

## PHOTOMETRIC RESULTS

<b>Name:</b>	TTP 70 L1180 TOP K3 830 LO		
<b>Number:</b>	90476L120	<b>Diameter:</b>	0 mm
<b>Report:</b>	09-01-2020	<b>Length:</b>	1180 mm
<b>Meas.-no.:</b>	01	<b>Width:</b>	70 mm
<b>Lamp type:</b>	LED 830 - 01	<b>Height:</b>	70 mm
<b>Number:</b>	1	<b>Power:</b>	22,99 W
<b>Lamp flux:</b>	3440,00 lm	<b>Operator:</b>	INDEL AGUE GROUP
<b>Date:</b>	10-01-2020 10:22:33	<b>Output ratio:</b>	86,3 %

## Protocol

**LiTG-class:** A31  
**UTE-class:** 0,78 G + 0,08 T  
**IES-class:** 42 - 71 - 90 - 91 - 86  
**TM5-class:** BZ5

<b>Divergences in the plane through maximum intensity:</b>	Horizontal	Vertical
<b>One half peak divergence</b>	103,5°	131,0°
<b>Half peak side angle (left)</b>	-51,8°	-65,5°
<b>Half peak side angle (right)</b>	51,8°	65,5°
<b>One tenth peak divergence</b>	157,3°	228,0°
<b>Tenth peak side angle (left)</b>	-78,6°	-114,0°
<b>Tenth peak side angle (right)</b>	78,6°	114,0°

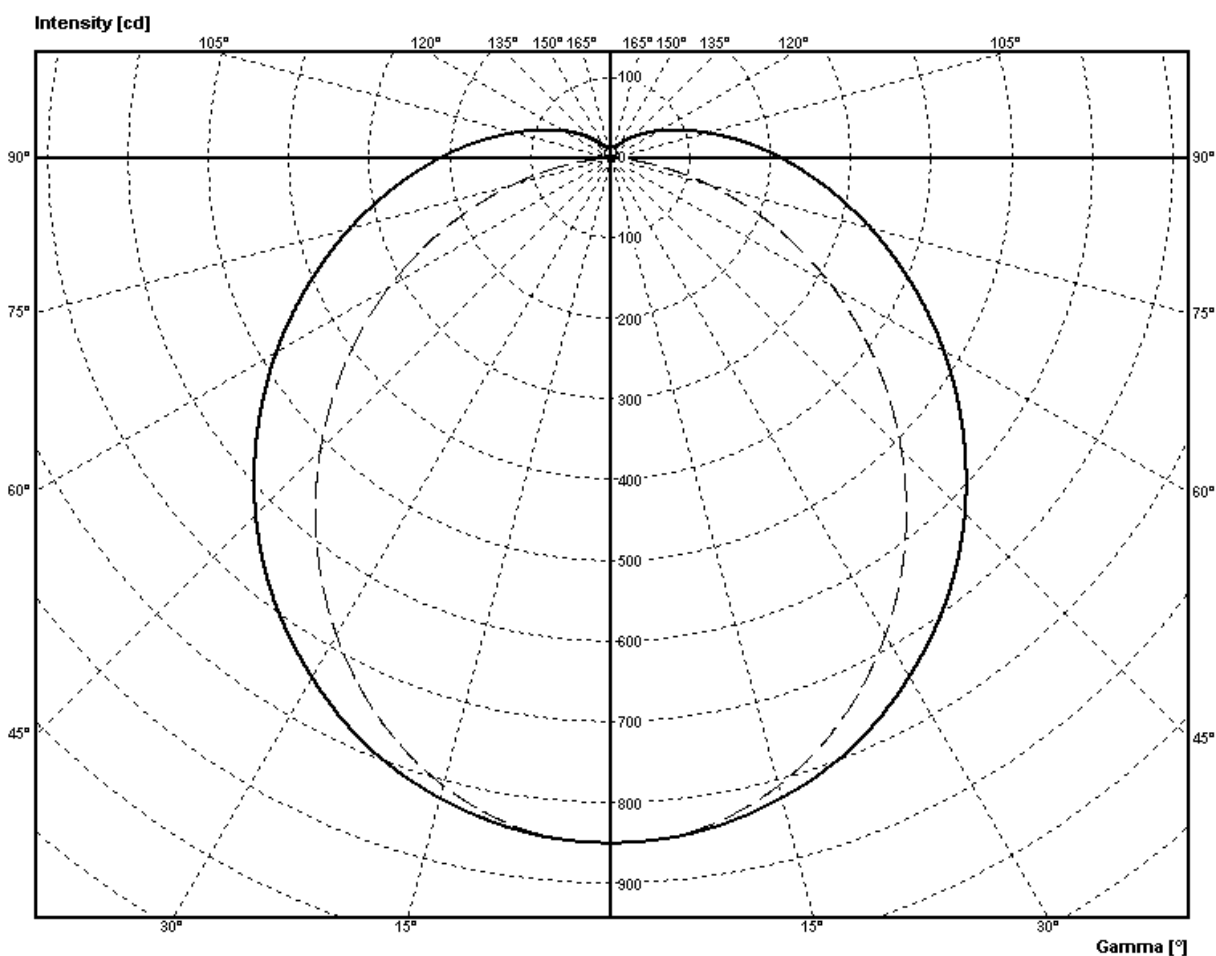
<b>C-planes:</b>	0,0°	15,0°	30,0°	45,0°	60,0°	75,0°	90,0°	105,0°	120,0°	135,0°
	150,0°	165,0°	180,0°	195,0°	210,0°	225,0°	240,0°	255,0°	270,0°	285,0°
	300,0°	315,0°	330,0°	345,0°						

<b>Gamma:</b>	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 L1180 TOP K3 830 LO		
Number:	90476L120	Diameter:	0 mm
Report:	09-01-2020	Length:	1180 mm
Meas.-no.:	01	Width:	70 mm
Lamp type:	LED 830 - 01	Height:	70 mm
Number:	1	Power:	22,99 W
Lamp flux:	3440,00 lm	Operator:	INDELAGUE GROUP
Date:	10-01-2020 10:22:33	Output ratio:	86,3 %

Polar diagram TTP 70 L1180 TOP K3 830 LO / Total in 15° C / 5° G



## PHOTOMETRIC RESULTS

<b>Name:</b>	TTP 70 L1180 TOP K3 830 LO		
<b>Number:</b>	90476L120	<b>Diameter:</b>	0 mm
<b>Report:</b>	09-01-2020	<b>Length:</b>	1180 mm
<b>Meas.-no.:</b>	01	<b>Width:</b>	70 mm
<b>Lamp type:</b>	LED 830 - 01	<b>Height:</b>	70 mm
<b>Number:</b>	1	<b>Power:</b>	22,99 W
<b>Lamp flux:</b>	3440,00 lm	<b>Operator:</b>	INDEL AGUE GROUP
<b>Date:</b>	10-01-2020 10:22:33	<b>Output ratio:</b>	86,3 %

## UGR Unified Glare Ratios

<b>Ceiling reflectance</b>		<b>0,7</b>	<b>0,7</b>	<b>0,5</b>	<b>0,5</b>	<b>0,3</b>	<b>0,7</b>	<b>0,7</b>	<b>0,5</b>	<b>0,5</b>	<b>0,3</b>
<b>Wall reflectance</b>		<b>0,5</b>	<b>0,3</b>	<b>0,5</b>	<b>0,3</b>	<b>0,3</b>	<b>0,5</b>	<b>0,3</b>	<b>0,5</b>	<b>0,3</b>	<b>0,3</b>
<b>Floor cavity reflectance</b>		<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>	<b>0,2</b>
<b>Room dimension</b>		Viewed crosswise					Viewed endwise				
<b>2H</b>	<b>2H</b>	17,2	18,7	17,7	19,2	19,7	17,1	18,6	17,6	19,1	19,6
<b>2H</b>	<b>3H</b>	19,0	20,3	19,5	20,9	21,4	18,4	19,8	19,0	20,3	20,9
<b>2H</b>	<b>4H</b>	19,8	21,1	20,4	21,7	22,2	19,0	20,3	19,5	20,8	21,4
<b>2H</b>	<b>6H</b>	20,7	21,9	21,2	22,4	23,0	19,3	20,5	19,9	21,1	21,7
<b>2H</b>	<b>8H</b>	21,0	22,2	21,5	22,7	23,3	19,4	20,6	19,9	21,1	21,7
<b>2H</b>	<b>12H</b>	21,3	22,5	21,9	23,0	23,6	19,4	20,6	20,0	21,1	21,7
<b>4H</b>	<b>2H</b>	17,8	19,1	18,4	19,7	20,2	17,7	19,0	18,2	19,5	20,1
<b>4H</b>	<b>3H</b>	19,8	20,9	20,3	21,5	22,1	19,2	20,4	19,8	20,9	21,5
<b>4H</b>	<b>4H</b>	20,8	21,9	21,4	22,4	23,1	19,9	20,9	20,5	21,5	22,2
<b>4H</b>	<b>6H</b>	21,8	22,7	22,4	23,3	24,0	20,3	21,3	20,9	21,9	22,5
<b>4H</b>	<b>8H</b>	22,3	23,1	22,9	23,7	24,4	20,5	21,4	21,1	22,0	22,6
<b>4H</b>	<b>12H</b>	22,7	23,5	23,3	24,1	24,8	20,6	21,4	21,2	22,0	22,7
<b>8H</b>	<b>4H</b>	21,1	22,0	21,7	22,6	23,2	20,3	21,2	20,9	21,8	22,4
<b>8H</b>	<b>6H</b>	22,3	23,0	22,9	23,6	24,3	20,9	21,6	21,5	22,3	23,0
<b>8H</b>	<b>8H</b>	22,9	23,6	23,6	24,2	24,9	21,2	21,8	21,8	22,5	23,2
<b>8H</b>	<b>12H</b>	23,5	24,1	24,2	24,7	25,4	21,4	21,9	22,0	22,6	23,3
<b>12H</b>	<b>4H</b>	21,2	22,0	21,8	22,6	23,3	20,4	21,2	21,0	21,8	22,5
<b>12H</b>	<b>6H</b>	22,4	23,0	23,0	23,7	24,4	21,1	21,8	21,8	22,4	23,1
<b>12H</b>	<b>8H</b>	23,1	23,6	23,7	24,3	25,0	21,4	22,0	22,1	22,6	23,3

UGR values are corrected for lamp flux of 3440 lm by 4,3

## PHOTOMETRIC RESULTS

<b>Name:</b>	TTP 70 L1180 TOP K3 830 LO		
<b>Number:</b>	90476L120	<b>Diameter:</b>	0 mm
<b>Report:</b>	09-01-2020	<b>Length:</b>	1180 mm
<b>Meas.-no.:</b>	01	<b>Width:</b>	70 mm
<b>Lamp type:</b>	LED 830 - 01	<b>Height:</b>	70 mm
<b>Number:</b>	1	<b>Power:</b>	22,99 W
<b>Lamp flux:</b>	3440,00 lm	<b>Operator:</b>	INDEL AGUE GROUP
<b>Date:</b>	10-01-2020 10:22:33	<b>Output ratio:</b>	86,3 %

Luminance [cd/m<sup>2</sup>] TTP 70 L1180 TOP K3 830 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	5369,32	5344,87	5397,09	5565,76	5956,92	6762,32	8298,32	6762,32	5956,92
50,00	4984,63	4954,33	4982,57	5117,86	5462,72	6261,70	7913,64	6261,70	5462,72
55,00	4617,30	4584,62	4586,45	4680,57	4975,11	5730,09	7496,93	5730,09	4975,11
60,00	4271,22	4227,39	4209,58	4261,58	4487,81	5163,64	7010,78	5163,64	4487,81
65,00	3938,78	3890,25	3852,08	3857,17	3996,03	4559,34	6437,75	4559,34	3996,03
70,00	3625,37	3565,97	3511,55	3474,06	3523,49	3905,69	5723,46	3905,69	3523,49
75,00	3331,32	3267,91	3195,62	3108,97	3057,64	3192,32	4821,91	3192,32	3057,64
80,00	3058,15	2991,35	2909,06	2777,69	2629,69	2484,13	3653,34	2484,13	2629,69
85,00	2812,96	2745,66	2649,09	2483,35	2242,13	1831,89	2178,80	1831,89	2242,13

G/C [cd/	135,00	150,00	165,00	180,00	195,00	210,00	225,00	240,00	255,00
45,00	5565,76	5397,09	5344,87	5369,32	5344,87	5397,09	5565,76	5956,92	6762,32
50,00	5117,86	4982,57	4954,33	4984,63	4954,33	4982,57	5117,86	5462,72	6261,70
55,00	4680,57	4586,45	4584,62	4617,30	4584,62	4586,45	4680,57	4975,11	5730,09
60,00	4261,58	4209,58	4227,39	4271,22	4227,39	4209,58	4261,58	4487,81	5163,64
65,00	3857,17	3852,08	3890,25	3938,78	3890,25	3852,08	3857,17	3996,03	4559,34
70,00	3474,06	3511,55	3565,97	3625,37	3565,97	3511,55	3474,06	3523,49	3905,69
75,00	3108,97	3195,62	3267,91	3331,32	3267,91	3195,62	3108,97	3057,64	3192,32
80,00	2777,69	2909,06	2991,35	3058,15	2991,35	2909,06	2777,69	2629,69	2484,13
85,00	2483,35	2649,09	2745,66	2812,96	2745,66	2649,09	2483,35	2242,13	1831,89

G/C [cd/	270,00	285,00	300,00	315,00	330,00	345,00
45,00	8298,32	6762,32	5956,92	5565,76	5397,09	5344,87
50,00	7913,64	6261,70	5462,72	5117,86	4982,57	4954,33
55,00	7496,93	5730,09	4975,11	4680,57	4586,45	4584,62
60,00	7010,78	5163,64	4487,81	4261,58	4209,58	4227,39
65,00	6437,75	4559,34	3996,03	3857,17	3852,08	3890,25
70,00	5723,46	3905,69	3523,49	3474,06	3511,55	3565,97
75,00	4821,91	3192,32	3057,64	3108,97	3195,62	3267,91
80,00	3653,34	2484,13	2629,69	2777,69	2909,06	2991,35
85,00	2178,80	1831,89	2242,13	2483,35	2649,09	2745,66

## 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