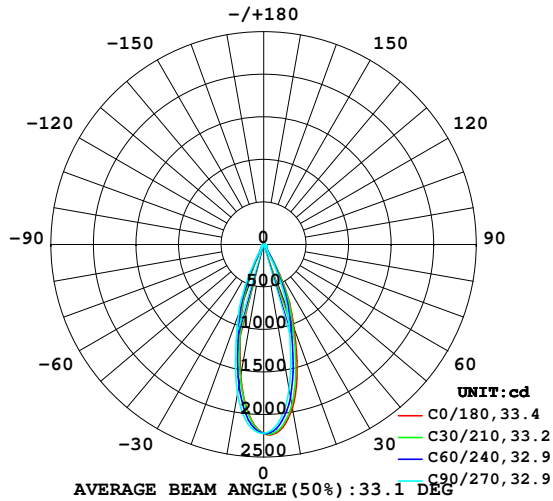


LUMINAIRE PHOTOMETRIC TEST REPORT

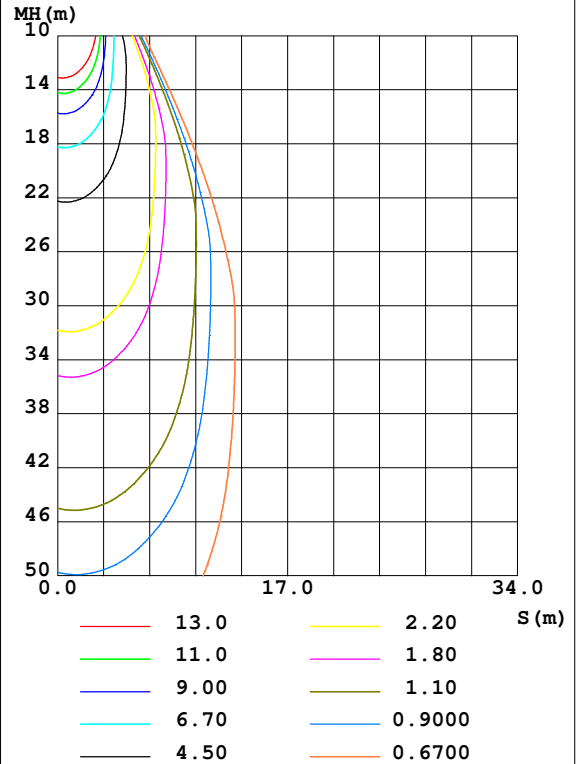
Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.99 lm/W			
MODEL	RLP	Imax (cd)	2239	S/MH (C0/180)	0.48
NOMINAL POWER(W)	11	LOR (%)	100.0	S/MH (C90/270)	0.55
RATED VOLTAGE(V)	220.0	TOTAL FLUX (lm)	879.12	η UP, DN (C0-180)	0.0, 50.4
NOMINAL FLUX (lm)	879.122	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: LITPA
 Test Date: 17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 7.200m [K=1.0000]
 Remarks: RLP-11W

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1949	1872	1729	1640	1560	1629	1779	1872	0- 10	189.4	189.4	21.5,21.5
20	1037	946.4	822.8	756.0	686.8	749.6	863.5	947.7	10- 20	349.2	538.7	61.3,61.3
30	242.6	181.1	108.4	90.16	79.48	88.89	117.9	170.7	20- 30	201.2	739.8	84.2,84.2
40	46.67	44.16	40.98	38.65	37.33	38.19	41.35	44.22	30- 40	41.21	781.0	88.8,88.8
50	35.30	34.47	33.11	31.66	30.82	31.42	33.25	34.66	40- 50	28.22	809.3	92.1,92.1
60	30.38	29.41	27.61	26.02	25.04	25.91	28.05	29.60	50- 60	27.41	836.7	95.2,95.2
70	23.16	21.89	19.53	17.50	16.24	17.50	20.08	22.02	60- 70	23.86	860.5	97.9,97.9
80	11.13	10.30	8.251	6.777	5.712	6.390	8.159	9.597	70- 80	14.62	875.2	99.5,99.5
90	1.116	0.6316	0	0	0	0	0	0.1088	80- 90	3.970	879.1	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 795.32 lm

%lum = 90.5%

%lamp = 90.5%

Conical surface Flux(120deg): 836.68 lm

%lum = 95.2%

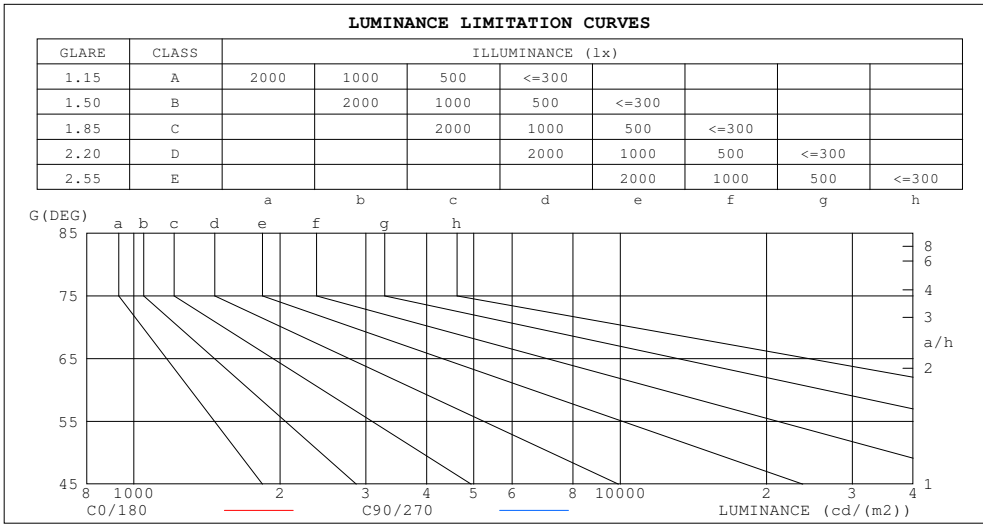
%lamp = 95.2%

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:LITPA
 Test Date:17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:7.200m [K=1.0000]
 Remarks: RLP-11W

LUMINANCE LIMITATION CURVES

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	654	402
80	643	475
75	665	518
70	679	570
65	644	569
60	609	552
55	576	534
50	551	515
45	554	508

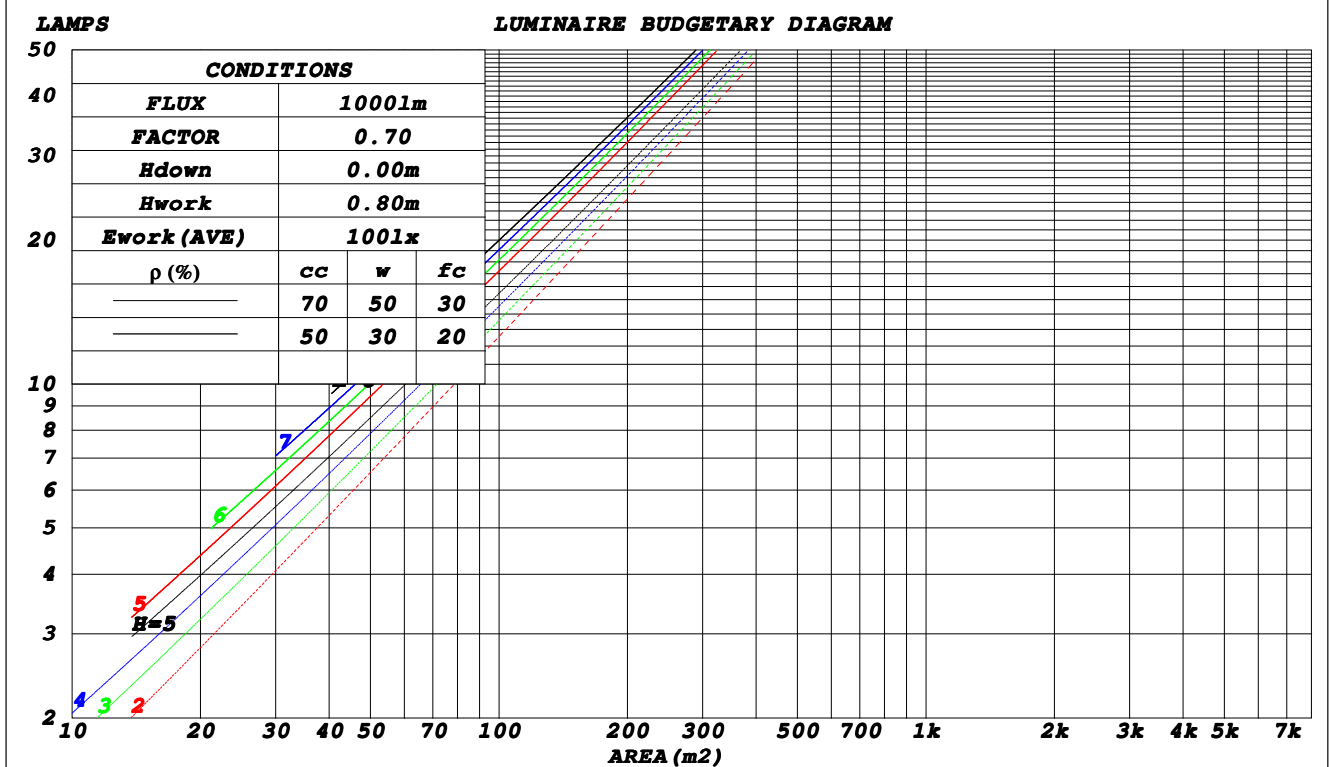
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
	RCR:Room Cavity Ratio															
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	1.00
1.0	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2.0	1.04	.90	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.93	.89	.96	.92	.88	.94	.90	.87	.91	.88	.86	.89	.86	.84	.83
4.0	.92	.87	.83	.91	.86	.83	.89	.85	.82	.87	.84	.81	.85	.82	.80	.78
5.0	.88	.82	.78	.87	.82	.78	.85	.81	.77	.83	.80	.77	.82	.79	.76	.75
6.0	.83	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.80	.75	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.68
8.0	.76	.71	.68	.76	.71	.68	.75	.70	.67	.74	.70	.67	.73	.69	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.71	.67	.64	.63
10.0	.71	.66	.62	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.62	.61



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

WEC AND CCEC

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.178	.101	.032	.171	.097	.031	.158	.091	.029	.147	.085	.027	.136	.079	.025		
2.0	.165	.091	.028	.160	.088	.027	.149	.083	.026	.139	.078	.024	.130	.074	.023		
3.0	.154	.082	.025	.149	.080	.024	.140	.076	.023	.132	.072	.022	.124	.069	.021		
4.0	.143	.075	.022	.139	.073	.022	.132	.070	.021	.125	.067	.020	.118	.064	.020		
5.0	.135	.069	.020	.131	.067	.020	.124	.065	.019	.118	.062	.019	.113	.060	.018		
6.0	.127	.063	.018	.124	.062	.018	.118	.060	.018	.112	.058	.017	.107	.057	.017		
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.053	.016		
8.0	.114	.055	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015	.099	.051	.015		
9.0	.108	.052	.015	.106	.052	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014		
10.0	.103	.049	.014	.101	.049	.014	.098	.048	.013	.094	.047	.013	.091	.046	.013		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.033	.016	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.099	.063	.038	.085	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005	
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.089	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

UGR(Unified Glare Rating) Table

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm										
NAME: RLP					TYPE:LED			WEIGHT:1 kg		
SPEC.:11W					DIM.: Ø:50 , H:230mm			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				
x = 2H y = 2H						Viewed endwise				
3H						5.5	6.3	5.7	6.5	6.7
4H						7.5	8.3	7.7	8.5	8.6
6H						8.2	9.0	8.5	9.2	9.4
8H						8.7	9.4	9.0	9.7	9.9
12H						8.9	9.6	9.2	9.8	10.1
12H						9.0	9.7	9.3	9.9	10.2
4H 2H						6.4	7.2	6.7	7.4	7.6
3H						8.6	9.2	8.9	9.5	9.8
4H						9.4	10.0	9.7	10.3	10.6
6H						10.0	10.6	10.4	10.9	11.2
8H						10.2	10.7	10.6	11.1	11.5
12H						10.4	10.8	10.8	11.2	11.6
8H 4H						9.8	10.3	10.2	10.7	11.0
6H						10.6	11.0	11.0	11.4	11.8
8H						10.9	11.3	11.4	11.7	12.1
12H						11.1	11.5	11.6	11.9	12.4
12H 4H						9.9	10.3	10.3	10.7	11.1
6H						10.7	11.1	11.2	11.5	11.9
8H						11.1	11.4	11.5	11.8	12.3
Variations with the observer position at spacings:										
S = 1.0H		+ 0.1 / - 0.2				+ 0.1 / - 0.2				
1.5H		+ 0.1 / - 0.2				+ 0.2 / - 0.2				
2.0H		+ 0.1 / - 0.3				+ 0.2 / - 0.4				

CIE Pub.117, 879.1 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -0.4$)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:LITPA
 Test Date:17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:7.200m [K=1.0000]
 Remarks: RLP-11W

UTILIZATION FACTORS TABLE

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

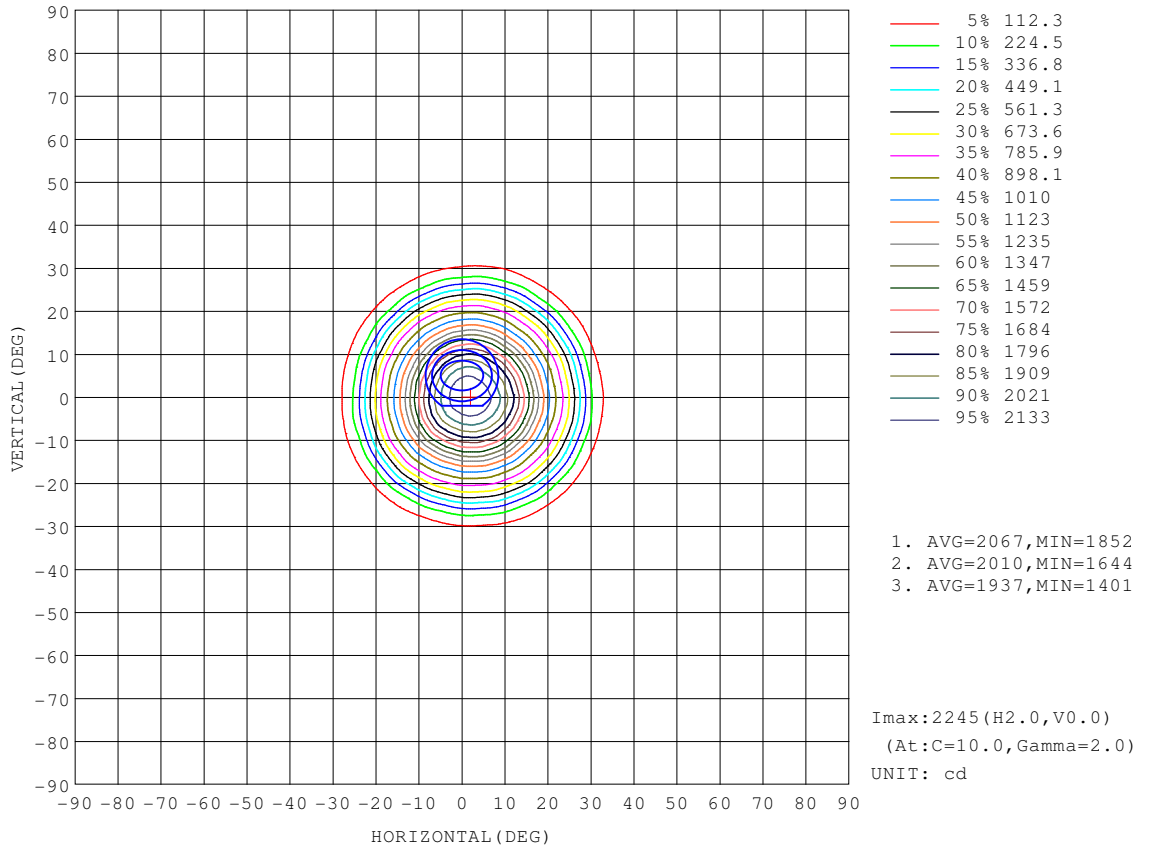
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	74	84	78	74	83	77	74	70
0.80	92	86	82	92	85	82	90	85	81	77
1.00	97	91	87	96	90	86	94	90	86	81
1.25	101	95	91	100	95	91	98	93	90	86
1.50	104	98	95	103	98	94	100	96	93	88
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	105	101	107	103	100	104	101	98	92
3.00	111	107	104	109	105	103	105	103	100	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: LITPA
 Test Date: 17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 7.200m [K=1.0000]
 Remarks: RLP-11W

ISOCANDELA DIAGRAM

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

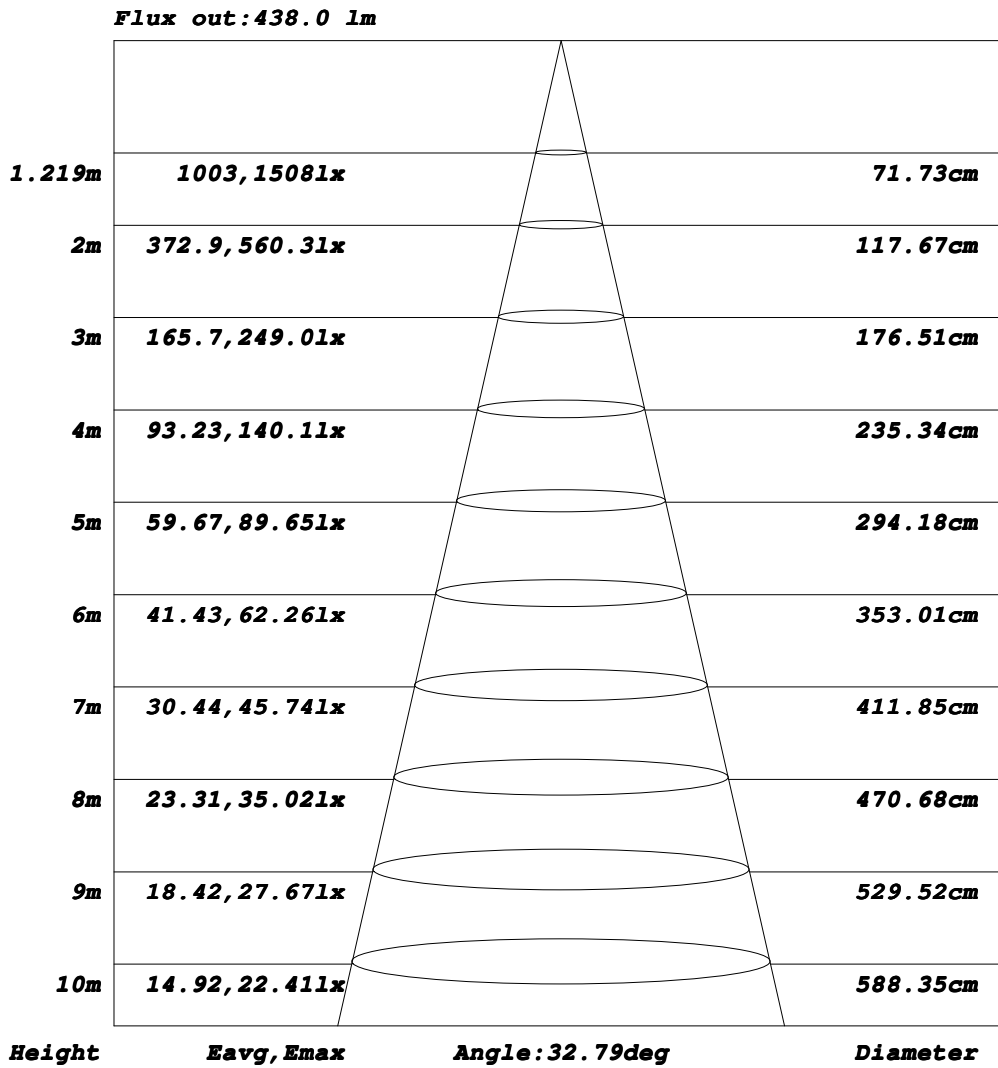


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17/05/2021

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:7.200m [K=1.0000]
Remarks: RLP-11W

AAI Figure

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



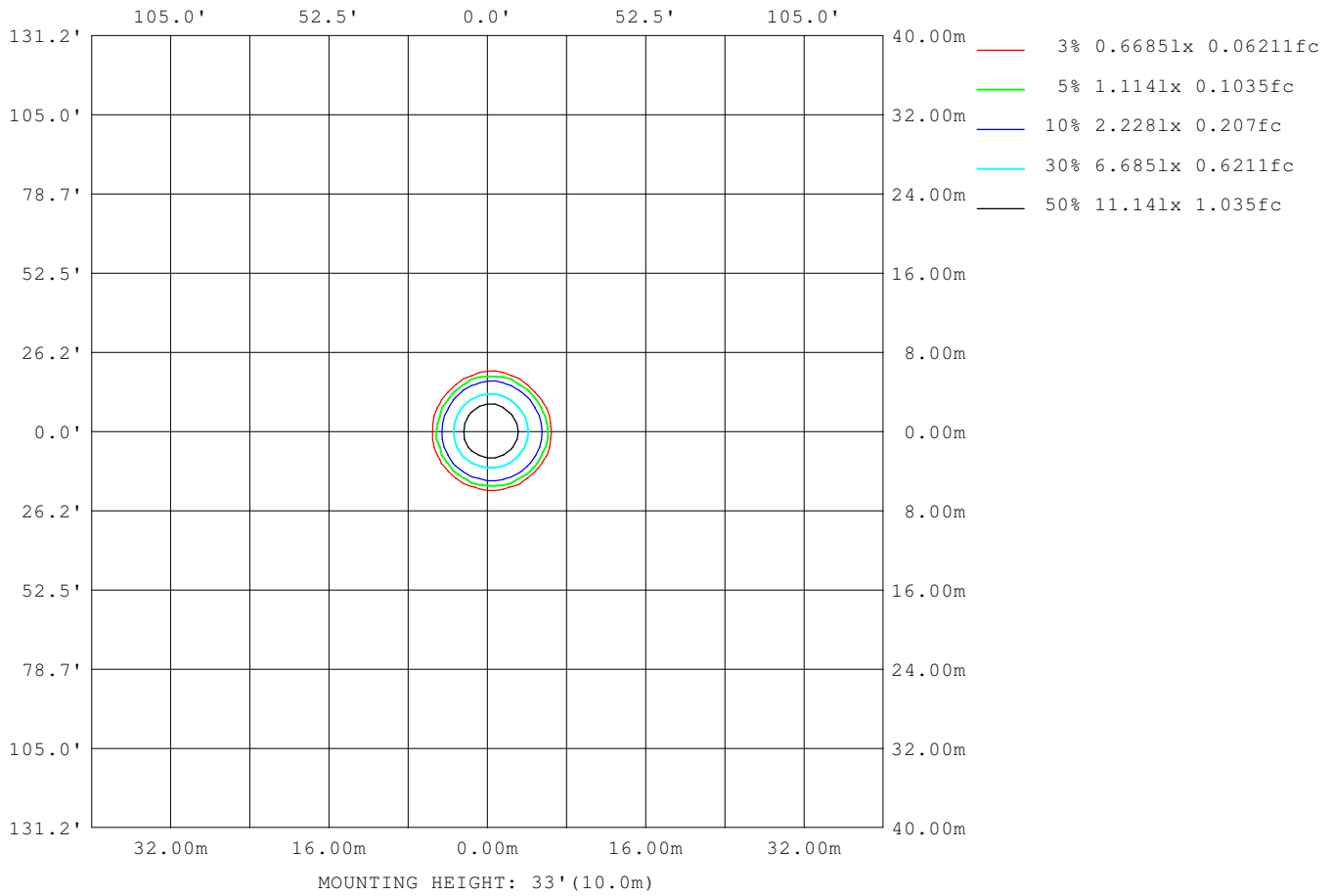
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

ISOLUX DIAGRAM

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

LED Avg.L Report

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

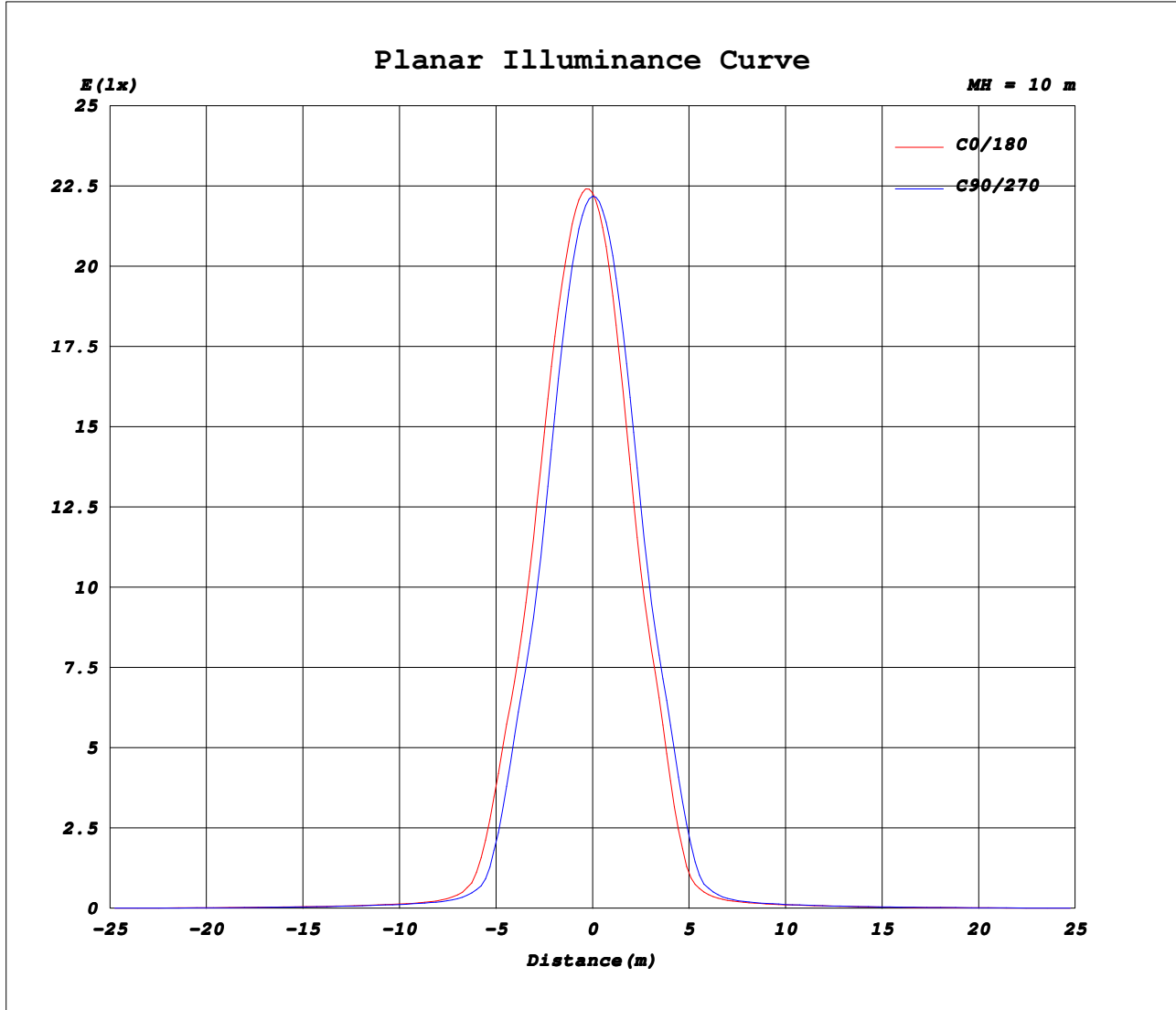
AvgL	cd/m2
L_0~180 (65) av	573
L_0~180 (75) av	536
L_0~180 (85) av	396
L_90~270 (65) av	575
L_90~270 (75) av	527
L_90~270 (85) av	380
L_45 (65) av	573
L_45 (75) av	530
L_45 (85) av	386

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17/05/2021

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:7.200m [K=1.0000]
Remarks: RLP-11W

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 7.200m [K=1.0000]
Remarks: RLP-11W

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:7.200m [K=1.0000]
Remarks: RLP-11W

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.56V I:0.0582A P:10.990W PF:0.8196 Freq:50.01Hz Lamp Flux:879.122x1 lm		
NAME: RLP	TYPE:LED	WEIGHT:1 kg
SPEC.:11W	DIM.: Ø:50 , H:230mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17/05/2021

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:7.200m [K=1.0000]
Remarks: RLP-11W

```