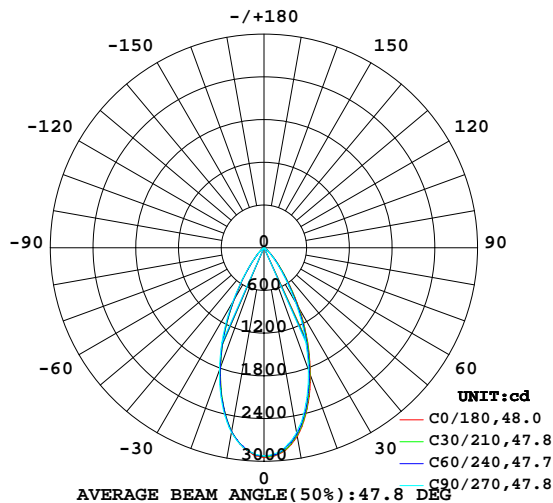


## LUMINAIRE PHOTOMETRIC TEST REPORT

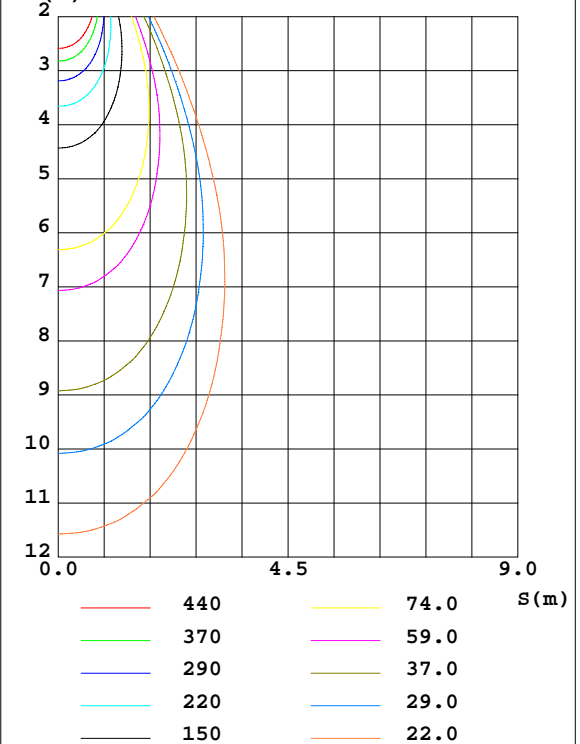
Test:U:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 51.72 lm/W			
MODEL		I <sub>max</sub> (cd)	2949	S/MH(C0/180)	0.77
NOMINAL POWER(W)	39	LOR(%)	100.0	S/MH(C90/270)	0.75
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2001.1	η UP,DN(C0-180)	0.0,50.5
NOMINAL FLUX(lm)	2001.08	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230.0	η down(%)	100.0	CIBSE SHR MAX	0.80

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

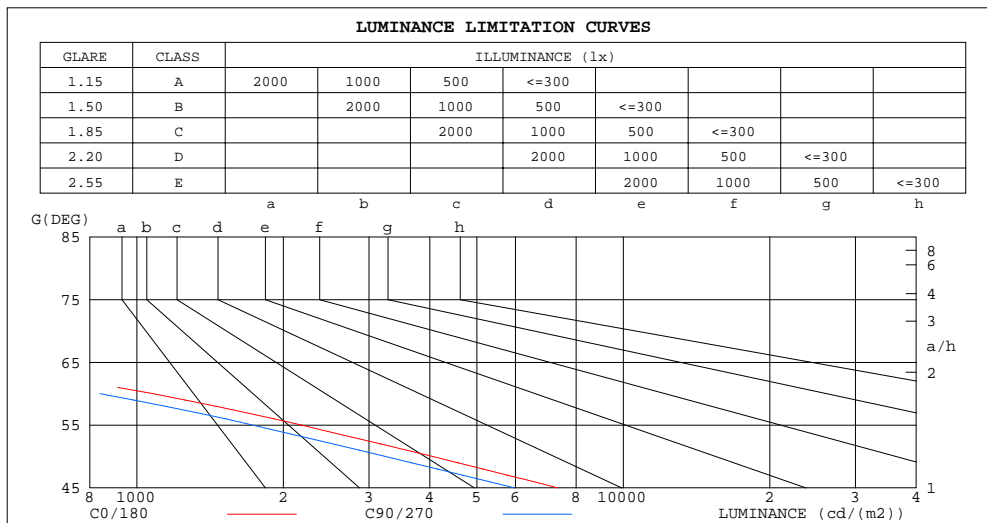
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2694	2671	2638	2608	2622	2612	2635	2647	0- 10	265.2	265.2	13.3,13.3
20	1909	1889	1825	1791	1791	1779	1832	1865	10- 20	628.9	894.2	44.7,44.7
30	994.5	968.8	886.9	845.9	835.4	824.2	883.0	941.8	20- 30	617.0	1511	75.5,75.5
40	329.8	317.3	276.8	260.8	255.7	247.3	260.8	295.6	30- 40	333.5	1845	92.2,92.2
50	86.76	82.58	69.35	65.06	63.11	60.07	64.49	74.51	40- 50	117.0	1962	98,98
60	17.99	17.10	13.98	12.43	11.52	11.40	13.11	15.29	50- 60	32.22	1994	99.6,99.6
70	2.109	1.939	1.835	1.648	1.569	1.624	1.698	1.873	60- 70	5.611	2000	99.9,99.9
80	0.8342	0.6692	0.6961	0.5324	0.5748	0.6452	0.6012	0.7400	70- 80	1.208	2001	100,100
90	0.1289	0.1117	0.0773	0.0859	0.1890	0.1890	0.1804	0.1804	80- 90	0.3714	2001	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: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-07-20

$\gamma$  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:

## LUMINANCE LIMITATION CURVES

Test:U:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	151	119
80	144	120
75	155	134
70	185	161
65	430	333
60	1080	840
55	2178	1728
50	4052	3239
45	7340	5978

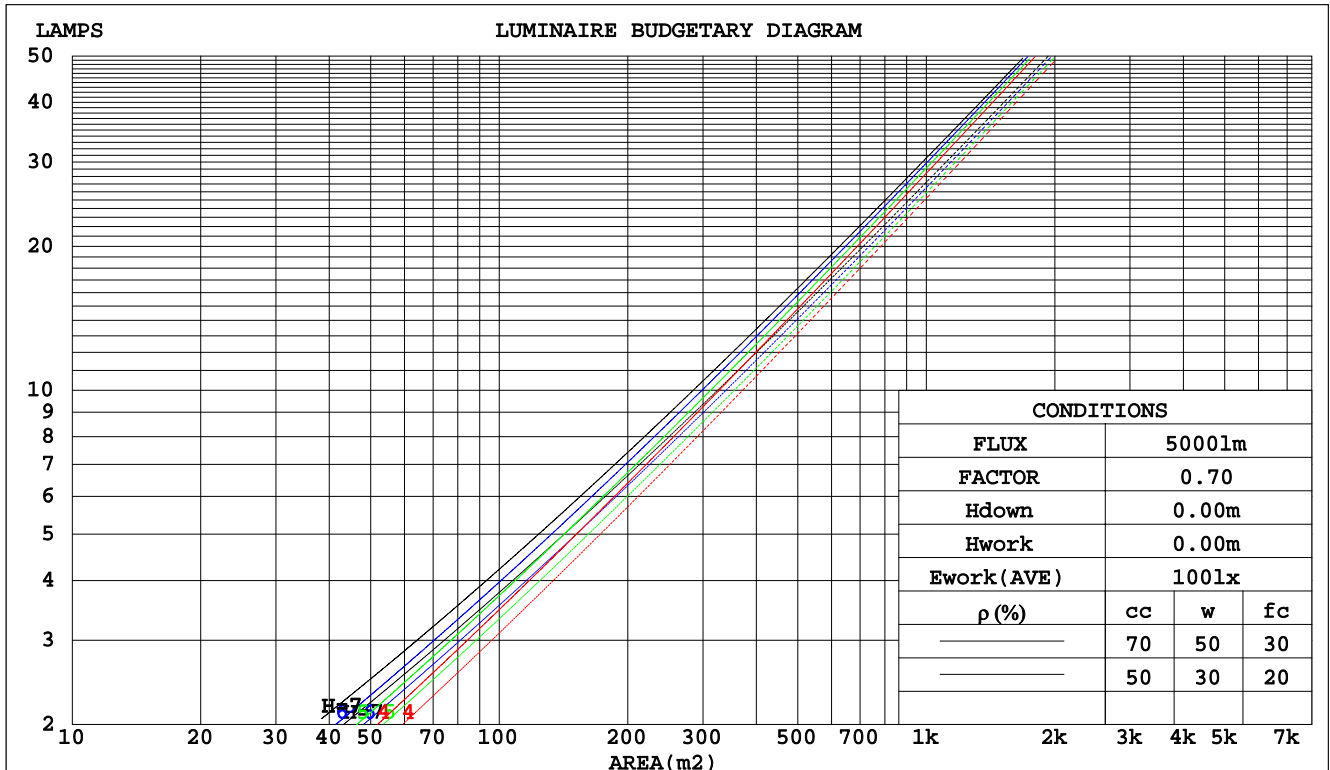
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

$\gamma$  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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	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	1.11	1.09	1.06	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.96	.91	.88	.93	.89	.86	.91	.88	.85	.88	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.72
6.0	.81	.75	.71	.80	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.62	.59	.67	.62	.59	.66	.62	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.64	.59	.56	.64	.59	.55	.63	.58	.55	.62	.58	.55	.54



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.: 228*48		SERIAL No.:	
MFR.:		SUR.:3.14*0.0.103*0.103		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	.173	.098	.031	.166	.095	.030	.153	.088	.028	.142	.082	.026	.131	.076	.024	
2.0	.165	.090	.028	.159	.088	.027	.149	.083	.026	.139	.078	.024	.130	.074	.023	
3.0	.157	.084	.025	.152	.082	.025	.143	.078	.024	.135	.074	.023	.127	.070	.022	
4.0	.150	.078	.023	.145	.076	.022	.138	.073	.022	.131	.070	.021	.124	.067	.020	
5.0	.143	.073	.021	.139	.071	.021	.132	.069	.020	.126	.066	.020	.120	.064	.019	
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018	
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.112	.058	.017	
8.0	.124	.061	.017	.122	.060	.017	.117	.059	.017	.113	.057	.016	.109	.056	.016	
9.0	.119	.058	.016	.117	.057	.016	.113	.056	.016	.109	.055	.016	.105	.053	.015	
10.0	.114	.055	.015	.112	.054	.015	.109	.053	.015	.105	.052	.015	.102	.051	.015	

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	.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	.143	.114	.090	.122	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.114	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm											
NAME:					TYPE:			WEIGHT:			
SPEC.:					DIM.: 228*48			SERIAL No.:			
MFR.:					SUR.:3.14*0.0.103*0.103			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	14.7	15.7	15.0	15.8	16.0	14.0	14.9	14.2	15.1	15.3
	3H	14.6	15.4	14.8	15.6	15.8	13.9	14.7	14.1	14.9	15.1
	4H	14.5	15.3	14.8	15.5	15.7	13.8	14.6	14.0	14.8	15.0
	6H	14.4	15.1	14.7	15.4	15.6	13.7	14.4	14.0	14.7	14.9
	8H	14.4	15.1	14.7	15.3	15.6	13.6	14.4	13.9	14.6	14.9
	12H	14.3	15.0	14.6	15.3	15.5	13.6	14.3	13.9	14.5	14.8
4H	2H	14.5	15.3	14.8	15.5	15.7	13.8	14.6	14.1	14.8	15.0
	3H	14.3	15.0	14.7	15.3	15.6	13.6	14.3	13.9	14.6	14.9
	4H	14.2	14.9	14.6	15.2	15.5	13.5	14.2	13.9	14.5	14.8
	6H	14.2	14.7	14.5	15.0	15.4	13.4	14.0	13.8	14.3	14.7
	8H	14.1	14.6	14.5	15.0	15.3	13.4	13.9	13.8	14.2	14.6
	12H	14.1	14.5	14.5	14.9	15.3	13.3	13.8	13.8	14.2	14.6
8H	4H	14.1	14.6	14.5	15.0	15.3	13.4	13.9	13.8	14.2	14.6
	6H	14.0	14.4	14.4	14.8	15.2	13.3	13.7	13.7	14.1	14.5
	8H	13.9	14.3	14.4	14.7	15.2	13.2	13.6	13.7	14.0	14.5
	12H	13.9	14.2	14.4	14.6	15.1	13.2	13.5	13.6	13.9	14.4
12H	4H	14.0	14.5	14.5	14.9	15.3	13.3	13.8	13.7	14.2	14.6
	6H	13.9	14.3	14.4	14.7	15.2	13.2	13.6	13.7	14.0	14.5
	8H	13.9	14.2	14.4	14.6	15.1	13.2	13.5	13.6	13.9	14.4
Variations with the observer position at spacings:											
S = 1.0H	+ 2.9 / - 8.9					+ 2.6 / - 9.4					
1.5H	+ 4.5 / - 6.4					+ 4.2 / - 6.2					
2.0H	+ 5.6 / - 9.6					+ 5.3 / - 9.3					

CIE Pub.117, 2001 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 2.4$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

$\gamma$  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:

### UTILIZATION FACTORS TABLE

Test:U:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

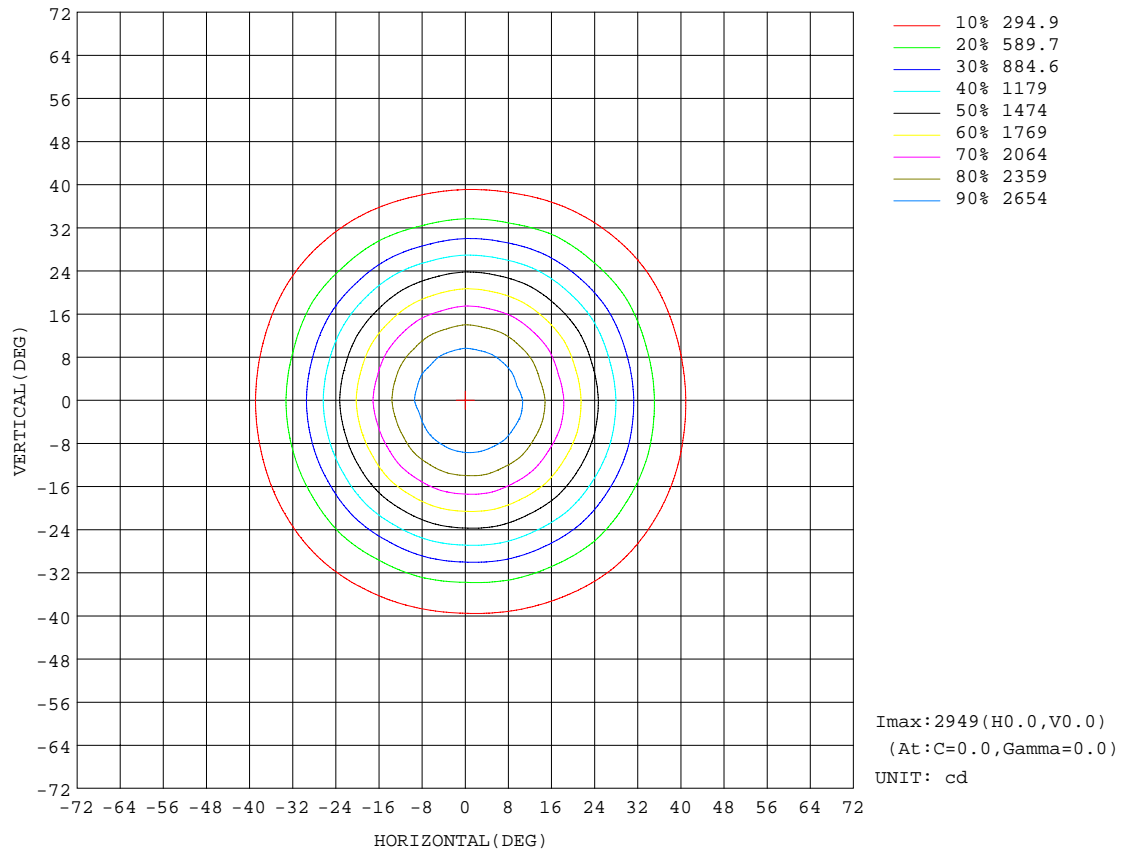
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	76	86	80	76	85	80	76	72
0.80	94	88	84	94	88	84	92	87	84	80
1.00	99	93	90	98	93	89	96	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	109	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	107	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

$\gamma$  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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

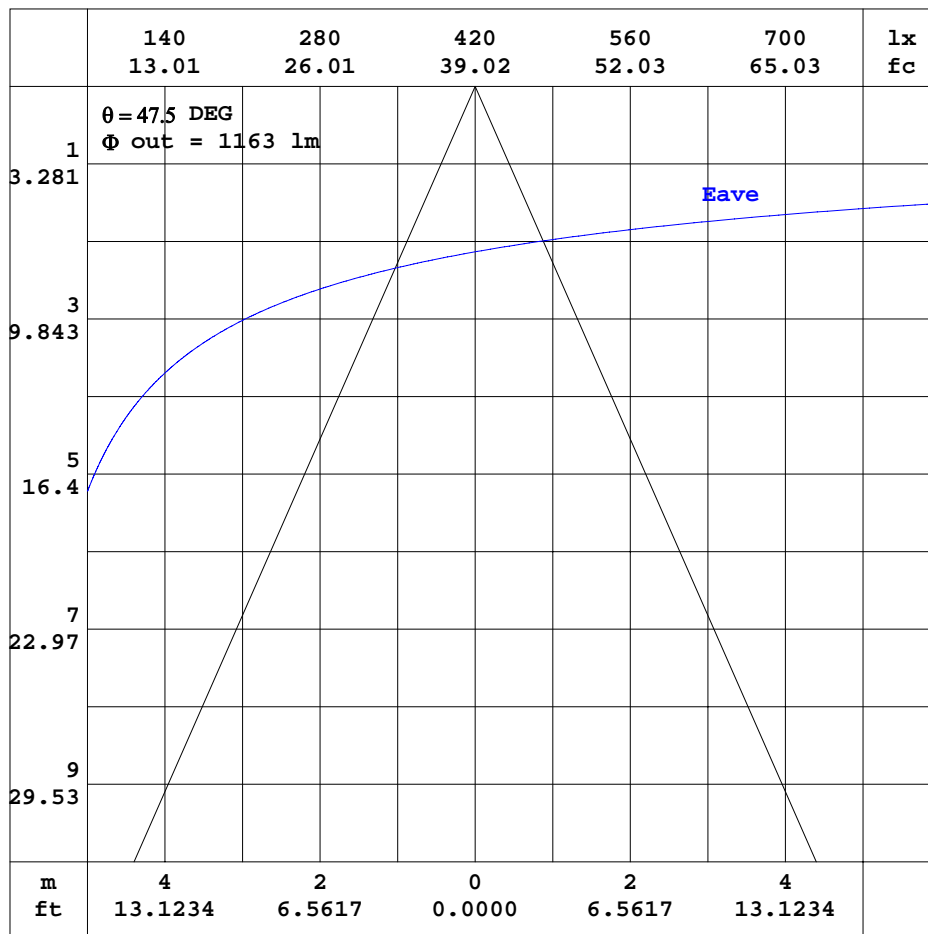


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2022-07-20

$\gamma$  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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



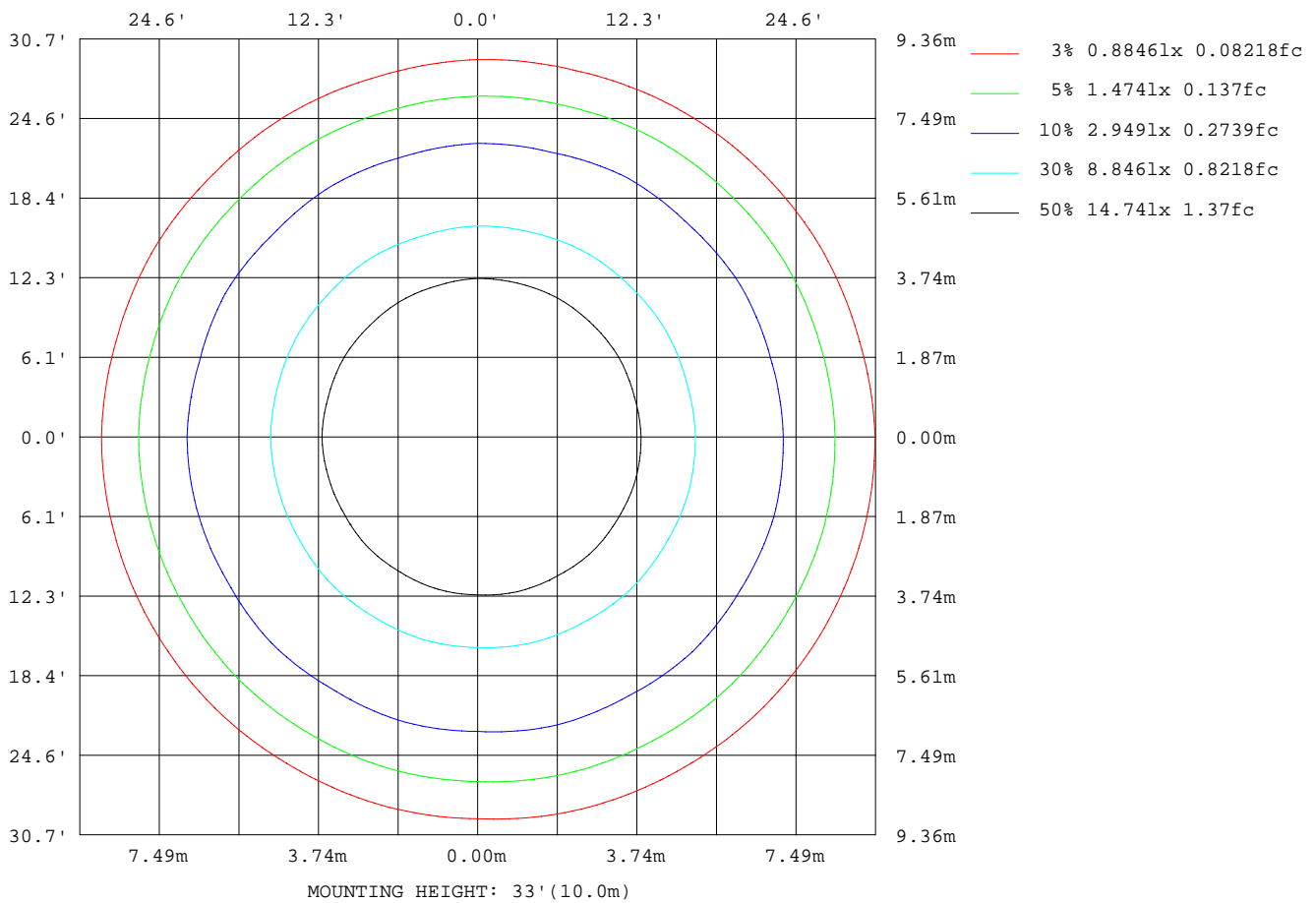
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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:

## LED Avg.L Report

Test:U:229.84V I:0.1727A P:38.691W PF:0.9748 Freq:49.99Hz Lamp Flux:2001.08x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.: 228*48	SERIAL No.:
MFR.:	SUR.:3.14*0.0.103*0.103	Shielding Angle:

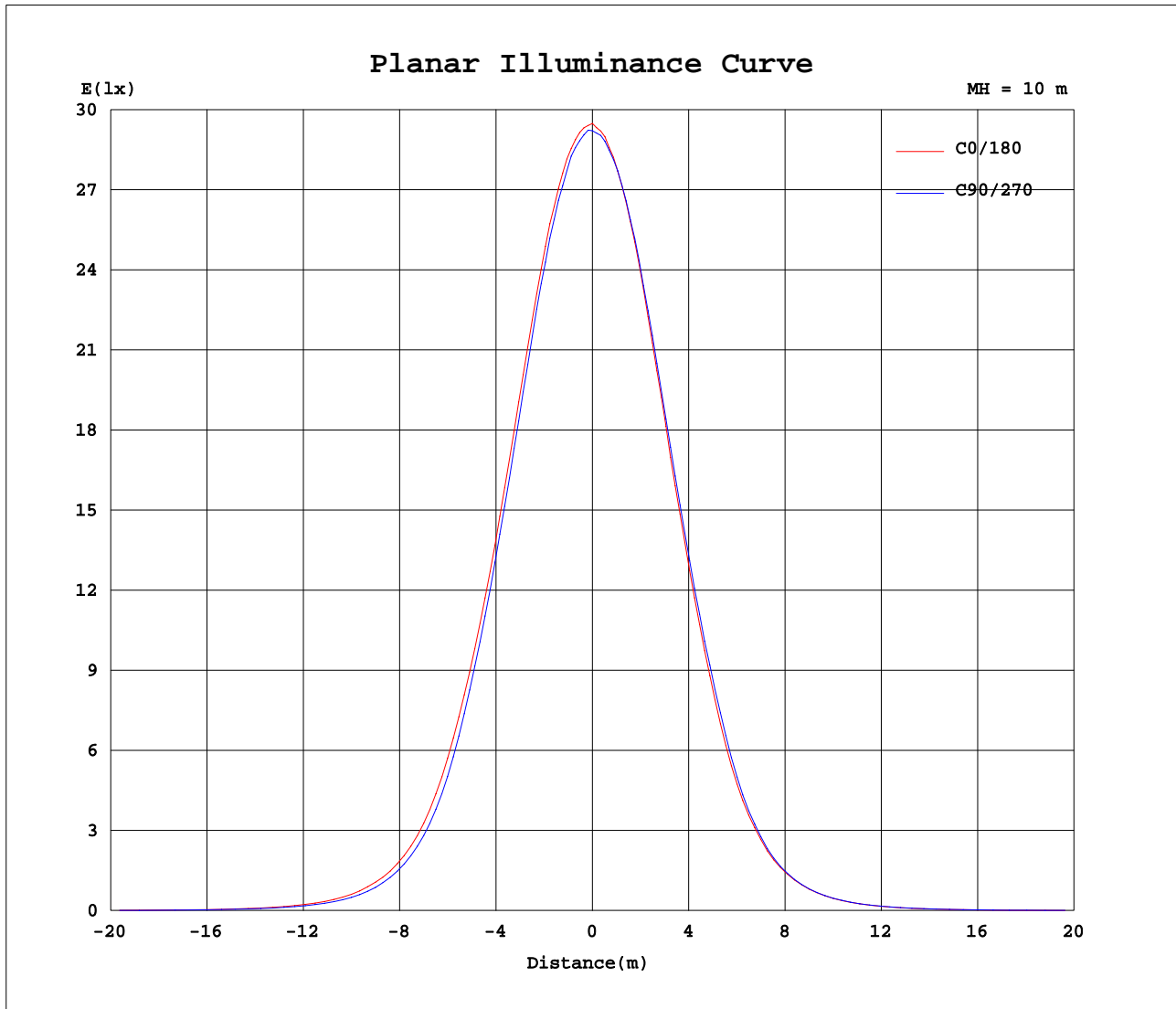
AvgL	cd/m2
L_0~180(65)av	342
L_0~180(75)av	135
L_0~180(85)av	121
L_90~270(65)av	322
L_90~270(75)av	129
L_90~270(85)av	107
L_45(65)av	325
L_45(75)av	128
L_45(85)av	98

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-07-20

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: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2022-07-20

$\gamma$  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:

```

```

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:

```