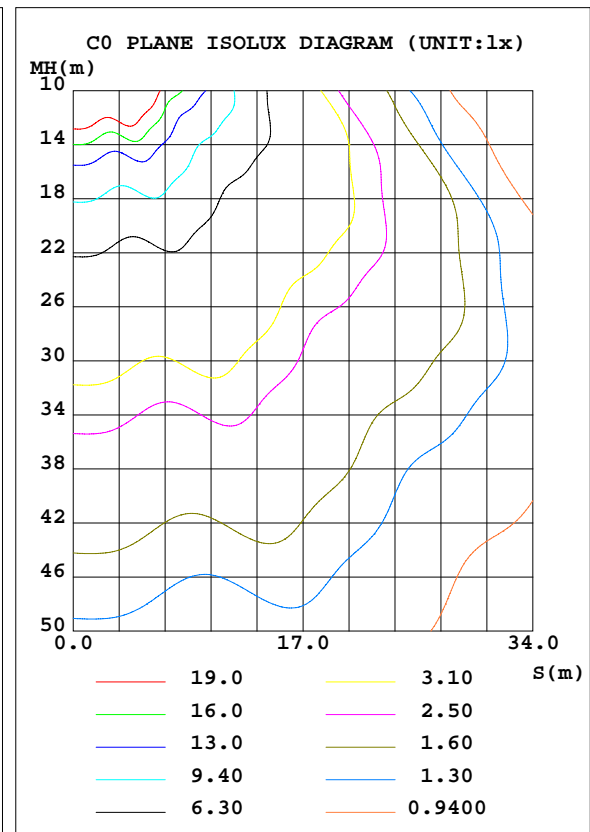
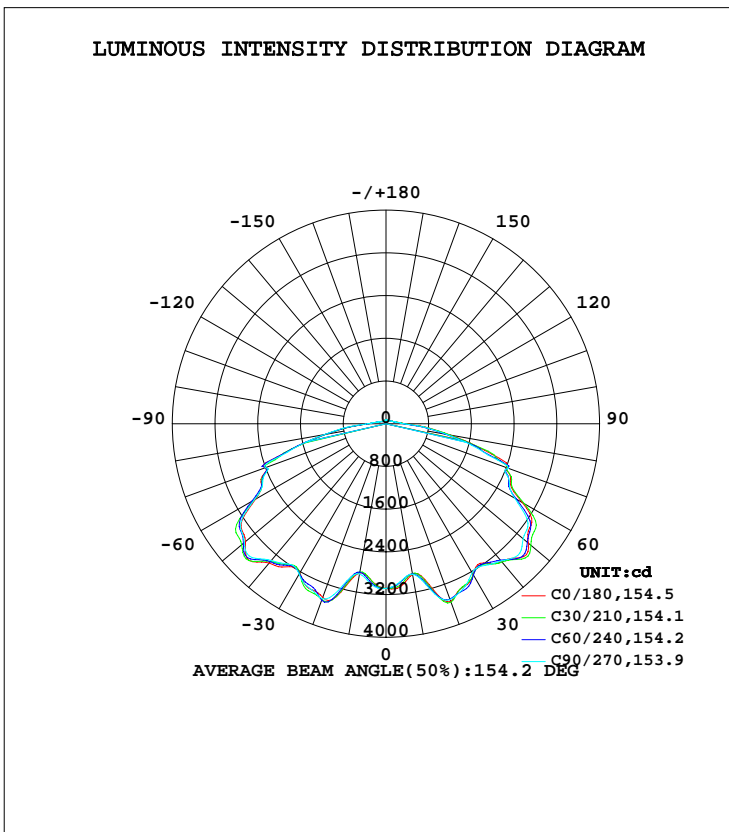


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.86 lm/W			
MODEL	TS-GCP1312-120W-G-TCP	I <sub>max</sub> (cd)	3642	S/MH(C0/180)	1.67
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.64
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	16457	η UP, DN(C0-180)	2.5,47.6
NOMINAL FLUX(lm)	16456.9	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.3,47.7
LAMPS INSIDE	1	η up(%)	4.7	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	120	η down(%)	95.3	CIBSE SHR MAX	1.75



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:

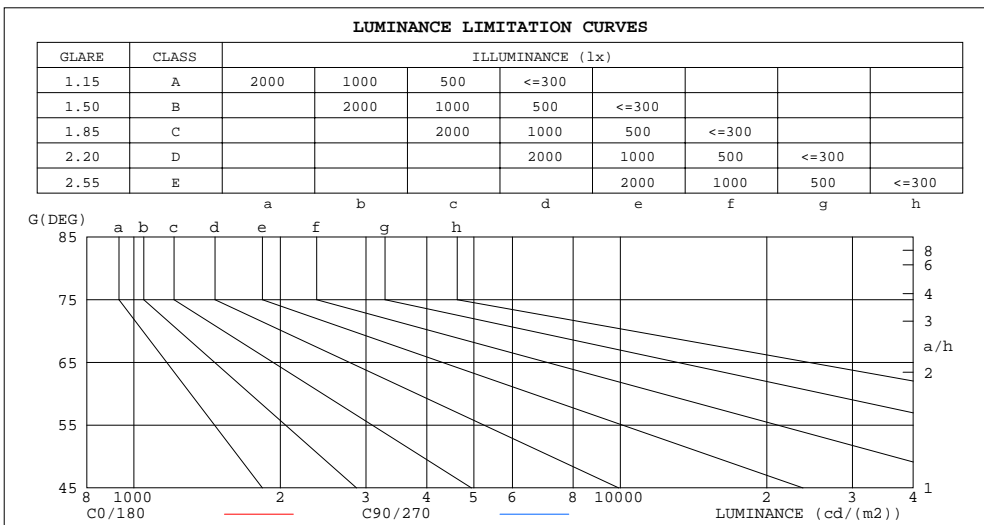
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	ℓlum,lamp
10	2864	2850	2861	2892	2836	2819	2857	2878	0- 10	281.0	281.0	1.71,1.71
20	3540	3528	3504	3537	3462	3513	3487	3426	10- 20	916.4	1197	7.28,7.28
30	3263	3272	3226	3205	3225	3237	3254	3345	20- 30	1568	2765	16.8,16.8
40	3371	3358	3355	3394	3406	3368	3343	3305	30- 40	2046	4811	29.2,29.2
50	3479	3499	3353	3421	3437	3507	3464	3474	40- 50	2708	7519	45.7,45.7
60	2945	2901	2782	2809	2817	2874	2844	2867	50- 60	2921	10441	63.4,63.4
70	2404	2426	2441	2355	2397	2397	2405	2417	60- 70	2539	12979	78.9,78.9
80	1218	1168	1154	1145	1150	1146	1168	1192	70- 80	1930	14909	90.6,90.6
90	362.3	346.5	335.8	352.5	330.5	330.7	339.8	343.0	80- 90	767.8	15677	95.3,95.3
100	190.8	189.1	190.0	191.9	172.5	174.6	177.8	177.6	90-100	274.3	15951	96.9,96.9
110	132.7	132.6	131.4	132.6	117.9	116.3	118.4	119.9	100-110	158.1	16109	97.9,97.9
120	108.8	105.0	103.7	98.31	90.94	83.20	92.38	93.51	110-120	109.8	16219	98.6,98.6
130	87.64	84.21	83.13	78.28	70.29	68.73	73.40	74.75	120-130	76.48	16296	99,99
140	76.66	75.82	75.47	71.93	66.48	65.35	68.79	68.44	130-140	57.19	16353	99.4,99.4
150	74.14	74.14	73.51	72.14	65.67	66.87	68.55	68.52	140-150	44.09	16397	99.6,99.6
160	73.41	75.07	73.05	74.01	69.78	68.83	67.92	68.88	150-160	32.71	16430	99.8,99.8
170	72.17	74.17	73.84	73.48	71.81	71.47	72.06	71.22	160-170	20.43	16450	100,100
180	72.80	73.43	72.92	73.18	73.21	73.37	72.60	73.11	170-180	6.934	16457	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

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:

LUMINANCE LIMITATION CURVES

Test:U:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 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	92802	86756
80	76662	71329
75	80530	73542
70	76846	76644
65	66399	64696
60	64393	59740
55	63160	60787
50	59168	56009
45	54831	52988

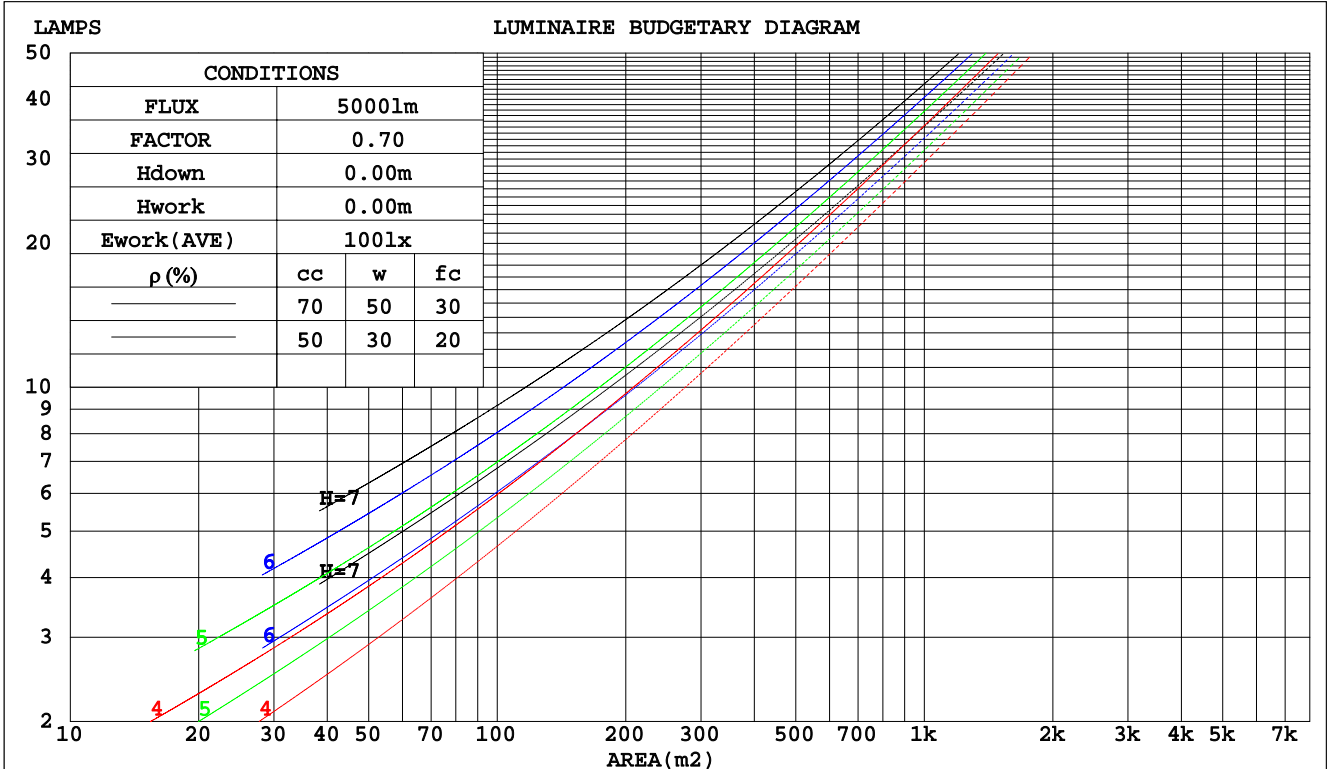
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

$\gamma$  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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 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	1.15	1.15	1.15	1.08	1.08	1.08	1.03	1.03	1.03	.98	.98	.98	.95
1.0	.99	.94	.89	.96	.92	.87	.91	.87	.83	.86	.83	.80	.82	.79	.77	.74
2.0	.84	.76	.69	.82	.74	.68	.77	.71	.66	.73	.68	.63	.69	.65	.61	.59
3.0	.72	.63	.55	.70	.61	.54	.66	.59	.53	.63	.56	.51	.60	.54	.50	.47
4.0	.63	.53	.45	.61	.52	.45	.58	.50	.43	.55	.48	.42	.52	.46	.41	.39
5.0	.55	.45	.38	.54	.44	.37	.51	.43	.36	.48	.41	.36	.46	.40	.35	.32
6.0	.49	.39	.32	.48	.39	.32	.45	.37	.31	.43	.36	.30	.41	.35	.30	.27
7.0	.44	.34	.28	.43	.34	.27	.41	.33	.27	.39	.32	.26	.37	.31	.26	.24
8.0	.40	.31	.24	.39	.30	.24	.37	.29	.24	.35	.28	.23	.34	.27	.23	.21
9.0	.36	.27	.21	.35	.27	.21	.34	.26	.21	.32	.25	.20	.31	.25	.20	.18
10.0	.33	.25	.19	.32	.24	.19	.31	.24	.19	.30	.23	.18	.29	.22	.18	.16



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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 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	.379	.216	.068	.371	.211	.067	.354	.203	.065	.339	.196	.063	.325	.189	.061	
2.0	.343	.188	.058	.335	.184	.057	.320	.178	.055	.307	.172	.054	.294	.166	.052	
3.0	.309	.164	.049	.302	.162	.049	.289	.157	.048	.277	.152	.047	.265	.147	.045	
4.0	.280	.145	.043	.274	.143	.042	.262	.139	.041	.251	.135	.041	.241	.131	.040	
5.0	.255	.130	.038	.249	.128	.037	.239	.124	.037	.229	.121	.036	.220	.117	.035	
6.0	.234	.117	.034	.229	.116	.033	.219	.112	.033	.210	.109	.032	.202	.106	.032	
7.0	.215	.107	.030	.211	.105	.030	.202	.102	.029	.194	.100	.029	.187	.097	.029	
8.0	.200	.098	.027	.196	.096	.027	.188	.094	.027	.181	.091	.026	.174	.089	.026	
9.0	.186	.090	.025	.182	.089	.025	.175	.087	.025	.168	.084	.024	.162	.082	.024	
10.0	.174	.083	.023	.170	.082	.023	.164	.080	.023	.158	.078	.022	.152	.077	.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	.227	.227	.227	.194	.194	.194	.132	.132	.132	.076	.076	.076	.024	.024	.024	
1.0	.222	.192	.165	.190	.165	.142	.130	.113	.098	.075	.066	.057	.024	.021	.019	
2.0	.216	.168	.129	.185	.145	.111	.127	.100	.077	.073	.058	.045	.023	.019	.015	
3.0	.209	.151	.106	.179	.131	.092	.123	.091	.064	.071	.053	.038	.023	.017	.012	
4.0	.201	.139	.091	.173	.120	.079	.119	.084	.056	.069	.049	.033	.022	.016	.011	
5.0	.194	.129	.081	.166	.111	.070	.115	.078	.050	.066	.046	.029	.021	.015	.010	
6.0	.186	.121	.074	.160	.104	.064	.110	.073	.045	.064	.043	.027	.021	.014	.009	
7.0	.179	.114	.068	.154	.099	.060	.106	.069	.042	.062	.041	.025	.020	.013	.008	
8.0	.172	.108	.064	.148	.094	.056	.103	.066	.040	.060	.039	.024	.019	.013	.008	
9.0	.166	.103	.061	.143	.090	.053	.099	.063	.038	.058	.037	.023	.019	.012	.008	
10.0	.159	.099	.059	.137	.086	.051	.095	.061	.036	.056	.036	.022	.018	.012	.007	

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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0%						Lamp Flux:16456.9x1 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	27.1	28.8	27.5	29.2	29.6	26.5	28.2	26.9	28.6	29.0
3H	29.5	31.1	30.0	31.5	32.0	29.0	30.6	29.5	31.0	31.5
4H	30.7	32.2	31.2	32.6	33.1	30.1	31.6	30.6	32.0	32.5
6H	31.5	32.9	32.0	33.3	33.8	30.9	32.3	31.4	32.7	33.2
8H	31.8	33.1	32.3	33.6	34.1	31.2	32.6	31.7	33.0	33.5
12H	32.1	33.4	32.6	33.9	34.4	31.5	32.8	32.0	33.3	33.8
4H 2H	27.8	29.2	28.2	29.7	30.2	27.2	28.7	27.7	29.1	29.6
3H	30.6	31.8	31.1	32.3	32.8	30.1	31.4	30.6	31.8	32.4
4H	31.9	33.1	32.4	33.6	34.1	31.3	32.5	31.8	33.0	33.5
6H	32.9	33.9	33.4	34.4	35.0	32.3	33.3	32.8	33.8	34.4
8H	33.2	34.2	33.8	34.7	35.3	32.7	33.6	33.2	34.1	34.7
12H	33.6	34.5	34.1	35.0	35.6	33.0	33.9	33.6	34.5	35.0
8H 4H	32.4	33.3	32.9	33.9	34.4	31.8	32.8	32.3	33.3	33.9
6H	33.5	34.3	34.0	34.8	35.4	32.9	33.7	33.5	34.3	34.9
8H	33.9	34.7	34.5	35.3	35.8	33.4	34.1	34.0	34.7	35.3
12H	34.5	35.1	35.0	35.7	36.3	33.9	34.6	34.5	35.1	35.8
12H 4H	32.4	33.3	33.0	33.9	34.4	31.9	32.7	32.4	33.3	33.9
6H	33.6	34.3	34.2	34.8	35.5	33.0	33.8	33.6	34.3	34.9
8H	34.1	34.8	34.7	35.3	36.0	33.6	34.3	34.2	34.8	35.5
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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:16456.9x1 lm
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:	
MFR.:	SUR.:	Shielding Angle:	

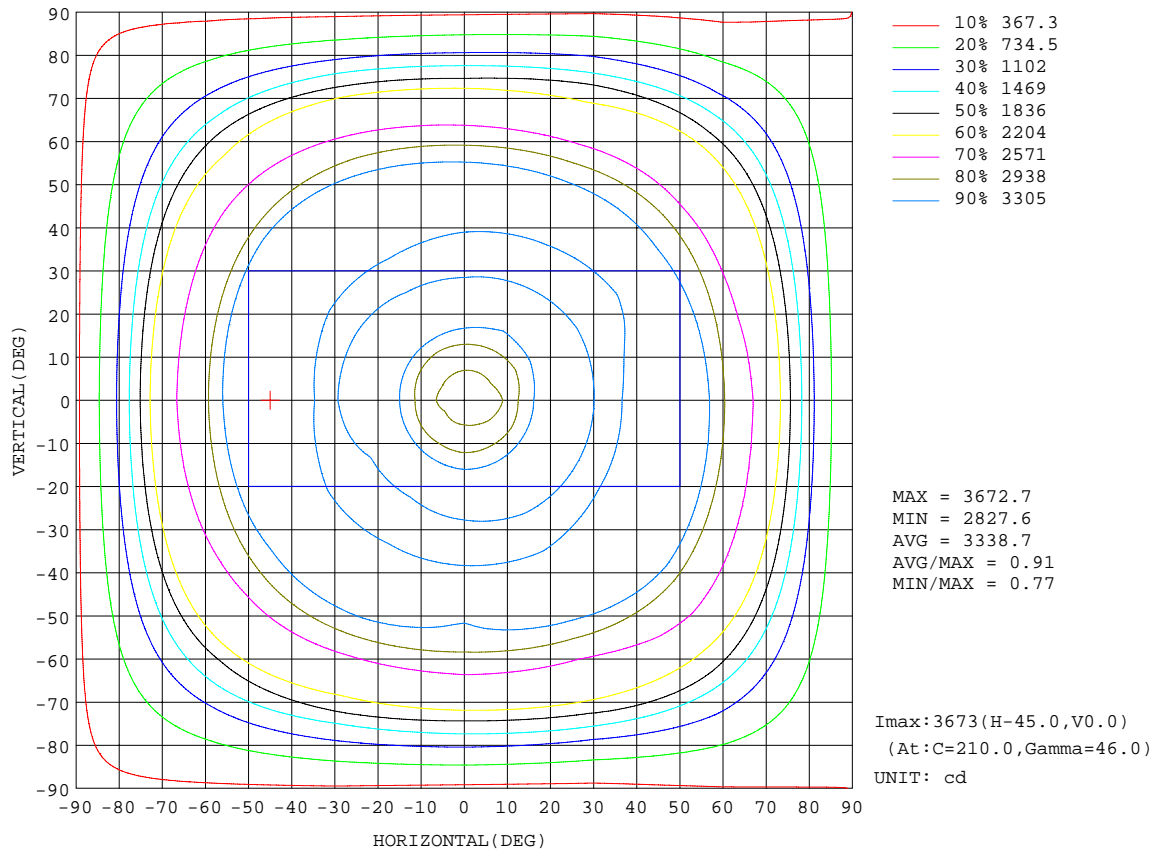
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	49	36	28	48	35	28	46	35	27	20
0.80	58	45	37	57	45	36	55	44	36	28
1.00	67	54	45	65	53	45	63	55	44	36
1.25	74	62	53	73	61	53	69	59	52	43
1.50	80	68	59	78	67	59	74	65	57	48
2.00	88	77	69	85	76	68	81	73	66	57
2.50	92	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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 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

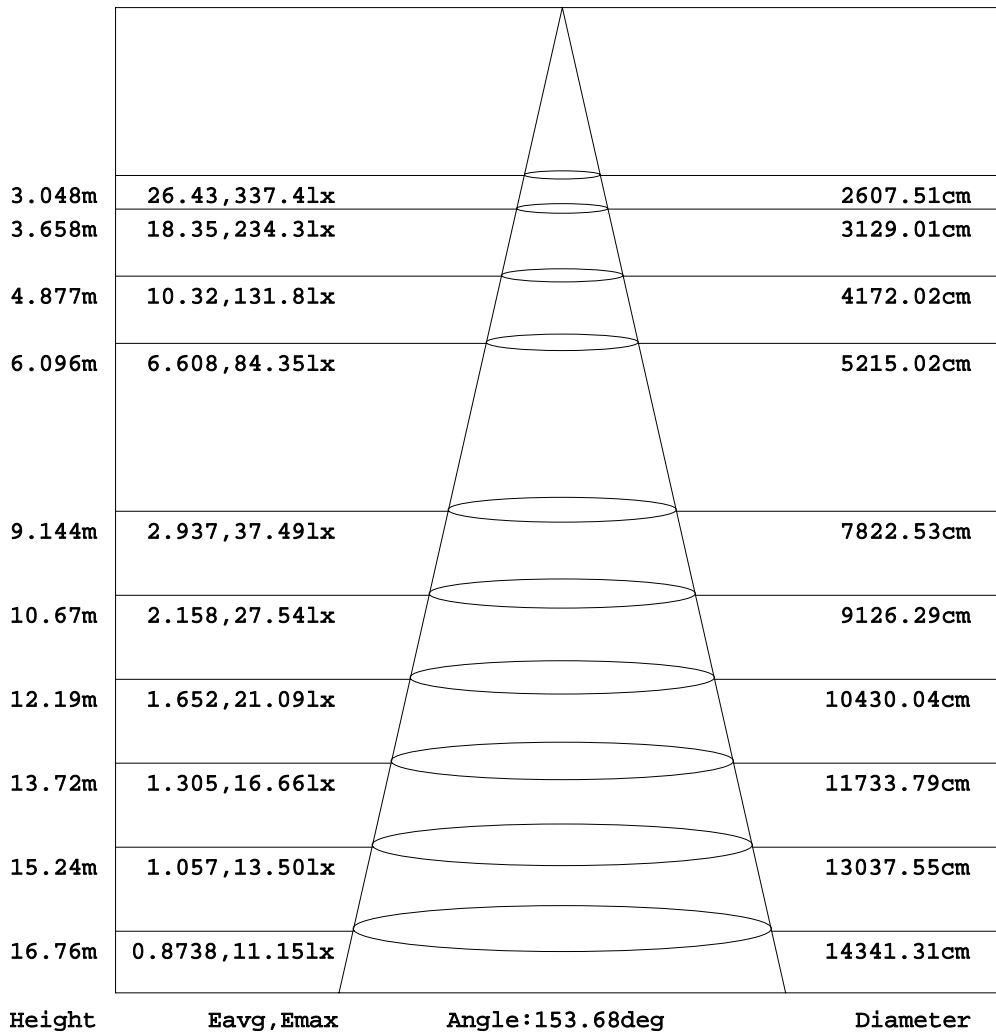
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:14473 lm



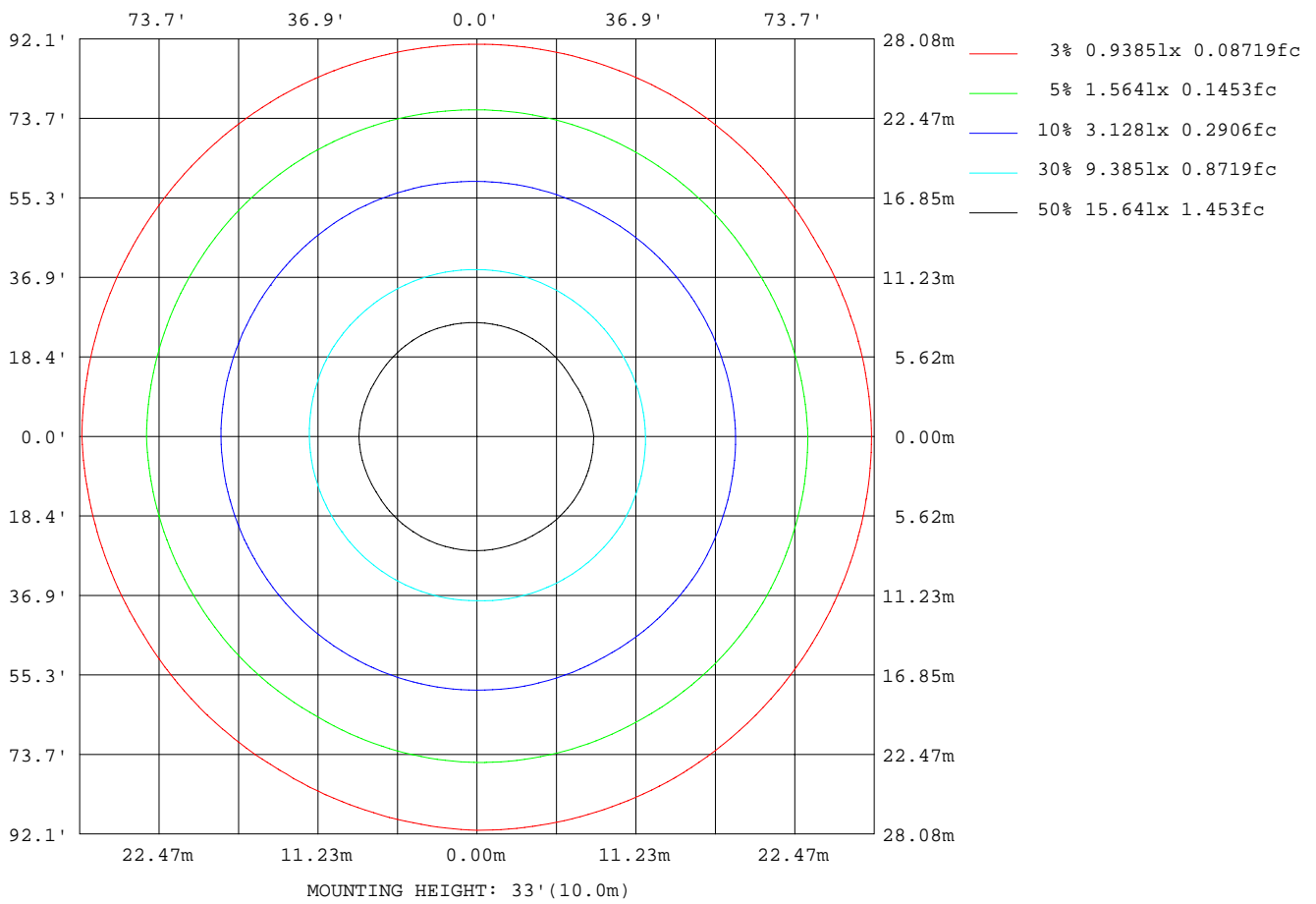
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 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:120.57V I:1.0219A P:122.94W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16456.9x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

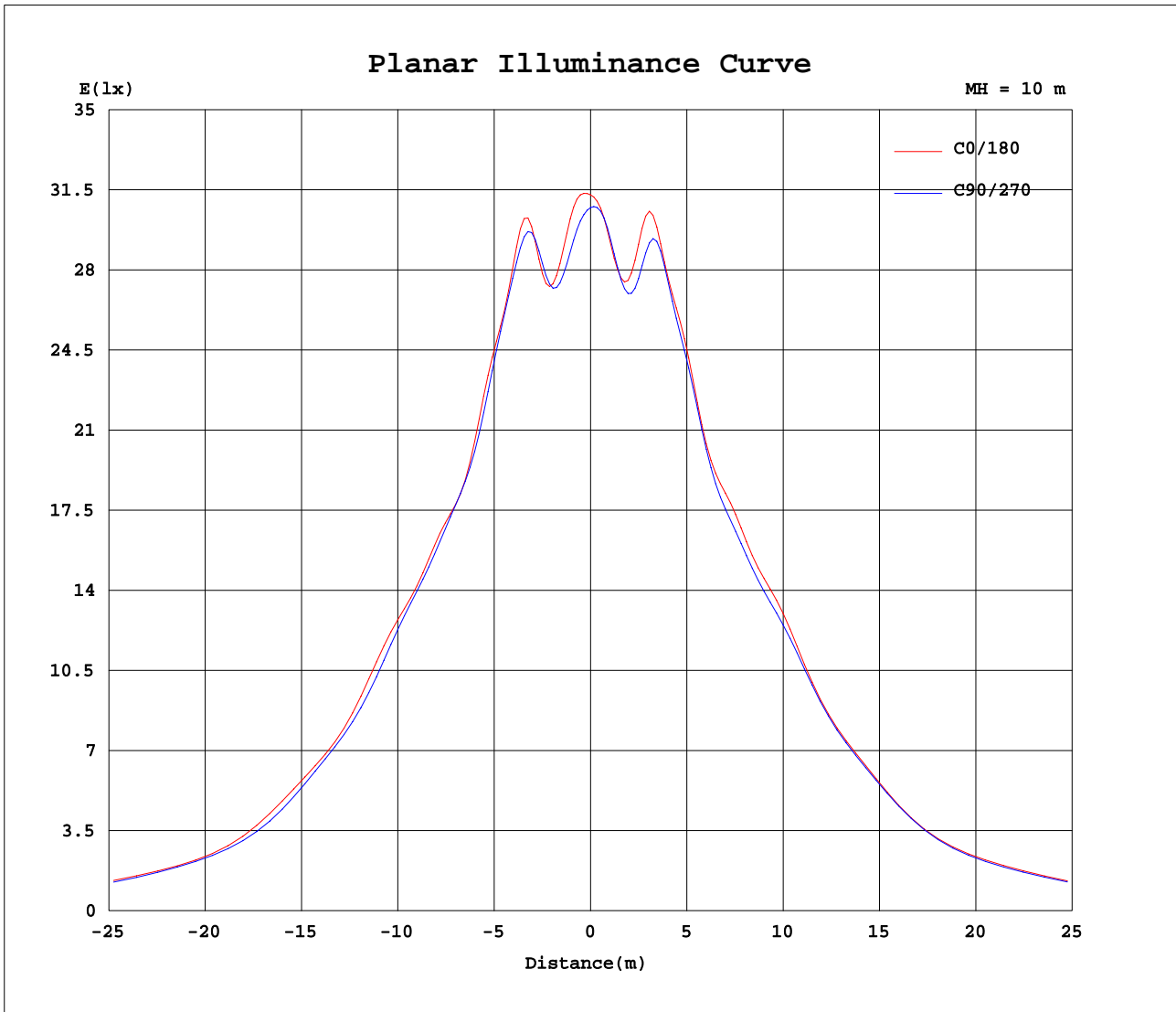
AvgL	cd/m2
L_0~180(65)av	65660
L_0~180(75)av	77806
L_0~180(85)av	88625
L_90~270(65)av	64945
L_90~270(75)av	74332
L_90~270(85)av	87771
L_45(65)av	64819
L_45(75)av	77168
L_45(85)av	85494

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

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: