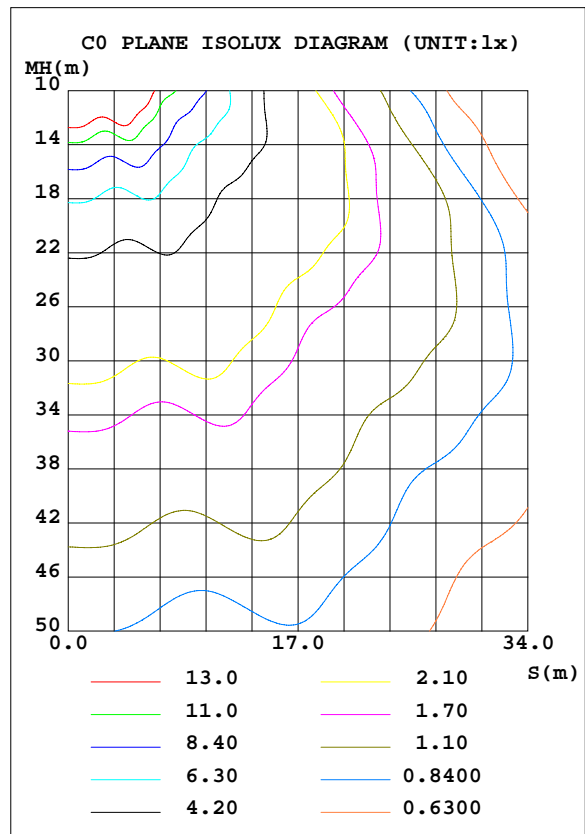
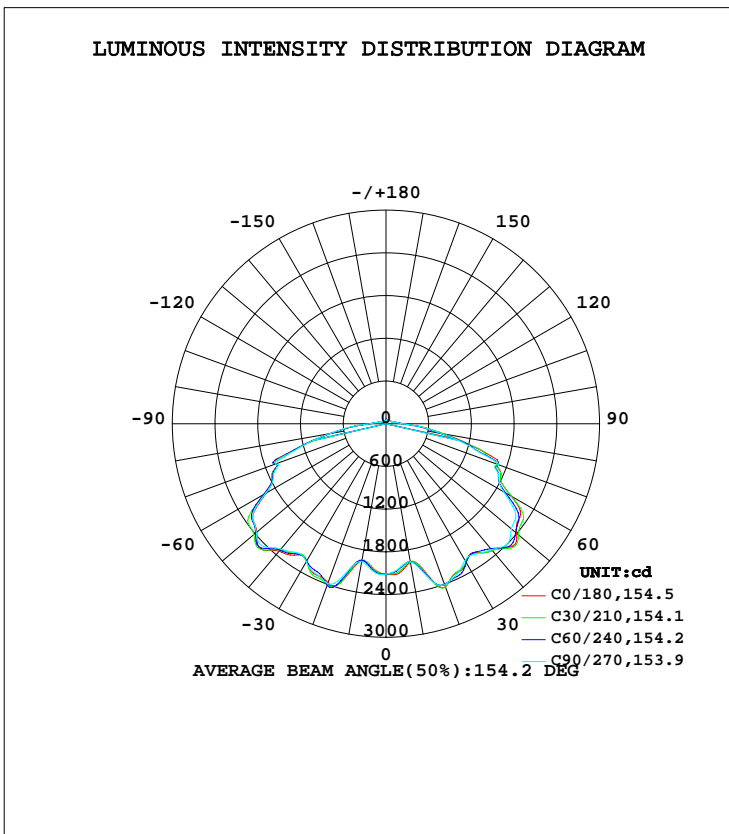


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 142.16 lm/W			
MODEL TS-GCP1312-120W-G-TCP		Imax(cd)	2505	S/MH(C0/180)	1.67
NOMINAL POWER(W)	80	LOR(%)	100.0	S/MH(C90/270)	1.64
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	11301	$\eta$ UP, DN(C0-180)	2.4,47.6
NOMINAL FLUX(lm)	11301.1	CIE CLASS	DIRECT	$\eta$ UP, DN(C180-360)	2.3,47.7
LAMPS INSIDE	1	$\eta$ up(%)	4.7	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	120	$\eta$ 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

$\gamma$  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:

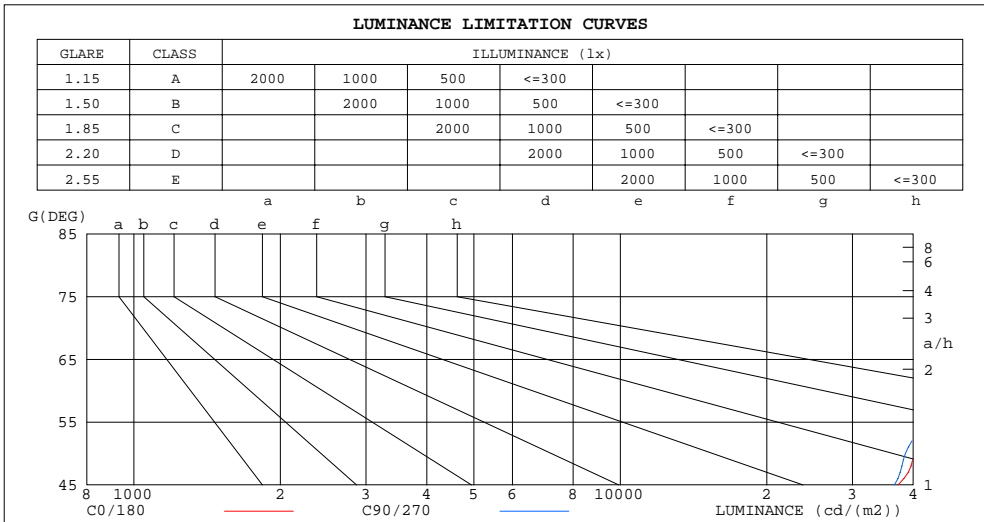
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	1977	1966	1971	1989	1956	1944	1969	1980	0- 10	193.3	193.3	1.71,1.71
20	2440	2423	2405	2426	2378	2412	2391	2354	10- 20	631.7	825.0	7.3,7.3
30	2250	2251	2218	2202	2223	2228	2239	2298	20- 30	1076	1901	16.8,16.8
40	2324	2308	2307	2330	2337	2315	2297	2269	30- 40	1408	3309	29.3,29.3
50	2396	2403	2298	2348	2368	2407	2377	2383	40- 50	1861	5171	45.8,45.8
60	2029	1987	1905	1928	1936	1973	1949	1967	50- 60	2007	7178	63.5,63.5
70	1661	1666	1680	1613	1638	1646	1646	1660	60- 70	1743	8921	78.9,78.9
80	828.2	798.9	790.5	786.3	786.1	790.3	798.4	817.0	70- 80	1323	10243	90.6,90.6
90	247.5	234.5	230.4	241.7	225.0	226.0	233.6	231.1	80- 90	526.7	10770	95.3,95.3
100	131.5	129.0	128.9	130.1	118.8	120.0	122.3	121.5	90-100	187.8	10958	97,97
110	91.61	90.30	88.29	89.04	81.01	79.90	81.26	81.84	100-110	108.0	11066	97.9,97.9
120	75.10	71.19	68.95	64.78	62.37	57.07	63.28	63.96	110-120	74.61	11140	98.6,98.6
130	60.57	56.76	55.28	51.72	48.10	46.66	50.45	50.82	120-130	51.70	11192	99,99
140	53.36	51.32	50.47	47.34	45.18	43.32	47.40	46.96	130-140	38.51	11230	99.4,99.4
150	51.22	50.20	49.65	48.47	45.31	44.43	47.04	46.59	140-150	29.88	11260	99.6,99.6
160	50.78	50.84	49.49	50.02	47.76	44.96	46.42	47.06	150-160	22.16	11283	99.8,99.8
170	49.62	50.51	50.37	49.99	48.91	47.58	49.35	48.72	160-170	13.83	11296	100,100
180	50.13	50.34	49.99	50.09	50.05	63.08	49.95	50.03	170-180	4.719	11301	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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:11301.1x1 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	61916	59584
80	51251	49077
75	54325	50612
70	52176	52958
65	45119	44566
60	43616	41068
55	42971	41863
50	40050	38543
45	37231	36603

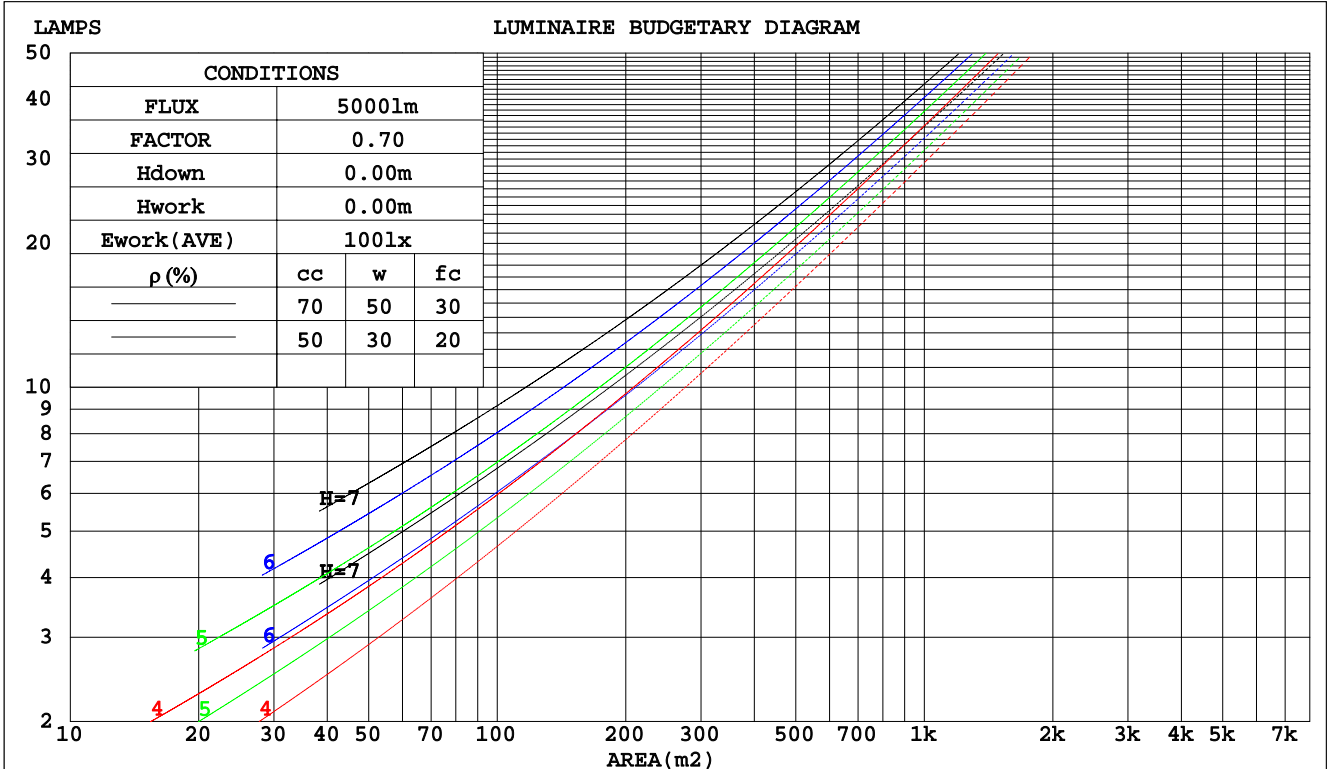
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:15 April 2024

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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 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	.84	.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	.57	.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	.28	.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	.21	.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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 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	.370	.211	.067	.354	.203	.065	.339	.196	.063	.325	.189	.061	
2.0	.342	.188	.058	.335	.184	.057	.320	.178	.055	.306	.172	.054	.294	.166	.052	
3.0	.309	.164	.049	.302	.162	.049	.289	.157	.048	.277	.152	.046	.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	.115	.033	.219	.112	.033	.210	.109	.032	.202	.106	.032	
7.0	.215	.106	.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	.226	.226	.226	.193	.193	.193	.132	.132	.132	.076	.076	.076	.024	.024	.024	
1.0	.221	.192	.165	.189	.164	.142	.129	.113	.098	.075	.065	.057	.024	.021	.018	
2.0	.215	.168	.128	.184	.145	.111	.126	.100	.077	.073	.058	.045	.023	.019	.015	
3.0	.209	.151	.105	.179	.130	.091	.123	.091	.064	.071	.053	.038	.023	.017	.012	
4.0	.201	.138	.090	.173	.120	.079	.119	.083	.055	.069	.049	.033	.022	.016	.011	
5.0	.193	.128	.080	.166	.111	.070	.114	.078	.049	.066	.046	.029	.021	.015	.010	
6.0	.186	.120	.073	.160	.104	.064	.110	.073	.045	.064	.043	.027	.021	.014	.009	
7.0	.179	.114	.068	.154	.098	.059	.106	.069	.042	.062	.041	.025	.020	.013	.008	
8.0	.172	.108	.064	.148	.094	.056	.102	.066	.040	.060	.039	.024	.019	.013	.008	
9.0	.165	.103	.061	.142	.089	.053	.099	.063	.038	.057	.037	.023	.019	.012	.007	
10.0	.159	.099	.059	.137	.086	.051	.095	.060	.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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0%						Lamp Flux:11301.1x1 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	25.7	27.4	26.1	27.8	28.2	25.2	26.9	25.6	27.3	27.7
3H	28.1	29.7	28.6	30.1	30.6	27.7	29.3	28.2	29.7	30.2
4H	29.3	30.8	29.8	31.2	31.7	28.8	30.3	29.3	30.7	31.2
6H	30.1	31.5	30.6	31.9	32.4	29.6	31.0	30.1	31.5	32.0
8H	30.4	31.7	30.9	32.2	32.7	30.0	31.3	30.5	31.8	32.3
12H	30.7	32.0	31.2	32.4	33.0	30.3	31.5	30.8	32.0	32.6
4H 2H	26.4	27.9	26.9	28.3	28.8	26.0	27.5	26.4	27.9	28.4
3H	29.2	30.4	29.7	30.9	31.4	28.8	30.1	29.3	30.6	31.1
4H	30.5	31.7	31.0	32.2	32.7	30.1	31.2	30.6	31.7	32.3
6H	31.4	32.5	31.9	33.0	33.5	31.0	32.0	31.5	32.5	33.1
8H	31.8	32.8	32.3	33.3	33.9	31.4	32.4	31.9	32.9	33.4
12H	32.2	33.0	32.7	33.6	34.2	31.8	32.7	32.3	33.2	33.8
8H 4H	31.0	31.9	31.5	32.4	33.0	30.5	31.5	31.1	32.0	32.6
6H	32.0	32.9	32.6	33.4	34.0	31.6	32.5	32.2	33.0	33.6
8H	32.5	33.3	33.1	33.8	34.4	32.1	32.9	32.7	33.5	34.0
12H	33.0	33.7	33.6	34.2	34.9	32.7	33.3	33.2	33.9	34.5
12H 4H	31.0	31.9	31.6	32.4	33.0	30.6	31.5	31.2	32.0	32.6
6H	32.2	32.9	32.7	33.4	34.1	31.8	32.5	32.4	33.0	33.7
8H	32.7	33.4	33.3	33.9	34.6	32.4	33.0	32.9	33.6	34.2
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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:11301.1x1 lm
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:	
MFR.:	SUR.:	Shielding Angle:	

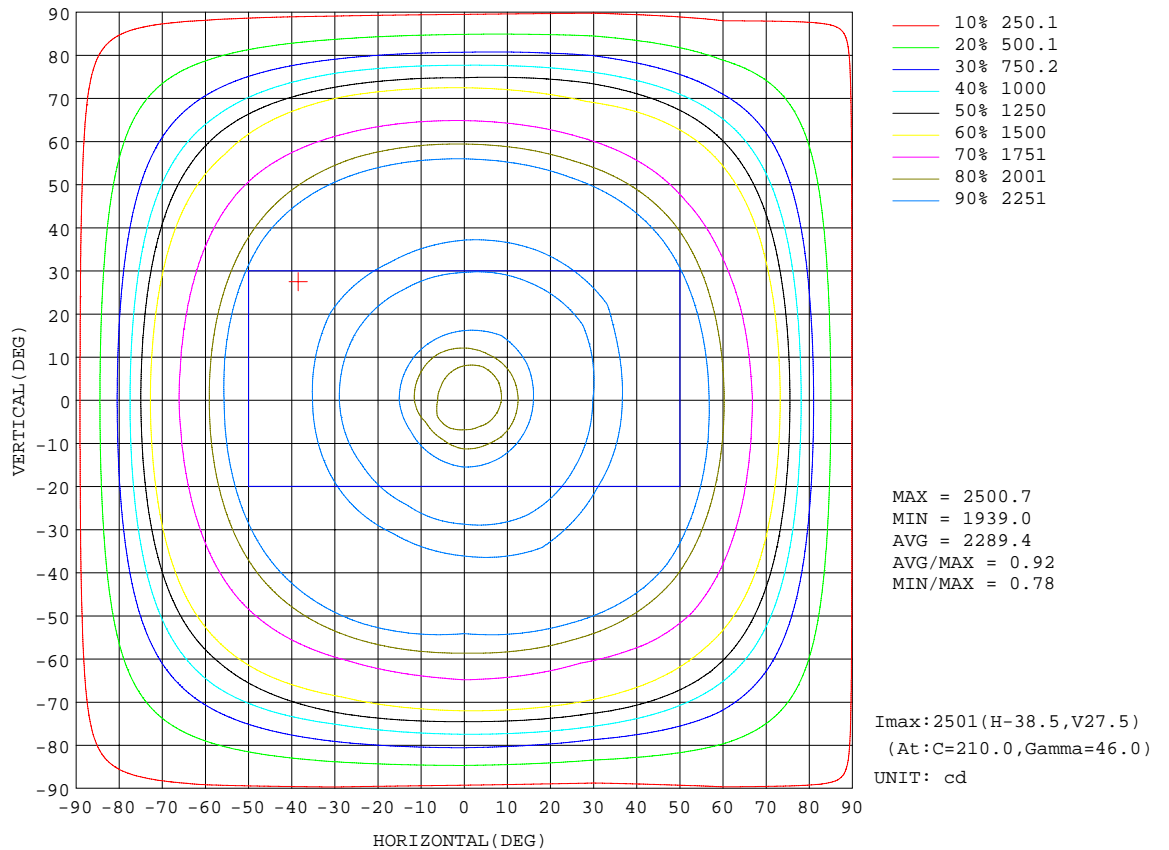
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	49	36	28	48	35	28	46	35	27	20
0.80	58	45	37	57	45	36	55	44	36	28
1.00	67	54	45	66	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	58	48
2.00	88	77	69	86	76	68	81	73	66	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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 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

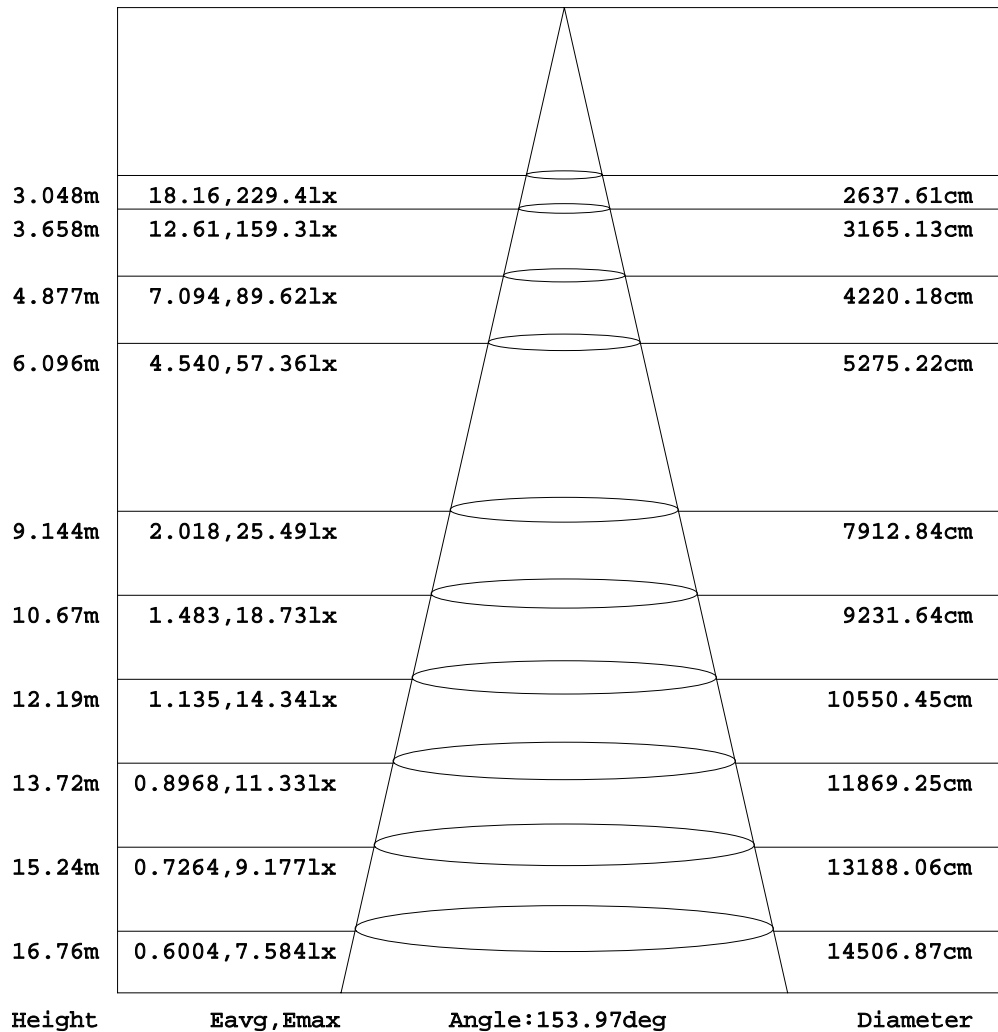
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.426  
 Humidity: 65.0%  
 Test Distance: 12.550m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:9945 lm



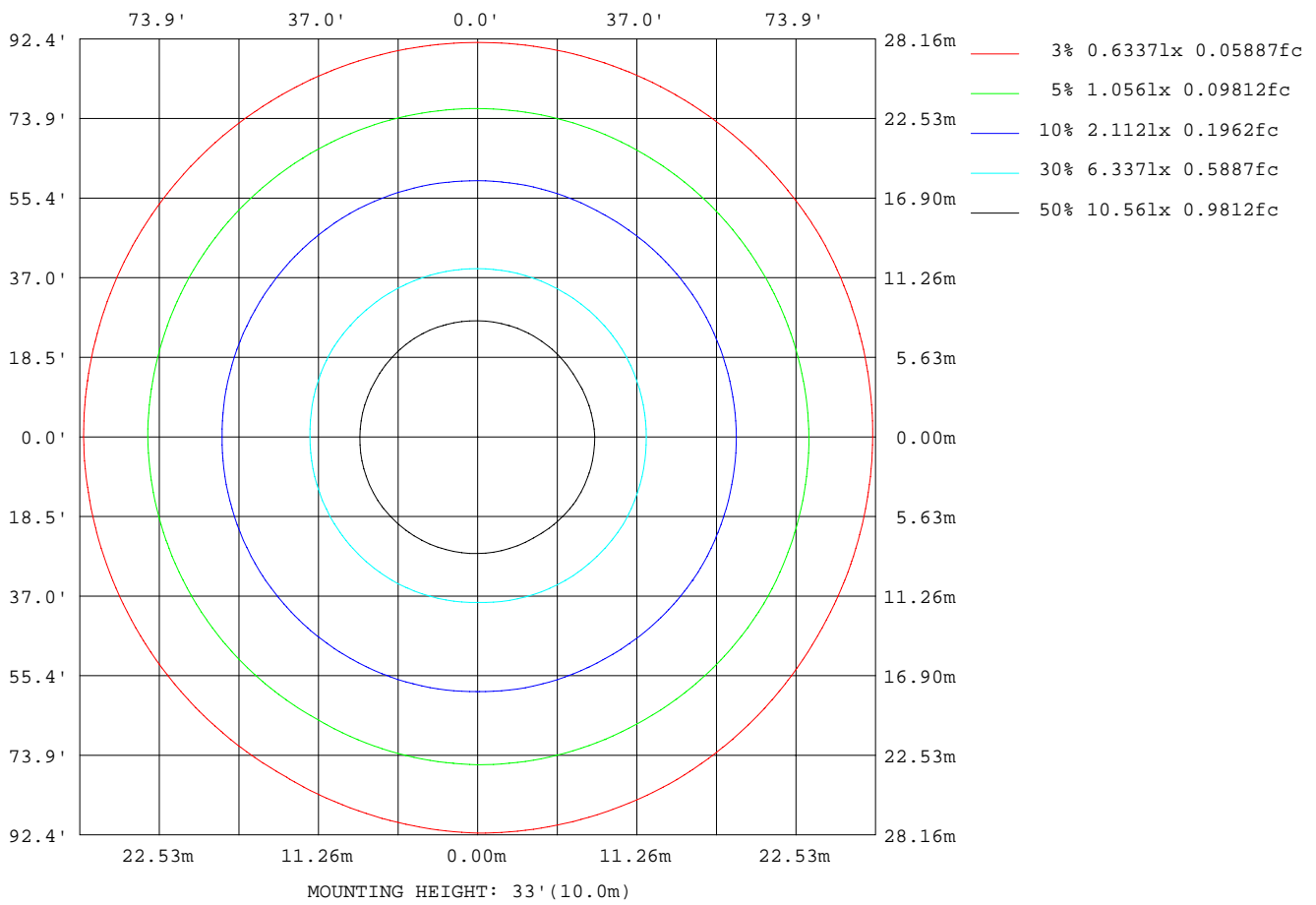
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 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:120.67V I:0.6620A P:79.496W PF:0.9952 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:11301.1x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

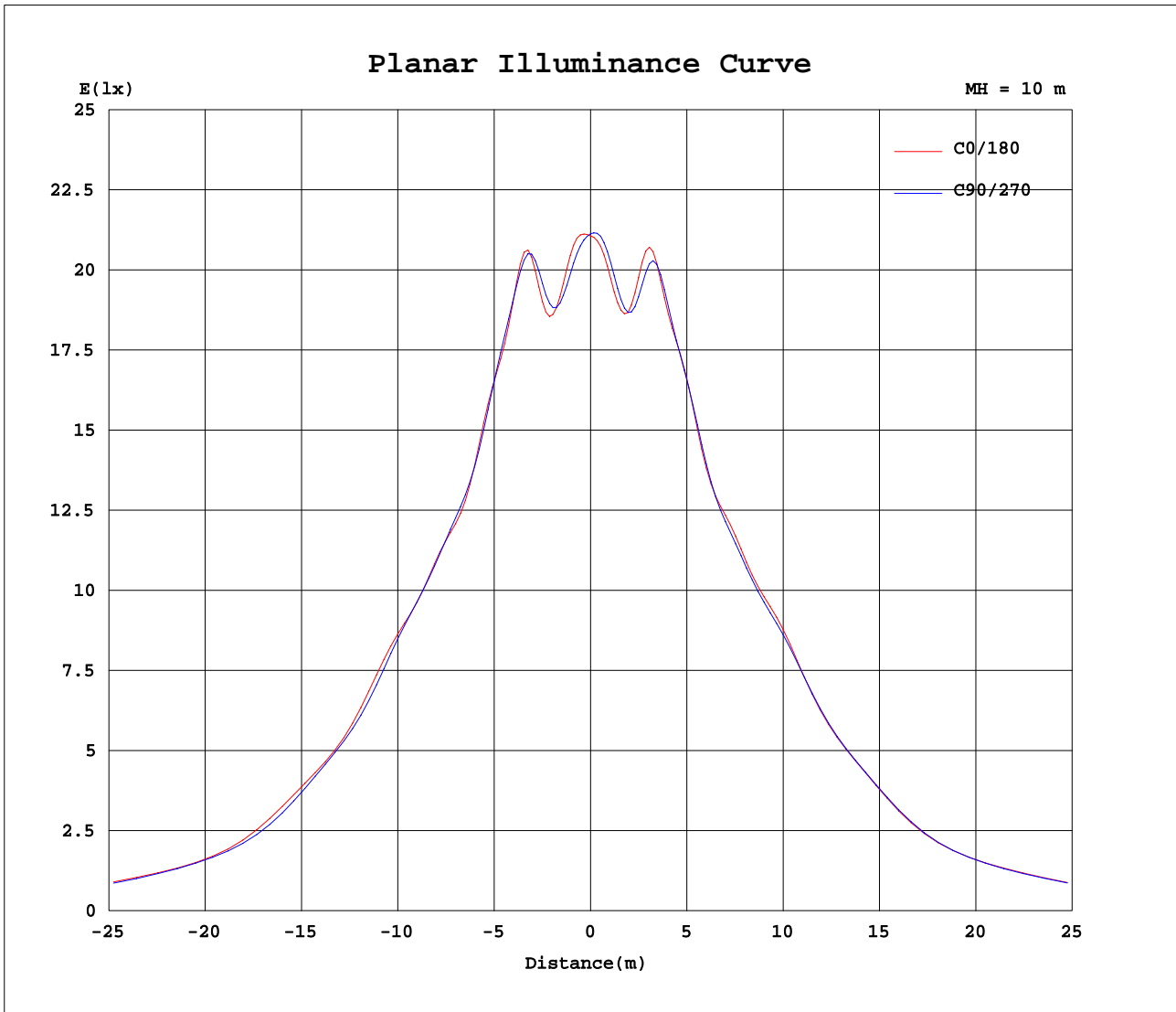
AvgL	cd/m2
L_0~180(65)av	45220
L_0~180(75)av	53311
L_0~180(85)av	60199
L_90~270(65)av	44548
L_90~270(75)av	50968
L_90~270(85)av	60115
L_45(65)av	44503
L_45(75)av	52831
L_45(85)av	58921

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: