TOVO

PHOTOMETRY

Downlight - Mini - 2700K

FITTING - Downlight - Mini	**CODE** - 4864_2700K_60⁰

BODY - Miniature Die Cast Powdercoated Aluminium Body With Integrated Powdercoated 60⁰ Reflector		
LAMP - 3W 2700K LED Lamp With Dimmable 6-15VDC 310mA LED Driver.		
INSTALLATION - Recessed Downlight. 40mm Cut	**POWER SUPPLY** - 220- 250V LED Driver	
NOMINAL POWER	3W	**RATED INPUT VOLTAGE**	240V
NOMINAL FLUX	181.5 Lm	**LAMPS INSIDE**	1
IMAX	444.7 CD	**LIGHT OUTPUT RATIO**	100%
CIE CLASS	Direct	**UP**	.0%
EFFICIENCY	43.12 Lm/W	**DOWN**	100.0%

LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	9	7
65	29	18
60	36	33
55	83	86
50	167	168
45	290	298

Flux out:77.84 lm

Height	Eavg,Emax		Diameter
1.219m	202.7,298.9lx		69.84cm
2m	75.34,111.1lx		114.57cm
3m	33.48,49.37lx		171.85cm
4m	18.83,27.77lx		229.13cm
5m	12.05,17.77lx		286.42cm
6m	8.371,12.34lx		343.70cm
7m	6.150,9.068lx		400.98cm
8m	4.709,6.942lx		458.27cm
9m	3.720,5.485lx		515.55cm
10m	3.013,4.443lx		572.83cm

Angle:31.97deg

UNIT:cd
C0/180,32.0
C30/210,32.3
C60/240,32.2
C90/270,32.1

AVERAGE BEAM ANGLE(50%):32.2 DEG

45mm

45mm
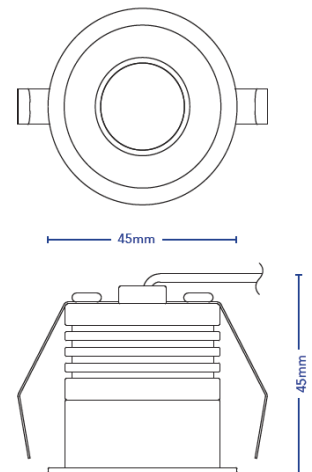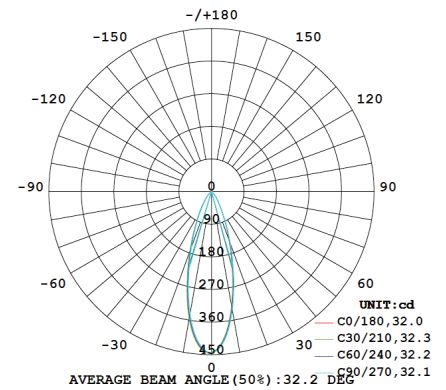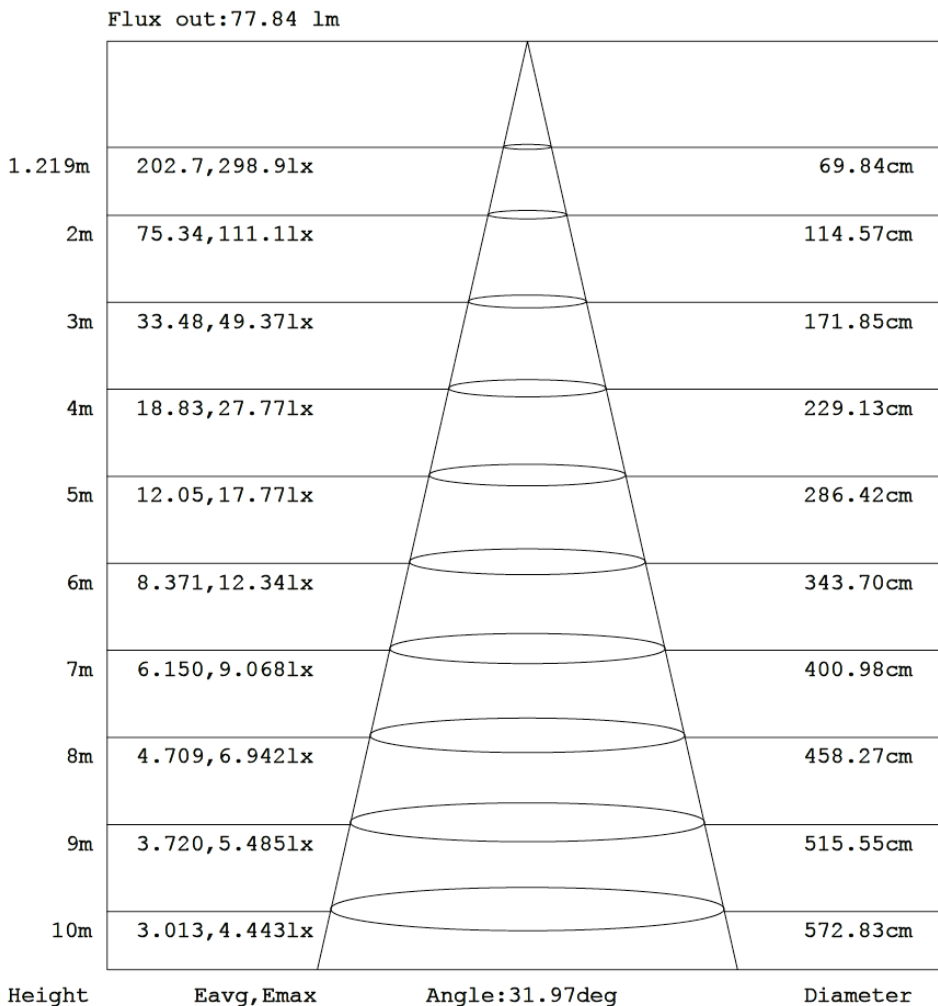
Coefficients of Utilisation

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	1.00
1.0	1.12	1.09	1.07	1.09	1.07	1.06	1.05	1.04	1.02	1.02	1.01	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.00	.97	.00	.97	.95	.97	.95	.93	.94	.93	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.89	.93	.90	.87	.90	.88	.86	.85
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.89	.83	.80	.88	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.80	.75	.71	.78	.74	.71	.77	.73	.70	.76	.73	.70	.69
8.0	.77	.71	.68	.76	.71	.68	.75	.70	.67	.74	.70	.67	.73	.69	.67	.66
9.0	.73	.68	.65	.73	.68	.64	.72	.67	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.68	.64	.61	.60

Candela Distribution

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444
5	405	409	405	409	409	412	413	416	417	420	419	422	423	421	425	421	421	418	417
10	320	326	321	328	327	332	332	338	339	345	345	351	354	350	356	349	349	343	342
15	224	229	227	232	232	236	237	241	243	249	250	255	258	255	261	255	254	248	245
20	143	147	146	149	148	151	153	156	157	162	163	166	169	168	174	169	168	163	162
25	84.1	87.4	86.0	89.0	88.0	89.5	89.5	92.8	93.8	96.7	95.8	99.0	103	105	109	107	105	101	100
30	48.3	50.2	49.1	50.9	50.2	50.7	50.4	52.3	53.1	55.2	54.3	56.4	60.5	62.0	66.3	64.8	64.0	61.2	60.0
35	27.9	29.2	28.8	29.6	28.8	28.9	28.9	29.8	30.6	31.5	31.0	32.6	35.6	37.4	39.9	39.2	39.0	37.0	35.7
40	17.0	18.1	17.4	18.3	17.6	17.9	17.1	18.1	18.3	18.9	18.6	19.6	21.5	22.5	24.7	23.9	24.2	22.3	22.1
45	10.2	10.7	10.5	10.8	10.4	10.5	10.5	10.8	10.8	11.6	11.5	12.1	13.1	13.4	14.7	14.1	14.7	13.6	13.3
50	5.36	5.60	5.39	5.56	5.48	5.46	5.40	5.65	5.86	6.16	6.27	6.55	7.02	7.20	7.79	7.73	7.76	7.40	7.18
55	2.37	2.47	2.39	2.52	2.49	2.49	2.48	2.58	2.66	2.80	2.77	2.91	3.05	3.09	3.47	3.44	3.55	3.42	3.33
60	0.90	0.89	0.82	0.86	0.86	0.85	0.84	0.86	0.84	0.89	0.88	0.99	1.10	1.23	1.52	1.68	1.77	1.80	1.81
65	0.60	0.52	0.45	0.45	0.42	0.39	0.39	0.38	0.39	0.43	0.49	0.62	0.71	0.93	1.18	1.33	1.42	1.48	1.44
70	0.15	0.17	0.11	0.14	0.14	0.13	0.12	0.11	0.09	0.12	0.13	0.20	0.22	0.24	0.39	0.23	0.26	0.15	0.21
75	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	0.00	0.00	0.00
80	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	0.00	0.00	0.00
85	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	0.00	0.00	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	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	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	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	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	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	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	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	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	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	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	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	0.00	0.00	0.00	0.00	0.00
150	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	0.00	0.00	0.00
155	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	0.00	0.00	0.00
160	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	0.00	0.00	0.00
165	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	0.00	0.00	0.00
170	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	0.00	0.00	0.00
175	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	0.00	0.00	0.00
180	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	0.00	0.00	0.00