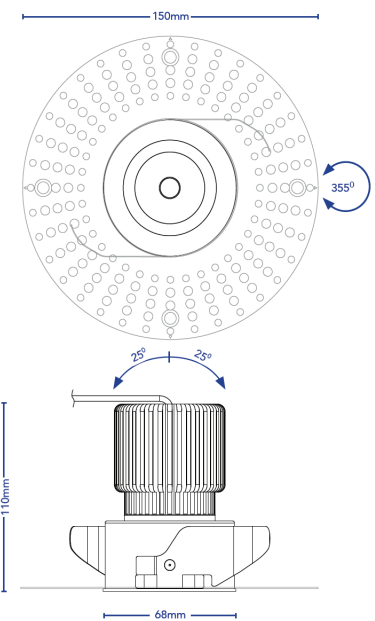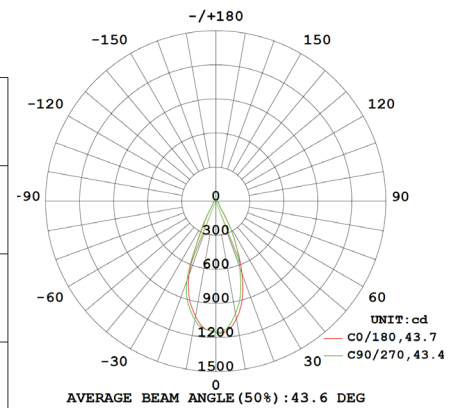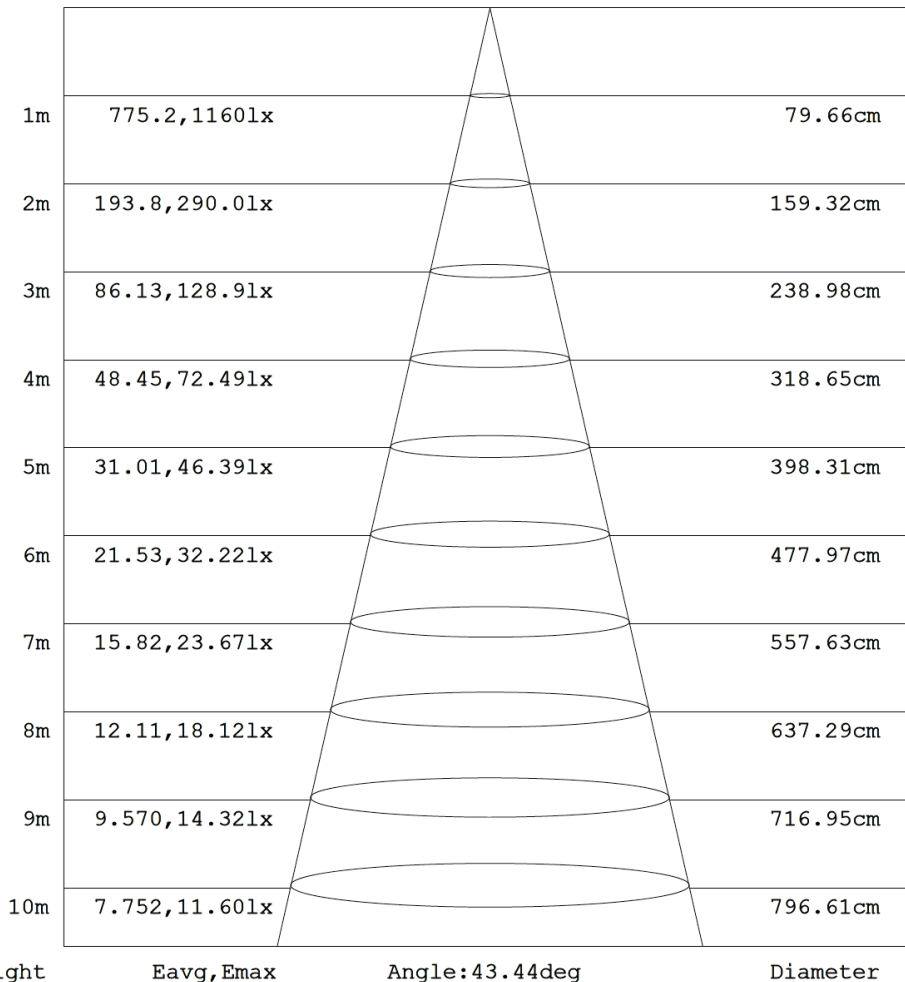# TOVO

PHOTOMETRY

Downlight - Modulated Click Spot Series - Semi Trimless - C Spot - 2700K

FITTING - Downlight - Modulated Click Spot Series - Semi Trimless - C Spot		**CODE** - 4682_2700K_60°	
BODY - Modulated Downlight System With Short Snoot & Small Trim. Allowing For Interchangable Body			
LAMP - TOVO 10W 2700K LED Lamp With Dimmable 25-42VDC 250mA LED Driver			
INSTALLATION - Recessed Downlight. 76mm Cut		**POWER SUPPLY** - 220- 250V LED Driver c/w Flex & Plug	
NOMINAL POWER	10W	**RATED INPUT VOLTAGE**	240V
NOMINAL FLUX	687.5 Lm	**LAMPS INSIDE**	1
IMAX	1162 CD	**LIGHT OUTPUT RATIO**	100%
CIE CLASS	Direct	**UP**	.01%
EFFICIENCY	54.88 Lm/W	**DOWN**	99.9%

LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	28253	20078
80	35294	29853
75	40181	35393
70	45201	40929
65	50439	46472
60	58265	54183
55	61360	60326
50	59306	58769
45	58644	57146

Flux out:397.5 lm

Height	Eavg,Emax		Diameter
1m	775.2,1160lx		79.66cm
2m	193.8,290.0lx		159.32cm
3m	86.13,128.9lx		238.98cm
4m	48.45,72.49lx		318.65cm
5m	31.01,46.39lx		398.31cm
6m	21.53,32.22lx		477.97cm
7m	15.82,23.67lx		557.63cm
8m	12.11,18.12lx		637.29cm
9m	9.570,14.32lx		716.95cm
10m	7.752,11.60lx		796.61cm

Angle:43.44deg

UNIT:cd
C0/180,43.7
C90/270,43.4

AVERAGE BEAM ANGLE(50%):43.6 DEG

Coefficients of Utilisation

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.94	.93
2.0	1.02	.98	.95	1.01	.97	.94	.97	.94	.91	.94	.92	.89	.92	.89	.88	.86
3.0	.95	.90	.86	.94	.89	.86	.91	.88	.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	.83	.78	.74	.82	.77	.73	.80	.76	.73	.78	.75	.72	.71
6.0	.80	.74	.70	.79	.73	.69	.77	.73	.69	.76	.72	.69	.75	.71	.68	.67
7.0	.76	.70	.66	.75	.69	.66	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.65	.61	.58	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.55

Candela Distribution

UNIT: cd

γ (DEG) \ C (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	1154	1154	1153	1153	1152	1151	1150	1150	1154	1154	1153	1153	1152	1151	1150	1150
5	1145	1142	1132	1128	1123	1113	1115	1116	1124	1118	1118	1122	1129	1130	1134	1140
10	1050	1037	1024	1013	1003	995	1002	1011	1027	1032	1043	1055	1060	1065	1051	1042
15	899	875	851	844	845	834	842	861	897	911	932	934	938	933	923	904
20	678	662	645	632	619	620	629	645	690	718	741	745	745	738	721	709
25	420	436	428	427	424	408	396	373	373	347	343	338	359	385	408	417
30	232	240	232	229	216	206	202	185	186	175	166	166	170	181	210	227
35	87.3	85.6	83.9	82.0	78.3	77.4	78.6	76.4	81.5	80.5	79.0	79.7	83.1	79.5	84.2	88.5
40	50.8	49.6	48.5	48.2	46.7	46.8	48.3	48.2	50.4	51.1	50.2	51.7	53.3	50.4	50.7	50.5
45	41.5	41.8	41.8	41.4	40.4	39.6	38.9	38.9	38.9	38.9	39.0	38.9	39.6	38.8	38.6	39.8
50	38.1	38.8	38.9	38.6	37.8	36.8	36.0	35.3	34.6	34.3	34.5	34.1	34.3	34.4	34.9	35.9
55	35.2	35.8	35.9	35.3	34.6	33.7	32.9	32.3	31.5	31.7	31.6	31.5	31.5	31.8	32.1	33.2
60	29.1	29.1	28.6	27.8	27.1	26.5	26.4	26.6	26.8	27.7	28.1	28.1	28.0	27.9	28.1	28.7
65	21.3	21.0	20.5	20.1	19.6	19.4	19.5	20.1	20.6	21.6	22.3	22.5	22.3	21.9	21.4	21.1
70	15.5	15.0	14.6	14.2	14.0	13.9	14.1	14.7	15.0	15.8	16.4	16.7	16.6	16.2	15.7	15.3
75	10.4	10.0	9.69	9.39	9.16	9.24	9.41	9.83	9.87	10.5	11.0	11.3	11.3	11.0	10.6	10.2
80	6.13	5.81	5.55	5.32	5.18	5.19	5.35	5.58	5.45	5.85	6.32	6.50	6.51	6.37	6.21	5.48
85	2.46	2.22	1.99	1.84	1.75	1.76	1.85	2.08	1.66	1.90	2.13	2.44	2.46	2.37	2.21	1.83
90	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
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	0.08	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00
150	0.08	0.16	0.00	0.16	0.00	0.08	0.08	0.08	0.40	0.32	0.16	0.40	0.32	0.32	0.32	0.40
155	0.24	0.08	0.62	0.08	0.08	0.08	0.24	0.00	0.71	0.56	0.63	0.79	0.64	0.72	0.64	0.64
160	0.24	0.47	0.64	0.79	0.32	0.56	0.56	0.47	1.03	0.95	0.87	1.11	1.11	1.03	1.04	0.88
165	0.87	0.63	0.71	0.87	0.56	0.72	0.79	0.80	1.43	1.35	1.11	1.19	1.19	1.19	1.12	1.12
170	1.19	1.27	1.11	1.19	1.11	1.19	1.27	1.19	1.51	1.35	1.51	1.59	1.35	1.27	1.43	1.51
175	1.27	1.43	1.58	1.43	1.19	1.27	1.75	1.75	1.51	1.35	1.43	1.59	1.51	1.27	1.35	1.67
180	1.50	1.43	1.51	1.51	1.27	1.35	1.67	1.83	1.51	1.35	1.43	1.51	1.51	1.27	1.35	1.67