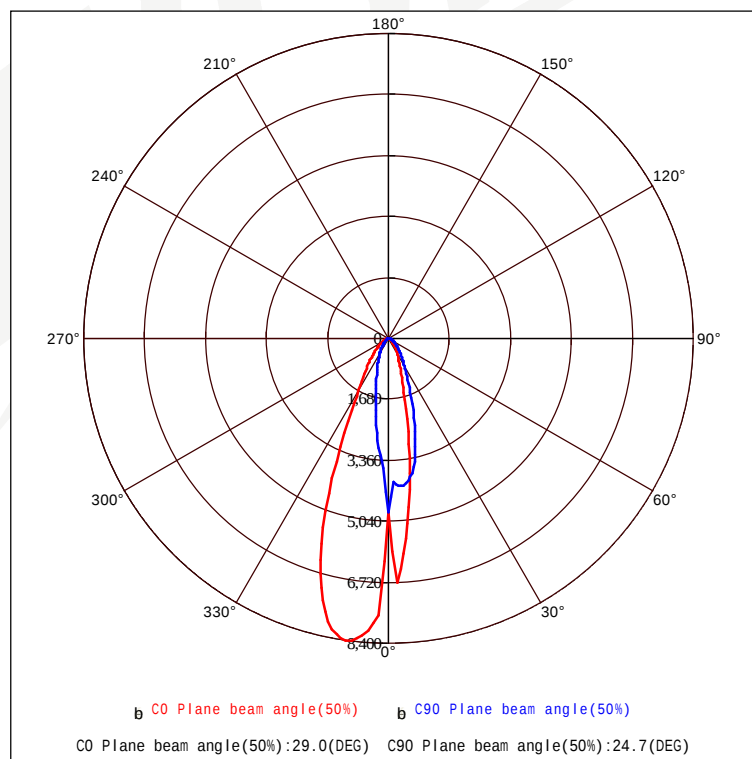


Goniophotometer Test Report

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm						
Lamp Name: LED GRASS LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPGSL-30B01			Lamp Spec: LPGSL-30B01		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPGSL-30B01		Peak Value(cd)	8400.0	Efficiency(lm/w)	110.7
Nominal P(w)		1.0	Position	180.0,7.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	3133.255	Down(C0-C180)	64.7
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)	35.3

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

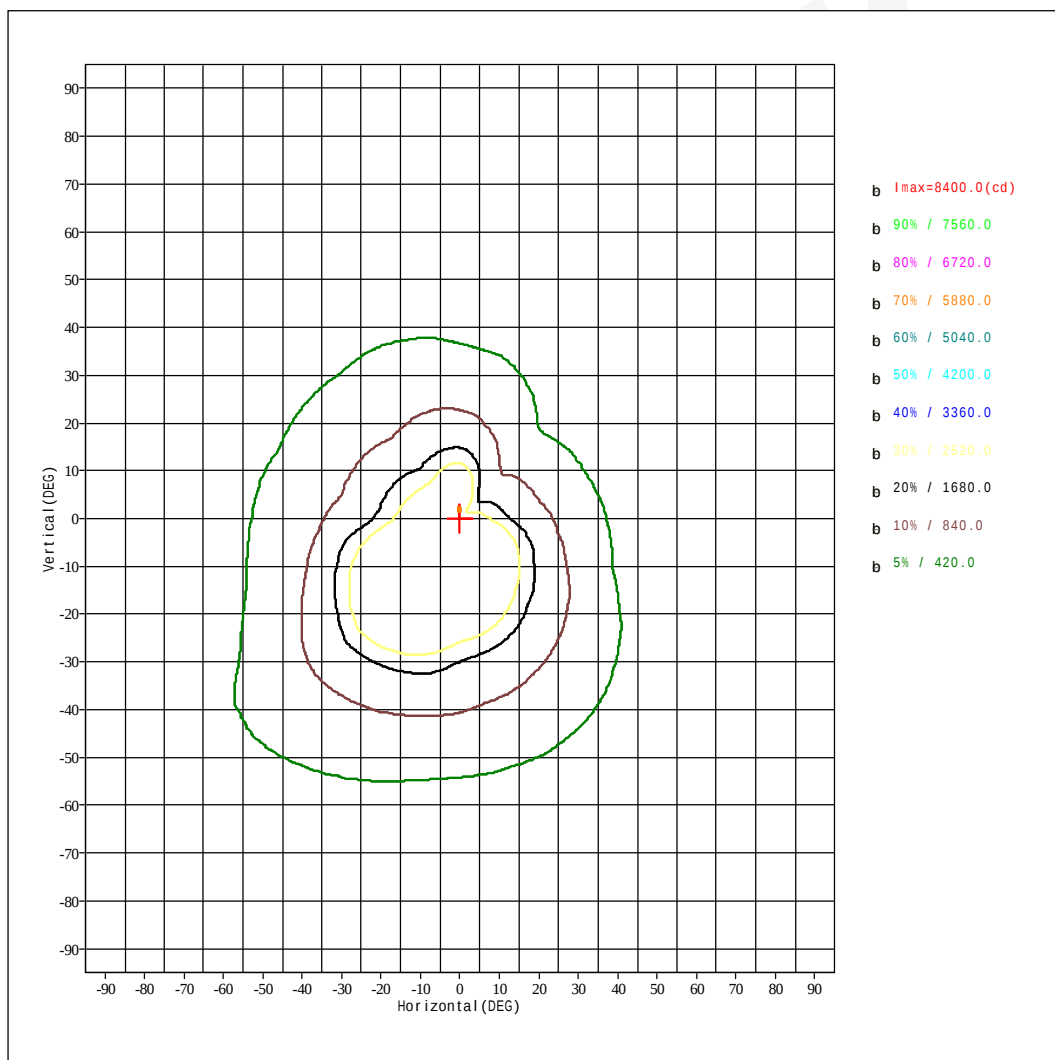
Humidity(%): 60

Date: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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

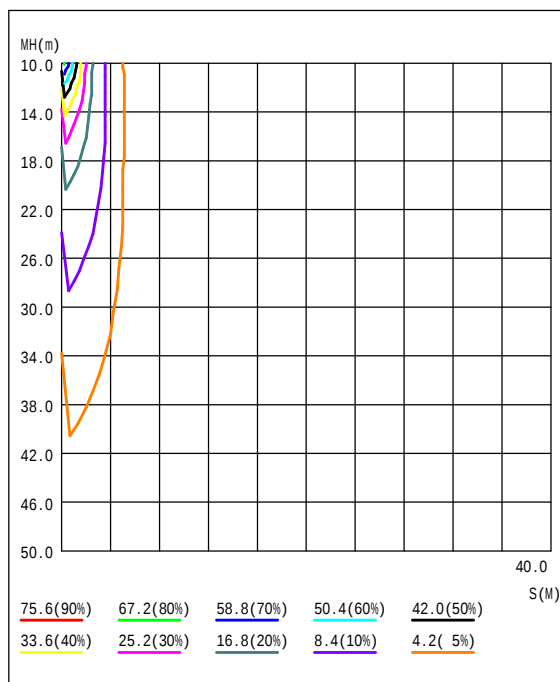
Humidity(%): 60

Date: 2026-1-28

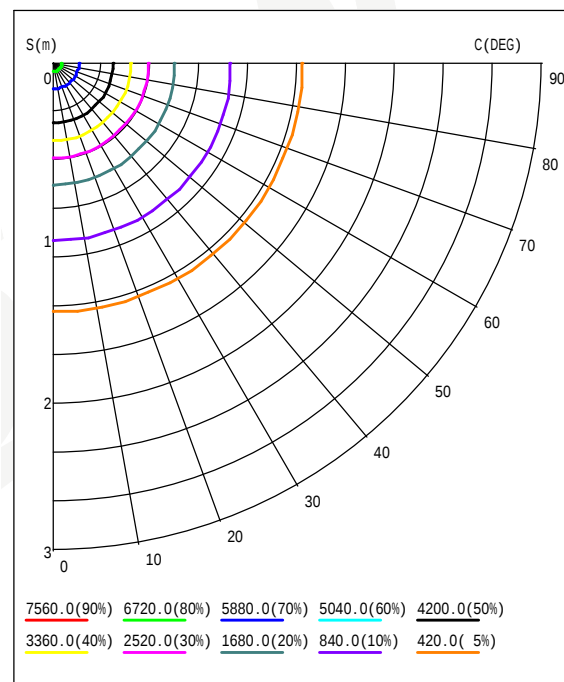
Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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: zxg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-1-28

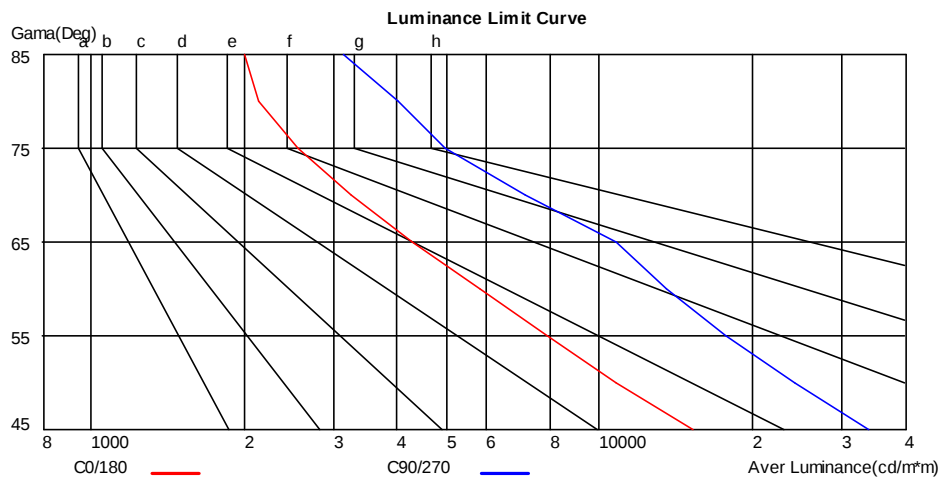
Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Luminance Limit Curve

Aver Luminance(cd/m²m)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	15304.2	10790.8	7899.8	5830.5	4291.4	3248.2	2548.0	2133.5	1996.3
C90	34078.5	24359.9	17783.6	13609.8	10778.5	7144.2	4974.0	4019.5	3141.9

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

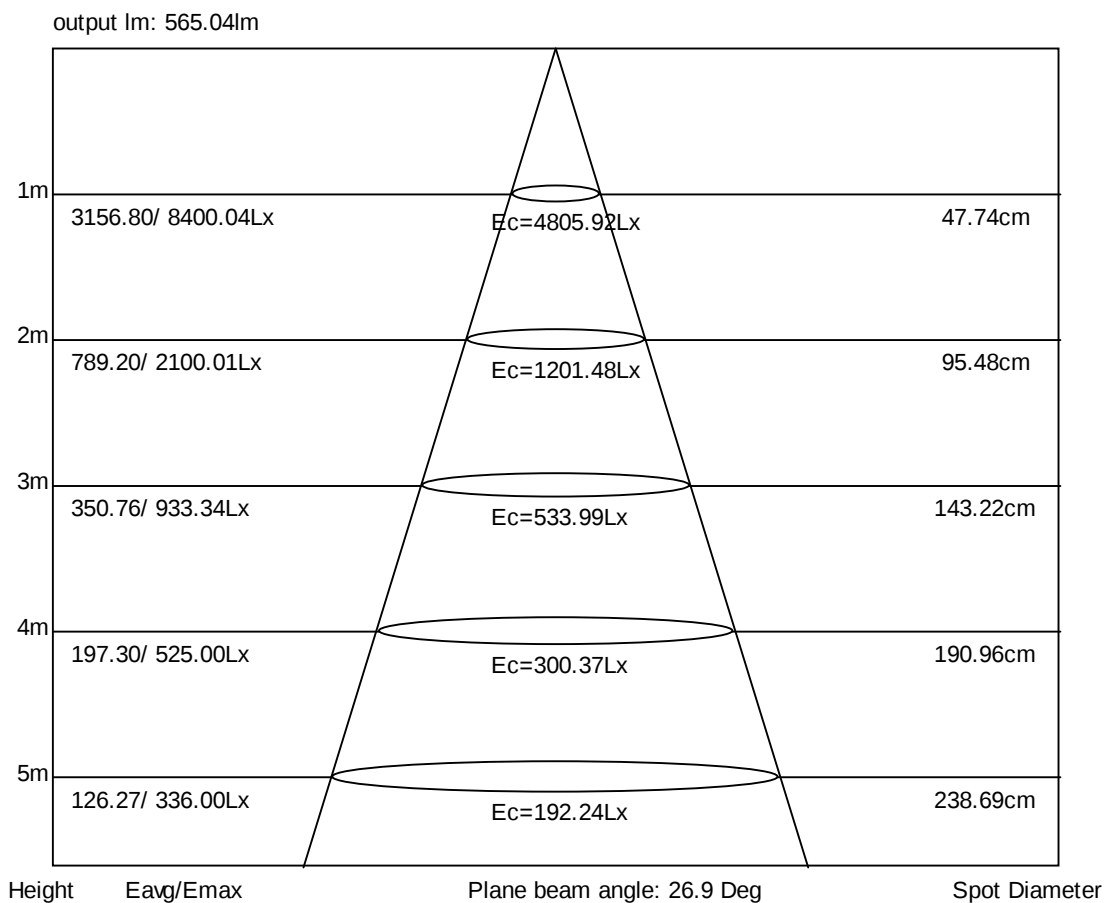
Humidity(%): 60

Date: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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

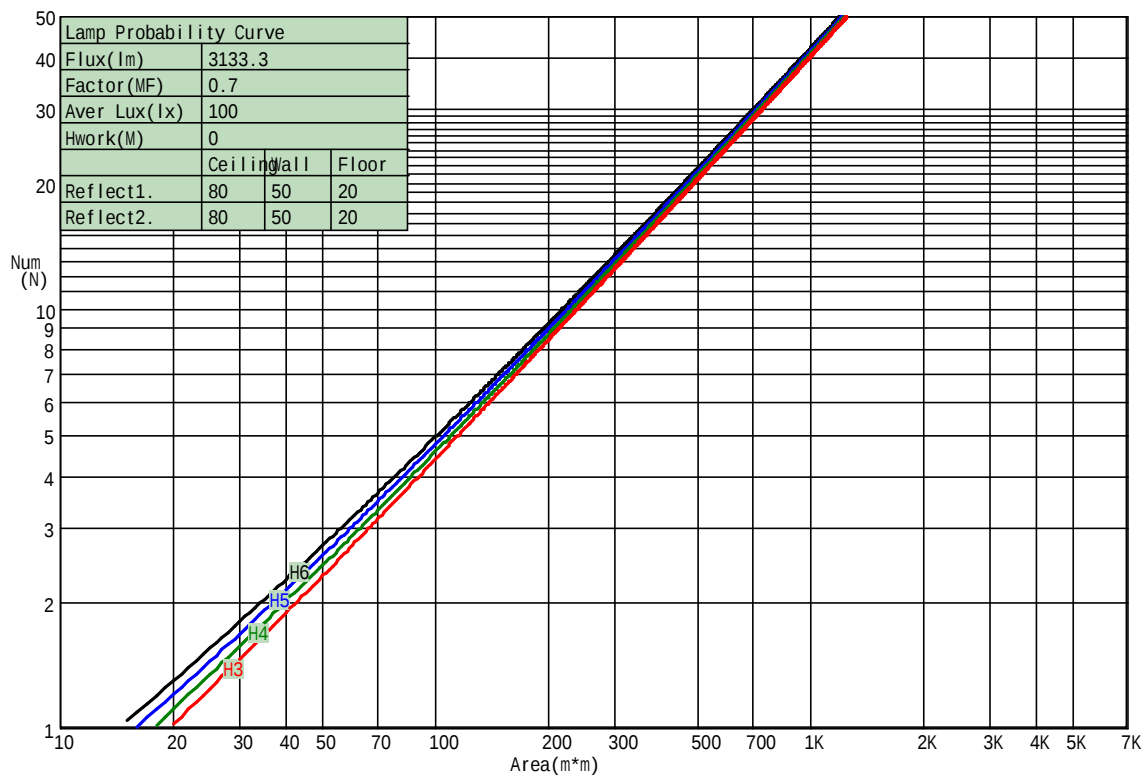
Humidity(%): 60

Date: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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	43	26	16	41	25	15	38	24	15
0.80	48	30	17	46	28	17	41	26	16
1.00	52	32	19	49	31	18	44	28	17
1.25	55	35	20	52	33	19	46	30	18
1.50	58	37	21	54	35	20	48	31	18
2.00	61	40	23	57	38	22	50	33	20
2.50	64	42	24	59	39	23	51	35	20
3.00	65	44	25	61	41	24	52	36	21
4.00	67	46	27	63	43	25	54	37	22
5.00	69	47	28	64	44	26	55	38	23

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	1.09	1.07	1.04	1.07	1.05	1.02	1.03	1.01	0.99	0.99	0.98	0.96	0.96	0.95	0.93
2	1.01	0.96	0.93	0.99	0.95	0.92	0.96	0.92	0.9	0.93	0.9	0.88	0.9	0.88	0.86
3	0.94	0.88	0.84	0.92	0.87	0.83	0.89	0.85	0.82	0.87	0.83	0.8	0.85	0.82	0.79
4	0.87	0.81	0.77	0.86	0.8	0.76	0.84	0.79	0.75	0.82	0.78	0.74	0.8	0.76	0.73
5	0.81	0.75	0.71	0.8	0.75	0.7	0.79	0.74	0.7	0.77	0.73	0.69	0.75	0.72	0.68
6	0.76	0.7	0.66	0.76	0.7	0.65	0.74	0.69	0.65	0.73	0.68	0.64	0.71	0.67	0.64
7	0.72	0.66	0.61	0.71	0.65	0.61	0.7	0.65	0.61	0.69	0.64	0.6	0.68	0.63	0.6
8	0.68	0.62	0.58	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.6	0.57	0.64	0.6	0.57
9	0.64	0.58	0.54	0.64	0.58	0.54	0.63	0.58	0.54	0.62	0.57	0.54	0.61	0.57	0.54
10	0.61	0.55	0.51	0.61	0.55	0.51	0.6	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51

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: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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	0.2	0.12	0.04	0.2	0.11	0.04	0.18	0.11	0.03	0.17	0.1	0.03	0.16	0.09	0.03
2	0.19	0.1	0.03	0.19	0.1	0.03	0.17	0.1	0.03	0.16	0.09	0.03	0.16	0.09	0.03
3	0.18	0.1	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03
4	0.17	0.09	0.03	0.16	0.09	0.03	0.16	0.08	0.02	0.15	0.08	0.02	0.14	0.08	0.02
5	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02	0.14	0.07	0.02	0.13	0.07	0.02
6	0.15	0.07	0.02	0.15	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.07	0.02
7	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.07	0.02	0.12	0.06	0.02
8	0.13	0.07	0.02	0.13	0.06	0.02	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02
9	0.13	0.06	0.02	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02
10	0.12	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	0.11	0.06	0.02	0.11	0.05	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	0.17	0.16	0.14	0.15	0.13	0.12	0.1	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.02
2	0.16	0.13	0.11	0.14	0.11	0.1	0.09	0.08	0.07	0.05	0.05	0.04	0.02	0.01	0.01
3	0.15	0.11	0.09	0.13	0.1	0.08	0.09	0.07	0.05	0.05	0.04	0.03	0.02	0.01	0.01
4	0.14	0.1	0.07	0.12	0.09	0.06	0.08	0.06	0.04	0.05	0.03	0.03	0.02	0.01	0.01
5	0.13	0.09	0.06	0.11	0.08	0.05	0.08	0.05	0.04	0.04	0.03	0.02	0.01	0.01	0.01
6	0.12	0.08	0.05	0.1	0.07	0.04	0.07	0.05	0.03	0.04	0.03	0.02	0.01	0.01	0.01
7	0.11	0.07	0.04	0.1	0.06	0.04	0.07	0.04	0.03	0.04	0.03	0.02	0.01	0.01	0
8	0.11	0.06	0.04	0.09	0.06	0.03	0.06	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
9	0.1	0.06	0.03	0.09	0.05	0.03	0.06	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.1	0.06	0.03	0.08	0.05	0.02	0.06	0.03	0.02	0.03	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: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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	5332	4137	4088	4748	8276	5792	2925	1542	0-5	112	112
10	3151	2636	3695	6357	8236	5283	1949	967	5-10	308	421
15	1653	1541	2781	7184	6957	3971	1280	645	10-15	430	851
20	995	990	1835	7036	4816	2469	897	440	15-20	465	1316
25	670	699	1210	5850	2714	1524	637	292	20-25	429	1745
30	465	506	862	4000	1559	1051	442	189	25-30	353	2098
35	324	365	637	2241	1061	733	302	123	30-35	269	2367
40	225	258	468	1315	760	505	193	77.5	35-40	196	2562
45	153	185	341	907	555	349	123	50.5	40-45	148	2710
50	108	135	244	654	381	236	81.6	29.8	45-50	113	2823
55	79	104	178	467	254	154	54.5	18.6	50-55	85.3	2908
60	58.3	84.5	136	328	162	100	34	15.9	55-60	63.6	2972
65	42.9	67.2	108	229	107	60	19.9	17.9	60-65	47.2	3019
70	32.5	52	71.4	166	70.1	34.4	14.9	19.4	65-70	34.9	3054
75	25.5	38.4	49.7	129	49.1	19.6	16.2	19.9	70-75	26	3080
80	21.3	27.1	40.2	104	35.7	15.9	17.8	19.6	75-80	20.9	3100
85	20	20.7	31.4	84.1	27.5	17.5	18.8	18.6	80-85	17.6	3118
90	19.8	19.8	25.7	63.9	22.1	18.7	18.8	17.6	85-90	15.2	3133
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: 2026-1-28

Remark:

Measured Para U: 234.2V I: 227.0mA P: 28.30W PF: 0.532 Test LM: 3133.26lm		
Lamp Name: LED GRASS LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPGSL-30B01	Lamp Spec: LPGSL-30B01	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	5332	4809	4267	4121	4099	4233	4532	5134	6733	8276	7189	6064	4851	3552	2623	1996	1956	3674
10.0	3151	2926	2692	2984	3464	4278	5484	6563	7414	8236	6944	5606	4189	2678	1734	1289	1206	2195
15.0	1653	1604	1554	1948	2510	3744	5739	7159	7056	6957	5650	4297	3088	1868	1141	853	755	1212
20.0	995	993	991	1267	1650	2973	5330	6794	5787	4816	3789	2726	1953	1241	797	590	500	752
25.0	670	683	696	867	1099	2225	4327	5507	4086	2714	2193	1654	1233	831	561	405	333	505
30.0	465	483	501	623	784	1549	2970	3733	2627	1559	1337	1107	851	575	387	272	219	344
35.0	324	342	361	454	578	988	1715	2112	1577	1061	917	769	592	397	263	182	145	236
40.0	225	239	255	327	422	653	1037	1255	1003	760	648	533	402	261	168	115	93.6	160
45.0	153	167	181	236	307	465	721	868	709	555	465	371	275	173	107	74.4	61.7	108
50.0	108	120	132	171	220	333	519	624	500	381	318	252	185	115	70.2	46.8	38.3	73.7
55.0	79	90	101	128	162	241	372	443	347	254	210	165	122	76.4	46.7	30.4	25.2	52.6
60.0	58.3	69.8	81.7	101	125	178	265	310	235	162	135	107	78.5	48.5	30	21.8	20.5	39.8
65.0	42.9	53.5	64.5	80.5	98.9	134	189	216	160	107	86.2	65.1	46.8	28.7	19.4	18.6	20.6	32
70.0	32.5	41	49.9	58.4	67.2	92.1	135	155	112	70.1	54.5	38.3	28	19.1	15.9	17.9	20.8	26.8
75.0	25.5	31.1	37	42.1	47.3	67.1	103	120	84.1	49.1	36.2	22.9	18.5	16.9	17	18.7	20.5	23
80.0	21.3	23.8	26.4	31.4	37.3	54.3	83.4	97	65.8	35.7	27.1	18.1	16.6	17.4	18.2	19	19.8	20.6
85.0	20	20.3	20.7	24.2	29.1	42.9	66.8	77.9	52.2	27.5	23.1	18.6	17.9	18.5	18.7	18.7	18.8	19.4
90.0	19.8	19.8	19.8	21.7	24.4	34	51.3	59.3	40.4	22.1	20.6	19	18.7	18.8	18.6	18	17.9	18.8
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: 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: 2026-1-28

Remark: