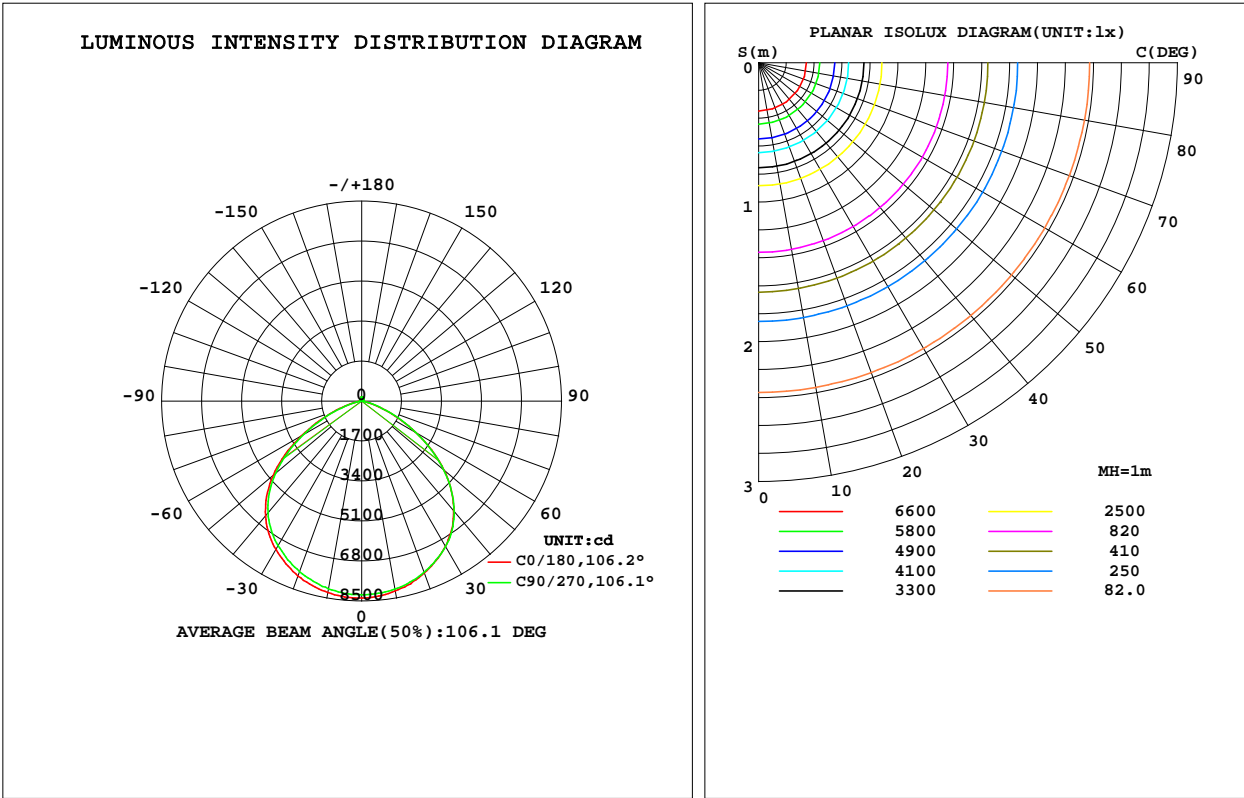


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE: EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.64 lm/W			
MODEL	EHB3-UFO150W	I <sub>max</sub> (cd)	8378	S/MH(C0/180)	1.26
NOMINAL POWER(W)	144	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	21174	η UP,DN(C0-180)	1.1,47.8
NOMINAL FLUX(lm)	21173.5	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.2,49.9
LAMPS INSIDE	1	η up(%)	2.2	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.3	η down(%)	97.8	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	8199	8113	8269	8111					0- 10	786.4	786.4	3.71,3.71
20	7782	7751	7920	7721					10- 20	2263	3049	14.4,14.4
30	7127	7143	7290	7101					20- 30	3460	6509	30.7,30.7
40	6091	6118	6360	6197					30- 40	4210	10719	50.6,50.6
50	4579	4556	4915	4784					40- 50	4240	14958	70.6,70.6
60	2636	2642	2958	2848					50- 60	3359	18318	86.5,86.5
70	932.5	955.0	1152	1063					60- 70	1832	20150	95.2,95.2
80	93.68	114.9	154.4	119.1					70- 80	510.7	20661	97.6,97.6
90	21.27	20.73	22.53	22.32					80- 90	37.74	20699	97.8,97.8
100	32.33	31.57	37.42	36.94					90-100	30.22	20729	97.9,97.9
110	48.39	47.45	56.10	55.24					100-110	45.34	20774	98.1,98.1
120	66.82	66.10	75.43	73.75					110-120	60.58	20835	98.4,98.4
130	85.77	84.71	92.34	90.17					120-130	71.17	20906	98.7,98.7
140	104.2	103.2	109.7	107.4					130-140	74.84	20981	99.1,99.1
150	124.8	123.0	128.2	125.6					140-150	72.55	21053	99.4,99.4
160	143.8	142.1	141.9	138.7					150-160	61.65	21115	99.7,99.7
170	160.1	158.6	170.8	167.0					160-170	42.64	21158	99.9,99.9
180	170.7	169.7	173.4	168.5					170-180	16.01	21174	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

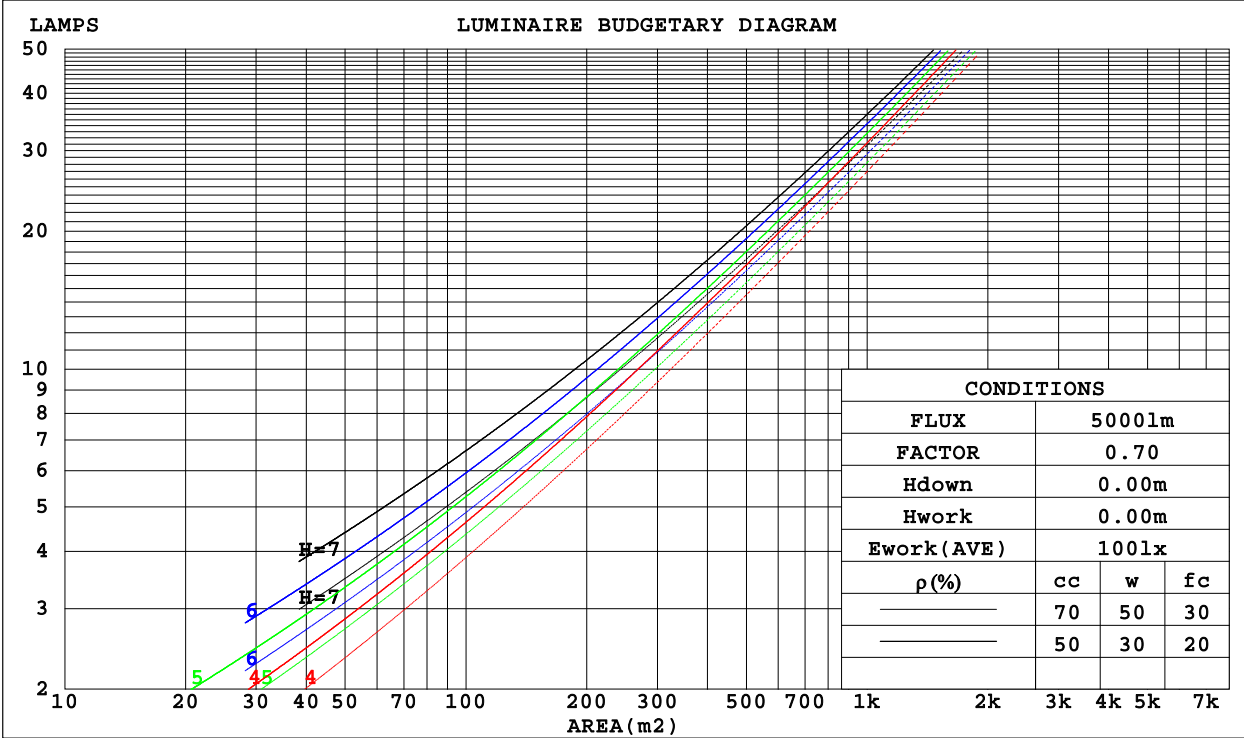
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)										
0.0	1.19	1.19	1.19	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	.00	.00	.00	.98	
1.0	1.06	1.02	.99	1.03	1.00	.97	.99	.96	.94	.95	.93	.91	.91	.89	.88	.85	
2.0	.94	.88	.83	.92	.86	.82	.88	.83	.79	.84	.81	.77	.81	.78	.75	.73	
3.0	.83	.76	.70	.82	.75	.69	.78	.73	.68	.75	.70	.66	.73	.69	.65	.63	
4.0	.74	.66	.60	.73	.65	.60	.70	.64	.58	.68	.62	.57	.65	.60	.57	.54	
5.0	.67	.58	.52	.65	.58	.52	.63	.56	.51	.61	.55	.50	.59	.54	.50	.47	
6.0	.60	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42	
7.0	.55	.46	.41	.54	.46	.40	.52	.45	.40	.50	.44	.39	.49	.43	.39	.37	
8.0	.50	.42	.36	.49	.41	.36	.48	.41	.36	.46	.40	.35	.45	.39	.35	.33	
9.0	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.30	
10.0	.42	.35	.30	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27	



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION 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	.260	.148	.047	.252	.144	.046	.238	.136	.044	.225	.130	.042	.213	.123	.040	
2.0	.254	.139	.043	.247	.136	.042	.235	.131	.041	.223	.125	.039	.213	.120	.038	
3.0	.241	.128	.038	.236	.126	.038	.224	.122	.037	.214	.117	.036	.205	.113	.035	
4.0	.227	.118	.035	.222	.116	.034	.212	.112	.034	.203	.109	.033	.194	.106	.032	
5.0	.213	.109	.031	.208	.107	.031	.200	.104	.031	.191	.101	.030	.184	.098	.029	
6.0	.200	.100	.029	.196	.099	.028	.188	.096	.028	.180	.094	.028	.173	.091	.027	
7.0	.188	.093	.026	.184	.092	.026	.177	.089	.026	.170	.087	.025	.164	.085	.025	
8.0	.177	.086	.024	.173	.085	.024	.167	.083	.024	.161	.081	.023	.155	.080	.023	
9.0	.166	.080	.022	.163	.080	.022	.158	.078	.022	.152	.076	.022	.147	.075	.022	
10.0	.157	.075	.021	.154	.075	.021	.149	.073	.021	.144	.072	.020	.139	.070	.020	

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	.208	.208	.208	.177	.177	.177	.121	.121	.121	.070	.070	.070	.022	.022	.022	
1.0	.194	.174	.156	.166	.149	.134	.114	.103	.093	.065	.059	.054	.021	.019	.017	
2.0	.185	.149	.120	.158	.129	.104	.108	.089	.072	.062	.052	.042	.020	.017	.014	
3.0	.176	.132	.096	.151	.113	.083	.104	.079	.058	.060	.046	.034	.019	.015	.011	
4.0	.169	.118	.079	.145	.102	.069	.100	.071	.048	.058	.042	.029	.019	.014	.009	
5.0	.162	.107	.067	.139	.093	.059	.096	.065	.041	.055	.038	.025	.018	.012	.008	
6.0	.155	.099	.059	.133	.086	.051	.092	.060	.036	.053	.035	.022	.017	.012	.007	
7.0	.149	.092	.052	.128	.080	.046	.088	.056	.032	.051	.033	.019	.017	.011	.006	
8.0	.143	.086	.048	.123	.075	.041	.085	.053	.029	.050	.031	.018	.016	.010	.006	
9.0	.137	.081	.044	.118	.071	.038	.082	.050	.027	.048	.029	.016	.015	.010	.005	
10.0	.132	.077	.041	.114	.067	.036	.079	.047	.025	.046	.028	.015	.015	.009	.005	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

## Uncorrected UGR Table

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm											
NAME: UFO					TYPE:EHB3-UFO150W			WEIGHT:			
DIM.: 250X100MM					SPEC.:150W			SERIAL No.:001			
MFR.: WST					SUR.:0.16X0.16			PROTECTION 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	31.7	33.1	32.0	33.3	33.6	31.7	33.1	32.0	33.3	33.6	
	3H	32.2	33.4	32.5	33.7	34.0	32.2	33.5	32.5	33.7	34.0
	4H	32.2	33.4	32.5	33.7	34.0	32.2	33.4	32.5	33.7	34.0
	6H	32.1	33.2	32.5	33.5	33.9	32.1	33.3	32.5	33.6	33.9
	8H	32.1	33.1	32.4	33.5	33.8	32.1	33.2	32.5	33.5	33.8
	12H	32.0	33.0	32.4	33.4	33.7	32.0	33.1	32.4	33.4	33.7
4H	2H	32.0	33.2	32.3	33.5	33.7	32.0	33.2	32.3	33.5	33.7
	3H	32.5	33.6	32.9	33.9	34.2	32.5	33.6	32.9	33.9	34.2
	4H	32.6	33.5	33.0	33.9	34.2	32.6	33.5	33.0	33.9	34.3
	6H	32.5	33.3	32.9	33.7	34.1	32.5	33.4	33.0	33.8	34.2
	8H	32.5	33.2	32.9	33.6	34.1	32.5	33.3	32.9	33.7	34.1
	12H	32.4	33.1	32.9	33.5	34.0	32.5	33.1	32.9	33.6	34.0
8H	4H	32.5	33.3	33.0	33.7	34.1	32.5	33.3	33.0	33.7	34.1
	6H	32.5	33.1	32.9	33.5	34.0	32.5	33.1	33.0	33.6	34.0
	8H	32.4	33.0	32.9	33.4	33.9	32.5	33.0	32.9	33.5	34.0
	12H	32.4	32.8	32.9	33.3	33.9	32.4	32.9	32.9	33.4	33.9
12H	4H	32.5	33.2	32.9	33.6	34.0	32.5	33.2	32.9	33.6	34.0
	6H	32.4	33.0	32.9	33.4	33.9	32.5	33.0	32.9	33.5	34.0
	8H	32.4	32.9	32.9	33.3	33.9	32.4	32.9	32.9	33.4	33.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.6					
1.5H	+ 0.3 / - 0.7					+ 0.3 / - 0.6					
2.0H	+ 1.0 / - 1.2					+ 1.0 / - 1.2					

CIE Pub.117 Corrected 21174 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.6)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2025-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:5.700m [K=1.0000]  
 Remarks:

### UTILIZATION FACTORS TABLE

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:

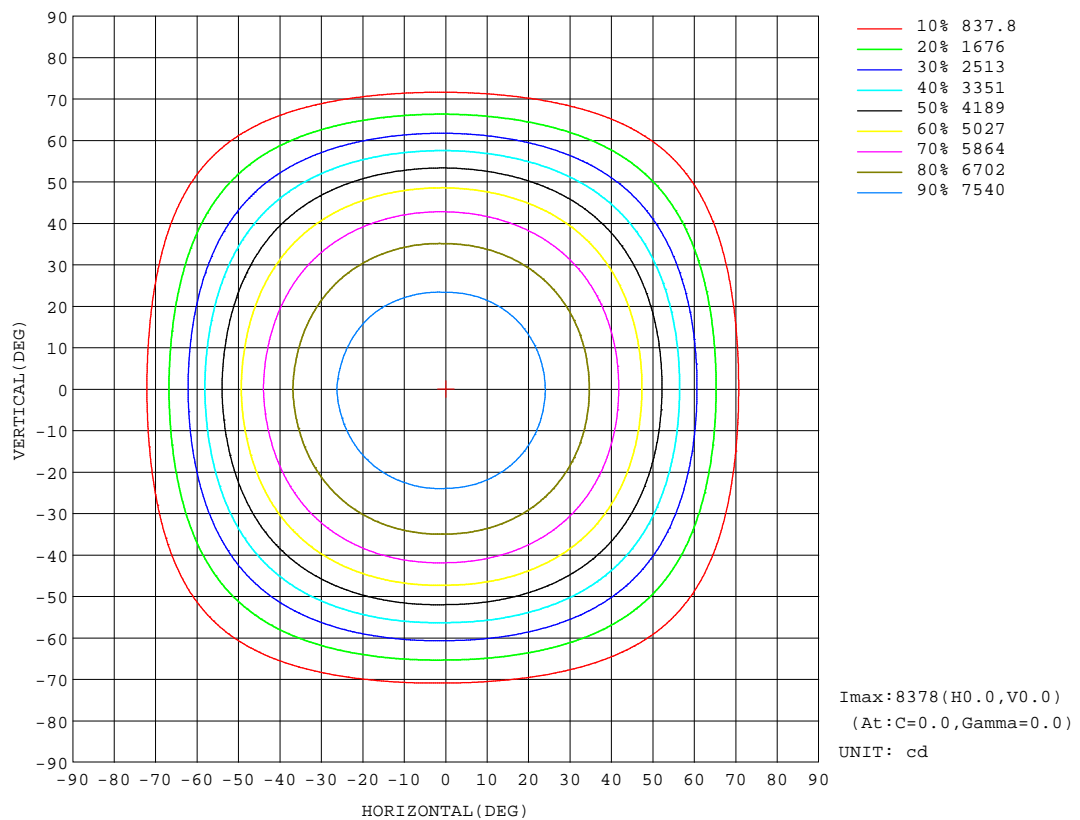
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	60	49	43	60	49	43	58	48	42	36
0.80	71	60	53	70	60	53	68	59	53	46
1.00	80	70	63	78	69	63	76	70	62	55
1.25	87	77	71	85	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	91	85	96	89	84	93	87	82	75
2.50	101	95	89	99	93	88	95	90	86	78
3.00	104	99	94	102	97	93	98	94	90	82
4.00	108	103	99	105	101	97	101	97	94	85
5.00	110	106	102	107	104	100	103	100	97	88
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:2025-05-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:



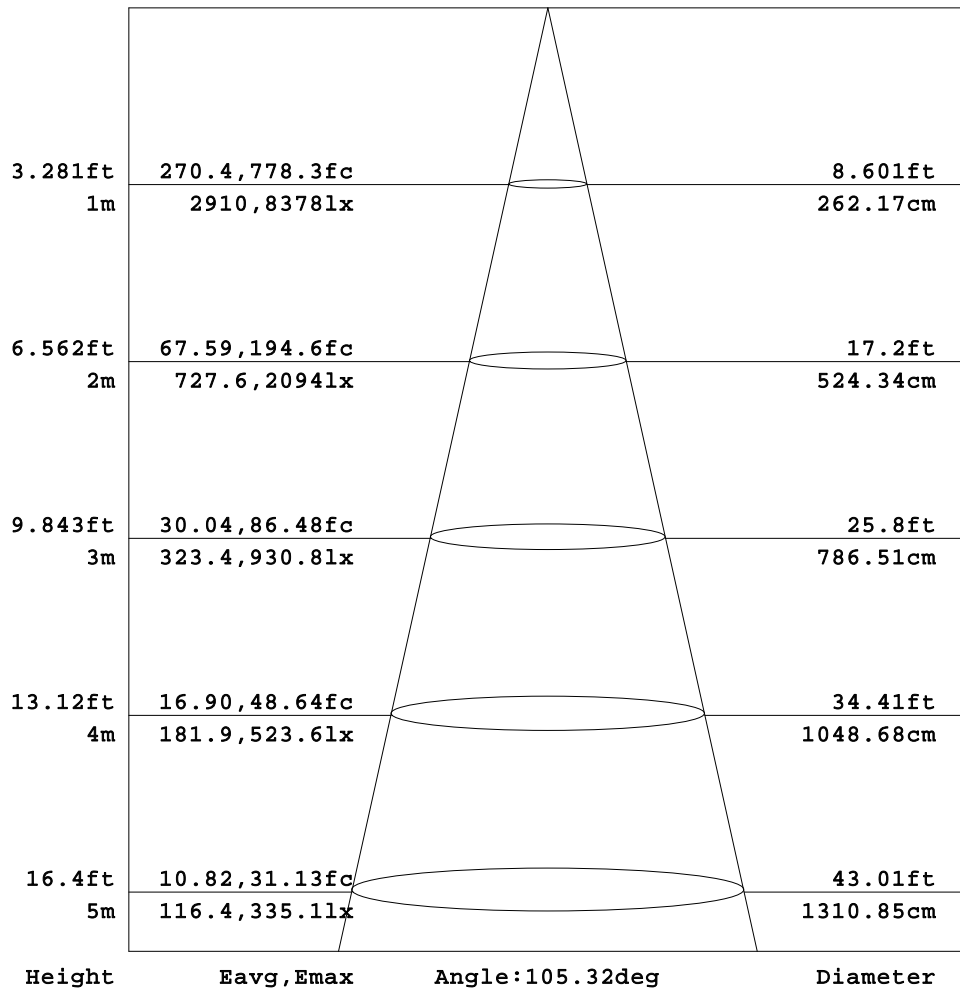
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:

AAI Figure

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:

Flux out:16101 lm



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

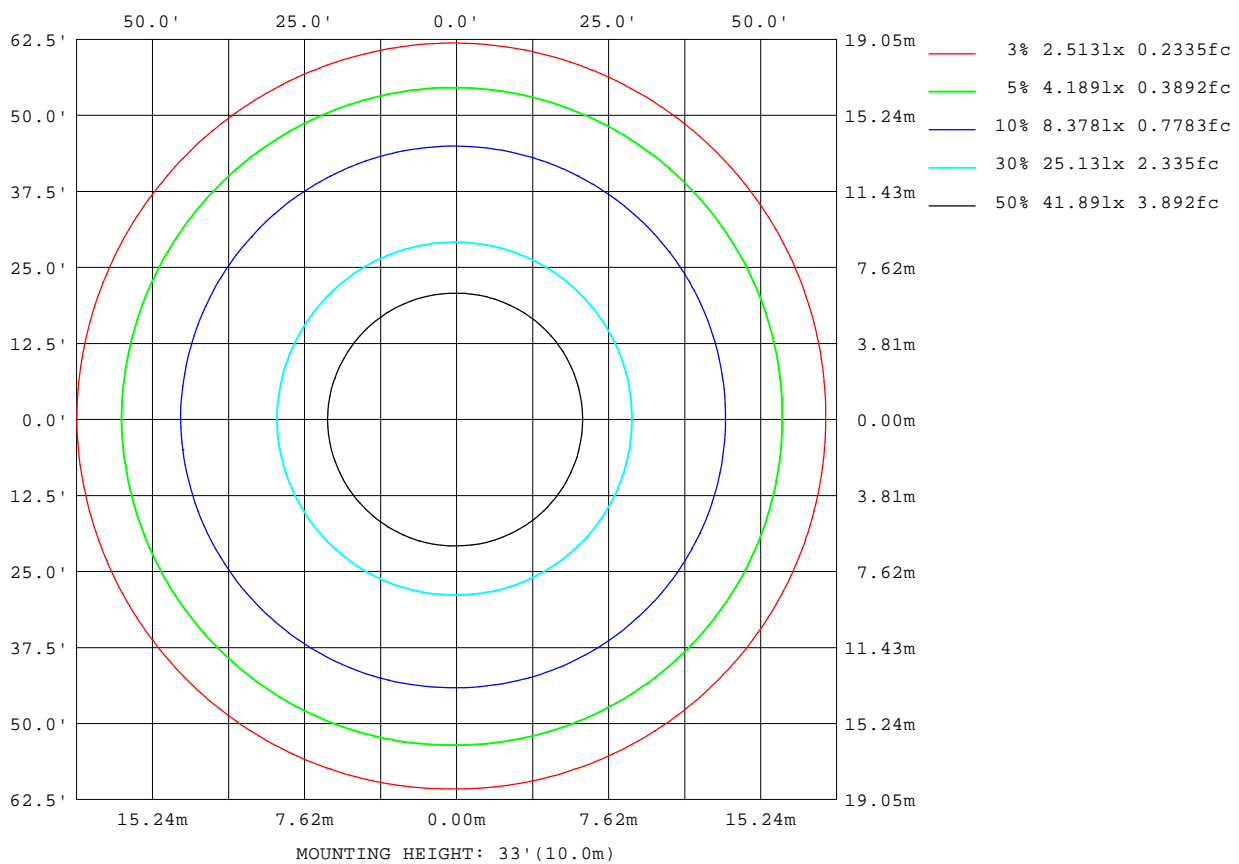
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:



## ISOLUX DIAGRAM

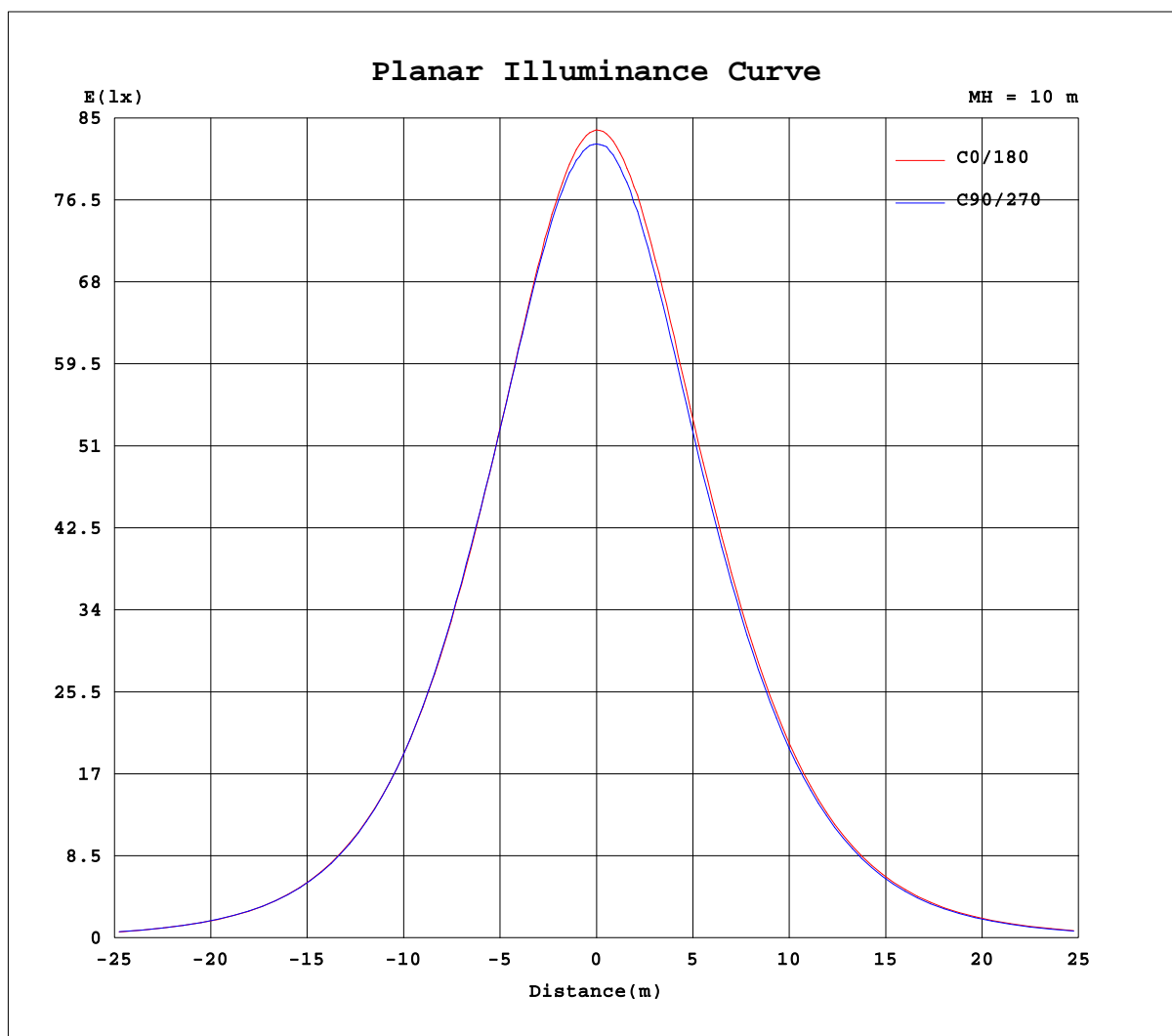
Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity:65.0%  
Test Distance:5.700m [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: 2025-05-21

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
Humidity: 65.0%  
Test Distance: 5.700m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.7V I:0.6780A P:141.5W PF:0.9450 Lamp Flux:21173.5x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 250X100MM	SPEC.:150W	SERIAL No.:001
MFR.: WST	SUR.:0.16X0.16	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	8378	8233	8378	8233															
5	8324	8198	8357	8212															
10	8199	8113	8269	8111															
15	8041	7957	8118	7938															
20	7782	7751	7920	7721															
25	7476	7465	7632	7443															
30	7127	7143	7290	7101															
35	6668	6700	6887	6709															
40	6091	6118	6360	6197															
45	5400	5404	5713	5563															
50	4579	4556	4915	4784															
55	3642	3610	3994	3868															
60	2636	2642	2958	2848															
65	1718	1734	1985	1902															
70	933	955	1152	1063															
75	384	398	518	464															
80	93.7	115	154	119															
85	18.3	18.3	19.7	17.9															
90	21.3	20.7	22.5	22.3															
95	26.1	25.5	29.3	29.0															
100	32.3	31.6	37.4	36.9															
105	39.8	39.1	46.5	45.9															
110	48.4	47.4	56.1	55.2															
115	57.5	56.5	66.1	64.7															
120	66.8	66.1	75.4	73.7															
125	76.4	75.6	84.1	82.3															
130	85.8	84.7	92.3	90.2															
135	94.6	93.6	100	98.1															
140	104	103	110	107															
145	114	113	120	117															
150	125	123	128	126															
155	134	133	135	133															
160	144	142	142	139															
165	152	151	150	147															
170	160	159	171	167															
175	169	167	173	169															
180	171	170	173	169															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2025-05-21

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:5.700m [K=1.0000]  
 Remarks: