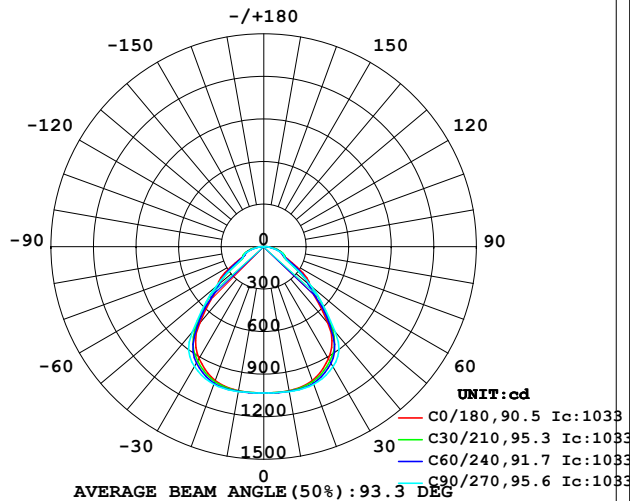


LUMINAIRE PHOTOMETRIC TEST REPORT

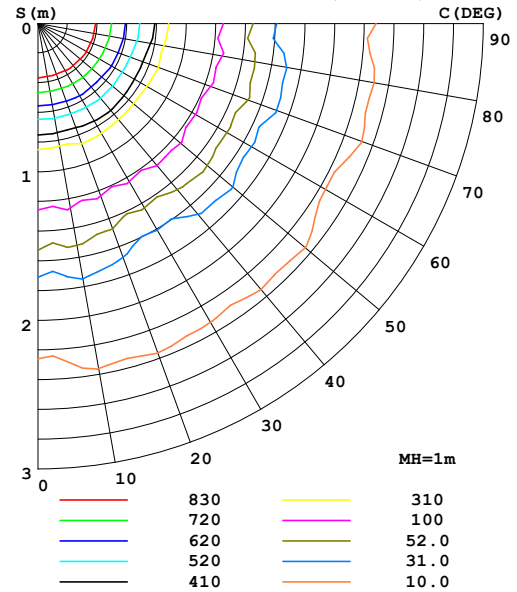
Test:U:35.000V I:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME: LTY18X030CT19 500mA_4000K	TYPE: YALA ONE	WEIGHT:
SPEC.:	DIM.: 300x600x12	SERIAL No.:1
MFR.: TECONEX	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.55 lm/W			
MODEL	LTY18X030CT19	I _{max} (cd)	1040	S/MH (C0/180)	1.27
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.33
RATED VOLTAGE (V)	35	TOTAL FLUX (lm)	2389.7	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	2389.66	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)	35	η down (%)	100.0	CIBSE SHR MAX	1.30

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: 2021-06-26

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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1032	1035	1038	1035	1032	1035	1038	1035	0- 10	98.70	98.70	4.13,4.13
20	1005	1014	1032	1014	1005	1014	1032	1014	10- 20	291.7	390.4	16.3,16.3
30	912.4	924.7	977.1	924.7	912.4	924.7	977.1	924.7	20- 30	452.5	842.9	35.3,35.3
40	705.3	698.2	785.3	698.2	705.3	698.2	785.3	698.2	30- 40	529.2	1372	57.4,57.4
50	425.0	423.4	444.5	423.4	425.0	423.4	444.5	423.4	40- 50	431.4	1803	75.5,75.5
60	232.8	226.7	182.3	226.7	232.8	226.7	182.3	226.7	50- 60	278.1	2082	87.1,87.1
70	136.1	125.7	138.0	125.7	136.1	125.7	138.0	125.7	60- 70	169.2	2251	94.2,94.2
80	76.76	66.14	66.03	66.14	76.76	66.14	66.03	66.14	70- 80	104.9	2356	98.6,98.6
90	0	0	0	0	0	0	0	0	80- 90	33.94	2390	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): 1648.5 lm

%lum = 69.0%

%lamp = 69.0%

Conical surface Flux(120deg): 2081.5 lm

%lum = 87.1%

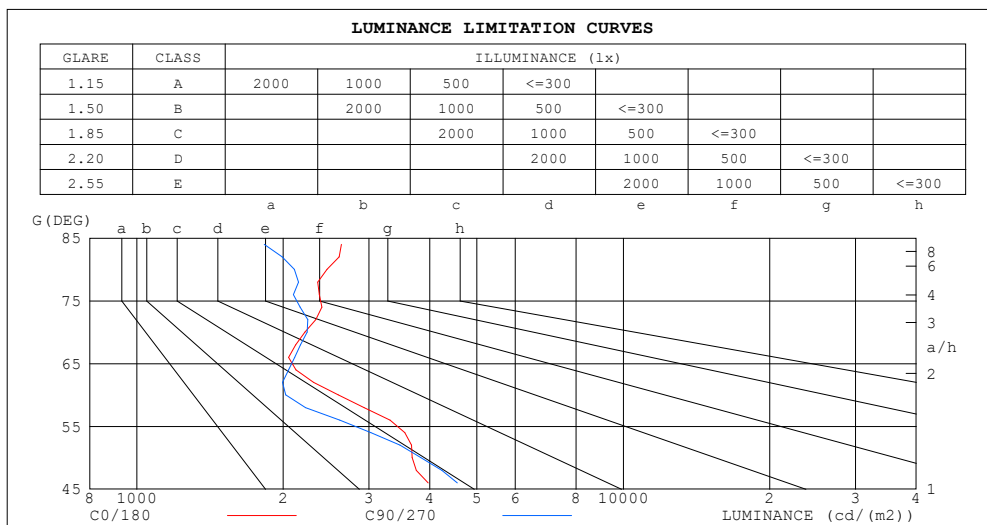
%lamp = 87.1%

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-26

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:

LUMINANCE LIMITATION CURVES

Test:U:35.000V I:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3160	2191
80	2462	2110
75	2558	2306
70	2216	2239
65	2202	2127
60	2593	2023
55	3643	3104
50	3682	3837
45	4400	4975

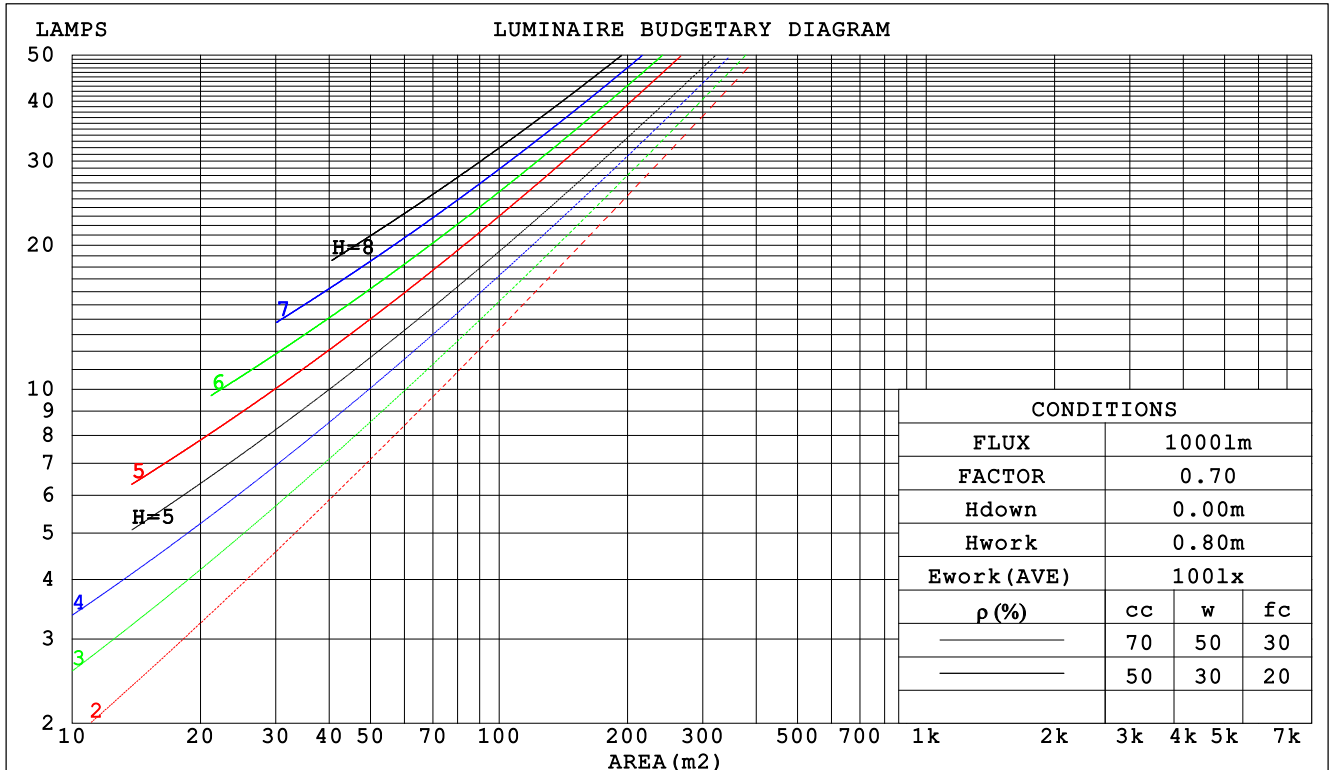
C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-06-26

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:35.000V I:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.78	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.70	.80	.74	.69	.77	.72	.68	.75	.70	.67	.65
4.0	.76	.68	.62	.74	.67	.61	.72	.65	.60	.70	.64	.60	.68	.63	.59	.57
5.0	.68	.60	.54	.67	.60	.54	.65	.58	.53	.63	.57	.53	.62	.56	.52	.50
6.0	.62	.54	.48	.61	.53	.48	.59	.53	.47	.58	.52	.47	.56	.51	.47	.45
7.0	.57	.49	.43	.56	.48	.43	.54	.48	.42	.53	.47	.42	.52	.46	.42	.40
8.0	.52	.44	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.34	.33
10.0	.44	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.41	.36	.32	.30



C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-26

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:

WEC AND CCEC

Test:U:35.000V I:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 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	.270	.154	.049	.263	.150	.048	.250	.144	.046	.238	.137	.044	.227	.132	.042		
2.0	.256	.140	.043	.250	.138	.042	.239	.133	.041	.228	.128	.040	.218	.124	.039		
3.0	.240	.127	.038	.234	.125	.038	.224	.122	.037	.215	.118	.036	.206	.114	.035		
4.0	.224	.116	.034	.219	.115	.034	.210	.111	.033	.202	.108	.033	.194	.106	.032		
5.0	.209	.106	.031	.205	.105	.031	.197	.103	.030	.190	.100	.030	.183	.098	.029		
6.0	.195	.098	.028	.192	.097	.028	.185	.095	.028	.178	.093	.027	.172	.091	.027		
7.0	.183	.091	.026	.180	.090	.026	.174	.088	.025	.168	.086	.025	.163	.085	.025		
8.0	.173	.084	.024	.170	.084	.024	.164	.082	.023	.159	.081	.023	.154	.079	.023		
9.0	.163	.079	.022	.160	.078	.022	.155	.077	.022	.151	.075	.022	.146	.074	.021		
10.0	.154	.074	.021	.152	.073	.020	.147	.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	.167	.132	.102	.143	.114	.088	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.079	.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	.106	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.102	.055	.023	.070	.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:2021-06-26

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:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 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	16.0	17.3	16.2	17.5	17.7	15.9	17.3	16.2	17.5	17.7
3H	16.9	18.2	17.2	18.4	18.6	16.8	18.0	17.0	18.2	18.5
4H	17.4	18.6	17.7	18.8	19.1	17.1	18.3	17.4	18.6	18.8
6H	17.9	19.0	18.2	19.3	19.6	17.6	18.7	17.9	18.9	19.2
8H	18.1	19.2	18.4	19.5	19.8	17.7	18.8	18.0	19.0	19.3
12H	18.3	19.3	18.6	19.6	19.9	17.7	18.8	18.1	19.1	19.4
4H 2H	16.3	17.5	16.6	17.7	17.9	16.2	17.4	16.5	17.7	17.9
3H	17.5	18.5	17.8	18.8	19.1	17.3	18.3	17.6	18.6	18.9
4H	18.1	19.1	18.5	19.4	19.7	17.8	18.8	18.2	19.1	19.4
6H	18.8	19.7	19.2	20.0	20.4	18.4	19.2	18.8	19.6	19.9
8H	19.1	19.9	19.5	20.3	20.6	18.6	19.4	19.0	19.7	20.1
12H	19.4	20.1	19.8	20.5	20.9	18.7	19.4	19.1	19.8	20.2
8H 4H	18.4	19.1	18.8	19.5	19.9	18.1	18.9	18.5	19.2	19.6
6H	19.3	19.9	19.7	20.3	20.7	18.8	19.4	19.2	19.9	20.3
8H	19.7	20.3	20.2	20.7	21.1	19.1	19.7	19.5	20.1	20.5
12H	20.0	20.5	20.5	21.0	21.5	19.3	19.8	19.7	20.2	20.7
12H 4H	18.4	19.1	18.8	19.5	19.9	18.1	18.9	18.6	19.2	19.6
6H	19.3	19.9	19.8	20.3	20.8	18.9	19.5	19.4	19.9	20.3
8H	19.8	20.3	20.3	20.7	21.2	19.2	19.7	19.7	20.2	20.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.6				
1.5H	+ 0.2 / - 0.4					+ 0.3 / - 0.2				
2.0H	+ 0.7 / - 0.8					+ 1.1 / - 1.0				

CIE Pub.117, 2390 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.0$)

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-06-26

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:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

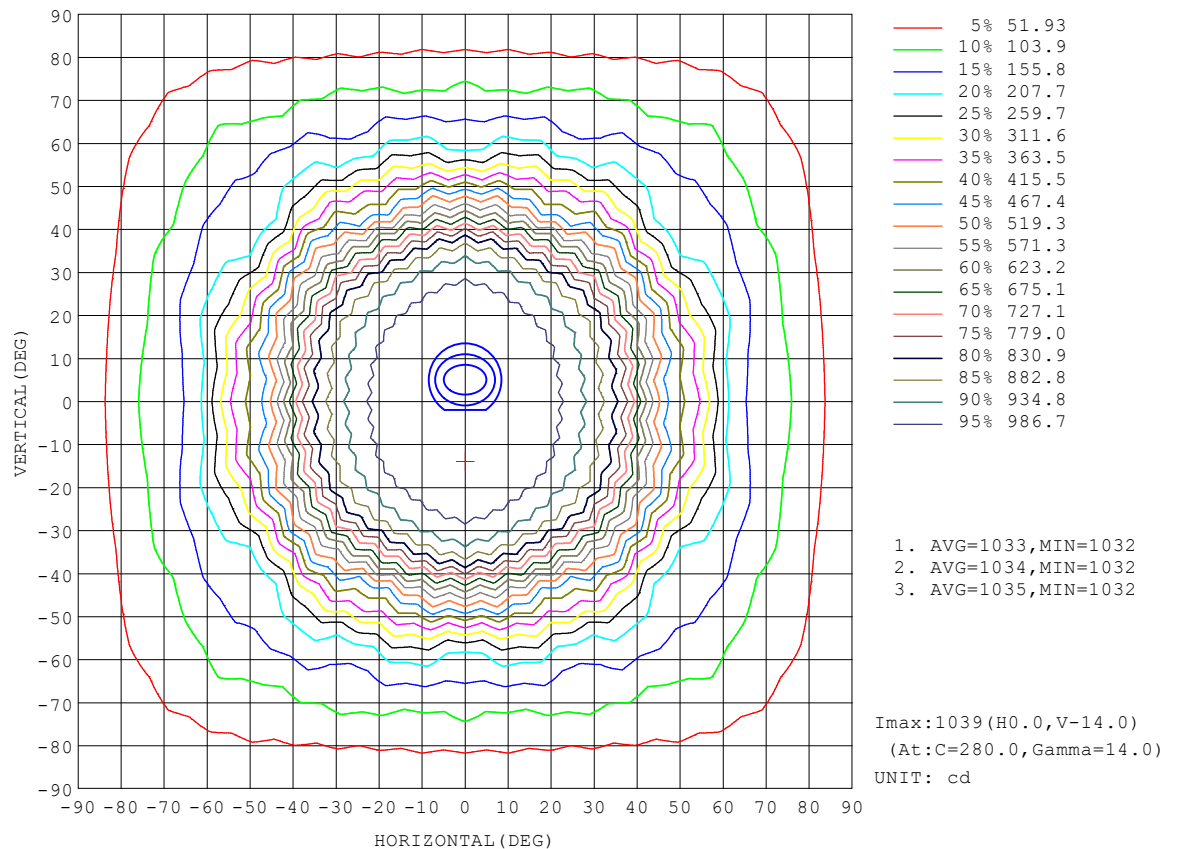
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	64	55	48	63	54	48	43
0.80	75	65	58	74	64	58	72	64	58	52
1.00	83	73	67	82	73	67	79	74	66	60
1.25	89	80	74	88	79	74	85	78	73	67
1.50	93	85	79	92	84	79	89	83	78	71
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	94	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	84
4.00	108	104	100	106	102	98	102	99	96	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:2021-06-26

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:

ISOCANDELA DIAGRAM

Test:U:35.000V I:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

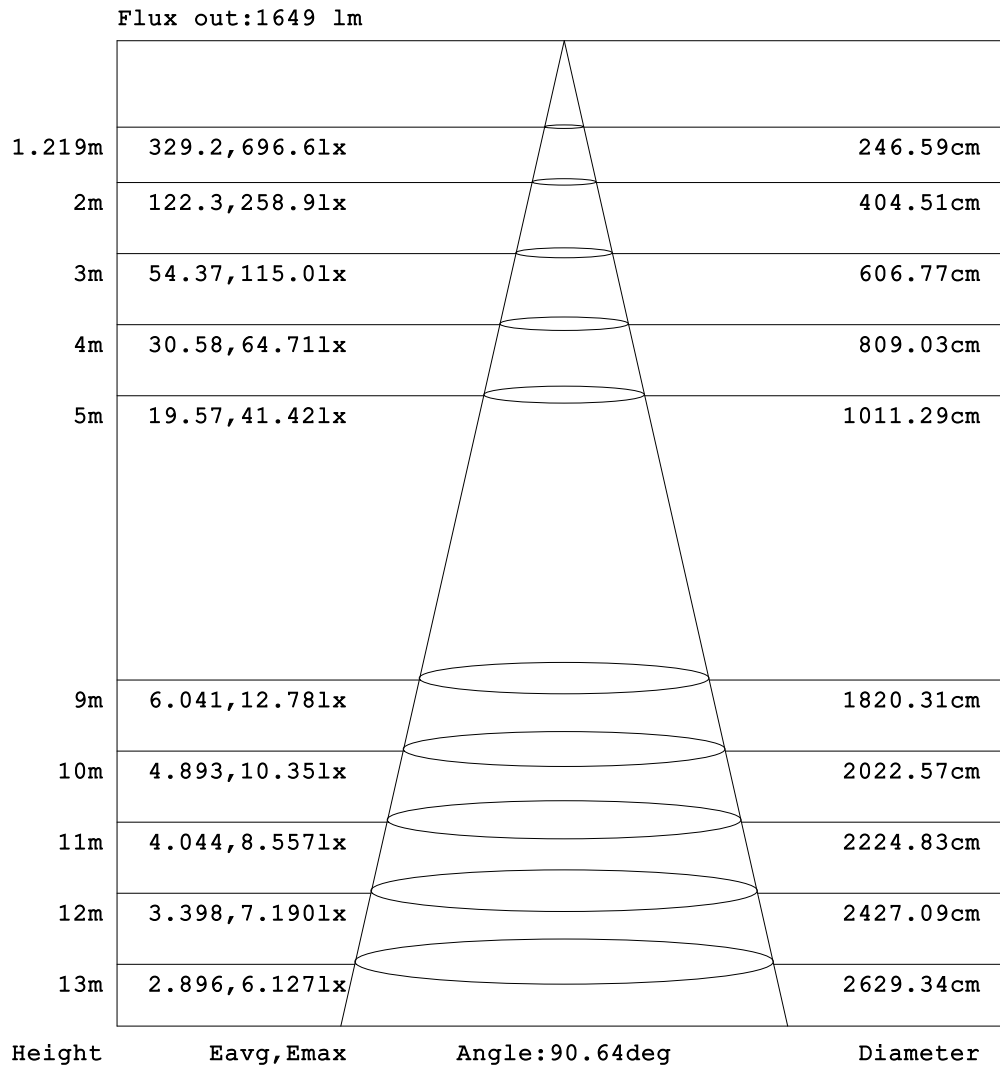


C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-06-26

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:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:



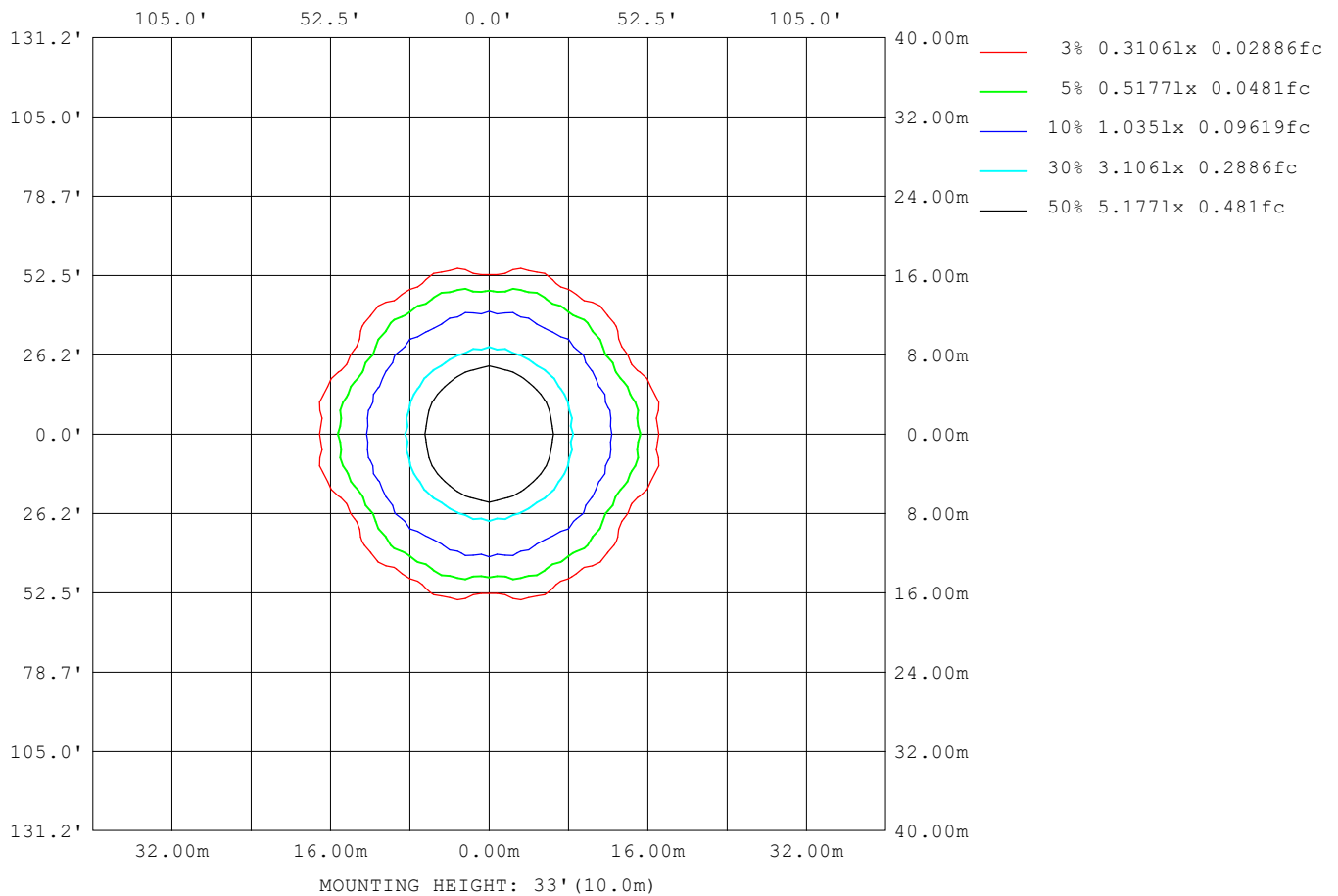
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-06-26

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:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 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:2021-06-26

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:0.5000A P:17.500W PF:1.0000 Freq:0Hz Lamp Flux:2389.66x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: EVERFINE	SUR.:	Shielding Angle:

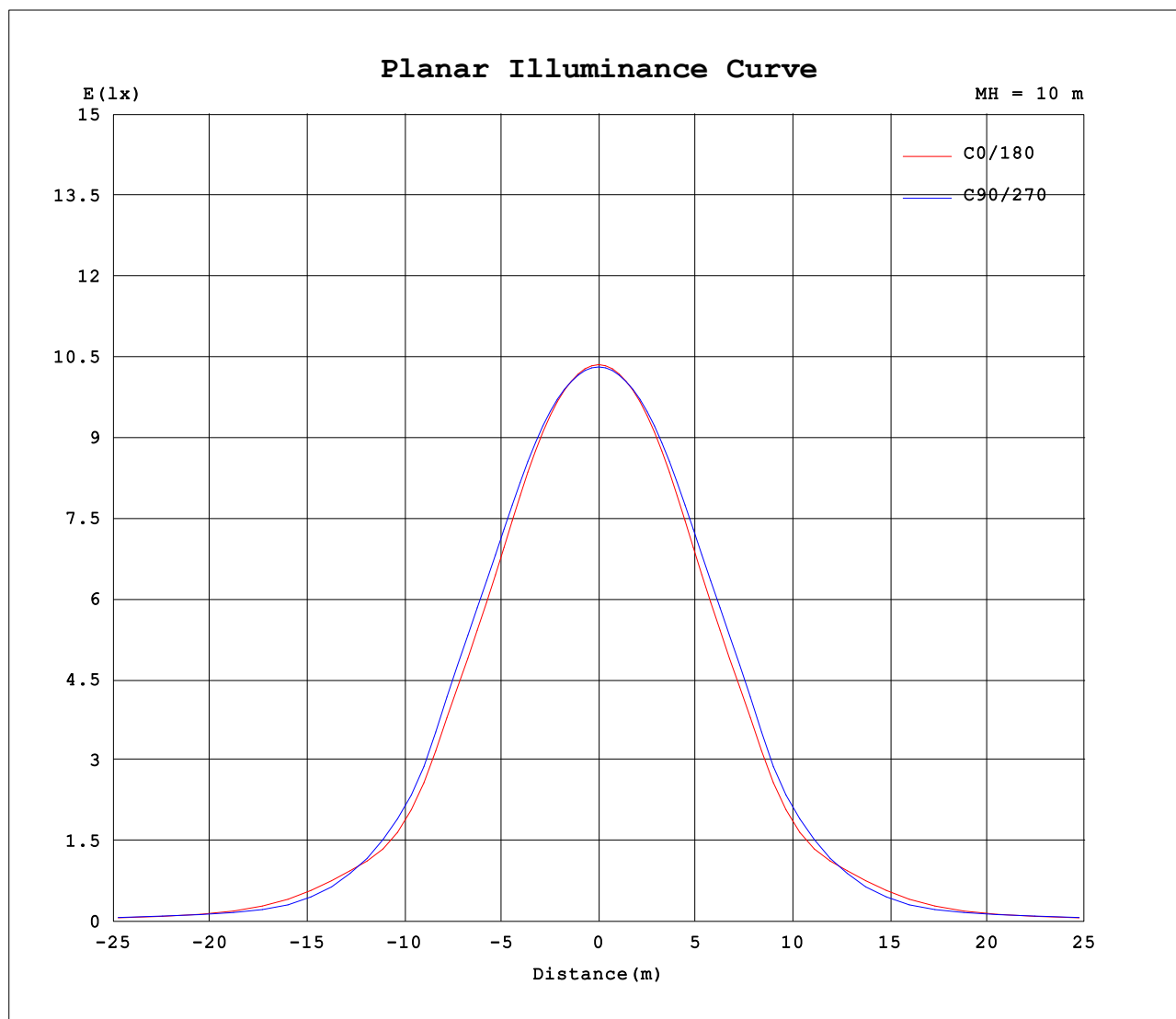
AvgL	cd/m2
L_0~180 (65) av	2067
L_0~180 (75) av	2388
L_0~180 (85) av	2635
L_90~270 (65) av	2084
L_90~270 (75) av	2127
L_90~270 (85) av	1669
L_45 (65) av	2345
L_45 (75) av	1956
L_45 (85) av	1753

Standard: GB/T 29293-2012

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-06-26

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: 2021-06-26

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:

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γ Interval: 2.0DEG
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