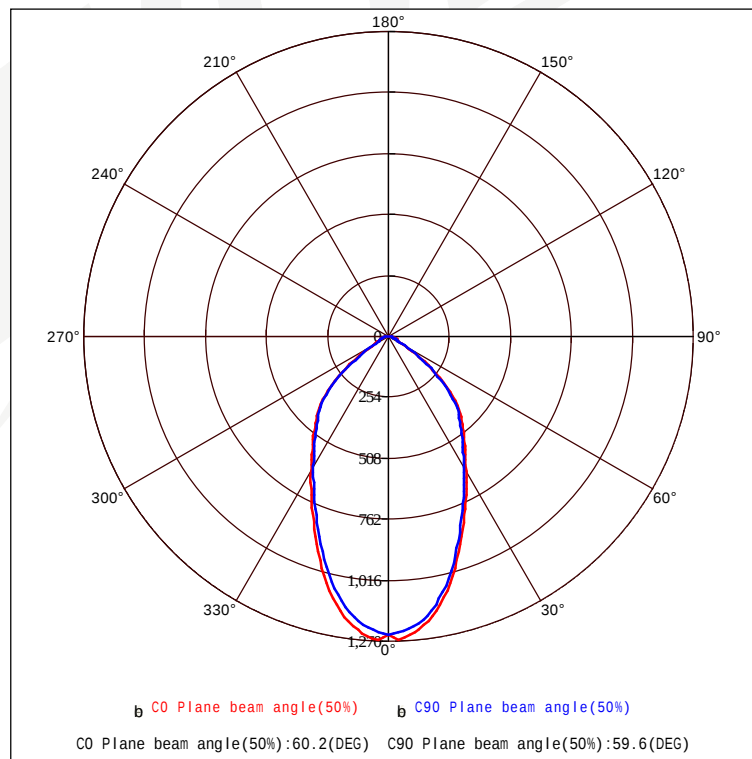


Goniophotometer Test Report

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-20GF01-Y			Lamp Spec: LPDL-20GF01-Y		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-20GF01-Y		Peak Value(cd)	1268.8	Efficiency(lm/w)	81.8
Nominal P(w)		1.0	Position	0.0,0.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	1587.768	Down(C0-C180)	51.3
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)	48.7

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

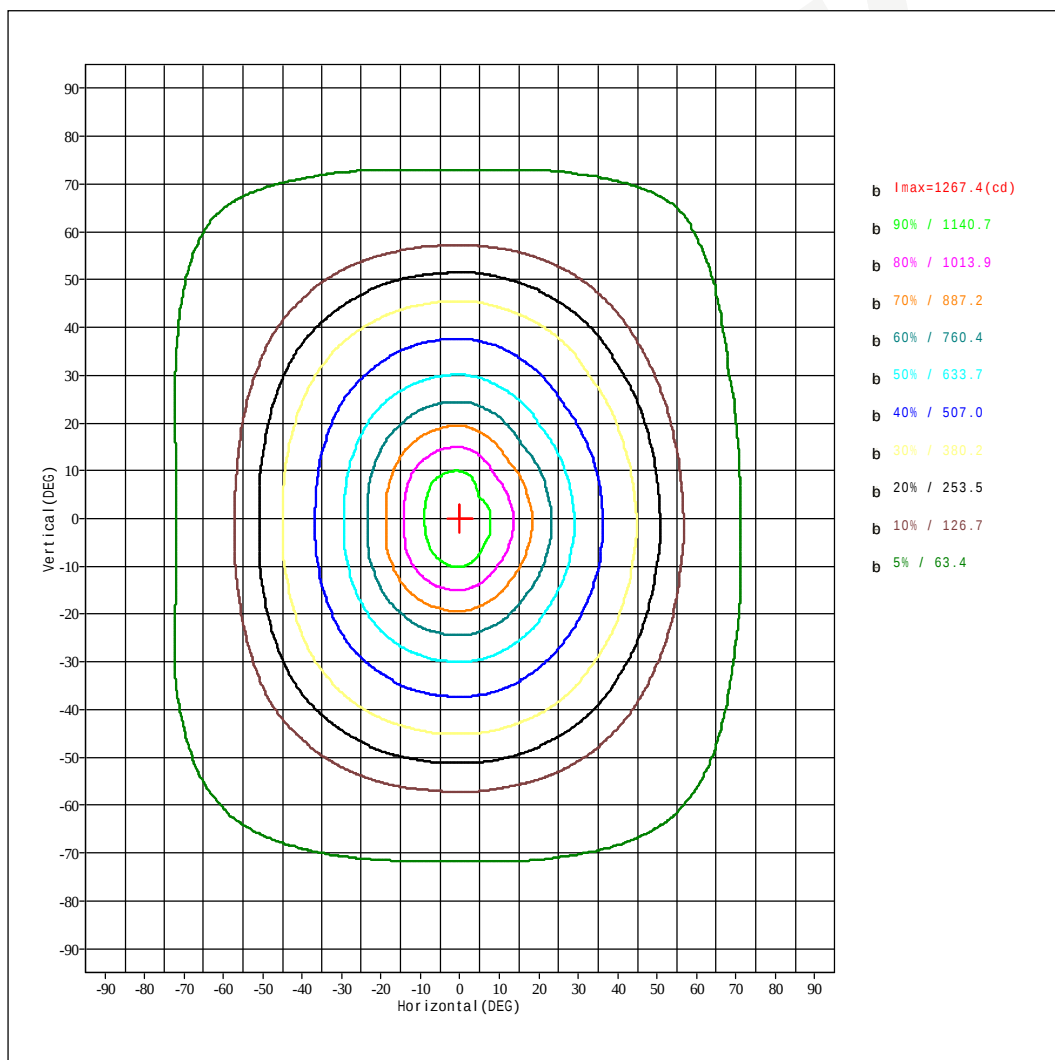
Humidity(%): 60

Date: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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

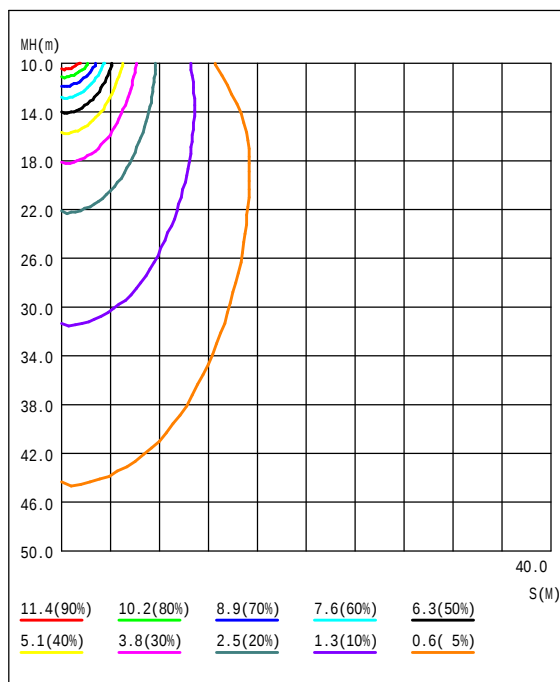
Humidity(%): 60

Date: 2026-1-22

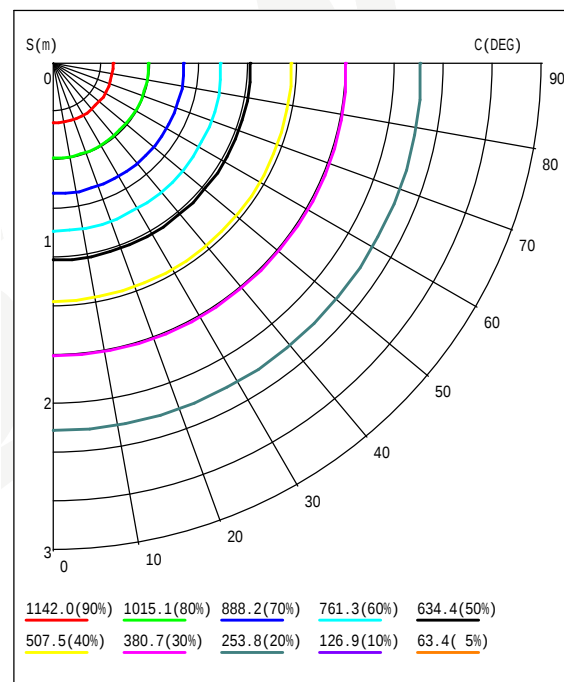
Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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: 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: 2026-1-22

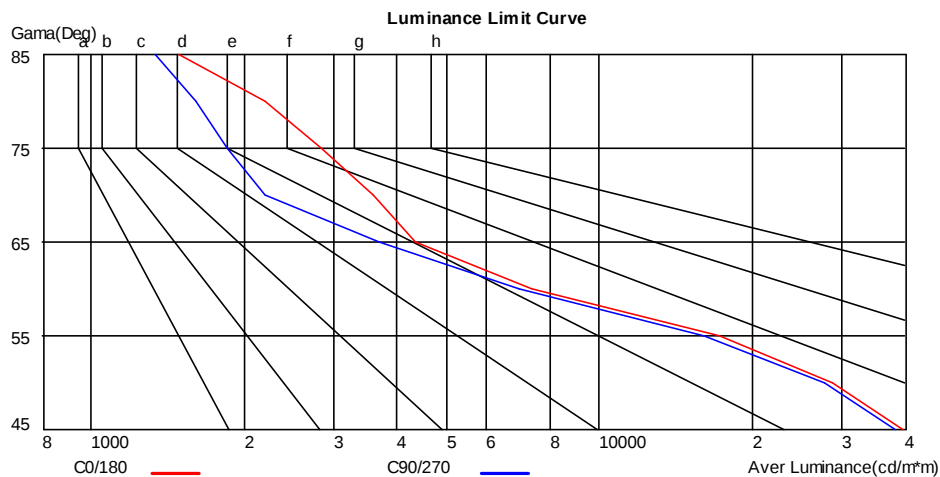
Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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	39805.1	28800.7	17277.9	7378.9	4362.0	3599.1	2833.7	2189.3	1483.2
C90	38396.4	27755.1	16148.4	6940.9	3694.1	2191.8	1856.6	1610.6	1330.8

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

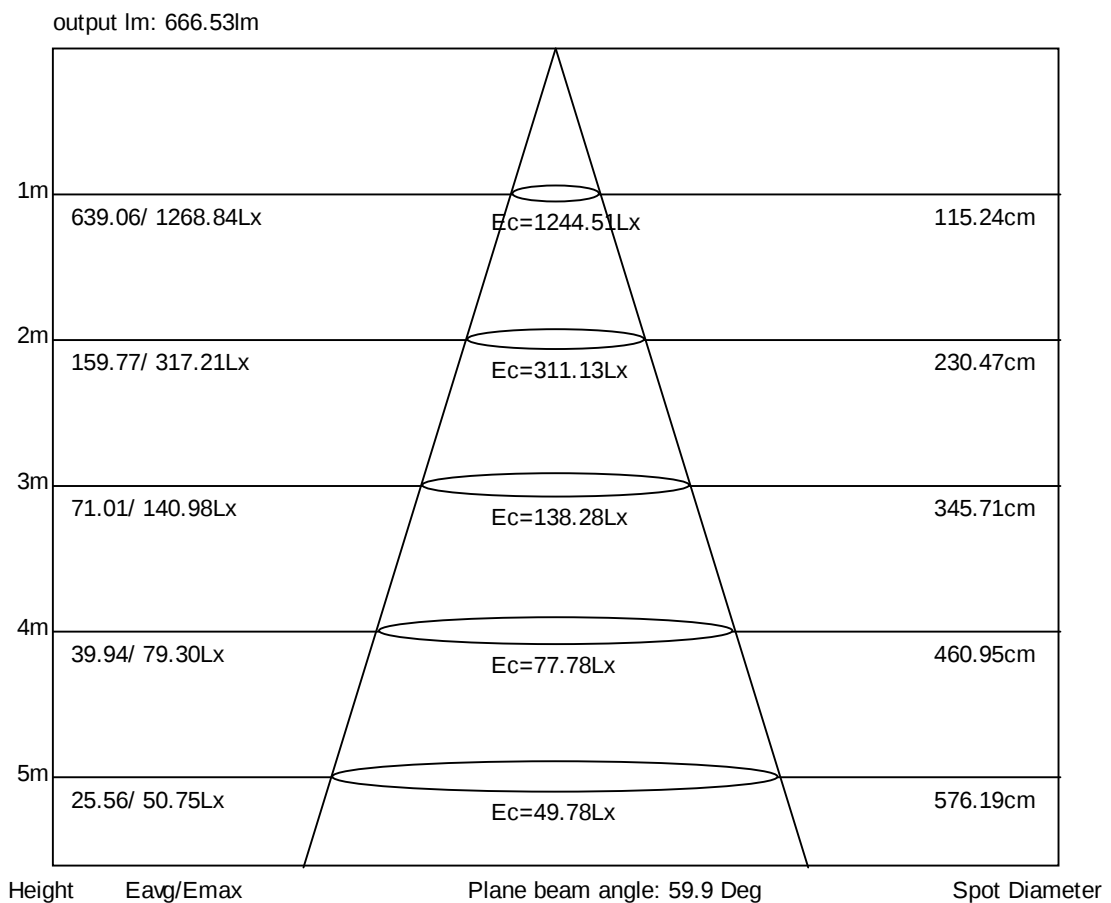
Humidity(%): 60

Date: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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

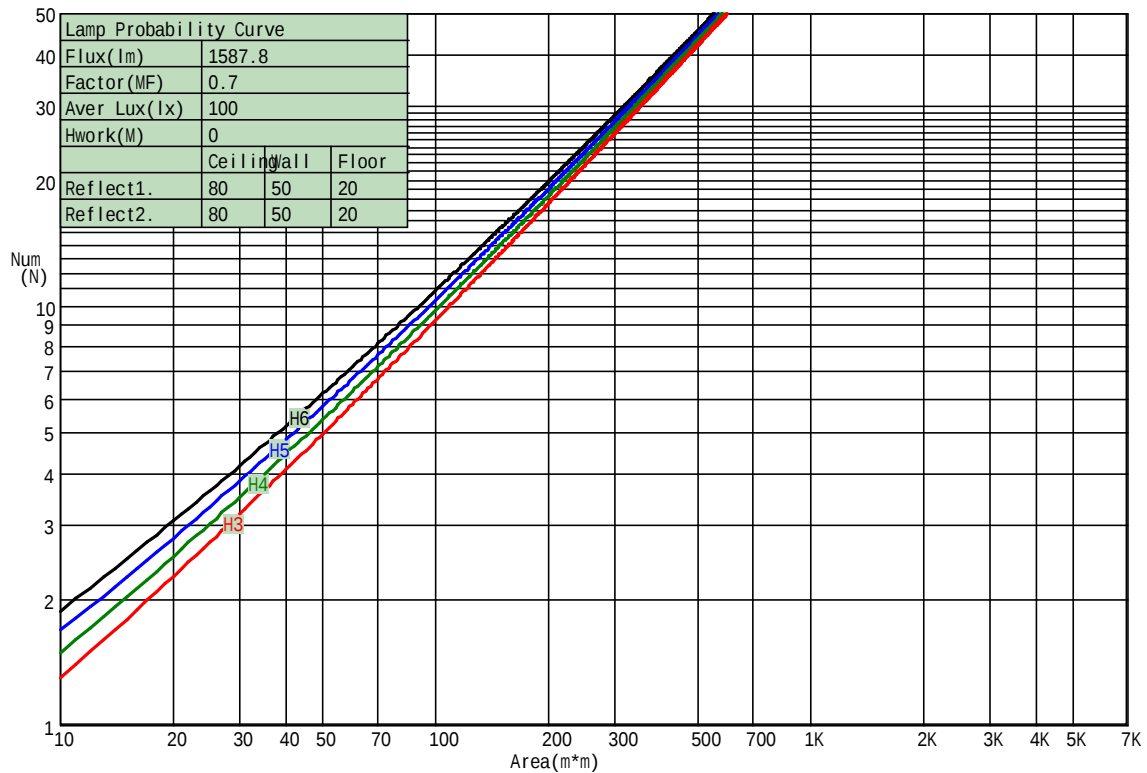
Humidity(%): 60

Date: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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	57	43	34	55	42	34	52	41	33
0.80	59	43	32	57	42	32	53	40	31
1.00	61	44	32	58	42	31	53	40	30
1.25	62	44	31	59	42	30	54	40	29
1.50	64	45	30	60	43	30	54	39	28
2.00	66	46	31	62	44	30	55	40	28
2.50	67	47	31	63	45	29	56	40	27
3.00	69	48	31	64	46	30	56	41	27
4.00	70	50	32	66	47	30	57	41	27
5.00	72	51	33	67	48	31	58	42	28

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	1.08	1.05	1.02	1.06	1.03	1	1.02	0.99	0.97	0.98	0.96	0.94	0.94	0.93	0.91
2	0.98	0.93	0.88	0.96	0.91	0.87	0.93	0.89	0.85	0.9	0.86	0.83	0.87	0.84	0.82
3	0.89	0.82	0.77	0.87	0.81	0.77	0.85	0.8	0.75	0.82	0.78	0.74	0.8	0.76	0.73
4	0.81	0.74	0.69	0.8	0.73	0.68	0.77	0.72	0.67	0.75	0.7	0.66	0.73	0.69	0.66
5	0.74	0.67	0.61	0.73	0.66	0.61	0.71	0.65	0.61	0.69	0.64	0.6	0.68	0.63	0.59
6	0.68	0.61	0.55	0.67	0.6	0.55	0.66	0.59	0.55	0.64	0.59	0.54	0.63	0.58	0.54
7	0.63	0.56	0.5	0.62	0.55	0.5	0.61	0.54	0.5	0.59	0.54	0.5	0.58	0.53	0.49
8	0.58	0.51	0.46	0.58	0.51	0.46	0.56	0.5	0.46	0.55	0.5	0.45	0.54	0.49	0.45
9	0.54	0.47	0.42	0.54	0.47	0.42	0.53	0.46	0.42	0.52	0.46	0.42	0.51	0.46	0.42
10	0.51	0.44	0.39	0.5	0.44	0.39	0.49	0.43	0.39	0.48	0.43	0.39	0.48	0.42	0.39

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: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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	0.23	0.13	0.04	0.22	0.13	0.04	0.21	0.12	0.04	0.2	0.12	0.04	0.19	0.11	0.04
2	0.22	0.12	0.04	0.22	0.12	0.04	0.2	0.11	0.04	0.19	0.11	0.03	0.18	0.1	0.03
3	0.21	0.11	0.03	0.2	0.11	0.03	0.19	0.11	0.03	0.19	0.1	0.03	0.18	0.1	0.03
4	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.1	0.03	0.18	0.09	0.03	0.17	0.09	0.03
5	0.19	0.09	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.16	0.09	0.03
6	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.02	0.16	0.08	0.02	0.15	0.08	0.02
7	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
8	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02	0.14	0.07	0.02	0.14	0.07	0.02
9	0.15	0.07	0.02	0.15	0.07	0.02	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02
10	0.14	0.07	0.02	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.06	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	0.09	0.1	0.08	0.06	0.06	0.05	0.04	0.02	0.01	0.01
3	0.15	0.11	0.08	0.13	0.1	0.07	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	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.14	0.09	0.05	0.12	0.08	0.05	0.08	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.13	0.08	0.04	0.11	0.07	0.04	0.08	0.05	0.03	0.04	0.03	0.02	0.01	0.01	0.01
7	0.12	0.07	0.04	0.11	0.06	0.03	0.07	0.04	0.02	0.04	0.03	0.01	0.01	0.01	0
8	0.12	0.07	0.03	0.1	0.06	0.03	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
9	0.11	0.06	0.03	0.1	0.05	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.11	0.06	0.02	0.09	0.05	0.02	0.06	0.04	0.02	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: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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	1234	1226	1210	1214	1235	1200	1198	1173	0-5	29.3	29.3
10	1150	1150	1125	1145	1150	1106	1109	1075	5-10	83.6	113
15	1020	1026	995	1027	1017	970	981	942	10-15	126	239
20	876	882	856	884	872	830	842	804	15-20	152	391
25	750	752	728	752	745	710	718	686	20-25	166	556
30	637	641	620	640	633	605	614	584	25-30	170	727
35	547	549	533	548	542	521	528	503	30-35	169	896
40	471	472	457	470	463	447	453	435	35-40	165	1061
45	398	407	384	405	389	366	381	350	40-45	157	1218
50	288	299	278	299	280	255	275	247	45-50	134	1352
55	173	188	161	192	168	146	158	133	50-55	95.5	1448
60	73.8	85	69.4	92.8	73.3	57.4	66.7	49.6	55-60	53	1501
65	43.6	42.9	36.9	45.2	43.6	40.2	40.5	37.7	60-65	24.7	1525
70	36	35.8	21.9	36.9	34.8	32.2	33.3	30.5	65-70	18.7	1544
75	28.3	28.8	18.6	29.8	27.3	25.2	26.4	24.3	70-75	15.3	1559
80	21.9	22.5	16.1	23.2	20.5	19	19.8	17.6	75-80	12.3	1572
85	14.8	15.6	13.3	15.7	13.6	12.7	13.4	12.1	80-85	9.17	1581
90	12.5	12.2	11.9	12.1	10.7	10.6	10.5	10.3	85-90	6.79	1588
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: 2026-1-22

Remark:

Measured Para U: 232.6V I: 140.0mA P: 19.40W PF: 0.595 Test LM: 1587.77lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-20GF01-Y	Lamp Spec: LPDL-20GF01-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	1234	1231	1227	1221	1213	1211	1212	1216	1226	1235	1220	1204	1199	1198	1193	1181	1180	1207
10.0	1150	1150	1150	1142	1130	1129	1138	1146	1148	1150	1131	1111	1107	1108	1101	1086	1083	1117
15.0	1020	1023	1026	1016	1002	1002	1016	1026	1021	1017	997	975	974	978	972	955	950	986
20.0	876	879	881	873	862	862	875	883	877	872	853	835	834	840	834	817	812	845
25.0	750	751	752	744	733	733	744	751	748	745	730	714	713	717	711	697	693	722
30.0	637	639	640	634	624	624	634	640	636	633	621	608	608	612	608	594	590	614
35.0	547	548	549	544	537	536	543	547	545	542	533	523	523	526	522	511	508	528
40.0	471	471	472	467	460	460	466	470	466	463	456	449	449	452	449	441	439	455
45.0	398	402	406	399	389	388	398	403	396	389	379	369	371	378	374	360	356	377
50.0	288	293	297	292	282	282	292	297	288	280	269	257	261	270	269	256	252	270
55.0	173	180	187	180	167	168	182	189	178	168	158	148	150	155	152	141	137	155
60.0	73.8	78.7	83.8	79.9	72.8	74.5	85.2	90.7	81.9	73.3	66.3	59.1	60.4	64.7	62.9	55.2	52.2	63.2
65.0	43.6	43.3	42.9	40.9	38.2	38.8	42.5	45	44.3	43.6	42.1	40.6	40.3	40.5	39.9	38.6	38.4	41
70.0	36	35.9	35.9	31.3	25	25.2	32	36.6	35.7	34.8	33.7	32.5	32.6	33.1	32.7	31.4	31.1	33.6
75.0	28.3	28.6	28.8	25.5	20.8	21	26.1	29.5	28.4	27.3	26.4	25.4	25.6	26.1	25.9	24.9	24.7	26.5
80.0	21.9	22.2	22.4	20.4	17.5	17.7	20.9	22.9	21.7	20.5	19.9	19.2	19.3	19.6	19.3	18.3	18.1	20
85.0	14.8	15.2	15.5	14.8	13.8	13.8	14.9	15.4	14.5	13.6	13.2	12.8	12.9	13.2	13.1	12.5	12.4	13.6
90.0	12.5	12.4	12.2	12.1	12	12	12	11.9	11.3	10.7	10.7	10.7	10.6	10.6	10.5	10.4	10.6	11.6
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: 2026-1-22

Remark: