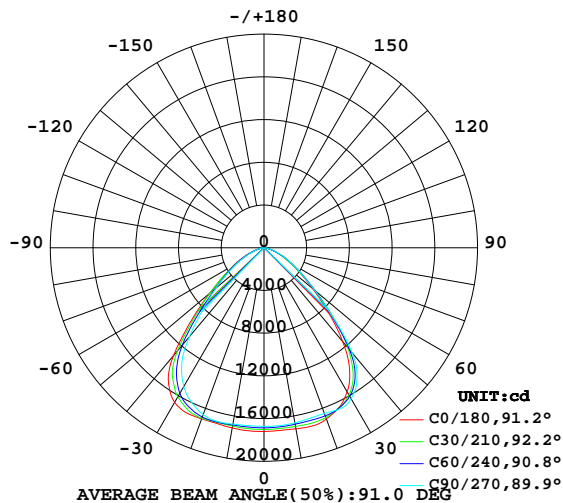


## LUMINAIRE PHOTOMETRIC TEST REPORT

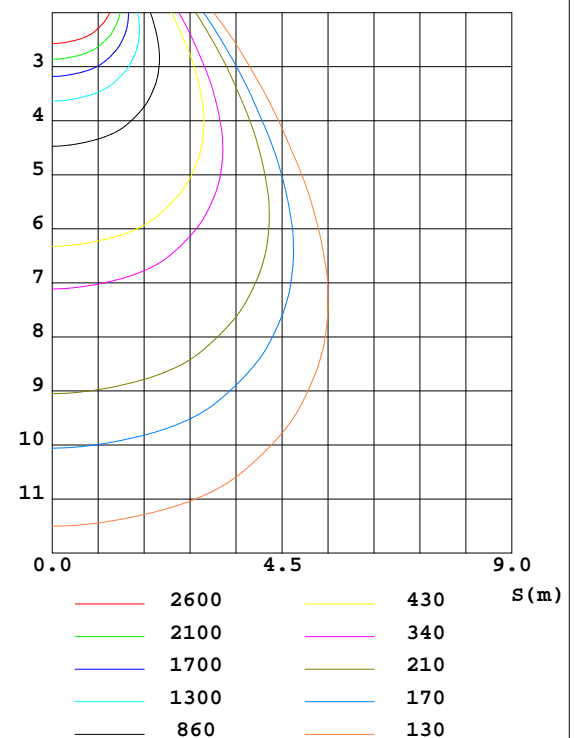
Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

DATA OF LAMP		PHOTOMETRIC DATA Eff: 152.05 lm/W			
MODEL	270886	I <sub>max</sub> (cd)	17286	S/MH(C0/180)	1.27
NOMINAL POWER(W)	244	LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	232	TOTAL FLUX(lm)	36411	η UP,DN(C0-180)	0.0,50.7
NOMINAL FLUX(lm)	36410.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	231.4	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [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	1721	1688	1665	1651	1713	1690	1677	1664	0- 10	1605	1605	4.41,4.41
20	1707	1683	1652	1631	1705	1693	1663	1646	10- 20	4755	6360	17.5,17.5
30	1557	1599	1632	1622	1673	1594	1502	1462	20- 30	7559	13919	38.2,38.2
40	1146	1233	1286	1320	1319	1226	1088	1017	30- 40	8907	22826	62.7,62.7
50	597.9	627.9	620.4	639.6	659.5	625.5	584.2	575.3	40- 50	6811	29638	81.4,81.4
60	288.5	293.6	302.7	295.7	322.9	305.7	289.4	302.6	50- 60	3927	33565	92.2,92.2
70	115.8	117.8	124.1	116.9	129.4	118.8	114.7	117.6	60- 70	2011	35576	97.7,97.7
80	31.89	29.90	30.91	29.20	32.48	31.58	31.25	32.00	70- 80	703.3	36280	99.6,99.6
90	2.340	2.272	2.208	2.217	3.147	3.130	3.129	3.096	80- 90	131.3	36411	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:×10cd									UNIT:lm		

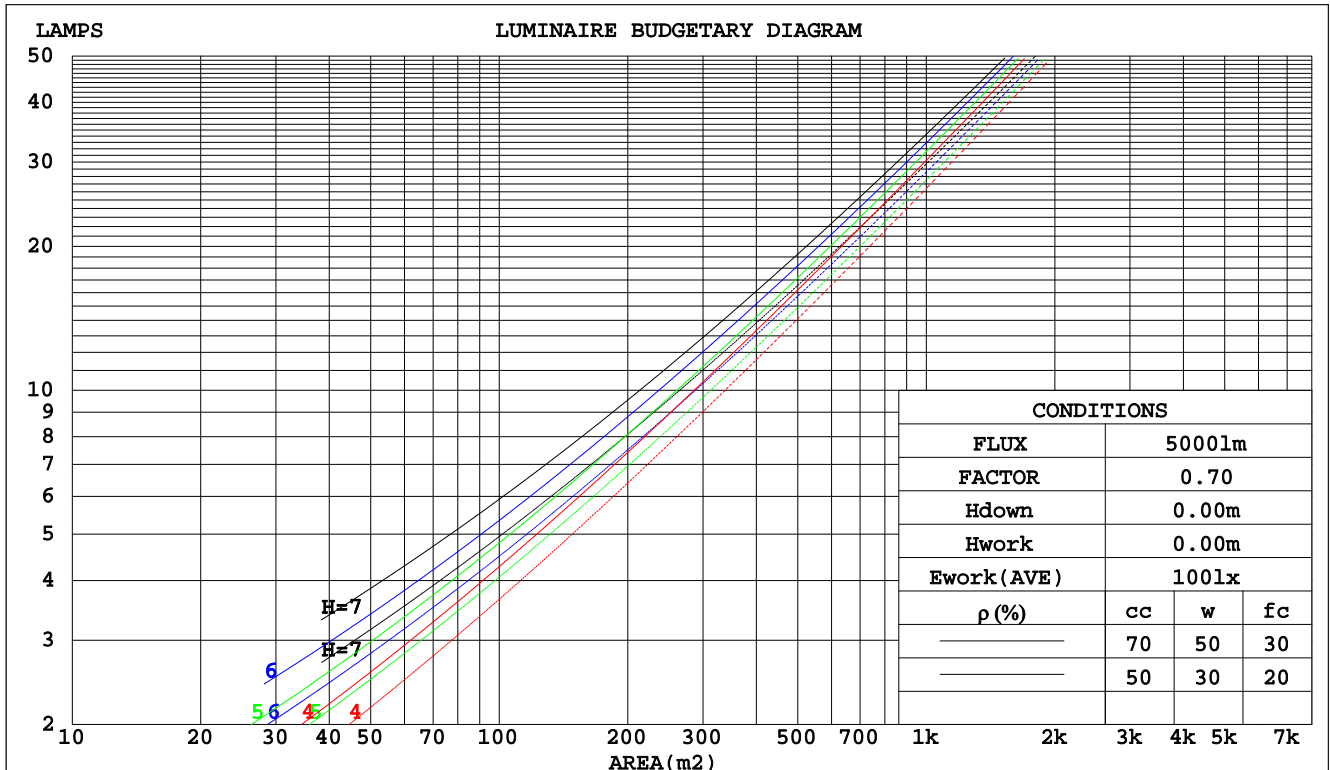
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-03-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
 Humidity:65.0%  
 Test Distance:6.990m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

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	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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.96	.91	.86	.95	.90	.85	.91	.87	.83	.88	.85	.81	.85	.82	.80	.78
3.0	.87	.80	.75	.85	.79	.74	.82	.77	.73	.80	.75	.71	.77	.74	.70	.68
4.0	.78	.71	.65	.77	.70	.65	.75	.69	.64	.72	.67	.63	.70	.66	.62	.60
5.0	.71	.63	.57	.70	.63	.57	.68	.61	.57	.66	.60	.56	.64	.59	.55	.54
6.0	.65	.57	.51	.64	.56	.51	.62	.55	.50	.60	.55	.50	.59	.54	.50	.48
7.0	.59	.51	.46	.58	.51	.46	.57	.50	.45	.56	.50	.45	.54	.49	.45	.43
8.0	.54	.47	.41	.54	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.41	.39
9.0	.50	.43	.38	.50	.42	.38	.49	.42	.37	.47	.41	.37	.47	.41	.37	.35
10.0	.46	.39	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.43	.38	.34	.32



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-03-21

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
 Humidity:65.0%  
 Test Distance:6.990m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm								
NAME: 270886			TYPE:			WEIGHT:		
DIM.:			SPEC.:			SERIAL No.:		
MFR.:			SUR.:0.191			PROTECTION ANGLE:0.14		

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	.241	.137	.043	.234	.134	.042	.221	.127	.041	.209	.121	.039	.198	.115	.037	
2.0	.234	.128	.039	.228	.126	.039	.217	.121	.038	.207	.116	.036	.197	.112	.035	
3.0	.223	.119	.036	.218	.117	.035	.208	.113	.034	.199	.109	.033	.190	.105	.033	
4.0	.211	.109	.032	.206	.108	.032	.197	.105	.031	.189	.102	.031	.182	.099	.030	
5.0	.199	.101	.029	.195	.100	.029	.187	.097	.029	.180	.095	.028	.173	.093	.028	
6.0	.187	.094	.027	.184	.093	.027	.177	.091	.026	.170	.089	.026	.165	.087	.026	
7.0	.177	.087	.025	.174	.086	.025	.167	.085	.024	.162	.083	.024	.156	.081	.024	
8.0	.167	.082	.023	.164	.081	.023	.159	.079	.023	.154	.078	.022	.149	.076	.022	
9.0	.158	.077	.021	.156	.076	.021	.151	.075	.021	.146	.073	.021	.142	.072	.021	
10.0	.150	.072	.020	.148	.071	.020	.143	.070	.020	.139	.069	.020	.135	.068	.020	

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	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.087	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.032	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.116	.063	.027	.100	.055	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.096	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [K=1.0000]  
Remarks:

### Uncorrected UGR Table

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm											
NAME: 270886					TYPE:			WEIGHT:			
DIM.:					SPEC.:			SERIAL No.:			
MFR.:					SUR.:0.191			PROTECTION ANGLE:0.14			
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	31.9	33.2	32.2	33.4	33.6	32.2	33.5	32.4	33.7	33.9	
	3H	32.2	33.4	32.5	33.7	33.9	32.5	33.7	32.8	34.0	34.2
	4H	32.3	33.4	32.6	33.7	33.9	32.6	33.7	32.9	34.0	34.2
	6H	32.3	33.3	32.6	33.6	33.9	32.6	33.6	32.9	33.9	34.2
	8H	32.2	33.3	32.6	33.5	33.8	32.5	33.6	32.9	33.8	34.1
	12H	32.2	33.2	32.6	33.5	33.8	32.5	33.5	32.8	33.8	34.1
4H	2H	32.0	33.2	32.3	33.4	33.7	32.3	33.4	32.6	33.6	33.9
	3H	32.5	33.5	32.8	33.7	34.0	32.7	33.7	33.1	34.0	34.3
	4H	32.6	33.5	32.9	33.8	34.1	32.8	33.7	33.2	34.0	34.4
	6H	32.6	33.4	33.0	33.7	34.1	32.9	33.7	33.3	34.0	34.4
	8H	32.6	33.3	33.0	33.7	34.1	32.9	33.6	33.3	33.9	34.3
	12H	32.6	33.2	33.0	33.6	34.0	32.8	33.5	33.2	33.9	34.3
8H	4H	32.5	33.3	32.9	33.6	34.0	32.8	33.5	33.2	33.9	34.3
	6H	32.6	33.2	33.1	33.6	34.0	32.9	33.5	33.3	33.9	34.3
	8H	32.6	33.2	33.1	33.6	34.0	32.9	33.4	33.3	33.8	34.3
	12H	32.6	33.1	33.1	33.5	34.0	32.9	33.3	33.3	33.7	34.2
12H	4H	32.5	33.2	32.9	33.5	33.9	32.8	33.4	33.2	33.8	34.2
	6H	32.6	33.1	33.0	33.5	34.0	32.8	33.4	33.3	33.8	34.2
	8H	32.6	33.1	33.1	33.5	34.0	32.9	33.3	33.3	33.7	34.2
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 / - 1.4					+ 1.0 / - 1.4					
1.5H	+ 0.9 / - 1.0					+ 1.1 / - 0.9					
2.0H	+ 2.1 / - 1.8					+ 1.9 / - 1.5					

CIE Pub.117 Corrected 36411 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.5)

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

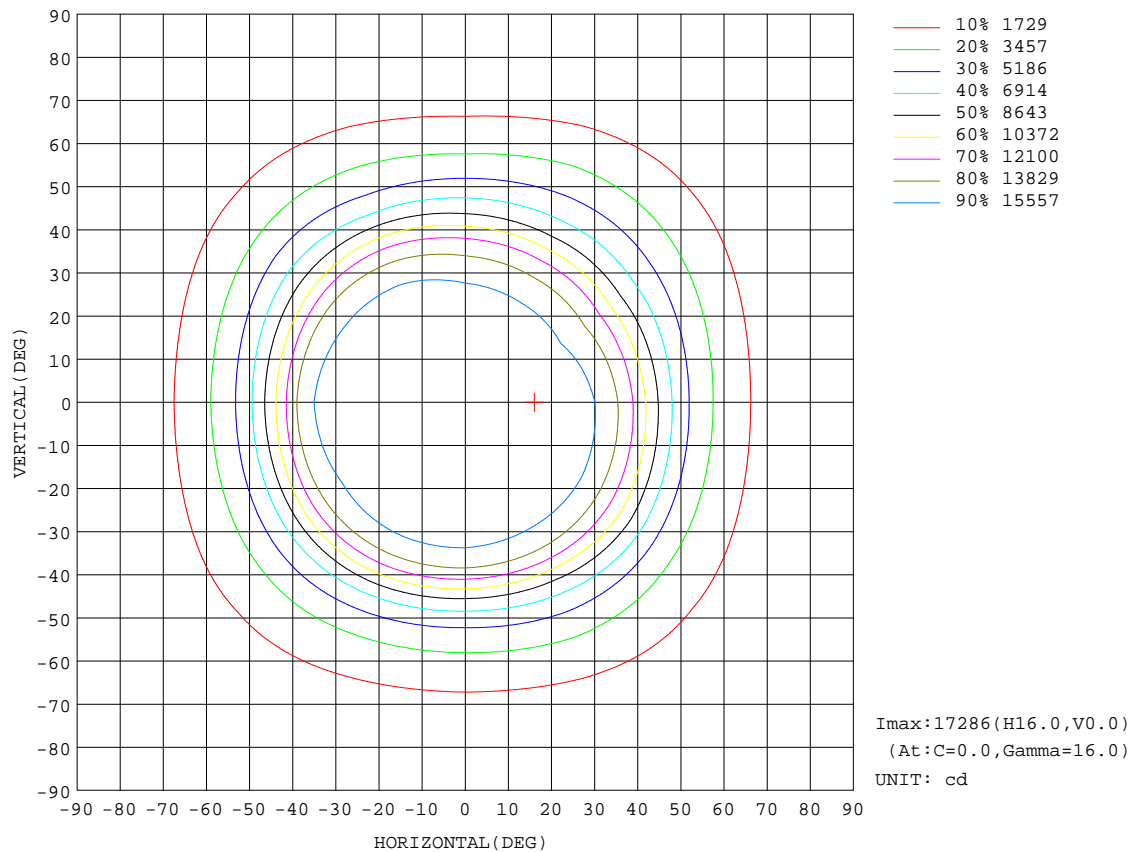
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	58	52	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	86	77	71	85	76	71	83	77	70	64
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	83	95	88	83	92	86	82	76
2.00	102	95	90	100	94	89	97	92	88	81
2.50	104	98	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14



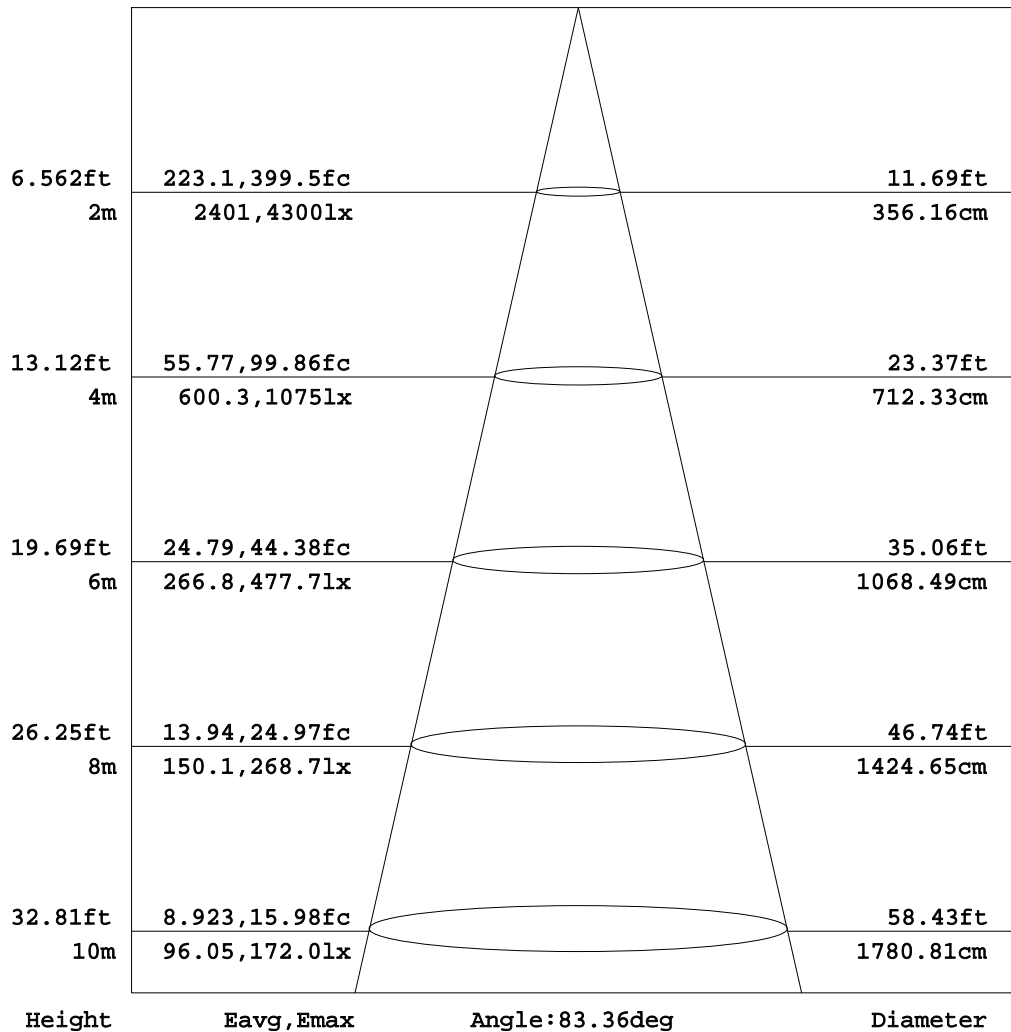
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [K=1.0000]  
Remarks:

### AAI Figure

Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14

Flux out:24462 lm



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

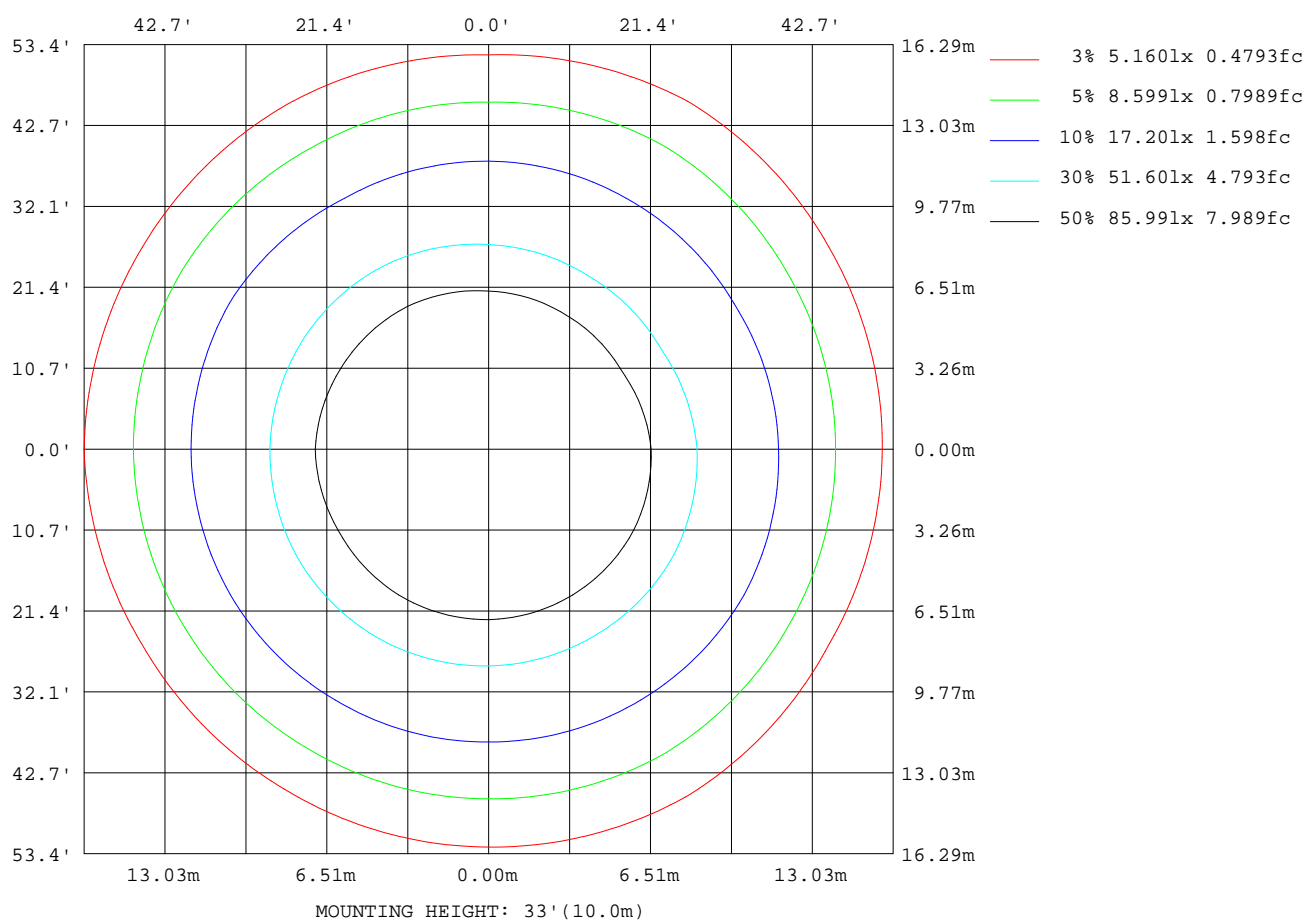
C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-03-21

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity:65.0%  
Test Distance:6.990m [K=1.0000]  
Remarks:



## ISOLUX DIAGRAM

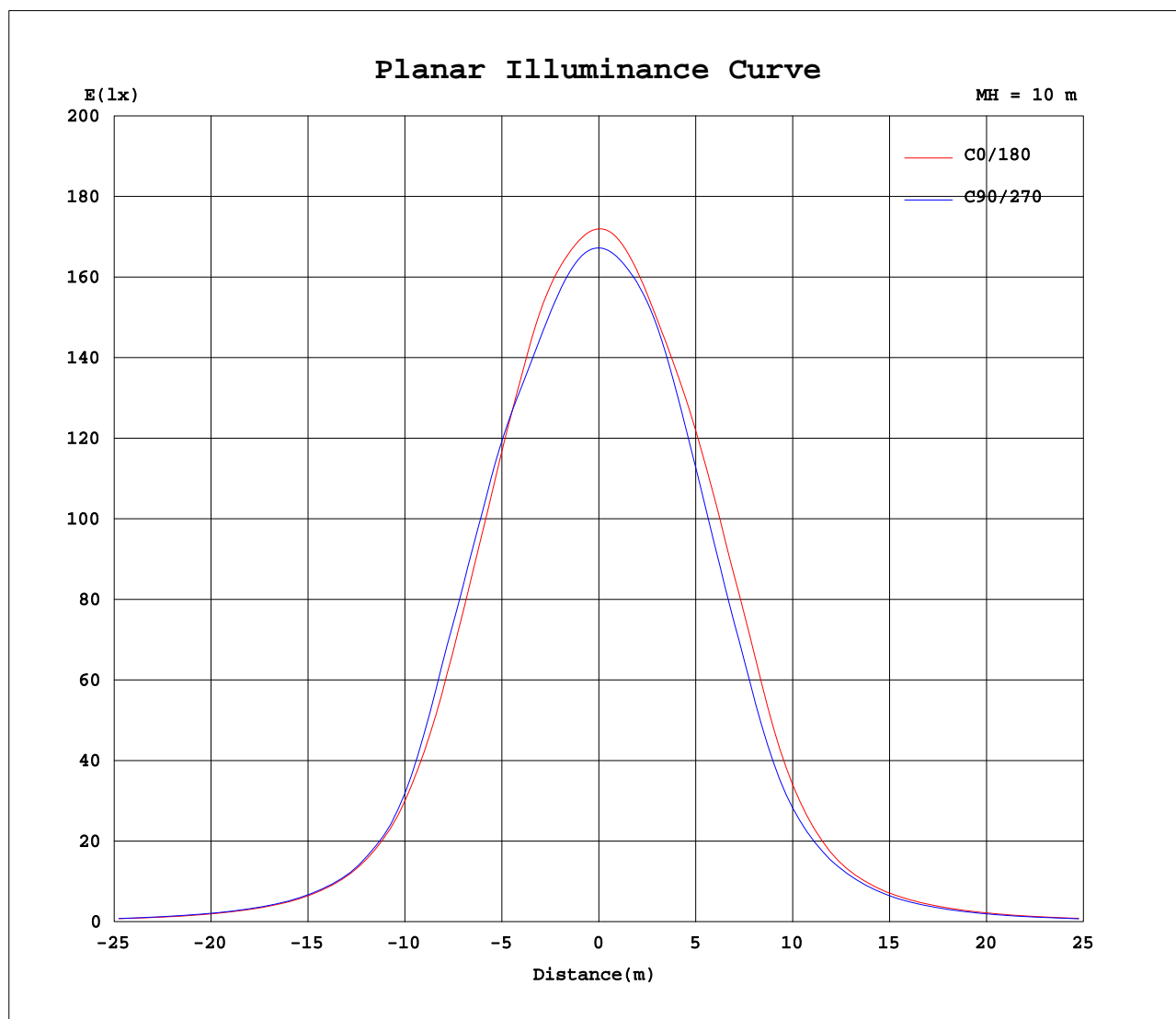
Test:U:231.5V I:1.046A P:239.5W PF:0.9891 Lamp Flux:36410.9x1 lm		
NAME: 270886	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191	PROTECTION ANGLE:0.14



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2022-03-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity: 65.0%  
Test Distance: 6.990m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2022-03-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
Humidity: 65.0%  
Test Distance: 6.990m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.990m [K=1.0000]
Remarks:

```