

PHOTOMETRIC RESULTS

Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	73 mm
Luminaire:	AL.Die-casting, PC.MEDIUM REF.(GM 5011-24), V10	Length:	0 mm
Test no.:	LT-2024-04-01-T06	Width	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	52 mm
No. of lamps:	1	Power:	9.77 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-04-01 PM 12:37:30	LOR:	79.2 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

Intensity [cd/klm] CTL-12-DI-990-TWF 3000K / C-Plane measurement

[illegible]

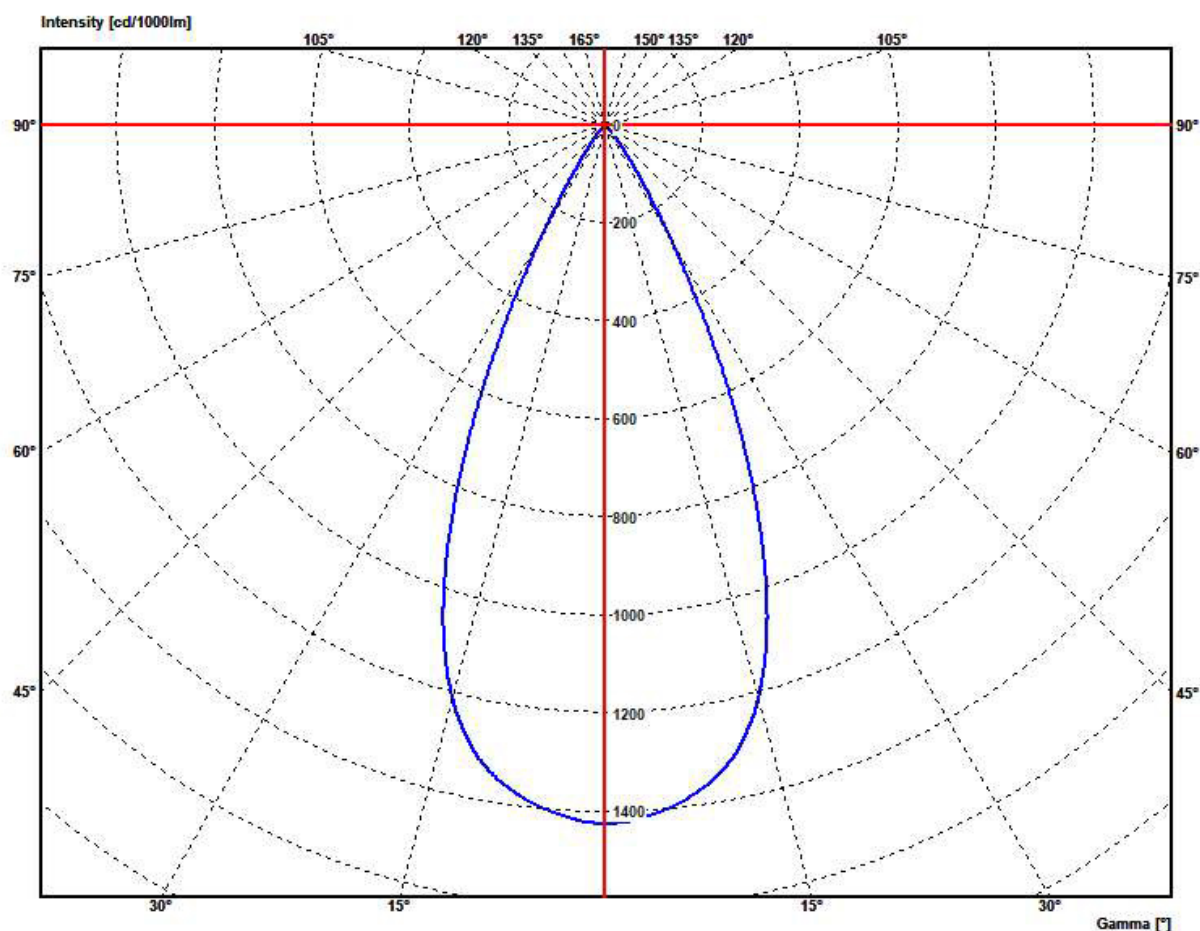
Intensity [cd/klm] CTL-12-DI-990-TWF 3000K / C-Plane measurement

[illegible]

PHOTOMETRIC RESULTS

Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	52 mm
Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 35-36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width:	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

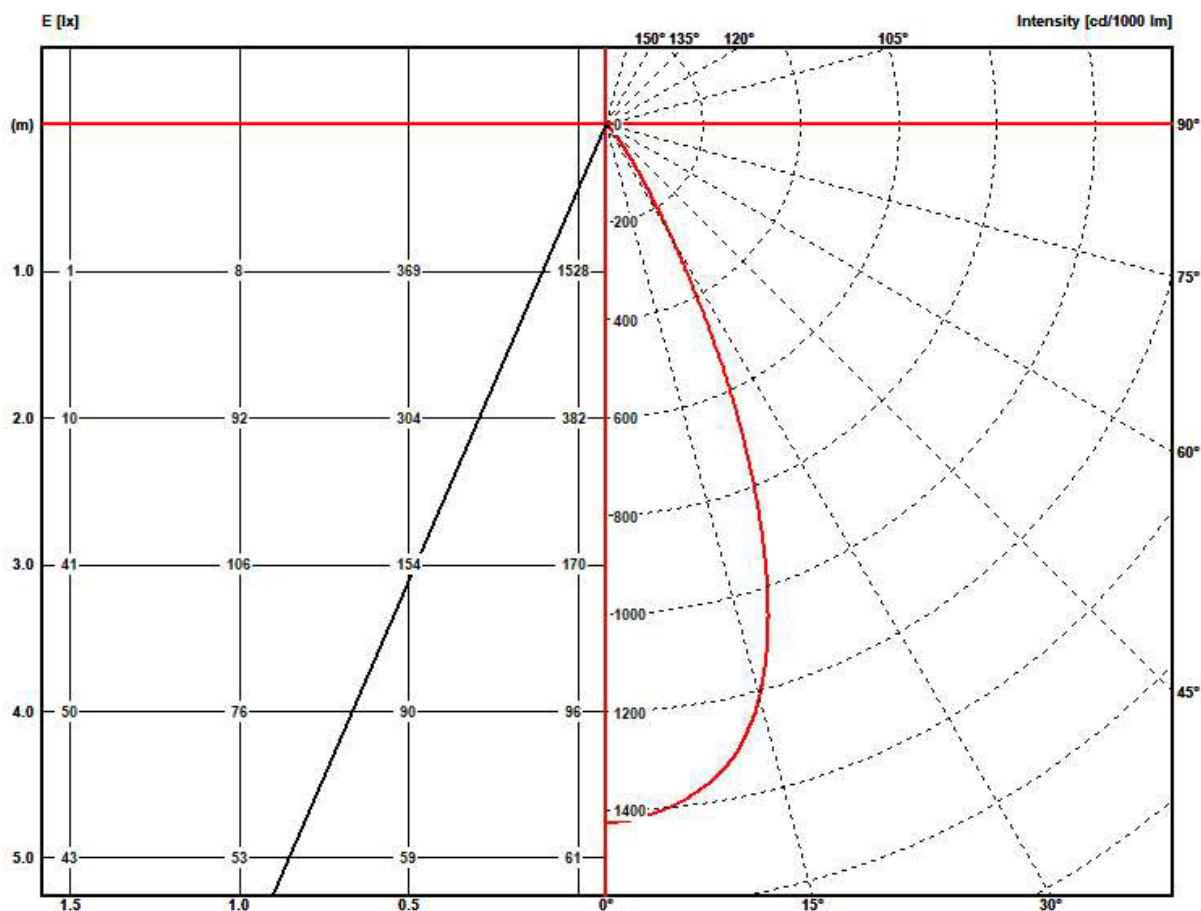
Polar diagram CTL-12-DI-990-TWF 3000K / C-Plane measurement



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Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	52 mm
Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 35-36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width:	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

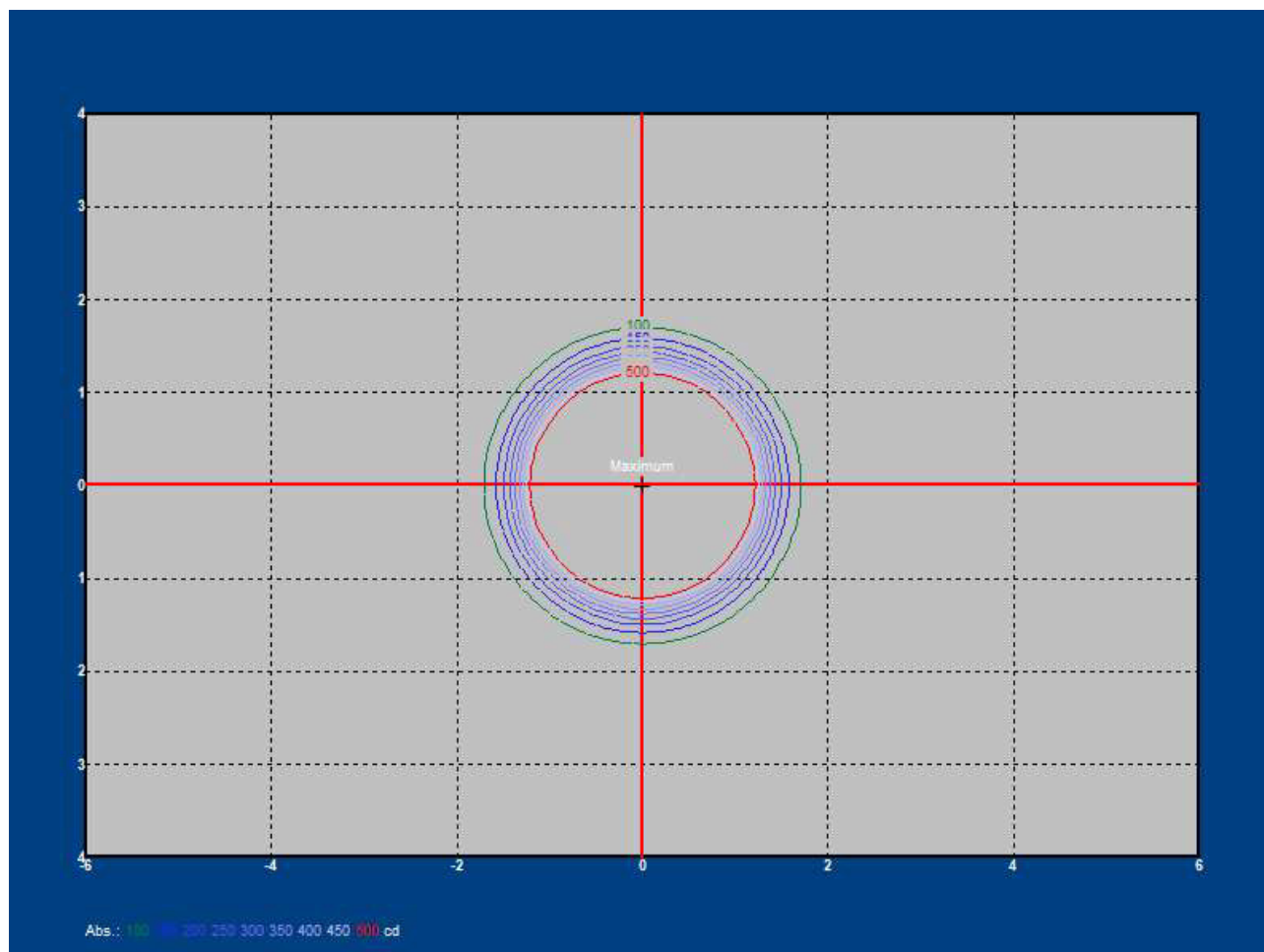
Illuminance and Intensity diagram CTL-12-DI-990-TWF 3000K / C-Plane measurement



PHOTOMETRIC RESULTS

Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	52 mm
Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width:	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

Isoline diagram CTL-12-DI-990-TWF 3000K / C-Plane measurement



Luminaire mounting height above ground: 2.4 m

Luminaire rotation angle: 0 °

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Name:	CTL-12-DI-990-TWF 3000K		
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Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

LiTG Utilization factors

Ceiling	70	80	80	50	50	80	80	80	50	50	30	0
Wall	50	50	30	50	30	80	50	30	50	30	30	0
Working plane	20	30	30	30	30	10	10	10	10	10	10	0
Roomindices	Utilization coefficients for ceiling mounted luminaires											
0.6	67	68	64	68	63	76	66	62	65	62	62	59
0.8	73	75	69	73	69	81	71	68	71	67	67	64
1	77	79	74	78	73	84	75	72	74	71	71	68
1.25	83	87	81	84	80	88	81	78	80	77	77	74
1.5	85	90	84	86	82	90	83	80	82	79	79	76
2	89	94	89	90	86	92	86	83	84	82	81	78
2.5	91	97	92	92	88	93	88	85	86	83	83	79
3	93	100	95	94	90	94	89	87	87	85	84	81
4	94	102	98	95	92	95	90	87	88	86	84	81
5	95	104	100	96	93	95	91	88	88	86	85	82

Ceiling	70	80	80	50	50	80	80	80	50	50	30	0
Wall	50	50	30	50	30	80	50	30	50	30	30	0
Working plane	20	30	30	30	30	10	10	10	10	10	10	0
Roomindices	Utilization coefficients for pendant mounted luminaires											
0.6	68	71	65	69	64	78	67	63	66	63	62	59
0.8	74	77	71	75	70	83	73	69	71	68	67	64
1	79	83	77	79	74	86	77	73	75	72	71	68
1.25	85	90	84	86	81	90	82	79	81	78	77	74
1.5	87	93	88	88	84	91	84	81	83	80	79	76
2	91	98	93	92	88	93	87	84	85	83	82	78
2.5	93	100	95	93	90	94	89	86	86	84	83	79
3	95	103	99	95	92	95	90	88	88	86	85	81
4	96	105	101	96	93	95	91	88	88	86	85	81
5	97	107	103	97	95	95	92	89	89	87	85	82

PHOTOMETRIC RESULTS

Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	52 mm
Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 35-36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

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	12.5	13.3	12.9	13.6	13.9	12.5	13.3	12.9	13.6	13.9
2H	3H	12.4	13.1	12.8	13.4	13.8	12.4	13.1	12.8	13.4	13.8
2H	4H	12.3	13.0	12.7	13.3	13.7	12.3	13.0	12.7	13.3	13.7
2H	6H	12.2	12.8	12.7	13.2	13.6	12.2	12.8	12.7	13.2	13.6
2H	8H	12.2	12.7	12.6	13.1	13.5	12.2	12.7	12.6	13.1	13.5
2H	12H	12.1	12.6	12.5	13.0	13.5	12.1	12.6	12.5	13.0	13.5
4H	2H	12.2	12.9	12.6	13.2	13.6	12.2	12.9	12.6	13.2	13.6
4H	3H	12.1	12.7	12.5	13.1	13.5	12.1	12.7	12.5	13.1	13.5
4H	4H	12.1	12.5	12.5	13.0	13.4	12.1	12.5	12.5	13.0	13.4
4H	6H	12.0	12.4	12.4	12.8	13.3	12.0	12.4	12.4	12.8	13.3
4H	8H	11.9	12.3	12.4	12.8	13.2	11.9	12.3	12.4	12.8	13.2
4H	12H	11.9	12.2	12.4	12.7	13.2	11.9	12.2	12.4	12.7	13.2
8H	4H	11.9	12.3	12.4	12.7	13.2	11.9	12.3	12.4	12.7	13.2
8H	6H	11.8	12.1	12.3	12.6	13.1	11.8	12.1	12.3	12.6	13.1
8H	8H	11.8	12.0	12.3	12.6	13.1	11.8	12.0	12.3	12.6	13.1
8H	12H	11.7	11.9	12.3	12.5	13.0	11.7	11.9	12.3	12.5	13.0
12H	4H	11.8	12.2	12.3	12.6	13.2	11.8	12.2	12.3	12.6	13.2
12H	6H	11.7	12.0	12.3	12.5	13.0	11.7	12.0	12.3	12.5	13.0
12H	8H	11.7	11.9	12.2	12.4	13.0	11.7	11.9	12.2	12.4	13.0

PHOTOMETRIC RESULTS

Name:	CTL-12-DI-990-TWF 3000K		
Type:	LED DOWN LIGHT	Diameter:	52 mm
Luminaire:	AL.Die-casting, PC.MEDIUM LENS. (HERCULUX 35-36D)	Length:	0 mm
Test no.:	LT-2024-11-27-T04	Width:	0 mm
Lamp type:	LED10W, 250mA, 3000K, CRI90	Height:	73 mm
No. of lamps:	1	Power:	9.79 W
Lamp flux:	1073.00 lm	Operator:	ASY
Date:	2024-11-27 AM 11:25:37	LOR:	83.5 %
Comment:	LVED PRO 20W/ 220-240/ 500CS, 25-42VDC, MAX21W, 250mA		

Zonal flux CTL-12-DI-990-TWF 3000K / C-Plane measurement

Gamma [°]	Imin [cd/klm]	Imax [cd/klm]	Imean [cd/klm]	Zonal flux [lm]	Sum. zonal flux [lm]	Rel. zonal flux [%]	Sum. rel. zonal flux [%]
0.0	1424.2	1424.2	1424.2	0.37	0.37	0.03	0.03
1.0	1422.4	1422.4	1422.4	2.92	3.29	0.27	0.31
2.0	1419.2	1419.2	1419.2	5.83	9.11	0.54	0.85
3.0	1413.1	1413.1	1413.1	8.70	17.82	0.81	1.66
4.0	1406.6	1406.6	1406.6	11.55	29.36	1.08	2.74
5.0	1399.2	1399.2	1399.2	14.35	43.71	1.34	4.07
6.0	1390.7	1390.7	1390.7	17.11	60.82	1.59	5.67
7.0	1380.5	1380.5	1380.5	19.80	80.61	1.84	7.51
8.0	1368.9	1368.9	1368.9	22.42	103.03	2.09	9.60
9.0	1356.4	1356.4	1356.4	24.97	128.00	2.33	11.93
10.0	1340.2	1340.2	1340.2	27.38	155.38	2.55	14.48
11.0	1322.0	1322.0	1322.0	29.68	185.06	2.77	17.25
12.0	1299.8	1299.8	1299.8	31.80	216.86	2.96	20.21
13.0	1273.2	1273.2	1273.2	33.70	250.56	3.14	23.35
14.0	1242.9	1242.9	1242.9	35.38	285.94	3.30	26.65
15.0	1207.1	1207.1	1207.1	36.76	322.70	3.43	30.07
16.0	1166.1	1166.1	1166.1	37.82	360.52	3.52	33.60
17.0	1120.4	1120.4	1120.4	38.55	399.07	3.59	37.19
18.0	1069.7	1069.7	1069.7	38.89	437.96	3.62	40.82
19.0	1013.2	1013.2	1013.2	38.81	476.78	3.62	44.43
20.0	951.6	951.6	951.6	38.30	515.07	3.57	48.00
21.0	884.4	884.4	884.4	37.29	552.36	3.48	51.48
22.0	815.6	815.6	815.6	35.95	588.31	3.35	54.83
23.0	743.7	743.7	743.7	34.19	622.51	3.19	58.02
24.0	670.9	670.9	670.9	32.11	654.61	2.99	61.01
25.0	595.7	595.7	595.7	29.63	684.24	2.76	63.77
26.0	521.7	521.7	521.7	26.91	711.15	2.51	66.28
27.0	448.6	448.6	448.6	23.97	735.12	2.23	68.51
28.0	380.1	380.1	380.1	21.00	756.11	1.96	70.47
29.0	320.0	320.0	320.0	18.26	774.37	1.70	72.17

Zonal flux CTL-12-DI-990-TWF 3000K / C-Plane measurement

Gamma [°]	Imin [cd/klm]	Imax [cd/klm]	Imean [cd/klm]	Zonal flux [lm]	Sum. zonal flux [lm]	Rel. zonal flux [%]	Sum. rel. zonal flux [%]
30.0	267.6	267.6	267.6	15.74	790.11	1.47	73.64
31.0	220.4	220.4	220.4	13.36	803.47	1.24	74.88
32.0	180.7	180.7	180.7	11.27	814.74	1.05	75.93
33.0	148.3	148.3	148.3	9.50	824.24	0.89	76.82
34.0	121.3	121.3	121.3	7.98	832.22	0.74	77.56
35.0	99.5	99.5	99.5	6.72	838.94	0.63	78.19
36.0	81.6	81.6	81.6	5.65	844.58	0.53	78.71
37.0	68.0	68.0	68.0	4.81	849.40	0.45	79.16
38.0	56.9	56.9	56.9	4.12	853.52	0.38	79.55
39.0	48.2	48.2	48.2	3.57	857.09	0.33	79.88
40.0	41.0	41.0	41.0	3.10	860.19	0.29	80.17
41.0	35.7	35.7	35.7	2.76	862.95	0.26	80.42
42.0	31.2	31.2	31.2	2.46	865.40	0.23	80.65
43.0	27.5	27.5	27.5	2.21	867.61	0.21	80.86
44.0	24.3	24.3	24.3	1.99	869.60	0.19	81.04
45.0	21.8	21.8	21.8	1.81	871.42	0.17	81.21
46.0	19.5	19.5	19.5	1.65	873.07	0.15	81.37
47.0	17.7	17.7	17.7	1.52	874.59	0.14	81.51
48.0	15.9	15.9	15.9	1.39	875.98	0.13	81.64
49.0	14.2	14.2	14.2	1.26	877.24	0.12	81.76
50.0	12.9	12.9	12.9	1.16	878.40	0.11	81.86
51.0	11.7	11.7	11.7	1.07	879.47	0.10	81.96
52.0	10.5	10.5	10.5	0.97	880.44	0.09	82.05
53.0	9.6	9.6	9.6	0.90	881.34	0.08	82.14
54.0	8.7	8.7	8.7	0.83	882.17	0.08	82.21
55.0	8.2	8.2	8.2	0.79	882.96	0.07	82.29
56.0	7.8	7.8	7.8	0.76	883.72	0.07	82.36
57.0	7.5	7.5	7.5	0.74	884.46	0.07	82.43
58.0	7.3	7.3	7.3	0.73	885.19	0.07	82.50
59.0	7.2	7.2	7.2	0.72	885.91	0.07	82.56
60.0	7.0	7.0	7.0	0.71	886.62	0.07	82.63
61.0	6.7	6.7	6.7	0.69	887.31	0.06	82.69
62.0	6.5	6.5	6.5	0.67	887.99	0.06	82.76
63.0	6.0	6.0	6.0	0.63	888.62	0.06	82.82
64.0	5.8	5.8	5.8	0.61	889.23	0.06	82.87
65.0	5.3	5.3	5.3	0.57	889.80	0.05	82.93
66.0	5.1	5.1	5.1	0.54	890.34	0.05	82.98
67.0	4.7	4.7	4.7	0.50	890.85	0.05	83.02
68.0	4.3	4.3	4.3	0.47	891.31	0.04	83.07
69.0	3.8	3.8	3.8	0.42	891.73	0.04	83.11
70.0	3.5	3.5	3.5	0.39	892.12	0.04	83.14
71.0	3.3	3.3	3.3	0.37	892.49	0.03	83.18
72.0	2.9	2.9	2.9	0.32	892.81	0.03	83.21
73.0	2.8	2.8	2.8	0.31	893.12	0.03	83.24

Zonal flux CTL-12-DI-990-TWF 3000K / C-Plane measurement

Gamma [°]	Imin [cd/klm]	Imax [cd/klm]	Imean [cd/klm]	Zonal flux [lm]	Sum. zonal flux [lm]	Rel. zonal flux [%]	Sum. rel. zonal flux [%]
74.0	2.7	2.7	2.7	0.30	893.42	0.03	83.26
75.0	2.5	2.5	2.5	0.28	893.71	0.03	83.29
76.0	2.2	2.2	2.2	0.25	893.95	0.02	83.31
77.0	2.1	2.1	2.1	0.24	894.19	0.02	83.34
78.0	1.9	1.9	1.9	0.22	894.41	0.02	83.36
79.0	1.9	1.9	1.9	0.22	894.63	0.02	83.38
80.0	1.7	1.7	1.7	0.19	894.83	0.02	83.39
81.0	1.5	1.5	1.5	0.17	895.00	0.02	83.41
82.0	1.3	1.3	1.3	0.15	895.15	0.01	83.42
83.0	1.2	1.2	1.2	0.14	895.29	0.01	83.44
84.0	1.2	1.2	1.2	0.14	895.43	0.01	83.45
85.0	1.0	1.0	1.0	0.12	895.54	0.01	83.46
86.0	0.9	0.9	0.9	0.11	895.65	0.01	83.47
87.0	0.8	0.8	0.8	0.09	895.75	0.01	83.48
88.0	0.8	0.8	0.8	0.09	895.84	0.01	83.49
89.0	0.7	0.7	0.7	0.09	895.93	0.01	83.50
90.0	0.8	0.8	0.8	0.09	896.02	0.01	83.51