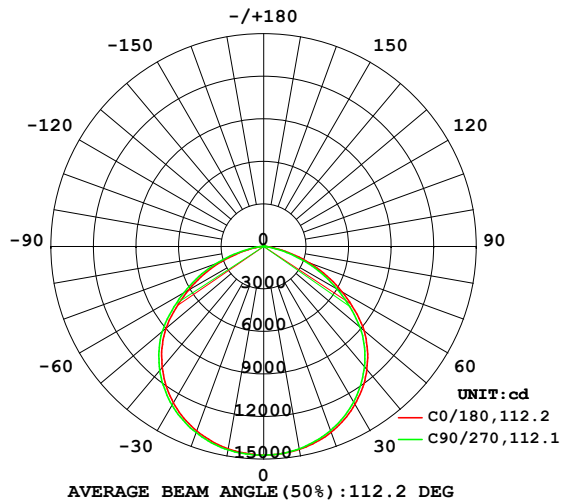


## LUMINAIRE PHOTOMETRIC TEST REPORT

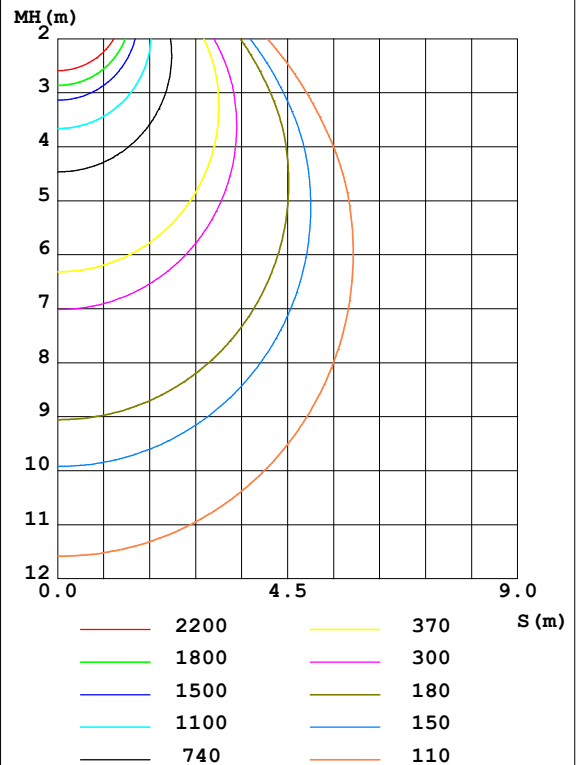
Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 167.81 lm/W			
MODEL	UFO	I <sub>max</sub> (cd)	14714	S/MH (C0/180)	1.29
NOMINAL POWER (W)	240	LOR (%)	100.0	S/MH (C90/270)	1.30
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	41267	η UP, DN (C0-180)	0.3, 49.4
NOMINAL FLUX (lm)	41266.8	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.3, 50.0
LAMPS INSIDE	1	η up (%)	0.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	99.5	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2020-06-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

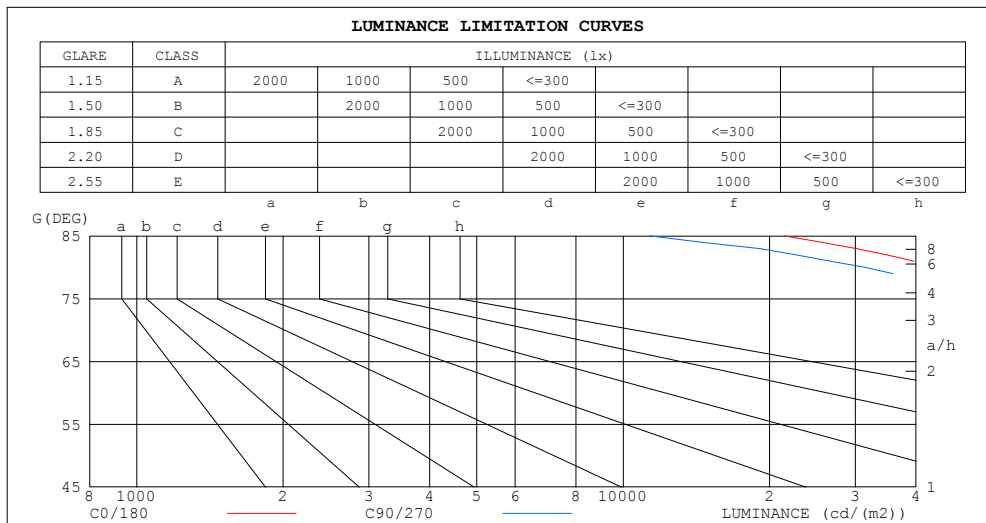
$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1452	1448	1449	1456					0- 10	1395	1395	3.38,3.38
20	1393	1380	1384	1396					10- 20	4026	5421	13.1,13.1
30	1287	1268	1274	1293					20- 30	6179	11600	28.1,28.1
40	1133	1106	1114	1141					30- 40	7555	19155	46.4,46.4
50	926.0	887.1	900.8	934.6					40- 50	7900	27055	65.6,65.6
60	637.0	596.3	609.3	648.5					50- 60	6864	33918	82.2,82.2
70	347.4	308.5	320.6	361.5					60- 70	4733	38652	93.7,93.7
80	93.12	66.98	74.93	100.1					70- 80	2095	40746	98.7,98.7
90	0.9522	0.6728	0.4769	1.398					80- 90	294.7	41041	99.5,99.5
100	1.318	1.455	1.178	1.054					90-100	9.560	41050	99.5,99.5
110	2.405	2.584	2.229	2.063					100-110	18.64	41069	99.5,99.5
120	3.582	3.772	3.381	3.207					110-120	28.77	41098	99.6,99.6
130	4.622	4.799	4.435	4.276					120-130	36.00	41134	99.7,99.7
140	5.505	5.645	5.350	5.213					130-140	38.55	41172	99.8,99.8
150	6.269	6.381	6.155	6.050					140-150	36.53	41209	99.9,99.9
160	6.931	7.014	6.861	6.773					150-160	30.27	41239	99.9,99.9
170	7.491	7.545	7.468	7.399					160-170	20.32	41260	100,100
180	7.723	7.733	7.767	7.701					170-180	7.245	41267	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-06-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	21427	11339
80	43937	31374
75	64920	53522
70	83208	73365
65	95363	87040
60	104378	97002
55	111949	105091
50	118025	112243
45	119958	115736

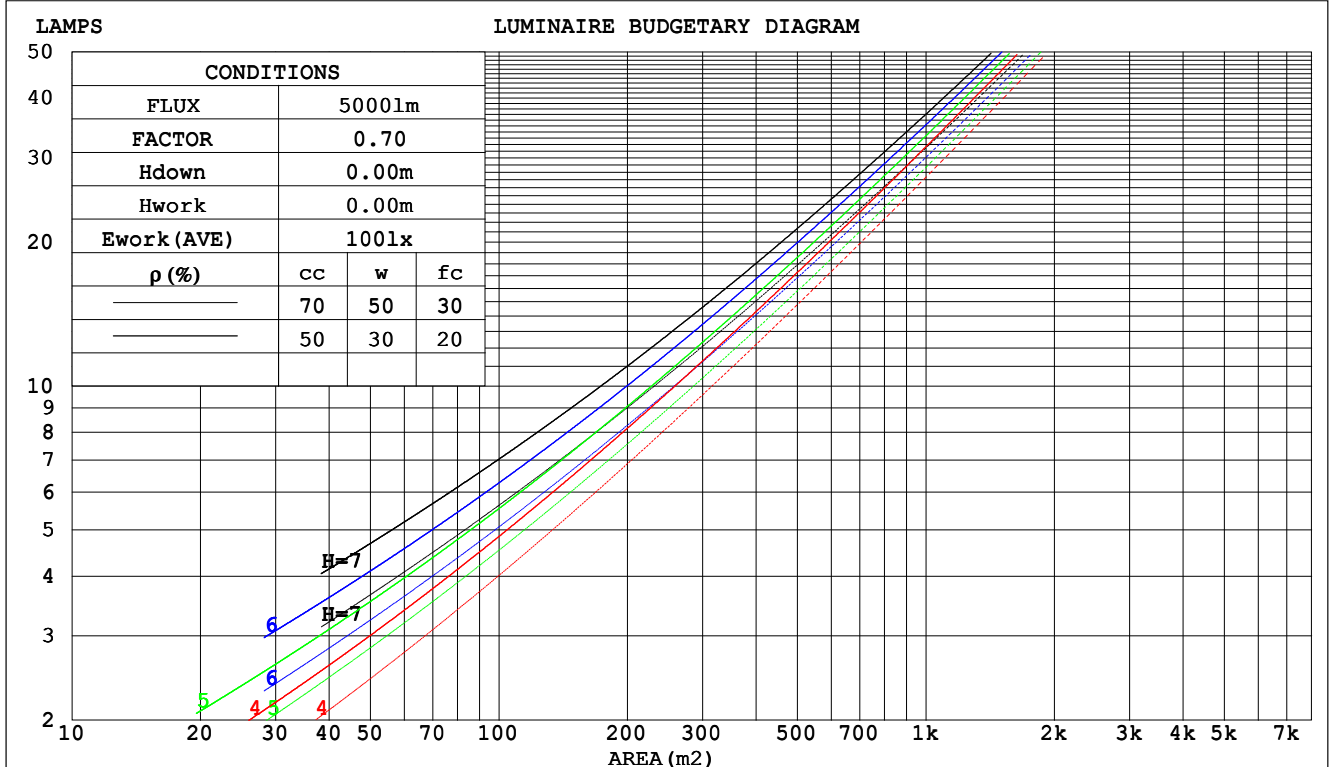
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	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	1.02	1.02	1.02	.99
1.0	1.05	1.01	.97	1.03	.99	.96	.98	.95	.93	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.73	.71
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.73	.68	.64	.71	.66	.63	.60
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.55	.65	.59	.55	.63	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.49	.61	.54	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.43	.57	.48	.42	.55	.47	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.38	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.36	.35
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2020-06-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks:

### WEC AND CCEC

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm								
NAME: UFO			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.:			SUR.:			Shielding Angle:		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.287	.163	.052	.279	.159	.051	.266	.153	.049	.254	.146	.047	.242	.140	.045		
2.0	.276	.151	.046	.270	.149	.046	.258	.144	.045	.247	.139	.043	.237	.134	.042		
3.0	.259	.138	.041	.254	.136	.041	.243	.132	.040	.233	.128	.039	.224	.124	.038		
4.0	.241	.125	.037	.236	.124	.037	.227	.120	.036	.218	.117	.035	.210	.114	.035		
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032		
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.029	.191	.099	.029	.184	.097	.029		
7.0	.195	.097	.027	.192	.096	.027	.185	.094	.027	.179	.092	.027	.173	.090	.026		
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024		
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023		
10.0	.162	.078	.022	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.195	.195	.195	.166	.166	.166	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.183	.161	.140	.157	.138	.121	.107	.095	.084	.062	.055	.049	.020	.018	.016	
2.0	.174	.136	.104	.149	.117	.090	.102	.081	.063	.059	.047	.037	.019	.015	.012	
3.0	.167	.118	.080	.143	.102	.069	.098	.071	.049	.057	.041	.029	.018	.013	.009	
4.0	.159	.105	.064	.137	.091	.055	.094	.063	.039	.054	.037	.023	.017	.012	.008	
5.0	.152	.095	.052	.131	.082	.046	.090	.057	.032	.052	.034	.019	.017	.011	.006	
6.0	.145	.086	.044	.125	.075	.038	.086	.052	.027	.050	.031	.016	.016	.010	.005	
7.0	.138	.079	.038	.119	.069	.033	.082	.048	.023	.048	.028	.014	.015	.009	.005	
8.0	.132	.074	.033	.114	.064	.029	.079	.045	.021	.046	.026	.012	.015	.009	.004	
9.0	.126	.069	.030	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
10.0	.121	.064	.027	.104	.056	.024	.072	.039	.017	.042	.023	.010	.014	.008	.003	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm											
NAME: 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	16.3	17.8	16.6	18.0	18.2	16.1	17.6	16.4	17.8	18.0	
	3H	17.5	18.9	17.8	19.1	19.4	17.2	18.5	17.5	18.8	19.0
	4H	17.9	19.2	18.2	19.4	19.7	17.4	18.7	17.8	19.0	19.3
	6H	18.0	19.2	18.3	19.5	19.8	17.5	18.7	17.8	19.0	19.3
	8H	18.0	19.2	18.4	19.5	19.8	17.5	18.6	17.8	18.9	19.2
	12H	18.0	19.1	18.3	19.4	19.7	17.4	18.6	17.8	18.9	19.2
4H	2H	16.8	18.1	17.1	18.4	18.6	16.6	17.9	16.9	18.2	18.4
	3H	18.1	19.3	18.5	19.6	19.9	17.8	19.0	18.2	19.3	19.6
	4H	18.6	19.6	19.0	19.9	20.3	18.2	19.2	18.6	19.5	19.9
	6H	18.8	19.7	19.2	20.0	20.4	18.3	19.2	18.7	19.6	20.0
	8H	18.8	19.6	19.2	20.0	20.4	18.3	19.1	18.7	19.5	19.9
	12H	18.8	19.6	19.2	19.9	20.4	18.3	19.0	18.7	19.4	19.9
8H	4H	18.7	19.5	19.1	19.9	20.3	18.3	19.1	18.7	19.5	19.9
	6H	18.9	19.6	19.4	20.0	20.5	18.5	19.2	18.9	19.6	20.0
	8H	19.0	19.6	19.5	20.0	20.5	18.5	19.1	19.0	19.6	20.0
	12H	19.0	19.5	19.5	20.0	20.5	18.5	19.0	19.0	19.5	20.0
12H	4H	18.6	19.4	19.1	19.8	20.2	18.3	19.1	18.7	19.4	19.9
	6H	18.9	19.5	19.4	20.0	20.4	18.5	19.1	19.0	19.5	20.0
	8H	19.0	19.5	19.5	20.0	20.4	18.5	19.0	19.0	19.5	20.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.3					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.5					
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4					

CIE Pub.117, 41267 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.9)

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

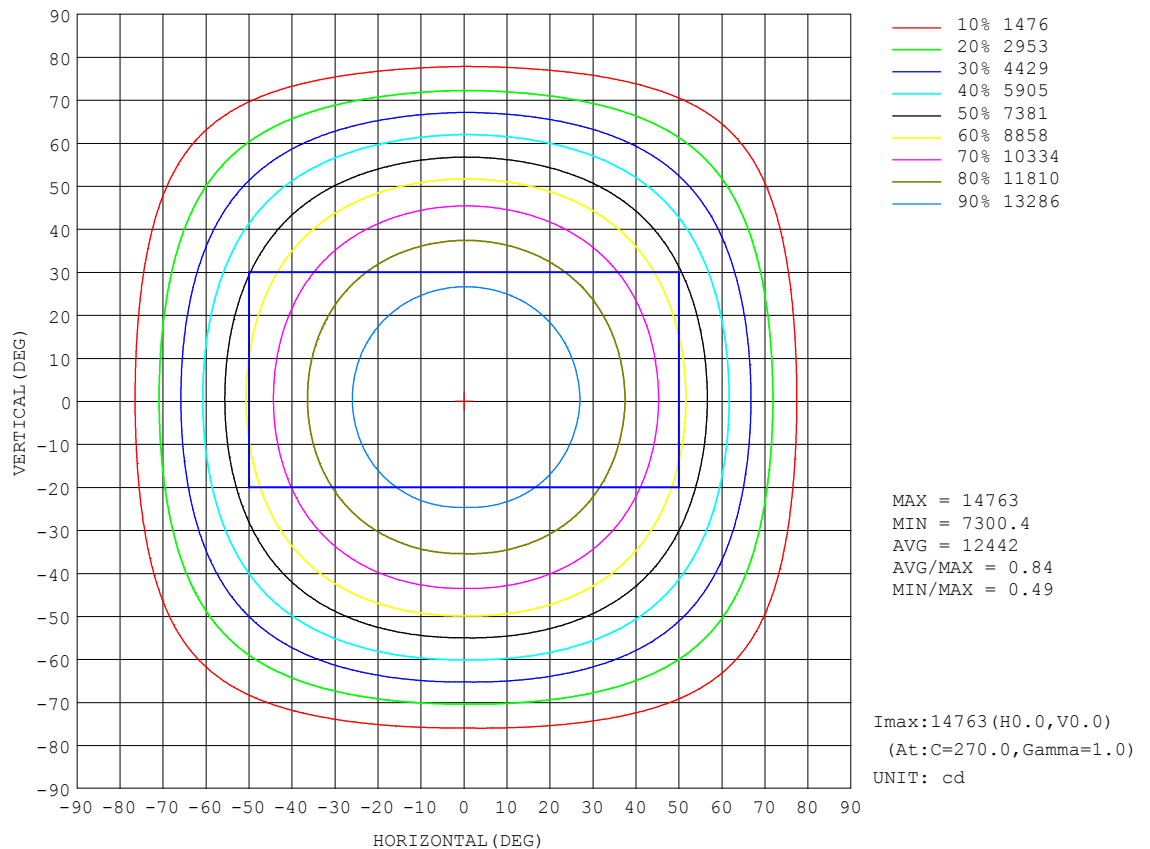
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	56	46	40	33
0.80	69	57	50	68	57	50	66	56	49	43
1.00	77	67	59	76	66	59	74	67	59	52
1.25	84	74	67	83	74	67	80	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	97	105	100	96	100	97	93	84
5.00	109	105	101	107	103	99	102	99	96	87
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:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



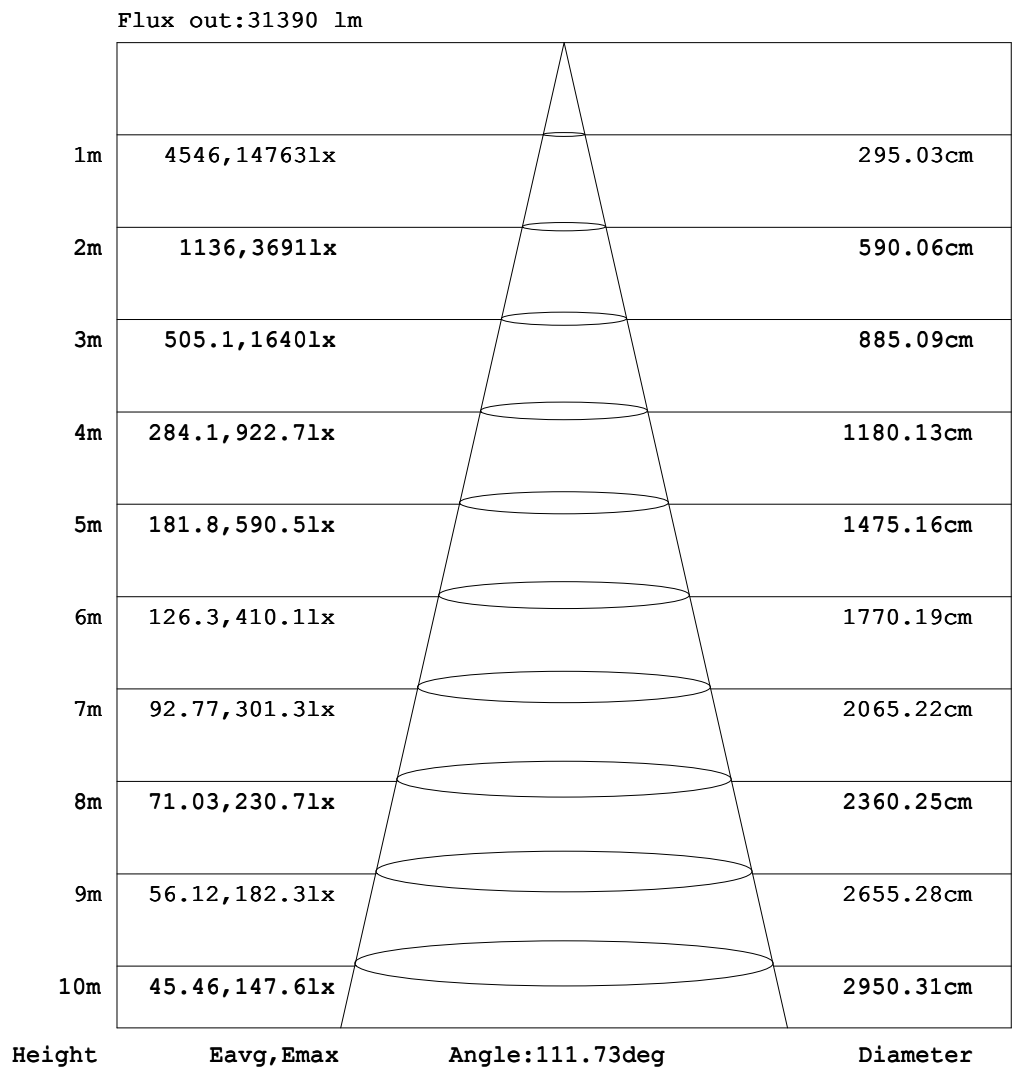
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



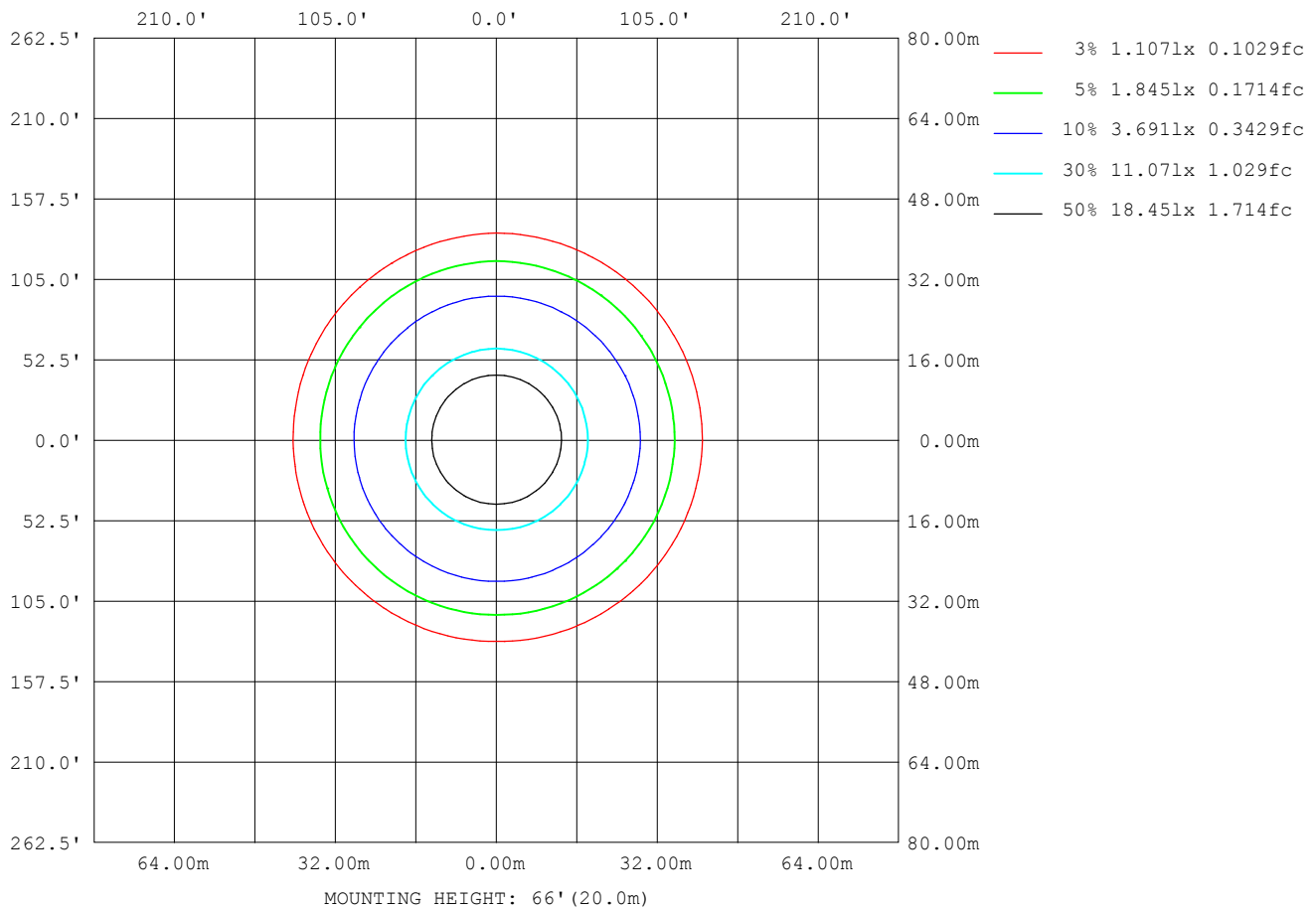
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2020-06-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

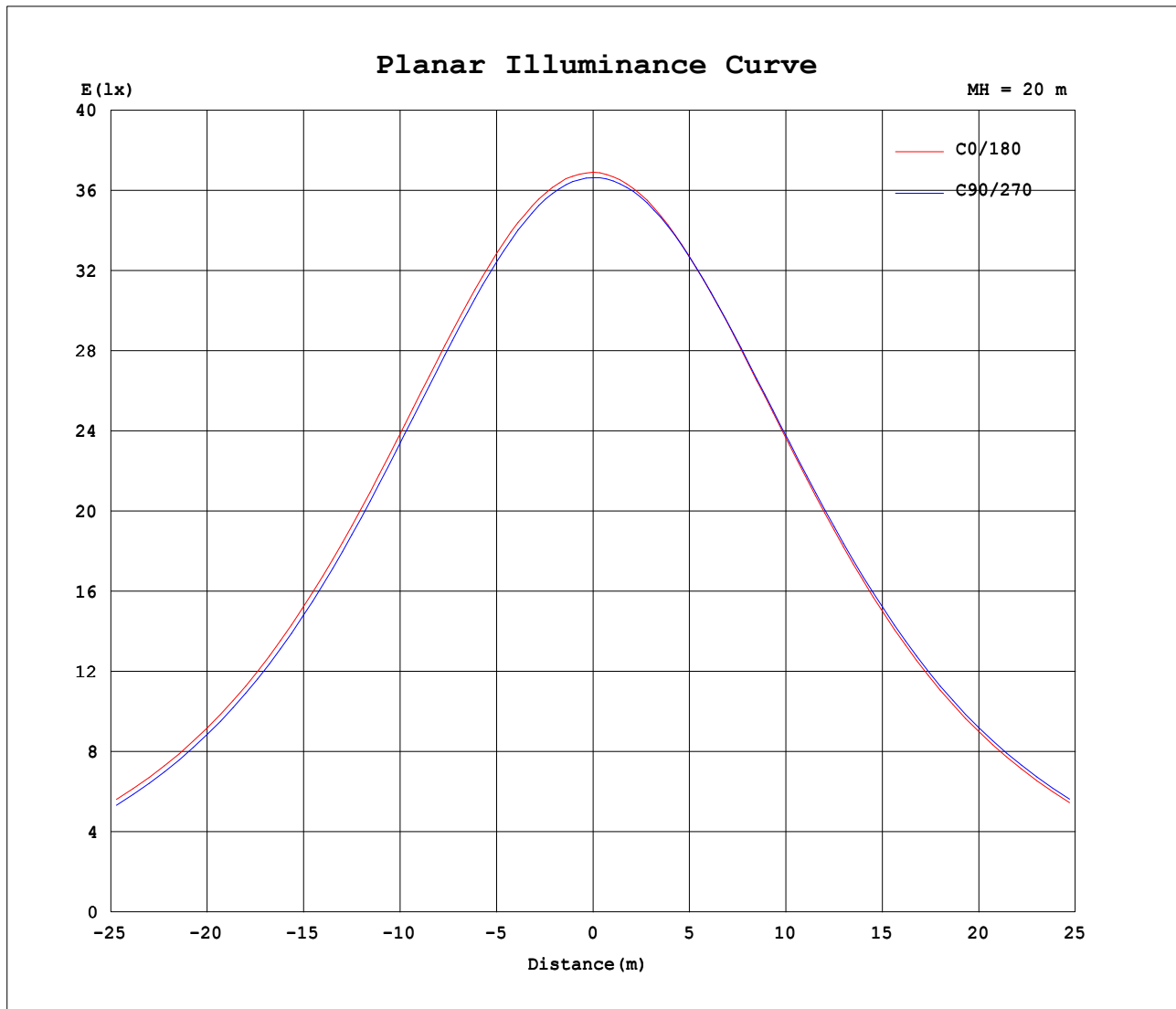
AvgL	cd/m2
L_0~180 (65) av	92470
L_0~180 (75) av	60868
L_0~180 (85) av	17601
L_90~270 (65) av	92485
L_90~270 (75) av	61085
L_90~270 (85) av	17555
L_45 (65) av	92321
L_45 (75) av	60766
L_45 (85) av	17339

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-06-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2020-06-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity: 65.0%  
Test Distance: 8.000m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.40V I:1.1285A P:245.91W PF:0.9843 Freq:49.99Hz Lamp Flux:41266.8x1 lm		
NAME: UFO	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: ×10cd

C (DEG) γ (DEG)	0	90	180	270															
0	1471	1471	1471	1471															
5	1466	1465	1465	1468															
10	1452	1448	1449	1456															
15	1428	1419	1421	1432															
20	1393	1380	1384	1396															
25	1346	1330	1335	1350															
30	1287	1268	1274	1293															
35	1216	1193	1200	1223															
40	1133	1106	1114	1141															
45	1035	1006	1015	1046															
50	926	887	901	935															
55	784	741	753	791															
60	637	596	609	648															
65	492	452	466	505															
70	347	309	321	361															
75	205	170	181	217															
80	93.1	67.0	74.9	100															
85	22.8	12.2	14.8	25.3															
90	0.95	0.67	0.48	1.40															
95	0.91	1.01	0.77	0.68															
100	1.32	1.46	1.18	1.05															
105	1.83	1.99	1.68	1.52															
110	2.40	2.58	2.23	2.06															
115	3.01	3.19	2.81	2.63															
120	3.58	3.77	3.38	3.21															
125	4.12	4.31	3.93	3.76															
130	4.62	4.80	4.44	4.28															
135	5.08	5.24	4.91	4.76															
140	5.51	5.64	5.35	5.21															
145	5.90	6.03	5.77	5.64															
150	6.27	6.38	6.15	6.05															
155	6.61	6.70	6.52	6.42															
160	6.93	7.01	6.86	6.77															
165	7.23	7.30	7.18	7.11															
170	7.49	7.55	7.47	7.40															
175	7.66	7.67	7.66	7.59															
180	7.72	7.73	7.77	7.70															

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2020-06-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.405.8  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks: