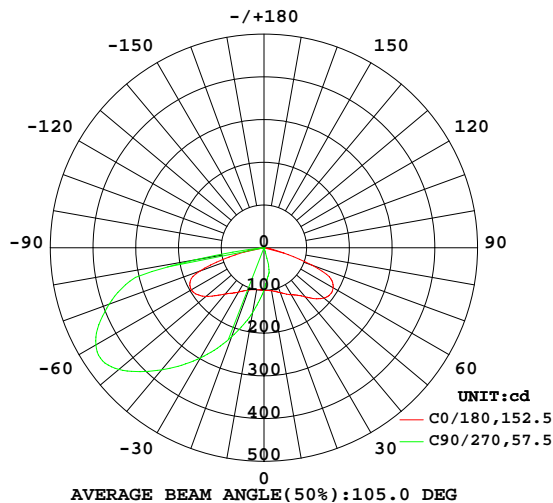


## LUMINAIRE PHOTOMETRIC TEST REPORT

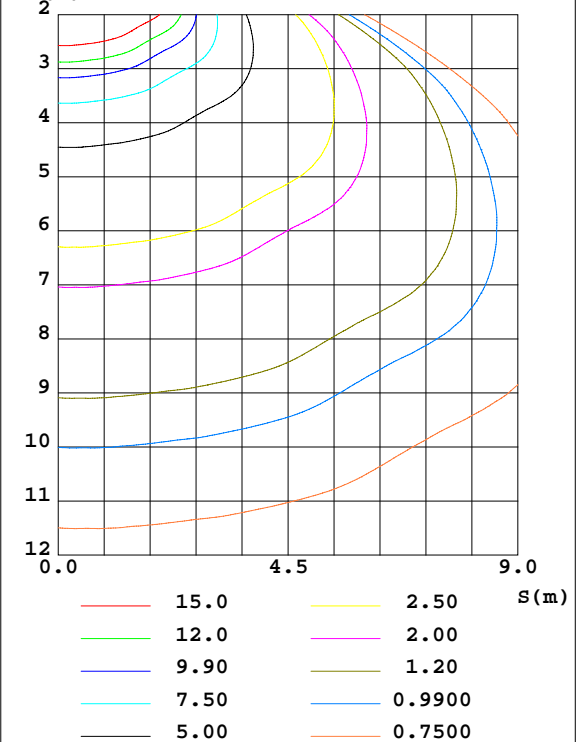
Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.23 lm/W			
MODEL		Imax(cd)	671.1	S/MH(C0/180)	2.28
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	3.33
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1079.3	$\eta$ UP,DN(C0-180)	0.0,8.1
NOMINAL FLUX(lm)	1079.34	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,91.9
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230.0	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

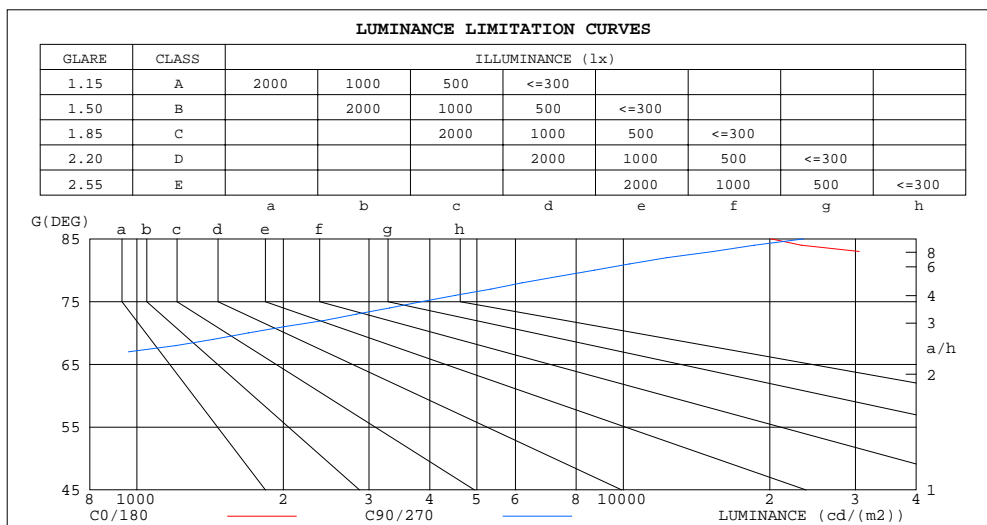
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	102.4	71.62	62.86	70.50	99.71	135.7	153.7	138.4	0- 10	9.692	9.692	0.90,0.90
20	111.9	51.50	2.603	48.96	105.3	188.0	221.8	197.2	10- 20	31.22	40.91	3.79,3.79
30	127.1	25.82	1.172	24.58	120.0	268.0	297.7	293.0	20- 30	59.60	100.5	9.31,9.31
40	150.3	11.59	0.3437	10.60	141.7	379.0	373.1	421.9	30- 40	105.1	205.6	19,19
50	183.4	8.344	0.1721	7.931	177.2	501.8	443.0	537.4	40- 50	164.9	370.5	34.3,34.3
60	186.9	2.222	0.1460	2.922	196.7	600.0	454.4	625.9	50- 60	224.2	594.7	55.1,55.1
70	119.3	1.297	0.4637	1.856	159.4	669.9	385.7	664.7	60- 70	255.7	850.4	78.8,78.8
80	14.51	1.495	1.211	1.941	31.12	381.0	163.4	242.4	70- 80	203.8	1054	97.7,97.7
90	0.6357	2.122	2.105	2.509	0.9364	0.5412	0.8247	0.9364	80- 90	25.11	1079	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		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 $\gamma$  Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:



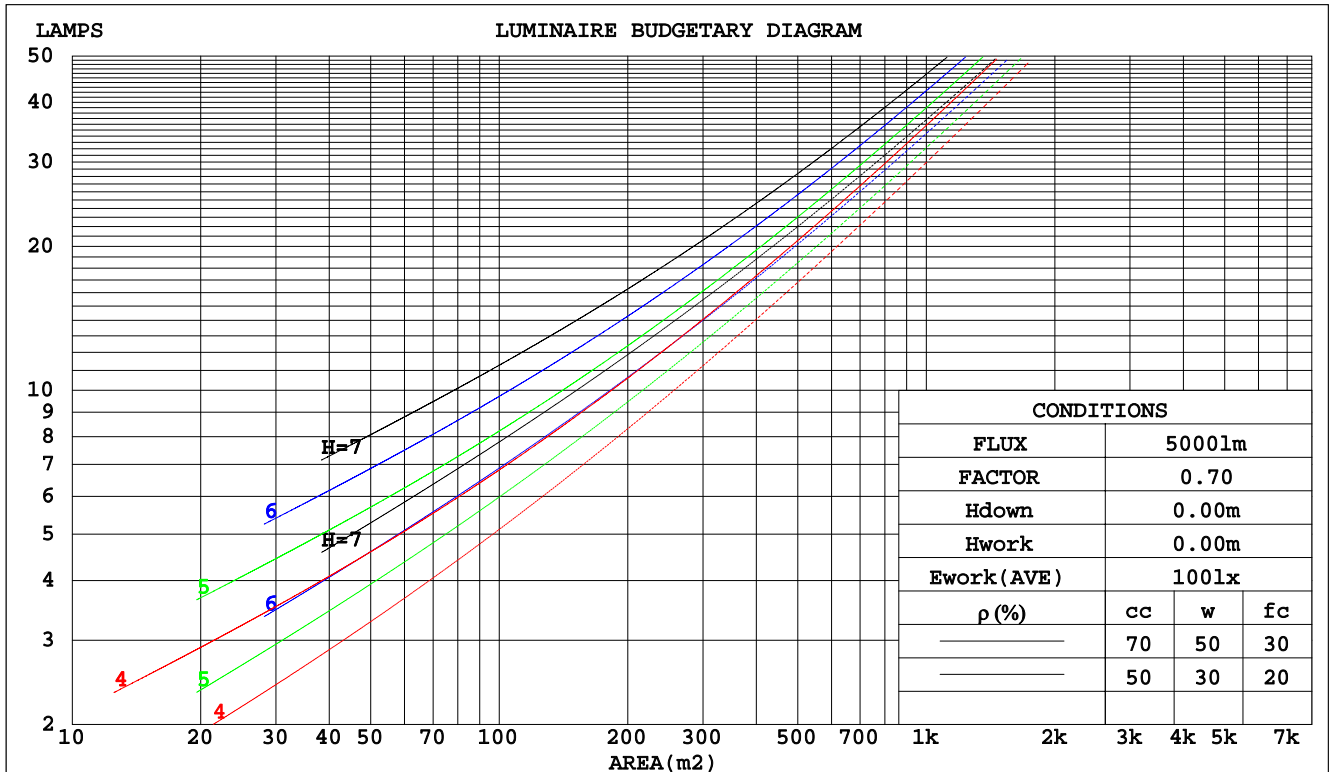
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	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			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	.98	.93	.87	.96	.91	.86	.92	.87	.83	.87	.84	.81	.84	.81	.78	.76
2.0	.81	.72	.64	.79	.70	.63	.75	.68	.62	.71	.65	.60	.68	.63	.59	.56
3.0	.67	.57	.48	.66	.56	.48	.62	.54	.47	.59	.52	.46	.57	.50	.45	.42
4.0	.57	.46	.38	.56	.45	.37	.53	.44	.37	.50	.43	.36	.48	.41	.35	.33
5.0	.49	.38	.30	.48	.38	.30	.46	.37	.30	.44	.35	.29	.42	.34	.29	.26
6.0	.43	.32	.25	.42	.32	.25	.40	.31	.24	.38	.30	.24	.37	.29	.24	.21
7.0	.38	.28	.21	.37	.28	.21	.36	.27	.20	.34	.26	.20	.33	.25	.20	.18
8.0	.34	.24	.18	.34	.24	.18	.32	.23	.17	.31	.23	.17	.29	.22	.17	.15
9.0	.31	.22	.15	.30	.21	.15	.29	.21	.15	.28	.20	.15	.27	.20	.15	.13
10.0	.28	.19	.13	.28	.19	.13	.27	.19	.13	.26	.18	.13	.25	.18	.13	.11



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 135*85*135			SERIAL No.:		
MFR.:			SUR.:0.04*0.02			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	.415	.236	.075	.408	.233	.074	.394	.226	.072	.381	.220	.071	.370	.214	.069	
2.0	.385	.211	.065	.378	.208	.064	.366	.203	.063	.354	.199	.062	.343	.194	.061	
3.0	.347	.185	.055	.341	.183	.055	.330	.179	.054	.319	.175	.054	.310	.171	.053	
4.0	.312	.162	.048	.307	.160	.047	.297	.157	.047	.287	.154	.047	.278	.151	.046	
5.0	.282	.144	.042	.277	.142	.041	.268	.140	.041	.260	.137	.041	.252	.135	.040	
6.0	.256	.128	.037	.252	.127	.037	.244	.125	.036	.236	.123	.036	.229	.121	.036	
7.0	.234	.116	.033	.231	.115	.033	.223	.113	.033	.217	.111	.032	.210	.109	.032	
8.0	.216	.105	.030	.212	.104	.030	.206	.103	.029	.200	.101	.029	.194	.100	.029	
9.0	.199	.096	.027	.196	.096	.027	.191	.094	.027	.185	.093	.027	.180	.092	.026	
10.0	.185	.089	.025	.183	.088	.025	.178	.087	.025	.173	.086	.024	.168	.085	.024	

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	.188	.155	.126	.161	.133	.108	.110	.092	.075	.063	.053	.044	.020	.017	.014	
2.0	.185	.131	.087	.158	.113	.075	.108	.078	.052	.063	.046	.031	.020	.015	.010	
3.0	.179	.115	.063	.154	.099	.055	.106	.069	.039	.061	.040	.023	.020	.013	.007	
4.0	.172	.102	.049	.148	.088	.043	.102	.062	.030	.059	.036	.018	.019	.012	.006	
5.0	.165	.093	.040	.141	.080	.034	.097	.056	.024	.056	.033	.014	.018	.011	.005	
6.0	.157	.085	.033	.135	.073	.029	.093	.051	.020	.054	.030	.012	.017	.010	.004	
7.0	.149	.078	.028	.128	.068	.025	.088	.047	.018	.051	.028	.010	.017	.009	.003	
8.0	.141	.072	.025	.122	.063	.022	.084	.044	.015	.049	.026	.009	.016	.009	.003	
9.0	.134	.067	.022	.116	.058	.019	.080	.041	.014	.047	.024	.008	.015	.008	.003	
10.0	.127	.063	.020	.110	.055	.018	.076	.038	.012	.044	.023	.007	.014	.007	.002	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025-04-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 135*85*135			SERIAL No.:			
MFR.:					SUR.:0.04*0.02			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		29.4	31.3	29.7	31.5	31.8	5.3	7.2	5.6	7.5	7.7
	3H	32.2	34.0	32.5	34.2	34.5	5.3	7.1	5.6	7.3	7.6
	4H	32.6	34.3	32.9	34.6	34.8	5.7	7.4	6.1	7.7	8.0
	6H	32.6	34.2	33.0	34.5	34.8	7.1	8.7	7.4	9.0	9.3
	8H	32.6	34.1	33.0	34.4	34.8	8.3	9.8	8.7	10.1	10.5
	12H	32.5	34.0	32.9	34.4	34.7	10.0	11.5	10.3	11.8	12.1
4H	2H	29.1	30.7	29.4	31.0	31.3	12.9	14.6	13.3	14.9	15.2
	3H	31.9	33.3	32.2	33.7	34.0	12.7	14.2	13.1	14.6	14.9
	4H	32.3	33.7	32.7	34.0	34.4	12.8	14.1	13.2	14.5	14.8
	6H	32.4	33.6	32.8	34.0	34.4	13.1	14.3	13.5	14.7	15.1
	8H	32.3	33.5	32.8	33.9	34.3	13.5	14.7	14.0	15.1	15.5
	12H	32.3	33.4	32.7	33.8	34.2	14.3	15.4	14.7	15.8	16.2
8H	4H	32.1	33.3	32.6	33.7	34.1	14.0	15.1	14.4	15.5	15.9
	6H	32.3	33.2	32.7	33.6	34.1	14.4	15.4	14.9	15.8	16.2
	8H	32.2	33.1	32.7	33.5	34.0	15.0	15.8	15.4	16.3	16.7
	12H	32.2	33.0	32.7	33.4	33.9	15.9	16.7	16.4	17.1	17.6
12H	4H	32.1	33.2	32.5	33.6	34.0	14.1	15.2	14.5	15.6	16.0
	6H	32.2	33.1	32.7	33.5	34.0	14.6	15.5	15.1	15.9	16.4
	8H	32.2	33.0	32.7	33.4	33.9	15.3	16.0	15.8	16.5	17.0
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 / - 1.0					+ 1.6 / - 2.3					
1.5H	+ 2.4 / - 3.1					+ 2.0 / - 1.6					
2.0H	+ 4.1 / - 5.8					+ 2.1 / - 1.7					

CIE Pub.117, 1079 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 0.3$ )

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025-04-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:

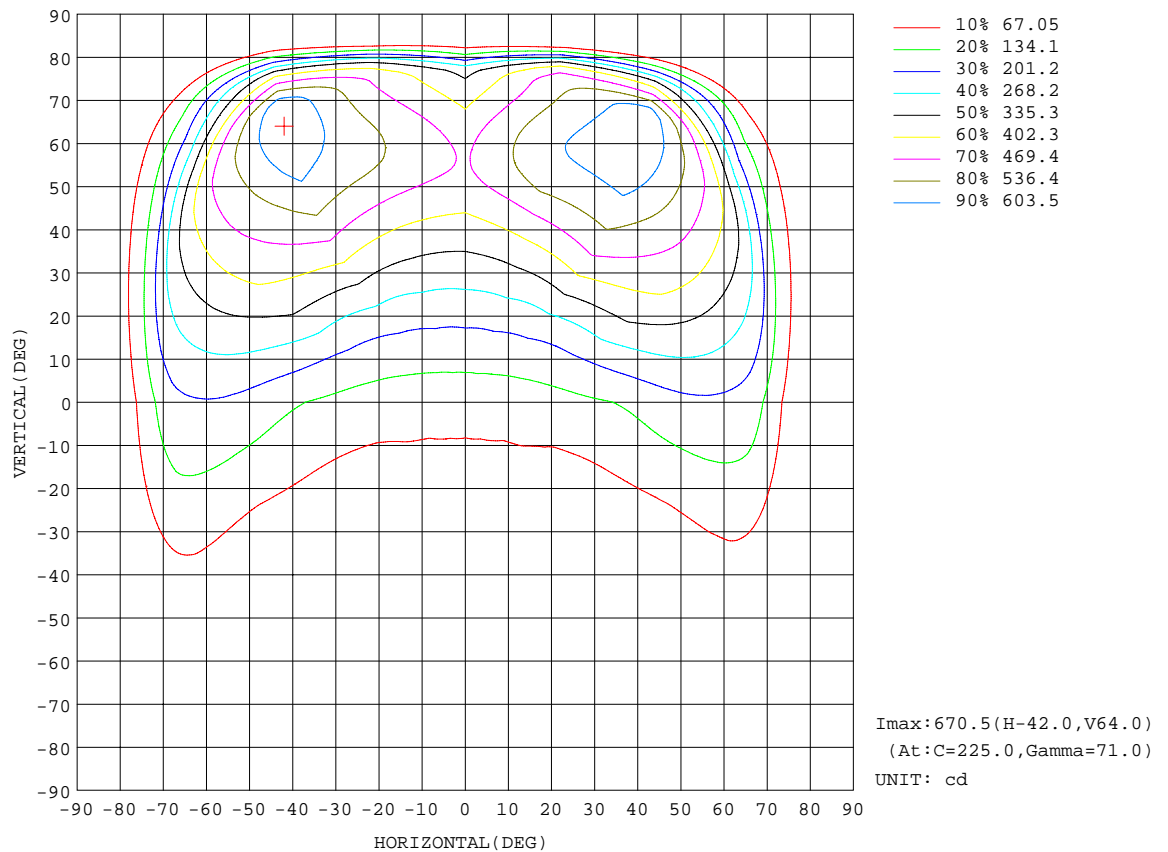
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	44	30	21	43	29	21	41	29	21	13
0.80	53	38	29	52	38	29	50	37	29	20
1.00	62	47	38	60	47	37	58	49	37	28
1.25	70	56	46	68	55	46	65	53	45	35
1.50	76	62	53	74	61	52	70	59	51	42
2.00	85	73	64	83	72	63	79	69	62	52
2.50	90	80	71	88	78	71	84	75	69	59
3.00	95	86	78	93	84	77	88	81	75	65
4.00	101	93	87	98	91	85	94	88	83	73
5.00	105	98	93	102	96	91	97	92	88	78
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:

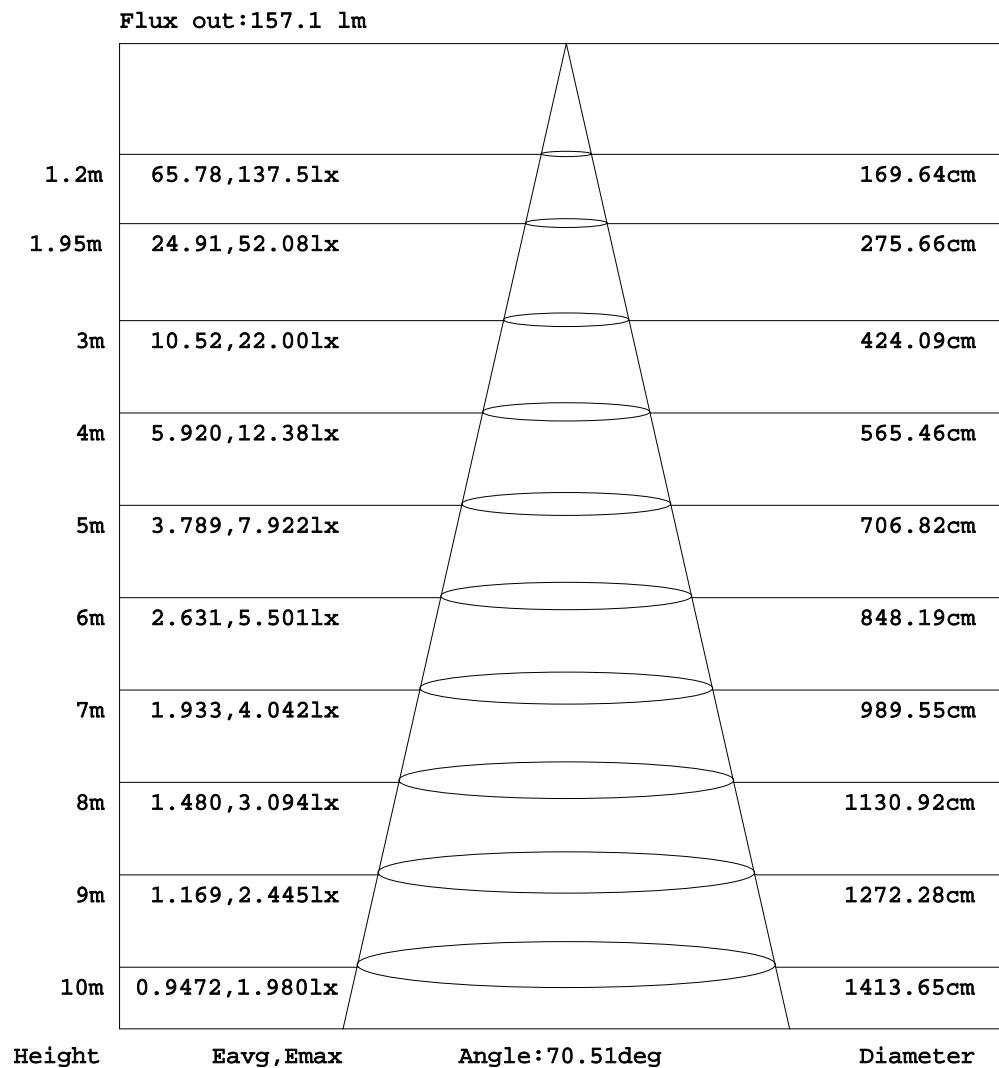


C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## AAI Figure

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:



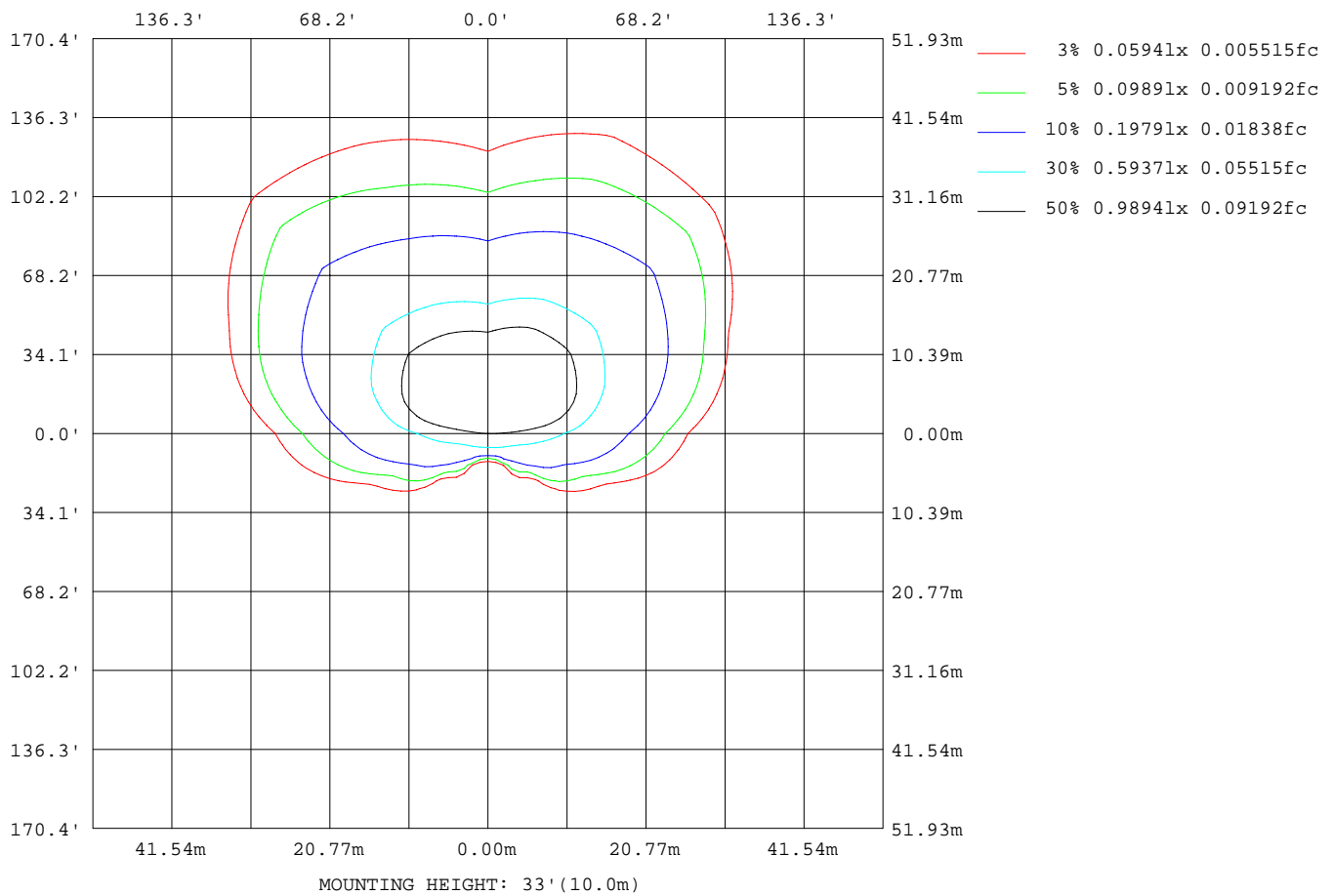
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025-04-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
 Humidity:65.0%  
 Test Distance:11.700m [K=1.0000]  
 Remarks:

## ISOLUX DIAGRAM

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:229.69V I:0.0575A P:12.233W PF:0.9265 Freq:49.99Hz Lamp Flux:1079.34x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 135*85*135	SERIAL No.:
MFR.:	SUR.:0.04*0.02	Shielding Angle:

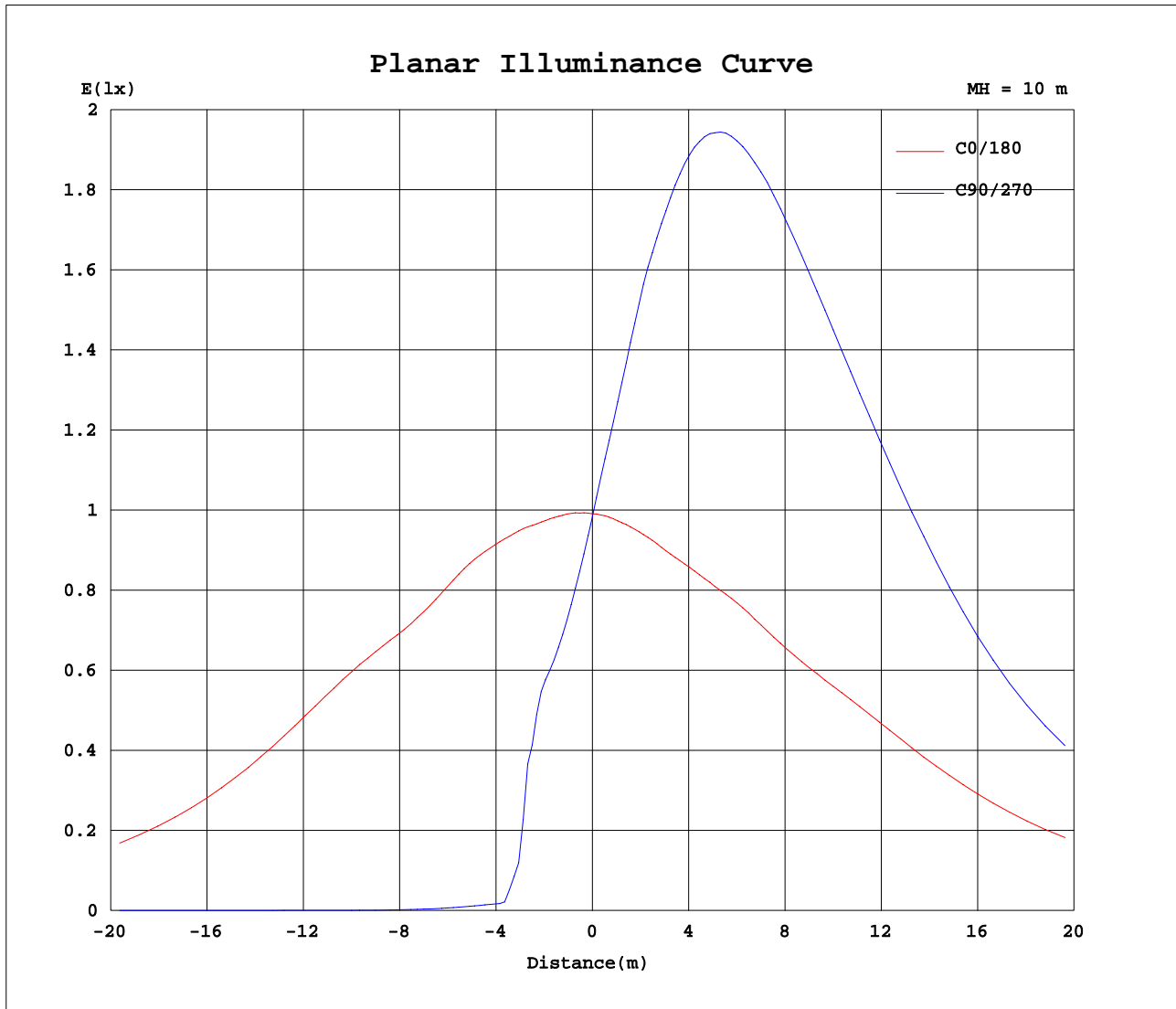
AvgL	cd/m2
L_0~180(65)av	538589
L_0~180(75)av	318225
L_0~180(85)av	28594
L_90~270(65)av	631510
L_90~270(75)av	812197
L_90~270(85)av	90654
L_45(65)av	964175
L_45(75)av	1463133
L_45(85)av	85350

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2025-04-29

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity:65.0%  
Test Distance:11.700m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025-04-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.406.10  
Humidity: 65.0%  
Test Distance: 11.700m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.10
Humidity:65.0%
Test Distance:11.700m [K=1.0000]
Remarks:

```