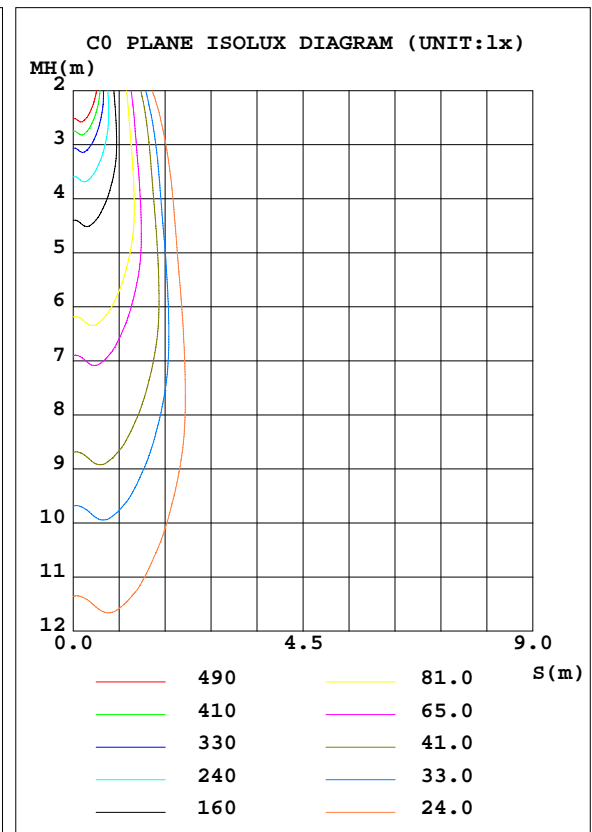
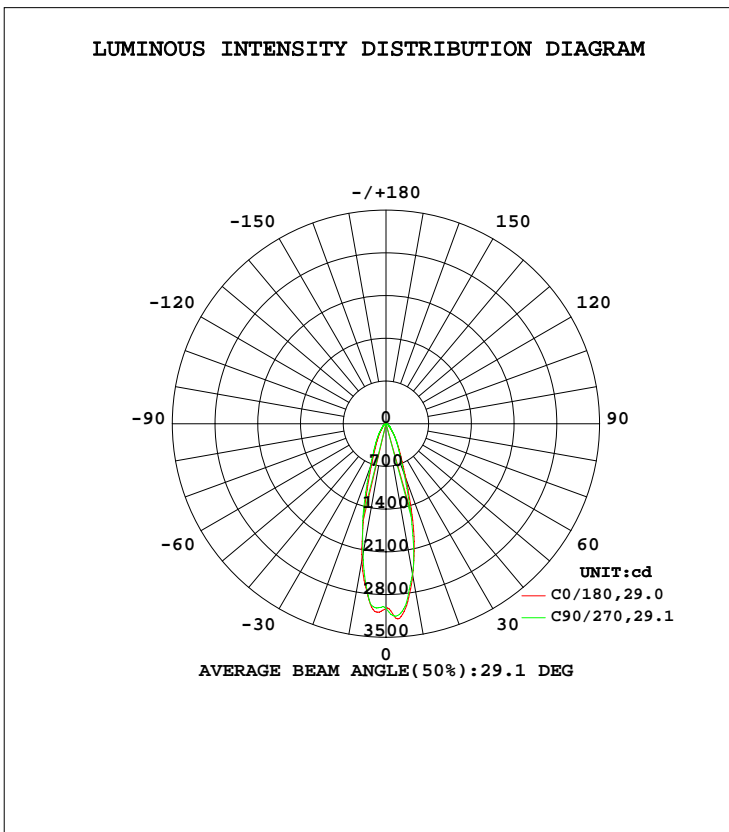


**LUMINAIRE PHOTOMETRIC TEST REPORT**

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	1016	I <sub>max</sub> (cd)	3204	S/MH(C0/180)	0.46
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	0.48
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1228.3	η UP, DN(C0-180)	0.0,53.1
NOMINAL FLUX(lm)	1228.28	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,46.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	0.50



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

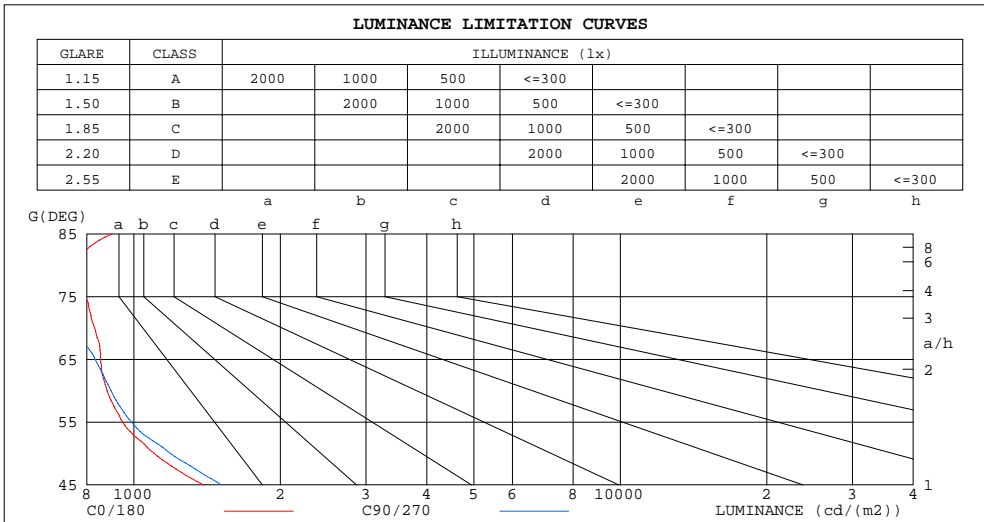
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	2521	2559	2499	2403	2271	2262	2173	2343	0- 10	265.6	265.6	21.6,21.6
20	948.2	933.7	862.1	764.6	672.3	661.3	755.2	882.6	10- 20	412.3	678.0	55.2,55.2
30	370.9	363.1	351.4	304.5	260.1	261.9	306.1	353.2	20- 30	229.8	907.8	73.9,73.9
40	148.4	157.7	158.4	132.0	110.9	117.3	132.5	148.3	30- 40	135.6	1043	85,85
50	69.16	76.45	77.14	70.68	64.58	64.30	69.23	72.60	40- 50	75.52	1119	91.1,91.1
60	43.00	44.35	45.28	45.84	43.49	41.72	41.16	43.22	50- 60	49.14	1168	95.1,95.1
70	27.74	26.75	26.15	27.34	26.99	25.85	24.25	26.75	60- 70	34.56	1203	97.9,97.9
80	13.23	11.28	9.998	11.31	12.17	11.34	9.593	11.49	70- 80	19.66	1222	99.5,99.5
90	3.147	0.1052	0.1627	0.2195	2.667	0.1437	0.0147	0.1652	80- 90	5.967	1228	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	903	466
80	780	570
75	798	673
70	831	757
65	855	833
60	881	897
55	948	990
50	1102	1189
45	1392	1513

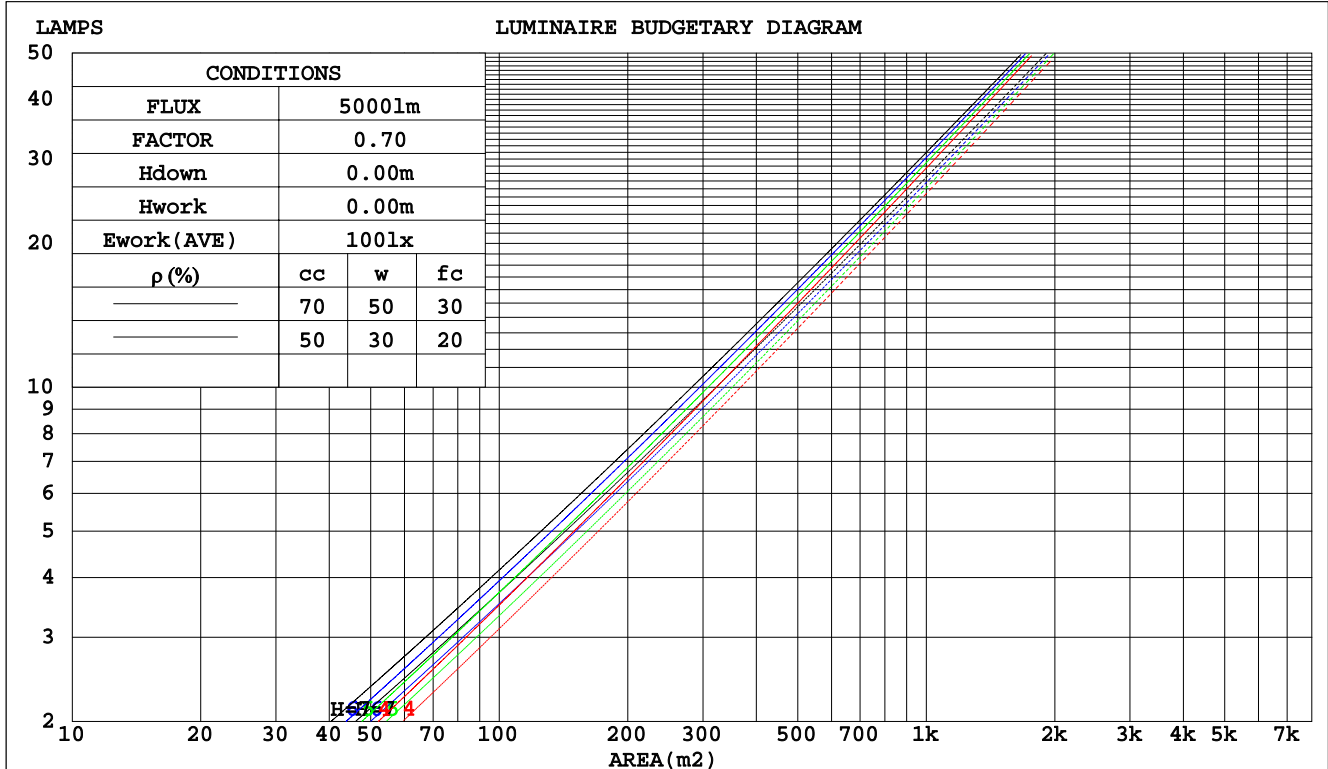
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.86
3.0	.96	.91	.87	.95	.90	.86	.92	.88	.85	.90	.86	.84	.87	.85	.82	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.81	.78	.83	.80	.77	.76
5.0	.85	.80	.76	.84	.79	.75	.83	.78	.75	.81	.77	.74	.79	.76	.73	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.65
8.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.62
9.0	.70	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.63	.60	.59
10.0	.67	.62	.59	.67	.62	.58	.66	.62	.58	.65	.61	.58	.65	.61	.58	.57



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	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	.186	.106	.033	.179	.102	.032	.167	.096	.031	.155	.089	.029	.144	.084	.027	
2.0	.175	.096	.029	.169	.093	.029	.158	.088	.027	.148	.083	.026	.139	.079	.025	
3.0	.163	.087	.026	.158	.085	.026	.149	.081	.025	.141	.077	.024	.133	.074	.023	
4.0	.153	.079	.023	.149	.078	.023	.141	.075	.022	.134	.072	.022	.127	.069	.021	
5.0	.143	.073	.021	.140	.072	.021	.133	.069	.020	.127	.067	.020	.121	.065	.019	
6.0	.135	.068	.019	.132	.067	.019	.126	.065	.019	.121	.063	.018	.115	.061	.018	
7.0	.128	.063	.018	.125	.062	.018	.120	.060	.017	.115	.059	.017	.110	.057	.017	
8.0	.121	.059	.017	.119	.058	.016	.114	.057	.016	.110	.056	.016	.106	.054	.016	
9.0	.115	.056	.016	.113	.055	.015	.109	.054	.015	.105	.053	.015	.101	.051	.015	
10.0	.109	.052	.015	.108	.052	.014	.104	.051	.014	.100	.050	.014	.097	.049	.014	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.123	.098	.078	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.099	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.093	.061	.037	.064	.043	.027	.037	.025	.016	.012	.008	.005	
8.0	.102	.064	.037	.088	.055	.032	.061	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.097	.058	.032	.083	.050	.028	.058	.035	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	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	8.8	9.7	9.0	9.9	10.0	8.8	9.7	9.1	9.9	10.1
3H	9.7	10.6	10.0	10.8	11.0	9.7	10.5	10.0	10.7	10.9
4H	10.2	11.0	10.5	11.2	11.5	10.0	10.9	10.3	11.1	11.3
6H	10.6	11.4	10.9	11.6	11.8	10.3	11.0	10.6	11.3	11.5
8H	10.8	11.5	11.1	11.7	12.0	10.4	11.1	10.7	11.3	11.6
12H	10.9	11.6	11.2	11.9	12.2	10.4	11.1	10.7	11.4	11.6
4H 2H	9.1	9.9	9.4	10.1	10.3	9.2	10.0	9.4	10.2	10.4
3H	10.3	11.0	10.6	11.3	11.5	10.2	10.9	10.5	11.2	11.5
4H	10.9	11.5	11.2	11.8	12.1	10.7	11.3	11.0	11.6	11.9
6H	11.4	12.0	11.8	12.3	12.6	11.0	11.6	11.4	11.9	12.3
8H	11.6	12.1	12.0	12.5	12.9	11.1	11.7	11.5	12.0	12.4
12H	11.8	12.3	12.2	12.7	13.1	11.2	11.7	11.6	12.1	12.5
8H 4H	11.0	11.6	11.4	11.9	12.3	10.9	11.4	11.3	11.8	12.1
6H	11.7	12.1	12.1	12.5	12.9	11.3	11.8	11.8	12.2	12.6
8H	12.0	12.4	12.4	12.8	13.2	11.5	11.9	12.0	12.3	12.8
12H	12.3	12.6	12.7	13.1	13.5	11.6	12.0	12.1	12.4	12.9
12H 4H	11.0	11.5	11.4	11.9	12.3	10.9	11.4	11.3	11.7	12.1
6H	11.7	12.1	12.2	12.5	13.0	11.4	11.8	11.8	12.2	12.6
8H	12.0	12.4	12.5	12.8	13.3	11.6	11.9	12.0	12.3	12.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.7				
1.5H	+ 0.9 / - 0.5					+ 0.8 / - 0.5				
2.0H	+ 0.6 / - 0.4					+ 0.9 / - 0.5				

CIE Pub.117, 1228 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.7)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

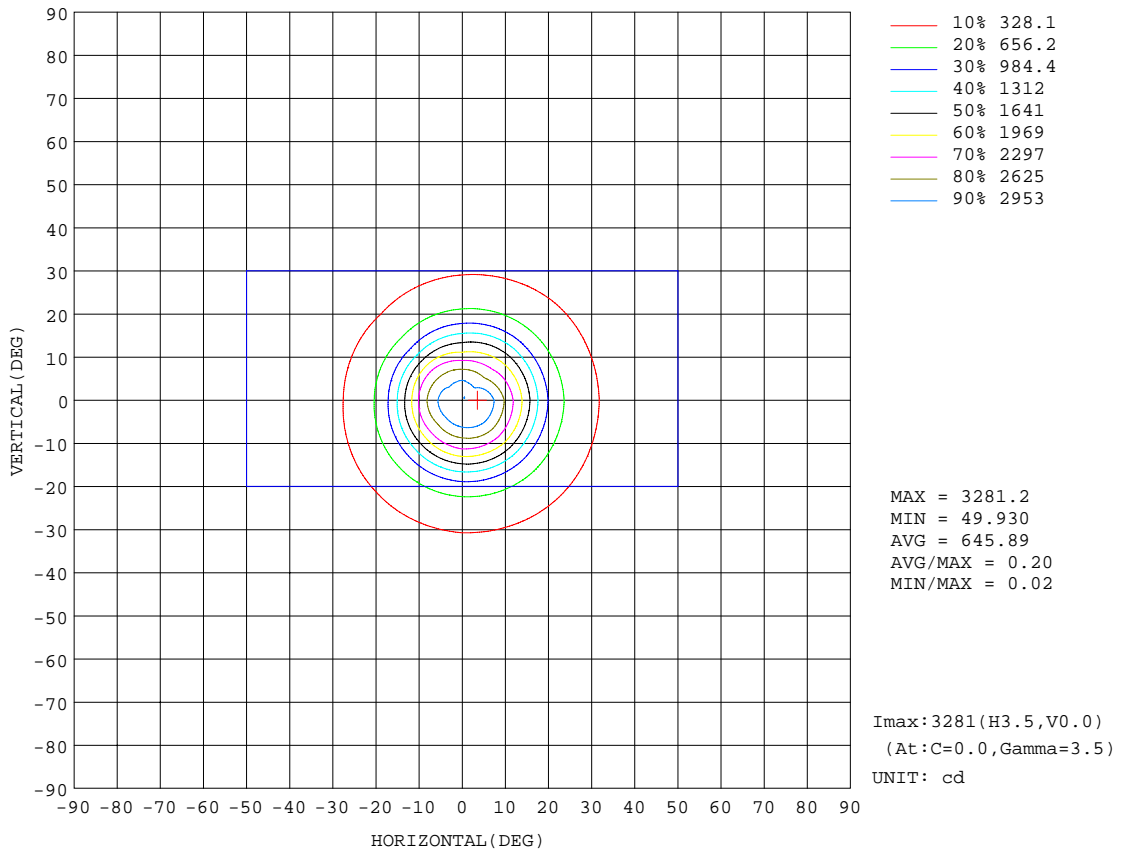
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	82	75	71	82	75	71	81	74	70	66
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	89	84	94	88	84	93	88	84	79
1.25	100	94	89	99	93	89	96	92	88	84
1.50	103	97	93	101	96	93	99	95	92	87
2.00	106	101	97	105	100	97	102	98	95	89
2.50	108	104	100	107	102	99	103	100	97	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	112	109	107	110	107	105	107	104	102	95
5.00	114	111	109	112	109	107	108	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

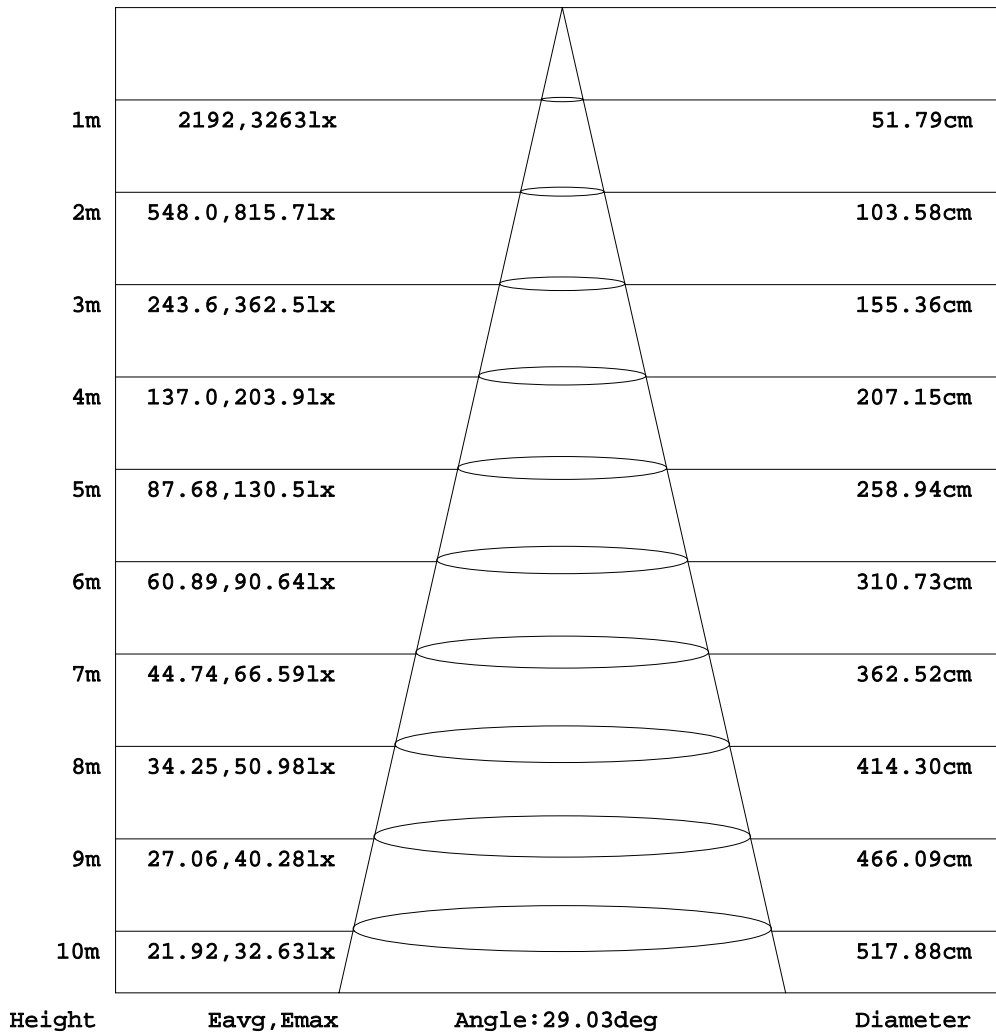
γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:



**AAI Figure**

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

Flux out:494.4 lm



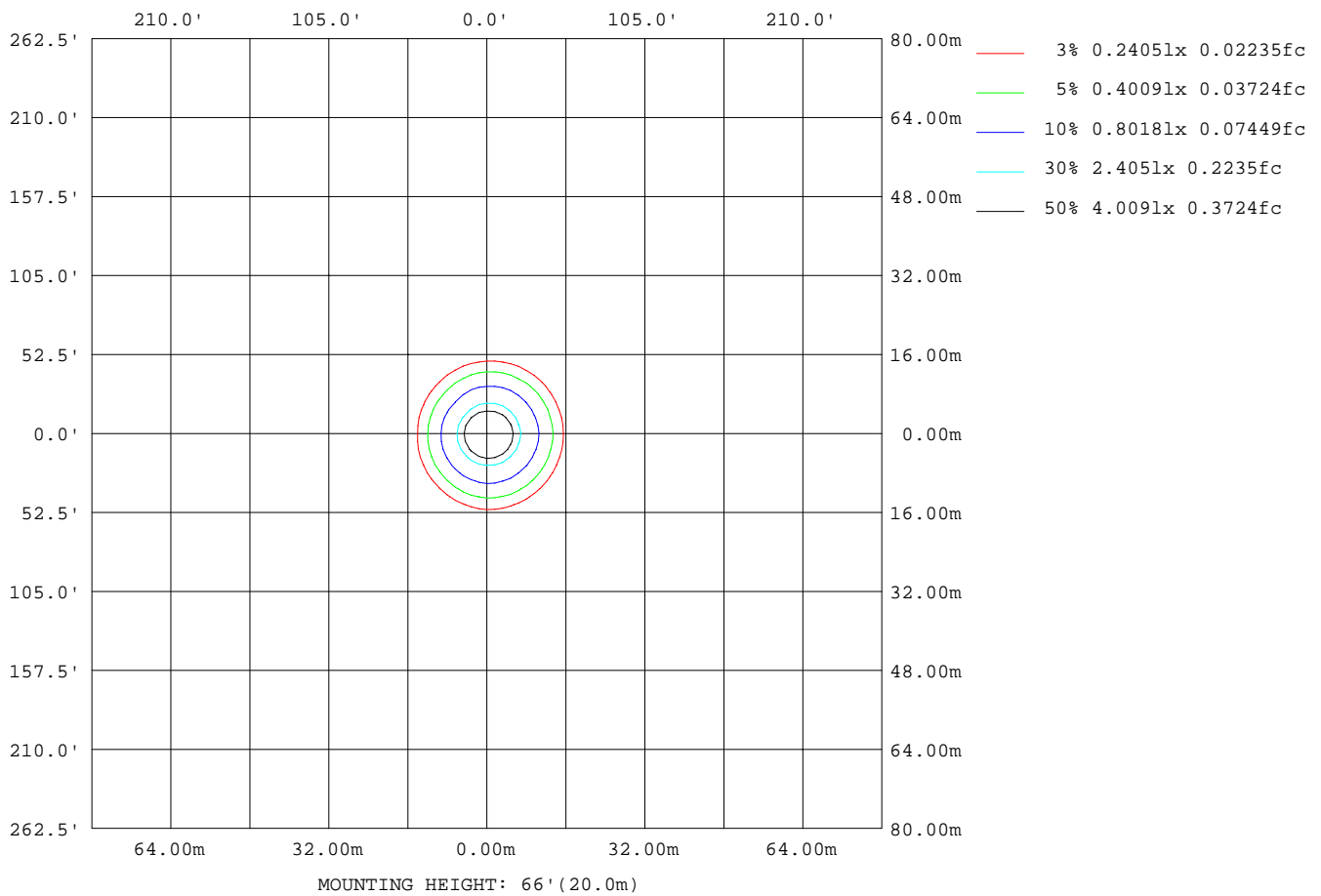
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

LED Avg.L Report

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

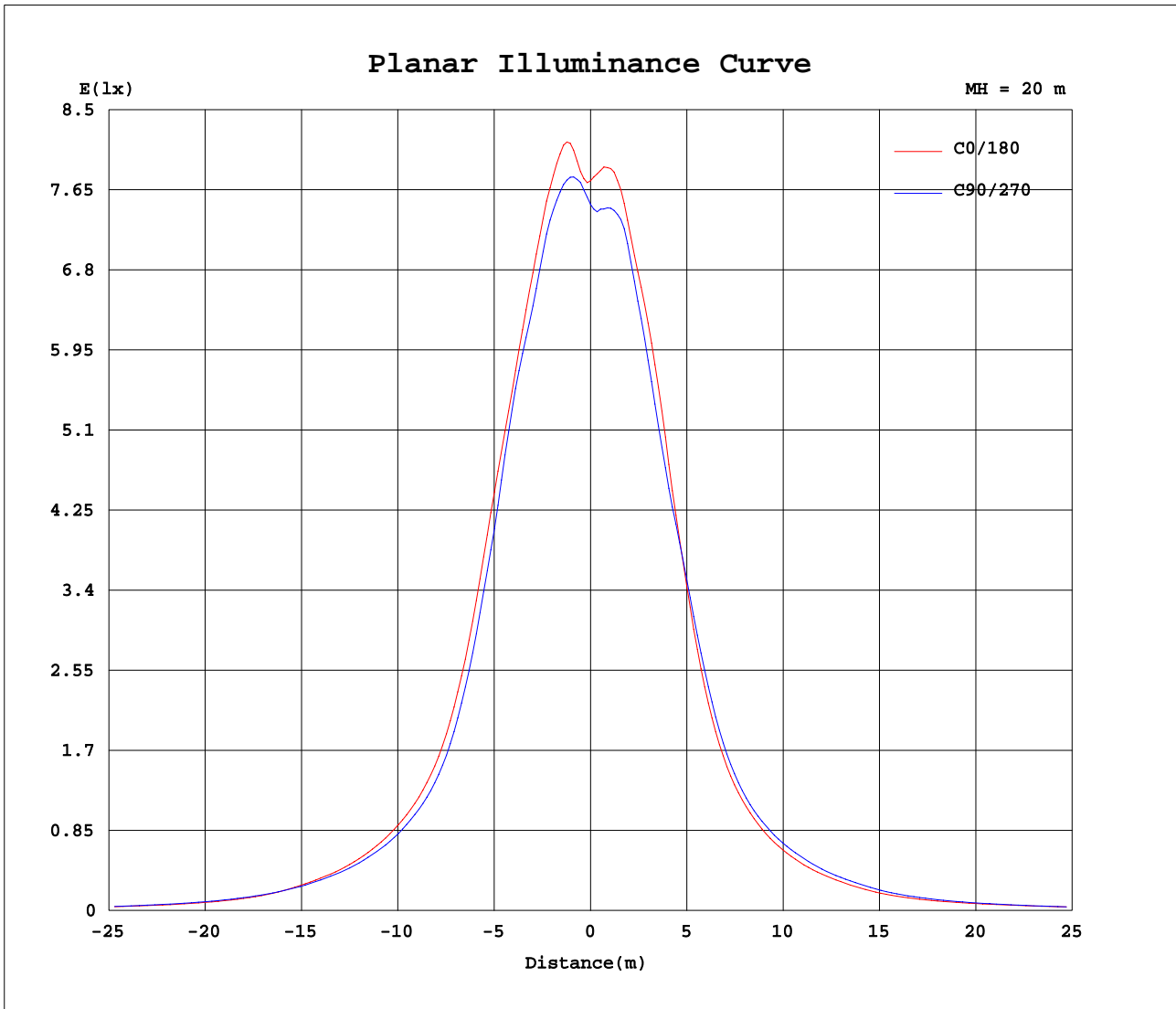
AvgL	cd/m2
L_0~180(65)av	836
L_0~180(75)av	758
L_0~180(85)av	827
L_90~270(65)av	807
L_90~270(75)av	658
L_90~270(85)av	464
L_45(65)av	834
L_45(75)av	721
L_45(85)av	602

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:fu  
 Test Date:09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity:65.0%  
 Test Distance:3.161m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: MEDIUM  
 Temperature: 25.3DEG  
 Operators: fu  
 Test Date: 09 August 2022

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-i300\_V1 SYSTEM V2.0.406.11  
 Humidity: 65.0%  
 Test Distance: 3.161m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: PAR30-12W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:0.005	Shielding Angle:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	3026	3026	3026	3026	3026	3026	3026	3026										
5	3133	3101	3080	3070	2965	2889	2956	2940										
10	2521	2559	2499	2403	2271	2262	2173	2343										
15	1729	1739	1616	1462	1294	1269	1398	1647										
20	948	934	862	765	672	661	755	883										
25	565	548	524	468	403	393	460	529										
30	371	363	351	305	260	262	306	353										
35	246	247	239	204	170	179	206	241										
40	148	158	158	132	111	117	132	148										
45	96.1	106	108	94.4	82.7	84.1	93.7	99.8										
50	69.2	76.5	77.1	70.7	64.6	64.3	69.2	72.6										
55	53.1	56.9	57.3	55.7	52.0	50.8	52.4	54.6										
60	43.0	44.4	45.3	45.8	43.5	41.7	41.2	43.2										
65	35.3	35.1	35.5	36.7	35.3	34.0	32.7	35.3										
70	27.7	26.7	26.1	27.3	27.0	25.8	24.2	26.7										
75	20.2	18.7	17.6	18.9	19.1	18.3	16.5	18.7										
80	13.2	11.3	10.00	11.3	12.2	11.3	9.59	11.5										
85	7.68	4.93	4.10	5.33	6.74	5.41	4.00	5.31										
90	3.15	0.11	0.16	0.22	2.67	0.14	0.01	0.17										

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 45.0DEG	γ Interval: 0.5DEG
Test Speed: MEDIUM	Test System:EVERFINE GO-i300_V1 SYSTEM V2.0.406.11
Temperature:25.3DEG	Humidity:65.0%
Operators:fu	Test Distance:3.161m [K=1.0000]
Test Date:09 August 2022	Remarks: