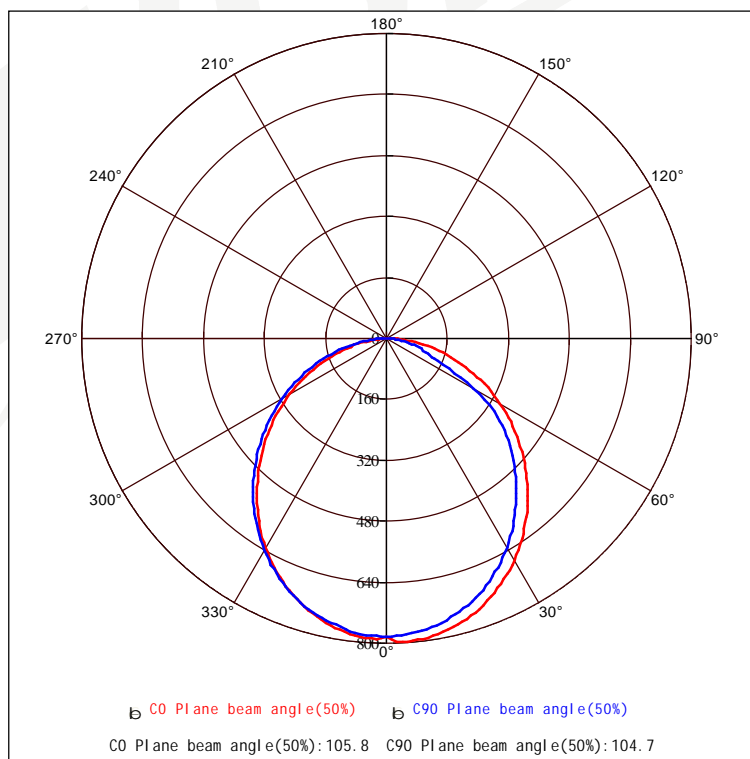


Goniophotometer Test Report

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm						
Lamp Name: LED DOWN LIGHT		Lamp Type:		Weight(kg):		
Lamp ID: LPDL-30EMS01-Y		Lamp Spec:		Shape Size:		
Manufactory: LIPER		Sur(m ²):		Protect Angle(Deg):		
Light Source Data			Photometric Data			
Model	LPDL-30EMS01-Y		Peak Value(cd)	798.0	Efficiency(lm/w)	90.7
Nominal P(w)	1.0		Position	0.0, 2.0	UP(C0-C180)	0.0
Rated Volt(v)	1.0		Total Flux(lm)	2701.05	Down(C0-C180)	49.6
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)	50.4

Planar Intensity Distribution Curve



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

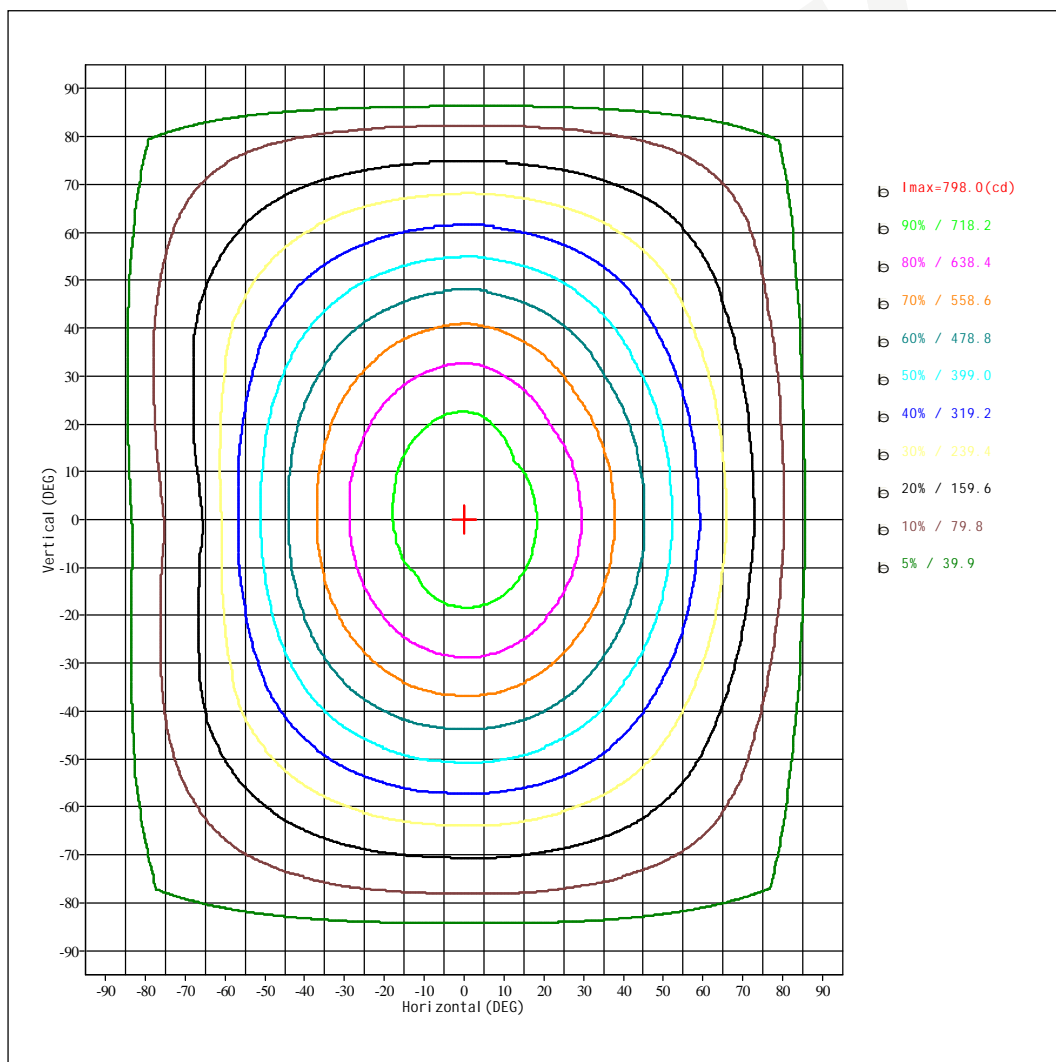
Humidity(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	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: zxg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

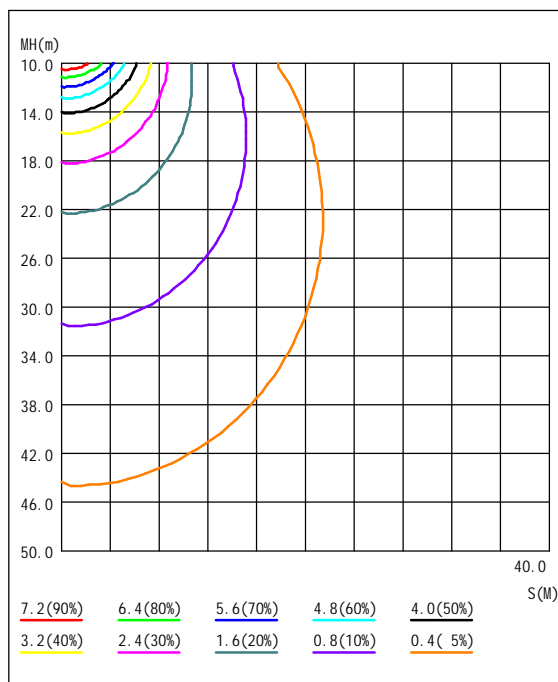
Humi di ty(%): 60

Date: 2023-11-14

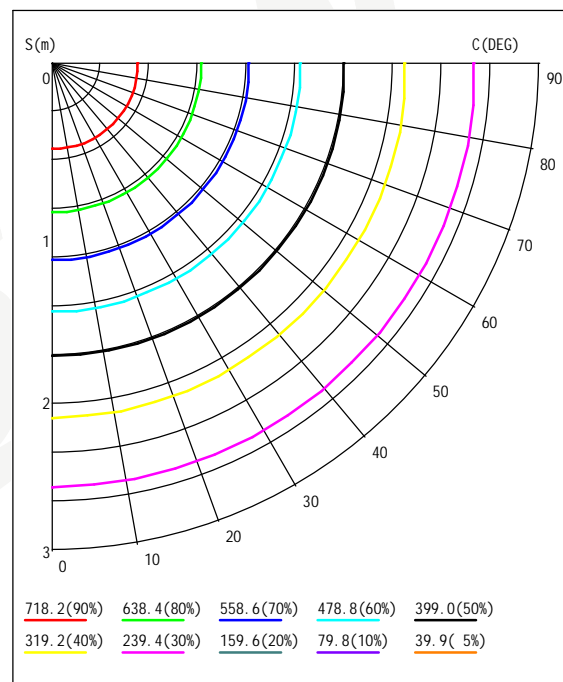
Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m ²):	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): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

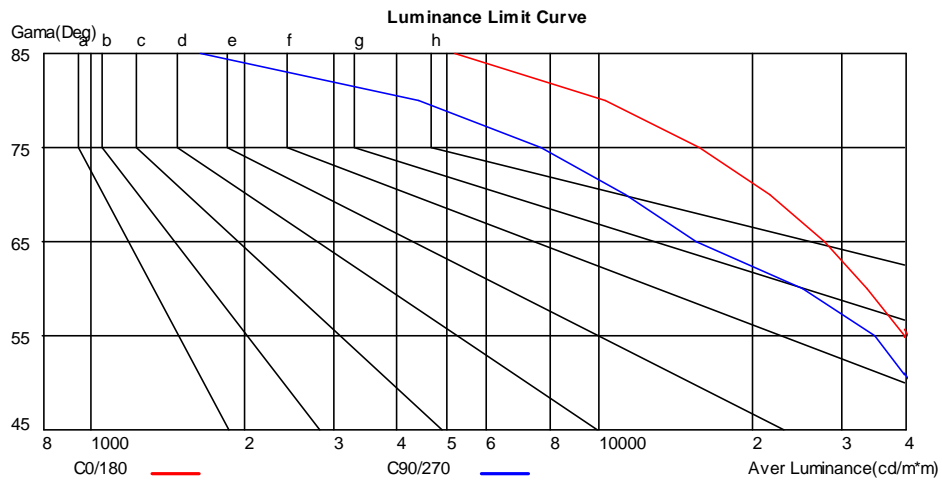
Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	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	51497.2	45787.5	39882.3	33831.5	27749.8	21675.3	15793.8	10294.0	5208.5
C90	47006.3	41103.5	34881.0	25245.5	15557.7	11238.5	7701.8	4409.0	1643.8

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): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

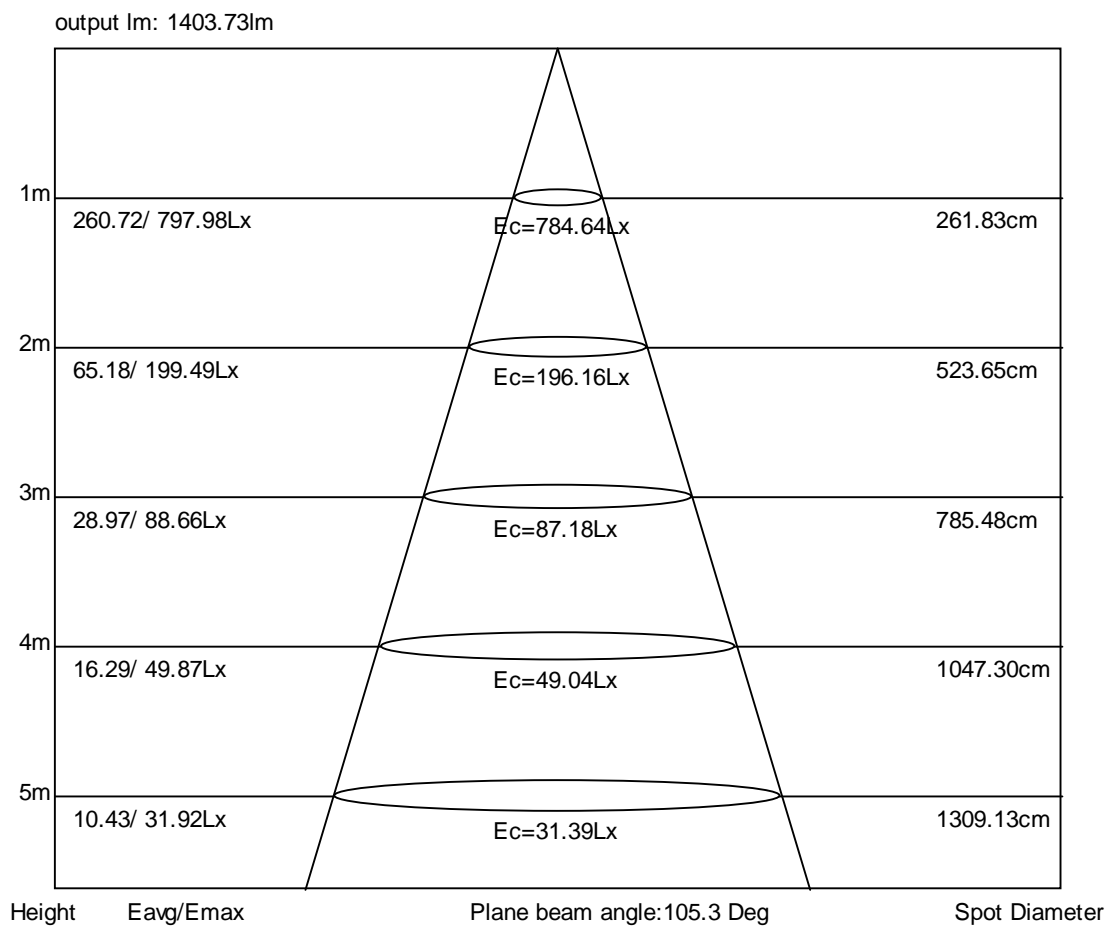
Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	Shape Si ze:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

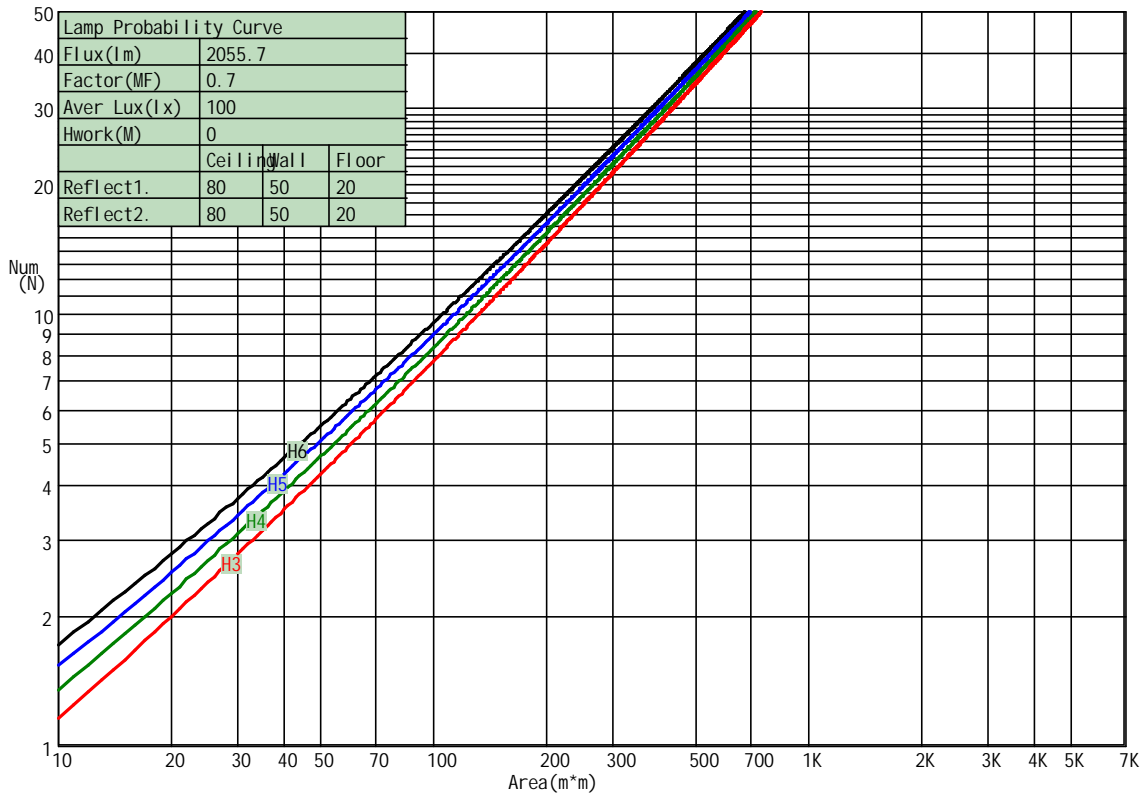
Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	Shape Si ze:
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): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	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	54	39	30	52	39	30	49	37	29
0.80	58	42	31	56	41	31	52	39	30
1.00	61	44	33	59	43	32	54	41	31
1.25	64	46	33	61	45	33	56	42	31
1.50	66	48	34	63	46	33	57	42	31
2.00	68	50	35	65	48	34	58	43	31
2.50	70	51	35	66	48	33	58	43	31
3.00	71	51	35	67	49	33	59	44	31
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	1.04	1	0.96	1.02	0.98	0.95	0.98	0.95	0.92	0.94	0.91	0.89	0.9	0.88	0.86
2	0.91	0.85	0.79	0.89	0.83	0.78	0.86	0.81	0.76	0.83	0.78	0.74	0.8	0.76	0.73
3	0.8	0.72	0.66	0.79	0.71	0.65	0.76	0.69	0.64	0.73	0.68	0.63	0.7	0.66	0.62
4	0.71	0.63	0.56	0.7	0.62	0.56	0.68	0.6	0.55	0.65	0.59	0.54	0.63	0.58	0.53
5	0.64	0.55	0.48	0.63	0.54	0.48	0.61	0.53	0.48	0.59	0.52	0.47	0.57	0.51	0.47
6	0.58	0.49	0.42	0.57	0.48	0.42	0.55	0.47	0.42	0.53	0.47	0.41	0.52	0.46	0.41
7	0.52	0.44	0.38	0.51	0.43	0.37	0.5	0.43	0.37	0.49	0.42	0.37	0.47	0.41	0.37
8	0.48	0.39	0.34	0.47	0.39	0.33	0.46	0.38	0.33	0.45	0.38	0.33	0.43	0.37	0.33
9	0.44	0.36	0.3	0.43	0.36	0.3	0.42	0.35	0.3	0.41	0.35	0.3	0.4	0.34	0.3
10	0.41	0.33	0.27	0.4	0.32	0.27	0.39	0.32	0.27	0.38	0.32	0.27	0.37	0.31	0.27

Gama Angle Range: -90 - 90(Deg)

Gama interval (Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	Shape Si ze:
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	0.3	0.17	0.05	0.29	0.17	0.05	0.28	0.16	0.05	0.27	0.16	0.05	0.26	0.15	0.05
2	0.28	0.16	0.05	0.28	0.15	0.05	0.27	0.15	0.05	0.26	0.14	0.04	0.25	0.14	0.04
3	0.26	0.14	0.04	0.26	0.14	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.13	0.04
4	0.24	0.13	0.04	0.24	0.13	0.04	0.23	0.12	0.04	0.22	0.12	0.04	0.21	0.12	0.04
5	0.23	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.11	0.03
6	0.21	0.11	0.03	0.21	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.19	0.1	0.03	0.19	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03
8	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.02	0.17	0.09	0.02	0.16	0.08	0.02
9	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
10	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02	0.15	0.07	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	0.14	0.15	0.13	0.12	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.02
2	0.17	0.13	0.1	0.15	0.11	0.09	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.16	0.11	0.08	0.14	0.1	0.07	0.1	0.07	0.05	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	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	0.15	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	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.13	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.01	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.03	0.08	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	0.12	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: zyg

Date: 2023-11-14

Distance(m): 7.0

Remark:

Test System: ZWL Goni ophotometer System V3.0

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.05lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	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	796	787	776	770	785	782	780	770	0-5	18.7	18.7
10	786	769	763	752	769	766	763	756	5-10	55.3	74
15	768	751	740	732	745	742	742	734	10-15	89.5	164
20	741	722	710	702	714	710	714	706	15-20	120	284
25	707	688	672	666	675	671	678	673	20-25	146	430
30	667	645	628	624	630	627	636	630	25-30	166	596
35	621	597	579	575	579	576	589	583	30-35	180	776
40	571	546	526	524	524	522	538	533	35-40	187	964
45	515	491	470	468	467	466	484	478	40-45	188	1152
50	458	433	411	411	408	406	427	421	45-50	182	1334
55	399	375	349	352	348	345	369	364	50-55	171	1504
60	338	316	252	292	287	284	309	304	55-60	153	1657
65	277	256	156	233	227	223	249	245	60-65	129	1786
70	217	197	112	174	168	163	191	187	65-70	103	1889
75	158	140	77	119	113	108	135	131	70-75	77.9	1967
80	103	87.4	44.1	67.6	60.2	56.6	83.1	78.3	75-80	52	2019
85	52.1	40.2	16.4	21.6	16.3	15.2	37.2	32.2	80-85	27.1	2046
90	20.1	11.2	10.8	10.9	12.2	11.7	10.9	11.9	85-90	9.7	2056
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): 7.0

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval (Deg): 45

Humi di ty(%): 60

Date: 2023-11-14

Remark:

Measured Para U: 217.1V I: 204.7mA P: 29.78W PF: 0.567 Test LM: 2701.051m		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight (kg):
Lamp ID: LPDL-30EMS01-Y	Lamp Spec:	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	796	792	788	783	778	775	772	772	779	785	784	782	781	780	778	773	773	785
10.0	786	778	771	767	764	760	755	753	762	769	768	766	765	763	761	758	759	773
15.0	768	761	753	747	742	738	735	733	739	745	744	742	742	742	741	737	738	754
20.0	741	733	724	718	713	708	705	703	709	714	712	710	711	713	712	709	710	726
25.0	707	699	690	683	676	671	668	667	671	675	673	672	674	677	677	675	677	692
30.0	667	657	647	639	632	627	625	624	627	630	628	627	630	634	635	632	634	651
35.0	621	610	599	591	583	579	577	576	578	579	578	576	580	586	588	585	588	604
40.0	571	560	548	539	530	525	525	524	524	524	523	522	528	535	537	534	537	554
45.0	515	504	494	484	475	470	469	468	468	467	467	466	472	480	483	480	482	499
50.0	458	447	436	426	416	411	411	410	409	408	407	406	413	423	426	423	425	442
55.0	399	388	377	366	354	350	351	352	350	348	346	345	352	363	368	366	368	384
60.0	338	328	318	295	266	261	279	292	289	287	285	284	292	304	308	306	308	323
65.0	277	268	258	223	177	172	207	232	229	227	225	223	232	244	248	246	248	263
70.0	217	208	199	169	131	126	154	174	171	168	166	164	172	185	190	188	190	204
75.0	158	150	142	119	90.8	86.2	105	118	115	113	111	109	117	129	134	132	134	146
80.0	103	96.1	89.1	73.2	53.6	49.2	59.9	66.7	63.4	60.2	58.6	57	65.3	77.3	82.1	79.9	81	92.1
85.0	52.1	46.9	41.5	32.4	21.6	17.6	19.9	21	18.6	16.3	15.8	15.3	22.4	32.4	36.1	33.8	34.4	43.4
90.0	20.1	16.2	12.1	11	10.9	10.8	10.8	11	11.6	12.2	12	11.8	11.5	11.1	11.2	11.6	12.8	16.5
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)

C Angle Range: 0 - 180(Deg)

Gama interval (Deg): 1

C interval (Deg): 45

Temperature(Deg): 30

Humi di ty(%): 60

Tester: zyg

Date: 2023-11-14

Distance(m): 7.0

Remark:

Test System: ZWL Goniophotometer System V3.0