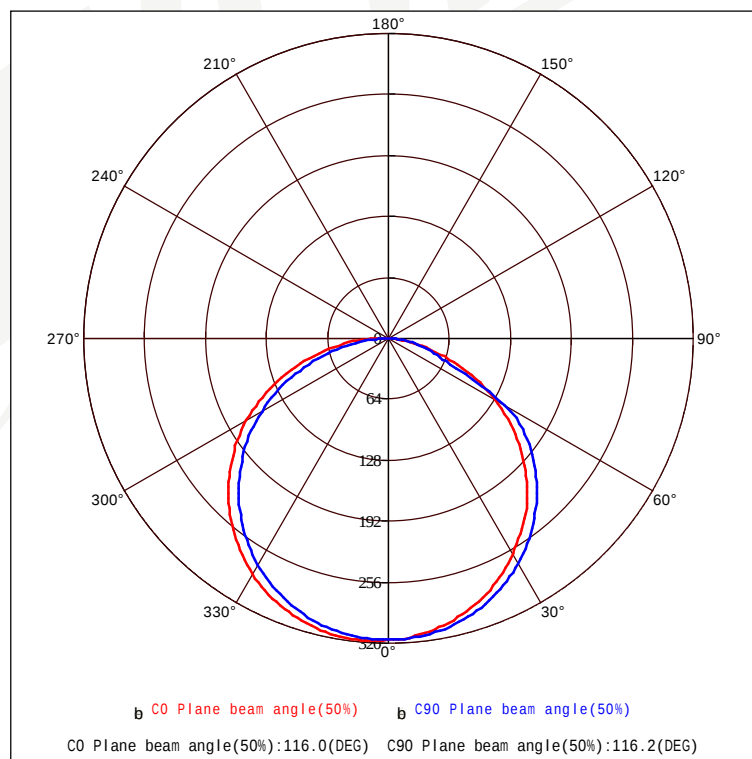


Goniophotometer Test Report

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-12LS01-F			Lamp Spec: LPDL-12LS01-F		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-12LS01-F		Peak Value(cd)	318.2	Efficiency(lm/w)	78.6
Nominal P(w)		1.0	Position	180.0,4.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	935.151	Down(C0-C180)	50.1
Rated Flux(lm)		1.0	Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY		1	Dw Flux Rate(%)	100.0	Down(C180-C360)	49.9

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

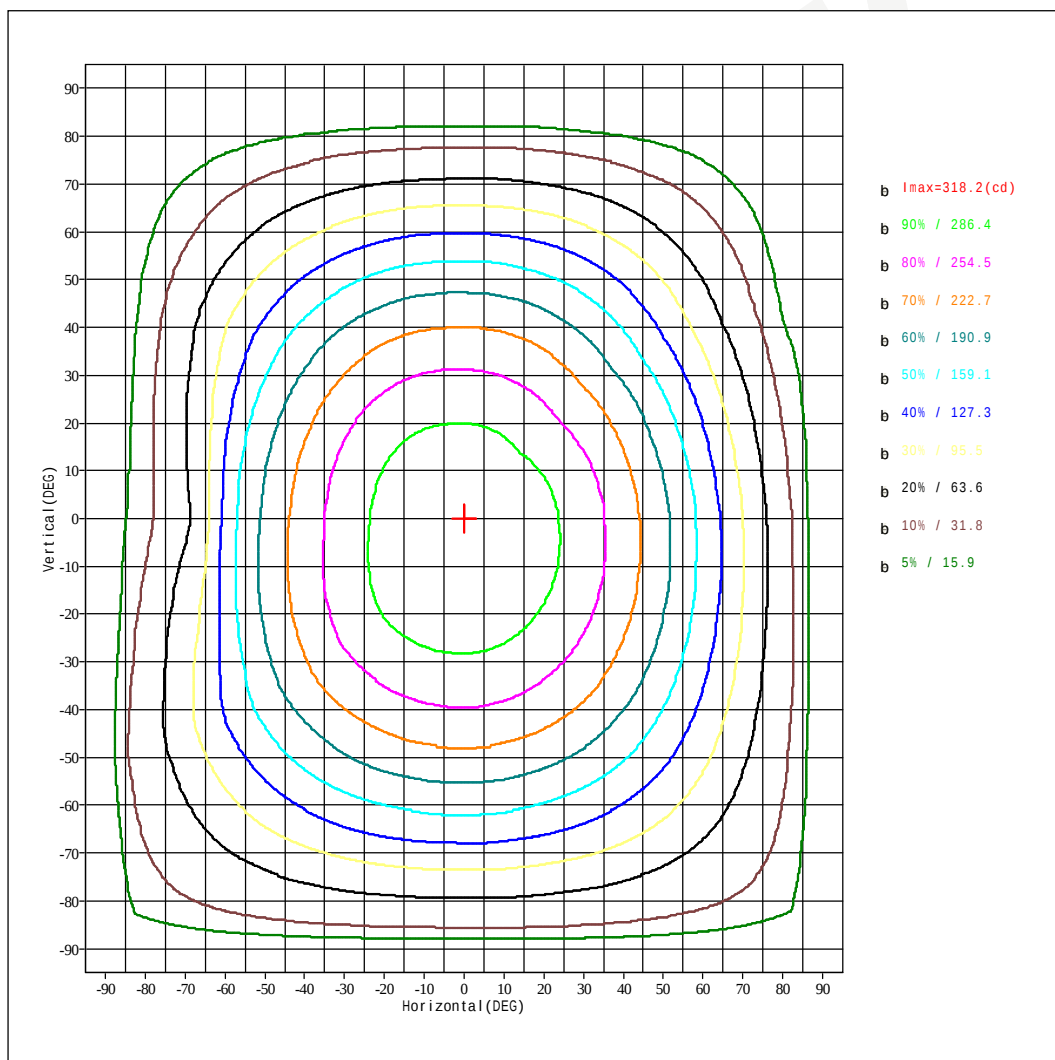
Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

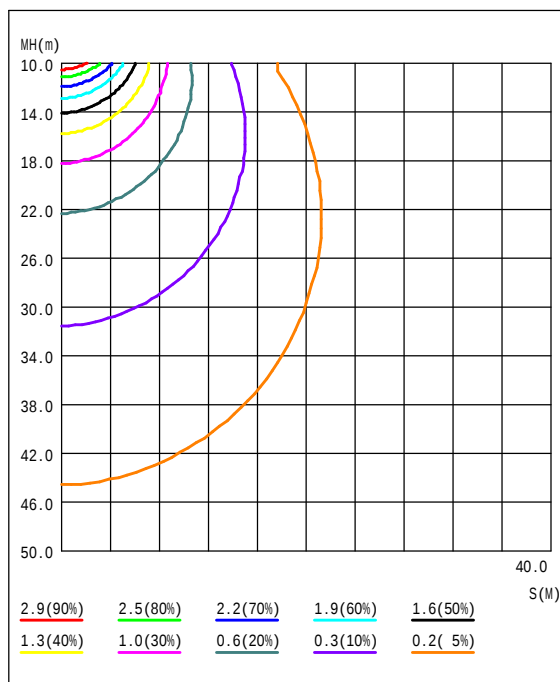
Humidity(%): 60

Date: 2026-6-2

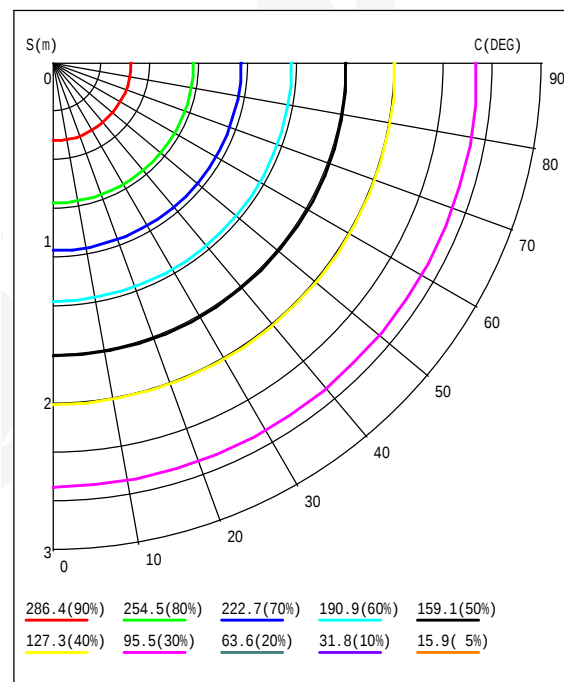
Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Spatial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

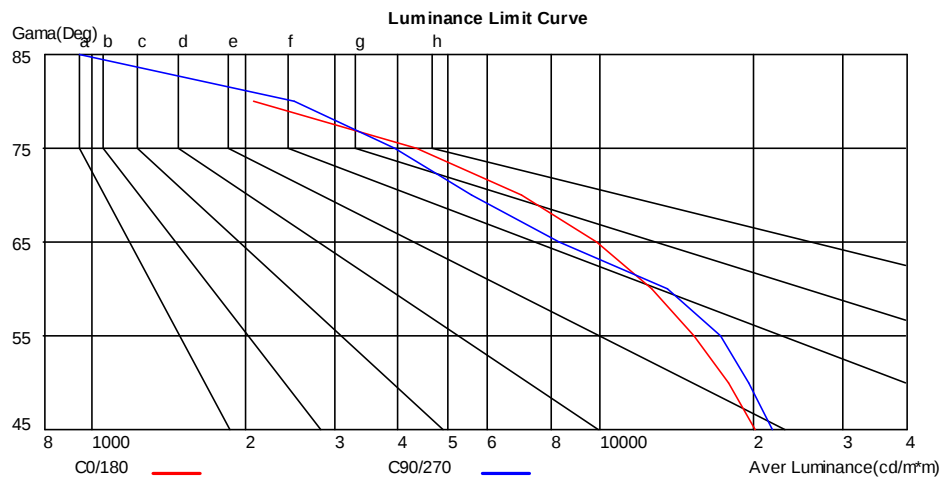
Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Luminance Limit Curve

Aver Luminance(cd/m ² m)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	20245.8	17885.5	15345.8	12637.1	9835.8	7013.4	4334.1	2074.2	516.5
C90	21920.2	19663.2	17243.1	13560.7	8324.6	5564.9	3939.6	2499.0	942.3

Glare									
Glare	Class	Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

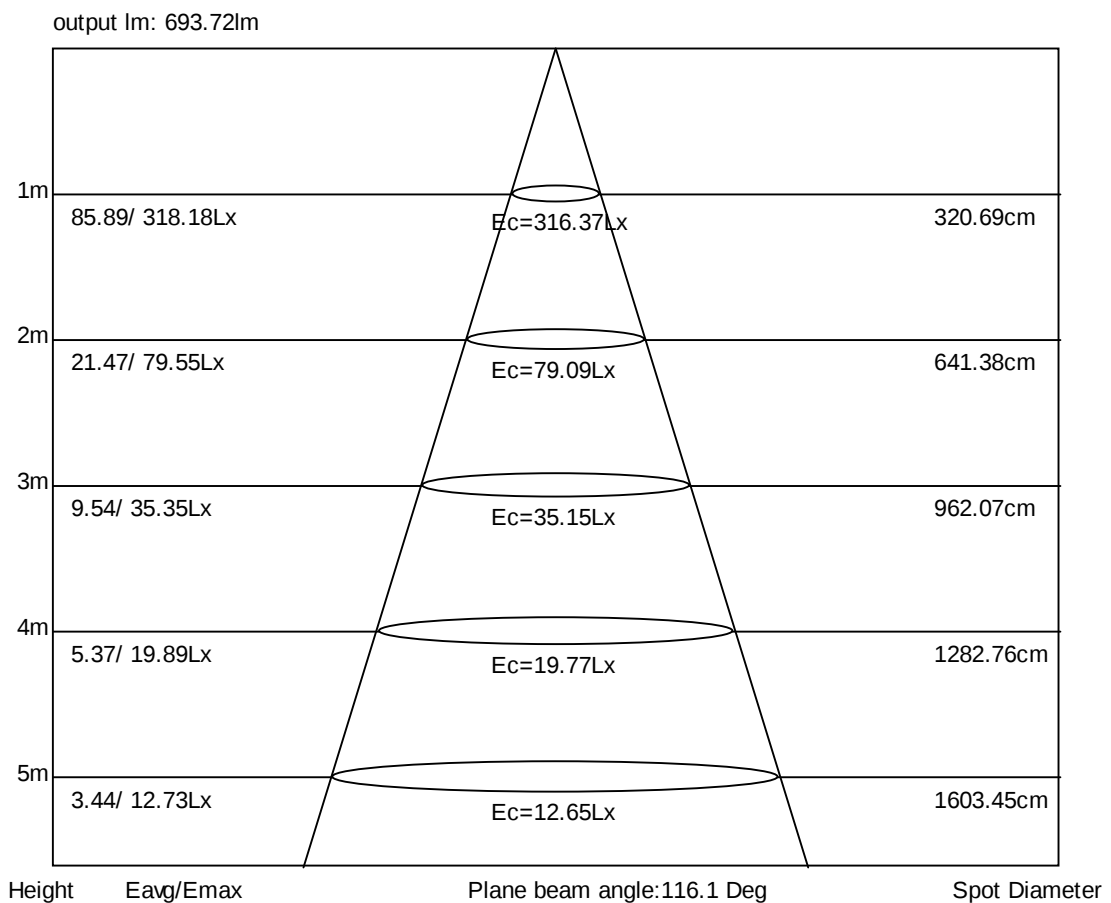
Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

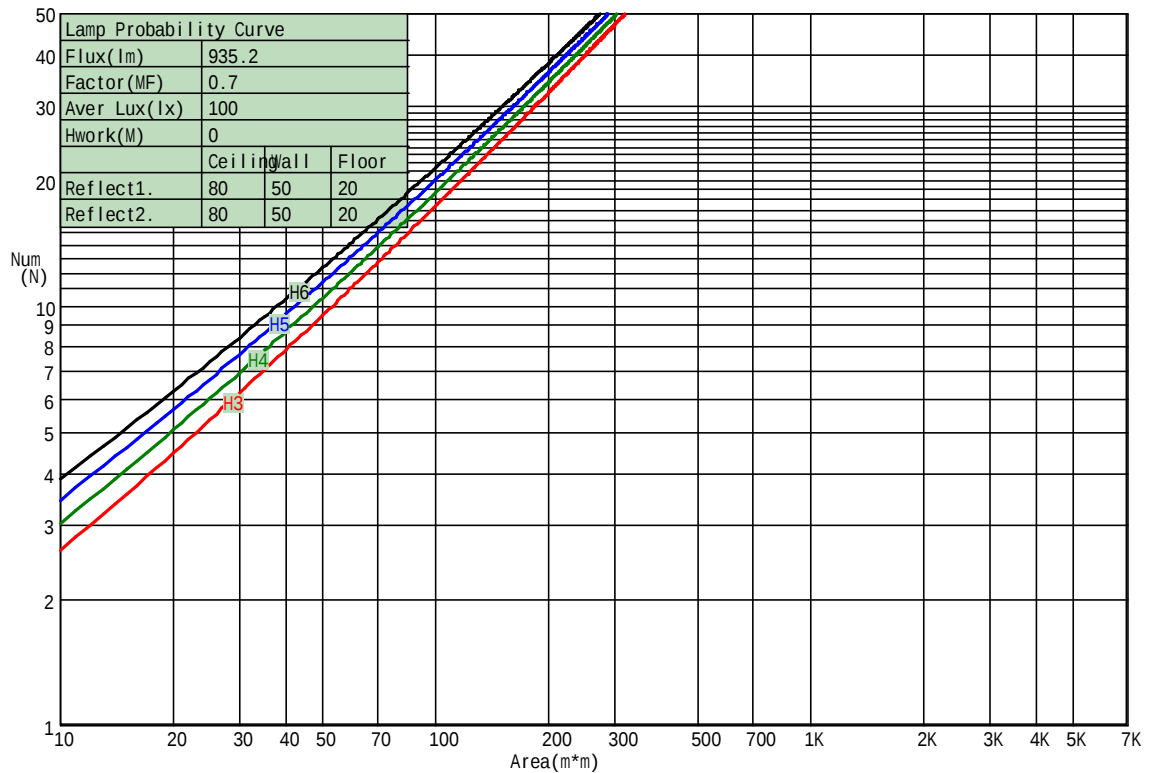
Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Lamp Probability Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

UF Table

Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5
Wall	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3
Floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.60	52	37	27	50	36	27	47	35	27
0.80	56	40	29	54	39	28	50	37	27
1.00	59	42	30	57	41	29	52	38	28
1.25	62	44	31	59	42	30	54	39	28
1.50	64	45	31	61	44	30	55	40	28
2.00	67	47	32	63	45	31	56	41	29
2.50	68	48	32	64	46	31	57	41	28
3.00	69	49	32	65	46	31	57	41	28
4.00	71	50	32	66	47	31	57	42	28
5.00	71	51	33	67	48	31	58	42	27

CoEfficients Utilization

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			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	1.04	0.99	0.95	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.9	0.88	0.89	0.87	0.85
2	0.9	0.83	0.77	0.88	0.82	0.76	0.85	0.79	0.75	0.81	0.77	0.73	0.78	0.74	0.71
3	0.79	0.71	0.64	0.77	0.7	0.63	0.74	0.68	0.62	0.72	0.66	0.61	0.69	0.64	0.6
4	0.7	0.61	0.54	0.68	0.6	0.54	0.66	0.59	0.53	0.64	0.57	0.52	0.61	0.56	0.51
5	0.62	0.53	0.46	0.61	0.53	0.46	0.59	0.51	0.46	0.57	0.5	0.45	0.55	0.49	0.45
6	0.56	0.47	0.4	0.55	0.46	0.4	0.53	0.46	0.4	0.51	0.45	0.39	0.5	0.44	0.39
7	0.51	0.42	0.36	0.5	0.41	0.35	0.48	0.41	0.35	0.47	0.4	0.35	0.45	0.39	0.35
8	0.46	0.38	0.32	0.46	0.37	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.36	0.31
9	0.42	0.34	0.28	0.42	0.34	0.28	0.41	0.33	0.28	0.4	0.33	0.28	0.38	0.32	0.28
10	0.39	0.31	0.26	0.39	0.31	0.26	0.38	0.3	0.26	0.37	0.3	0.25	0.36	0.3	0.25

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Wall Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.32	0.18	0.06	0.31	0.18	0.06	0.3	0.17	0.05	0.28	0.16	0.05	0.27	0.16	0.05
2	0.3	0.16	0.05	0.29	0.16	0.05	0.28	0.15	0.05	0.27	0.15	0.05	0.26	0.15	0.05
3	0.27	0.15	0.04	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04	0.24	0.13	0.04
4	0.25	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04	0.22	0.12	0.04
5	0.23	0.12	0.03	0.23	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.21	0.11	0.03
6	0.22	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.09	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.03
9	0.18	0.08	0.02	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.16	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02

Ceiling Cavity Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0.19	0.19	0.19	0.16	0.16	0.16	0.11	0.11	0.11	0.06	0.06	0.06	0.02	0.02	0.02
1	0.18	0.16	0.13	0.15	0.13	0.12	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.01
2	0.17	0.13	0.1	0.15	0.11	0.08	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.17	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.04	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.14	0.09	0.05	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.15	0.09	0.05	0.13	0.08	0.04	0.09	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.14	0.08	0.04	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.14	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.02	0.08	0.04	0.02	0.04	0.03	0.01	0.01	0.01	0
9	0.12	0.06	0.03	0.11	0.06	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.12	0.06	0.02	0.1	0.05	0.02	0.07	0.04	0.01	0.04	0.02	0.01	0.01	0.01	0

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Ring-shaped Flux Data Table

Gm\C(Deg)	0	45	90	135	180	225	270	315	Range	Ring	T(lm)
5	313	314	315	316	318	317	315	312	0-5	7.55	7.55
10	307	310	311	314	316	314	312	306	5-10	22.4	30
15	299	302	305	311	312	309	305	297	10-15	36.6	66.5
20	288	292	296	304	305	301	297	286	15-20	49.6	116
25	275	280	285	295	296	291	286	273	20-25	61	177
30	260	266	271	284	284	279	273	258	25-30	70.5	248
35	242	249	255	270	270	264	257	240	30-35	77.7	325
40	224	230	238	254	254	247	240	222	35-40	82.5	408
45	202	209	219	236	235	230	220	201	40-45	84.7	493
50	179	187	197	215	215	208	199	177	45-50	84.1	577
55	153	162	172	195	194	185	176	151	50-55	80.6	657
60	126	136	136	170	170	160	151	124	55-60	74.2	731
65	98.4	109	83.2	144	144	133	124	96.3	60-65	63.9	795
70	70.1	80.4	55.6	117	116	106	96.2	69.1	65-70	51.8	847
75	43.3	53.3	39.4	89.1	88.3	77.5	68.4	43	70-75	39.5	887
80	20.7	29.3	25	61.5	60.3	50.1	42	21.1	75-80	27	914
85	5.16	9.84	9.42	36.2	34.7	26.5	19.6	5.01	80-85	15.2	929
90	2.42	2.41	3.52	14	12.9	11.8	3.35	2.46	85-90	6.27	935
95									90-95		
100									95-100		
105									100-105		
110									105-110		
115									110-115		
120									115-120		
125									120-125		
130									125-130		
135									130-135		
140									135-140		
145									140-145		
150									145-150		
155									150-155		
160									155-160		
165									160-165		
170									165-170		
175									170-175		
180									175-180		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

Remark:

Measured Para U: 224.2V I: 83.0mA P: 11.90W PF: 0.638 Test LM: 935.15lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12LS01-F	Lamp Spec: LPDL-12LS01-F	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

CD Table

Gm\C(Deg)	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340
5.0	313	314	314	315	315	315	316	317	317	318	317	317	316	315	314	313	312	313
10.0	307	308	309	310	311	312	313	315	315	316	315	314	313	312	310	308	306	307
15.0	299	301	302	303	304	306	309	311	311	312	311	309	308	306	304	300	297	298
20.0	288	290	292	294	295	298	301	304	305	305	303	302	300	298	295	290	287	287
25.0	275	277	280	282	284	287	292	295	296	296	294	292	290	287	283	278	274	274
30.0	260	262	265	268	270	274	280	284	284	284	282	279	277	274	270	263	258	259
35.0	242	245	248	251	254	259	265	270	270	270	268	265	262	259	254	246	240	241
40.0	224	227	229	232	236	241	249	254	254	254	251	248	245	241	236	228	223	223
45.0	202	205	208	212	217	223	230	236	236	235	233	230	227	222	216	207	201	202
50.0	179	183	186	190	195	201	209	215	215	215	212	209	205	201	194	184	177	178
55.0	153	157	161	166	170	177	187	195	194	194	190	186	182	178	171	160	152	153
60.0	126	131	135	136	136	143	159	170	170	170	165	161	157	153	145	133	125	126
65.0	98.4	103	108	100	88.8	96.6	124	144	144	144	139	135	130	126	118	105	96.5	97.4
70.0	70.1	74.6	79.3	72.3	61.1	69.1	96.9	117	117	116	112	107	103	98.3	90.3	78	69.2	69.7
75.0	43.3	47.7	52.2	48.7	42.4	50.3	72.8	89	88.7	88.3	83.6	78.7	74.5	70.4	62.9	51.4	43.1	43.2
80.0	20.7	24.5	28.3	27.9	25.9	33	49.5	61.4	60.8	60.3	55.9	51.2	47.4	43.7	37.4	28	21.1	20.9
85.0	5.16	7.21	9.33	9.7	9.51	15.3	27.4	36	35.4	34.7	31.1	27.4	24.2	21.1	16.4	9.79	5.02	5.1
90.0	2.42	2.41	2.41	2.78	3.28	5.82	10.6	13.9	13.4	12.9	12.4	12	9.06	5.21	3.16	2.75	2.45	2.43
95.0																		
100.0																		
105.0																		
110.0																		
115.0																		
120.0																		
125.0																		
130.0																		
135.0																		
140.0																		
145.0																		
150.0																		
155.0																		
160.0																		
165.0																		
170.0																		
175.0																		
180.0																		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-6-2

Remark: