

PHOTOMETRIC RESULTS

| | | | |
|-------------------|-------------------------|----------------------|------------------|
| Name: | TTP 70 L0900 TUP 840 HO | | |
| Number: | 90475L090 | Diameter: | 0 mm |
| Report: | 14-01-2020 | Length: | 900 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 840 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 40,67 W |
| Lamp flux: | 6150,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 14-01-2020 8:44:19 | Output ratio: | 87,0 % |

Protocol

LiTG-class: A42
UTE-class: 0,85 E + 0,02 T
IES-class: 48 - 80 - 96 - 97 - 87
TM5-class: BZ4

| | | |
|--|------------|----------|
| Divergences in the plane through maximum intensity: | Horizontal | Vertical |
| One half peak divergence | 109,2° | 114,1° |
| Half peak side angle (left) | -54,6° | -57,0° |
| Half peak side angle (right) | 54,6° | 57,0° |
| One tenth peak divergence | 152,3° | 161,3° |
| Tenth peak side angle (left) | -76,2° | -80,6° |
| Tenth peak side angle (right) | 76,2° | 80,6° |

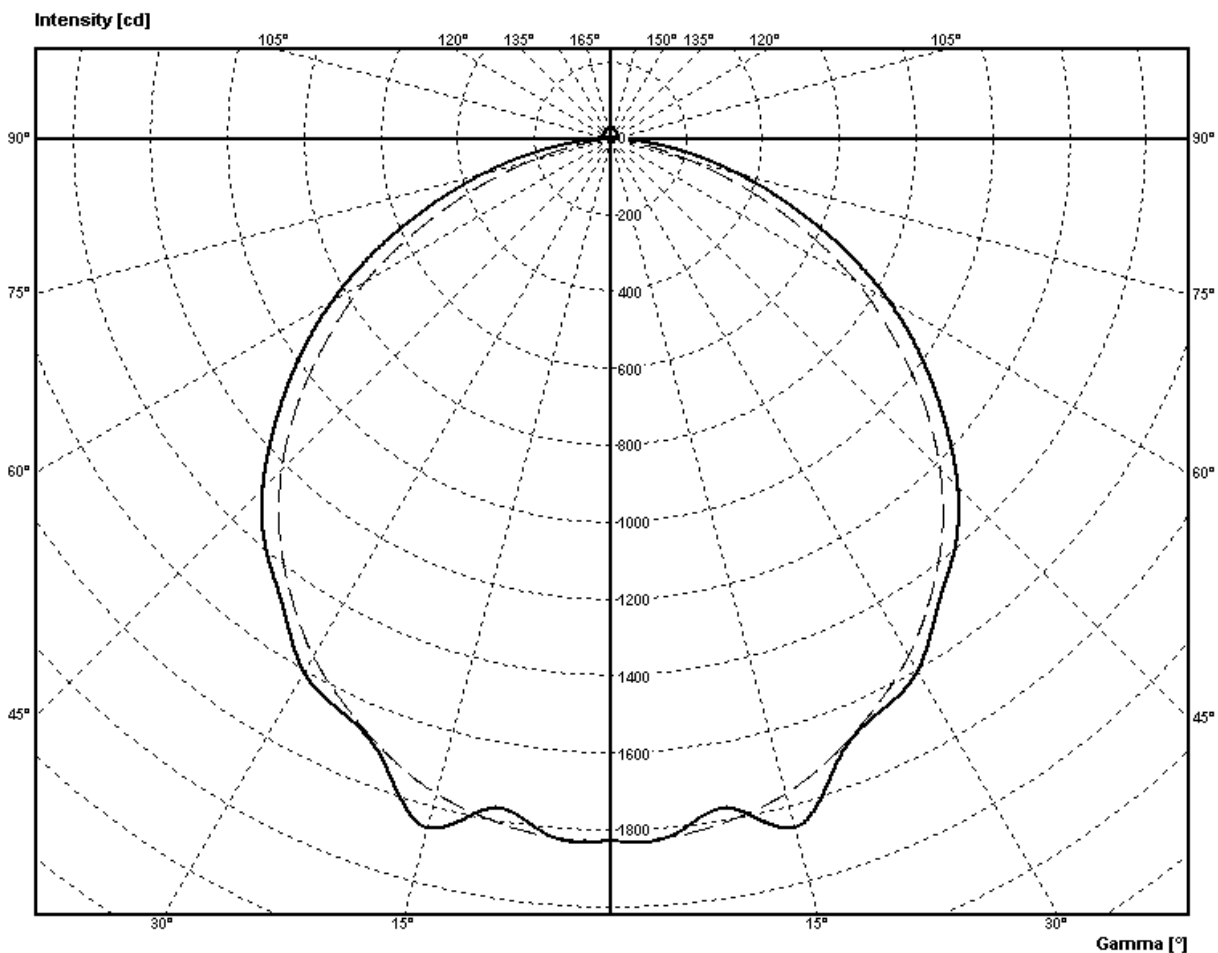
| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| C-planes: | 0,0° | 15,0° | 30,0° | 45,0° | 60,0° | 75,0° | 90,0° | 105,0° | 120,0° | 135,0° |
| | 150,0° | 165,0° | 180,0° | 195,0° | 210,0° | 225,0° | 240,0° | 255,0°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

| | | | |
|------------|-------------------------|---------------|-----------------|
| Name: | TTP 70 L0900 TUP 840 HO | | |
| Number: | 90475L090 | Diameter: | 0 mm |
| Report: | 14-01-2020 | Length: | 900 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 840 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 40,67 W |
| Lamp flux: | 6150,00 lm | Operator: | INDELAGUE GROUP |
| Date: | 14-01-2020 8:44:19 | Output ratio: | 87,0 % |

Polar diagram TTP 70 L0900 TUP 840 HO / Total in 15° C / 5° G



PHOTOMETRIC RESULTS

| | | | |
|-------------------|--------------------------------|----------------------|------------------|
| Name: | TTP 70 L0900 TUP 840 HO | | |
| Number: | 90475L090 | Diameter: | 0 mm |
| Report: | 14-01-2020 | Length: | 900 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 840 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 40,67 W |
| Lamp flux: | 6150,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 14-01-2020 8:44:19 | Output ratio: | 87,0 % |

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 | 22,5 | 21,3 | 22,9 | 23,2 | 22,0 | 23,6 | 22,4 | 23,9 | 24,3 |
| 2H | 3H | 22,0 | 23,4 | 22,4 | 23,8 | 24,2 | 23,1 | 24,5 | 23,5 | 24,9 | 25,3 |
| 2H | 4H | 22,3 | 23,7 | 22,8 | 24,1 | 24,5 | 23,4 | 24,8 | 23,9 | 25,2 | 25,6 |
| 2H | 6H | 22,5 | 23,8 | 23,0 | 24,2 | 24,6 | 23,6 | 24,8 | 24,0 | 25,2 | 25,7 |
| 2H | 8H | 22,5 | 23,7 | 23,0 | 24,2 | 24,6 | 23,6 | 24,8 | 24,0 | 25,2 | 25,6 |
| 2H | 12H | 22,5 | 23,7 | 23,0 | 24,1 | 24,6 | 23,5 | 24,7 | 24,0 | 25,1 | 25,6 |
| 4H | 2H | 21,5 | 22,9 | 22,0 | 23,3 | 23,7 | 22,4 | 23,7 | 22,8 | 24,1 | 24,6 |
| 4H | 3H | 22,7 | 23,9 | 23,2 | 24,3 | 24,8 | 23,6 | 24,8 | 24,1 | 25,2 | 25,7 |
| 4H | 4H | 23,2 | 24,2 | 23,7 | 24,7 | 25,2 | 24,1 | 25,1 | 24,6 | 25,6 | 26,1 |
| 4H | 6H | 23,4 | 24,3 | 23,9 | 24,8 | 25,3 | 24,3 | 25,2 | 24,8 | 25,7 | 26,2 |
| 4H | 8H | 23,5 | 24,3 | 24,0 | 24,8 | 25,3 | 24,3 | 25,1 | 24,8 | 25,6 | 26,2 |
| 4H | 12H | 23,5 | 24,3 | 24,0 | 24,8 | 25,3 | 24,3 | 25,1 | 24,8 | 25,6 | 26,1 |
| 8H | 4H | 23,4 | 24,2 | 23,9 | 24,7 | 25,2 | 24,2 | 25,0 | 24,7 | 25,5 | 26,0 |
| 8H | 6H | 23,6 | 24,4 | 24,2 | 24,9 | 25,4 | 24,4 | 25,1 | 24,9 | 25,6 | 26,2 |
| 8H | 8H | 23,8 | 24,4 | 24,3 | 25,0 | 25,5 | 24,5 | 25,2 | 25,1 | 25,7 | 26,3 |
| 8H | 12H | 23,8 | 24,4 | 24,4 | 24,9 | 25,5 | 24,6 | 25,1 | 25,1 | 25,6 | 26,2 |
| 12H | 4H | 23,4 | 24,1 | 23,9 | 24,6 | 25,2 | 24,2 | 25,0 | 24,7 | 25,5 | 26,0 |
| 12H | 6H | 23,7 | 24,3 | 24,3 | 24,9 | 25,4 | 24,5 | 25,1 | 25,0 | 25,6 | 26,2 |
| 12H | 8H | 23,8 | 24,3 | 24,4 | 24,9 | 25,5 | 24,6 | 25,1 | 25,1 | 25,6 | 26,2 |

UGR values are corrected for lamp flux of 6150 lm by 6,3

PHOTOMETRIC RESULTS

| | | | |
|-------------------|--------------------------------|----------------------|------------------|
| Name: | TTP 70 L0900 TUP 840 HO | | |
| Number: | 90475L090 | Diameter: | 0 mm |
| Report: | 14-01-2020 | Length: | 900 mm |
| Meas.-no.: | 01 | Width: | 70 mm |
| Lamp type: | LED 840 - 01 | Height: | 70 mm |
| Number: | 1 | Power: | 40,67 W |
| Lamp flux: | 6150,00 lm | Operator: | INDEL AGUE GROUP |
| Date: | 14-01-2020 8:44:19 | Output ratio: | 87,0 % |

Luminance [cd/m²] TTP 70 L0900 TUP 840 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 | 14512,0 | 14597,3 | 14814,2 | 16116,1 | 17496,0 | 20528,7 | 25482,2 | 20528,7 | 17496,0 |
| 50,00 | 12927,3 | 13118,9 | 13398,7 | 14606,8 | 16298,0 | 20617,1 | 24244,9 | 20617,1 | 16298,0 |
| 55,00 | 11387,9 | 11620,8 | 11894,5 | 12974,3 | 14653,8 | 18450,5 | 22579,9 | 18450,5 | 14653,8 |
| 60,00 | 9791,64 | 9799,42 | 10215,0 | 11128,7 | 12474,2 | 14667,5 | 20756,1 | 14667,5 | 12474,2 |
| 65,00 | 8027,07 | 8015,22 | 8418,33 | 9208,96 | 10380,2 | 12572,0 | 17861,0 | 12572,0 | 10380,2 |
| 70,00 | 6190,37 | 6308,42 | 6623,91 | 7241,00 | 8348,53 | 9885,61 | 14306,4 | 9885,61 | 8348,53 |
| 75,00 | 4449,61 | 4479,98 | 4723,28 | 5280,96 | 5945,86 | 6890,31 | 10111,6 | 6890,31 | 5945,86 |
| 80,00 | 2766,77 | 2808,72 | 2976,14 | 3295,41 | 3780,67 | 4170,10 | 5538,66 | 4170,10 | 3780,67 |
| 85,00 | 1269,06 | 1241,33 | 1380,34 | 1507,82 | 1953,90 | 2076,73 | 2201,63 | 2076,73 | 1953,90 |

| G/C [cd/ | 135,00 | 150,00 | 165,00 | 180,00 | 195,00 | 210,00 | 225,00 | 240,00 | 255,00 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 45,00 | 16116,1 | 14814,2 | 14597,3 | 14512,0 | 14597,3 | 14814,2 | 16116,1 | 17496,0 | 20528,7 |
| 50,00 | 14606,8 | 13398,7 | 13118,9 | 12927,3 | 13118,9 | 13398,7 | 14606,8 | 16298,0 | 20617,1 |
| 55,00 | 12974,3 | 11894,5 | 11620,8 | 11387,9 | 11620,8 | 11894,5 | 12974,3 | 14653,8 | 18450,5 |
| 60,00 | 11128,7 | 10215,0 | 9799,42 | 9791,64 | 9799,42 | 10215,0 | 11128,7 | 12474,2 | 14667,5 |
| 65,00 | 9208,96 | 8418,33 | 8015,22 | 8027,07 | 8015,22 | 8418,33 | 9208,96 | 10380,2 | 12572,0 |
| 70,00 | 7241,00 | 6623,91 | 6308,42 | 6190,37 | 6308,42 | 6623,91 | 7241,00 | 8348,53 | 9885,61 |
| 75,00 | 5280,96 | 4723,28 | 4479,98 | 4449,61 | 4479,98 | 4723,28 | 5280,96 | 5945,86 | 6890,31 |
| 80,00 | 3295,41 | 2976,14 | 2808,72 | 2766,77 | 2808,72 | 2976,14 | 3295,41 | 3780,67 | 4170,10 |
| 85,00 | 1507,82 | 1380,34 | 1241,33 | 1269,06 | 1241,33 | 1380,34 | 1507,82 | 1953,90 | 2076,73 |

| G/C [cd/ | 270,00 | 285,00 | 300,00 | 315,00 | 330,00 | 345,00 |
|----------|---------|---------|---------|---------|---------|---------|
| 45,00 | 25482,2 | 20528,7 | 17496,0 | 16116,1 | 14814,2 | 14597,3 |
| 50,00 | 24244,9 | 20617,1 | 16298,0 | 14606,8 | 13398,7 | 13118,9 |
| 55,00 | 22579,9 | 18450,5 | 14653,8 | 12974,3 | 11894,5 | 11620,8 |
| 60,00 | 20756,1 | 14667,5 | 12474,2 | 11128,7 | 10215,0 | 9799,42 |
| 65,00 | 17861,0 | 12572,0 | 10380,2 | 9208,96 | 8418,33 | 8015,22 |
| 70,00 | 14306,4 | 9885,61 | 8348,53 | 7241,00 | 6623,91 | 6308,42 |
| 75,00 | 10111,6 | 6890,31 | 5945,86 | 5280,96 | 4723,28 | 4479,98 |
| 80,00 | 5538,66 | 4170,10 | 3780,67 | 3295,41 | 2976,14 | 2808,72 |
| 85,00 | 2201,63 | 2076,73 | 1953,90 | 1507,82 | 1380,34 | 1241,33 |

HEADQUARTERS

INDÚSTRIA ELÉTRICA DE ÁGUEDA S.A.

Rua da Mina 465 | Covão | Zona industrial EN1 Norte

3750-792 Trofa ÁGUEDA | PORTUGAL

www.indelague.com | www.roxolighting.com

indelague@indelague.pt | roxo.london@roxolighting.com

Tel. (+351) 234 612 310

Fax (+351) 234 624 058