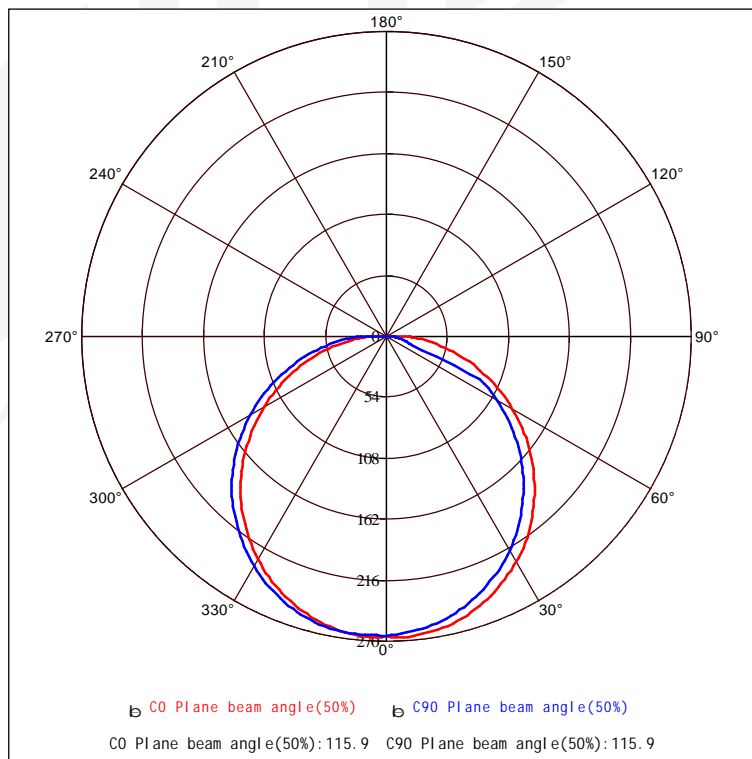


### Goniophotometer Test Report

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m						
Lamp Name: LED DOWN LIGHT		Lamp Type:		Weight(kg):		
Lamp ID: LPDL-10ENS01-Y		Lamp Spec: LPDL-10ENS01-Y		Shape Size:		
Manufactory: LIPER		Sur(m <sup>2</sup> ):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	LPDL-10ENS01-Y		Peak Value(cd)	267.3	Efficiency(lm/w)	81.9
Nominal P(w)	10.0		Position	0.0,0.0	UP(C0-C180)	0.0
Rated Volt(v)	1.0		Total Flux(lm)	802.521	Down(C0-C180)	47.7
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)	52.3

### 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

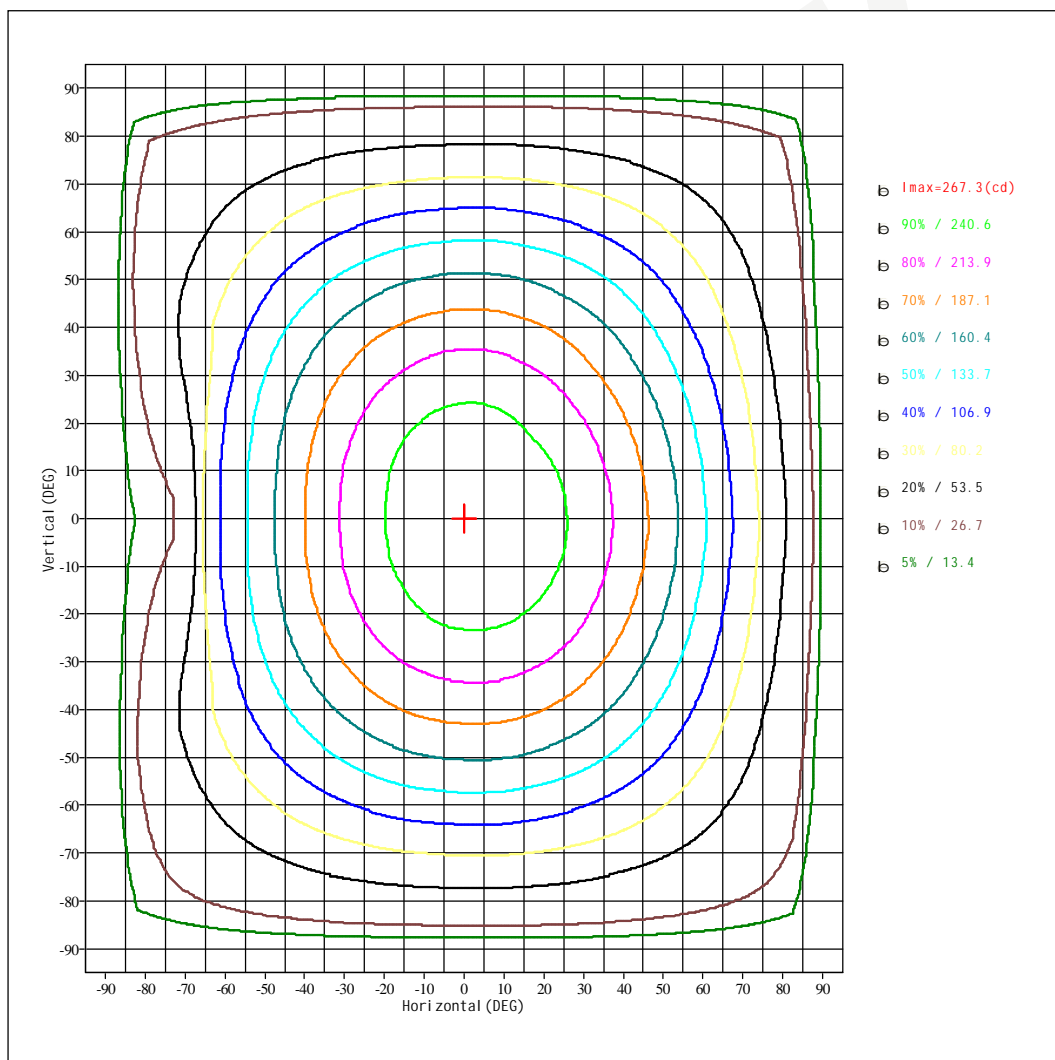
Humidity(%): 60

Date: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	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

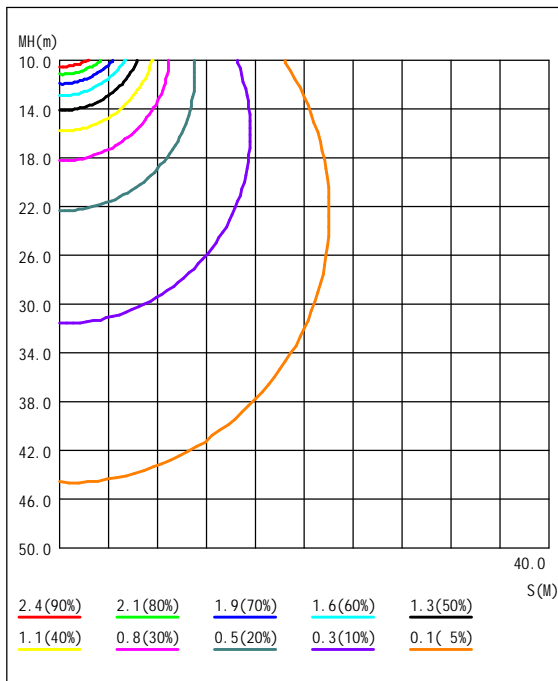
Humidity(%): 60

Date: 2026-4-2

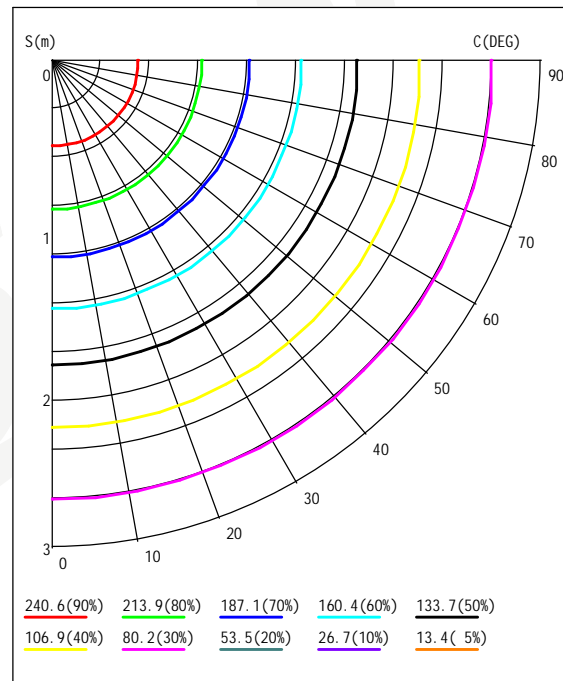
Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.52lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	Protect Angle(Deg):

Spacial 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

Humi di ty(%): 60

Date: 2026-4-2

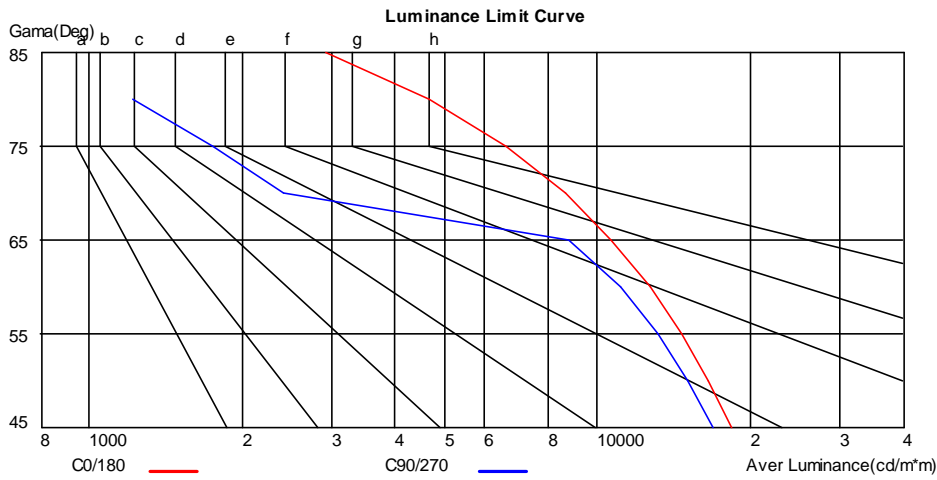
Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	Protect Angle(Deg):

Luminance Limit Curve

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	18385.3	16589.4	14692.7	12705.7	10680.5	8642.6	6617.0	4672.1	2927.8
C90	16918.2	15069.5	13146.7	11152.4	8807.3	2417.7	1753.2	1218.1	784.5

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: zxg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

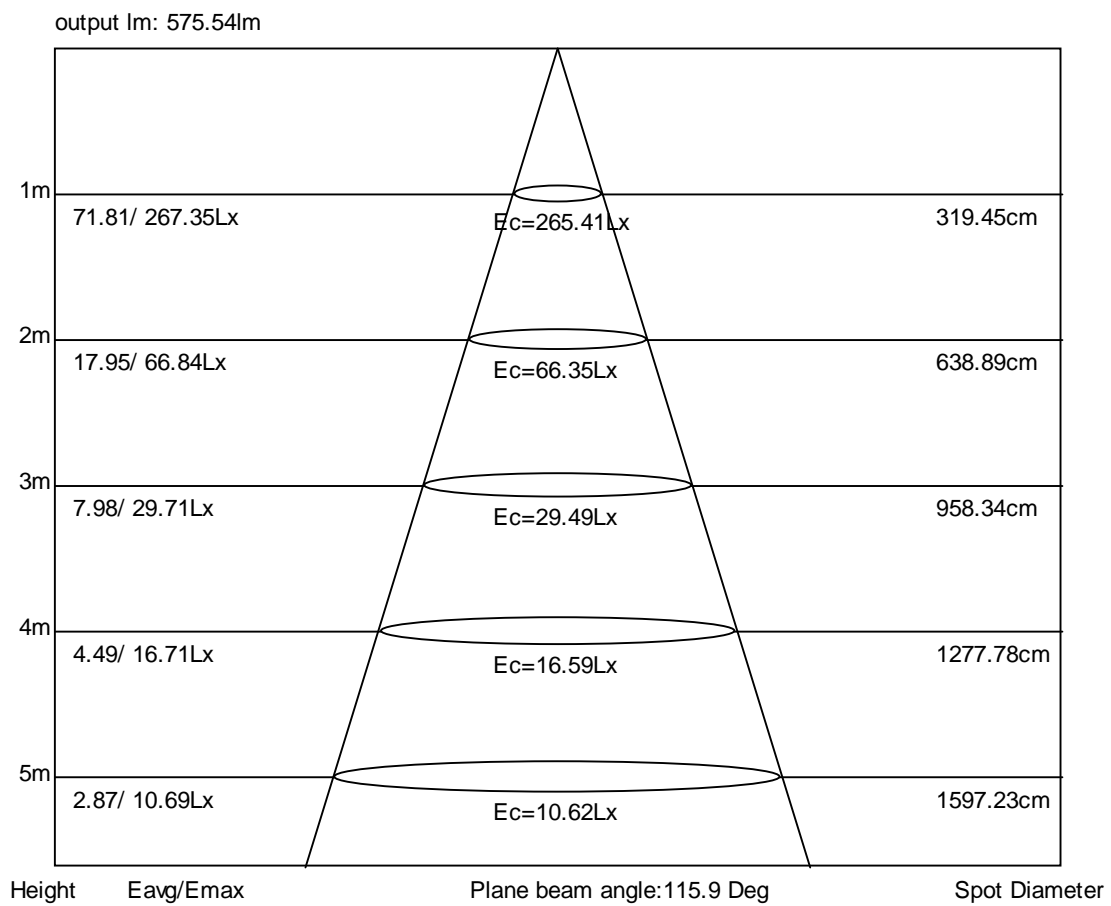
Humi di ty(%): 60

Date: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	Protect Angle(Deg):

Average Illumination



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

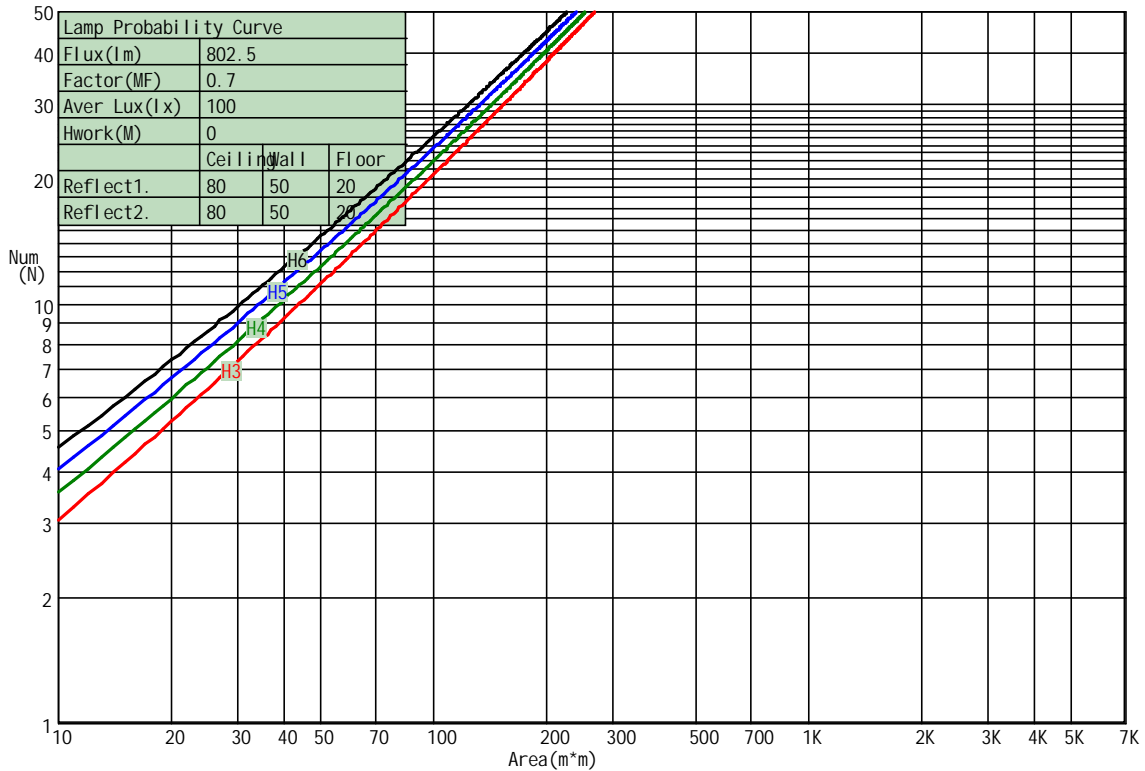
Humi di ty(%): 60

Date: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Size:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	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: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
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	28	51	37	28	48	35	27
0.80	57	41	30	55	40	29	51	38	28
1.00	60	43	31	58	42	30	53	39	29
1.25	63	45	32	60	44	31	55	41	30
1.50	65	47	33	62	45	32	56	41	30
2.00	68	49	34	64	47	33	57	43	31
2.50	69	50	34	65	48	33	58	43	30
3.00	71	51	34	66	48	33	58	43	30
4.00	72	52	35	68	49	33	59	44	30
5.00	73	53	35	68	50	33	59	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	1.03	0.98	0.94	1	0.96	0.92	0.96	0.92	0.89	0.92	0.89	0.87	0.88	0.86	0.84
2	0.89	0.82	0.76	0.87	0.8	0.75	0.83	0.78	0.73	0.8	0.75	0.71	0.77	0.73	0.7
3	0.78	0.69	0.62	0.76	0.68	0.62	0.73	0.66	0.61	0.7	0.65	0.6	0.68	0.63	0.59
4	0.69	0.6	0.53	0.67	0.59	0.52	0.65	0.57	0.52	0.62	0.56	0.51	0.6	0.55	0.5
5	0.61	0.52	0.45	0.6	0.51	0.45	0.58	0.5	0.44	0.56	0.49	0.44	0.54	0.48	0.43
6	0.55	0.46	0.39	0.54	0.45	0.39	0.52	0.45	0.39	0.51	0.44	0.38	0.49	0.43	0.38
7	0.5	0.41	0.35	0.49	0.41	0.35	0.48	0.4	0.34	0.46	0.39	0.34	0.45	0.38	0.34
8	0.46	0.37	0.31	0.45	0.37	0.31	0.43	0.36	0.31	0.42	0.35	0.3	0.41	0.35	0.3
9	0.42	0.33	0.28	0.41	0.33	0.28	0.4	0.33	0.27	0.39	0.32	0.27	0.38	0.32	0.27
10	0.38	0.3	0.25	0.38	0.3	0.25	0.37	0.3	0.25	0.36	0.29	0.25	0.35	0.29	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

Humi di ty(%): 60

Date: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Wall Exi tance 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	0.33	0.19	0.06	0.33	0.19	0.06	0.31	0.18	0.06	0.3	0.17	0.06	0.29	0.17	0.05
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	0.04	0.27	0.15	0.04	0.26	0.14	0.04	0.25	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	0.23	0.13	0.04	0.23	0.12	0.04
5	0.24	0.12	0.03	0.23	0.12	0.03	0.22	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03
6	0.22	0.11	0.03	0.21	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	0.17	0.09	0.03	0.17	0.09	0.03
9	0.18	0.09	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	0.17	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 Cavi ty Exi tance 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	0.04	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	0.09	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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 30

Humi di ty(%): 60

Tester: zxcg

Date: 2026-4-2

Distance(m): 7.000

Remark:

Test System: ZWL Goni ophotometer System V3.0

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
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	266	264	262	262	266	265	265	263	0-5	6.33	6.33
10	263	260	257	258	262	263	263	260	5-10	18.8	25.1
15	258	254	250	252	256	258	259	255	10-15	30.6	55.8
20	250	245	241	243	249	250	253	248	15-20	41.4	97.2
25	240	235	231	233	239	241	244	239	20-25	50.9	148
30	230	223	218	221	226	231	234	229	25-30	58.7	207
35	216	209	203	207	213	218	221	215	30-35	64.6	271
40	201	194	187	192	198	202	207	201	35-40	68.4	340
45	184	177	169	176	181	186	192	184	40-45	70.1	410
50	166	159	151	158	163	168	175	166	45-50	69.5	479
55	147	140	131	139	143	149	156	148	50-55	66.8	546
60	127	120	112	119	123	129	137	128	55-60	62.1	608
65	107	100	88.1	99.3	103	109	117	108	60-65	55.6	664
70	86.4	80.3	24.2	79.4	82.5	87.9	96.8	87.6	65-70	45.7	710
75	66.2	60.6	17.5	59.7	62.4	67.5	76.4	67.4	70-75	36	746
80	46.7	41.9	12.2	40.6	42.9	47.6	56.5	47.7	75-80	27.2	773
85	29.3	25.9	7.84	24.7	26.2	30	37.9	30.6	80-85	18.5	791
90	19.7	14.4	5.52	11.1	13.9	20	21.9	20.5	85-90	11.2	803
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

Humi di ty(%): 60

Date: 2026-4-2

Remark:

Measured Para U: 229.6V I: 81.0mA P: 9.80W PF: 0.526 Test LM: 802.521m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-10ENS01-Y	Lamp Spec: LPDL-10ENS01-Y	Shape Si ze:
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	266	265	264	264	263	262	262	263	264	266	266	265	265	265	265	264	263	265
10.0	263	262	261	259	258	257	258	258	260	262	263	263	263	263	263	261	261	262
15.0	258	256	254	253	251	250	251	252	254	256	257	258	258	259	258	257	256	257
20.0	250	248	246	244	242	241	243	244	246	249	249	250	251	252	252	250	249	249
25.0	240	238	236	234	232	231	232	234	236	239	240	241	242	244	243	241	239	240
30.0	230	227	223	221	219	218	220	221	224	226	228	230	232	233	233	230	229	229
35.0	216	213	209	207	204	204	206	208	210	213	215	217	219	220	220	217	216	216
40.0	201	198	195	191	188	188	191	193	195	198	200	202	204	206	206	203	201	201
45.0	184	181	178	174	171	171	174	176	179	181	183	185	188	191	190	187	184	184
50.0	166	163	160	156	152	152	155	158	160	163	165	167	170	173	173	169	166	166
55.0	147	144	141	137	133	133	136	139	141	143	146	148	151	155	155	151	148	147
60.0	127	124	121	117	113	113	117	120	122	123	126	128	132	135	135	131	128	128
65.0	107	104	101	96.3	90.7	90.5	95.6	99.7	101	103	105	108	111	115	115	111	108	107
70.0	86.4	83.7	80.9	61.9	36.4	36.3	61.3	79.8	81.2	82.5	84.9	87.3	90.8	94.8	94.8	90.6	87.5	87
75.0	66.2	63.7	61.2	46.5	27	26.8	45.9	60	61.2	62.4	64.6	66.9	70.4	74.5	74.4	70.4	67.3	66.7
80.0	46.7	44.6	42.4	32.1	18.7	18.4	31.3	40.9	41.9	42.9	44.9	47	50.5	54.5	54.6	50.6	47.6	47.2
85.0	29.3	27.8	26.3	20	11.8	11.5	19.1	24.8	25.5	26.2	27.9	29.6	32.6	36.2	36.3	33	30.5	29.9
90.0	19.7	17.4	15	11.5	7.46	6.74	9.28	11.4	12.7	13.9	16.6	19.3	20.6	21.4	21.6	20.9	20.4	20
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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 30

Humi di ty(%): 60

Tester: zxcg

Date: 2026-4-2

Distance(m): 7.000

Remark:

Test System: ZWL Goniophotometer System V3.0