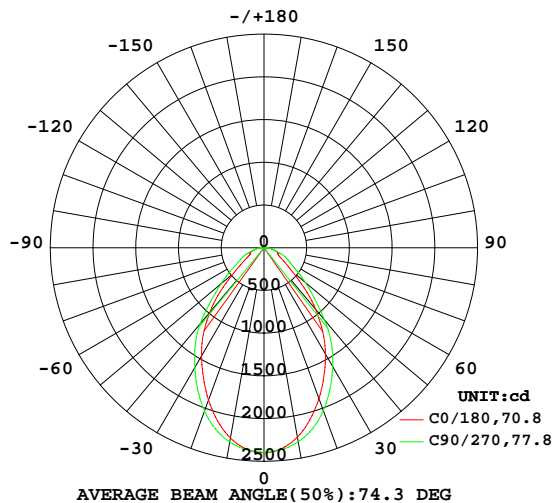


## LUMINAIRE PHOTOMETRIC TEST REPORT

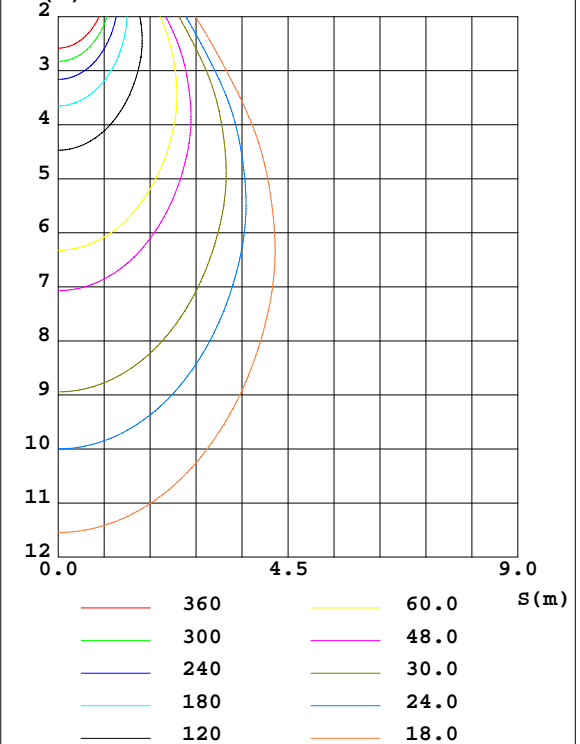
Test:U:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.85 lm/W			
MODEL		Imax(cd)	2399	S/MH(C0/180)	0.97
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	1.05
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3845.2	$\eta$ UP,DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	3845.17	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,50.2
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230.0	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.15

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:2023-09-27

$\gamma$  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:

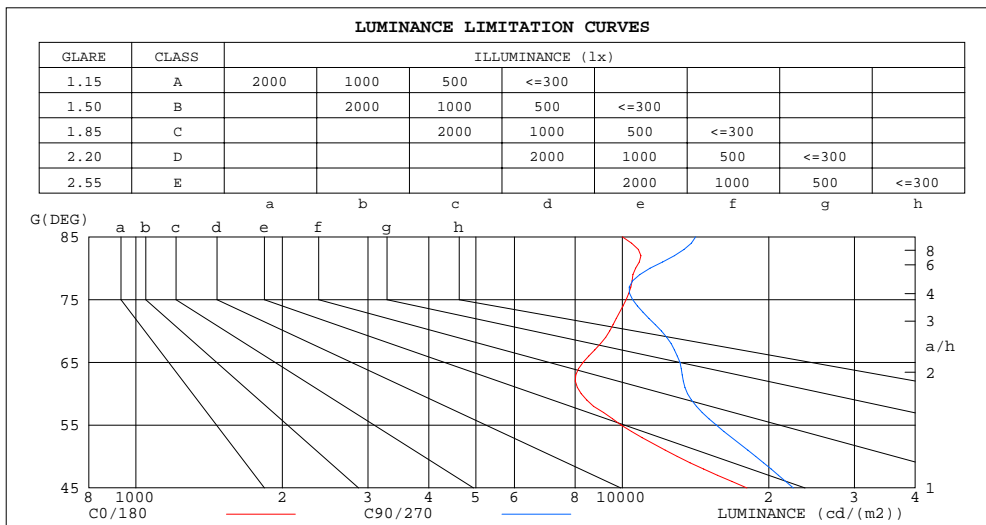
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	2250	2273	2306	2283	2261	2287	2308	2273	0- 10	223.1	223.1	5.8,5.8
20	1880	1944	2030	1963	1898	1968	2034	1945	10- 20	599.7	822.8	21.4,21.4
30	1441	1509	1609	1532	1462	1544	1619	1521	20- 30	802.4	1625	42.3,42.3
40	941.6	980.0	1103	1036	984.2	1089	1164	1053	30- 40	809.9	2435	63.3,63.3
50	437.5	519.7	634.7	541.0	464.2	558.8	655.1	549.7	40- 50	594.1	3029	78.8,78.8
60	216.1	298.6	357.4	305.4	223.1	303.7	356.8	307.0	50- 60	352.9	3382	88,88
70	169.2	205.8	216.0	213.1	170.5	210.6	220.2	203.0	60- 70	239.6	3622	94.2,94.2
80	97.08	107.1	103.9	110.6	101.4	115.4	108.8	109.4	70- 80	162.7	3784	98.4,98.4
90	2.182	1.710	3.316	4.656	5.043	5.120	4.175	2.208	80- 90	60.82	3845	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:2023-09-27

$\gamma$  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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	10001	14148
80	10648	11402
75	10182	10495
70	9422	12029
65	8304	13138
60	8234	13616
55	9940	15597
50	12965	18806
45	18037	22470

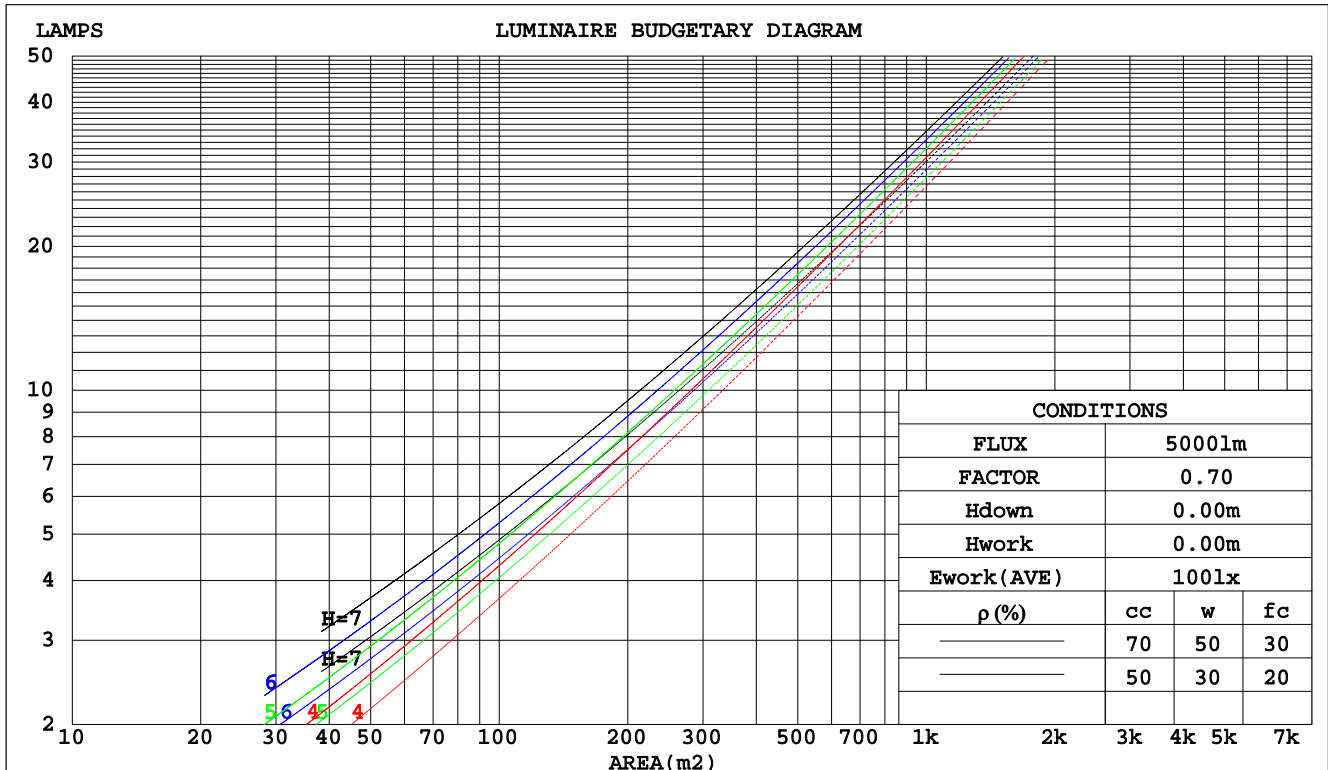
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2023-09-27

$\gamma$  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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	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	1.00
1.0	1.06	1.03	.00	1.04	1.01	.98	1.00	.97	.95	.96	.94	.92	.93	.91	.89	.87
2.0	.95	.90	.85	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3.0	.86	.79	.73	.84	.78	.73	.82	.76	.72	.79	.74	.70	.76	.73	.69	.67
4.0	.78	.70	.65	.77	.70	.64	.74	.68	.63	.72	.67	.63	.70	.65	.62	.60
5.0	.71	.63	.57	.70	.63	.57	.68	.62	.57	.66	.60	.56	.64	.59	.55	.54
6.0	.65	.57	.52	.64	.57	.51	.62	.56	.51	.61	.55	.51	.59	.54	.50	.48
7.0	.60	.52	.47	.59	.52	.47	.58	.51	.46	.56	.50	.46	.55	.50	.46	.44
8.0	.55	.48	.43	.55	.48	.43	.54	.47	.42	.52	.46	.42	.51	.46	.42	.40
9.0	.51	.44	.39	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.42	.38	.37
10.0	.48	.41	.36	.47	.41	.36	.47	.40	.36	.46	.40	.36	.45	.39	.36	.34



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2023-09-27

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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.: 1506*44*75			SERIAL No.:		
MFR.:			SUR.:1.5*0.035			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	.260	.148	.047	.253	.144	.046	.240	.138	.044	.228	.132	.042	.217	.126	.041	
2.0	.244	.134	.041	.238	.131	.040	.227	.126	.039	.217	.122	.038	.207	.117	.037	
3.0	.228	.121	.036	.223	.119	.036	.213	.115	.035	.204	.112	.034	.195	.108	.033	
4.0	.212	.110	.032	.208	.109	.032	.199	.106	.032	.191	.103	.031	.184	.100	.030	
5.0	.198	.101	.029	.194	.100	.029	.187	.097	.029	.180	.095	.028	.173	.092	.028	
6.0	.186	.093	.027	.182	.092	.027	.176	.090	.026	.169	.088	.026	.163	.086	.026	
7.0	.175	.086	.024	.171	.085	.024	.165	.084	.024	.160	.082	.024	.154	.080	.024	
8.0	.165	.080	.023	.162	.080	.023	.156	.078	.022	.151	.077	.022	.146	.075	.022	
9.0	.155	.075	.021	.153	.075	.021	.148	.073	.021	.143	.072	.021	.139	.071	.020	
10.0	.147	.071	.020	.145	.070	.020	.141	.069	.019	.136	.068	.019	.133	.067	.019	

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	.177	.157	.138	.151	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.080	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.050	.035	.023	.016	.012	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.073	.036	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.120	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.013	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2023-09-27

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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 1506*44*75			SERIAL No.:			
MFR.:					SUR.:1.5*0.035			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	2H	20.5	21.8	20.8	22.0	22.2	20.8	22.1	21.1	22.3	22.5
	3H	21.5	22.7	21.8	22.9	23.2	21.9	23.1	22.2	23.3	23.6
	4H	22.0	23.2	22.3	23.4	23.7	22.5	23.6	22.8	23.8	24.1
	6H	22.6	23.6	22.9	23.9	24.2	22.9	24.0	23.3	24.3	24.5
	8H	22.8	23.8	23.1	24.1	24.4	23.2	24.2	23.5	24.5	24.8
	12H	22.9	23.9	23.3	24.2	24.5	23.4	24.4	23.8	24.7	25.0
4H	2H	20.9	22.0	21.2	22.3	22.5	21.1	22.3	21.4	22.5	22.7
	3H	22.2	23.2	22.6	23.5	23.8	22.5	23.5	22.9	23.8	24.1
	4H	22.9	23.8	23.3	24.1	24.5	23.3	24.2	23.6	24.5	24.8
	6H	23.6	24.4	24.0	24.8	25.1	23.9	24.7	24.3	25.1	25.4
	8H	23.9	24.6	24.3	25.0	25.4	24.3	25.0	24.7	25.4	25.8
	12H	24.1	24.8	24.5	25.2	25.6	24.6	25.3	25.0	25.6	26.0
8H	4H	23.2	24.0	23.7	24.4	24.7	23.6	24.3	24.0	24.7	25.0
	6H	24.1	24.8	24.6	25.2	25.6	24.4	25.0	24.9	25.4	25.9
	8H	24.5	25.1	25.0	25.5	26.0	24.9	25.4	25.3	25.8	26.3
	12H	24.8	25.3	25.3	25.7	26.2	25.3	25.8	25.8	26.2	26.7
12H	4H	23.3	24.0	23.7	24.3	24.7	23.6	24.3	24.0	24.6	25.0
	6H	24.2	24.8	24.7	25.2	25.7	24.5	25.1	25.0	25.5	25.9
	8H	24.7	25.2	25.2	25.6	26.1	25.0	25.5	25.5	25.9	26.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.5					+ 0.3 / - 0.4					
1.5H	+ 0.2 / - 0.6					+ 0.4 / - 0.4					
2.0H	+ 0.5 / - 0.9					+ 0.9 / - 0.6					

CIE Pub.117, 3845 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 4.7$ )

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2023-09-27

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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:

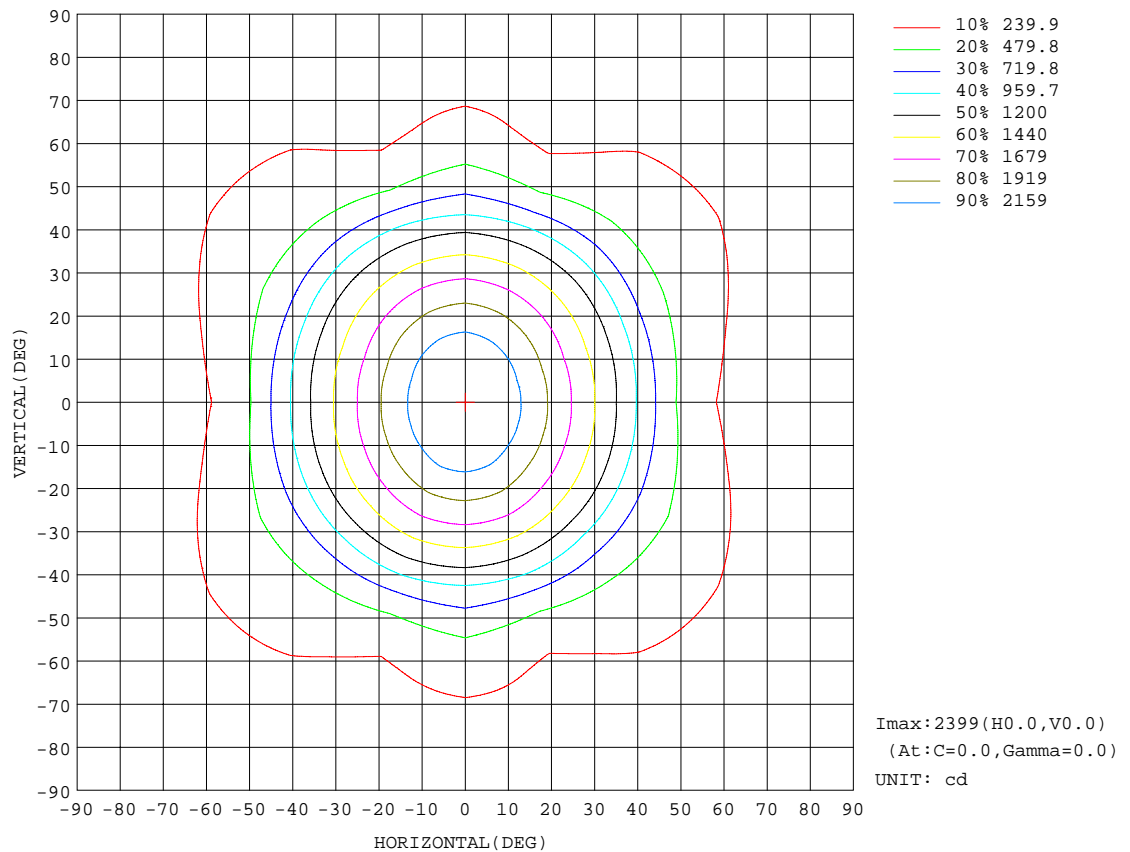
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	59	54	68	59	53	67	59	53	48
0.80	78	69	63	77	68	63	76	68	62	57
1.00	85	76	70	84	76	70	82	77	70	64
1.25	91	83	77	90	82	77	87	81	76	70
1.50	95	87	82	94	87	81	91	85	80	74
2.00	100	94	89	99	93	88	96	90	86	79
2.50	103	97	92	101	96	91	98	93	90	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
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:2023-09-27

$\gamma$  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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:



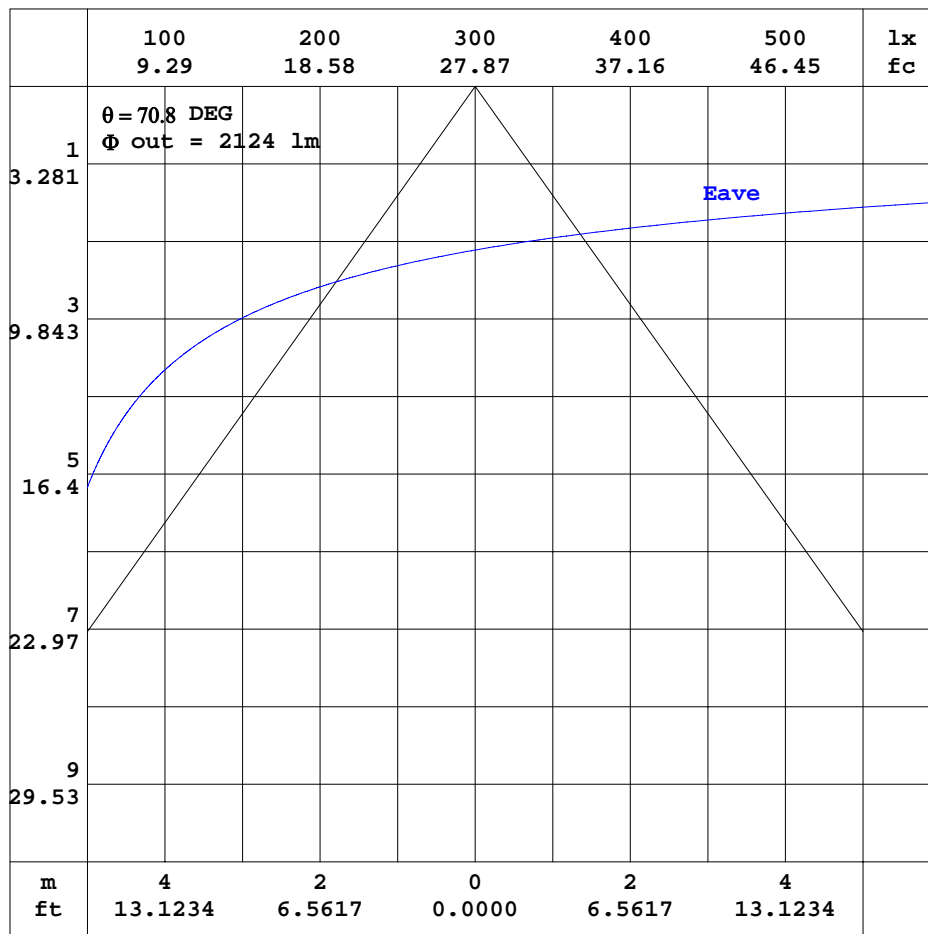
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2023-09-27

$\gamma$  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 CURVES

Test:U:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:



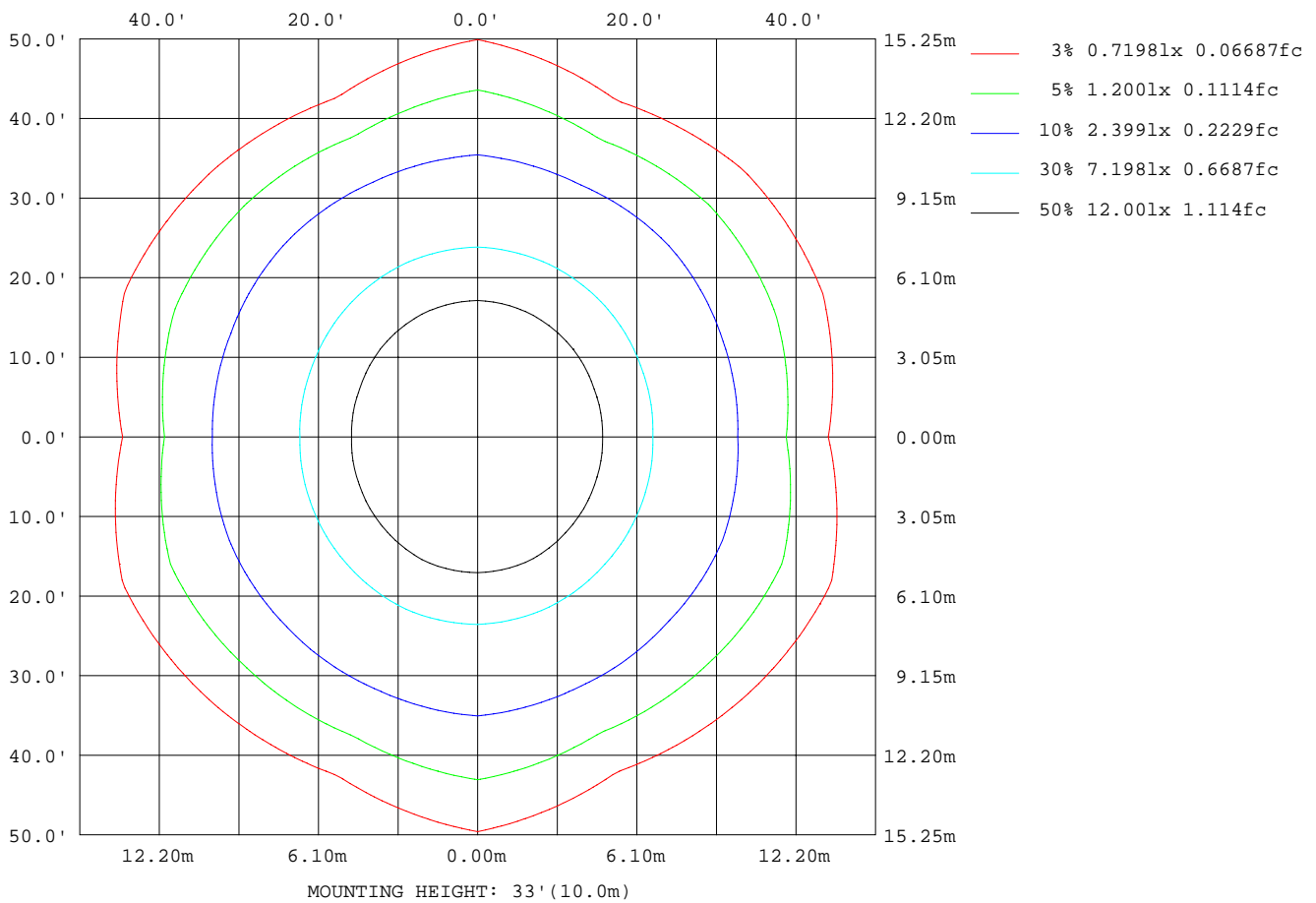
Note: The Curves indicate the illuminated area and the average illuminance when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2023-09-27

$\gamma$  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:

## ISOLUX DIAGRAM

Test:U:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2023-09-27

$\gamma$  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:229.78V I:0.2593A P:58.392W PF:0.9802 Freq:49.99Hz Lamp Flux:3845.17x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 1506*44*75	SERIAL No.:
MFR.:	SUR.:1.5*0.035	Shielding Angle:

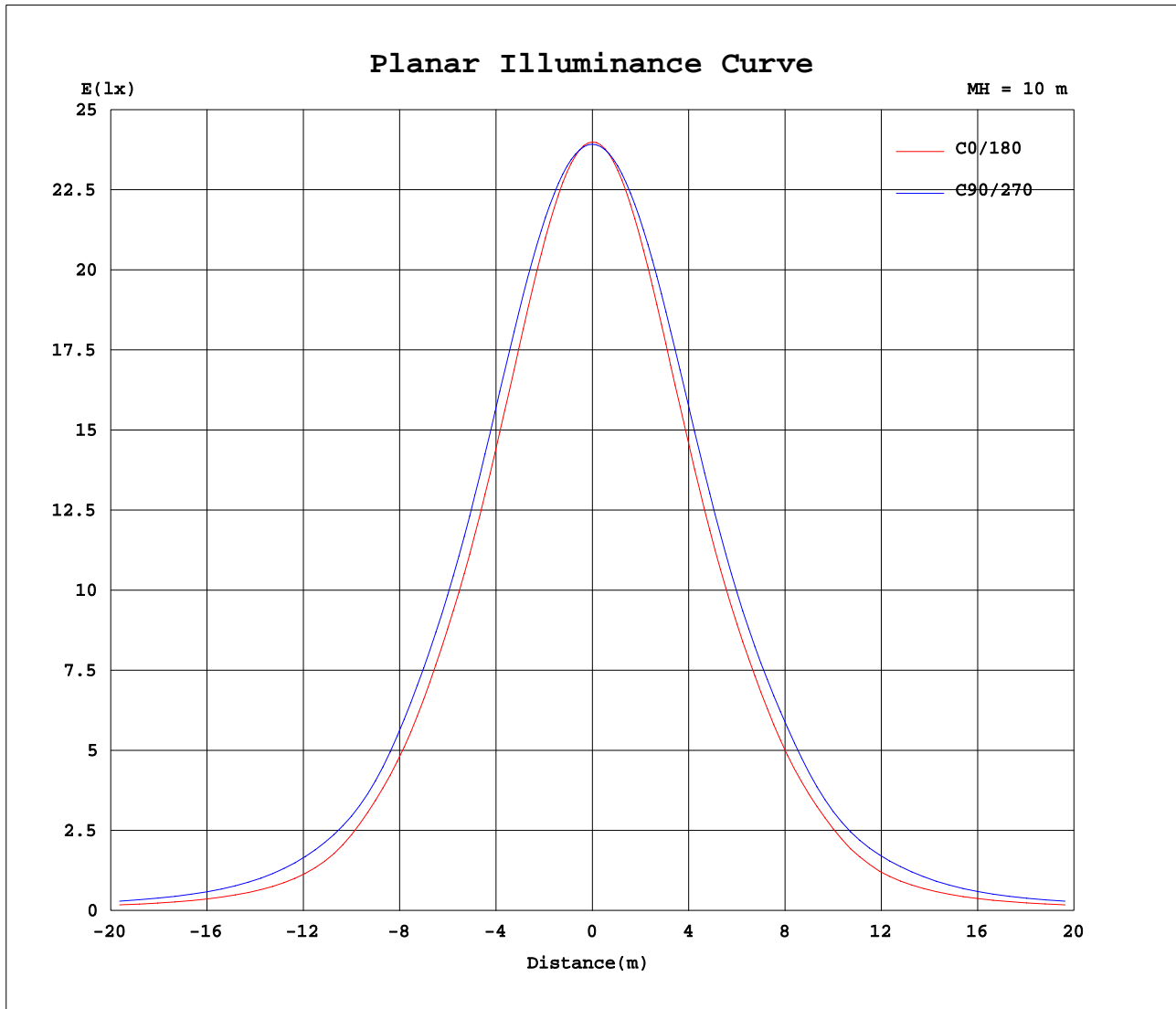
AvgL	cd/m2
L_0~180(65)av	8260
L_0~180(75)av	10268
L_0~180(85)av	11066
L_90~270(65)av	13071
L_90~270(75)av	10601
L_90~270(85)av	14245
L_45(65)av	11330
L_45(75)av	11577
L_45(85)av	11902

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2023-09-27

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: 2023-09-27

$\gamma$  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:

```