |
| 85,00 | 2034,16 | 1745,54 | 1533,51 | 1131,38 | 1533,51 | 1745,54 | 2034,16 | 2469,21 | 3360,21 |

| G/C [cd/ | 270,00 | 285,00 | 300,00 | 315,00 | 330,00 | 345,00 |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00 | 22834,6 | 17865,4 | 16175,0 | 14816,8 | 14039,0 | 13579,3 |
| 50,00 | 21998,5 | 16673,5 | 14631,1 | 13668,6 | 12804,7 | 12404,0 |
| 55,00 | 20538,1 | 17382,9 | 13602,5 | 12369,9 | 11449,7 | 11027,6 |
| 60,00 | 18891,9 | 15277,1 | 12222,3 | 10862,6 | 9944,52 | 9619,98 |
| 65,00 | 16774,1 | 11473,0 | 10445,5 | 9157,21 | 8789,63 | 8486,59 |
| 70,00 | 13992,3 | 9800,27 | 8454,40 | 7885,67 | 7212,95 | 6622,28 |
| 75,00 | 10585,0 | 7471,17 | 6696,41 | 5850,56 | 5083,69 | 4862,69 |
| 80,00 | 7086,29 | 4963,33 | 4598,08 | 3757,99 | 3413,38 | 3114,05 |
| 85,00 | 3676,15 | 3360,21 | 2469,21 | 2034,16 | 1745,54 | 1533,51 |

HEADQUARTERS

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