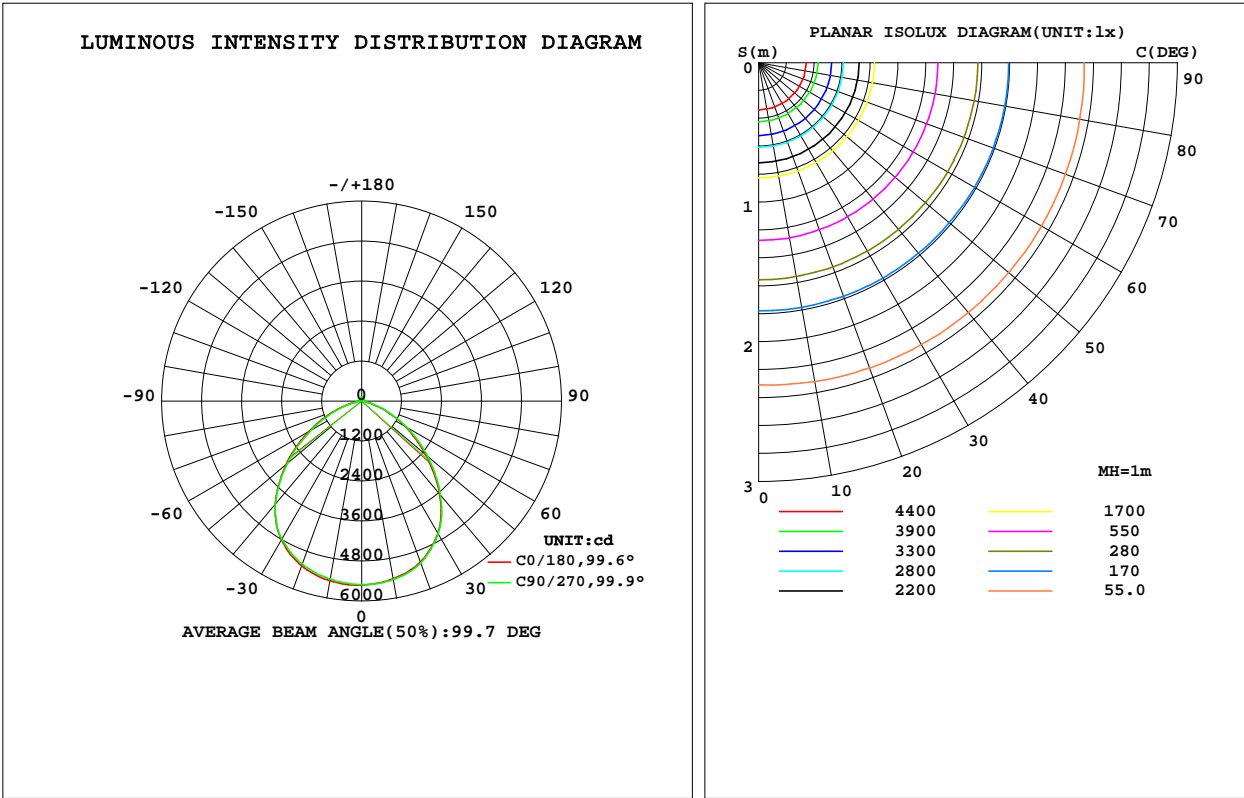


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: EHB3-UFO150W	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 140.11 lm/W			
MODEL	EHB3-UFO150W	I <sub>max</sub> (cd)	5527	S/MH(C0/180)	1.23
NOMINAL POWER(W)	96	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	13450	η UP,DN(C0-180)	1.2,46.7
NOMINAL FLUX(lm)	13450.1	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.2,50.9
LAMPS INSIDE	1	η up(%)	2.4	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.5	η down(%)	97.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

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	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	5418	5427	5439	5440	5477	5444	5427	5415	0- 10	522.4	522.4	3.88,3.88
20	5143	5141	5172	5163	5264	5231	5207	5192	10- 20	1507	2030	15.1,15.1
30	4580	4578	4592	4613	4818	4794	4791	4740	20- 30	2287	4317	32.1,32.1
40	3641	3661	3675	3711	4039	4041	4038	3939	30- 40	2689	7006	52.1,52.1
50	2516	2563	2602	2633	2967	2960	2912	2802	40- 50	2542	9548	71,71
60	1490	1520	1549	1608	1834	1816	1759	1717	50- 60	1956	11504	85.5,85.5
70	608.6	647.8	644.6	675.8	846.5	811.5	769.7	780.3	60- 70	1158	12662	94.1,94.1
80	102.8	110.3	122.3	119.2	178.8	174.3	169.4	162.0	70- 80	412.3	13075	97.2,97.2
90	14.48	14.30	14.11	13.89	14.89	14.82	14.95	15.08	80- 90	57.48	13132	97.6,97.6
100	21.96	21.63	21.31	21.03	23.46	23.75	24.02	24.37	90-100	19.93	13152	97.8,97.8
110	32.62	32.16	31.73	31.20	35.49	35.72	36.08	36.59	100-110	29.71	13182	98,98
120	45.05	44.33	43.92	43.40	48.84	49.00	49.43	49.83	110-120	39.89	13222	98.3,98.3
130	58.92	58.24	57.91	57.03	61.03	61.09	61.37	61.70	120-130	47.62	13269	98.7,98.7
140	73.45	73.20	72.50	71.67	71.38	71.58	71.68	72.10	130-140	50.89	13320	99,99
150	88.11	87.92	87.14	86.47	80.60	80.84	81.26	81.43	140-150	49.03	13369	99.4,99.4
160	102.0	101.8	101.2	100.6	89.73	89.11	89.84	89.86	150-160	41.45	13411	99.7,99.7
170	113.3	113.2	112.6	112.3	102.0	101.2	101.7	102.0	160-170	28.52	13439	99.9,99.9
180	119.9	119.6	119.6	119.6	120.2	119.5	119.7	119.4	170-180	10.89	13450	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

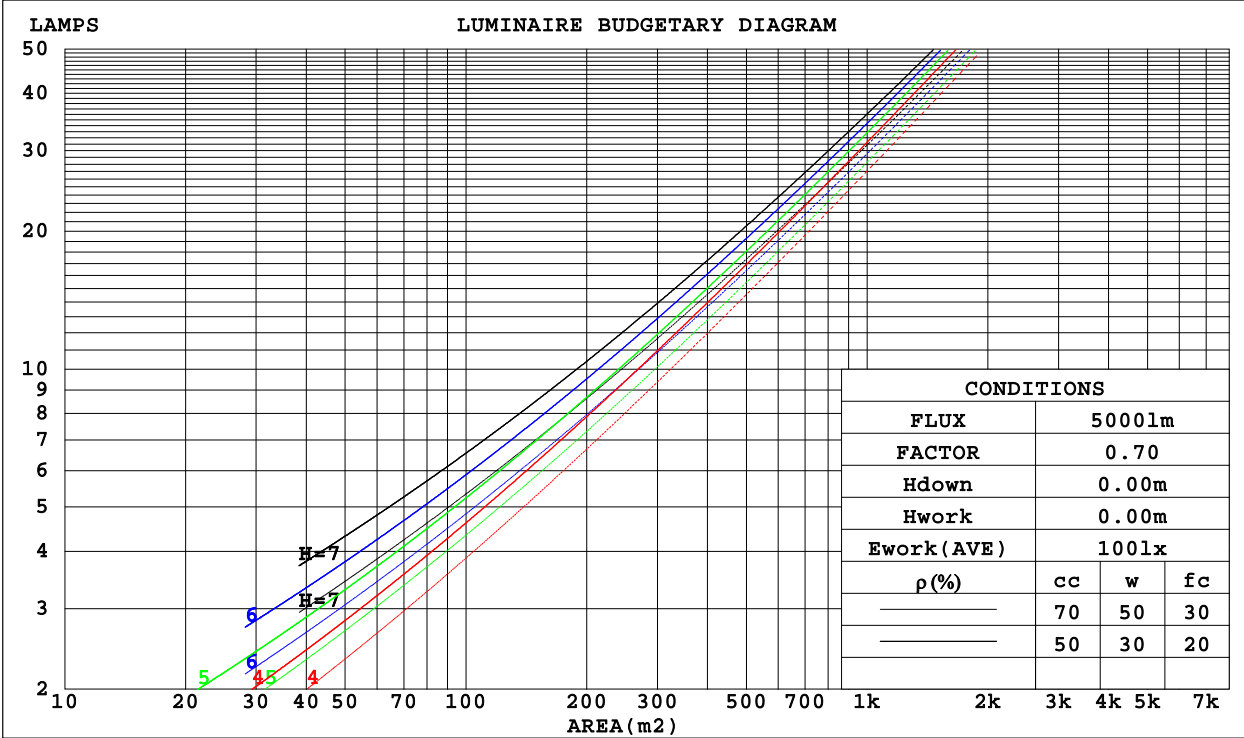
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

$\gamma$  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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	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	1.18	1.18	1.18	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	.00	.97	.99	.96	.94	.94	.92	.90	.91	.89	.87	.85	
2.0	.94	.88	.83	.92	.86	.81	.88	.83	.79	.84	.80	.77	.81	.78	.75	.73	
3.0	.83	.76	.70	.82	.75	.69	.78	.73	.68	.75	.70	.66	.73	.68	.65	.63	
4.0	.74	.66	.60	.73	.66	.60	.70	.64	.59	.68	.62	.58	.65	.61	.57	.55	
5.0	.67	.59	.52	.66	.58	.52	.63	.57	.51	.61	.55	.51	.59	.54	.50	.48	
6.0	.61	.52	.46	.60	.52	.46	.58	.51	.45	.56	.49	.45	.54	.48	.44	.42	
7.0	.55	.47	.41	.54	.46	.41	.53	.46	.40	.51	.45	.40	.49	.44	.40	.38	
8.0	.50	.42	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.45	.40	.36	.34	
9.0	.46	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.42	.36	.32	.31	
10.0	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.30	.39	.33	.29	.28	



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

$\gamma$  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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	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	.263	.150	.047	.255	.146	.046	.241	.138	.044	.228	.131	.042	.215	.125	.040		
2.0	.255	.140	.043	.248	.137	.042	.236	.131	.041	.224	.126	.039	.213	.121	.038		
3.0	.241	.128	.038	.235	.126	.038	.224	.121	.037	.214	.117	.036	.204	.113	.035		
4.0	.226	.118	.035	.221	.116	.034	.211	.112	.033	.202	.108	.033	.193	.105	.032		
5.0	.212	.108	.031	.207	.106	.031	.198	.103	.030	.190	.100	.030	.182	.097	.029		
6.0	.199	.100	.028	.194	.098	.028	.186	.096	.028	.179	.093	.027	.172	.091	.027		
7.0	.186	.092	.026	.183	.091	.026	.175	.089	.026	.169	.087	.025	.162	.084	.025		
8.0	.175	.086	.024	.172	.085	.024	.165	.083	.024	.159	.081	.023	.154	.079	.023		
9.0	.165	.080	.022	.162	.079	.022	.156	.077	.022	.151	.076	.022	.146	.074	.021		
10.0	.156	.075	.021	.153	.074	.021	.148	.072	.020	.143	.071	.020	.138	.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	.178	.178	.178	.122	.122	.122	.070	.070	.070	.022	.022	.022		
1.0	.195	.175	.156	.167	.150	.134	.114	.103	.093	.066	.060	.054	.021	.019	.017		
2.0	.186	.150	.121	.159	.129	.104	.109	.090	.073	.063	.052	.043	.020	.017	.014		
3.0	.177	.132	.097	.152	.114	.084	.104	.079	.059	.060	.046	.035	.019	.015	.011		
4.0	.170	.119	.080	.146	.103	.070	.100	.072	.049	.058	.042	.029	.019	.014	.010		
5.0	.162	.108	.068	.140	.094	.060	.096	.066	.042	.056	.038	.025	.018	.013	.008		
6.0	.156	.100	.060	.134	.087	.052	.092	.061	.037	.054	.036	.022	.017	.012	.007		
7.0	.149	.093	.054	.128	.081	.047	.089	.057	.033	.052	.033	.020	.017	.011	.007		
8.0	.143	.087	.049	.123	.076	.042	.085	.053	.030	.050	.031	.018	.016	.010	.006		
9.0	.138	.082	.045	.119	.071	.039	.082	.050	.028	.048	.030	.017	.015	.010	.005		
10.0	.132	.078	.042	.114	.068	.037	.079	.048	.026	.046	.028	.016	.015	.009	.005		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2025-04-16

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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm										
NAME: UFO					TYPE:EHB3-UFO150W			WEIGHT:		
DIM.: 225X100MM					SPEC.:100W			SERIAL No.:001		
MFR.: WST					SUR.:0.15X0.15			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	30.1	31.5	30.4	31.7	32.0	30.2	31.6	30.5	31.8	32.1
3H	30.7	32.0	31.1	32.3	32.5	30.9	32.1	31.2	32.4	32.7
4H	30.8	32.0	31.2	32.3	32.6	31.0	32.2	31.3	32.5	32.8
6H	30.8	31.9	31.1	32.2	32.5	31.0	32.1	31.3	32.4	32.7
8H	30.7	31.8	31.1	32.1	32.5	30.9	32.0	31.3	32.3	32.6
12H	30.7	31.7	31.1	32.0	32.4	30.9	31.9	31.3	32.2	32.6
4H 2H	30.4	31.6	30.8	31.9	32.2	30.5	31.7	30.9	32.0	32.3
3H	31.2	32.2	31.6	32.5	32.9	31.3	32.3	31.7	32.7	33.0
4H	31.3	32.2	31.7	32.6	33.0	31.5	32.4	31.9	32.7	33.1
6H	31.3	32.1	31.7	32.5	32.9	31.5	32.3	31.9	32.7	33.1
8H	31.3	32.0	31.7	32.4	32.9	31.4	32.2	31.9	32.6	33.0
12H	31.2	31.9	31.7	32.3	32.8	31.4	32.1	31.9	32.5	33.0
8H 4H	31.3	32.0	31.7	32.5	32.9	31.4	32.2	31.9	32.6	33.0
6H	31.3	31.9	31.8	32.4	32.8	31.5	32.1	32.0	32.5	33.0
8H	31.3	31.8	31.8	32.3	32.8	31.5	32.0	32.0	32.5	33.0
12H	31.3	31.7	31.8	32.2	32.7	31.4	31.9	31.9	32.4	32.9
12H 4H	31.2	31.9	31.7	32.4	32.8	31.4	32.1	31.9	32.5	33.0
6H	31.3	31.8	31.8	32.3	32.8	31.4	32.0	31.9	32.5	33.0
8H	31.3	31.7	31.8	32.2	32.7	31.4	31.9	31.9	32.4	32.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.6				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				
2.0H	+ 0.8 / - 0.9					+ 0.8 / - 0.9				

CIE Pub.117 Corrected 13450 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.0)

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:

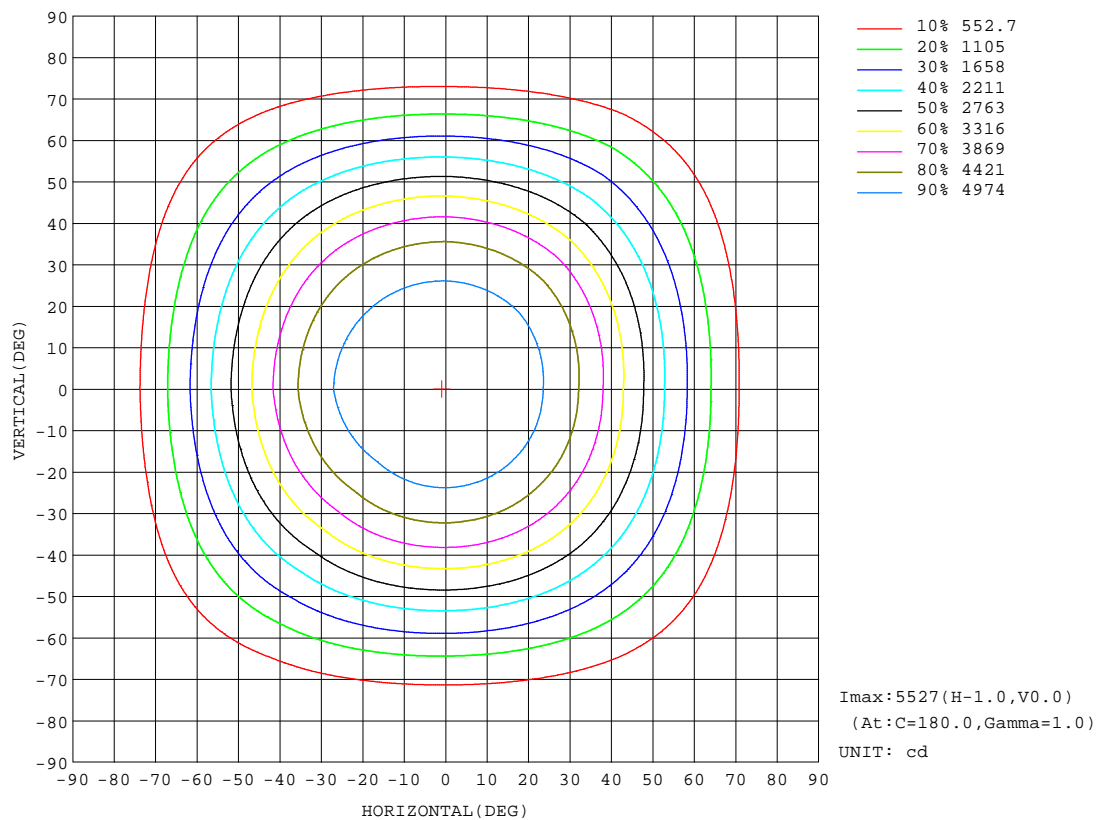
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	61	51	44	61	50	44	59	50	44	38
0.80	72	61	54	71	61	54	69	60	54	47
1.00	80	70	64	79	70	63	77	70	63	56
1.25	87	78	71	86	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	92	87	82	75
2.50	101	95	89	99	93	88	95	90	86	78
3.00	104	98	94	102	97	92	98	94	90	81
4.00	108	103	99	105	101	97	101	97	94	85
5.00	110	106	102	107	104	100	102	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: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:

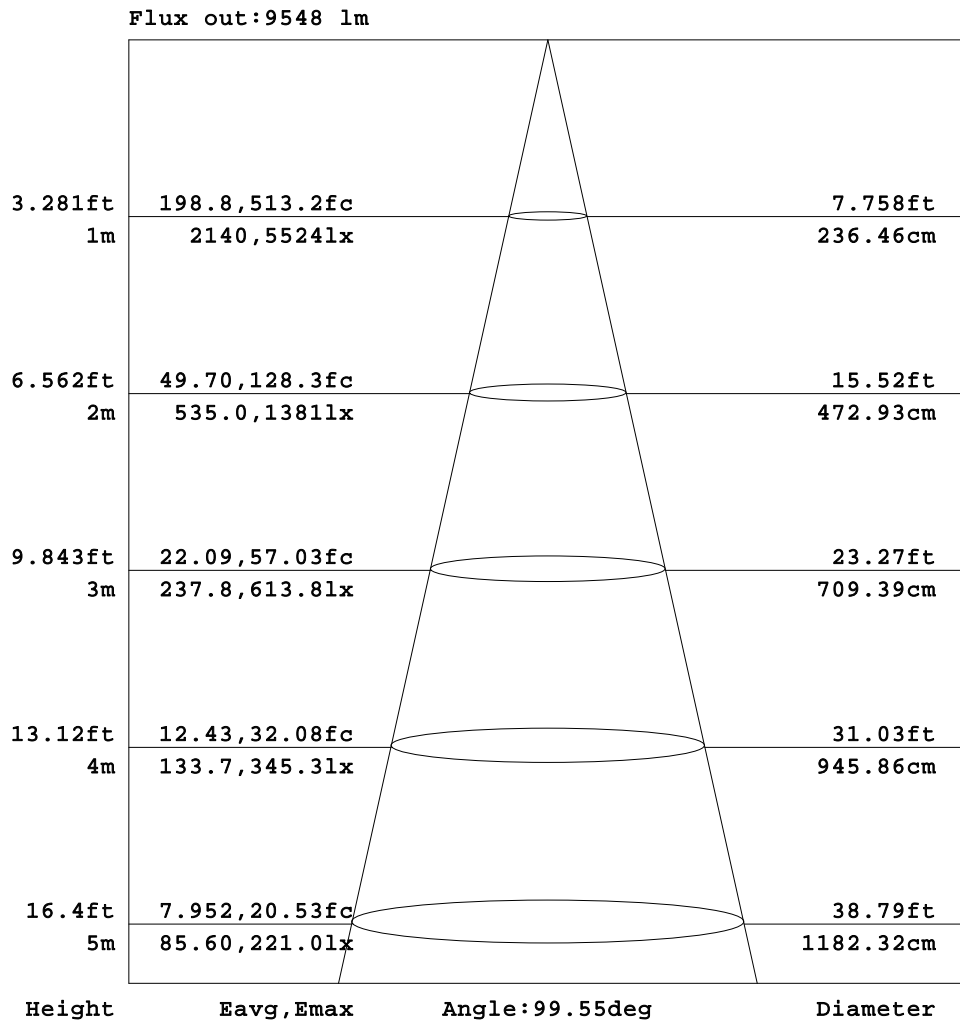


C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

$\gamma$  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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:



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

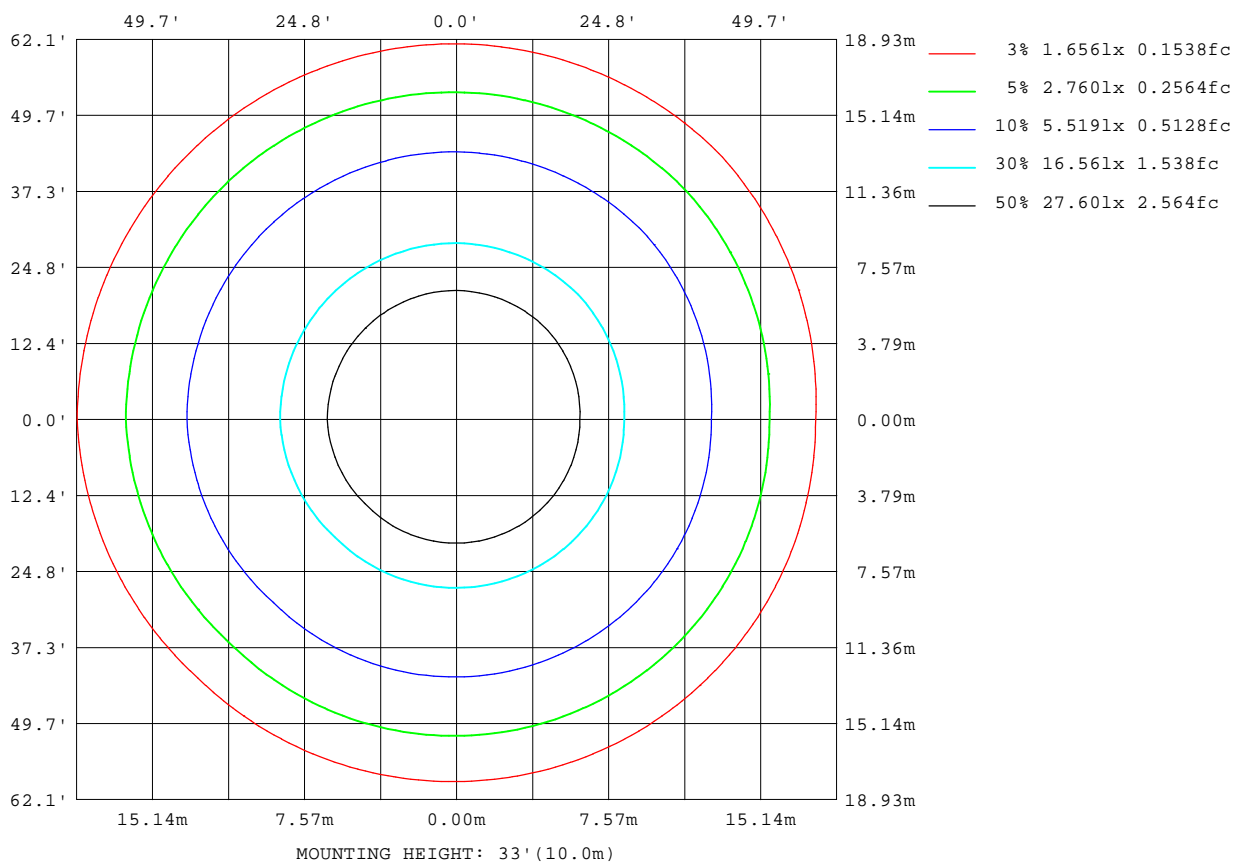
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2025-04-16

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

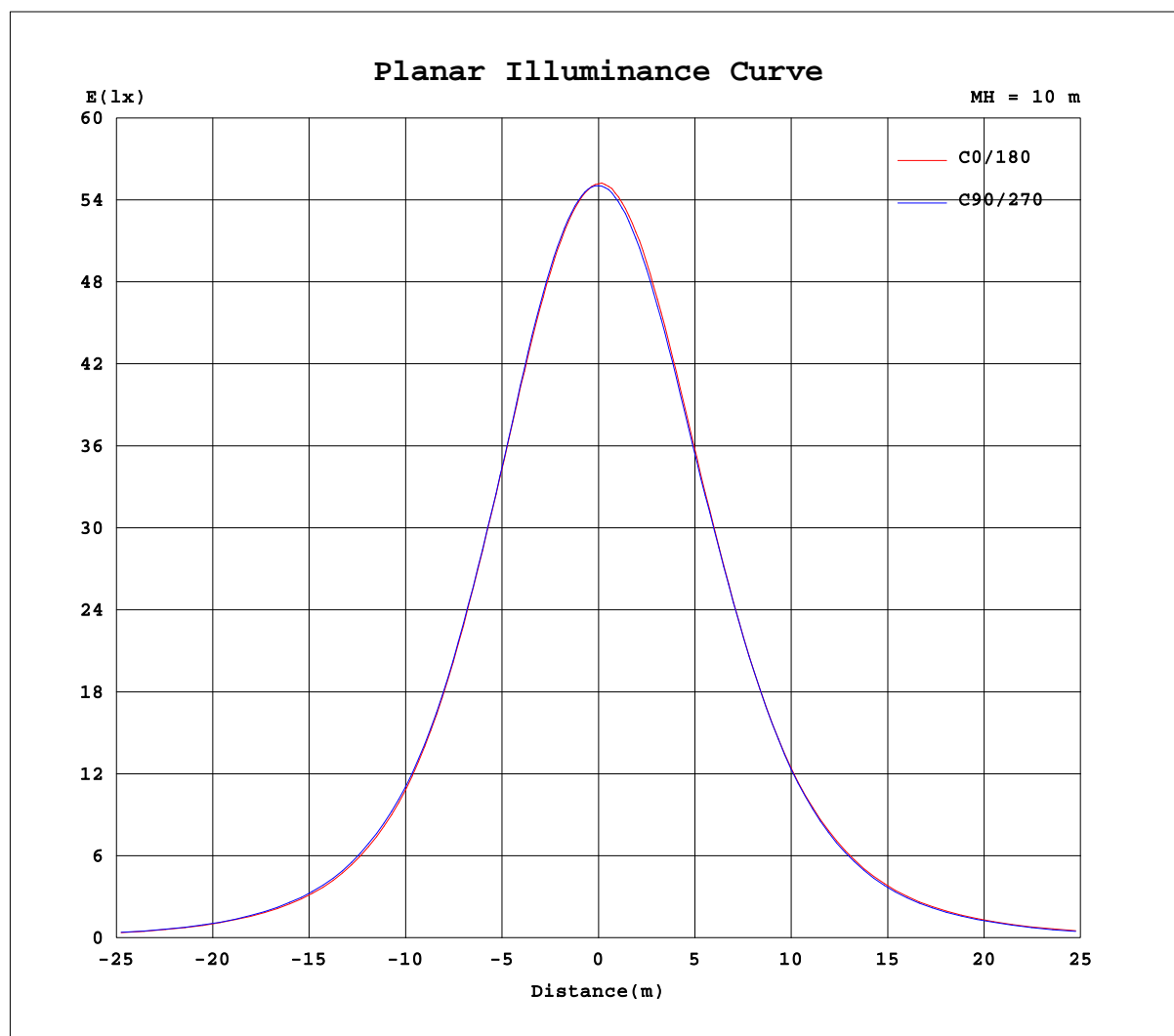
Test:U:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2025-04-16

$\gamma$  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: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2025-04-16

$\gamma$  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:220.5V I:0.4490A P:96.00W PF:0.9680 Lamp Flux:13450.1x1 lm		
NAME: UFO	TYPE:EHB3-UFO150W	WEIGHT:
DIM.: 225X100MM	SPEC.:100W	SERIAL No.:001
MFR.: WST	SUR.:0.15X0.15	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	5519	5513	5505	5498	5519	5513	5505	5498										
5	5484	5487	5493	5488	5516	5499	5481	5475										
10	5418	5427	5439	5440	5477	5444	5427	5415										
15	5312	5321	5340	5332	5394	5362	5338	5328										
20	5143	5141	5172	5163	5264	5231	5207	5192										
25	4893	4889	4907	4912	5074	5035	5022	4992										
30	4580	4578	4592	4613	4818	4794	4791	4740										
35	4160	4155	4191	4213	4475	4467	4467	4389										
40	3641	3661	3675	3711	4039	4041	4038	3939										
45	3070	3108	3133	3179	3516	3521	3493	3372										
50	2516	2563	2602	2633	2967	2960	2912	2802										
55	1975	2012	2054	2092	2392	2376	2324	2236										
60	1490	1520	1549	1608	1834	1816	1759	1717										
65	1013	1050	1047	1108	1316	1272	1256	1235										
70	609	648	645	676	846	812	770	780										
75	285	312	317	311	466	441	426	412										
80	103	110	122	119	179	174	169	162										
85	22.1	23.7	23.7	25.7	56.8	55.3	51.7	52.7										
90	14.5	14.3	14.1	13.9	14.9	14.8	14.9	15.1										
95	17.7	17.5	17.2	17.0	18.5	18.8	19.0	19.3										
100	22.0	21.6	21.3	21.0	23.5	23.7	24.0	24.4										
105	27.0	26.6	26.2	25.8	29.2	29.5	29.8	30.2										
110	32.6	32.2	31.7	31.2	35.5	35.7	36.1	36.6										
115	38.7	38.1	37.5	37.2	42.1	42.4	42.8	43.2										
120	45.0	44.3	43.9	43.4	48.8	49.0	49.4	49.8										
125	51.7	51.3	50.6	50.0	55.2	55.3	55.6	56.1										
130	58.9	58.2	57.9	57.0	61.0	61.1	61.4	61.7										
135	65.9	65.6	64.9	64.0	66.3	66.4	66.5	66.9										
140	73.4	73.2	72.5	71.7	71.4	71.6	71.7	72.1										
145	80.8	80.6	79.8	79.2	76.1	76.5	76.8	77.0										
150	88.1	87.9	87.1	86.5	80.6	80.8	81.3	81.4										
155	95.3	95.1	94.4	93.8	85.1	84.8	85.3	85.5										
160	102	102	101	101	89.7	89.1	89.8	89.9										
165	108	108	107	107	95.2	94.4	95.1	95.3										
170	113	113	113	112	102	101	102	102										
175	117	117	117	117	120	119	120	119										
180	120	120	120	120	120	119	120	119										

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2025-04-16

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: