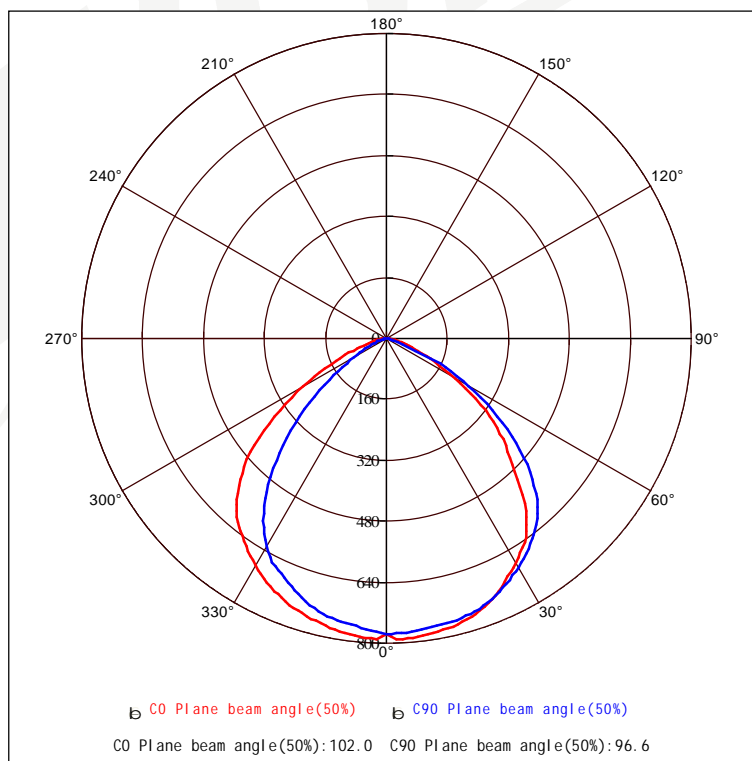


### Goniophotometer Test Report

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm						
Lamp Name: LED FLOOD LIGHT		Lamp Type:		Weight(kg):		
Lamp ID: LPFL-20BW02		Lamp Spec: LPFL-20BW02		Shape Size:		
Manufactory: LIPER		Sur(m <sup>2</sup> ):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	LPFL-20BW02		Peak Value(cd)	791.8	Efficiency(lm/w)	91.6
Nominal P(w)	20.0		Position	180.0, 1.0	UP(C0-C180)	0.0
Rated Volt(v)	1.0		Total Flux(lm)	1795.258	Down(C0-C180)	55.2
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)	44.8

### 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

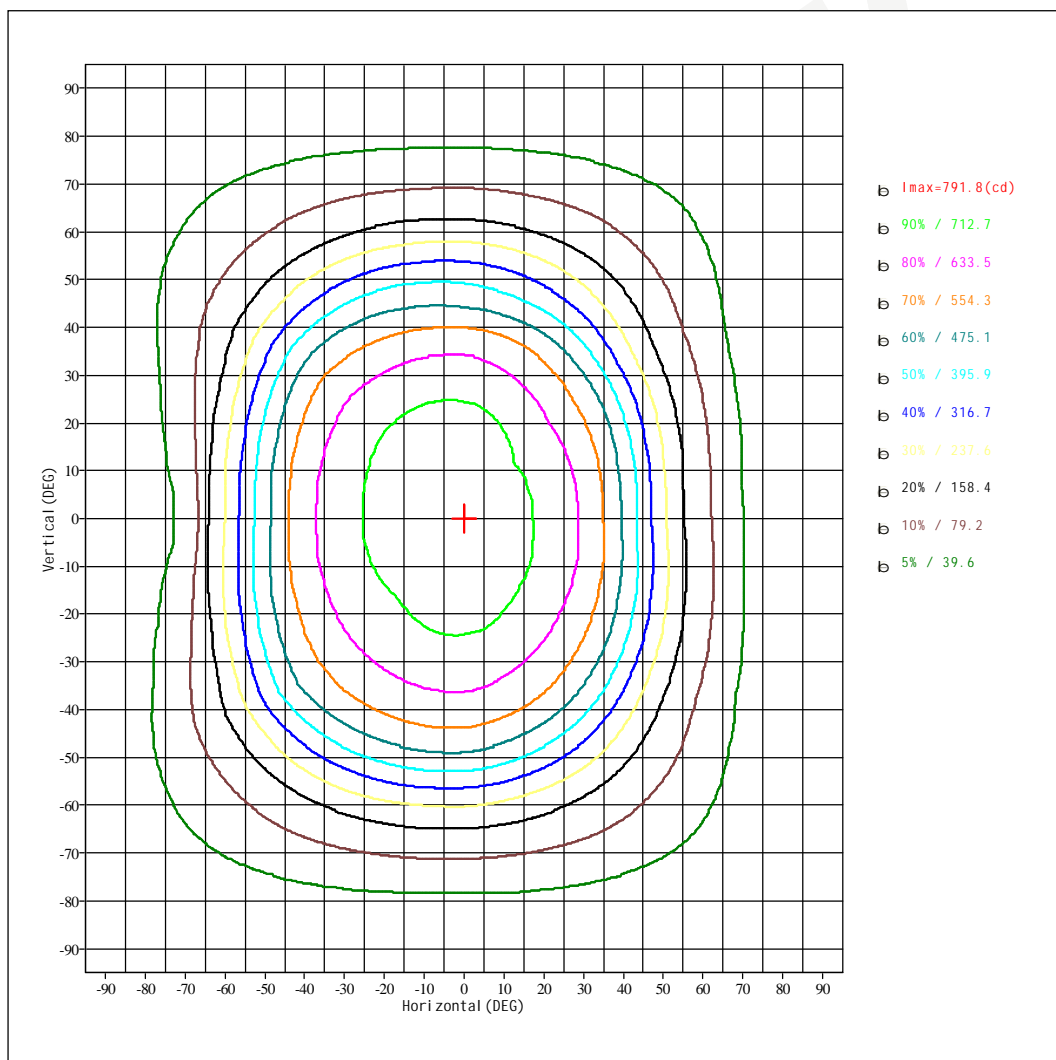
Humidity(%): 60

Date: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	Shape Si ze:
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

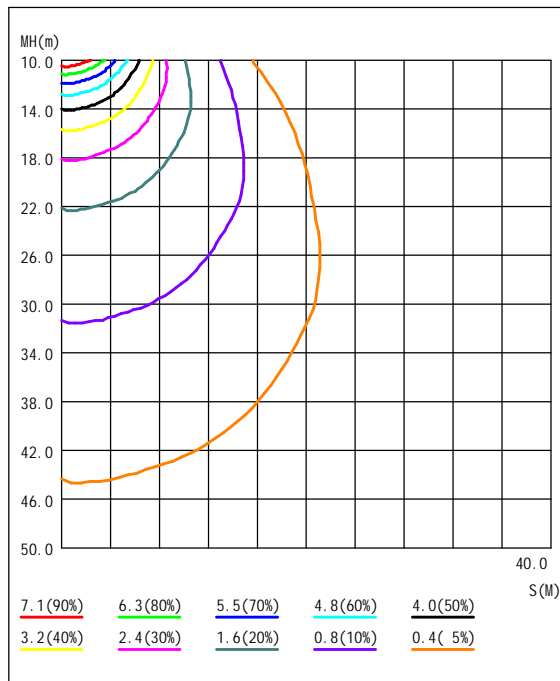
Humi di ty(%): 60

Date: 2026-4-3

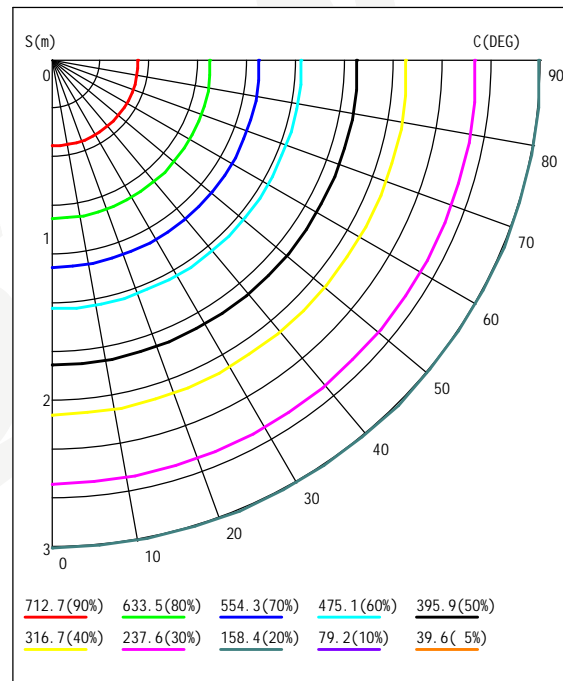
Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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: 2026-4-3

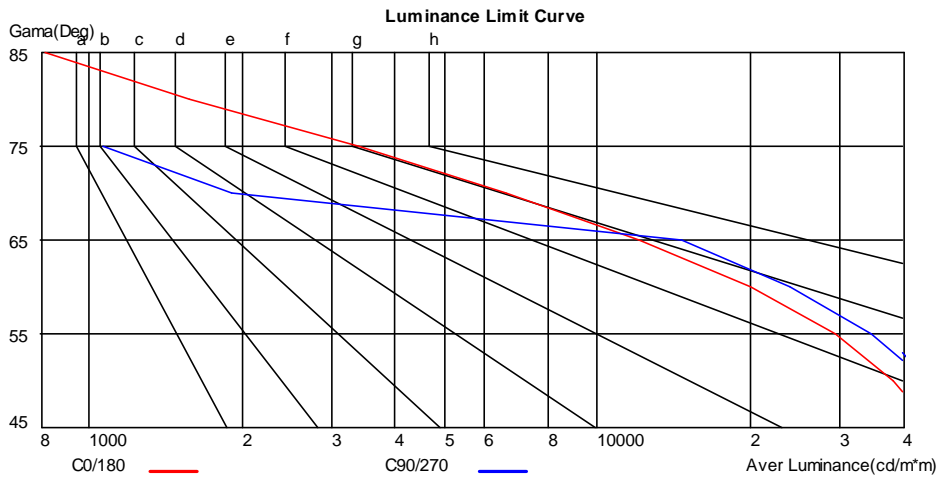
Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	Shape Si ze:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Luminance Limit Curve

Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	46120.3	38229.8	29450.5	19998.4	12139.3	6609.1	3382.5	1575.8	819.3
C90	53922.1	44732.1	34611.6	23920.8	14704.4	1906.6	1060.4	731.6	533.6

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

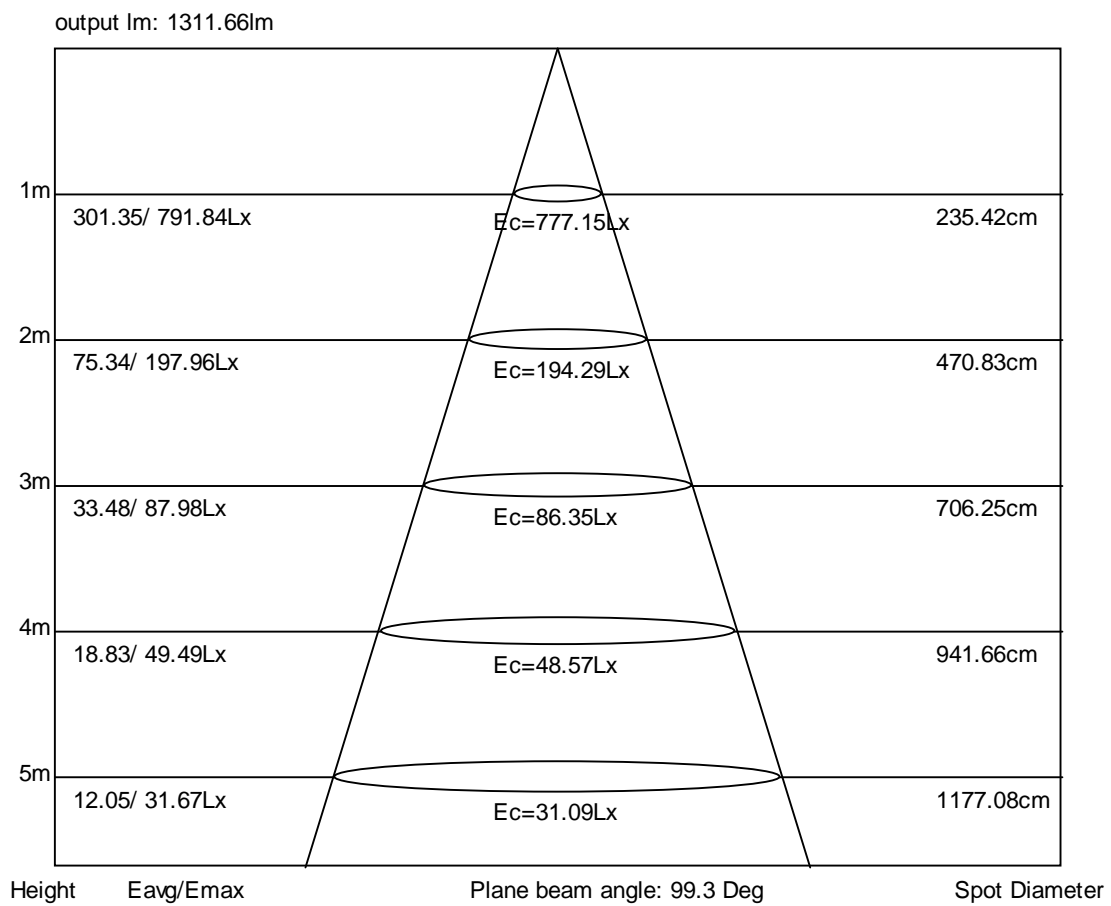
Humi di ty(%): 60

Date: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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

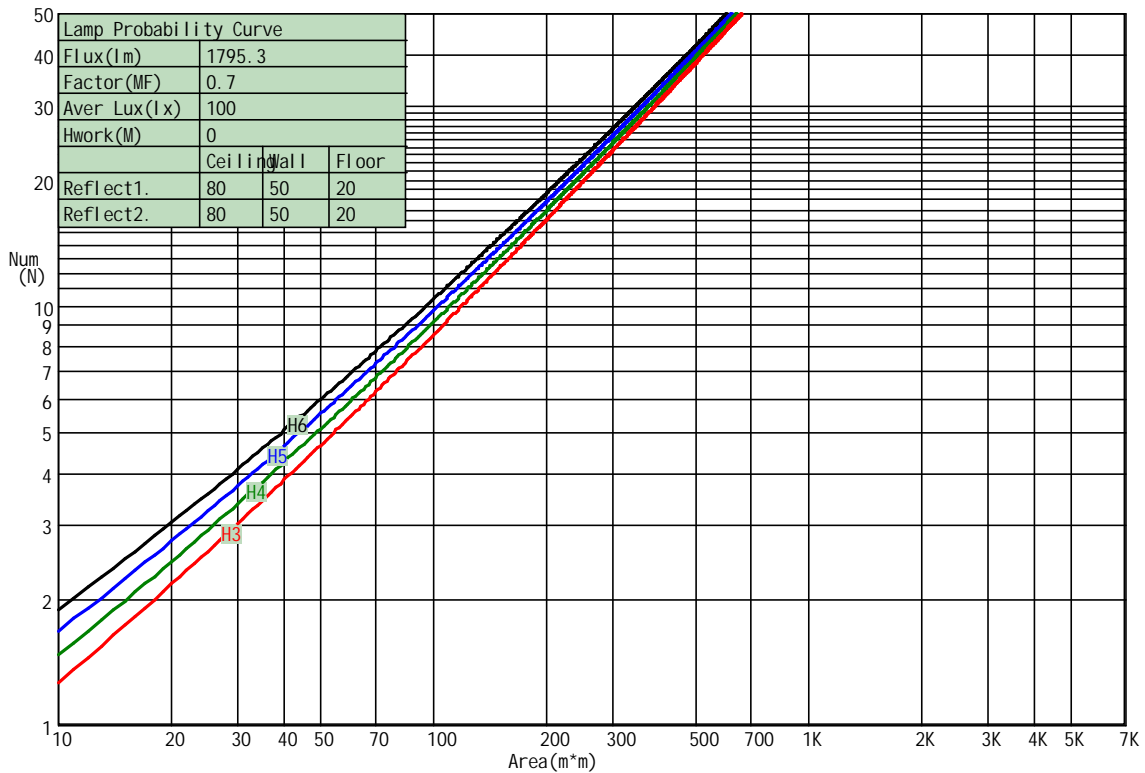
Humi di ty(%): 60

Date: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	Shape Size:
Manufactory: LIPER	Sur(m <sup>2</sup> ):	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	56	42	33	54	41	33	51	40	32
0.80	59	43	33	57	42	32	53	40	31
1.00	61	45	33	59	43	32	54	41	31
1.25	63	46	33	61	44	32	55	41	30
1.50	65	46	32	62	45	31	56	41	30
2.00	67	48	33	63	46	31	56	42	29
2.50	68	48	32	64	46	31	57	41	28
3.00	69	49	32	65	46	30	57	41	28
4.00	70	50	32	66	47	30	57	41	27
5.00	71	51	32	67	48	30	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	1.07	1.03	1	1.05	1.01	0.99	1	0.98	0.95	0.97	0.95	0.93	0.93	0.91	0.9
2	0.95	0.89	0.85	0.93	0.88	0.84	0.9	0.85	0.82	0.87	0.83	0.8	0.84	0.81	0.78
3	0.85	0.78	0.72	0.83	0.77	0.72	0.81	0.75	0.7	0.78	0.73	0.69	0.75	0.71	0.68
4	0.76	0.68	0.62	0.75	0.68	0.62	0.73	0.66	0.61	0.7	0.65	0.6	0.68	0.63	0.6
5	0.69	0.61	0.54	0.68	0.6	0.54	0.66	0.59	0.54	0.64	0.58	0.53	0.62	0.57	0.53
6	0.62	0.54	0.48	0.61	0.54	0.48	0.6	0.53	0.47	0.58	0.52	0.47	0.56	0.51	0.47
7	0.57	0.49	0.43	0.56	0.48	0.43	0.54	0.47	0.42	0.53	0.47	0.42	0.52	0.46	0.42
8	0.52	0.44	0.38	0.51	0.44	0.38	0.5	0.43	0.38	0.49	0.42	0.38	0.48	0.42	0.38
9	0.48	0.4	0.35	0.47	0.4	0.35	0.46	0.39	0.34	0.45	0.39	0.34	0.44	0.38	0.34
10	0.44	0.37	0.32	0.44	0.36	0.32	0.43	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.31

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: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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	0.25	0.14	0.05	0.25	0.14	0.04	0.23	0.13	0.04	0.22	0.13	0.04	0.21	0.12	0.04
2	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.13	0.04	0.22	0.12	0.04	0.21	0.12	0.04
3	0.23	0.12	0.04	0.23	0.12	0.04	0.22	0.12	0.04	0.21	0.11	0.04	0.2	0.11	0.03
4	0.22	0.11	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.2	0.11	0.03	0.19	0.1	0.03
5	0.21	0.11	0.03	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.1	0.03
6	0.2	0.1	0.03	0.19	0.1	0.03	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03
7	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.03	0.16	0.08	0.02
8	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02
9	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
10	0.15	0.07	0.02	0.15	0.07	0.02	0.15	0.07	0.02	0.14	0.07	0.02	0.14	0.07	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	0.14	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	0.17	0.13	0.1	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	0.16	0.11	0.08	0.14	0.1	0.07	0.09	0.07	0.05	0.05	0.04	0.03	0.02	0.01	0.01
4	0.15	0.1	0.06	0.13	0.09	0.05	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	0.04	0.08	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	0.04	0.08	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
7	0.13	0.07	0.04	0.11	0.06	0.03	0.08	0.05	0.02	0.04	0.03	0.01	0.01	0.01	0
8	0.12	0.07	0.03	0.11	0.06	0.03	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
9	0.12	0.06	0.03	0.1	0.06	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	0.1	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: 2026-4-3

Distance(m): 7.000

Remark:

Test System: ZWL Goni ophotometer System V3.0

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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	789	781	773	766	784	771	761	756	0-5	18.5	18.5
10	780	777	766	760	775	757	749	745	5-10	54.9	73.4
15	770	765	759	748	760	739	731	729	10-15	89.8	163
20	747	749	744	732	743	713	700	705	15-20	122	285
25	714	727	718	714	717	684	670	670	20-25	150	435
30	675	695	692	687	683	641	625	624	25-30	173	608
35	633	657	655	651	647	597	553	570	30-35	189	798
40	555	610	612	614	605	533	463	501	35-40	197	995
45	461	557	539	565	540	449	360	399	40-45	194	1189
50	382	474	447	509	455	341	250	284	45-50	177	1366
55	295	370	346	420	346	237	161	188	50-55	149	1516
60	200	264	239	313	241	142	92.9	112	55-60	114	1630
65	121	169	147	204	153	78.3	50.9	60.1	60-65	77.7	1707
70	66.1	96.9	19.1	118	87.1	39.5	26.2	29.9	65-70	44.2	1751
75	33.8	52.1	10.6	63.1	44.3	18.1	12.2	13.1	70-75	23.2	1775
80	15.8	26.4	7.32	31.6	19.9	7.5	5.7	5.76	75-80	11.8	1786
85	8.19	12.7	5.34	13.4	8.2	3.05	2.74	2.61	80-85	5.77	1792
90	5.18	6.92	4.51	7.2	2.78	2.68	2.79	2.68	85-90	3.01	1795
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: 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: 2026-4-3

Remark:

Measured Para U: 233.8V I: 139.0mA P: 19.60W PF: 0.600 Test LM: 1795.26lm		
Lamp Name: LED FLOOD LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPFL-20BW02	Lamp Spec: LPFL-20BW02	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	789	786	782	778	775	772	768	768	776	784	779	772	768	763	759	757	759	775
10.0	780	778	777	773	769	765	762	762	768	775	767	759	755	751	748	746	749	765
15.0	770	768	765	763	760	757	752	749	755	760	751	741	736	733	731	730	733	752
20.0	747	748	749	748	745	742	736	733	738	743	730	717	709	703	701	703	710	729
25.0	714	720	726	724	720	717	715	714	715	717	702	687	679	673	670	670	675	695
30.0	675	684	693	694	692	690	688	686	685	683	665	646	636	628	625	624	630	653
35.0	633	643	654	656	655	654	653	651	649	647	625	602	583	563	557	564	577	605
40.0	555	579	604	611	612	613	613	613	609	605	573	541	510	479	472	489	507	532
45.0	461	503	546	551	543	545	556	562	551	540	500	459	420	379	369	386	406	434
50.0	382	423	464	466	453	461	489	503	478	455	405	353	311	270	258	273	295	339
55.0	295	328	362	362	351	362	396	412	379	346	299	249	212	178	167	179	200	248
60.0	200	228	257	256	245	255	289	305	273	241	198	153	126	104	97	106	121	161
65.0	121	142	164	162	152	160	186	199	176	153	121	86.5	69.3	56.9	52.9	57.1	66.8	94.6
70.0	66.1	79.6	93.6	71.4	36.1	40.8	85.7	115	101	87.1	66.3	44.7	35.1	29.1	27	28.7	33.8	50.2
75.0	33.8	41.8	50.1	38.5	19.7	22.1	45.9	61.1	52.5	44.3	32.8	21	16.2	13.5	12.4	12.8	15.4	24.8
80.0	15.8	20.4	25.3	20.1	11.5	12.6	23.7	30.4	25.1	19.9	14.5	8.86	6.91	6.09	5.71	5.74	6.86	11.4
85.0	8.19	10.2	12.2	10.3	6.96	7.11	10.8	12.9	10.5	8.2	5.95	3.62	2.95	2.81	2.72	2.66	3.22	5.75
90.0	5.18	5.94	6.73	6.13	5.04	5.1	6.32	6.72	4.72	2.78	2.74	2.69	2.71	2.76	2.76	2.71	2.95	4.09
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: 2026-4-3

Distance(m): 7.000

Remark:

Test System: ZWL Goniophotometer System V3.0