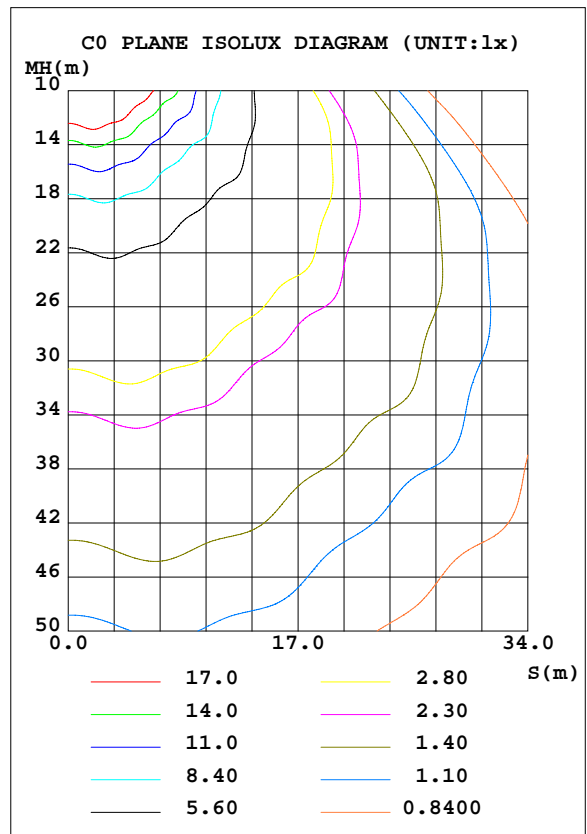
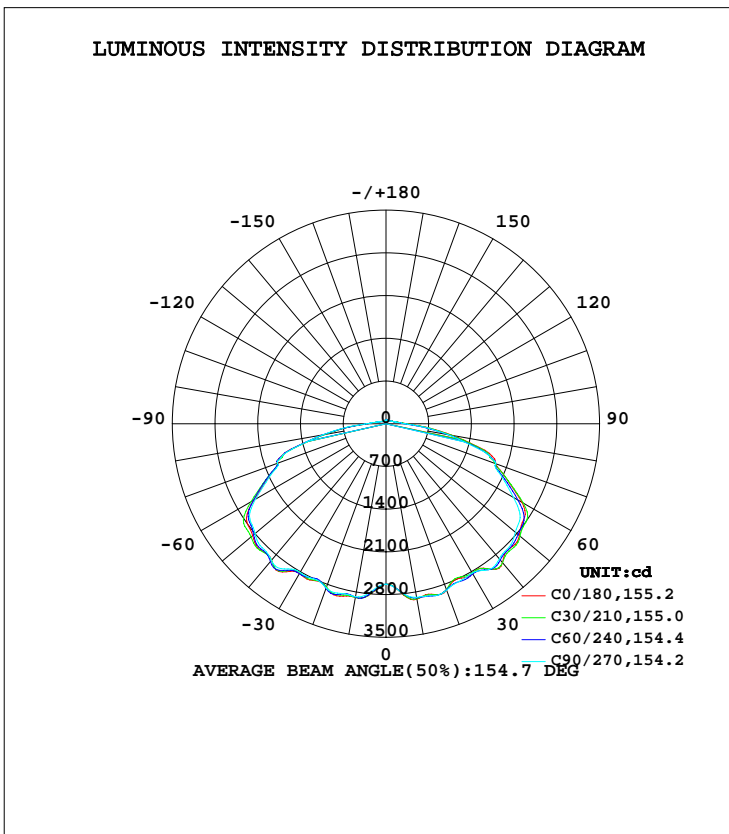


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 144.39 lm/W			
MODEL TS-GCP1312-120W-G-TCP		Imax(cd)	3007	S/MH(C0/180)	1.68
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.68
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	14044	$\eta$ UP, DN(C0-180)	2.6,47.5
NOMINAL FLUX(lm)	14043.8	CIE CLASS	DIRECT	$\eta$ UP, DN(C180-360)	2.4,47.6
LAMPS INSIDE	1	$\eta$ up(%)	4.9	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	120	$\eta$ down(%)	95.1	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

$\gamma$  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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

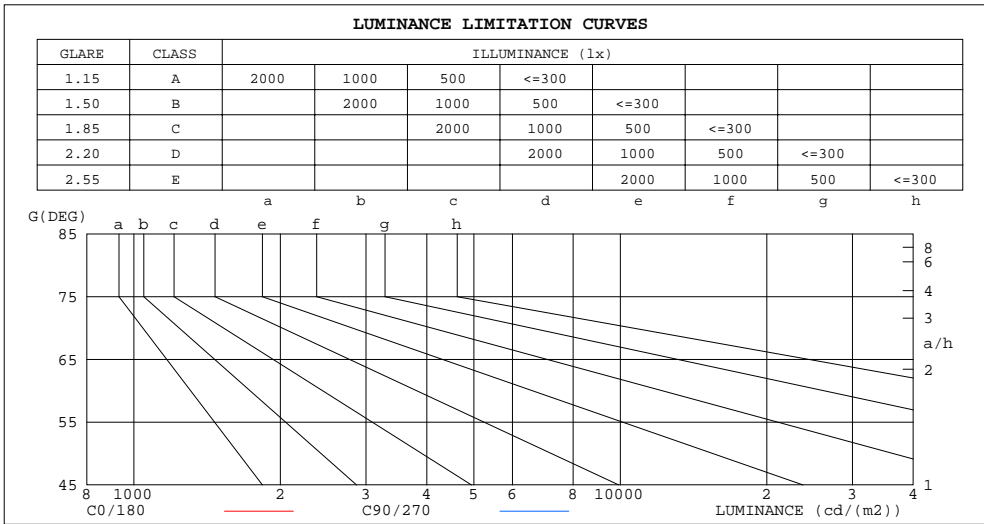
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	2919	2906	2888	2901	2889	2889	2879	2875	0- 10	269.3	269.3	1.92,1.92
20	2904	2893	2902	2885	2852	2862	2864	2874	10- 20	822.7	1092	7.78,7.78
30	2834	2832	2827	2827	2833	2827	2813	2839	20- 30	1311	2403	17.1,17.1
40	2970	2941	2889	2916	2917	2934	2921	2905	30- 40	1826	4229	30.1,30.1
50	2852	2846	2766	2796	2852	2858	2800	2816	40- 50	2228	6456	46,46
60	2571	2546	2411	2444	2497	2532	2467	2508	50- 60	2436	8893	63.3,63.3
70	1914	1909	1919	1855	1881	1895	1891	1916	60- 70	2141	11034	78.6,78.6
80	1106	1057	1035	1024	1030	1035	1050	1070	70- 80	1630	12664	90.2,90.2
90	345.3	316.2	313.2	325.1	306.5	304.7	324.0	310.0	80- 90	688.1	13352	95.1,95.1
100	172.1	169.1	169.2	171.8	154.1	156.4	159.6	158.7	90-100	249.1	13601	96.8,96.8
110	117.0	116.8	115.3	116.7	103.6	102.4	104.8	105.7	100-110	140.5	13741	97.8,97.8
120	95.81	92.06	90.69	85.17	79.50	72.72	81.76	82.33	110-120	96.49	13838	98.5,98.5
130	76.58	73.04	71.98	67.49	60.88	59.79	64.20	65.15	120-130	66.78	13905	99,99
140	67.10	65.60	64.94	61.19	56.67	56.02	59.55	59.35	130-140	49.47	13954	99.4,99.4
150	64.22	63.83	62.95	61.95	56.67	57.75	58.98	58.76	140-150	37.99	13992	99.6,99.6
160	63.42	64.53	62.45	63.31	59.98	59.09	58.57	59.14	150-160	28.12	14020	99.8,99.8
170	62.18	63.78	63.22	62.96	61.23	61.32	61.85	61.05	160-170	17.54	14038	100,100
180	62.45	62.64	62.07	62.34	62.33	62.63	62.03	62.28	170-180	5.937	14044	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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 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	80761	75499
80	68485	64268
75	69679	64641
70	60189	60495
65	55948	53862
60	55296	52009
55	51594	50455
50	47723	46400
45	43785	43562

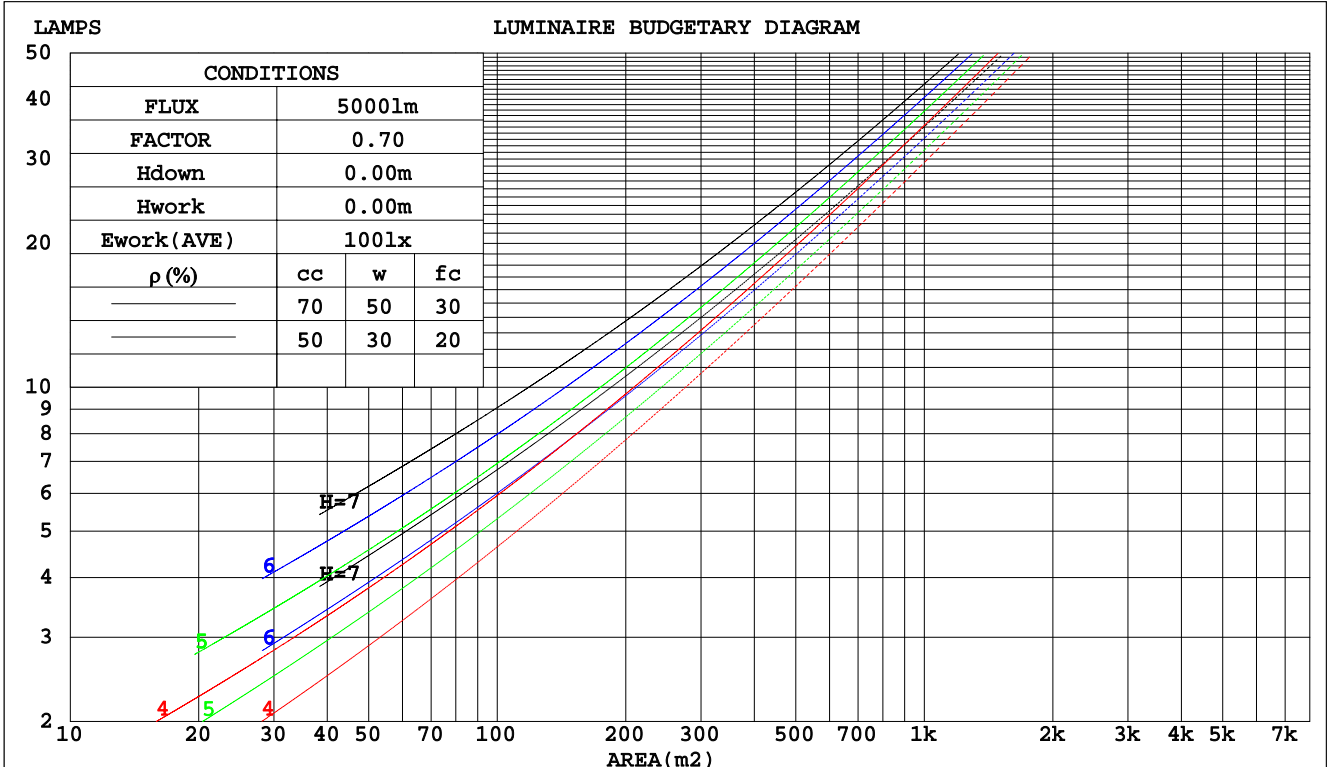
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 15 April 2024

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 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	.91	.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	.58
3.0	.72	.63	.55	.70	.62	.55	.66	.59	.53	.63	.57	.51	.60	.54	.50	.47
4.0	.63	.53	.45	.61	.52	.45	.58	.50	.44	.55	.48	.42	.52	.46	.41	.39
5.0	.55	.45	.38	.54	.45	.38	.51	.43	.37	.49	.41	.36	.46	.40	.35	.33
6.0	.49	.40	.33	.48	.39	.32	.46	.38	.31	.43	.36	.31	.41	.35	.30	.28
7.0	.44	.35	.28	.43	.34	.28	.41	.33	.27	.39	.32	.27	.37	.31	.26	.24
8.0	.40	.31	.25	.39	.30	.24	.37	.30	.24	.36	.29	.23	.34	.28	.23	.21
9.0	.37	.28	.22	.36	.27	.22	.34	.27	.21	.33	.26	.21	.31	.25	.20	.18
10.0	.34	.25	.20	.33	.25	.19	.31	.24	.19	.30	.23	.19	.29	.23	.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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 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	.068	.371	.212	.067	.354	.203	.065	.339	.196	.063	.325	.189	.061	
2.0	.342	.187	.057	.334	.184	.057	.319	.177	.055	.306	.171	.054	.293	.166	.052	
3.0	.308	.164	.049	.301	.161	.048	.288	.156	.047	.275	.151	.046	.264	.146	.045	
4.0	.279	.145	.043	.272	.143	.042	.261	.138	.041	.250	.134	.040	.239	.130	.040	
5.0	.254	.129	.037	.248	.127	.037	.238	.124	.036	.228	.120	.036	.218	.117	.035	
6.0	.233	.117	.033	.228	.115	.033	.218	.112	.033	.209	.109	.032	.201	.106	.031	
7.0	.214	.106	.030	.210	.105	.030	.201	.102	.029	.193	.099	.029	.186	.096	.028	
8.0	.199	.097	.027	.195	.096	.027	.187	.093	.027	.180	.091	.026	.173	.089	.026	
9.0	.185	.089	.025	.181	.088	.025	.174	.086	.024	.168	.084	.024	.161	.082	.024	
10.0	.173	.083	.023	.170	.082	.023	.163	.080	.023	.157	.078	.022	.151	.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	.228	.228	.228	.195	.195	.195	.133	.133	.133	.076	.076	.076	.024	.024	.024	
1.0	.223	.193	.167	.191	.166	.143	.131	.114	.099	.075	.066	.058	.024	.021	.019	
2.0	.217	.170	.130	.186	.146	.112	.127	.101	.078	.073	.059	.046	.024	.019	.015	
3.0	.210	.153	.107	.180	.132	.093	.124	.092	.065	.071	.053	.038	.023	.017	.013	
4.0	.203	.140	.092	.174	.121	.080	.120	.084	.057	.069	.049	.033	.022	.016	.011	
5.0	.195	.130	.082	.167	.113	.072	.115	.079	.051	.067	.046	.030	.022	.015	.010	
6.0	.187	.122	.075	.161	.106	.065	.111	.074	.046	.064	.044	.028	.021	.014	.009	
7.0	.180	.115	.070	.155	.100	.061	.107	.070	.043	.062	.041	.026	.020	.014	.008	
8.0	.173	.110	.066	.149	.095	.057	.103	.067	.041	.060	.039	.024	.019	.013	.008	
9.0	.167	.105	.063	.144	.091	.055	.099	.064	.039	.058	.038	.023	.019	.012	.008	
10.0	.161	.100	.060	.138	.087	.053	.096	.061	.037	.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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0%						Lamp Flux:14043.8x1 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	26.3	28.0	26.8	28.4	28.9	25.9	27.6	26.3	28.0	28.4
3H	28.6	30.1	29.0	30.6	31.0	28.3	29.8	28.7	30.2	30.7
4H	29.8	31.3	30.3	31.7	32.2	29.5	30.9	29.9	31.4	31.9
6H	30.8	32.1	31.2	32.6	33.1	30.4	31.7	30.8	32.2	32.7
8H	31.1	32.4	31.6	32.9	33.4	30.7	32.0	31.2	32.5	33.0
12H	31.4	32.7	31.9	33.2	33.7	31.0	32.3	31.5	32.8	33.3
4H 2H	27.0	28.5	27.5	29.0	29.4	26.7	28.1	27.1	28.6	29.1
3H	29.6	30.9	30.1	31.4	31.9	29.3	30.6	29.8	31.1	31.6
4H	31.0	32.2	31.5	32.7	33.2	30.7	31.8	31.2	32.3	32.9
6H	32.1	33.1	32.6	33.7	34.2	31.7	32.7	32.2	33.3	33.8
8H	32.5	33.5	33.1	34.0	34.6	32.1	33.1	32.7	33.6	34.2
12H	32.9	33.8	33.5	34.4	35.0	32.5	33.4	33.1	34.0	34.6
8H 4H	31.5	32.5	32.1	33.0	33.6	31.2	32.1	31.7	32.7	33.2
6H	32.8	33.6	33.3	34.1	34.7	32.4	33.2	32.9	33.8	34.3
8H	33.3	34.0	33.9	34.6	35.2	32.9	33.7	33.5	34.2	34.8
12H	33.9	34.5	34.4	35.1	35.7	33.5	34.1	34.1	34.7	35.4
12H 4H	31.6	32.5	32.2	33.0	33.6	31.3	32.1	31.8	32.7	33.3
6H	32.9	33.6	33.5	34.2	34.8	32.5	33.3	33.1	33.8	34.4
8H	33.5	34.2	34.1	34.7	35.4	33.1	33.8	33.7	34.4	35.0
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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:14043.8x1 lm
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:	
MFR.:	SUR.:	Shielding Angle:	

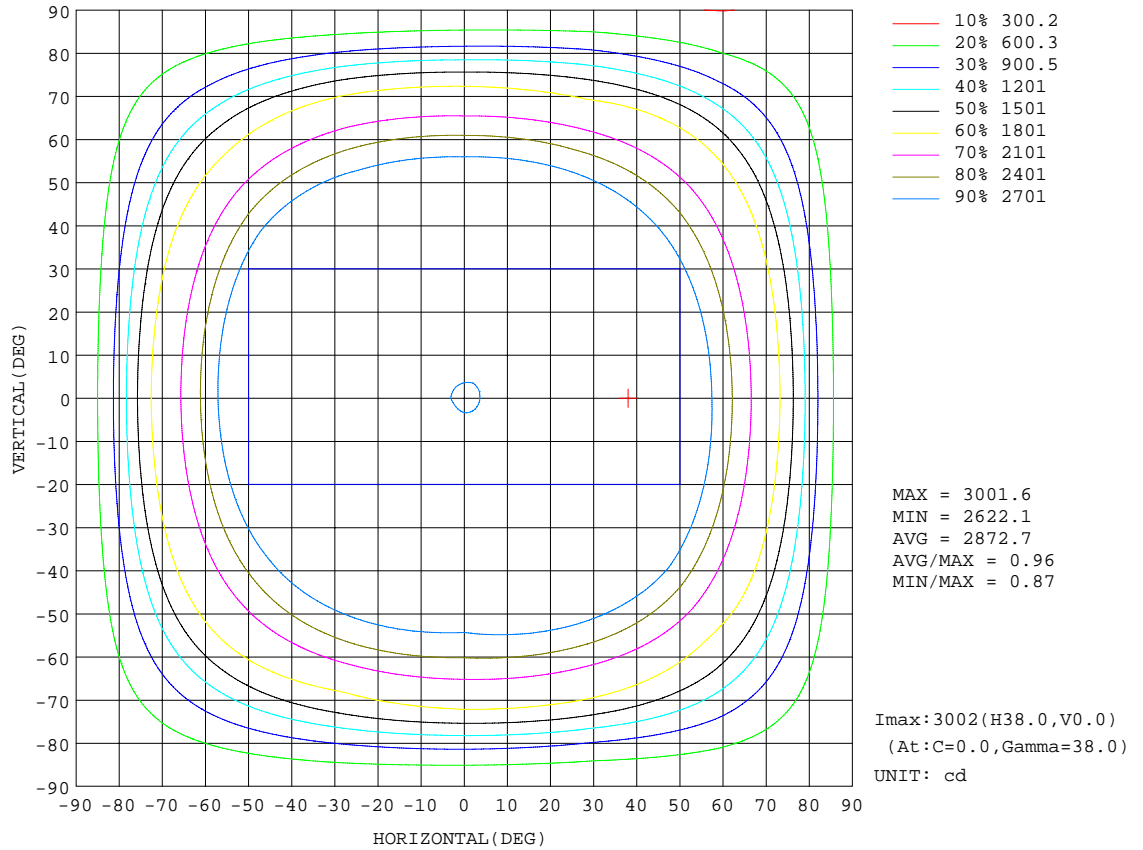
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	49	36	29	48	36	28	47	35	28	21
0.80	59	46	37	58	45	37	55	44	37	29
1.00	67	54	46	66	54	45	63	55	45	36
1.25	75	62	54	73	61	53	70	59	52	43
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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 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

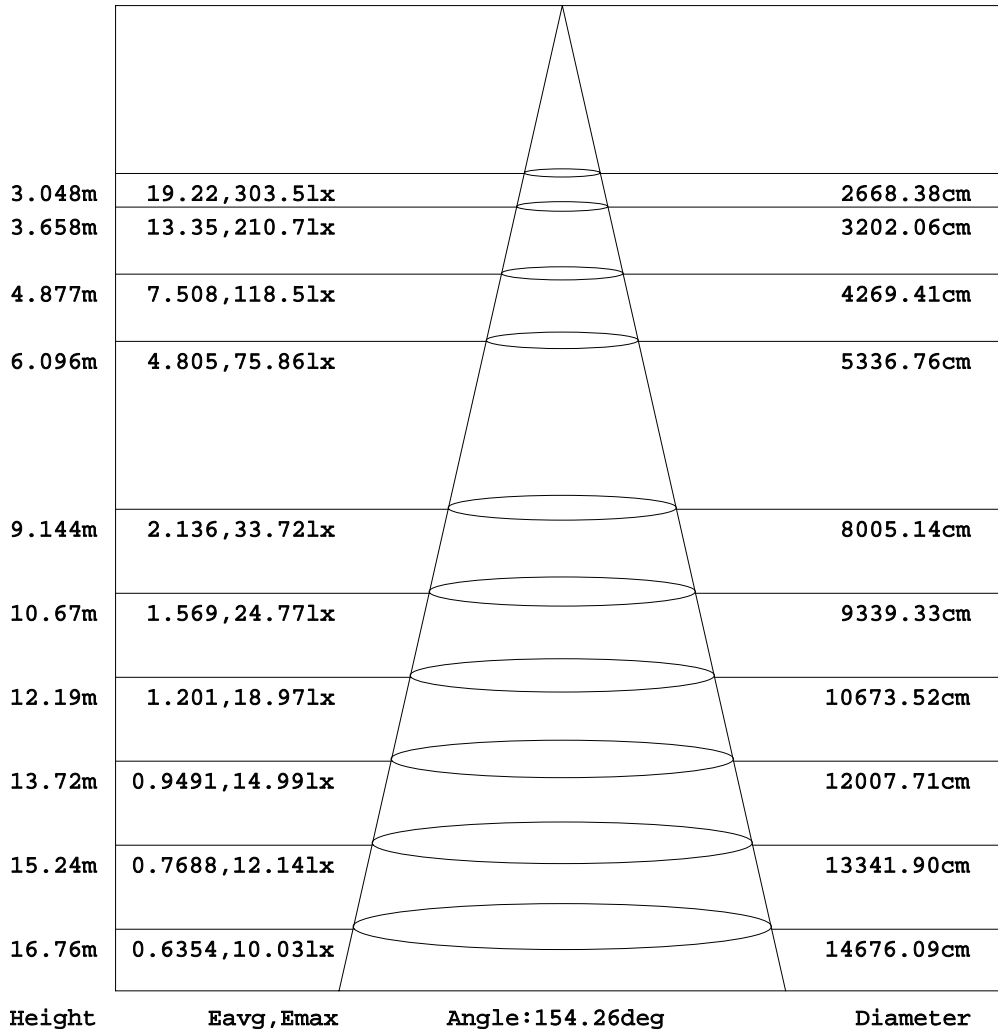
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:12416 lm



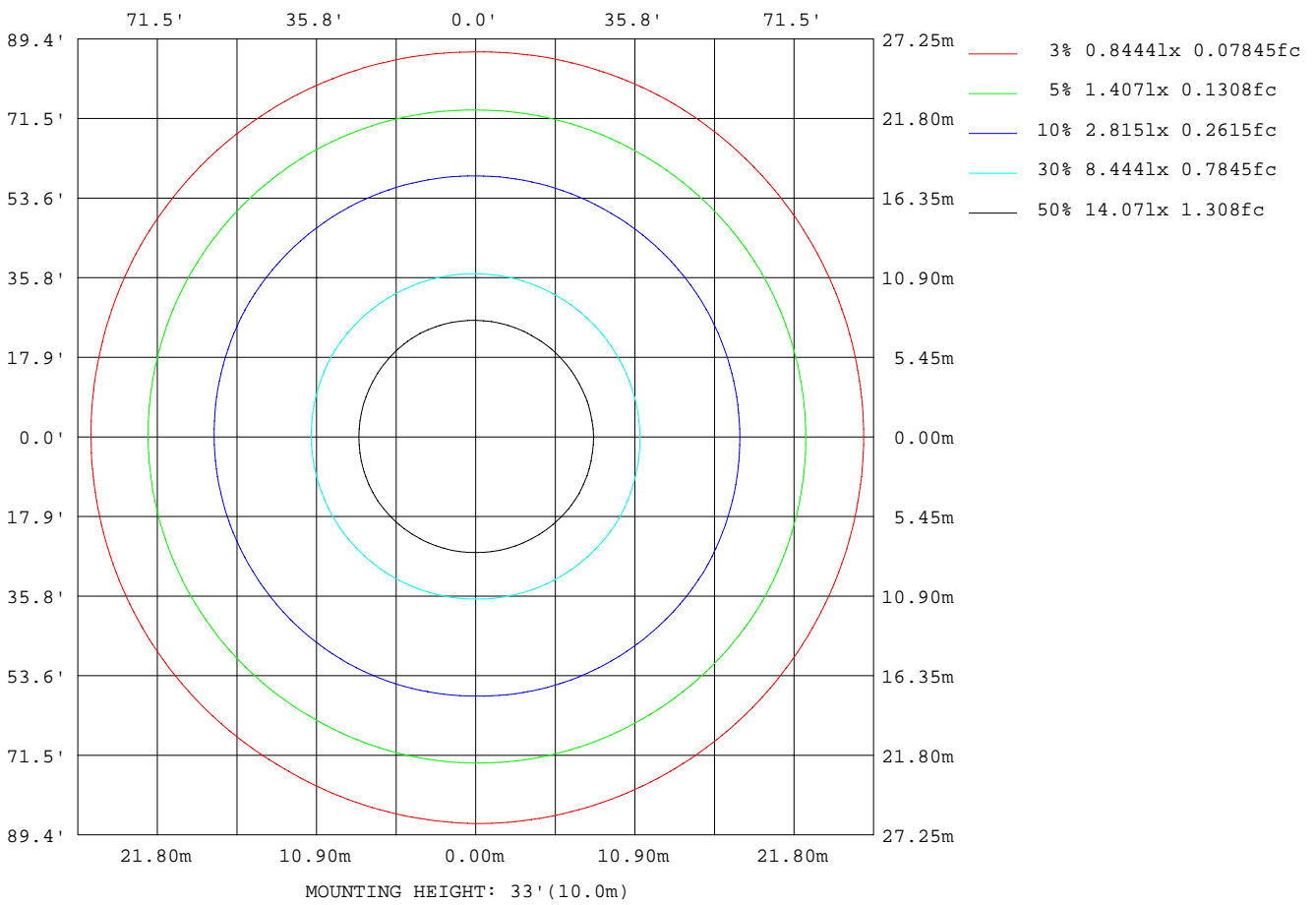
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 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:120.63V I:0.8089A P:97.261W PF:0.9967 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:14043.8x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

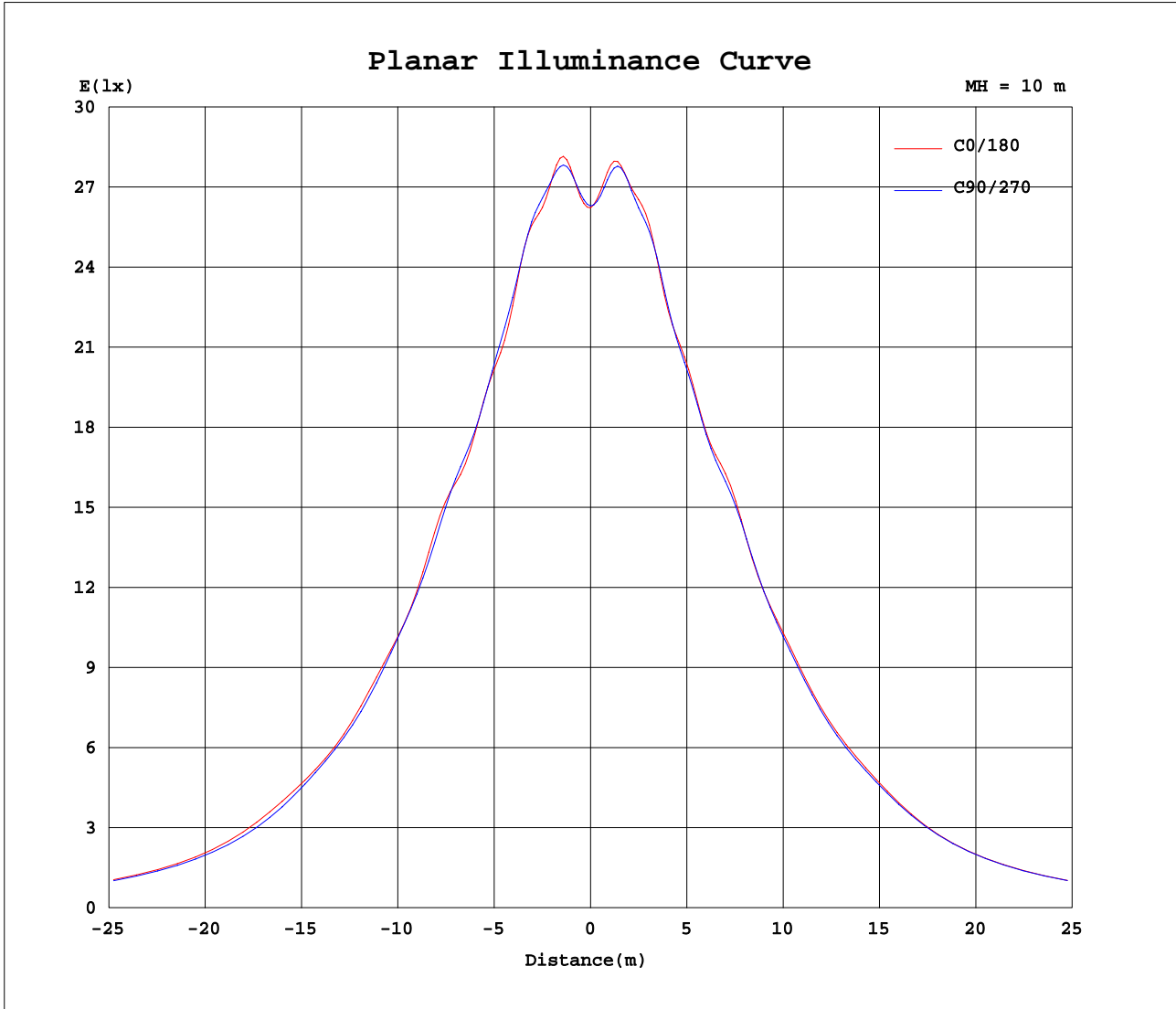
AvgL	cd/m2
L_0~180(65)av	55409
L_0~180(75)av	68659
L_0~180(85)av	77665
L_90~270(65)av	54027
L_90~270(75)av	65292
L_90~270(85)av	76759
L_45(65)av	54953
L_45(75)av	66104
L_45(85)av	75671

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: