

# T O V O

PHOTOMETRY

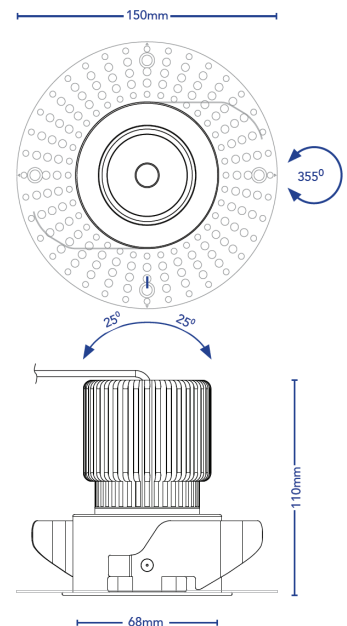
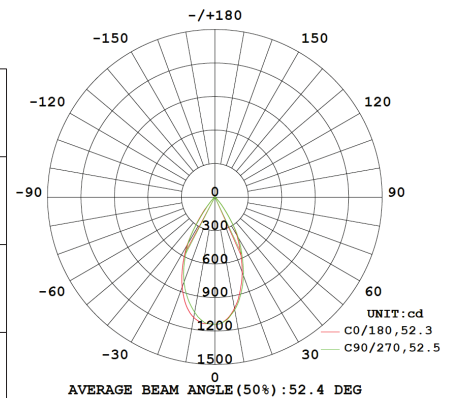
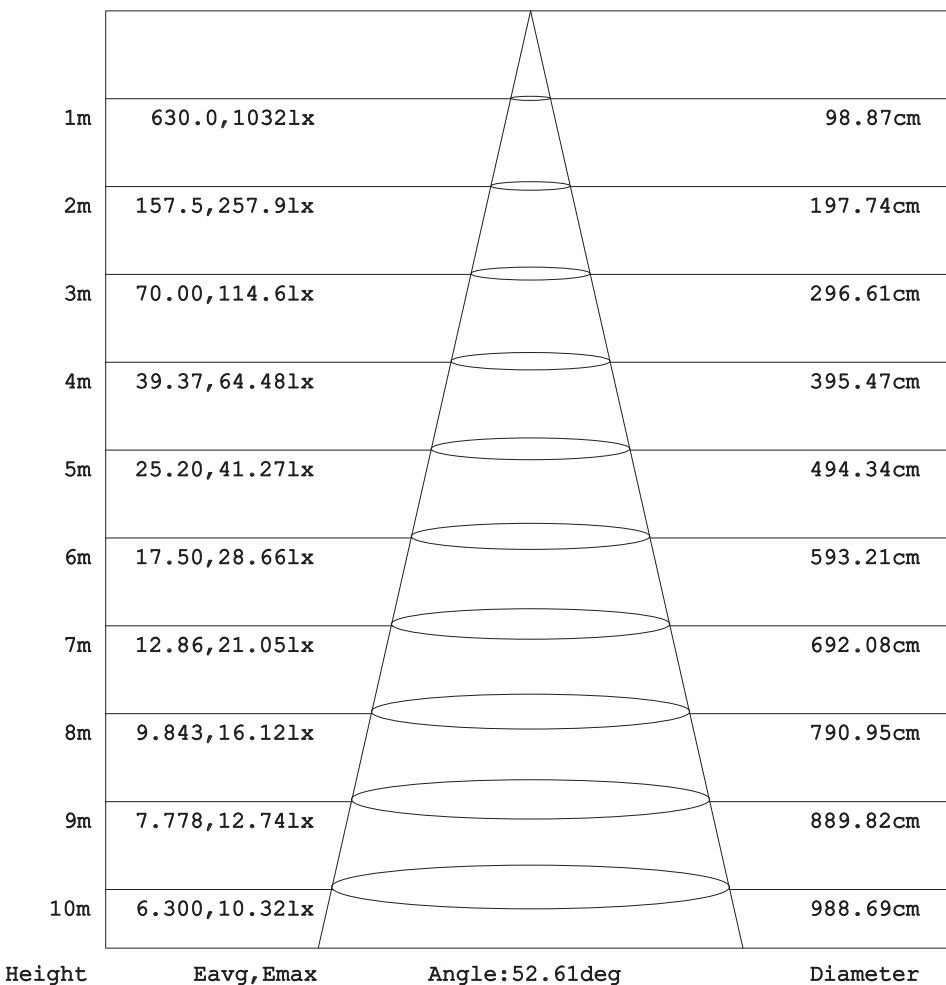
## Downlight - Modulated Click Spot Series - Trimless - A Spot - 3000K

<b>FITTING</b> - Downlight - Modulated Click Spot Series - Trimless - A Spot		<b>CODE</b> - 4681_3000K_60°	
<b>BODY</b> - Modulated Downlight System With Cone Baffle And NoTrim. 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>	862Lm	<b>LAMPS INSIDE</b>	1
<b>IMAX</b>	1141CD	<b>LIGHT OUTPUT RATIO</b>	100%
<b>CIE CLASS</b>	Direct	<b>UP</b>	.02%
<b>EFFICIENCY</b>	76.09 Lm/W	<b>DOWN</b>	99.8%

LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	13755	8260
80	18793	13765
75	22404	18121
70	26732	22352
65	26119	22768
60	27165	24171
55	27828	24671
50	30997	27576
45	42381	40659

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	1.08	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	.92	.95	.93	.90	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.87	.92	.88	.85	.90	.87	.84	.87	.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) \ $\gamma$ (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	1141	1141	1140	1139	1140	1139	1139	1139	1141	1141	1140	1139	1140	1139	1139	1139			
5	1107	1107	1106	1108	1112	1115	1122	1132	1138	1138	1135	1130	1125	1120	1115	1112			
10	1012	1013	1016	1019	1026	1037	1057	1074	1095	1098	1087	1068	1048	1033	1028	1021			
15	874	879	884	888	900	922	945	971	1002	1000	992	962	942	922	909	895			
20	716	712	716	728	749	769	796	825	858	858	858	832	809	786	764	742			
25	544	536	545	559	577	600	627	651	687	689	686	673	650	627	597	573			
30	396	381	390	404	420	439	462	477	499	509	513	500	484	465	436	414			
35	227	224	220	224	228	232	245	256	276	280	272	264	254	246	242	235			
40	96.2	96.9	101	101	98.4	99.0	103	106	115	118	118	115	107	103	104	101			
45	30.0	28.7	28.7	28.3	28.8	29.6	30.8	32.1	35.7	37.0	37.4	37.1	36.1	36.2	34.7	32.7			
50	19.9	19.4	18.9	18.5	17.7	17.7	17.5	18.2	19.1	19.6	20.3	20.8	20.7	20.9	20.8	20.0			
55	16.0	15.8	15.5	14.9	14.2	13.5	13.1	12.7	12.1	12.4	12.9	13.7	14.1	14.5	15.0	15.1			
60	13.6	13.5	13.3	12.8	12.1	11.5	10.9	10.4	9.52	9.61	10.00	10.6	11.3	11.8	12.2	12.6			
65	11.0	10.9	10.6	10.2	9.62	8.91	8.44	8.05	7.45	7.38	7.70	8.17	8.81	9.30	9.79	10.1			
70	9.14	8.91	8.59	8.18	7.64	7.08	6.70	6.47	5.70	5.87	6.19	6.58	7.15	7.46	7.87	8.19			
75	5.80	5.56	5.34	5.01	4.69	4.46	4.22	4.23	3.80	3.57	3.81	4.05	4.28	4.60	3.49	5.01			
80	3.26	3.18	2.94	2.71	2.39	2.31	2.23	2.24	1.58	1.59	1.82	1.82	2.13	2.30	0.87	2.39			
85	1.20	1.12	0.96	0.88	0.72	0.56	0.49	0.56	0.00	0.00	0.00	0.08	0.24	0.32	0.00	0.31			
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	0.08	0.24	0.00	0.00	0.00	0.08	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.24	0.32	0.00	0.00	0.24	0.40	0.16			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.56	0.56	0.56	0.64	0.64	0.40	0.40			
145	0.08	0.00	0.08	0.48	0.24	0.47	0.31	0.24	0.72	0.80	0.56	0.95	0.79	0.88	0.40	0.80			
150	0.40	0.47	0.16	1.03	0.87	0.80	0.32	0.72	1.35	0.87	0.56	1.43	0.79	1.12	1.03	0.88			
155	1.03	0.56	1.41	0.95	1.03	0.80	1.26	1.12	1.18	0.87	0.87	1.51	0.88	1.35	1.51	1.04			
160	0.95	1.19	1.51	1.66	1.19	1.99	1.99	1.35	1.11	1.20	1.04	1.51	1.43	1.43	1.43	1.27			
165	1.35	1.35	1.51	1.67	1.27	2.62	2.63	2.63	2.70	2.62	1.51	1.43	1.35	1.43	1.35	1.43			
170	1.59	1.90	1.90	1.82	1.43	2.62	2.79	2.95	2.62	2.54	1.75	2.06	1.75	1.43	1.75	1.99			
175	1.75	2.62	2.62	2.46	1.43	2.62	2.78	2.95	1.83	1.75	1.98	1.99	1.91	1.43	1.91	1.91			
180	1.75	1.82	2.14	1.83	1.43	1.91	2.14	1.67	1.90	1.75	1.98	2.06	1.99	1.43	1.99	1.91			