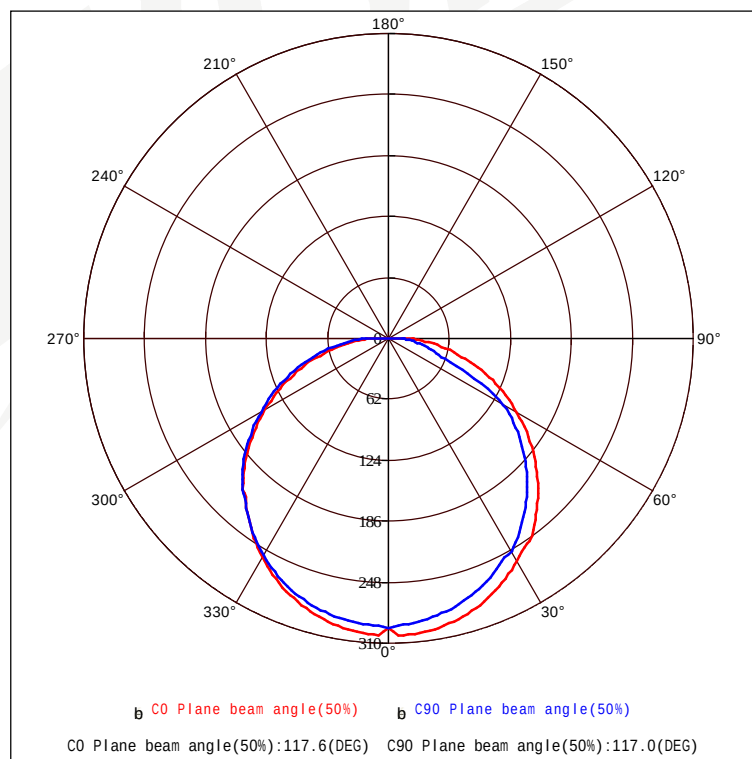


Goniophotometer Test Report

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-12EMS01-Y			Lamp Spec: LPDL-12EMS01-Y		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-12EMS01-Y		Peak Value(cd)	302.5	Efficiency(lm/w)	82.2
Nominal P(w)		1.0	Position	0.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	912.628	Down(C0-C180)	49.0
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)	51.0

Planar Intensity Distribution Curve



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

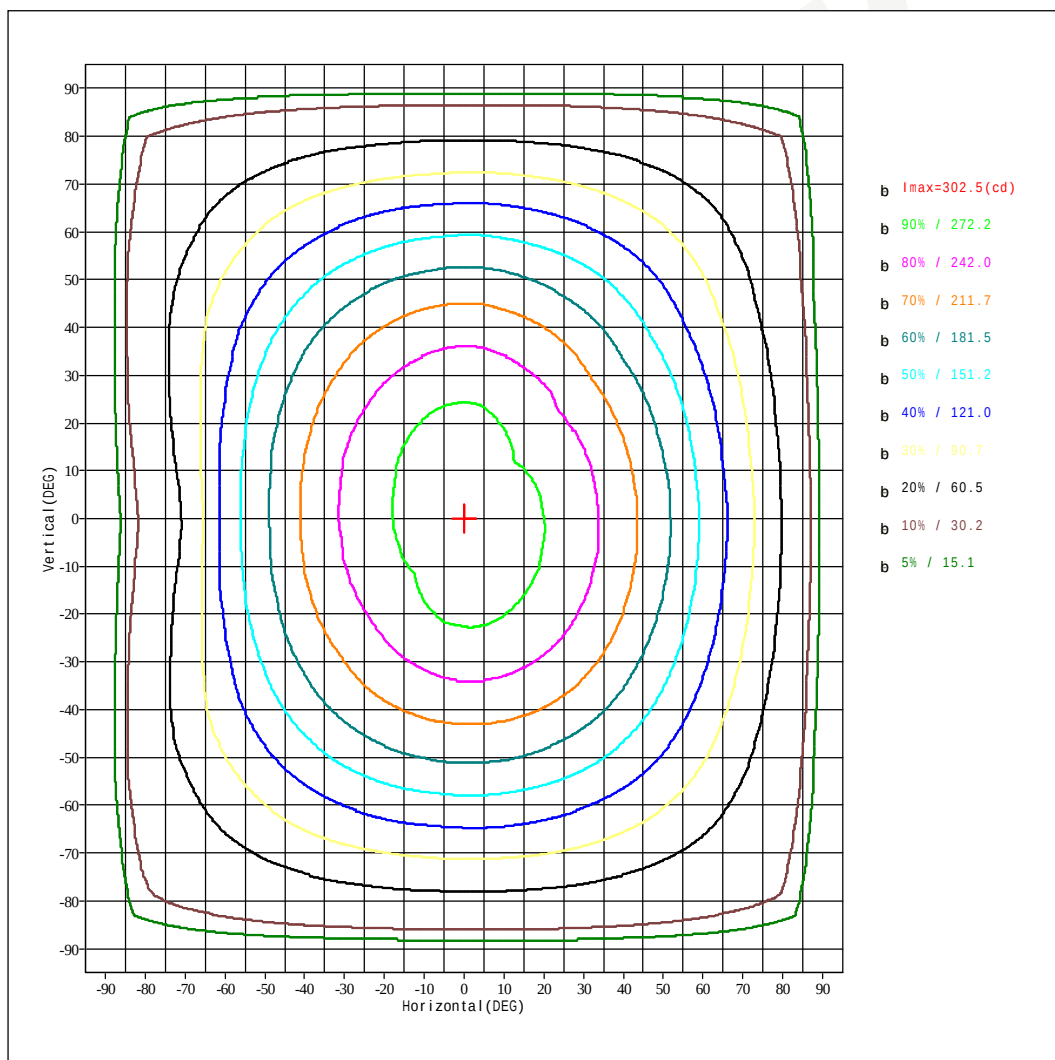
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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

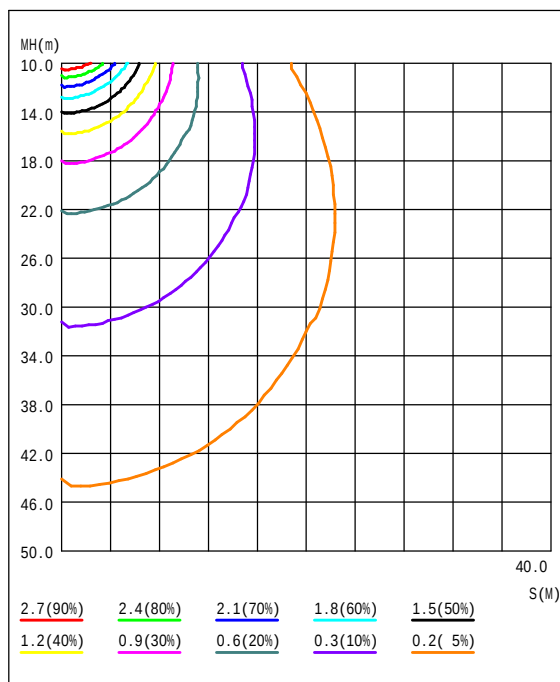
Humidity(%): 60

Date: 2026-1-26

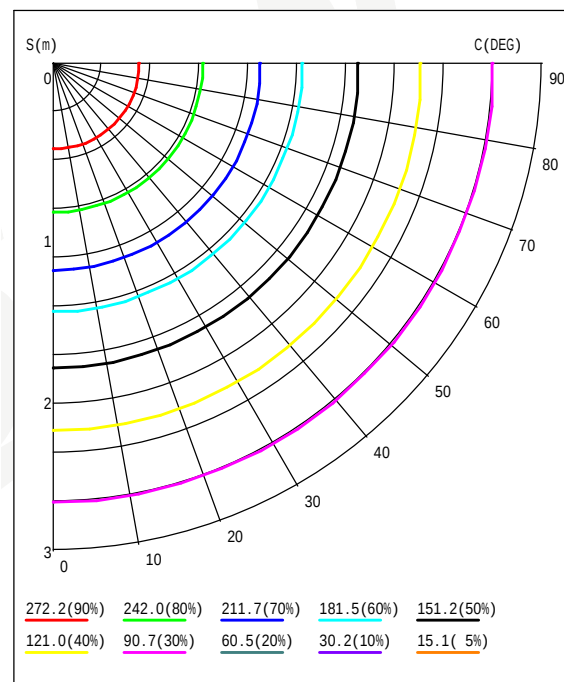
Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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: 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: 2026-1-26

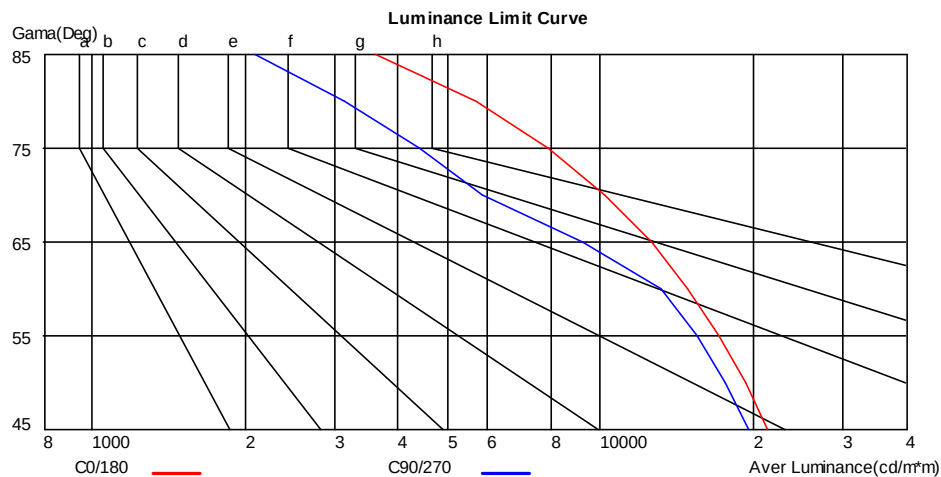
Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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	21352.7	19319.7	17165.2	14919.0	12610.2	10232.7	7906.6	5684.0	3613.3
C90	19700.0	17676.3	15566.8	13218.2	9256.1	5879.0	4407.5	3124.2	2091.8

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: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

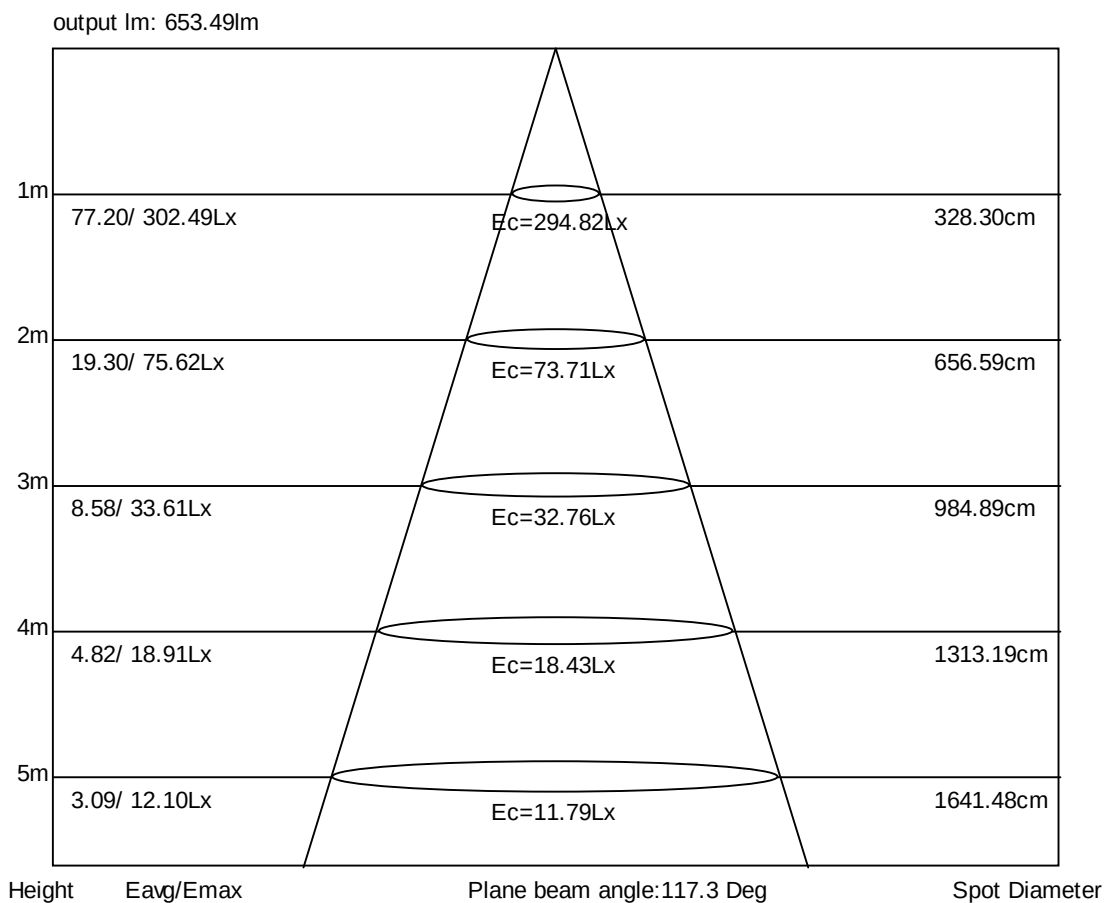
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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

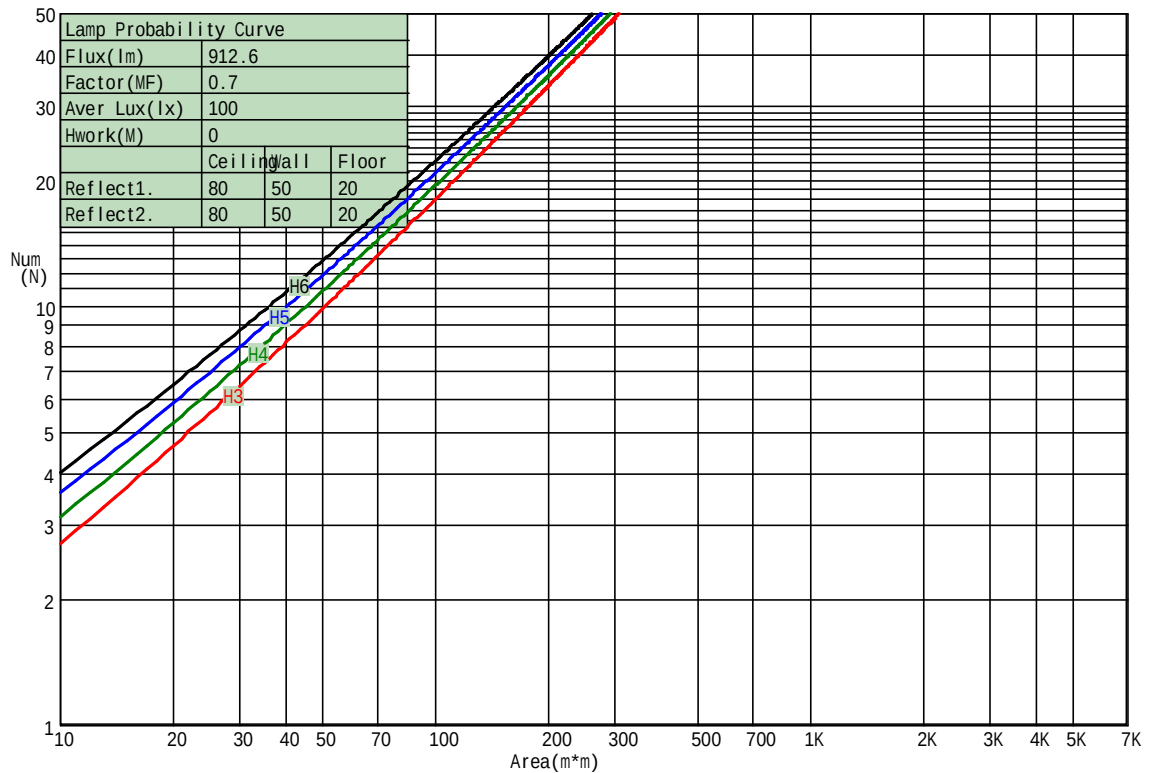
Humidity(%): 60

Date: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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	53	38	28	51	37	28	48	36	28
0.80	57	41	30	55	40	30	51	38	29
1.00	60	43	31	58	42	31	53	40	30
1.25	63	46	32	60	44	32	55	41	30
1.50	65	47	33	62	45	32	56	42	30
2.00	68	49	34	65	47	33	58	43	31
2.50	70	50	35	66	48	33	58	43	31
3.00	71	51	35	67	49	33	59	44	31
4.00	72	52	35	68	50	34	59	44	30
5.00	73	53	35	68	50	34	60	44	30

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	1.02	0.98	0.93	1	0.96	0.92	0.96	0.92	0.89	0.92	0.89	0.86	0.88	0.86	0.83
2	0.88	0.81	0.75	0.87	0.8	0.74	0.83	0.77	0.72	0.8	0.75	0.71	0.77	0.73	0.69
3	0.77	0.69	0.62	0.76	0.68	0.61	0.73	0.66	0.6	0.7	0.64	0.59	0.67	0.62	0.58
4	0.68	0.59	0.52	0.67	0.58	0.52	0.64	0.57	0.51	0.62	0.55	0.5	0.6	0.54	0.5
5	0.61	0.51	0.45	0.6	0.51	0.44	0.58	0.5	0.44	0.56	0.49	0.43	0.54	0.48	0.43
6	0.55	0.45	0.39	0.54	0.45	0.39	0.52	0.44	0.38	0.5	0.43	0.38	0.49	0.42	0.38
7	0.49	0.4	0.34	0.49	0.4	0.34	0.47	0.39	0.34	0.46	0.39	0.33	0.44	0.38	0.33
8	0.45	0.36	0.3	0.44	0.36	0.3	0.43	0.35	0.3	0.42	0.35	0.3	0.41	0.34	0.3
9	0.41	0.33	0.27	0.41	0.33	0.27	0.4	0.32	0.27	0.38	0.32	0.27	0.37	0.31	0.27
10	0.38	0.3	0.25	0.38	0.3	0.25	0.37	0.29	0.24	0.36	0.29	0.24	0.35	0.29	0.24

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: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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	0.34	0.19	0.06	0.33	0.19	0.06	0.32	0.18	0.06	0.31	0.18	0.06	0.3	0.17	0.06
2	0.31	0.17	0.05	0.3	0.17	0.05	0.29	0.16	0.05	0.28	0.16	0.05	0.27	0.15	0.05
3	0.28	0.15	0.05	0.28	0.15	0.04	0.27	0.14	0.04	0.26	0.14	0.04	0.25	0.14	0.04
4	0.26	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04
5	0.24	0.12	0.04	0.23	0.12	0.03	0.23	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03
6	0.22	0.11	0.03	0.22	0.11	0.03	0.21	0.11	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	0.19	0.1	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03
9	0.18	0.09	0.02	0.17	0.09	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	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	0.16	0.13	0.11	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	0.03	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	0.09	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	0.05	0.03	0.01	0.01	0.01	0
9	0.12	0.06	0.02	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: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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	302	295	290	287	301	295	292	288	0-5	7.04	7.04
10	298	291	285	284	296	292	289	284	5-10	20.9	27.9
15	292	285	279	277	290	285	283	278	10-15	34	61.9
20	284	276	269	269	280	277	276	270	15-20	46	108
25	273	265	258	258	269	266	265	259	20-25	56.6	165
30	260	252	249	245	256	253	253	251	25-30	65.4	230
35	250	237	233	230	240	242	239	236	30-35	72.3	302
40	232	220	216	217	222	225	223	220	35-40	76.8	379
45	214	206	197	200	207	207	209	201	40-45	79.1	458
50	193	186	177	180	186	187	190	182	45-50	78.8	537
55	172	164	156	160	165	165	169	161	50-55	75.9	613
60	149	142	132	138	142	143	148	140	55-60	70.7	684
65	126	120	92.6	117	119	121	126	118	60-65	63	747
70	102	97.3	58.8	94.7	96.4	97.8	103	95.8	65-70	53.2	800
75	79.1	74.9	44.1	73	73.8	75.4	81.4	73.9	70-75	43.2	843
80	56.8	53.1	31.2	51.7	51.5	53.4	59.6	52.5	75-80	32.9	876
85	36.1	33.6	20.9	32.8	32.2	33.9	39.2	33.7	80-85	22.6	899
90	24.3	19.2	14.5	18.8	17.9	23.2	22.9	22.5	85-90	14.1	913
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: 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: 2026-1-26

Remark:

Measured Para U: 227.8V I: 89.0mA P: 11.10W PF: 0.549 Test LM: 912.63lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-12EMS01-Y	Lamp Spec: LPDL-12EMS01-Y	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	302	299	296	293	291	289	288	289	295	301	298	296	294	292	291	289	289	295
10.0	298	295	292	289	287	285	284	285	291	296	294	292	291	289	288	285	285	292
15.0	292	289	286	283	280	278	278	279	284	290	288	286	285	284	282	280	280	286
20.0	284	281	277	274	271	269	269	270	275	280	279	277	276	276	274	272	271	278
25.0	273	270	266	263	260	258	258	259	264	269	268	267	266	266	264	261	261	267
30.0	260	257	253	251	250	248	246	246	251	256	255	253	253	253	253	252	252	256
35.0	250	244	239	236	234	233	231	232	236	240	241	242	241	240	238	237	238	244
40.0	232	227	222	219	217	216	217	218	220	222	224	225	225	224	223	221	221	227
45.0	214	210	206	203	199	198	199	201	204	207	207	207	207	209	207	204	203	208
50.0	193	190	186	183	179	178	179	181	184	186	186	187	188	189	188	185	183	188
55.0	172	169	165	162	158	157	158	160	163	165	165	165	167	168	167	164	163	167
60.0	149	146	143	139	134	134	136	139	141	142	143	143	145	147	146	143	141	145
65.0	126	123	121	111	98.6	97.8	109	117	118	119	120	121	122	125	124	121	119	123
70.0	102	100	97.9	84.7	67.2	66.6	82.9	94.9	95.7	96.4	97	97.7	99.7	102	102	98.3	96.5	99.5
75.0	79.1	77.2	75.3	64.8	50.8	50.4	63.5	73.1	73.4	73.8	74.5	75.2	77.4	80.1	79.7	76.3	74.4	76.8
80.0	56.8	55.2	53.5	45.9	36	35.7	45	51.7	51.6	51.5	52.3	53.2	55.4	58.2	58.1	54.8	53	54.9
85.0	36.1	35	33.9	29.4	23.7	23.5	28.9	32.8	32.5	32.2	32.9	33.7	35.6	38	38	35.5	33.9	35.1
90.0	24.3	22	19.7	17.6	15.5	15.5	17.4	18.7	18.3	17.9	20.2	22.6	23.1	23	22.8	22.6	22.7	23.5
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: 2026-1-26

Remark: