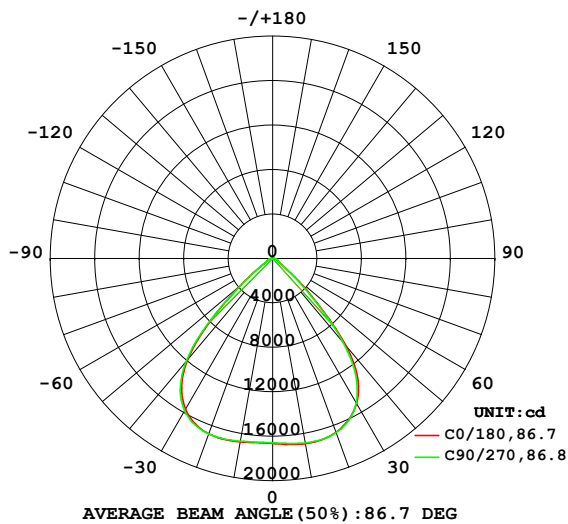


## LUMINAIRE PHOTOMETRIC TEST REPORT

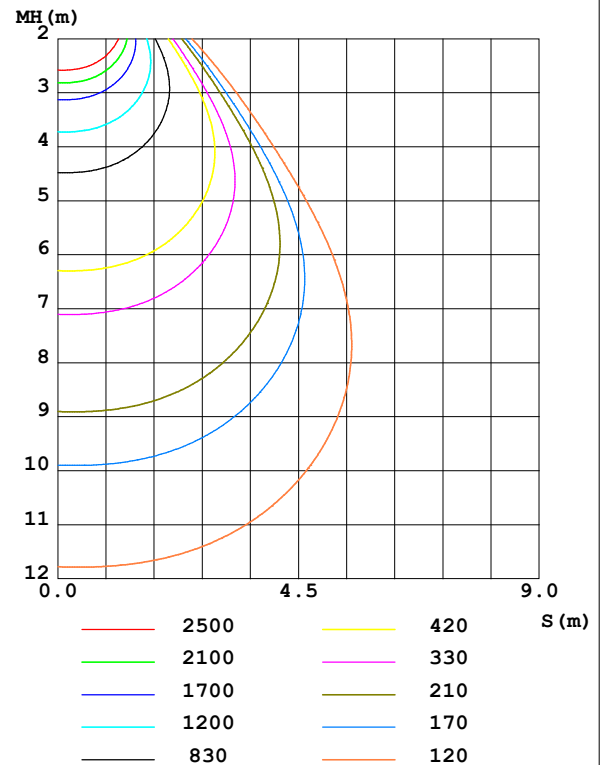
Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 155.47 lm/W
MODEL	SMD	I <sub>max</sub> (cd)	16941	S/MH (C0/180)	1.29	
NOMINAL POWER(W)	200	LOR (%)	100.0	S/MH (C90/270)	1.30	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	29928	η UP,DN (C0-180)	0.0,47.3	
NOMINAL FLUX(lm)	29927.7	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,52.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	230	η down (%)	100.0	CIBSE SHR MAX	1.30	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.1℃  
Operators:  
Test Date: 2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity: 50.0%  
Test Distance: 10.026m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1692	1690	1684	1678	1676	1672	1669	1674	0- 10	1595	1595	5.33, 5.33
20	1665	1664	1668	1668	1680	1679	1680	1678	10- 20	4768	6363	21.3, 21.3
30	1509	1506	1502	1506	1567	1573	1584	1572	20- 30	7487	13850	46.3, 46.3
40	1032	1014	991.7	1009	1191	1205	1214	1202	30- 40	8504	22354	74.7, 74.7
50	260.6	243.7	233.3	247.6	378.6	379.7	375.5	373.4	40- 50	5248	27602	92.2, 92.2
60	64.18	64.29	63.71	64.22	78.34	74.61	75.50	74.21	50- 60	1314	28916	96.6, 96.6
70	39.48	40.27	40.54	40.48	44.80	44.84	45.16	44.36	60- 70	534.5	29451	98.4, 98.4
80	20.82	20.84	19.68	21.49	28.81	29.71	28.65	28.04	70- 80	364.8	29815	99.6, 99.6
90	0.2528	0.2520	0.2520	0.2512	0.2864	0.3587	0.3948	0.3620	80- 90	112.3	29928	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:X10cd									UNIT: lm		

Conical surface Flux(90deg): 25679 lm

%lum = 85.8%

%lamp = 85.8%

Conical surface Flux(120deg): 28916 lm

%lum = 96.6%

%lamp = 96.6%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.1℃  
 Operators:  
 Test Date: 2024-12-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
 Humidity: 50.0%  
 Test Distance: 10.026m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz  
Lamp Flux:29927.7x1 lm

NAME: PA-200W

TYPE: 3000K

WEIGHT:

SPEC.:

DIM.:

SERIAL No.:

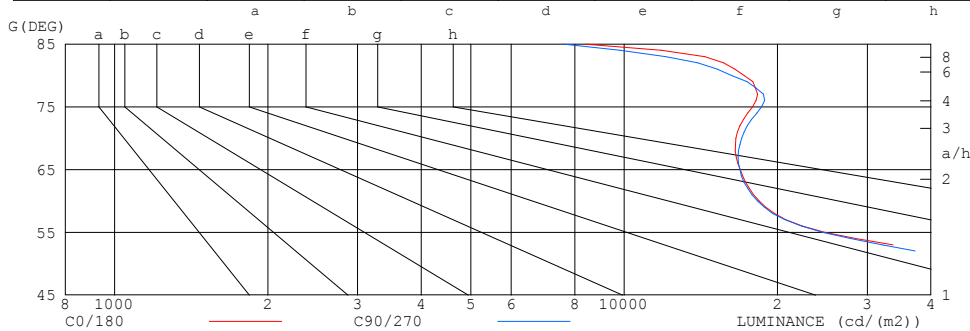
MFR.:

SUR.: 0.149m\*0.149m\*3.14

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



LUMINANCE cd/(m2)

G (DEG)	C0/180	C90/270
85	8391	7619
80	17200	16261
75	17859	18600
70	16559	17004
65	16902	16870
60	18412	18278
55	24796	24535
50	58154	52074
45	115802	110169

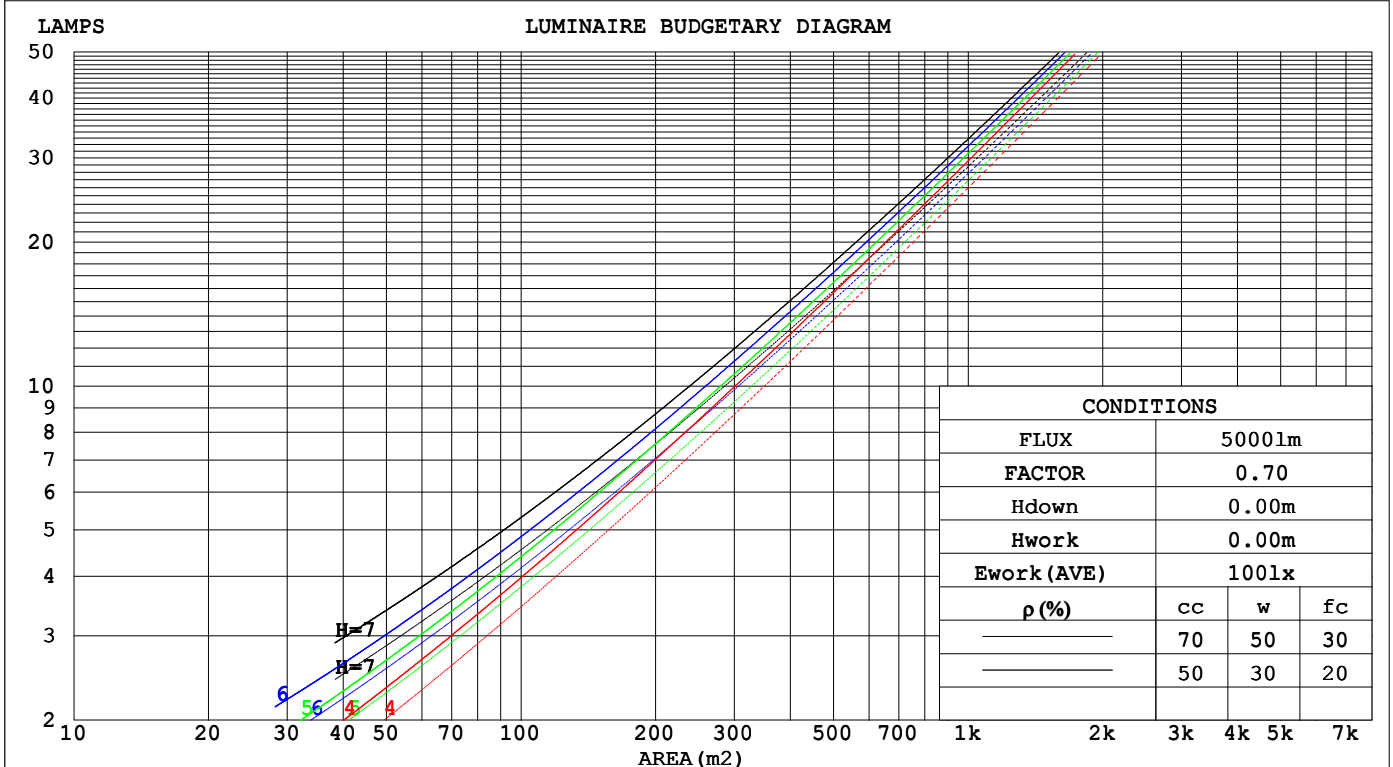
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.00
1.0	1.09	1.06	1.03	1.07	1.04	1.01	1.02	1.00	.98	.99	.97	.95	.95	.94	.92	.91
2.0	.99	.94	.90	.97	.93	.89	.94	.90	.87	.91	.88	.85	.88	.85	.83	.81
3.0	.90	.84	.79	.89	.83	.79	.86	.81	.77	.84	.80	.76	.81	.78	.75	.73
4.0	.83	.76	.71	.81	.75	.70	.79	.74	.69	.77	.72	.68	.75	.71	.68	.66
5.0	.76	.69	.63	.75	.68	.63	.73	.67	.62	.71	.66	.62	.69	.65	.61	.60
6.0	.70	.62	.57	.69	.62	.57	.67	.61	.56	.66	.60	.56	.64	.59	.56	.54
7.0	.64	.57	.52	.63	.57	.52	.62	.56	.51	.61	.55	.51	.59	.55	.51	.49
8.0	.59	.52	.47	.59	.52	.47	.57	.51	.47	.56	.51	.47	.55	.50	.46	.45
9.0	.55	.48	.43	.54	.48	.43	.53	.47	.43	.52	.47	.43	.51	.46	.43	.41
10.0	.51	.44	.40	.51	.44	.40	.50	.44	.40	.49	.43	.39	.48	.43	.39	.38



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 $\gamma$  Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

### WEC AND CCEC

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm																	
NAME: PA-200W						TYPE: 3000K						WEIGHT:					
SPEC.:						DIM.:						SERIAL No.:					
MFR.:						SUR.: 0.149m*0.149m*3.14						Shielding Angle:					

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.217	.123	.039	.210	.120	.038	.197	.113	.036	.186	.107	.034	.175	.101	.033		
2.0	.210	.115	.035	.204	.112	.035	.193	.107	.033	.183	.102	.032	.173	.098	.031		
3.0	.200	.106	.032	.195	.104	.031	.185	.100	.031	.177	.097	.030	.168	.093	.029		
4.0	.190	.099	.029	.186	.097	.029	.177	.094	.028	.170	.091	.027	.162	.088	.027		
5.0	.180	.092	.027	.177	.091	.026	.169	.088	.026	.162	.086	.025	.156	.083	.025		
6.0	.171	.086	.025	.168	.085	.024	.162	.083	.024	.155	.081	.024	.150	.079	.023		
7.0	.163	.081	.023	.160	.080	.023	.154	.078	.022	.149	.076	.022	.144	.075	.022		
8.0	.155	.076	.021	.152	.075	.021	.147	.074	.021	.142	.072	.021	.138	.071	.021		
9.0	.148	.072	.020	.145	.071	.020	.141	.070	.020	.136	.068	.020	.132	.067	.019		
10.0	.141	.068	.019	.139	.067	.019	.135	.066	.019	.131	.065	.018	.127	.064	.018		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.174	.157	.142	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.161	.132	.108	.138	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.151	.114	.084	.129	.098	.073	.089	.068	.051	.051	.040	.030	.016	.013	.010	
4.0	.142	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008	
5.0	.135	.089	.055	.116	.077	.047	.080	.054	.034	.046	.031	.020	.015	.010	.007	
6.0	.128	.080	.045	.110	.069	.039	.076	.048	.028	.044	.028	.017	.014	.009	.005	
7.0	.122	.073	.038	.105	.063	.033	.072	.044	.024	.042	.026	.014	.014	.009	.005	
8.0	.116	.067	.033	.100	.058	.028	.069	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.111	.062	.028	.096	.054	.025	.066	.038	.018	.039	.022	.010	.013	.007	.003	
10.0	.107	.058	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm											
NAME: PA-200W					TYPE: 3000K			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.: 0.149m*0.149m*3.14			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		16.6	17.9	17.0	18.2	18.5	16.4	17.6	16.7	17.9	18.2
3H		18.1	19.2	18.5	19.5	19.9	18.0	19.1	18.4	19.4	19.8
4H		18.9	19.9	19.3	20.2	20.6	18.8	19.8	19.2	20.2	20.6
6H		19.6	20.5	20.0	20.9	21.3	19.5	20.4	19.9	20.8	21.2
8H		19.7	20.6	20.2	21.0	21.4	19.6	20.5	20.1	20.9	21.3
12H		19.8	20.6	20.2	21.0	21.4	19.7	20.5	20.1	20.9	21.3
4H 2H		17.0	18.0	17.4	18.4	18.8	16.9	17.9	17.3	18.2	18.6
3H		18.8	19.6	19.2	20.0	20.5	18.8	19.6	19.2	20.0	20.4
4H		19.8	20.5	20.3	21.0	21.4	19.8	20.5	20.2	20.9	21.4
6H		20.7	21.3	21.1	21.7	22.2	20.6	21.2	21.0	21.6	22.1
8H		20.9	21.5	21.3	21.9	22.4	20.7	21.3	21.2	21.8	22.2
12H		20.9	21.5	21.4	21.9	22.4	20.8	21.3	21.3	21.8	22.2
8H 4H		20.2	20.8	20.7	21.2	21.7	20.1	20.7	20.6	21.2	21.6
6H		21.2	21.6	21.7	22.1	22.6	21.0	21.5	21.5	22.0	22.5
8H		21.4	21.9	22.0	22.4	22.9	21.3	21.7	21.8	22.2	22.7
12H		21.5	21.9	22.1	22.4	23.0	21.3	21.7	21.9	22.2	22.8
12H 4H		20.2	20.7	20.7	21.2	21.7	20.2	20.7	20.7	21.2	21.6
6H		21.2	21.6	21.7	22.1	22.6	21.1	21.5	21.6	22.0	22.6
8H		21.5	21.9	22.0	22.4	23.0	21.4	21.8	21.9	22.3	22.8
CIE190: 2010											

CIE190: 2010  
Area: 0.0697111 m2

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:

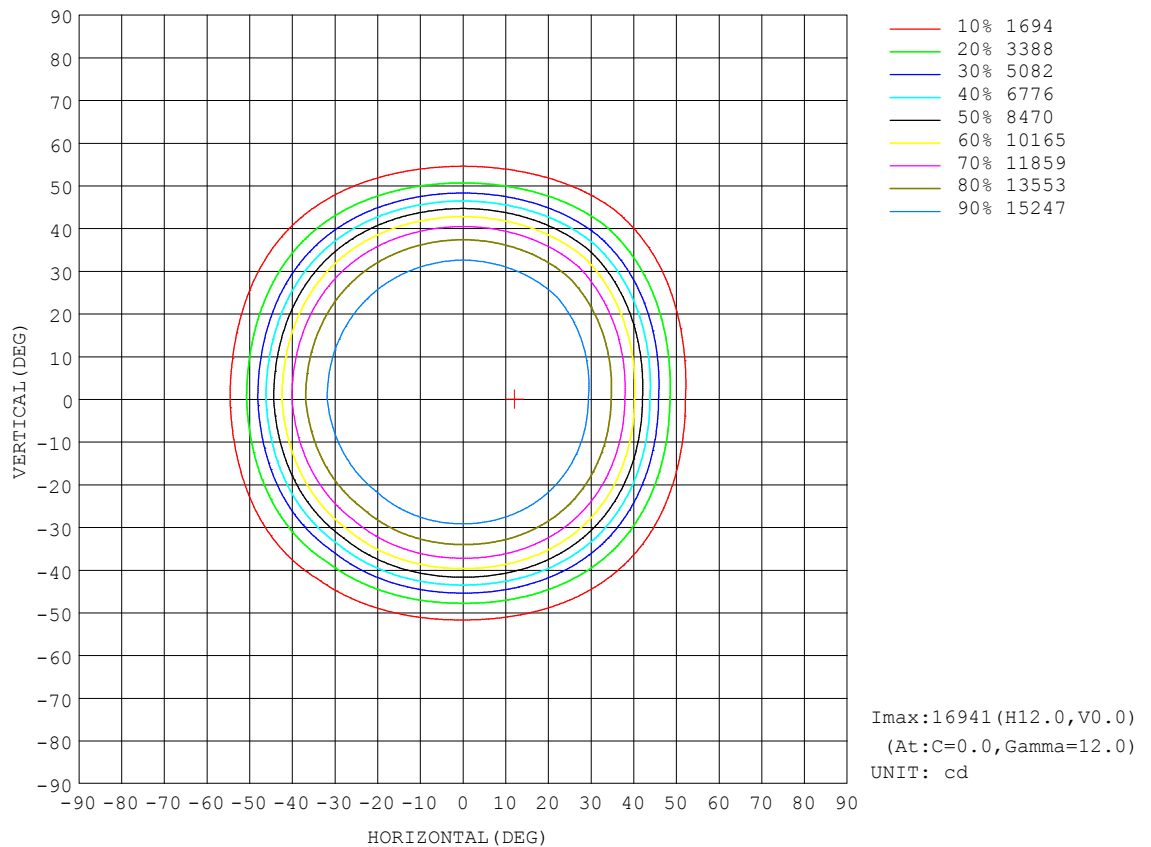
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	76	67	62	75	67	62	74	67	62	57
0.80	85	77	72	84	76	72	83	76	71	66
1.00	91	84	79	90	83	79	89	84	78	73
1.25	97	90	85	96	89	85	93	88	84	79
1.50	100	94	90	99	93	89	97	92	88	83
2.00	105	99	95	103	98	94	100	96	93	87
2.50	107	102	98	105	101	97	102	98	95	89
3.00	109	105	101	107	103	100	104	100	98	91
4.00	111	108	105	109	106	103	106	103	101	93
5.00	113	110	107	111	108	106	107	104	103	94
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.1℃  
Operators:  
Test Date: 2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity: 50.0%  
Test Distance: 10.026m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:



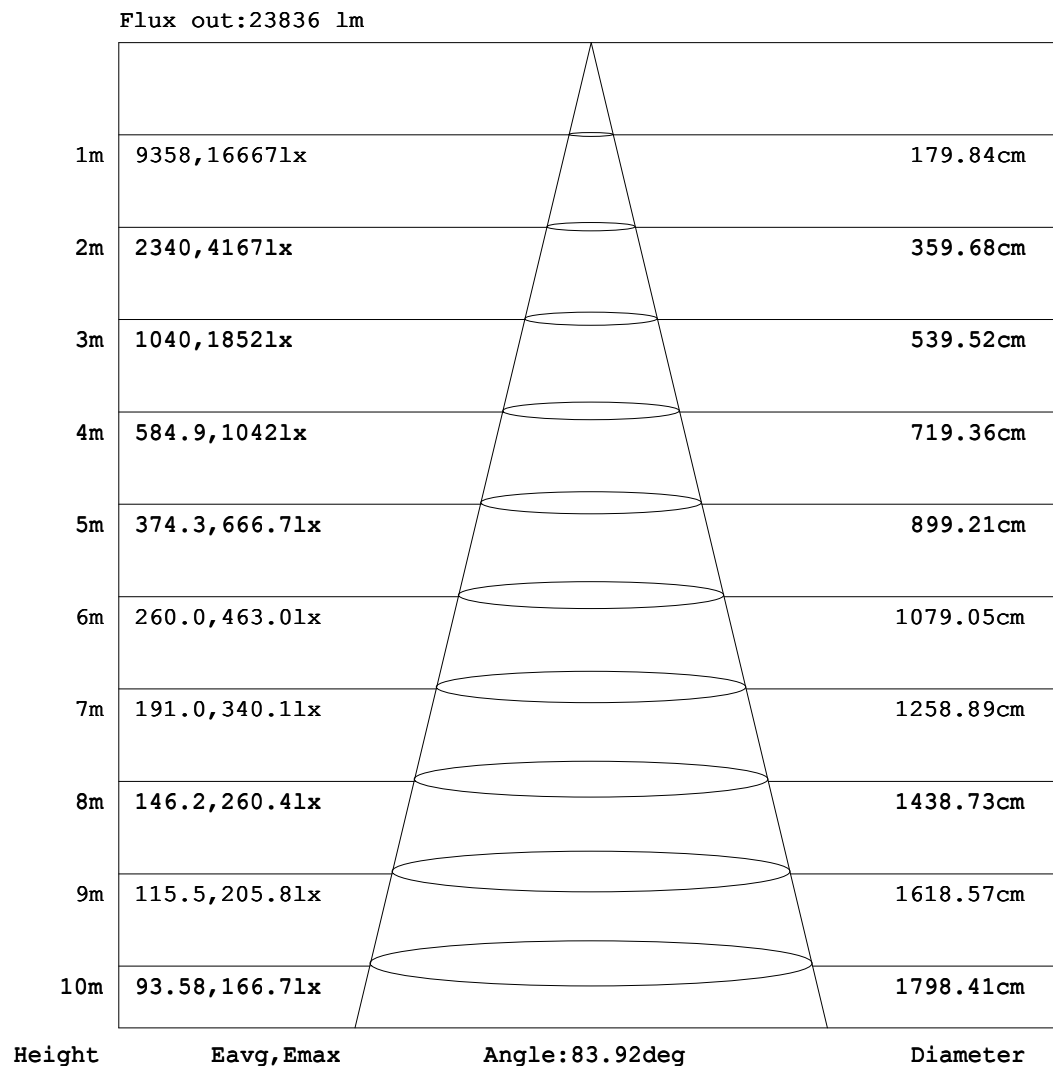
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:



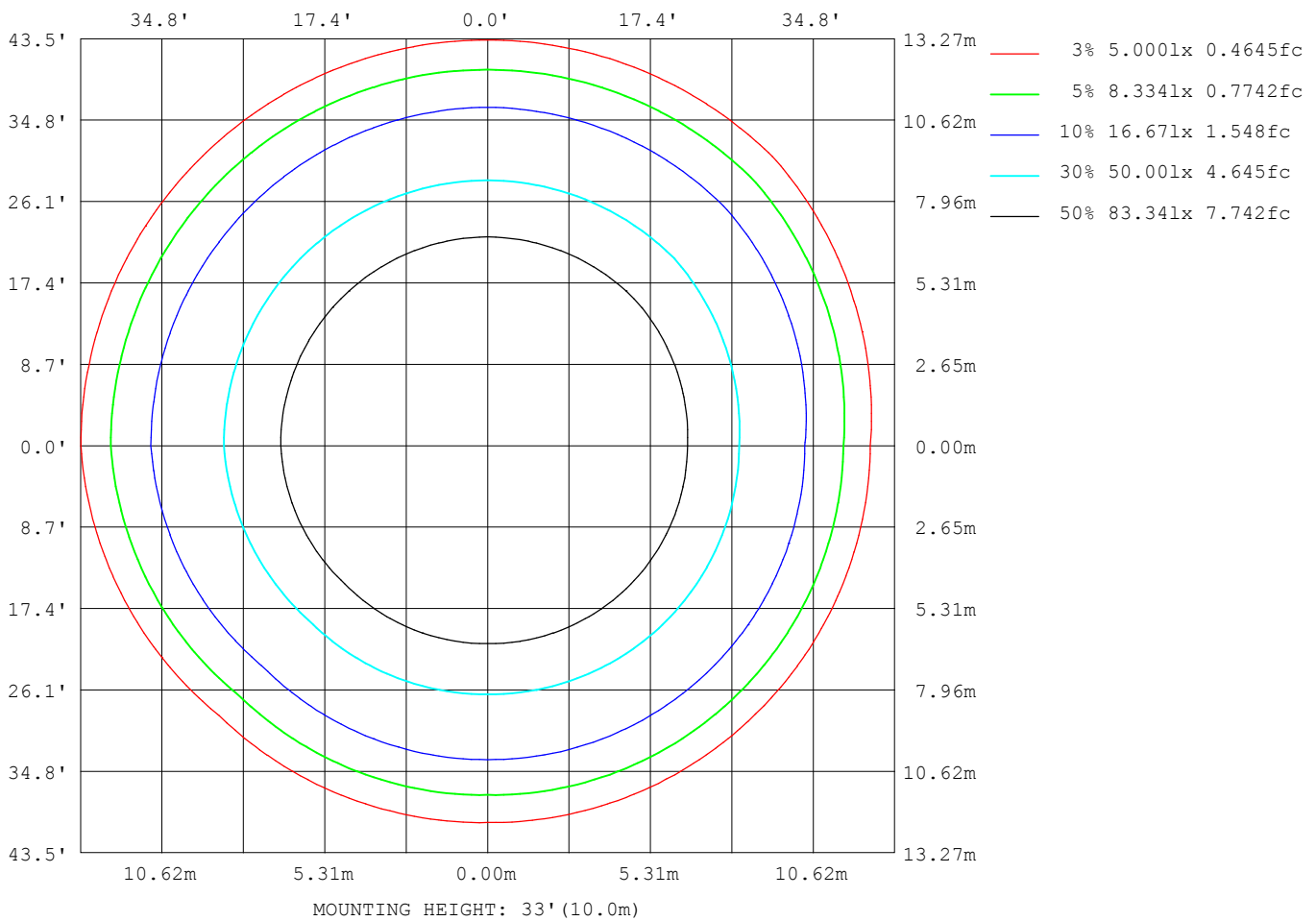
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.1°C  
Operators:  
Test Date: 2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity: 50.0%  
Test Distance: 10.026m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:230.45V I:0.8460A P:192.50W PF:0.9874 Freq:50.01Hz Lamp Flux:29927.7x1 lm		
NAME: PA-200W	TYPE: 3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 0.149m*0.149m*3.14	Shielding Angle:

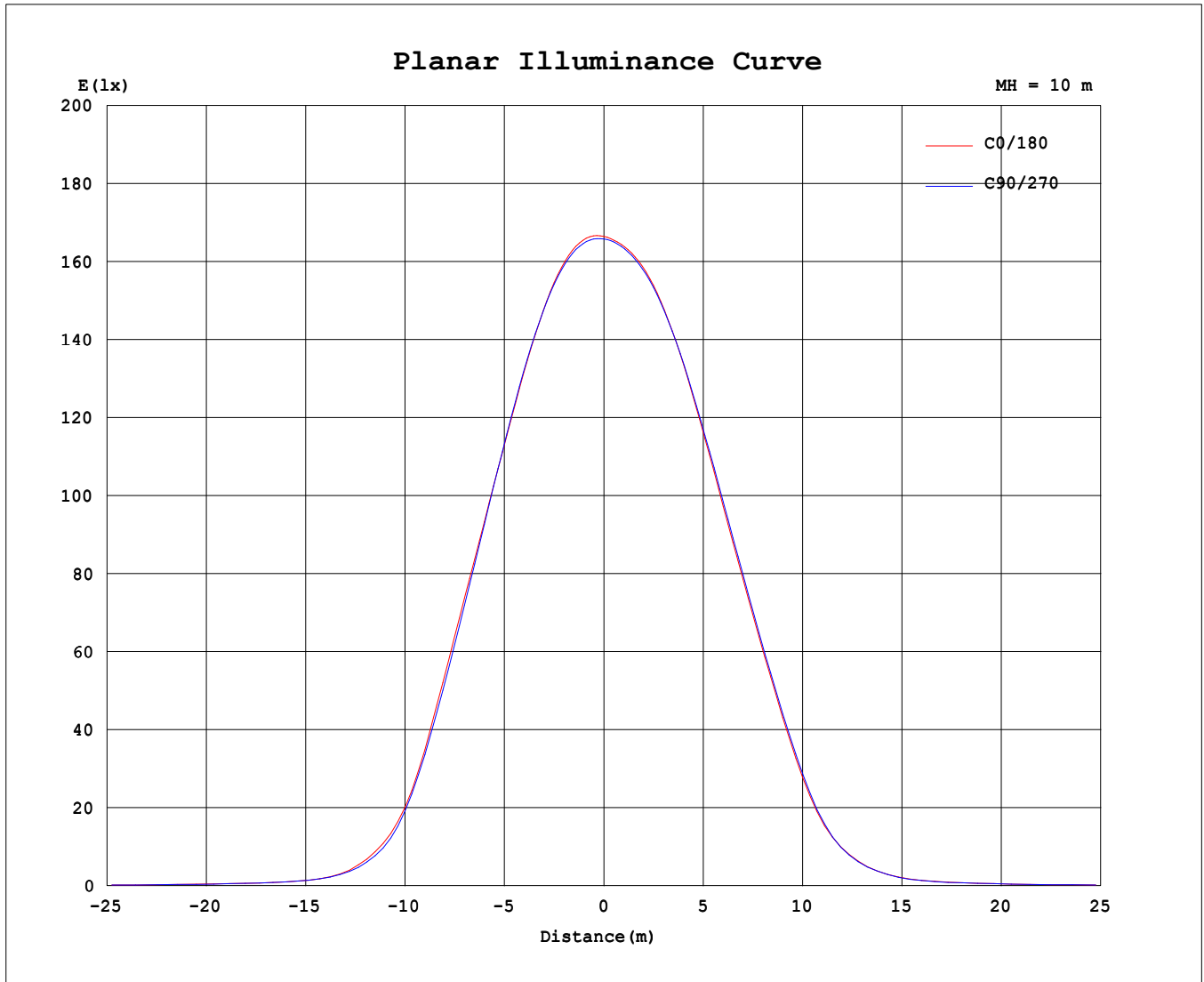
AvgL	cd/m2
L_0~180 (65) av	18101
L_0~180 (75) av	19015
L_0~180 (85) av	15475
L_90~270 (65) av	18042
L_90~270 (75) av	19625
L_90~270 (85) av	15035
L_45 (65) av	17924
L_45 (75) av	19423
L_45 (85) av	15222

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.1℃  
Operators:  
Test Date:2024-12-10

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
Humidity:50.0%  
Test Distance:10.026m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.1℃  
 Operators:  
 Test Date: 2024-12-10

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.462  
 Humidity: 50.0%  
 Test Distance: 10.026m [K=1.0000]  
 Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.462
Humidity:50.0%
Test Distance:10.026m [K=1.0000]
Remarks:

```