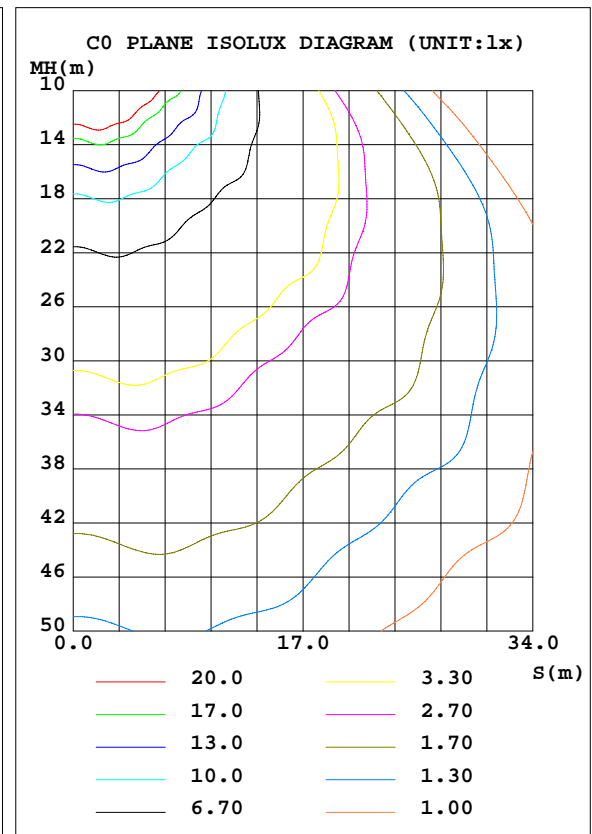
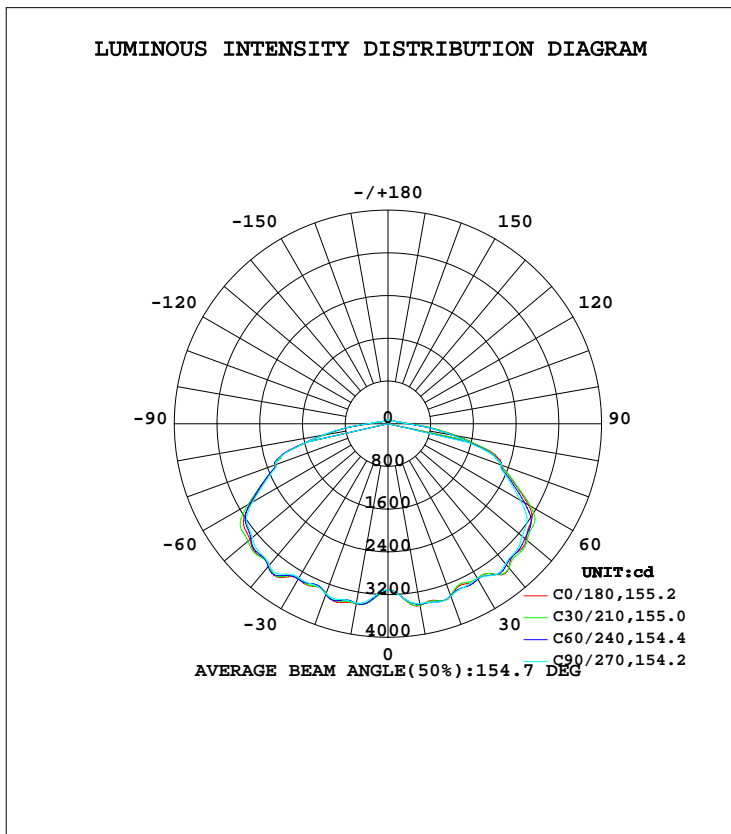


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.92 lm/W			
MODEL TS-GCP1312-120W-G-TCP		Imax(cd)	3563	S/MH(C0/180)	1.68
NOMINAL POWER(W)	120	LOR(%)	100.0	S/MH(C90/270)	1.68
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	16638	η UP, DN(C0-180)	2.6,47.5
NOMINAL FLUX(lm)	16638.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.4,47.6
LAMPS INSIDE	1	η up(%)	4.9	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	120	η 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

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:

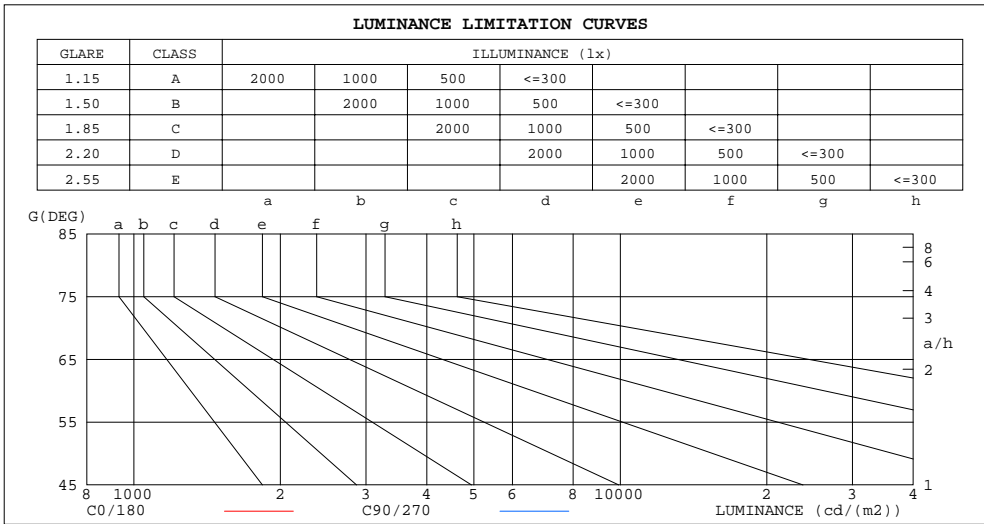
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	3456	3440	3420	3434	3421	3420	3409	3403	0- 10	318.8	318.8	1.92,1.92
20	3440	3428	3437	3418	3381	3391	3392	3404	10- 20	974.2	1293	7.77,7.77
30	3357	3355	3348	3349	3355	3350	3332	3363	20- 30	1553	2846	17.1,17.1
40	3517	3486	3423	3454	3456	3477	3462	3439	30- 40	2163	5009	30.1,30.1
50	3379	3373	3279	3312	3378	3388	3321	3334	40- 50	2639	7648	46,46
60	3041	3018	2859	2895	2958	2999	2924	2971	50- 60	2886	10534	63.3,63.3
70	2266	2263	2269	2199	2233	2246	2243	2270	60- 70	2536	13071	78.6,78.6
80	1305	1254	1227	1213	1226	1225	1244	1267	70- 80	1932	15003	90.2,90.2
90	401.5	375.6	370.7	382.1	365.3	359.7	373.7	367.0	80- 90	815.8	15818	95.1,95.1
100	203.6	200.8	200.3	203.3	182.6	185.2	188.9	188.0	90-100	295.1	16114	96.8,96.8
110	138.5	138.5	136.7	138.1	122.9	121.3	124.0	125.3	100-110	166.4	16280	97.8,97.8
120	113.4	109.0	107.6	101.0	94.53	86.25	96.80	97.47	110-120	114.4	16394	98.5,98.5
130	90.69	86.56	85.33	80.00	72.29	70.82	76.09	77.23	120-130	79.19	16473	99,99
140	79.17	77.65	77.00	72.72	67.64	66.68	70.57	70.24	130-140	58.64	16532	99.4,99.4
150	76.07	75.68	74.73	73.41	66.99	68.39	69.93	69.68	140-150	45.02	16577	99.6,99.6
160	75.10	76.45	74.09	75.09	71.16	70.16	69.48	70.14	150-160	33.33	16610	99.8,99.8
170	73.72	75.63	75.01	74.64	72.83	72.77	73.39	72.40	160-170	20.80	16631	100,100
180	74.03	74.27	73.67	73.92	73.96	74.26	73.56	73.85	170-180	7.042	16638	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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0%			Lamp Flux:16638.3x1 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	95874	89898
80	81033	76153
75	82296	76600
70	71413	71503
65	66304	63733
60	65551	61623
55	61194	59758
50	56659	54971
45	51959	51594

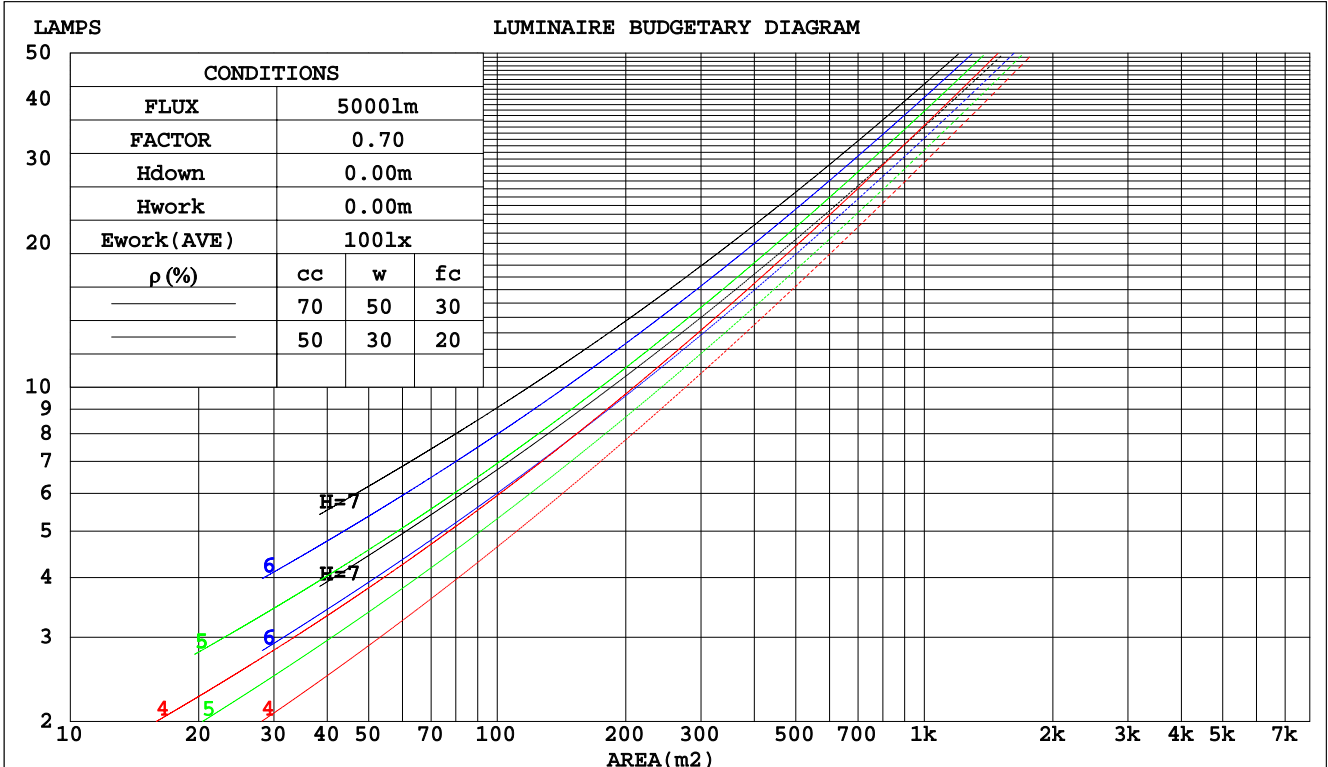
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 15 April 2024

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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 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																0
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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 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	.355	.203	.065	.339	.196	.063	.326	.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	.049	.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	.054	.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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 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	26.9	28.6	27.4	29.0	29.5	26.5	28.2	26.9	28.6	29.0
3H	29.2	30.7	29.6	31.2	31.6	28.8	30.4	29.3	30.8	31.3
4H	30.4	31.9	30.9	32.3	32.8	30.1	31.5	30.5	32.0	32.5
6H	31.4	32.7	31.8	33.2	33.7	30.9	32.3	31.4	32.8	33.3
8H	31.7	33.0	32.2	33.5	34.0	31.3	32.6	31.8	33.1	33.6
12H	32.0	33.3	32.5	33.8	34.3	31.6	32.9	32.1	33.4	33.9
4H 2H	27.7	29.1	28.1	29.6	30.0	27.2	28.7	27.7	29.2	29.6
3H	30.2	31.5	30.7	32.0	32.5	29.9	31.2	30.4	31.6	32.2
4H	31.6	32.8	32.1	33.3	33.8	31.2	32.4	31.8	32.9	33.4
6H	32.7	33.7	33.2	34.3	34.8	32.3	33.3	32.8	33.8	34.4
8H	33.1	34.1	33.7	34.6	35.2	32.7	33.7	33.2	34.2	34.8
12H	33.6	34.4	34.1	35.0	35.6	33.1	34.0	33.7	34.6	35.1
8H 4H	32.1	33.1	32.7	33.6	34.2	31.8	32.7	32.3	33.2	33.8
6H	33.4	34.2	33.9	34.8	35.3	33.0	33.8	33.5	34.3	34.9
8H	33.9	34.6	34.5	35.2	35.8	33.5	34.2	34.1	34.8	35.4
12H	34.5	35.1	35.0	35.7	36.3	34.1	34.7	34.6	35.3	35.9
12H 4H	32.2	33.1	32.8	33.6	34.2	31.8	32.7	32.4	33.3	33.8
6H	33.5	34.2	34.1	34.8	35.4	33.1	33.8	33.7	34.4	35.0
8H	34.1	34.8	34.7	35.3	36.0	33.7	34.4	34.3	34.9	35.6
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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

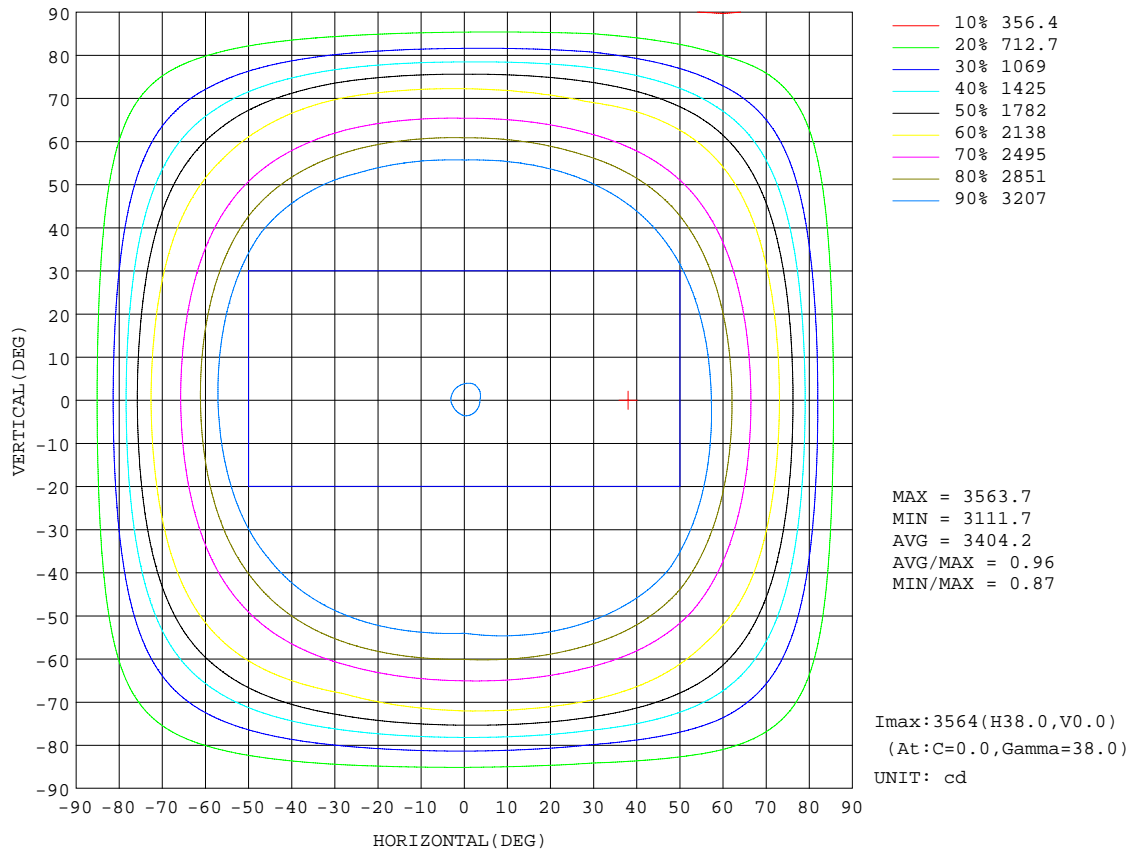
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	49	36	29	48	36	28	47	35	28	21
0.80	59	46	37	58	45	37	55	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

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:

ISOCANDELA DIAGRAM

Test:U:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



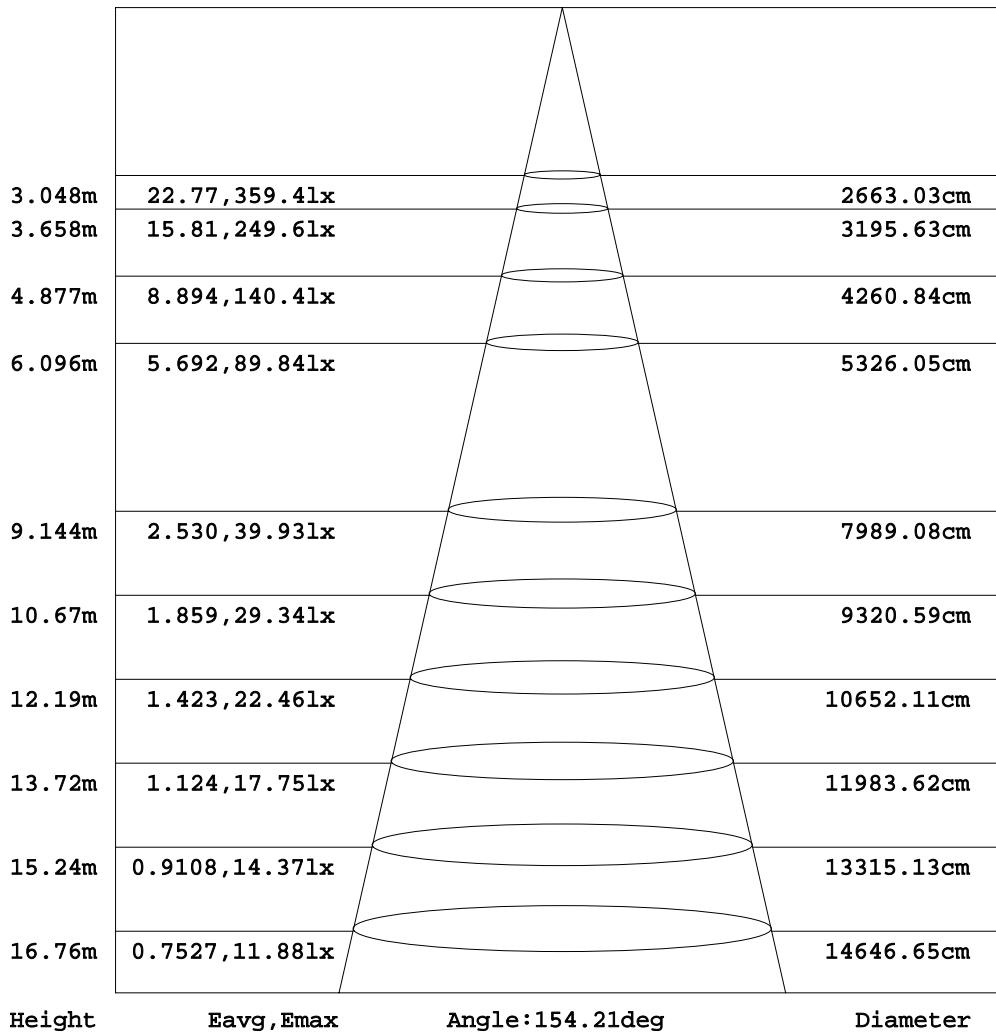
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 15 April 2024

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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:14709 lm



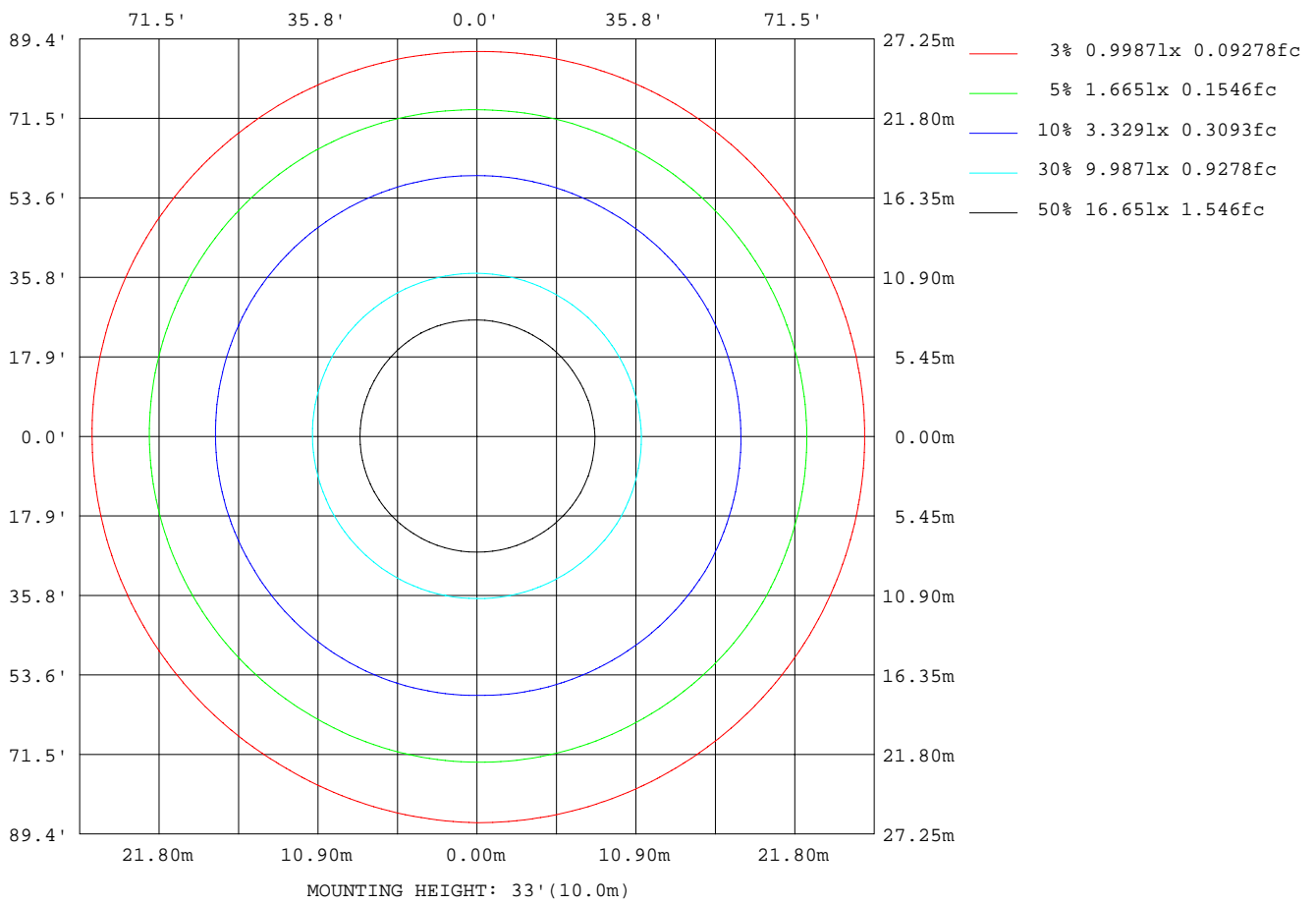
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 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:120.59V I:0.9813A P:118.07W PF:0.9978 Freq:59.98Hz UTHDi:0% ITHDi:0% Lamp Flux:16638.3x1 lm		
NAME: TS-GCP1312-120W-G-TCP	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

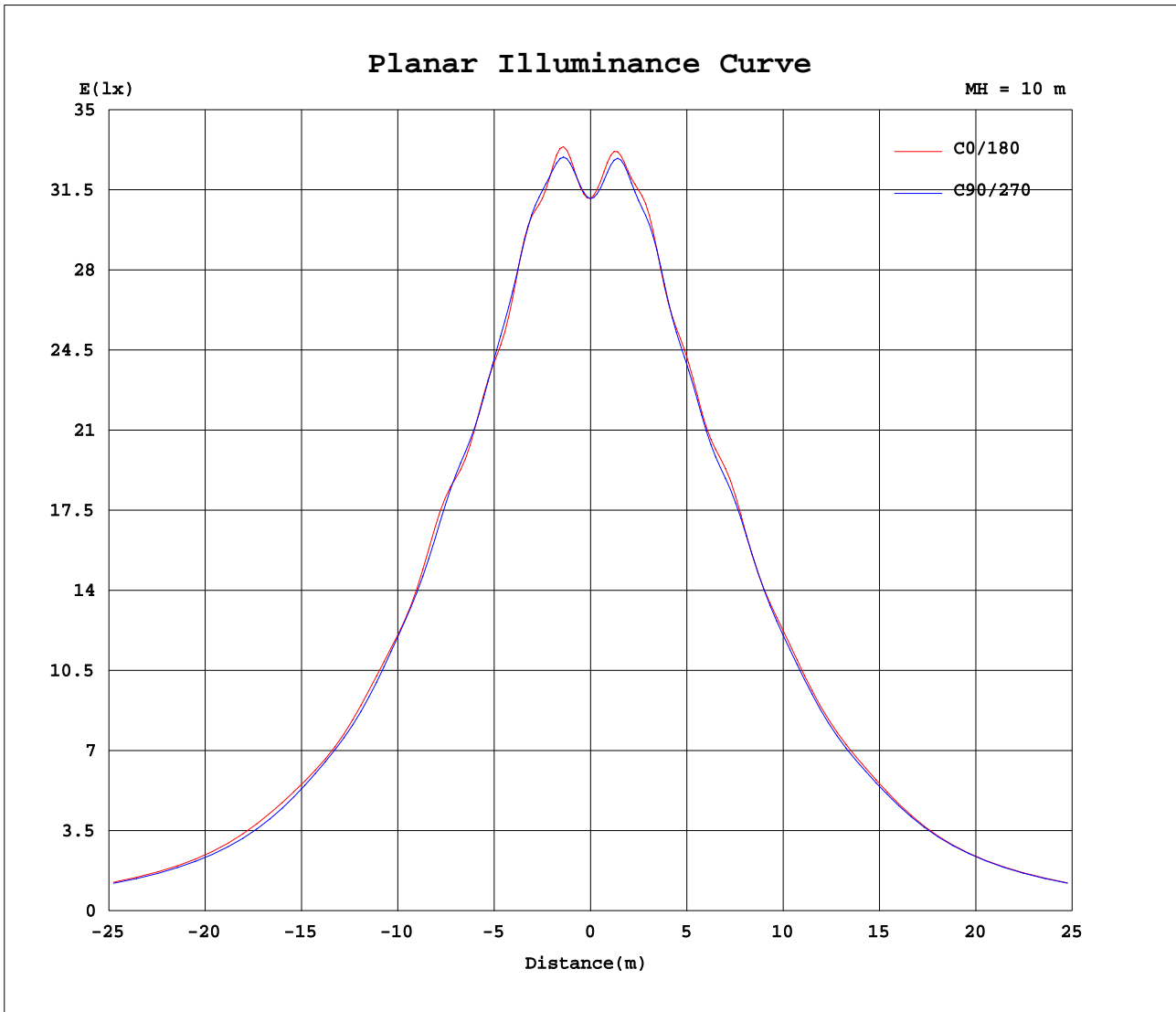
AvgL	cd/m2
L_0~180(65)av	65605
L_0~180(75)av	81241
L_0~180(85)av	92711
L_90~270(65)av	64013
L_90~270(75)av	77373
L_90~270(85)av	91202
L_45(65)av	65114
L_45(75)av	78409
L_45(85)av	89971

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

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:

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: