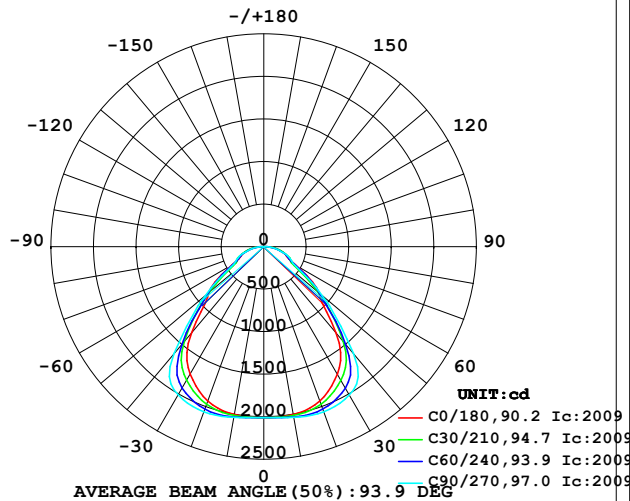


## LUMINAIRE PHOTOMETRIC TEST REPORT

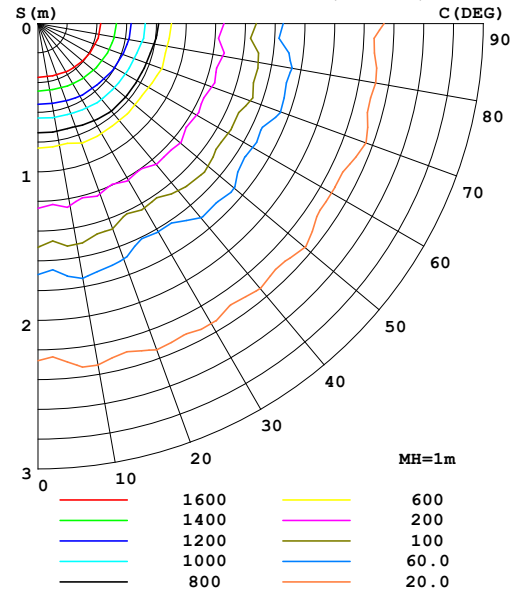
Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME: LTY40X612CT19 1050mA_3000K	TYPE: YALA ONE	WEIGHT:
SPEC.:	DIM.: 600x1200x12	SERIAL No.:1
MFR.: TECONEX	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 129.20 lm/W			
MODEL	LTY40X612CT19	I <sub>max</sub> (cd)	2064	S/MH(C0/180)	1.26
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.35
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4748.0	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	4748.03	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 90DEG  
 C Interval: 5.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-07-15

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:10.270m [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	2003	2025	2037	2025	2003	2025	2037	2025	0- 10	192.6	192.6	4.06,4.06
20	1930	1992	2064	1992	1930	1992	2064	1992	10- 20	571.5	764.0	16.1,16.1
30	1730	1837	2014	1837	1730	1837	2014	1837	20- 30	893.1	1657	34.9,34.9
40	1318	1397	1638	1397	1318	1397	1638	1397	30- 40	1054	2711	57.1,57.1
50	841.8	832.7	902.2	832.7	841.8	832.7	902.2	832.7	40- 50	862.3	3574	75.3,75.3
60	431.9	451.6	401.3	451.6	431.9	451.6	401.3	451.6	50- 60	548.7	4122	86.8,86.8
70	272.2	248.6	284.5	248.6	272.2	248.6	284.5	248.6	60- 70	341.8	4464	94,94
80	153.5	135.9	138.3	135.9	153.5	135.9	138.3	135.9	70- 80	211.8	4676	98.5,98.5
90	0	0	0	0	0	0	0	0	80- 90	72.15	4748	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		

Conical surface Flux(90deg): 3264.9 lm

%lum = 68.8%

%lamp = 68.8%

Conical surface Flux(120deg): 4122.3 lm

%lum = 86.8%

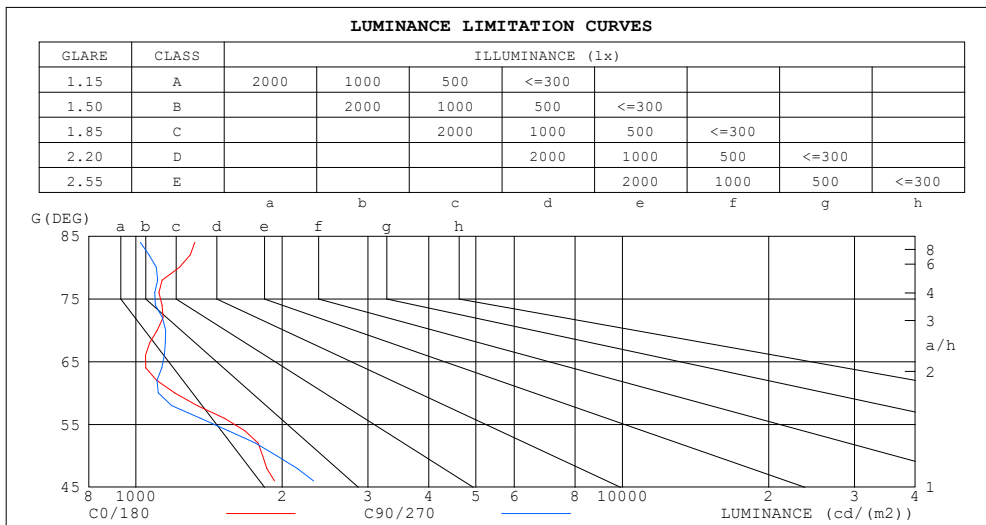
%lamp = 86.8%

C Range: 0 - 90DEG  
 C Interval: 5.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-07-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:10.270m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1586	1225
80	1230	1103
75	1207	1169
70	1108	1152
65	1087	1173
60	1202	1112
55	1715	1585
50	1823	1944
45	2098	2559

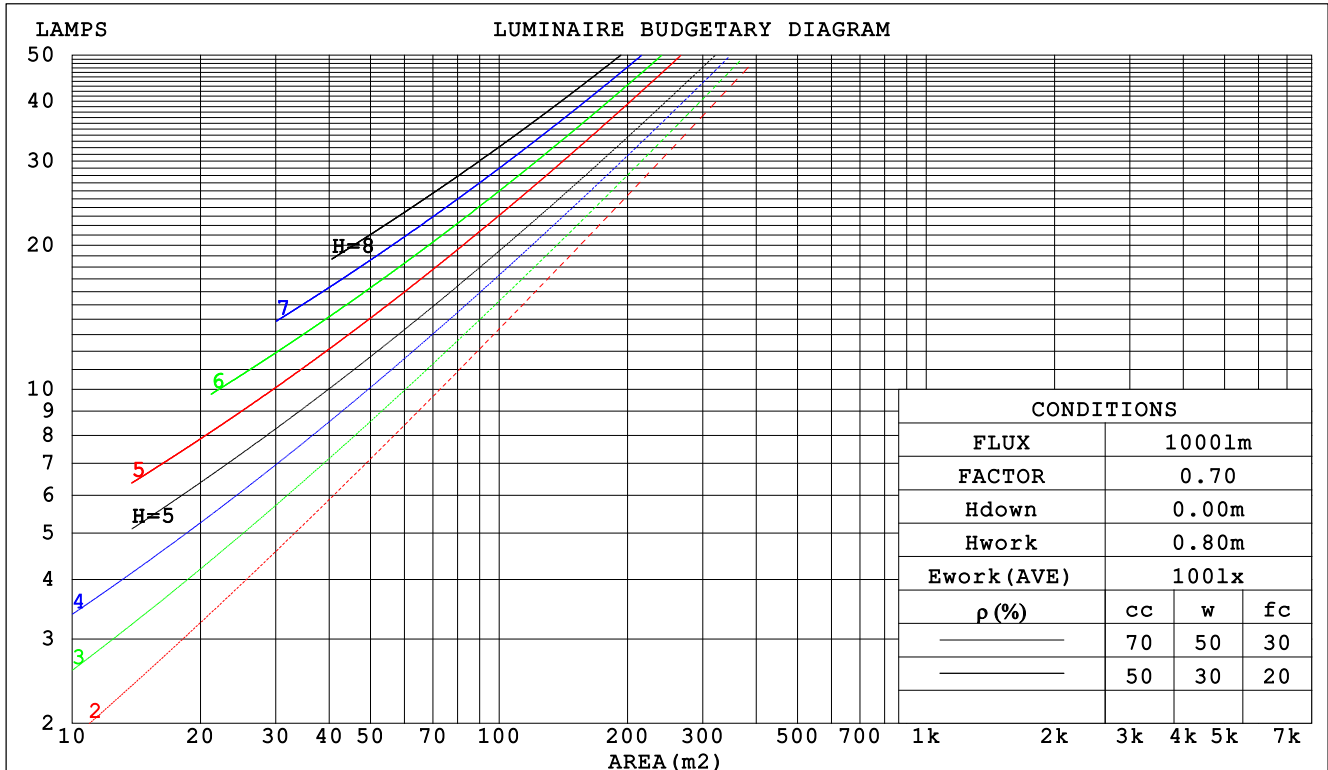
C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-07-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:10.270m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.78	.83	.79	.76	.74
3.0	.84	.77	.71	.82	.76	.70	.80	.74	.69	.77	.72	.68	.74	.70	.67	.65
4.0	.75	.67	.61	.74	.67	.61	.72	.65	.60	.69	.64	.59	.67	.63	.59	.57
5.0	.68	.60	.54	.67	.59	.54	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.54	.48	.61	.53	.48	.59	.52	.47	.58	.51	.47	.56	.51	.46	.44
7.0	.57	.48	.43	.56	.48	.43	.54	.47	.42	.53	.47	.42	.52	.46	.42	.40
8.0	.52	.44	.38	.51	.44	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.44	.38	.34	.33
10.0	.44	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.41	.35	.31	.30



C Range: 0 - 90DEG  
 C Interval: 5.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-07-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:10.270m [K=1.0000]  
 Remarks:

### WEC AND CCEC

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:1	
MFR.: EVERFINE		SUR.:		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	.272	.155	.049	.265	.151	.048	.252	.145	.046	.240	.138	.044	.229	.133	.043		
2.0	.257	.141	.043	.251	.138	.043	.240	.133	.041	.229	.129	.040	.220	.124	.039		
3.0	.241	.128	.038	.235	.126	.038	.225	.122	.037	.216	.118	.036	.207	.115	.036		
4.0	.224	.117	.034	.220	.115	.034	.211	.112	.033	.203	.109	.033	.195	.106	.032		
5.0	.210	.107	.031	.205	.105	.031	.198	.103	.030	.190	.100	.030	.183	.098	.029		
6.0	.196	.098	.028	.192	.097	.028	.185	.095	.028	.179	.093	.027	.173	.091	.027		
7.0	.184	.091	.026	.181	.090	.026	.175	.088	.025	.169	.086	.025	.163	.085	.025		
8.0	.173	.085	.024	.170	.084	.024	.165	.082	.023	.159	.081	.023	.154	.079	.023		
9.0	.163	.079	.022	.161	.078	.022	.156	.077	.022	.151	.076	.022	.146	.074	.022		
10.0	.154	.074	.021	.152	.073	.020	.148	.072	.020	.143	.071	.020	.139	.070	.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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.022	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.026	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.113	.059	.023	.097	.051	.020	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-07-15

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:10.270m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:1				
MFR.: EVERFINE			SUR.:			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	13.3	14.7	13.6	14.9	15.1	13.7	15.1	14.0	15.3	15.5
3H	14.3	15.6	14.6	15.8	16.0	14.6	15.8	14.8	16.0	16.3
4H	14.8	16.0	15.1	16.2	16.5	15.0	16.2	15.3	16.4	16.7
6H	15.3	16.4	15.6	16.7	17.0	15.4	16.5	15.7	16.8	17.1
8H	15.5	16.6	15.9	16.9	17.2	15.5	16.6	15.9	16.9	17.2
12H	15.7	16.8	16.1	17.1	17.4	15.6	16.7	16.0	17.0	17.2
4H 2H	13.7	14.9	14.0	15.1	15.4	14.0	15.2	14.3	15.4	15.7
3H	14.9	15.9	15.2	16.2	16.5	15.1	16.1	15.4	16.4	16.7
4H	15.6	16.5	15.9	16.8	17.2	15.6	16.6	16.0	16.9	17.2
6H	16.3	17.1	16.7	17.5	17.8	16.2	17.0	16.6	17.4	17.8
8H	16.6	17.4	17.0	17.8	18.1	16.4	17.2	16.8	17.6	18.0
12H	16.9	17.6	17.3	18.0	18.4	16.6	17.3	17.0	17.7	18.1
8H 4H	15.8	16.6	16.2	17.0	17.4	15.9	16.7	16.3	17.0	17.4
6H	16.8	17.4	17.2	17.8	18.3	16.6	17.3	17.1	17.7	18.1
8H	17.2	17.8	17.7	18.2	18.7	16.9	17.5	17.4	17.9	18.4
12H	17.6	18.1	18.1	18.5	19.0	17.2	17.7	17.6	18.1	18.6
12H 4H	15.9	16.6	16.3	17.0	17.4	15.9	16.6	16.3	17.0	17.4
6H	16.9	17.4	17.3	17.9	18.3	16.7	17.3	17.2	17.7	18.2
8H	17.4	17.9	17.8	18.3	18.8	17.1	17.6	17.5	18.0	18.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.6				
1.5H	+ 0.2 / - 0.4					+ 0.4 / - 0.3				
2.0H	+ 0.7 / - 0.6					+ 1.1 / - 0.8				

CIE Pub.117, 4748 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 5.4$ )

C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-07-15

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:10.270m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

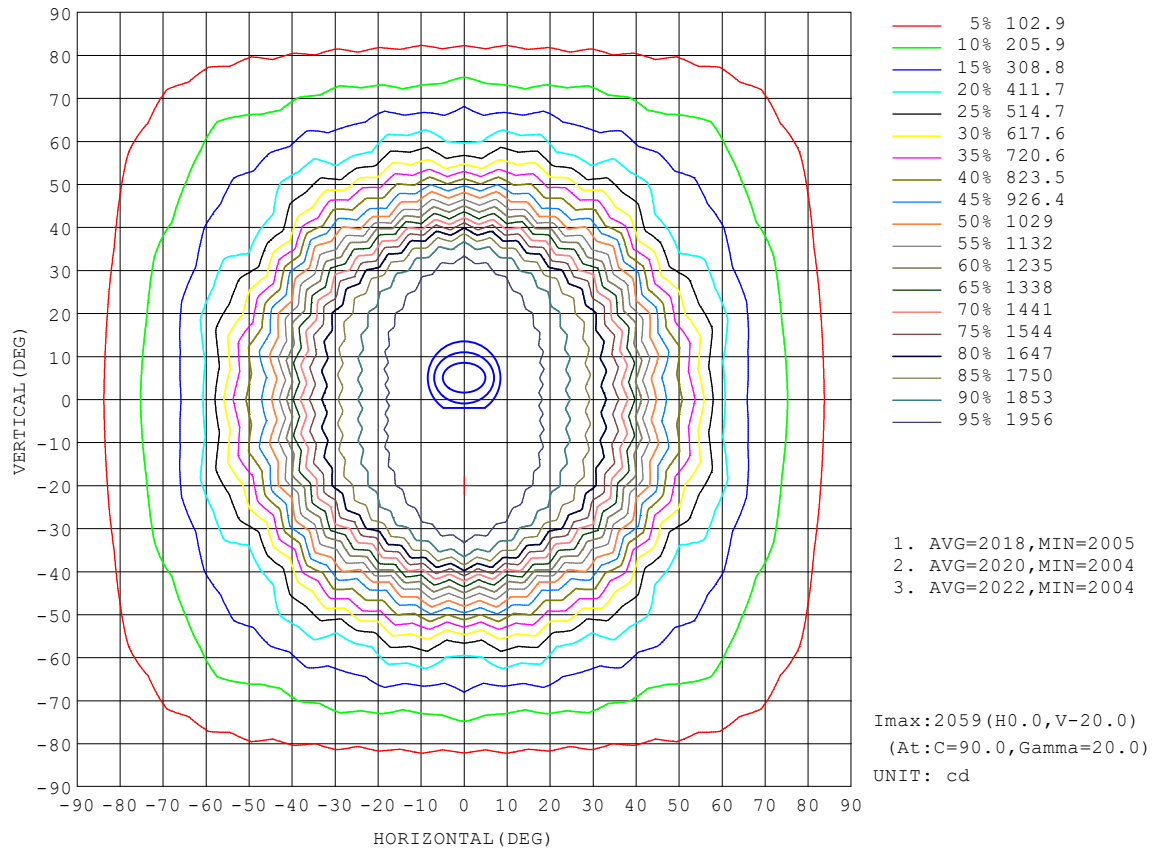
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	48	64	54	48	63	54	48	42
0.80	75	65	58	74	64	58	72	63	58	51
1.00	82	73	67	81	72	66	79	73	66	60
1.25	89	80	74	88	79	73	85	78	73	66
1.50	93	85	79	92	84	79	89	82	77	71
2.00	99	92	86	97	91	86	94	89	84	77
2.50	102	96	90	100	94	90	97	92	88	80
3.00	105	99	94	103	98	93	99	95	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-07-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:10.270m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



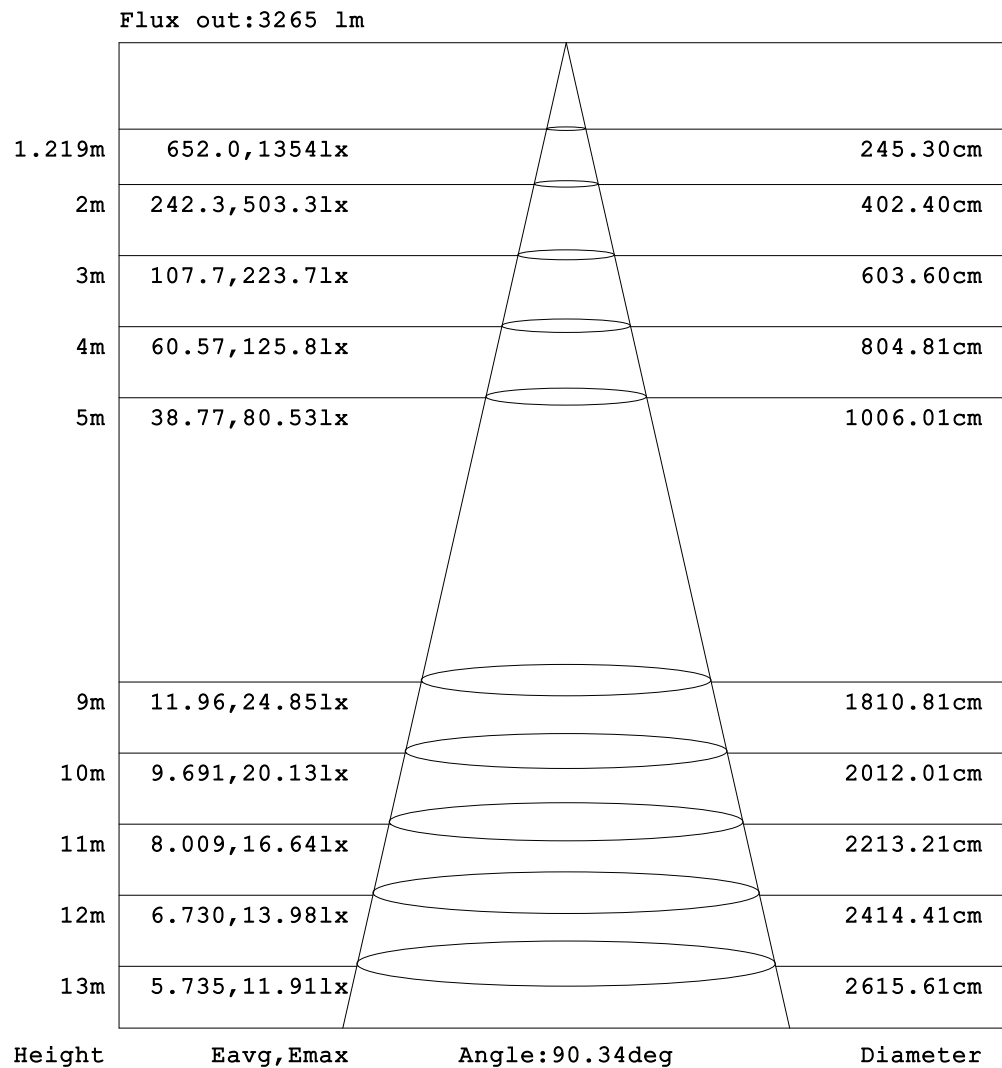
C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-07-15

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 10.270m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



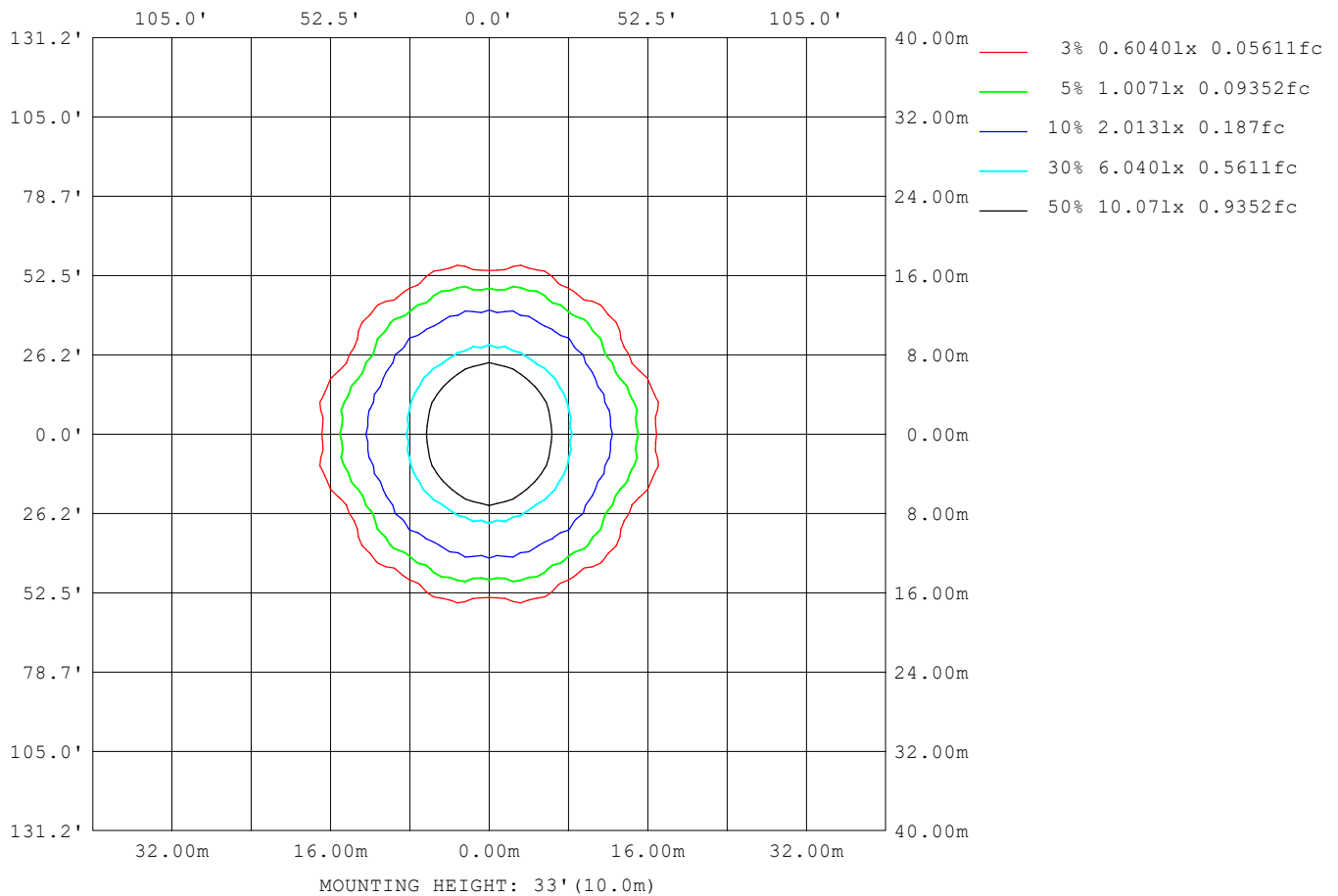
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-07-15

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 10.270m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2021-07-15

γ Range: 0 - 90DEG  
γ Interval: 2.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:10.270m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:35.000V I:1.0500A P:36.750W PF:0.9636 Freq:50.00Hz Lamp Flux:4748.03x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

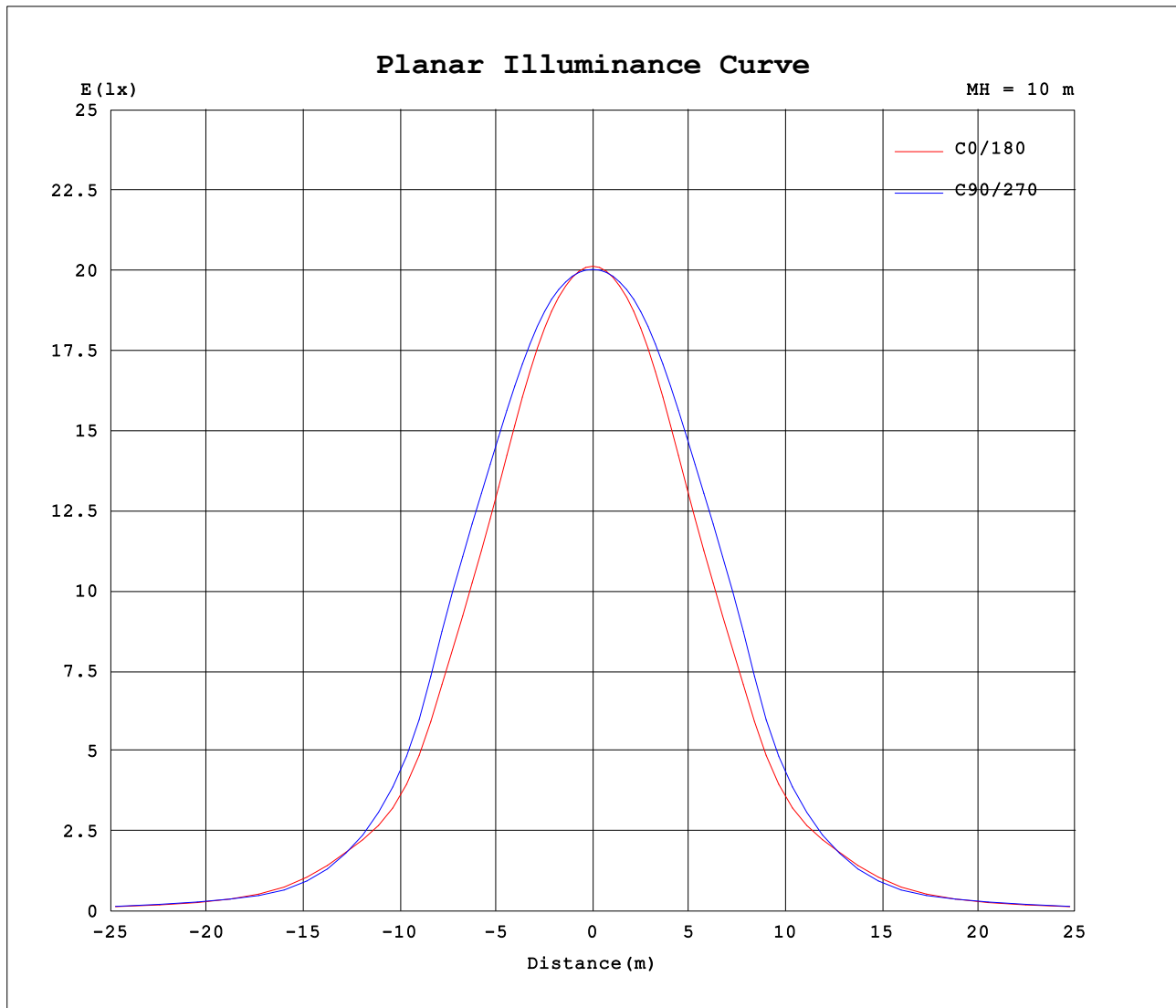
AvgL	cd/m2
L_0~180 (65) av	1040
L_0~180 (75) av	1121
L_0~180 (85) av	1330
L_90~270 (65) av	1142
L_90~270 (75) av	1095
L_90~270 (85) av	975
L_45 (65) av	1140
L_45 (75) av	1034
L_45 (85) av	937

Standard: GB/T 29293-2012

C Range: 0 - 90DEG  
 C Interval: 5.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2021-07-15

γ Range: 0 - 90DEG  
 γ Interval: 2.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:10.270m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 90DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2021-07-15

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 2.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 10.270m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:10.270m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:10.270m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:10.270m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 2.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:10.270m [K=1.0000]
Remarks:

```