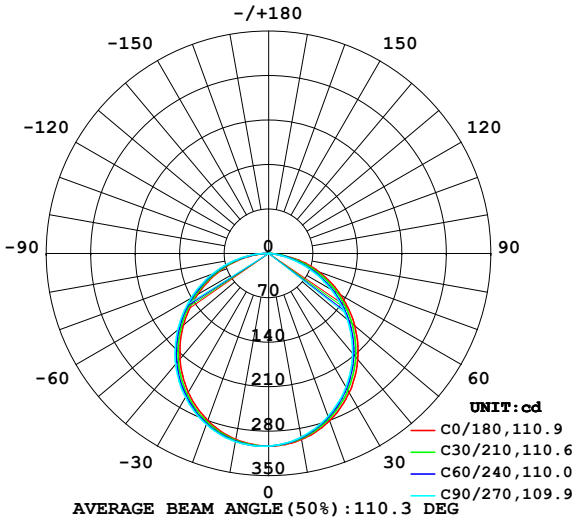
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

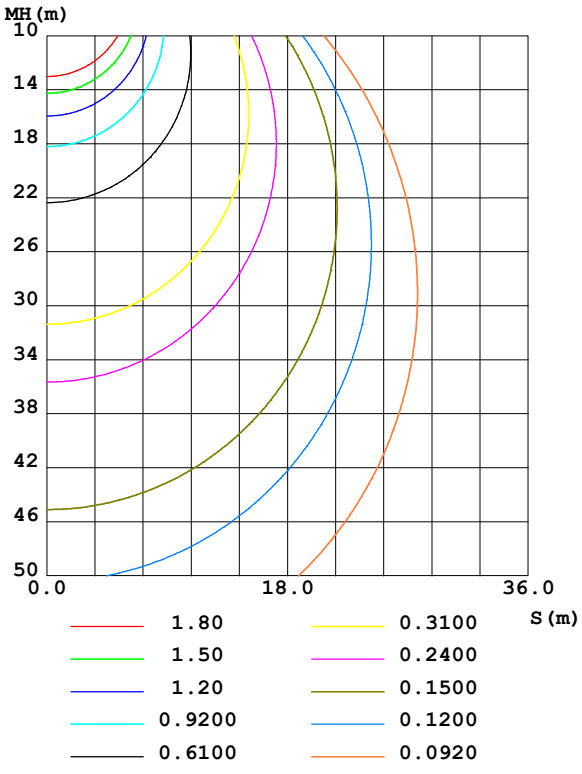
DATA OF LAMP		PHOTOMETRIC DATA		Eff: 64.68 lm/W	
MODEL	TPL	Imax(cd)	303.8	S/MH(C0/180)	1.24
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	853.67	η UP,DN(C0-180)	0.2,47.1
NOMINAL FLUX(lm)	853.674	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.2,52.6
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	99.6	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):110.3 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	297.5	295.4	293.9	294.5	297.3	299.3	300.8	300.4	0- 10	28.67	28.67	3.36,3.36
20	280.5	276.3	273.3	274.5	280.1	283.8	286.7	285.9	10- 20	81.85	110.5	12.9,12.9
30	253.5	247.7	243.5	245.3	252.9	257.7	261.7	261.0	20- 30	123.3	233.8	27.4,27.4
40	218.3	211.0	205.9	208.0	217.4	223.0	227.9	227.4	30- 40	147.7	381.5	44.7,44.7
50	177.1	168.6	161.8	165.4	175.4	181.8	186.9	186.9	40- 50	152.0	533.5	62.5,62.5
60	131.4	121.6	113.8	118.3	129.6	136.2	141.5	141.7	50- 60	136.5	670.0	78.5,78.5
70	83.55	73.27	64.52	70.20	82.44	88.29	93.55	93.65	60- 70	104.2	774.2	90.7,90.7
80	30.13	26.15	18.44	23.41	36.81	41.52	45.62	46.37	70- 80	60.69	834.9	97.8,97.8
90	0.2234	0.2097	0.1960	0.1965	0.2195	0.7356	2.408	2.320	80- 90	15.58	850.4	99.6,99.6
100	0.2583	0.2844	0.2494	0.2787	0.2762	0.2380	0.2425	0.2178	90-100	0.2866	850.7	99.7,99.7
110	0.3575	0.3768	0.3564	0.3823	0.4071	0.3339	0.3387	0.3142	100-110	0.3196	851.1	99.7,99.7
120	0.4847	0.4941	0.4882	0.5215	0.5311	0.4548	0.4563	0.4570	110-120	0.4122	851.5	99.7,99.7
130	0.5910	0.6328	0.6377	0.6431	0.6515	0.5756	0.5776	0.5535	120-130	0.4827	851.9	99.8,99.8
140	0.7572	0.7429	0.7305	0.7609	0.7327	0.6963	0.6846	0.6608	130-140	0.5069	852.5	99.9,99.9
150	0.7716	0.8353	0.8055	0.8501	0.8353	0.7605	0.7914	0.7572	140-150	0.4733	852.9	99.9,99.9
160	0.8707	0.9170	0.9124	0.9109	0.9062	0.8707	0.8912	0.8751	150-160	0.3903	853.3	100,100
170	0.9839	1.016	0.9409	0.9823	0.9911	0.9915	0.9624	0.9323	160-170	0.2620	853.6	100,100
180	0.9946	0.9987	0.9874	0.9787	0.9875	0.9916	0.9874	0.9716	170-180	0.0928	853.7	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 458.24 lm

%lum = 53.7%
%lamp = 53.7%

Conical surface Flux(120deg): 670.01 lm

%lum = 78.5%
%lamp = 78.5%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

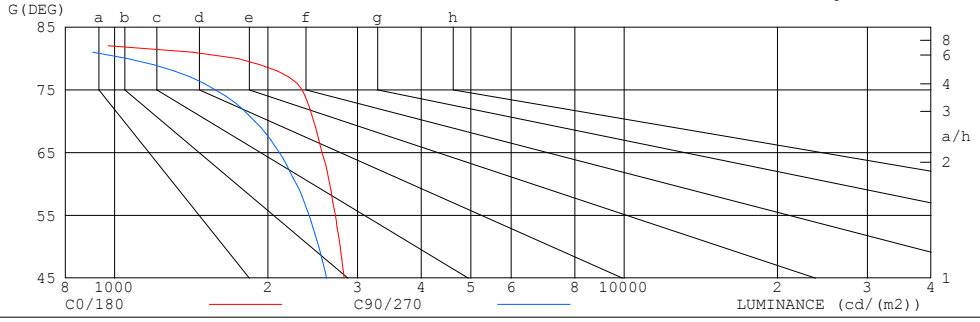
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

LUMINANCE LIMITATION CURVES

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz **Lamp Flux:853.674x1 lm**		
NAME: TPL 13W 4000K	**TYPE: LED**	**WEIGHT: 0.5kg**
SPEC.: 13W	**DIM.: 85x85mm h:100mm**	**SERIAL No.:**
MFR.: LITPA AYDINLATMA	**SUR.:**	**Shielding Angle:**

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	858	231
80	1746	1061
75	2336	1579
70	2458	1885
65	2553	2106
60	2643	2273
55	2712	2409
50	2771	2515
45	2822	2606

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

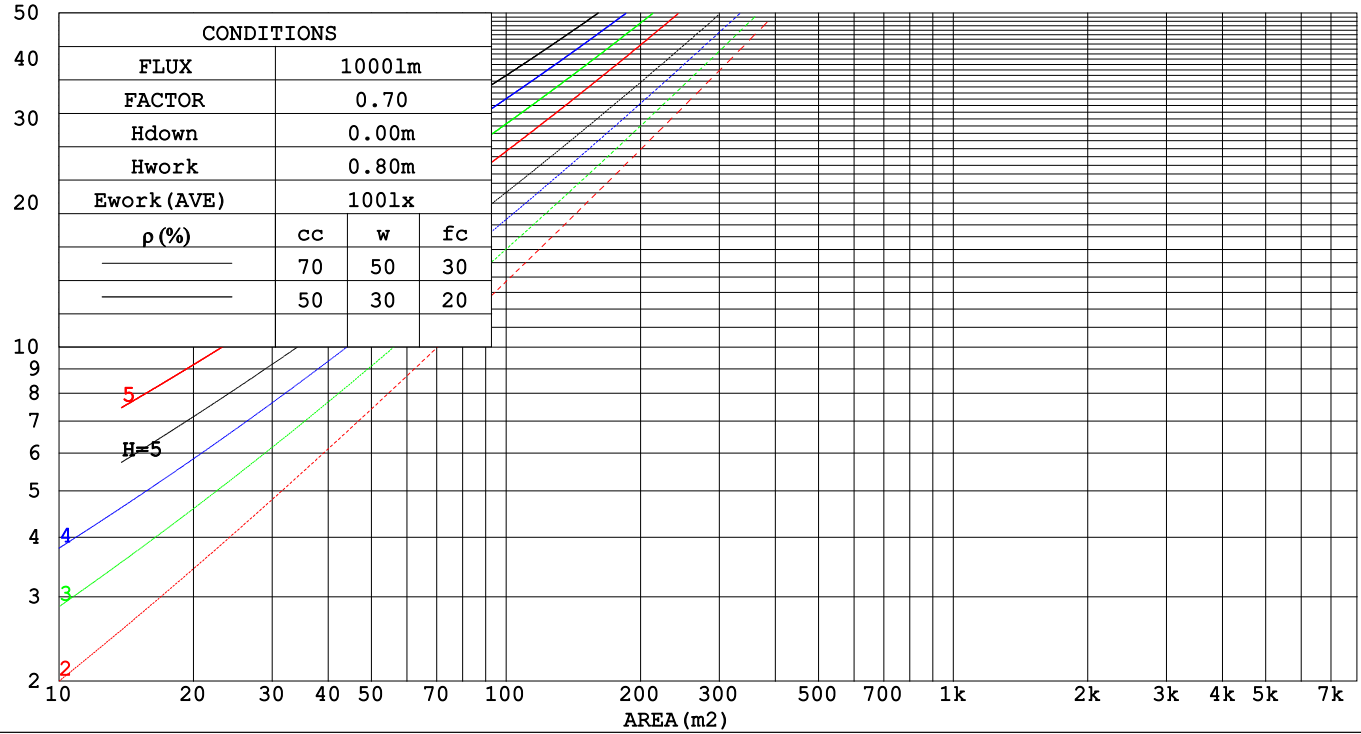
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
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	.00
1.0	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.87	.85	.83
2.0	.90	.84	.78	.88	.82	.77	.85	.80	.75	.82	.77	.73	.78	.75	.71	.69
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.58
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.53	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

WEC AND CCEC

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Wall Exitance Coeffcients(WEC)												
0.0																
1.0	.309	.176	.056	.302	.172	.055	.289	.166	.053	.276	.159	.051	.265	.153	.049	
2.0	.291	.160	.049	.285	.157	.048	.273	.152	.047	.262	.147	.046	.252	.142	.045	
3.0	.269	.143	.043	.264	.141	.043	.253	.137	.042	.244	.133	.041	.235	.130	.040	
4.0	.249	.129	.038	.244	.128	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036	
5.0	.230	.117	.034	.226	.116	.034	.217	.113	.033	.209	.111	.033	.202	.108	.032	
6.0	.213	.107	.031	.209	.106	.030	.202	.103	.030	.195	.101	.030	.189	.099	.029	
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027	
8.0	.185	.091	.025	.182	.090	.025	.176	.088	.025	.171	.086	.025	.165	.085	.025	
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.080	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.147	.074	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.183	.159	.137	.157	.137	.118	.107	.094	.082	.062	.054	.048	.020	.017	.015	
2.0	.175	.135	.101	.150	.116	.087	.103	.080	.061	.059	.047	.036	.019	.015	.012	
3.0	.167	.117	.077	.143	.101	.067	.098	.070	.047	.057	.041	.028	.018	.013	.009	
4.0	.160	.104	.061	.137	.090	.053	.094	.063	.038	.055	.037	.022	.018	.012	.007	
5.0	.152	.094	.050	.131	.081	.044	.090	.057	.031	.052	.033	.018	.017	.011	.006	
6.0	.145	.085	.042	.125	.074	.037	.086	.052	.026	.050	.030	.015	.016	.010	.005	
7.0	.138	.078	.036	.119	.068	.032	.082	.048	.022	.048	.028	.013	.015	.009	.004	
8.0	.132	.072	.032	.113	.063	.028	.078	.044	.020	.046	.026	.012	.015	.009	.004	
9.0	.126	.068	.028	.108	.059	.025	.075	.041	.017	.044	.024	.010	.014	.008	.003	
10.0	.120	.063	.025	.103	.055	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

UGR(Unified Glare Rating) Table

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	16.7	18.3	17.0	18.5	18.7	16.2	17.7	16.4	17.9	18.1
3H	18.3	19.7	18.6	20.0	20.2	17.4	18.8	17.8	19.1	19.3
4H	19.0	20.3	19.3	20.6	20.8	17.9	19.2	18.2	19.5	19.7
6H	19.4	20.6	19.7	20.9	21.2	18.1	19.3	18.4	19.6	19.9
8H	19.4	20.6	19.8	20.9	21.2	18.1	19.3	18.4	19.6	19.9
12H	19.4	20.6	19.7	20.9	21.2	18.0	19.2	18.4	19.5	19.8
4H 2H	17.3	18.6	17.6	18.8	19.1	16.8	18.1	17.1	18.4	18.7
3H	19.0	20.2	19.4	20.5	20.8	18.2	19.4	18.6	19.7	20.0
4H	19.8	20.9	20.2	21.2	21.5	18.8	19.8	19.2	20.2	20.5
6H	20.3	21.3	20.7	21.6	22.0	19.1	20.0	19.5	20.4	20.7
8H	20.4	21.3	20.8	21.6	22.0	19.1	20.0	19.5	20.3	20.7
12H	20.4	21.2	20.8	21.6	22.0	19.1	19.9	19.5	20.3	20.7
8H 4H	20.0	20.8	20.4	21.2	21.6	19.0	19.9	19.5	20.3	20.7
6H	20.6	21.3	21.1	21.8	22.2	19.4	20.2	19.9	20.6	21.0
8H	20.7	21.4	21.2	21.8	22.3	19.5	20.1	19.9	20.6	21.0
12H	20.8	21.3	21.3	21.8	22.3	19.5	20.0	20.0	20.5	21.0
12H 4H	19.9	20.7	20.4	21.1	21.6	19.1	19.9	19.5	20.3	20.7
6H	20.6	21.3	21.1	21.7	22.2	19.5	20.1	19.9	20.6	21.0
8H	20.8	21.3	21.2	21.8	22.3	19.5	20.1	20.0	20.6	21.0

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.2 / - 0.2	+ 0.2 / - 0.3
1.5H	+ 0.1 / - 0.3	+ 0.2 / - 0.4
2.0H	+ 0.2 / - 0.2	+ 0.2 / - 0.4

CIE Pub.117, 853.7 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.5)
Area: 0.1 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

UTILIZATION FACTORS TABLE

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

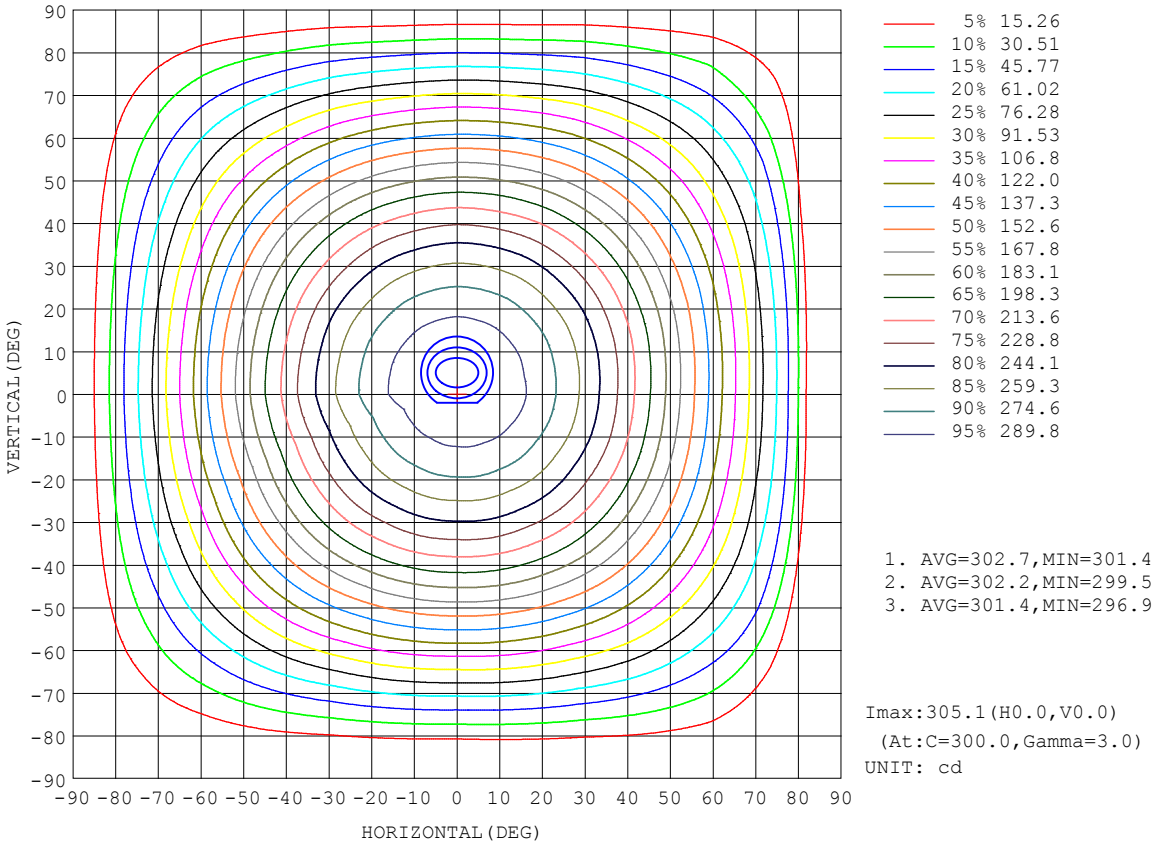
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	48	65	55	48	41
1.00	76	65	58	75	64	57	72	66	57	50
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	75	70	62
2.00	95	86	80	93	85	79	89	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	86	78
4.00	106	100	96	104	99	94	99	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

ISOCANDELA DIAGRAM

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

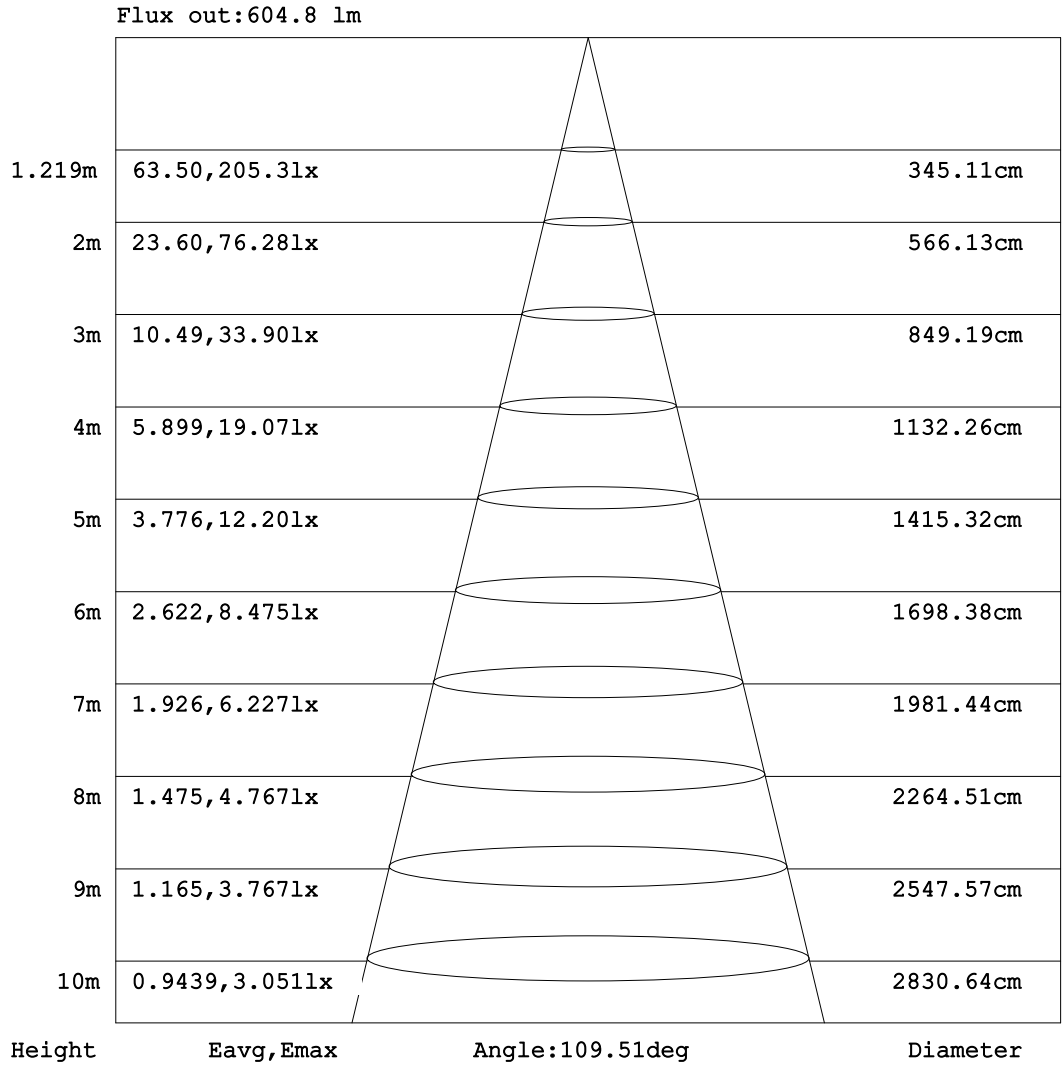


C Range: 0 - 360DEG
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Test Speed: HIGH
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Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

AAI Figure

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



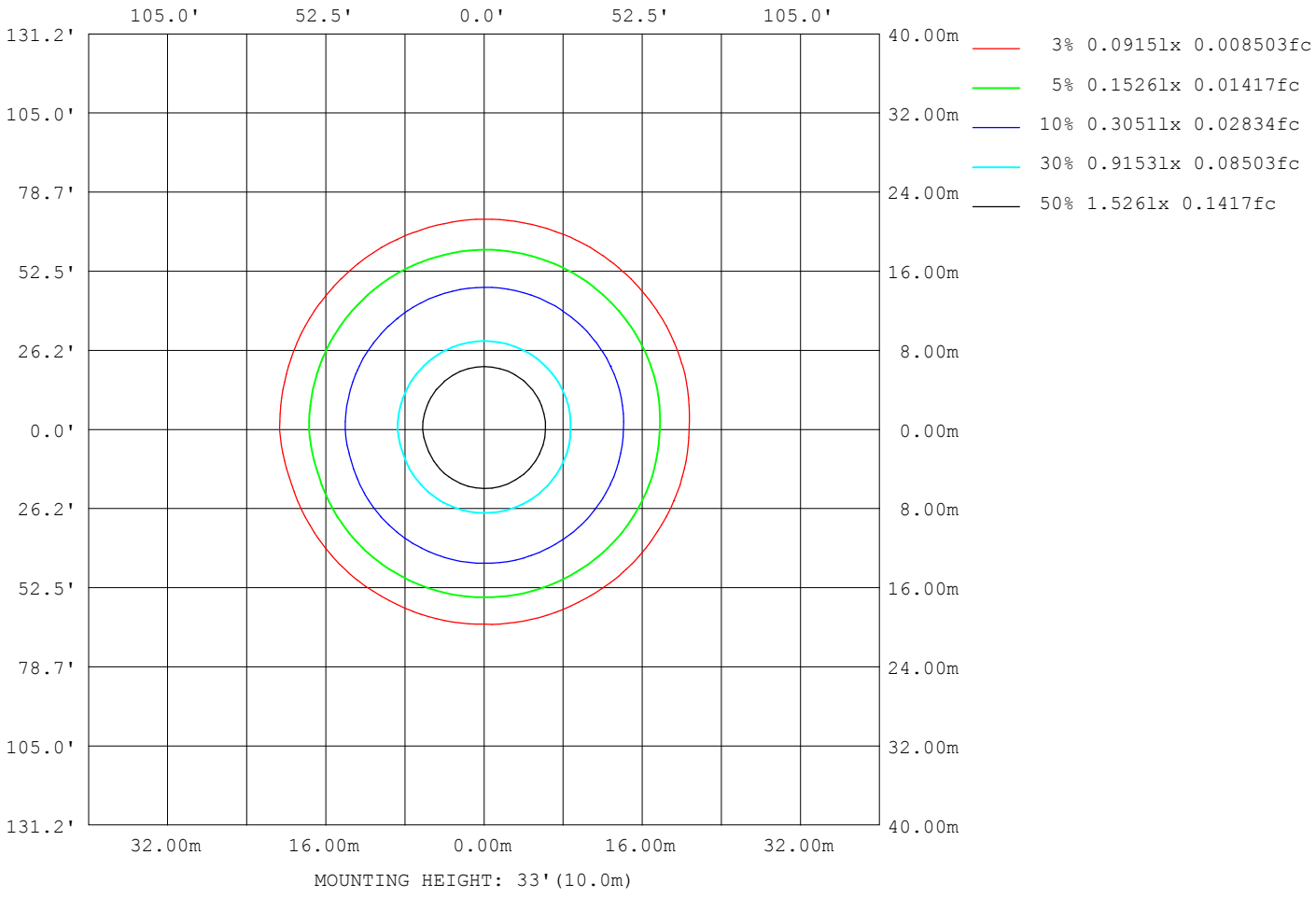
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

ISOLUX DIAGRAM

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz **Lamp Flux:853.674x1 lm**		
NAME: TPL 13W 4000K	**TYPE: LED**	**WEIGHT: 0.5kg**
SPEC.: 13W	**DIM.: 85x85mm h:100mm**	**SERIAL No.:**
MFR.: LITPA AYDINLATMA	**SUR.:**	**Shielding Angle:**



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

LED Avg.L Report

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

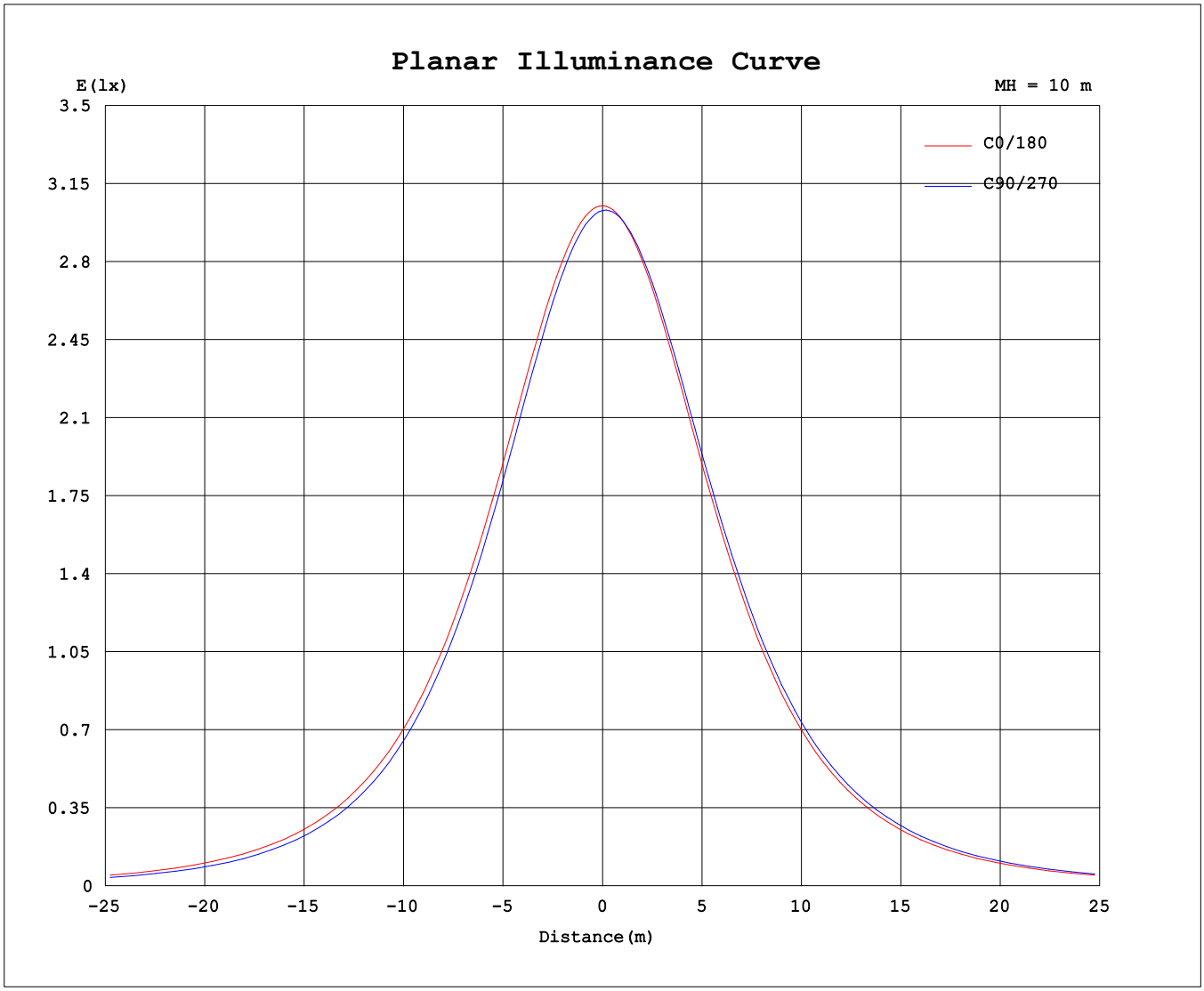
AvgL	cd/m2
L_0~180(65)av	2524
L_0~180(75)av	2306
L_0~180(85)av	1299
L_90~270(65)av	2447
L_90~270(75)av	2131
L_90~270(85)av	1400
L_45(65)av	2496
L_45(75)av	2222
L_45(85)av	1529

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303
5	302	302	301	301	300	300	300	300	300	300	300	301	302	302	302	303	303	303	304
10	297	297	296	295	295	294	294	294	294	294	295	296	297	298	299	299	300	300	301
15	290	289	288	287	286	285	285	285	285	286	286	287	290	291	292	293	294	295	295
20	280	279	277	276	275	274	273	273	274	275	275	277	280	281	283	284	285	286	287
25	268	267	264	263	261	260	259	260	260	261	262	263	268	269	271	272	274	274	275
30	253	252	249	248	246	245	243	244	244	245	246	248	253	254	256	258	260	260	262
35	237	235	232	230	228	227	225	226	226	228	229	231	236	237	240	241	244	244	246
40	218	217	213	211	209	207	206	206	207	208	210	211	217	219	222	223	225	226	228
45	198	196	193	190	188	186	184	185	186	187	189	191	197	199	201	203	205	207	208
50	177	175	171	169	165	163	162	162	163	165	167	169	175	177	180	182	184	185	187
55	155	152	149	146	142	140	138	139	140	142	144	147	153	155	157	159	162	163	165
60	131	129	125	122	118	116	114	114	116	118	121	123	130	132	134	136	139	140	142
65	107	105	101	97.4	93.1	91.1	89.1	90.0	91.0	94.2	96.4	99.6	106	108	111	112	115	116	118
70	83.5	81.6	76.8	73.3	68.6	66.6	64.5	65.6	66.6	70.2	72.6	76.1	82.4	83.8	86.7	88.3	90.9	91.7	93.6
75	60.1	58.1	53.1	49.2	44.7	42.7	40.9	41.8	42.8	46.3	49.1	53.0	59.3	60.6	63.3	64.7	67.0	67.6	69.4
80	30.1	30.6	29.8	26.1	22.0	20.2	18.4	19.3	20.2	23.4	25.9	30.3	36.8	38.0	40.5	41.5	43.6	43.9	45.6
85	7.43	9.27	8.43	6.09	3.45	2.52	2.01	2.15	2.42	4.21	5.42	8.39	15.2	16.4	18.6	19.4	21.0	21.1	22.4
90	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.20	0.19	0.20	0.22	0.29	0.54	0.74	1.50	1.62	2.41
95	0.24	0.24	0.21	0.24	0.21	0.24	0.20	0.24	0.20	0.23	0.20	0.22	0.24	0.22	0.23	0.21	0.22	0.20	0.21
100	0.26	0.28	0.24	0.28	0.25	0.28	0.25	0.28	0.24	0.28	0.25	0.26	0.28	0.24	0.26	0.24	0.25	0.22	0.24
105	0.30	0.33	0.30	0.33	0.31	0.33	0.30	0.33	0.30	0.33	0.30	0.31	0.33	0.30	0.32	0.28	0.30	0.25	0.29
110	0.36	0.37	0.36	0.38	0.36	0.39	0.36	0.39	0.36	0.38	0.36	0.38	0.41	0.36	0.37	0.33	0.35	0.31	0.34
115	0.42	0.43	0.41	0.43	0.42	0.45	0.42	0.45	0.42	0.45	0.42	0.45	0.47	0.41	0.43	0.40	0.41	0.37	0.40
120	0.48	0.49	0.47	0.49	0.47	0.51	0.49	0.53	0.49	0.52	0.47	0.51	0.53	0.47	0.49	0.45	0.47	0.43	0.46
125	0.54	0.55	0.53	0.57	0.53	0.56	0.55	0.60	0.56	0.58	0.54	0.56	0.58	0.54	0.55	0.53	0.54	0.48	0.52
130	0.59	0.60	0.59	0.63	0.57	0.62	0.64	0.67	0.64	0.64	0.62	0.63	0.65	0.59	0.60	0.58	0.60	0.54	0.58
135	0.65	0.66	0.64	0.70	0.64	0.67	0.68	0.71	0.67	0.70	0.64	0.70	0.73	0.65	0.66	0.65	0.65	0.60	0.64
140	0.76	0.74	0.70	0.74	0.69	0.72	0.73	0.76	0.72	0.76	0.69	0.71	0.73	0.68	0.73	0.70	0.70	0.66	0.68
145	0.76	0.77	0.76	0.78	0.76	0.77	0.76	0.83	0.78	0.81	0.76	0.76	0.77	0.76	0.75	0.75	0.75	0.71	0.74
150	0.77	0.82	0.78	0.84	0.79	0.82	0.81	0.85	0.82	0.85	0.78	0.82	0.84	0.78	0.81	0.76	0.80	0.76	0.79
155	0.83	0.86	0.87	0.87	0.83	0.87	0.87	0.88	0.87	0.86	0.83	0.85	0.86	0.82	0.86	0.81	0.84	0.81	0.85
160	0.87	0.91	0.89	0.92	0.88	0.92	0.91	0.93	0.88	0.91	0.87	0.89	0.91	0.88	0.90	0.87	0.90	0.87	0.89
165	0.91	0.95	0.92	0.95	0.92	0.98	0.93	0.96	0.94	0.95	0.91	0.96	0.96	0.92	0.93	0.92	0.93	0.90	0.93
170	0.98	0.98	0.94	1.02	0.94	0.99	0.94	0.97	0.95	0.98	0.93	0.99	0.99	0.93	0.98	0.99	0.96	0.93	0.96
175	1.00	1.00	0.99	1.02	0.98	0.99	0.97	1.00	0.96	0.99	0.95	0.97	0.99	0.97	0.99	0.99	0.99	0.95	0.98
180	0.99	1.00	0.99	1.00	0.99	0.99	0.99	0.99	0.97	0.98	0.97	0.97	0.99	0.99	1.00	0.99	1.00	0.99	0.99

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.49V I:0.0628A P:13.198W PF:0.9111 Freq:50.01Hz Lamp Flux:853.674x1 lm		
NAME: TPL 13W 4000K	TYPE: LED	WEIGHT: 0.5kg
SPEC.: 13W	DIM.: 85x85mm h:100mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--2 UNIT: cd

γ (DEG) \ C (DEG)	285	300	315	330	345
0	303	303	303	303	303
5	303	304	303	303	303
10	301	301	300	300	299
15	295	295	295	294	293
20	287	287	286	285	284
25	275	276	275	274	272
30	262	262	261	260	258
35	246	246	245	245	242
40	228	229	227	227	224
45	208	209	208	207	205
50	187	188	187	186	184
55	165	166	165	164	161
60	142	143	142	141	138
65	118	119	118	117	114
70	93.7	94.8	93.6	93.0	90.3
75	69.6	70.9	69.9	69.3	66.7
80	45.8	47.3	46.4	46.0	43.3
85	22.6	24.1	23.6	23.3	17.4
90	2.19	2.79	2.32	2.26	1.12
95	0.20	0.21	0.20	0.22	0.21
100	0.21	0.25	0.22	0.25	0.24
105	0.25	0.29	0.25	0.30	0.29
110	0.30	0.34	0.31	0.36	0.33
115	0.36	0.40	0.39	0.41	0.38
120	0.42	0.45	0.46	0.48	0.43
125	0.48	0.51	0.50	0.53	0.50
130	0.55	0.59	0.55	0.58	0.56
135	0.60	0.63	0.64	0.64	0.64
140	0.65	0.69	0.66	0.71	0.67
145	0.70	0.74	0.71	0.74	0.71
150	0.77	0.79	0.76	0.79	0.77
155	0.81	0.85	0.84	0.84	0.81
160	0.87	0.91	0.88	0.89	0.86
165	0.92	0.92	0.89	0.93	0.88
170	0.93	0.97	0.93	0.95	0.93
175	0.95	0.98	0.95	0.97	0.98
180	0.98	0.99	0.97	0.97	0.98

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3¡æ
Operators:LITPA
Test Date:09/05/2025

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.459
Humidity:55.0%
Test Distance:7.000m [K=1.0000]
Remarks: TPL 13W 4000K