

# TOVO

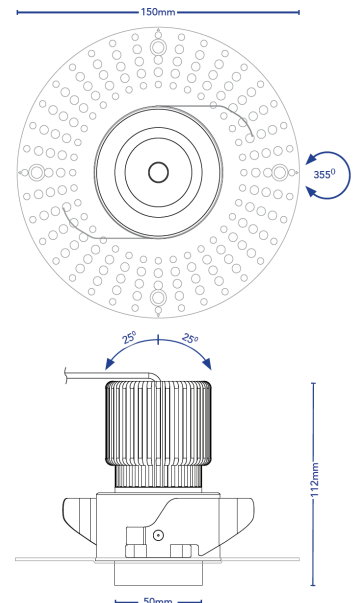
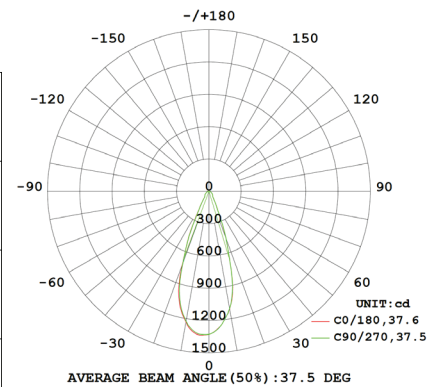
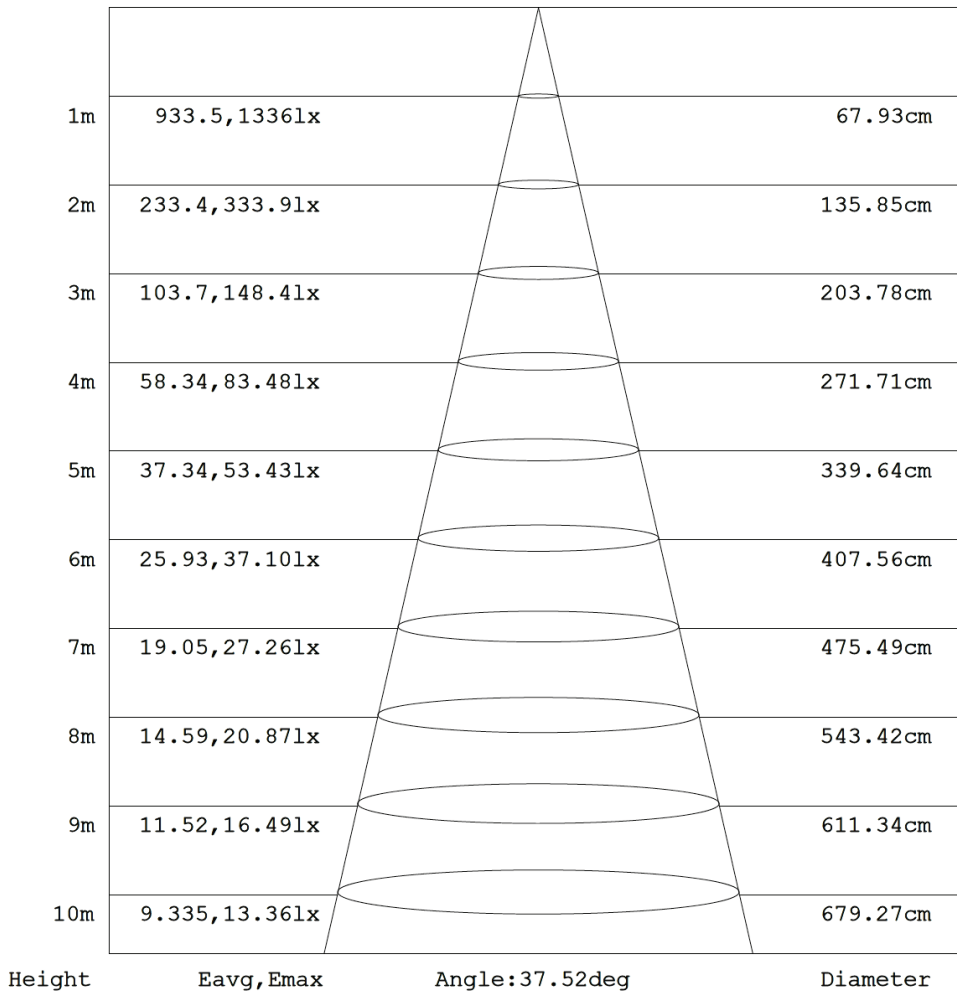
PHOTOMETRY

## Downlight - Modulated Click Spot Series - Trimless - D Spot - 3000K

<b>FITTING</b> - Downlight - Modulated Click Spot Series - Trimless - D Spot		<b>CODE</b> - 4911_3000K_60°	
<b>BODY</b> - Modulated Downlight System With Long Snoot & No Trim. Allowing For Interchangeable Body			
<b>LAMP</b> - TOVO 10W 3000K LED Lamp With Dimmable 25-42VDC 250mA LED Driver			
<b>INSTALLATION</b> - Recessed Downlight. 76mm Cut		<b>POWER SUPPLY</b> - 220- 250V LED Driver c/w Flex & Plug	
<b>NOMINAL POWER</b>	10W	<b>RATED INPUT VOLTAGE</b>	240V
<b>NOMINAL FLUX</b>	674.5 Lm	<b>LAMPS INSIDE</b>	1
<b>IMAX</b>	1346 CD	<b>LIGHT OUTPUT RATIO</b>	100%
<b>CIE CLASS</b>	Direct	<b>UP</b>	.01%
<b>EFFICIENCY</b>	59.14 Lm/W	<b>DOWN</b>	99.9%

LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	17359	21151
80	31715	33049
75	38725	39678
70	44353	44985
65	49587	49955
60	54686	54786
55	60232	60100
50	66442	65812
45	71320	70144

Flux out: 347.7 lm





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**Coefficients of Utilisation**

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization (CU)												
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.10	1.07	1.05	1.08	1.06	1.03	1.04	1.02	1.00	1.00	.99	.97	.97	.95	.94	.93
2.0	1.02	.98	.94	1.00	.97	.93	.97	.94	.91	.94	.92	.89	.91	.89	.87	.86
3.0	.95	.90	.86	.94	.89	.86	.91	.87	.84	.89	.86	.83	.87	.84	.82	.80
4.0	.90	.84	.80	.88	.83	.79	.86	.82	.78	.84	.80	.77	.82	.79	.77	.75
5.0	.84	.79	.74	.84	.78	.74	.82	.77	.73	.80	.76	.73	.78	.75	.72	.71
6.0	.80	.74	.70	.79	.74	.70	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.67	.63	.72	.66	.63	.71	.66	.62	.70	.65	.62	.69	.65	.62	.61
9.0	.69	.64	.60	.69	.63	.60	.68	.63	.60	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.64	.60	.57	.55

**Candela Distribution**

UNIT: cd

C (DEG) \ $\gamma$ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	1328	1327	1327	1326	1327	1327	1326	1327	1328	1327	1327	1326	1327	1327	1326	1327			
5	1253	1240	1239	1244	1252	1271	1290	1309	1330	1339	1344	1337	1320	1303	1288	1273			
10	1108	1086	1079	1088	1105	1135	1163	1196	1232	1249	1253	1243	1224	1189	1162	1138			
15	841	792	779	794	832	893	954	1008	1065	1085	1090	1082	1045	1003	961	906			
20	457	429	425	433	465	520	589	647	729	777	794	766	708	644	574	512			
25	199	191	181	190	198	219	273	345	399	430	439	427	379	326	268	223			
30	109	102	101	103	107	116	131	147	172	182	189	175	163	145	130	119			
35	69.0	64.5	63.9	64.9	66.1	69.5	74.7	84.9	91.7	96.9	97.2	91.9	87.3	82.4	75.2	71.0			
40	56.3	54.8	54.5	54.1	54.8	55.4	57.3	60.0	62.1	63.6	63.9	62.2	60.7	59.4	57.7	56.5			
45	50.4	49.5	49.1	49.1	49.6	50.3	51.5	53.4	54.6	55.1	55.2	54.6	53.6	52.4	51.8	50.9			
50	42.7	41.7	41.4	41.6	42.3	43.5	45.2	47.3	48.7	49.5	49.3	48.4	47.3	46.3	44.8	43.4			
55	34.5	33.8	33.6	33.8	34.5	35.6	36.8	38.4	39.5	40.2	39.9	39.2	38.0	37.2	36.1	35.1			
60	27.3	26.8	26.6	26.8	27.4	28.3	29.6	30.7	31.5	31.9	31.7	31.2	30.5	29.6	28.6	27.7			
65	21.0	20.4	20.2	20.5	21.1	22.0	23.0	24.1	24.5	24.9	24.8	24.5	23.8	23.0	22.1	21.2			
70	15.2	14.7	14.6	14.9	15.4	16.2	17.2	18.1	18.4	18.8	18.7	18.5	17.7	17.0	16.2	15.2			
75	10.0	9.61	9.54	9.80	10.3	11.1	11.9	12.7	12.5	13.2	13.1	12.9	12.5	11.6	10.7	10.0			
80	5.51	5.18	5.17	5.35	5.74	6.40	7.18	7.90	7.77	8.16	8.16	7.95	7.46	6.76	6.12	5.41			
85	1.51	1.27	1.21	1.45	1.84	2.40	2.96	3.61	3.79	3.80	3.86	3.80	3.16	2.62	2.06	1.34			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.16		
150	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.32	0.32	0.00	0.32	0.24	0.40	0.24	0.48			
155	0.16	0.08	0.47	0.08	0.00	0.08	0.24	0.00	0.56	0.48	0.32	0.64	0.72	0.79	0.64	0.72			
160	0.78	1.03	1.34	1.19	0.40	0.79	0.79	0.39	0.71	0.80	0.72	0.88	1.11	1.11	1.12	1.03			
165	1.51	1.27	1.51	1.35	0.88	1.35	1.43	1.28	1.51	1.51	1.11	1.03	1.11	1.12	1.19	1.44			
170	1.74	2.13	2.30	1.99	1.27	1.75	1.59	1.35	1.51	1.67	1.43	1.91	1.36	1.43	1.52	1.83			
175	1.67	2.86	3.65	2.63	1.43	2.63	2.71	1.91	1.51	1.67	1.83	2.07	2.07	1.43	1.99	2.07			
180	1.67	2.14	2.15	1.91	1.43	2.07	2.07	1.99	1.43	1.67	2.06	2.15	2.07	1.43	2.15	2.15			