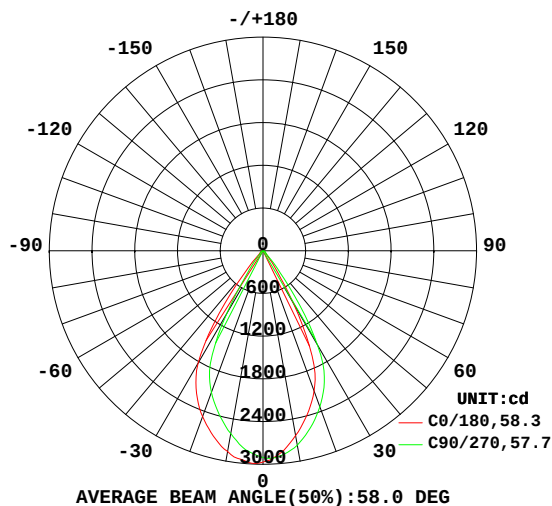


LUMINAIRE PHOTOMETRIC TEST REPORT

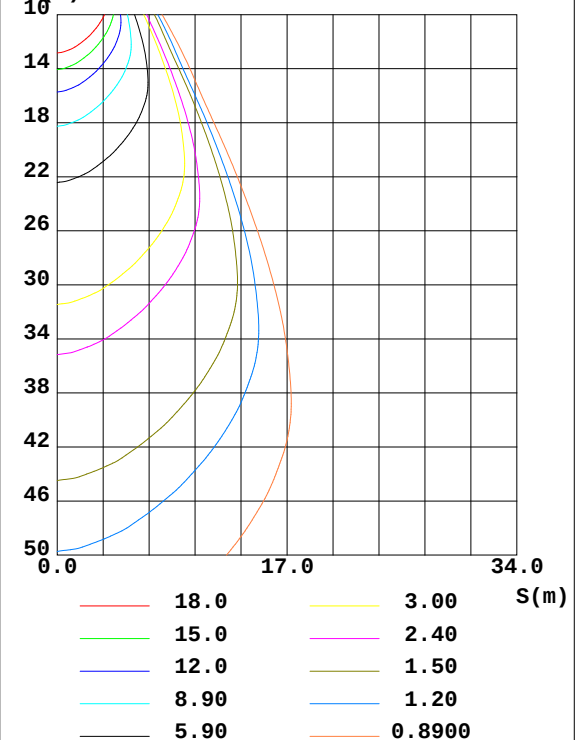
Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.49 lm/W			
MODEL	TB25141209 3000K	I _{max} (cd)	2989	S/MH(C0/180)	0.95
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	0.80
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	2411.0	η UP, DN(C0-180)	0.0, 52.6
NOMINAL FLUX(lm)	2411.04	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 47.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.90

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

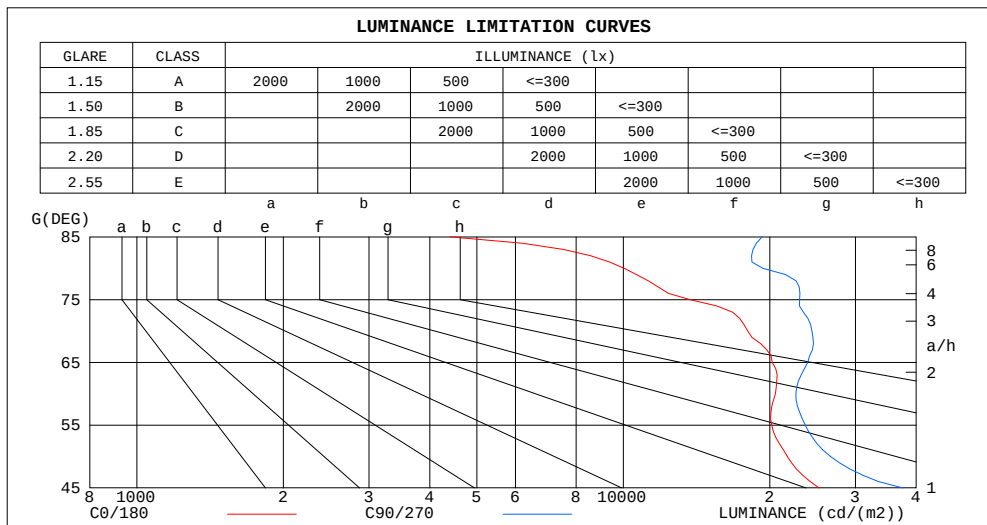
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2637	2679	2774	2854	2863	2772	2607	2524	0- 10	268.4	268.4	11.1,11.1
20	2097	2193	2334	2464	2479	2349	2118	1963	10- 20	699.5	967.8	40.1,40.1
30	865.0	1070	1535	1869	1820	1546	1018	667.7	20- 30	841.6	1809	75,75
40	111.3	134.1	278.0	463.6	379.4	278.3	138.4	86.85	30- 40	421.0	2230	92.5,92.5
50	47.75	50.20	58.62	70.31	65.82	58.76	50.17	44.92	40- 50	83.80	2314	96,96
60	35.13	36.08	38.71	42.24	41.78	39.46	35.96	33.42	50- 60	40.53	2355	97.7,97.7
70	21.08	23.14	28.56	32.24	31.69	28.86	22.96	19.11	60- 70	32.10	2387	99,99
80	5.956	7.404	11.49	17.16	15.68	11.83	7.520	4.865	70- 80	18.95	2406	99.8,99.8
90	0.2548	0.2316	1.166	3.598	2.617	1.058	0.0888	0.0888	80- 90	5.259	2411	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:25DEG
 Operators:
 Test Date:2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	4402	19285
80	10028	19340
75	13694	23036
70	18019	24416
65	20237	23945
60	20541	22637
55	20185	23658
50	21720	26668
45	25272	37559

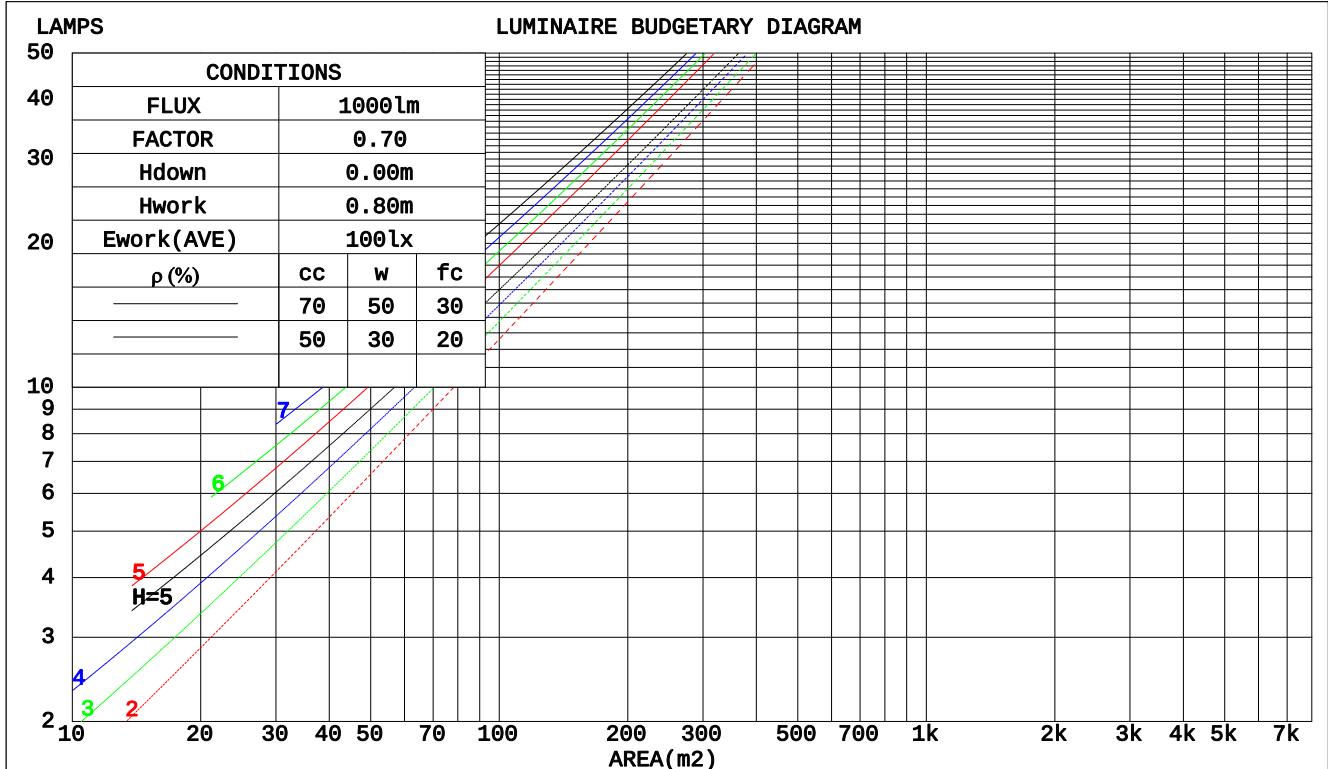
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	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	.00
1.0	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.84	.82	.81
4.0	.90	.84	.80	.89	.83	.79	.86	.82	.79	.84	.81	.78	.83	.79	.77	.75
5.0	.84	.78	.74	.83	.78	.74	.81	.77	.73	.80	.76	.72	.78	.75	.72	.70
6.0	.79	.73	.69	.78	.73	.69	.77	.72	.68	.75	.71	.68	.74	.70	.67	.66
7.0	.75	.69	.64	.74	.68	.64	.73	.68	.64	.71	.67	.64	.70	.66	.63	.62
8.0	.70	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.58
9.0	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.56	.64	.59	.56	.55
10.0	.63	.57	.54	.63	.57	.54	.62	.57	.53	.61	.57	.53	.60	.56	.53	.52



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm					
NAME: TH30 WHTC30C021P			TYPE:		WEIGHT:
SPEC.: white RA90 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 66mm		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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.183	.104	.033	.176	.100	.032	.163	.094	.030	.152	.088	.028	.141	.082	.026	
2.0	.174	.095	.029	.168	.092	.028	.157	.087	.027	.147	.083	.026	.138	.078	.025	
3.0	.164	.087	.026	.159	.085	.026	.150	.082	.025	.142	.078	.024	.134	.074	.023	
4.0	.156	.081	.024	.152	.079	.023	.144	.076	.023	.136	.073	.022	.130	.070	.021	
5.0	.148	.075	.022	.144	.074	.022	.137	.072	.021	.131	.069	.021	.125	.067	.020	
6.0	.141	.071	.020	.137	.069	.020	.132	.067	.020	.126	.065	.019	.121	.064	.019	
7.0	.134	.066	.019	.131	.065	.019	.126	.064	.018	.121	.062	.018	.116	.060	.018	
8.0	.128	.063	.018	.126	.062	.017	.121	.060	.017	.117	.059	.017	.112	.058	.017	
9.0	.123	.059	.017	.120	.059	.016	.116	.057	.016	.112	.056	.016	.108	.055	.016	
10.0	.118	.056	.016	.116	.056	.016	.112	.055	.015	.108	.054	.015	.105	.053	.015	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.172	.157	.144	.147	.135	.124	.100	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.156	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.059	.107	.076	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.118	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.091	.056	.031	.063	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.060	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.096	.055	.027	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm										
NAME: TH30 WHTC30C021P					TYPE:			WEIGHT:		
SPEC.: white RA90 3000K+5700K					DIM.:			SERIAL No.:		
MFR.:					SUR.: 66mm			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	16.9	16.2	17.1	17.3	19.0	20.0	19.3	20.2	20.3
3H	16.5	17.4	16.8	17.6	17.8	19.3	20.2	19.6	20.4	20.6
4H	16.7	17.6	17.0	17.8	18.0	19.5	20.3	19.8	20.5	20.8
6H	16.8	17.6	17.1	17.8	18.1	19.6	20.4	19.9	20.6	20.9
8H	16.8	17.5	17.1	17.8	18.0	19.7	20.4	20.0	20.7	20.9
12H	16.8	17.5	17.1	17.7	18.0	19.7	20.4	20.0	20.7	20.9
4H 2H	16.1	16.9	16.4	17.2	17.4	19.0	19.8	19.2	20.0	20.2
3H	16.9	17.6	17.2	17.9	18.1	19.4	20.1	19.7	20.4	20.6
4H	17.2	17.8	17.5	18.1	18.4	19.7	20.3	20.0	20.6	20.9
6H	17.3	17.9	17.7	18.2	18.5	19.9	20.4	20.2	20.8	21.1
8H	17.3	17.8	17.7	18.2	18.6	19.9	20.4	20.3	20.8	21.2
12H	17.3	17.8	17.7	18.1	18.5	20.0	20.4	20.4	20.8	21.2
8H 4H	17.3	17.8	17.7	18.2	18.5	19.6	20.2	20.0	20.5	20.9
6H	17.5	17.9	17.9	18.3	18.7	19.9	20.3	20.3	20.7	21.1
8H	17.5	17.9	18.0	18.3	18.8	20.0	20.4	20.4	20.8	21.2
12H	17.5	17.8	18.0	18.3	18.7	20.1	20.4	20.5	20.8	21.3
12H 4H	17.3	17.7	17.7	18.1	18.5	19.6	20.1	20.0	20.4	20.8
6H	17.5	17.8	17.9	18.3	18.7	19.8	20.2	20.3	20.7	21.1
8H	17.5	17.9	18.0	18.3	18.8	20.0	20.3	20.4	20.7	21.2
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.1 / - 0.9					+ 2.8 / - 1.7				
1.5H	+ 2.3 / - 0.8					+ 4.8 / - 1.6				
2.0H	+ 0.3 / - 0.5					+ 1.0 / - 0.5				

CIE Pub.117, 2411 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.1)
Area: 0.00342 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:

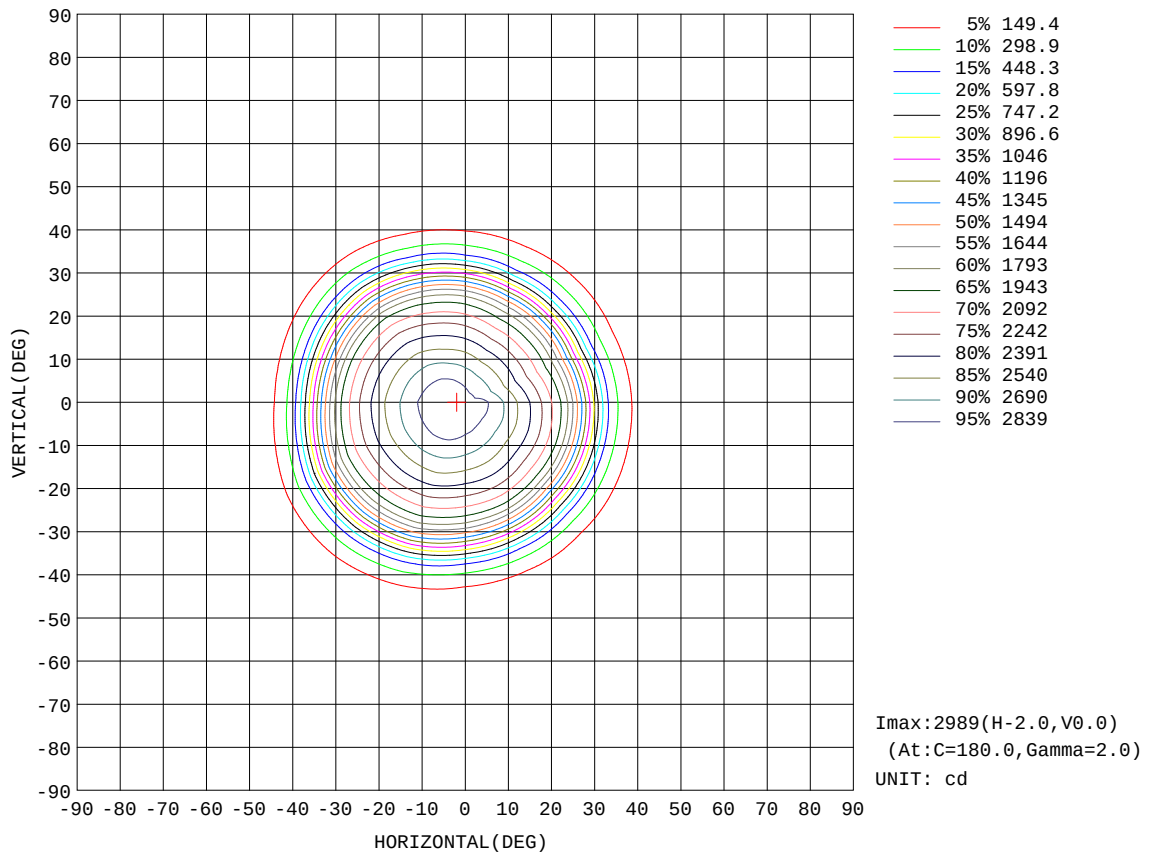
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	86	80	77	86	80	77	73
0.80	94	88	85	94	88	84	92	87	84	80
1.00	99	93	89	98	93	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	101	97	104	100	97	102	98	95	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	107	104	106	104	102	95
4.00	114	111	108	111	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
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:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:

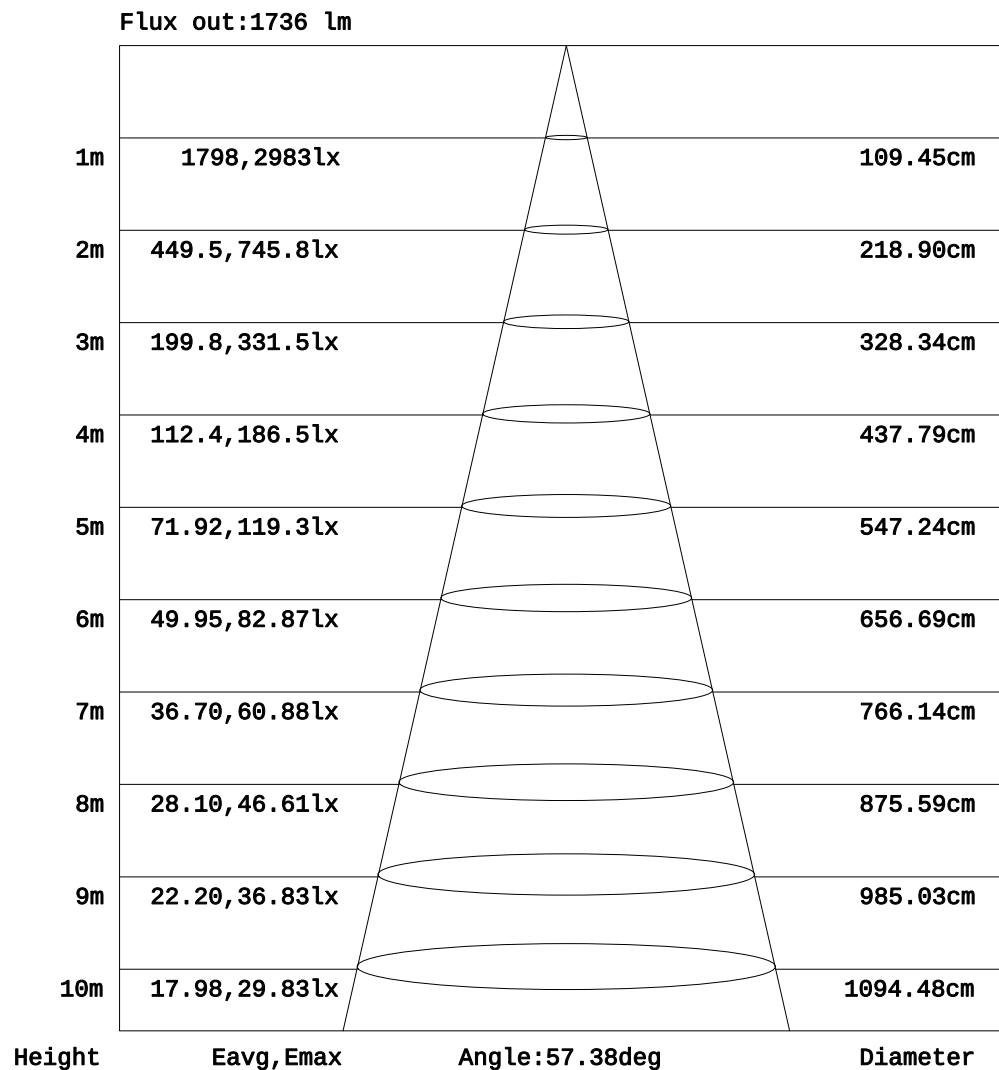


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:



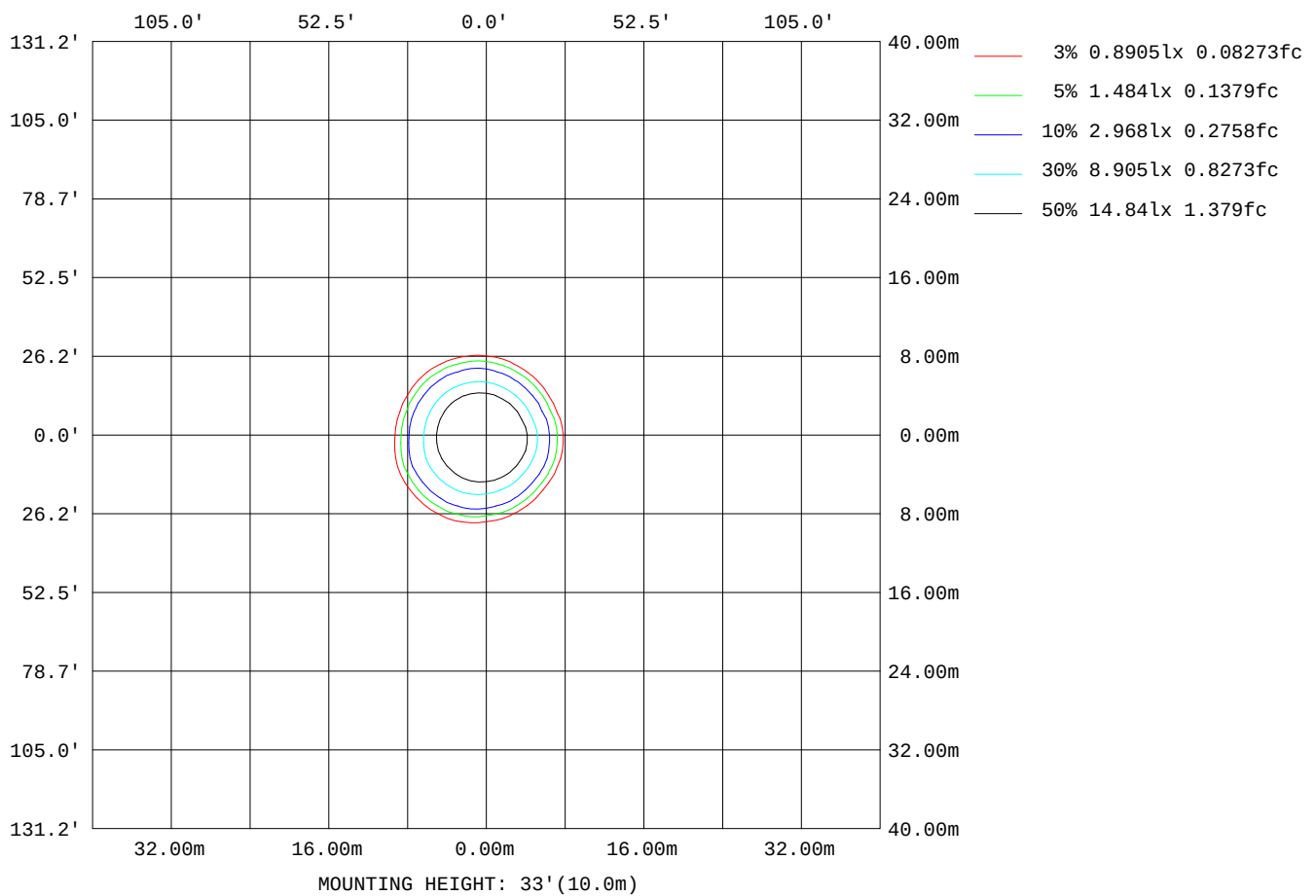
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.78V I:0.1243A P:27.875W PF:0.9721 Freq:49.99Hz Lamp Flux:2411.04x1 lm		
NAME: TH30 WHTC30C021P	TYPE:	WEIGHT:
SPEC.: white RA90 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 66mm	Shielding Angle:

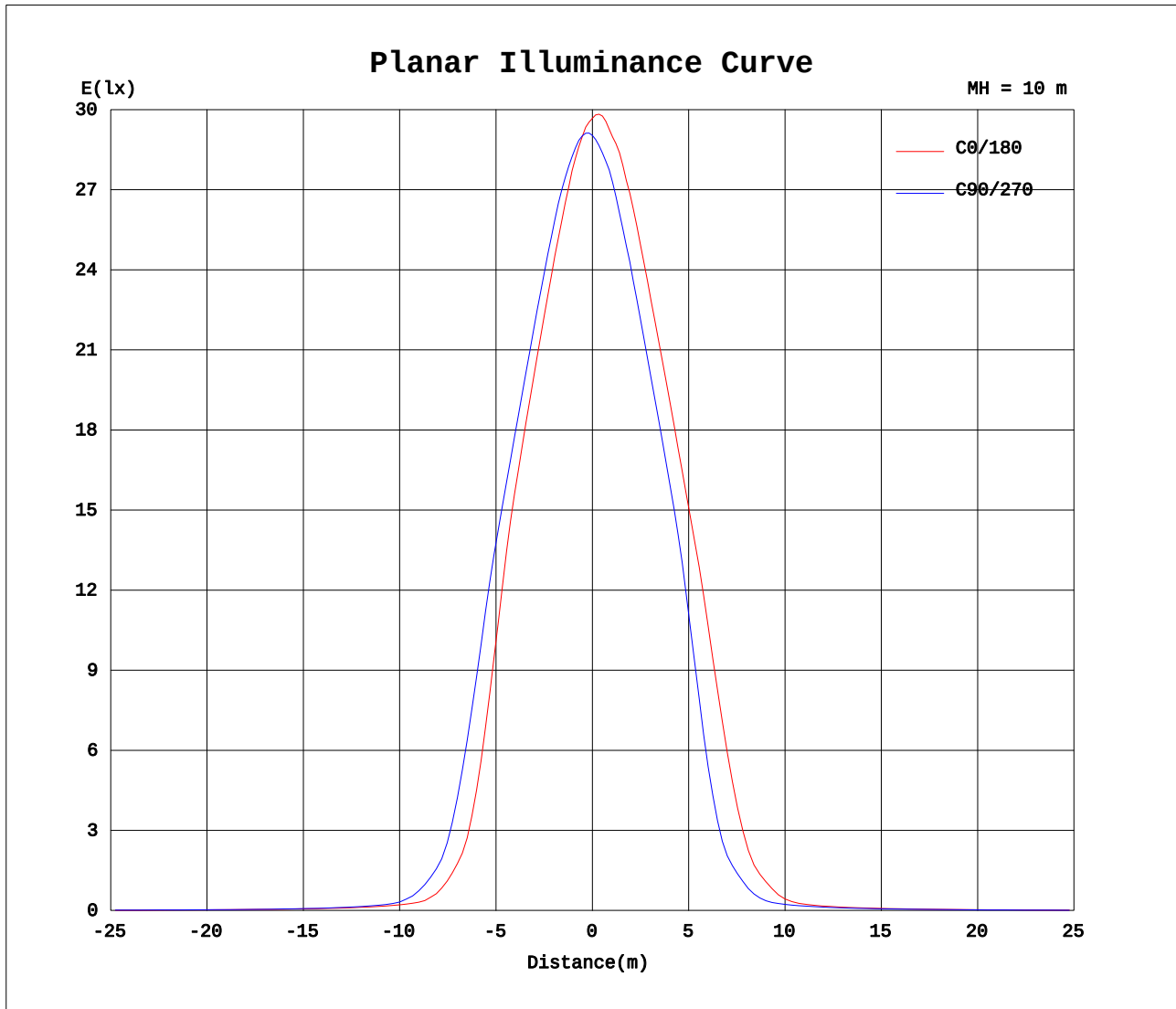
AvgL	cd/m2
L_0~180(65)av	22805
L_0~180(75)av	19833
L_0~180(85)av	14755
L_90~270(65)av	22782
L_90~270(75)av	20357
L_90~270(85)av	14318
L_45(65)av	22518
L_45(75)av	19958
L_45(85)av	14464

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-05-10

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-05-10

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```