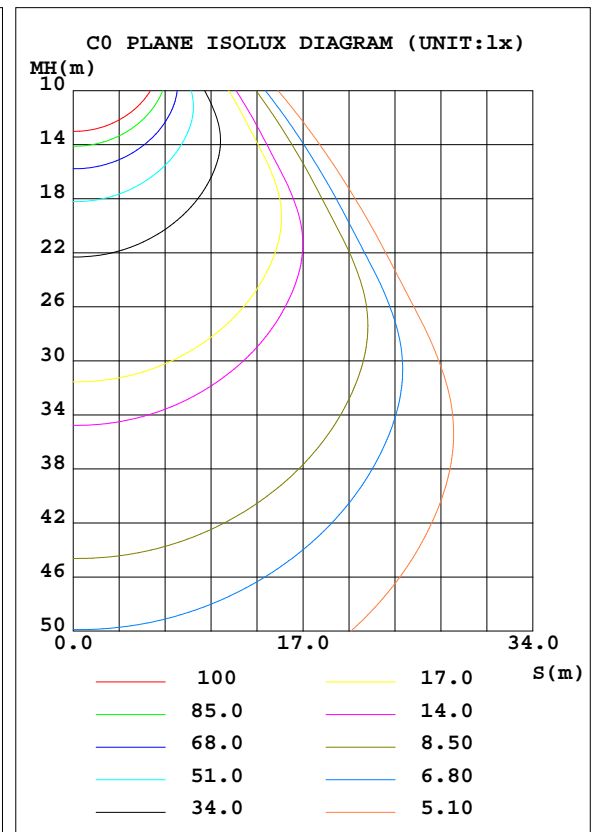
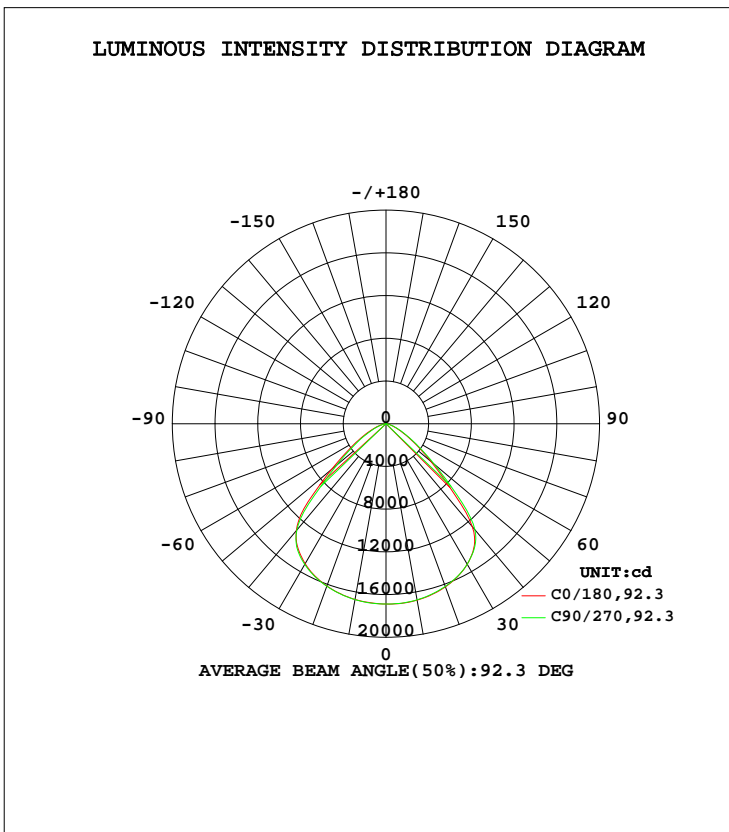


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 180.18 lm/W			
MODEL	200W-UFO	Imax(cd)	16891	S/MH(C0/180)	1.33
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.34
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	35660	$\eta$ UP, DN(C0-180)	0.4,48.6
NOMINAL FLUX(lm)	35659.9	CIE CLASS	DIRECT	$\eta$ UP, DN(C180-360)	0.4,50.6
LAMPS INSIDE	1	$\eta$ up(%)	0.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	$\eta$ down(%)	99.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	1677	1675	1670	1672					0- 10	1605	1605	4.5,4.5
20	1625	1621	1617	1619					10- 20	4670	6275	17.6,17.6
30	1520	1519	1513	1521					20- 30	7277	13552	38,38
40	1258	1294	1306	1299					30- 40	8929	22481	63,63
50	550.6	590.0	665.4	602.1					40- 50	7248	29729	83.4,83.4
60	220.2	234.0	277.6	248.6					50- 60	3544	33273	93.3,93.3
70	75.47	82.50	102.6	87.87					60- 70	1529	34803	97.6,97.6
80	16.24	13.98	27.36	15.25					70- 80	512.4	35315	99,99
90	0.5613	0.4998	0.4199	0.4100					80- 90	53.85	35369	99.2,99.2
100	1.329	1.196	0.9379	0.9909					90-100	8.124	35377	99.2,99.2
110	2.703	2.549	2.056	2.152					100-110	17.87	35395	99.3,99.3
120	4.411	4.268	3.608	3.693					110-120	31.27	35426	99.3,99.3
130	6.229	6.049	5.418	5.422					120-130	43.65	35470	99.5,99.5
140	7.867	7.773	7.115	7.149					130-140	51.29	35521	99.6,99.6
150	9.127	9.264	8.507	8.736					140-150	51.44	35573	99.8,99.8
160	10.61	10.65	10.11	10.24					150-160	44.31	35617	99.9,99.9
170	12.08	11.89	11.85	11.63					160-170	31.44	35648	100,100
180	12.63	12.32	12.69	12.26					170-180	11.62	35660	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 26674 lm

%lum = 74.8%  
 %lamp = 74.8%

Conical surface Flux(120deg): 33273 lm

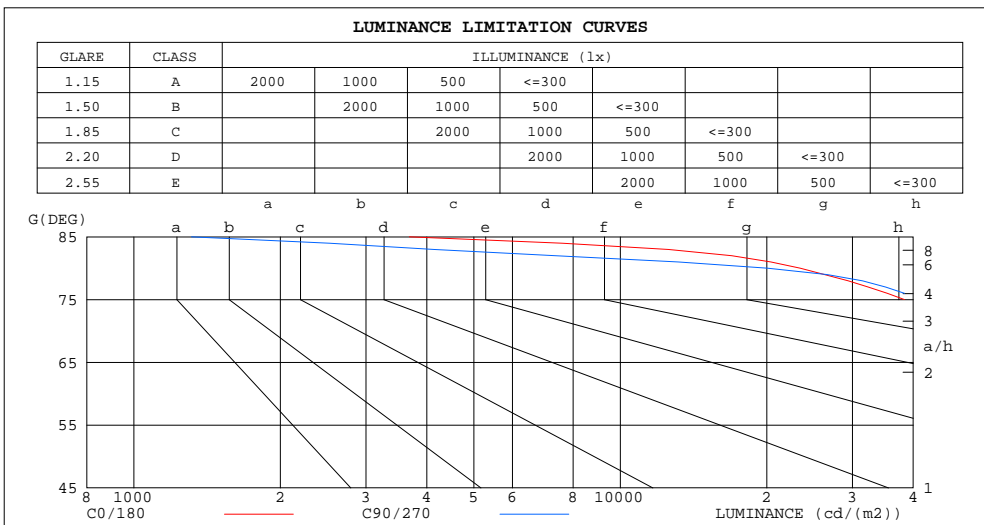
%lum = 93.3%  
 %lamp = 93.3%

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3684	1314
80	23439	20080
75	38361	41532
70	55304	60151
65	77980	83571
60	110381	116728
55	153718	161941
50	214675	228888
45	301916	329385

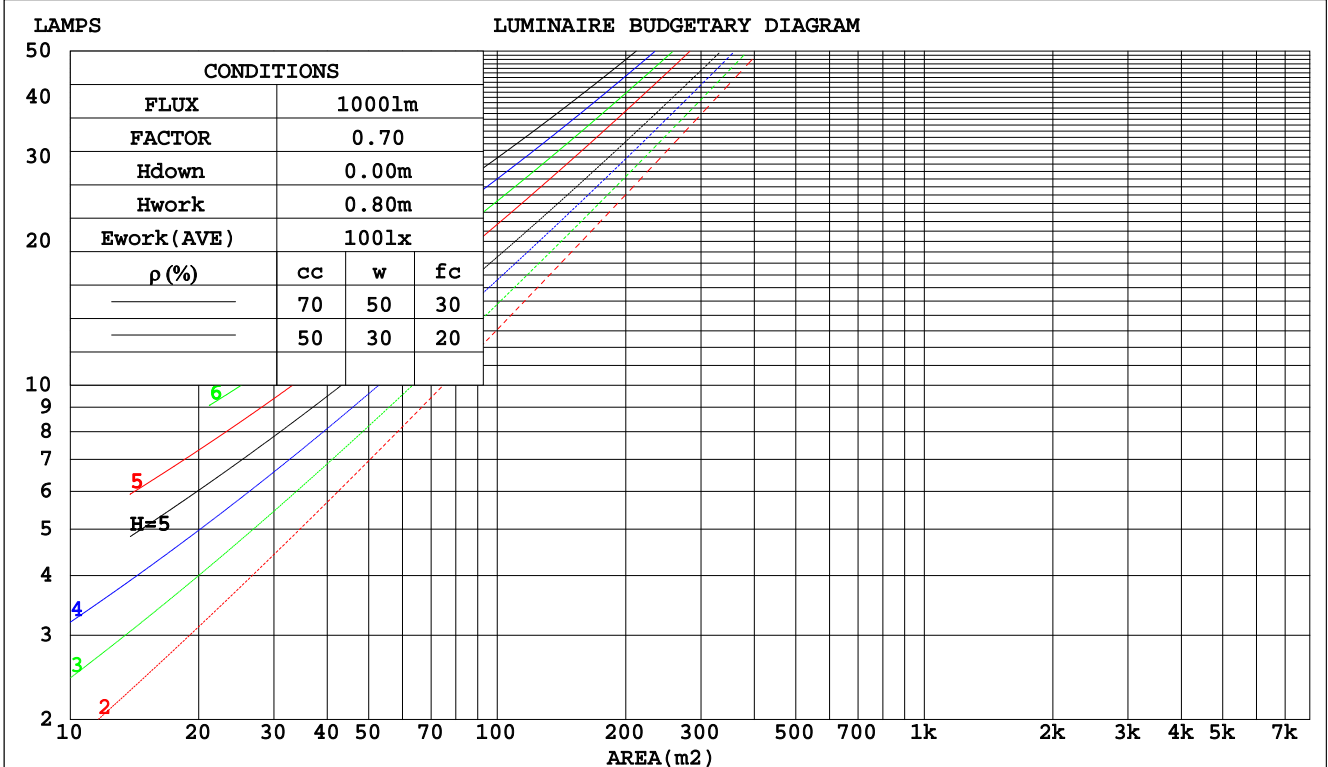
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 24.5DEG  
 Operators:  
 Test Date: 2023-06-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity: 47.5%  
 Test Distance: 10.680m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	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%	
pw																0
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	1.01	1.01	1.01	.99
1.0	1.08	1.04	1.01	1.05	1.02	.90	1.01	.99	.97	.97	.95	.93	.94	.92	.91	.89
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.82	.80	.78
3.0	.87	.81	.75	.86	.80	.75	.83	.78	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.66	.78	.71	.65	.75	.69	.65	.73	.68	.64	.71	.66	.63	.61
5.0	.72	.64	.58	.70	.63	.58	.68	.62	.57	.66	.61	.57	.65	.60	.56	.54
6.0	.65	.57	.52	.64	.57	.52	.63	.56	.51	.61	.55	.51	.59	.54	.50	.48
7.0	.60	.52	.46	.59	.52	.46	.57	.51	.46	.56	.50	.46	.55	.49	.45	.43
8.0	.55	.47	.42	.54	.47	.42	.53	.46	.42	.52	.46	.41	.50	.45	.41	.39
9.0	.51	.43	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.47	.41	.37	.36
10.0	.47	.40	.35	.46	.39	.35	.45	.39	.35	.44	.38	.34	.43	.38	.34	.33



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	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	.234	.133	.042	.226	.129	.041	.213	.122	.039	.201	.116	.037	.190	.110	.035	
2.0	.228	.125	.038	.222	.122	.038	.211	.117	.036	.200	.112	.035	.190	.107	.034	
3.0	.218	.116	.035	.213	.114	.034	.203	.110	.033	.193	.106	.032	.184	.102	.032	
4.0	.207	.107	.032	.202	.106	.031	.193	.102	.031	.185	.099	.030	.177	.096	.029	
5.0	.195	.100	.029	.191	.098	.029	.183	.095	.028	.176	.093	.028	.169	.090	.027	
6.0	.185	.093	.027	.181	.091	.026	.174	.089	.026	.167	.087	.026	.161	.085	.025	
7.0	.175	.086	.024	.171	.085	.024	.165	.083	.024	.159	.082	.024	.154	.080	.023	
8.0	.166	.081	.023	.163	.080	.023	.157	.078	.022	.151	.077	.022	.146	.075	.022	
9.0	.157	.076	.021	.154	.075	.021	.149	.074	.021	.144	.072	.021	.140	.071	.020	
10.0	.149	.071	.020	.147	.071	.020	.142	.070	.020	.138	.068	.019	.133	.067	.019	

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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.181	.163	.147	.155	.140	.126	.106	.096	.087	.061	.056	.051	.020	.018	.016	
2.0	.170	.139	.112	.146	.119	.097	.100	.082	.068	.058	.048	.040	.018	.016	.013	
3.0	.161	.120	.088	.138	.104	.076	.095	.072	.054	.055	.042	.032	.018	.014	.010	
4.0	.153	.106	.071	.131	.092	.062	.090	.064	.043	.052	.038	.026	.017	.012	.008	
5.0	.146	.096	.059	.125	.083	.051	.086	.058	.036	.050	.034	.021	.016	.011	.007	
6.0	.139	.087	.050	.119	.075	.043	.082	.053	.031	.048	.031	.018	.015	.010	.006	
7.0	.133	.080	.043	.114	.069	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
8.0	.127	.074	.038	.109	.064	.033	.076	.045	.023	.044	.027	.014	.014	.009	.005	
9.0	.122	.069	.034	.105	.060	.029	.073	.042	.021	.042	.025	.012	.014	.008	.004	
10.0	.117	.065	.030	.101	.056	.027	.070	.040	.019	.041	.023	.011	.013	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm										
NAME: 200W-UFO					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	17.5	18.8	17.8	19.0	19.2	17.7	19.0	18.0	19.2	19.4
3H	17.6	18.8	17.9	19.0	19.2	17.8	19.0	18.1	19.2	19.4
4H	17.6	18.7	17.9	18.9	19.2	17.8	18.9	18.1	19.1	19.4
6H	17.5	18.5	17.8	18.8	19.1	17.7	18.7	18.0	19.0	19.3
8H	17.5	18.5	17.8	18.7	19.0	17.7	18.7	18.0	18.9	19.2
12H	17.4	18.4	17.8	18.7	19.0	17.6	18.6	18.0	18.9	19.2
4H 2H	17.5	18.6	17.8	18.8	19.1	17.7	18.8	18.0	19.0	19.3
3H	17.7	18.6	18.0	18.9	19.2	17.8	18.8	18.2	19.1	19.4
4H	17.7	18.5	18.0	18.8	19.2	17.9	18.7	18.2	19.0	19.4
6H	17.6	18.4	18.0	18.7	19.1	17.8	18.6	18.2	18.9	19.3
8H	17.6	18.3	18.0	18.7	19.1	17.8	18.5	18.2	18.8	19.2
12H	17.5	18.2	18.0	18.6	19.0	17.7	18.4	18.2	18.8	19.2
8H 4H	17.6	18.3	18.0	18.7	19.1	17.8	18.5	18.2	18.9	19.2
6H	17.6	18.1	18.0	18.6	19.0	17.8	18.3	18.2	18.7	19.2
8H	17.5	18.0	18.0	18.5	18.9	17.7	18.2	18.2	18.7	19.1
12H	17.5	17.9	18.0	18.4	18.9	17.7	18.1	18.2	18.6	19.0
12H 4H	17.5	18.2	18.0	18.6	19.0	17.7	18.4	18.2	18.8	19.2
6H	17.5	18.0	18.0	18.5	18.9	17.7	18.2	18.2	18.7	19.1
8H	17.5	17.9	18.0	18.4	18.9	17.7	18.1	18.2	18.6	19.1
Variations with the observer position at spacings:										
S = 1.0H	+ 1.6 / - 2.4					+ 1.6 / - 2.3				
1.5H	+ 1.5 / - 1.6					+ 1.3 / - 1.7				
2.0H	+ 2.9 / - 2.8					+ 3.2 / - 2.9				

CIE Pub.117, 35660 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.4)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

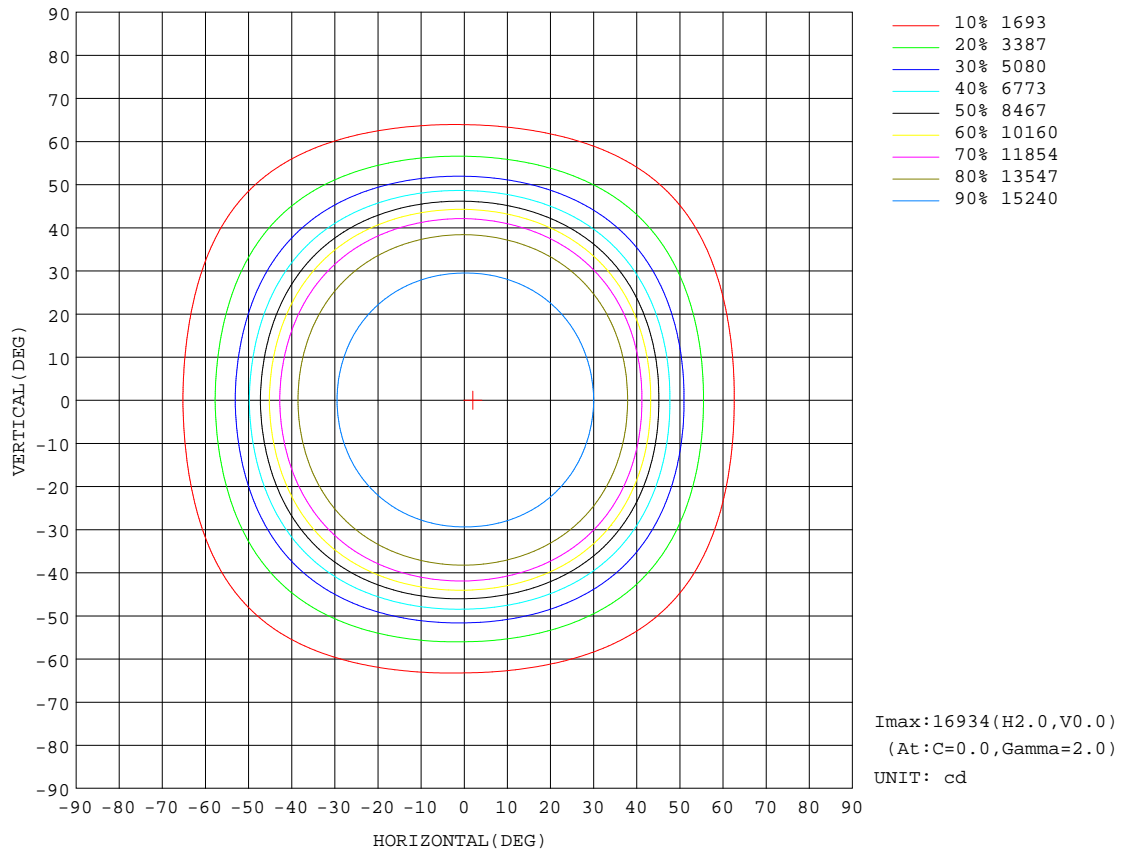
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	58	53	67	58	52	66	58	52	47
0.80	78	69	63	77	68	63	76	68	62	57
1.00	86	77	72	85	77	71	83	77	71	65
1.25	92	84	79	91	84	78	89	82	78	72
1.50	97	89	84	95	88	83	92	87	82	76
2.00	102	96	91	100	94	90	97	92	88	82
2.50	105	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	102	100	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

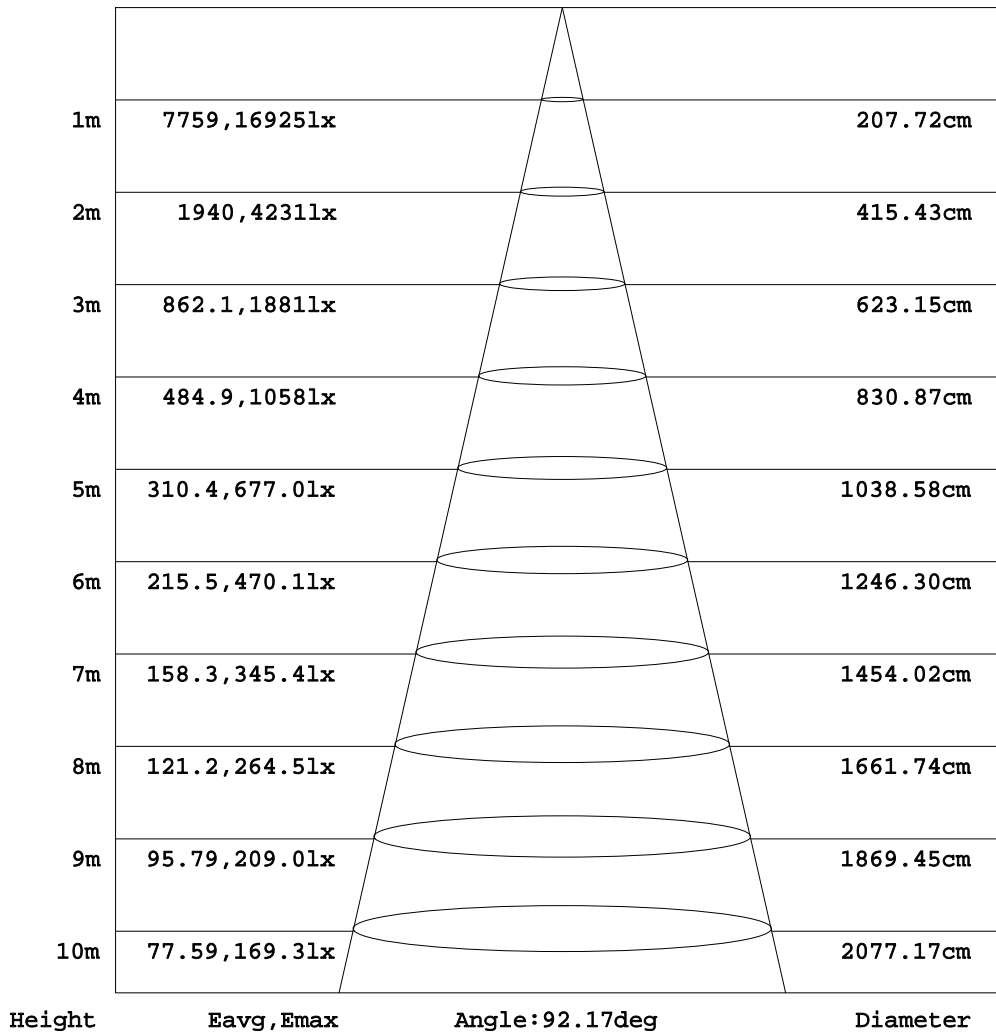
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:28032 lm



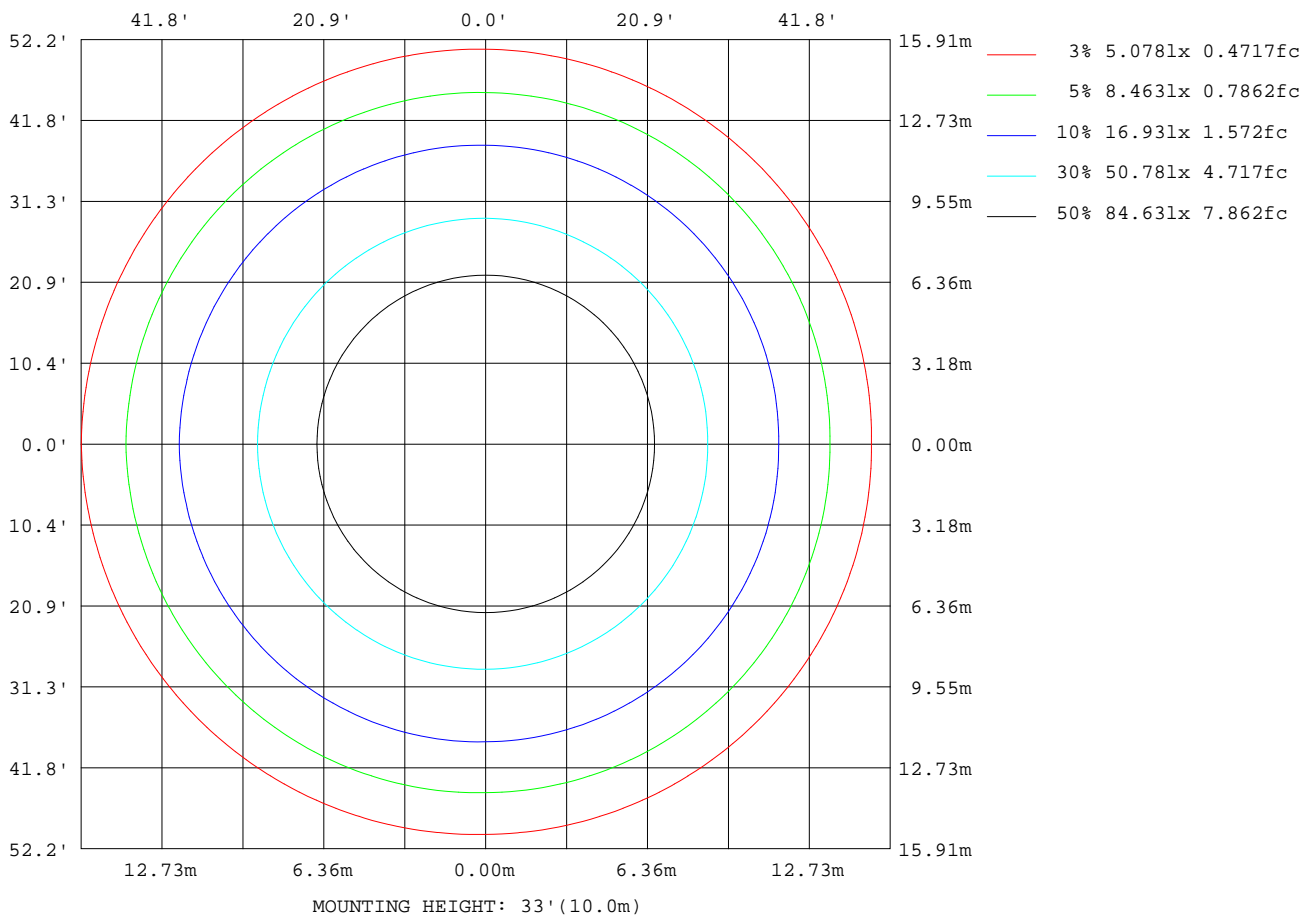
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 24.5DEG  
 Operators:  
 Test Date: 2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity: 47.5%  
 Test Distance: 10.680m [K=1.0000]  
 Remarks:

LED Avg.L Report

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

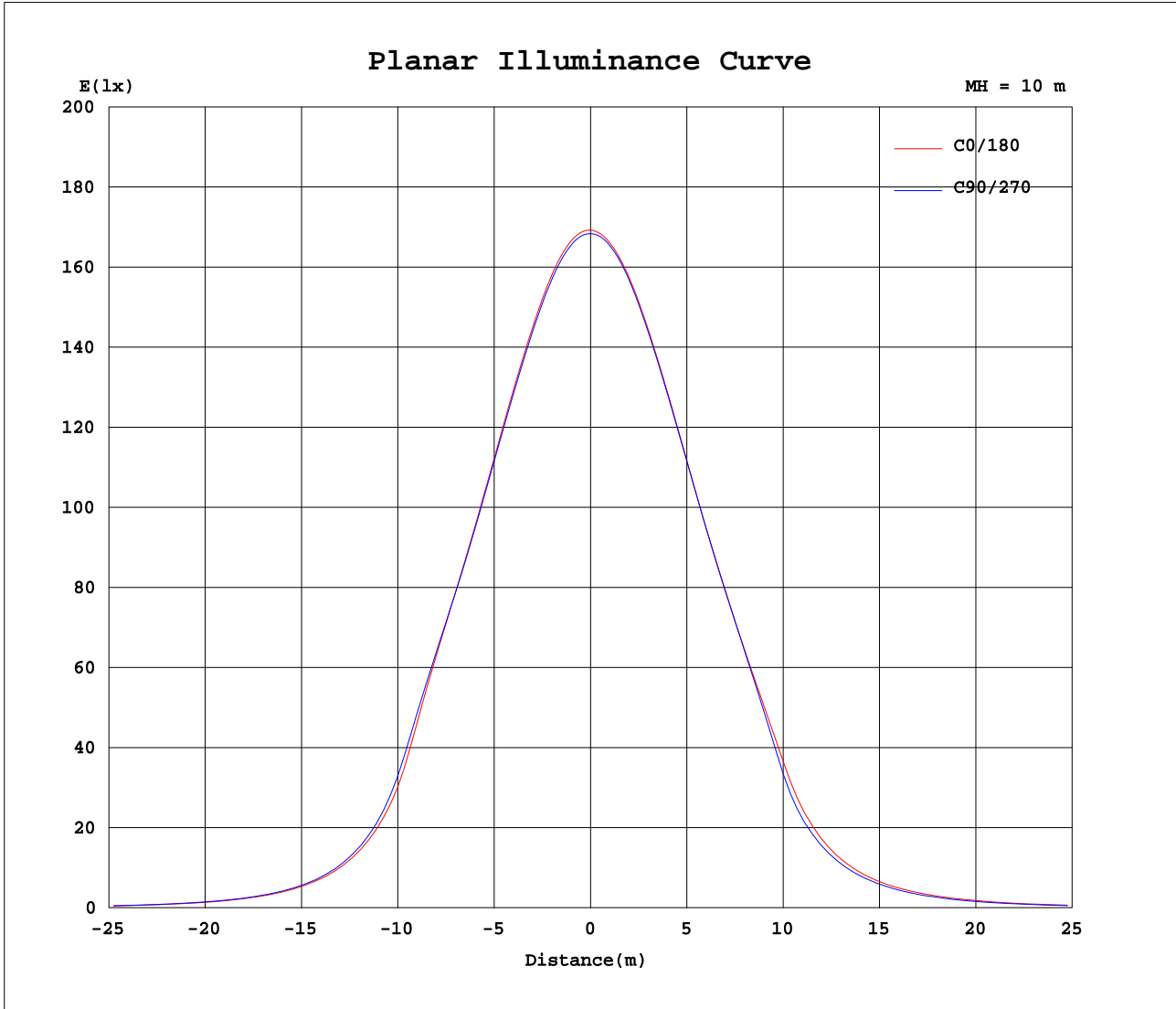
AvgL	cd/m2
L_0~180(65)av	90001
L_0~180(75)av	46519
L_0~180(85)av	14250
L_90~270(65)av	86842
L_90~270(75)av	43204
L_90~270(85)av	1431
L_45(65)av	88792
L_45(75)av	44965
L_45(85)av	7242

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
 Test Date:2023-06-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity:47.5%  
 Test Distance:10.680m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 24.5DEG  
 Operators:  
 Test Date: 2023-06-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.402  
 Humidity: 47.5%  
 Test Distance: 10.680m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.11V I:0.9177A P:197.92W PF:0.9799 Freq:50.01Hz Lamp Flux:35659.9x1 lm		
NAME: 200W-UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: x10cd

C( DEG) γ (DEG)	0	90	180	270																
0	1688	1688	1688	1688																
5	1688	1686	1683	1684																
10	1677	1675	1670	1672																
15	1656	1653	1648	1650																
20	1625	1621	1617	1619																
25	1582	1579	1574	1578																
30	1520	1519	1513	1521																
35	1431	1437	1433	1444																
40	1258	1294	1306	1299																
45	852	934	1031	948																
50	551	590	665	602																
55	352	372	429	389																
60	220	234	278	249																
65	131	142	173	152																
70	75.5	82.5	103	87.9																
75	39.6	43.1	56.7	46.3																
80	16.2	14.0	27.4	15.2																
85	1.28	0.46	8.65	0.54																
90	0.56	0.50	0.42	0.41																
95	0.87	0.77	0.61	0.64																
100	1.33	1.20	0.94	0.99																
105	1.95	1.80	1.43	1.51																
110	2.70	2.55	2.06	2.15																
115	3.53	3.39	2.80	2.89																
120	4.41	4.27	3.61	3.69																
125	5.32	5.16	4.50	4.55																
130	6.23	6.05	5.42	5.42																
135	7.08	6.93	6.33	6.29																
140	7.87	7.77	7.12	7.15																
145	8.53	8.56	7.85	7.98																
150	9.13	9.26	8.51	8.74																
155	9.81	9.92	9.23	9.46																
160	10.6	10.6	10.1	10.2																
165	11.4	11.3	11.0	11.0																
170	12.1	11.9	11.9	11.6																
175	12.5	12.2	12.5	12.1																
180	12.6	12.3	12.7	12.3																

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:  
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