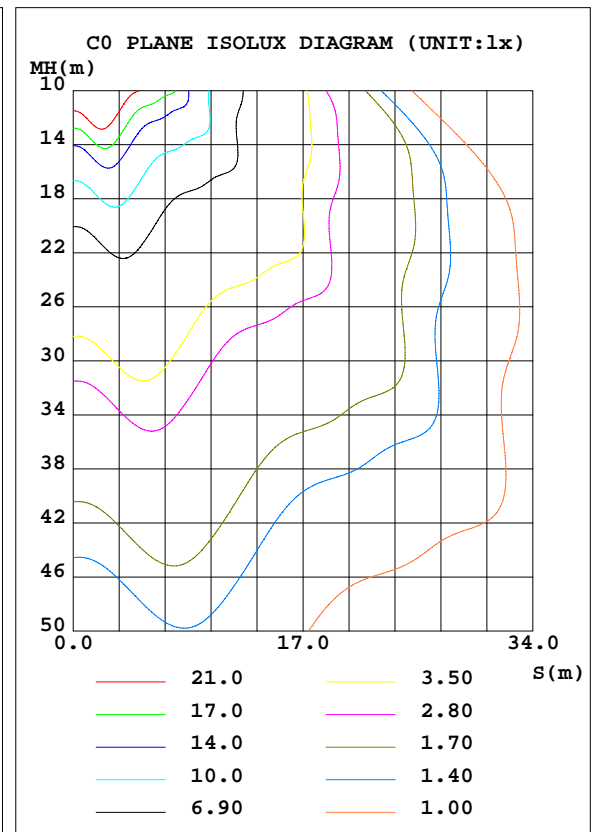
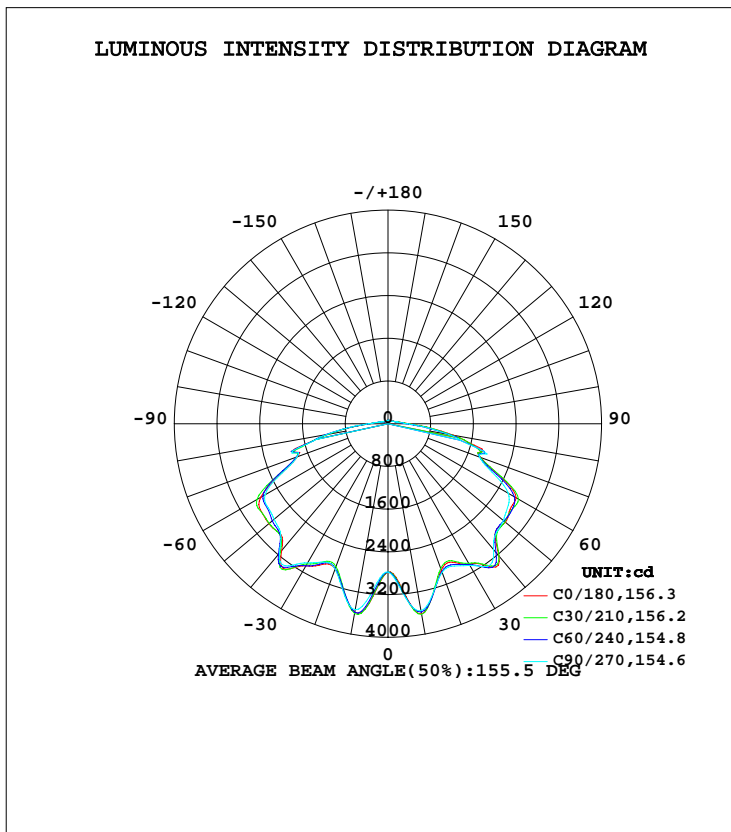


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.02 lm/W			
MODEL TS-GCP1312-120W-G-TCP		I <sub>max</sub> (cd)	3624	S/MH(C0/180)	1.68
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.70
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	14822	η UP, DN(C0-180)	2.7,47.4
NOMINAL FLUX(lm)	14821.9	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.5,47.5
LAMPS INSIDE	1	η up(%)	5.1	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	94.9	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:15 April 2024

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:12.550m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

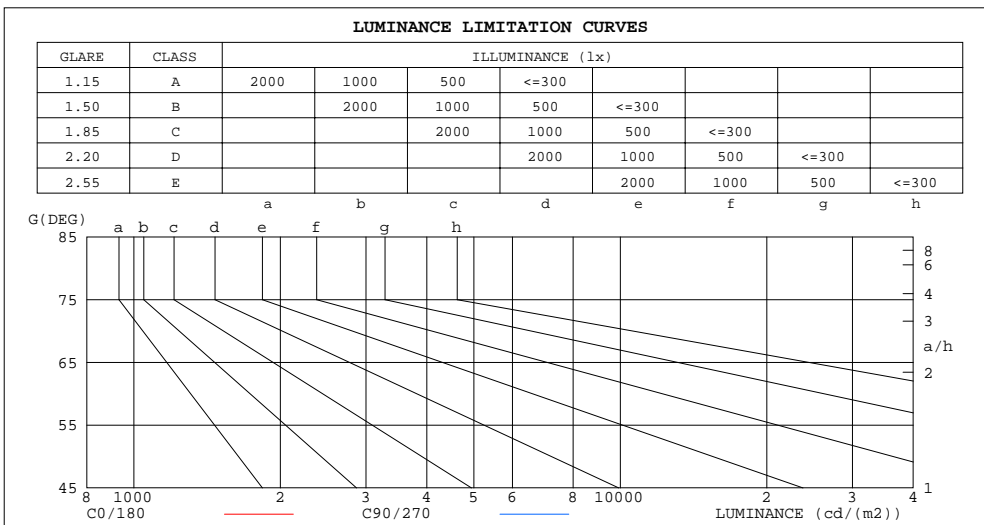
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	3617	3601	3555	3553	3582	3596	3538	3512	0- 10	317.9	317.9	2.14,2.14
20	2919	2919	2963	2895	2897	2866	2898	2973	10- 20	911.5	1229	8.29,8.29
30	3038	3031	3064	3088	3072	3053	3007	2978	20- 30	1354	2583	17.4,17.4
40	3233	3190	3076	3101	3098	3166	3162	3161	30- 40	2015	4598	31,31
50	2871	2845	2817	2810	2912	2866	2785	2802	40- 50	2254	6852	46.2,46.2
60	2769	2775	2599	2636	2749	2767	2659	2722	50- 60	2505	9357	63.1,63.1
70	1847	1831	1829	1786	1809	1827	1815	1852	60- 70	2232	11589	78.2,78.2
80	1249	1193	1154	1134	1158	1155	1174	1194	70- 80	1707	13296	89.7,89.7
90	391.5	362.7	361.2	365.1	356.8	348.6	362.1	357.5	80- 90	766.1	14062	94.9,94.9
100	191.4	187.8	186.6	190.1	170.7	173.3	176.9	176.1	90-100	280.4	14342	96.8,96.8
110	126.9	127.1	125.3	126.8	113.0	111.5	114.4	115.6	100-110	154.3	14497	97.8,97.8
120	103.7	99.43	98.36	91.56	86.50	78.64	89.18	89.46	110-120	104.9	14602	98.5,98.5
130	82.24	78.20	77.24	71.96	65.51	64.10	69.32	70.13	120-130	72.17	14674	99,99
140	71.49	69.77	69.12	65.03	60.52	59.76	63.60	63.20	130-140	52.86	14727	99.4,99.4
150	68.37	67.90	66.96	65.74	60.19	61.35	62.69	62.35	140-150	40.42	14767	99.6,99.6
160	67.29	68.36	66.23	67.10	64.10	62.92	62.44	62.91	150-160	29.86	14797	99.8,99.8
170	66.17	67.87	67.20	66.86	65.15	65.14	65.69	64.82	160-170	18.65	14816	100,100
180	65.95	66.14	65.62	65.78	65.95	66.11	65.48	65.72	170-180	6.295	14822	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:15 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:12.550m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	89229	82420
80	77602	71612
75	76003	70337
70	58288	57586
65	58986	54936
60	59756	55986
55	52525	51365
50	48197	47204
45	43469	43817

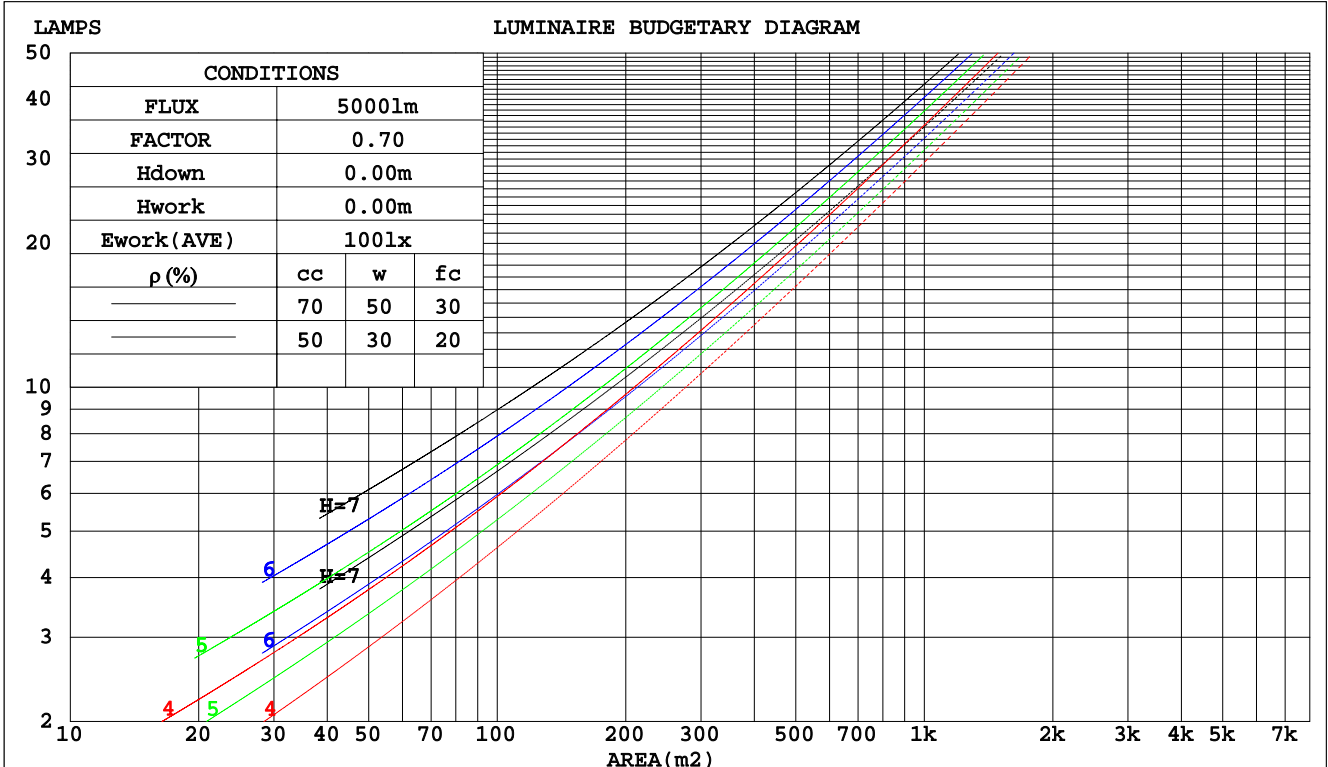
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.03	1.03	1.03	.97	.97	.97	.95
1.0	.99	.94	.89	.96	.91	.87	.91	.87	.83	.86	.83	.80	.81	.79	.76	.74
2.0	.84	.76	.69	.82	.74	.68	.77	.71	.66	.73	.68	.63	.69	.65	.61	.58
3.0	.72	.63	.56	.70	.62	.55	.66	.59	.53	.63	.57	.51	.60	.54	.50	.47
4.0	.63	.53	.46	.61	.52	.45	.58	.50	.44	.55	.48	.43	.52	.46	.42	.39
5.0	.56	.46	.38	.54	.45	.38	.51	.43	.37	.49	.42	.36	.46	.40	.35	.33
6.0	.50	.40	.33	.48	.39	.33	.46	.38	.32	.44	.37	.31	.42	.35	.30	.28
7.0	.45	.35	.29	.44	.35	.28	.41	.33	.28	.40	.32	.27	.38	.31	.26	.24
8.0	.40	.31	.25	.39	.31	.25	.38	.30	.24	.36	.29	.24	.34	.28	.23	.21
9.0	.37	.28	.22	.36	.28	.22	.34	.27	.22	.33	.26	.21	.32	.25	.21	.19
10.0	.34	.26	.20	.33	.25	.20	.32	.24	.19	.30	.24	.19	.29	.23	.19	.17



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:		Shielding Angle:	

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.380	.216	.069	.372	.212	.067	.355	.204	.065	.340	.196	.063	.326	.189	.061	
2.0	.341	.187	.057	.333	.184	.057	.318	.177	.055	.305	.171	.054	.292	.165	.052	
3.0	.307	.163	.049	.300	.161	.048	.287	.155	.047	.274	.150	.046	.263	.145	.045	
4.0	.278	.144	.042	.271	.142	.042	.259	.138	.041	.248	.133	.040	.238	.129	.039	
5.0	.253	.129	.037	.247	.127	.037	.236	.123	.036	.226	.119	.036	.217	.116	.035	
6.0	.232	.116	.033	.227	.114	.033	.217	.111	.032	.208	.108	.032	.199	.105	.031	
7.0	.213	.106	.030	.209	.104	.030	.200	.101	.029	.192	.098	.029	.184	.096	.028	
8.0	.198	.097	.027	.194	.095	.027	.186	.093	.027	.178	.090	.026	.172	.088	.026	
9.0	.184	.089	.025	.180	.088	.025	.173	.086	.024	.167	.084	.024	.160	.081	.024	
10.0	.172	.083	.023	.169	.082	.023	.162	.079	.022	.156	.078	.022	.150	.076	.022	

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	.230	.230	.230	.196	.196	.196	.134	.134	.134	.077	.077	.077	.025	.025	.025	
1.0	.225	.195	.168	.192	.167	.145	.131	.115	.100	.076	.067	.058	.024	.021	.019	
2.0	.218	.171	.132	.187	.147	.114	.128	.102	.079	.074	.059	.047	.024	.019	.015	
3.0	.211	.154	.109	.181	.133	.094	.124	.093	.066	.072	.054	.039	.023	.018	.013	
4.0	.204	.142	.094	.175	.122	.082	.120	.085	.058	.070	.050	.034	.022	.016	.011	
5.0	.196	.132	.084	.168	.114	.073	.116	.080	.052	.067	.047	.031	.022	.015	.010	
6.0	.189	.124	.077	.162	.107	.067	.112	.075	.047	.065	.044	.028	.021	.014	.009	
7.0	.181	.117	.072	.156	.101	.062	.108	.071	.044	.063	.042	.026	.020	.014	.009	
8.0	.174	.111	.068	.150	.096	.059	.104	.068	.042	.060	.040	.025	.020	.013	.008	
9.0	.168	.106	.065	.145	.092	.056	.100	.065	.040	.058	.038	.024	.019	.013	.008	
10.0	.162	.102	.062	.139	.089	.054	.097	.062	.038	.056	.037	.023	.018	.012	.008	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:15 April 2024

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:12.550m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0%						Lamp Flux:14821.9x1 lm				
NAME: TS-GCP1312-120W-G-TCP			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.:			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	26.4	28.1	26.8	28.5	28.9	26.0	27.7	26.5	28.1	28.6
3H	28.5	30.0	28.9	30.4	30.9	28.2	29.7	28.6	30.1	30.6
4H	29.8	31.2	30.3	31.7	32.2	29.5	31.0	30.0	31.4	31.9
6H	30.9	32.2	31.4	32.7	33.2	30.5	31.9	31.0	32.3	32.9
8H	31.3	32.6	31.8	33.1	33.6	30.9	32.2	31.4	32.7	33.2
12H	31.7	32.9	32.2	33.4	33.9	31.3	32.5	31.8	33.0	33.5
4H 2H	27.1	28.6	27.6	29.0	29.5	26.8	28.2	27.2	28.7	29.2
3H	29.5	30.7	30.0	31.2	31.7	29.2	30.4	29.7	30.9	31.4
4H	31.0	32.1	31.5	32.6	33.2	30.7	31.8	31.2	32.3	32.9
6H	32.3	33.3	32.8	33.8	34.4	31.9	32.9	32.4	33.4	34.0
8H	32.7	33.7	33.3	34.2	34.8	32.3	33.3	32.9	33.8	34.4
12H	33.2	34.1	33.7	34.6	35.2	32.8	33.6	33.3	34.2	34.8
8H 4H	31.5	32.5	32.1	33.0	33.6	31.2	32.2	31.8	32.7	33.3
6H	33.0	33.8	33.5	34.3	34.9	32.6	33.4	33.1	33.9	34.5
8H	33.6	34.3	34.1	34.9	35.5	33.2	33.9	33.7	34.5	35.1
12H	34.2	34.8	34.7	35.4	36.1	33.7	34.4	34.3	35.0	35.6
12H 4H	31.6	32.5	32.2	33.0	33.6	31.3	32.2	31.9	32.8	33.3
6H	33.1	33.8	33.7	34.4	35.0	32.7	33.5	33.3	34.0	34.6
8H	33.8	34.4	34.4	35.0	35.7	33.4	34.0	34.0	34.6	35.3
CIE190: 2010										

CIE190: 2010  
Area: 0.0928 m2

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:15 April 2024

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
Humidity:65.0%  
Test Distance:12.550m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:14821.9x1 lm
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:	
MFR.:	SUR.:	Shielding Angle:	

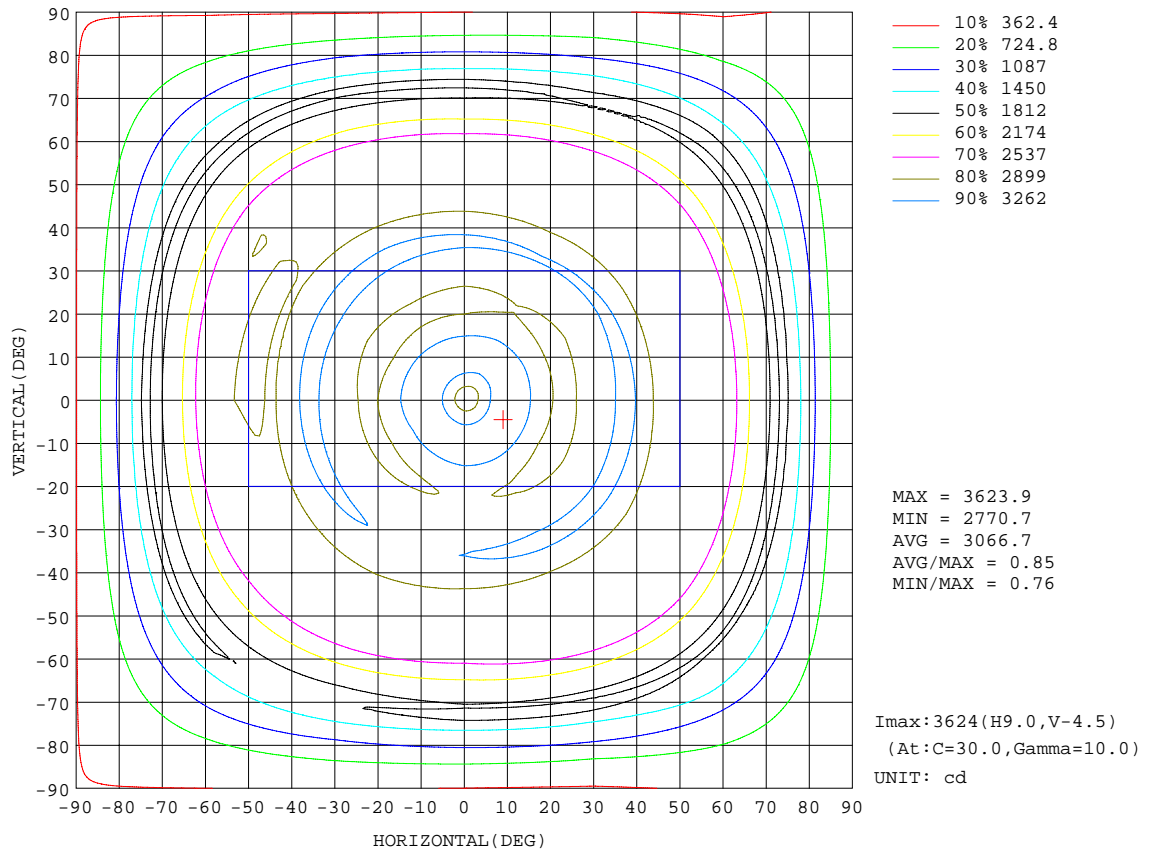
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	50	37	29	49	37	29	47	36	29	22
0.80	59	46	38	58	46	38	56	45	37	29
1.00	68	55	46	66	54	46	63	55	45	37
1.25	75	62	54	73	62	54	70	60	52	44
1.50	80	68	60	78	67	59	74	65	58	49
2.00	88	77	69	86	76	68	81	73	67	57
2.50	93	83	75	90	81	74	85	78	72	62
3.00	96	88	81	94	86	79	89	82	77	66
4.00	101	94	88	98	92	86	93	88	83	72
5.00	104	98	93	101	96	91	96	91	87	76
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:15 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity:65.0%  
 Test Distance:12.550m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

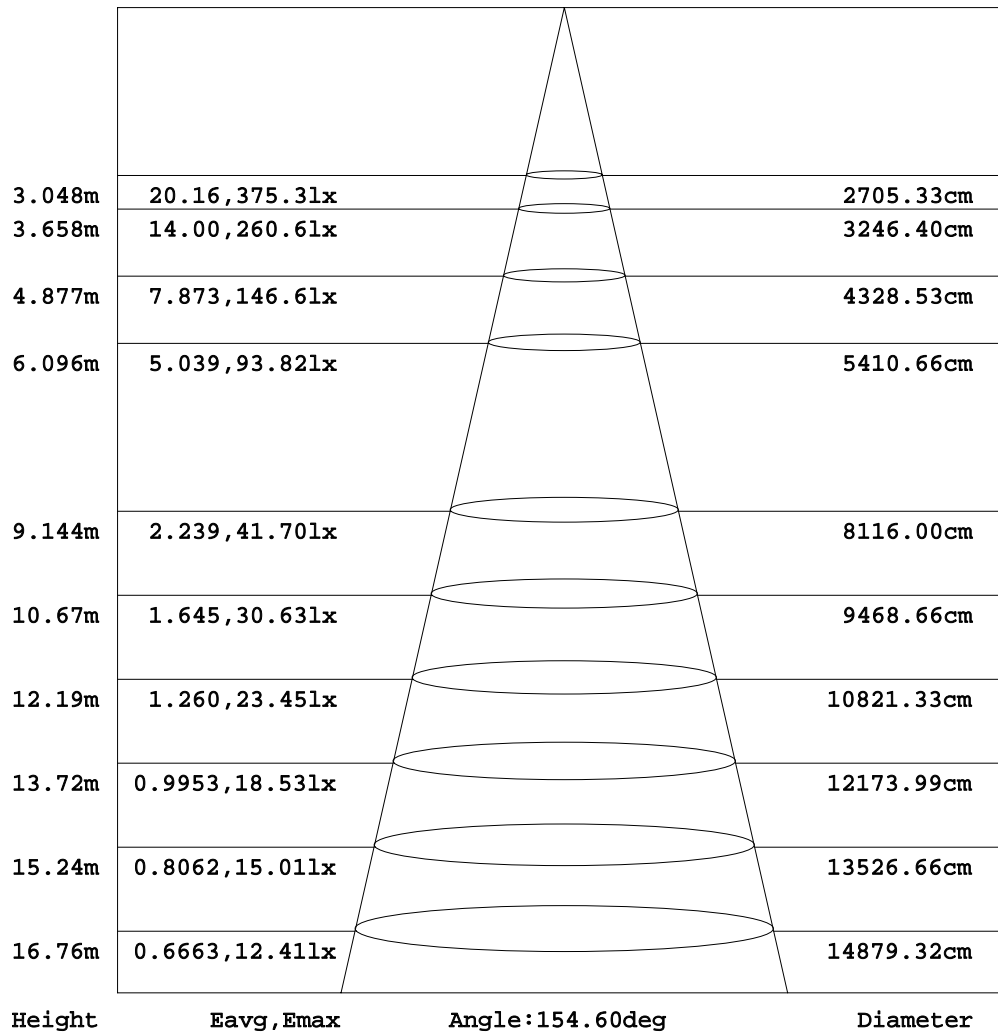
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:13020 lm



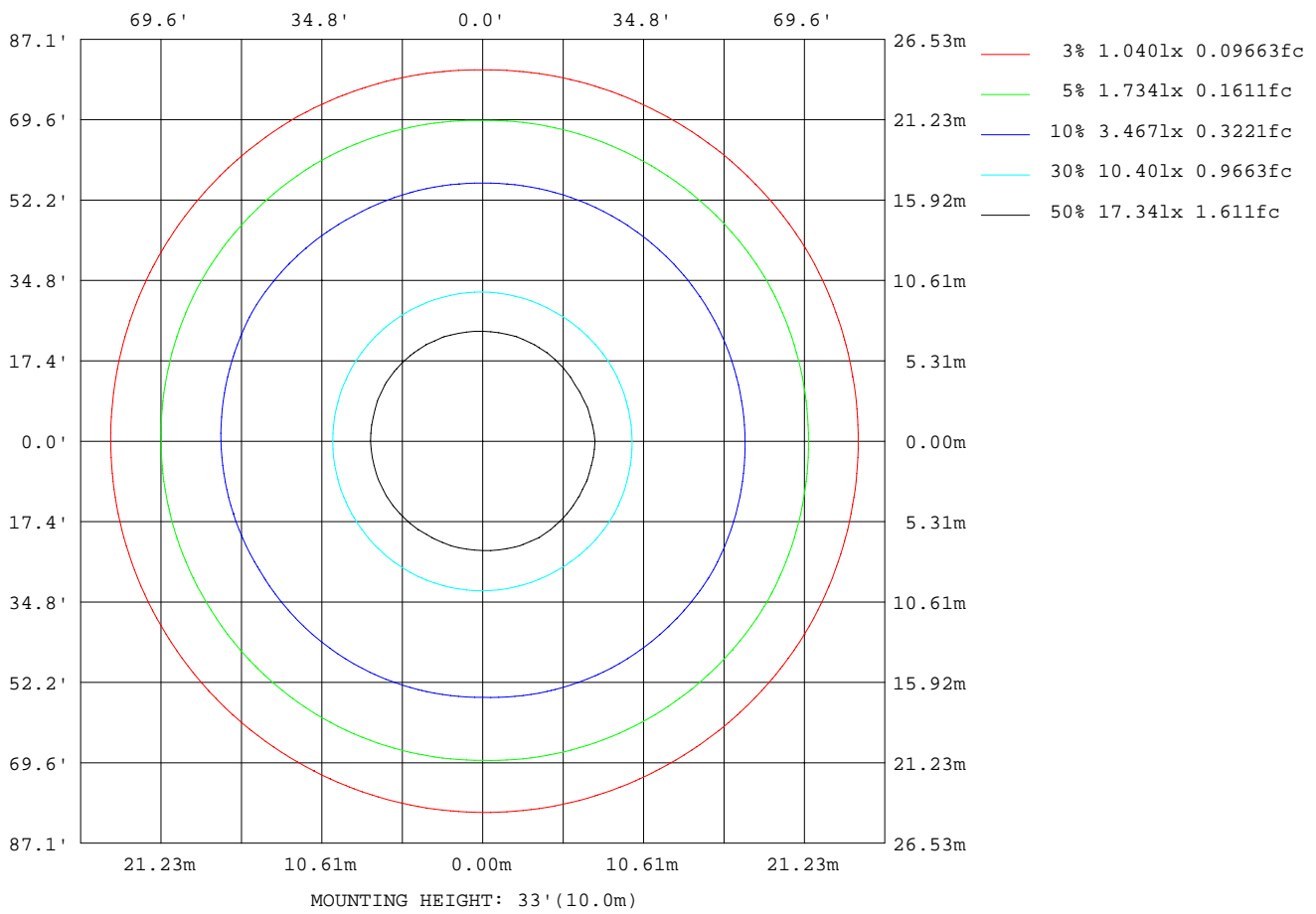
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:120.58V I:1.0178A P:122.47W PF:0.9979 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14821.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

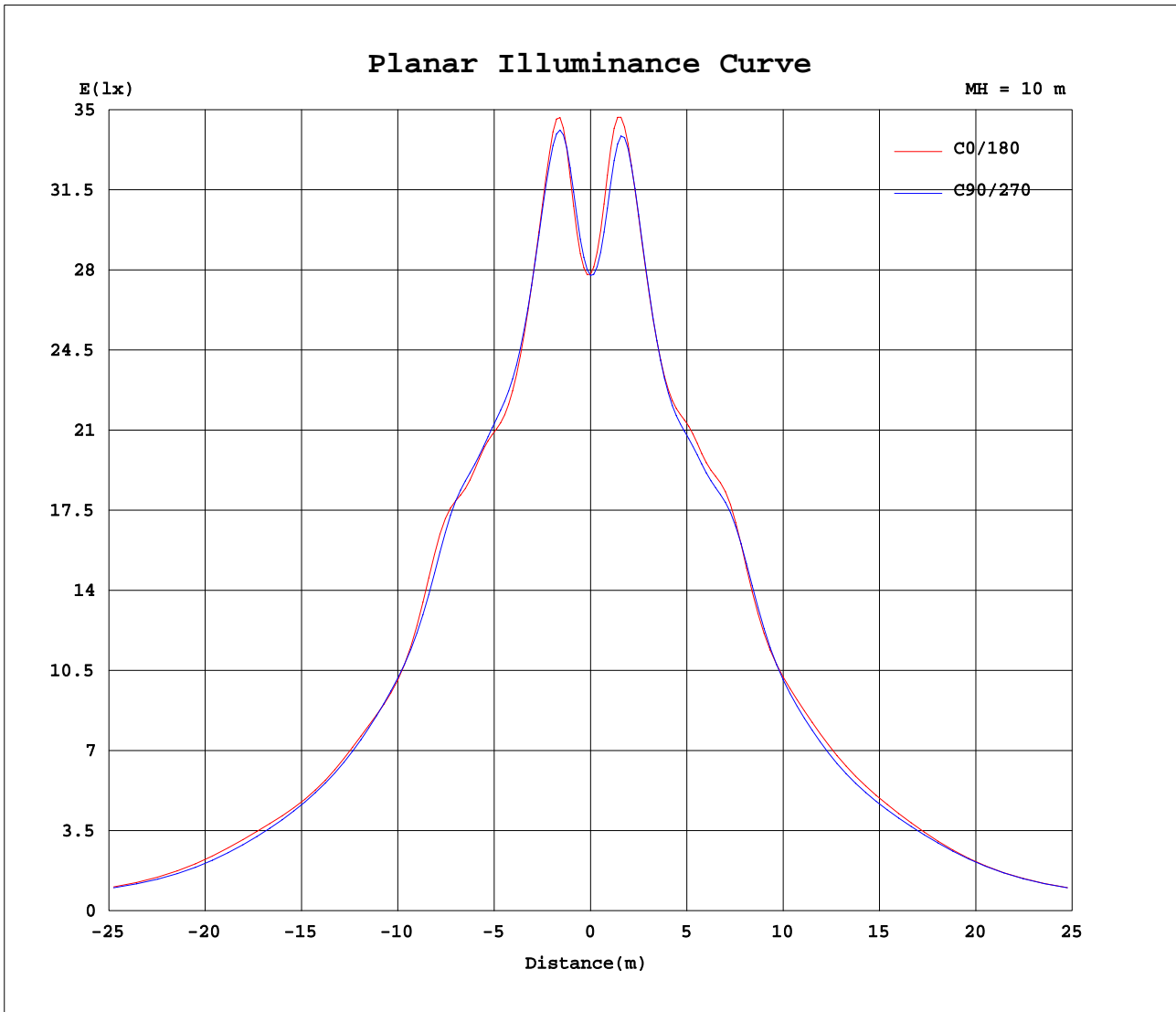
AvgL	cd/m2
L_0~180(65)av	57591
L_0~180(75)av	75389
L_0~180(85)av	85744
L_90~270(65)av	55463
L_90~270(75)av	71235
L_90~270(85)av	83956
L_45(65)av	57608
L_45(75)av	70395
L_45(85)av	83193

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 30.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:15 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
Humidity:65.0%  
Test Distance:12.550m [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: 15 April 2024

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks: