

# T O V O

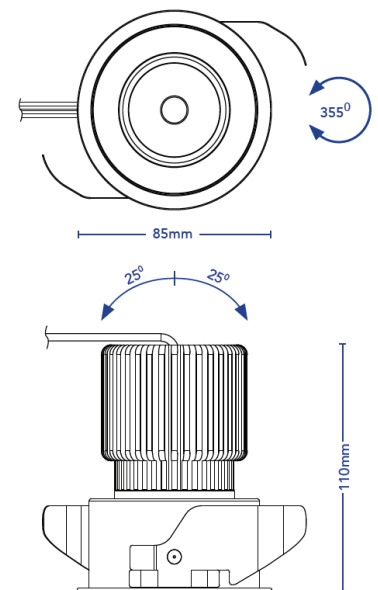
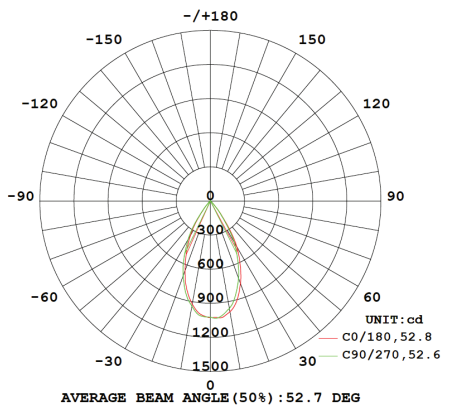
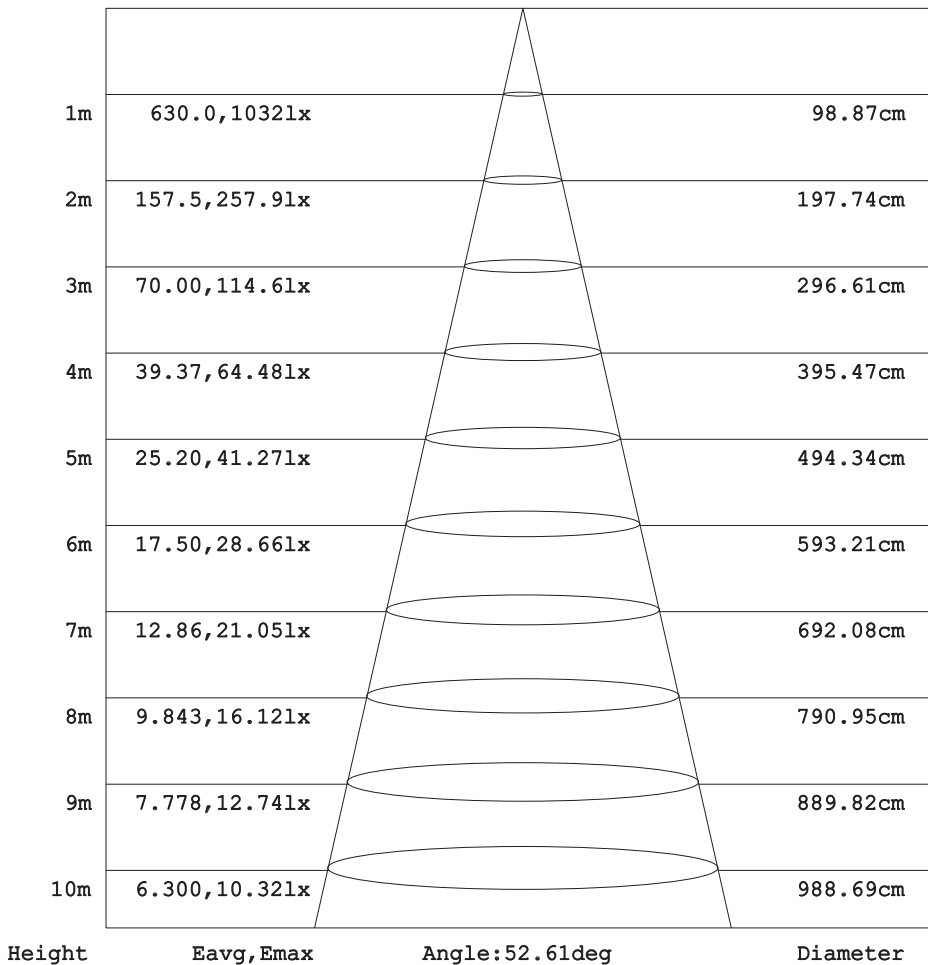
PHOTOMETRY

## Downlight - Modulated Click Spot Series - Semi Trimless - A Spot - 2700K

<b>FITTING</b> - Downlight - Modulated Click Spot Series - Semi Trimless - A Spot		<b>CODE</b> - 4638_2700K_60°	
<b>BODY</b> - Modulated Downlight System With Cone Baffle And Small Trim. Allowing For Interchangeable Body			
<b>LAMP</b> - TOVO 10W 2700K 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>	786.3 Lm	<b>LAMPS INSIDE</b>	1
<b>IMAX</b>	1035 CD	<b>LIGHT OUTPUT RATIO</b>	100%
<b>CIE CLASS</b>	Direct	<b>UP</b>	.02%
<b>EFFICIENCY</b>	68.81 Lm/W	<b>DOWN</b>	99.8%

LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	9101	6414
80	13765	12411
75	16570	15991
70	18084	18358
65	17485	17860
60	18889	19718
55	20748	20940
50	27860	26215
45	45881	41862

Flux out: 513.8 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	1.11	1.08	1.06	1.09	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.79	.75	.84	.78	.74	.82	.77	.74	.80	.76	.73	.79	.75	.72	.71
6.0	.80	.74	.70	.79	.73	.69	.77	.73	.69	.76	.72	.68	.75	.71	.68	.67
7.0	.75	.69	.65	.74	.69	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.63
8.0	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.60	.59
9.0	.67	.62	.58	.67	.61	.58	.66	.61	.57	.65	.60	.57	.64	.60	.57	.56
10.0	.64	.58	.54	.63	.58	.54	.63	.58	.54	.62	.57	.54	.61	.57	.54	.53

**Candela Distribution**

UNIT: cd

C (DEG) \ Y (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	1026	1025	1025	1025	1024	1023	1022	1022	1026	1025	1025	1025	1024	1023	1022	1022			
5	1032	1034	1029	1028	1022	1016	1007	998	1001	1002	1003	1007	1015	1023	1023	1026			
10	990	990	977	968	960	948	933	922	922	918	912	924	940	963	984	991			
15	905	895	891	870	857	846	813	798	804	799	800	819	838	870	888	904			
20	775	773	760	745	723	697	669	651	653	649	656	678	701	733	756	772			
25	620	626	608	591	567	537	510	495	499	502	505	525	548	571	599	616			
30	464	465	457	444	420	395	372	352	355	354	355	372	394	414	443	464			
35	262	256	248	238	226	219	211	199	198	198	206	218	227	240	259	270			
40	115	117	112	111	105	97.3	91.5	84.4	82.1	80.0	77.1	82.6	92.1	102	113	117			
45	32.4	32.7	31.8	30.6	29.6	27.6	25.9	25.4	26.3	26.5	26.9	27.7	29.3	30.3	31.7	32.9			
50	17.9	17.4	17.3	16.6	16.9	16.6	16.7	16.9	16.8	17.0	16.9	16.9	17.0	17.6	17.7	17.8			
55	11.9	11.6	11.6	11.7	12.0	12.6	13.1	13.6	13.3	13.4	13.5	13.1	12.8	12.5	11.9	11.6			
60	9.44	9.21	9.06	9.38	9.86	10.5	11.1	11.6	11.2	11.3	11.6	10.9	10.6	10.1	9.55	9.00			
65	7.39	7.07	7.08	7.31	7.55	8.29	8.93	9.41	8.88	9.04	9.13	8.89	8.58	8.19	7.55	7.25			
70	6.19	5.88	5.87	5.96	6.28	6.69	7.10	7.50	7.04	7.38	7.61	7.62	6.98	5.41	2.31	5.65			
75	4.29	4.13	3.90	3.98	4.14	4.23	4.46	4.71	4.27	4.44	4.51	4.67	4.44	2.46	0.00	3.74			
80	2.39	2.23	2.15	2.14	2.16	2.24	2.40	2.47	1.82	2.06	2.53	2.53	2.14	0.32	1.43	0.00			
85	0.79	0.72	0.64	0.56	0.56	0.72	0.65	0.80	0.00	0.16	0.16	0.23	0.08	0.00	0.16	0.00			
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	0.16	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	0.40	0.16	0.00	0.00	0.00	0.00	0.16	0.24			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.56	0.48	0.16	0.32	0.32	0.08	0.32	0.41			
145	0.16	0.00	0.00	0.08	0.00	0.08	0.00	0.24	0.87	0.72	0.40	0.40	0.56	0.56	0.32	0.64			
150	0.55	0.48	0.00	0.16	0.47	0.48	0.08	0.56	0.95	0.95	0.56	0.64	0.72	1.03	0.64	0.64			
155	0.95	0.40	0.71	0.32	0.40	0.48	1.19	0.56	0.95	0.95	1.03	1.03	0.96	1.20	1.04	0.80			
160	1.03	1.27	1.82	1.83	1.11	1.35	1.35	1.27	1.19	1.19	1.11	1.11	1.35	1.27	1.20	1.04			
165	2.22	2.46	2.54	2.46	1.27	1.67	1.59	1.43	1.67	1.67	1.35	1.11	1.35	1.27	1.27	1.27			
170	2.30	2.54	2.54	2.54	1.27	1.67	1.68	1.35	1.67	1.67	1.59	1.83	1.51	1.27	1.75	1.44			
175	2.38	2.54	2.62	2.54	1.27	1.67	1.67	1.67	1.67	1.67	1.75	1.83	1.75	1.27	1.67	1.60			
180	1.82	1.60	1.75	1.75	1.27	1.67	1.67	1.59	1.67	1.83	1.75	1.83	1.75	1.27	1.67	1.67			