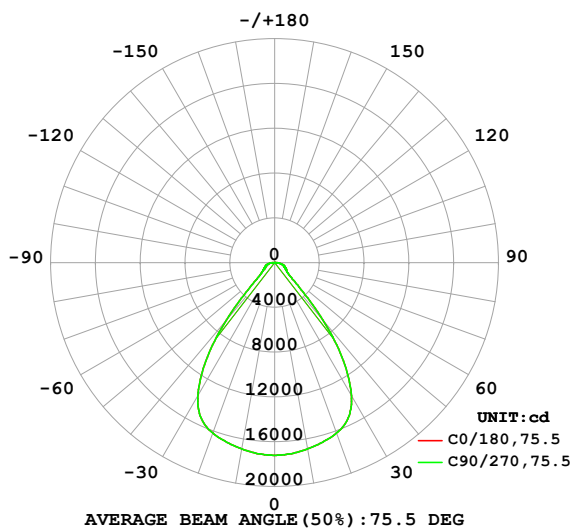


LUMINAIRE PHOTOMETRIC TEST REPORT

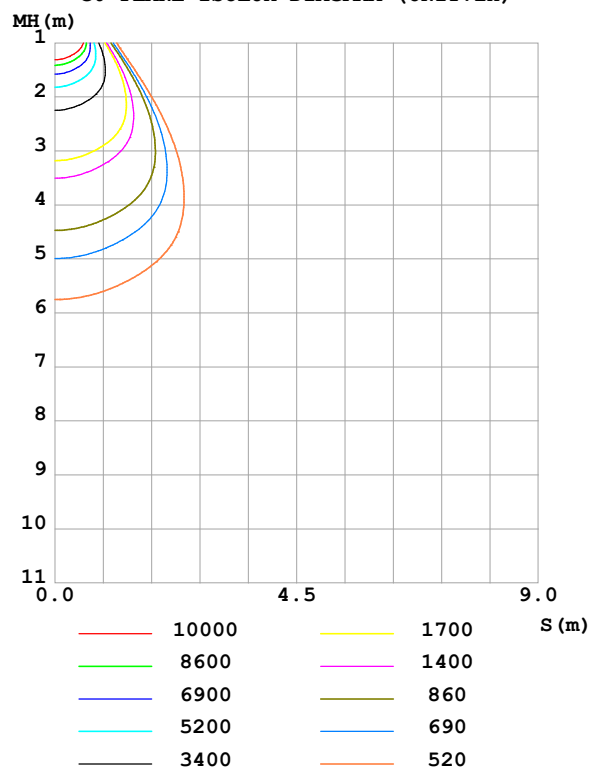
Test:U:230.25V I:0.6494A P:144.12W PF:0.9639 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:25756.2x1 lm		
NAME: HB74-240 (150W)-H42202	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 178.71 lm/W			
MODEL	/	I _{max} (cd)	17205	S/MH(C0/180)	1.09
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.09
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	25756	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	25756.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	/	η down (%)	100.0	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYQ
Test Date: 2026-07-21
Stability time: 0 s

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity: 65.0%
Test Distance: 10.250m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1690	1690	1690	1690	1690	1690	1690	1690	0- 10	1627	1627	6.32,6.32
20	1620	1620	1620	1620	1620	1620	1620	1620	10- 20	4690	6317	24.5,24.5
30	1372	1372	1372	1372	1372	1372	1372	1372	20- 30	7039	13356	51.9,51.9
40	672.8	672.8	672.8	672.8	672.8	672.8	672.8	672.8	30- 40	6536	19891	77.2,77.2
50	169.0	169.0	169.0	169.0	169.0	169.0	169.0	169.0	40- 50	2672	22563	87.6,87.6
60	113.0	113.0	113.0	113.0	113.0	113.0	113.0	113.0	50- 60	1203	23766	92.3,92.3
70	86.35	86.35	86.35	86.35	86.35	86.35	86.35	86.35	60- 70	979.9	24746	96.1,96.1
80	50.78	50.78	50.78	50.78	50.78	50.78	50.78	50.78	70- 80	747.8	25494	99,99
90	0.6712	0.6712	0.6712	0.6712	0.6712	0.6712	0.6712	0.6712	80- 90	262.4	25756	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:X10cd									UNIT:lm		

Conical surface Flux(90deg): 21657 lm

%lum = 84.1%

%lamp = 84.1%

Conical surface Flux(120deg): 23766 lm

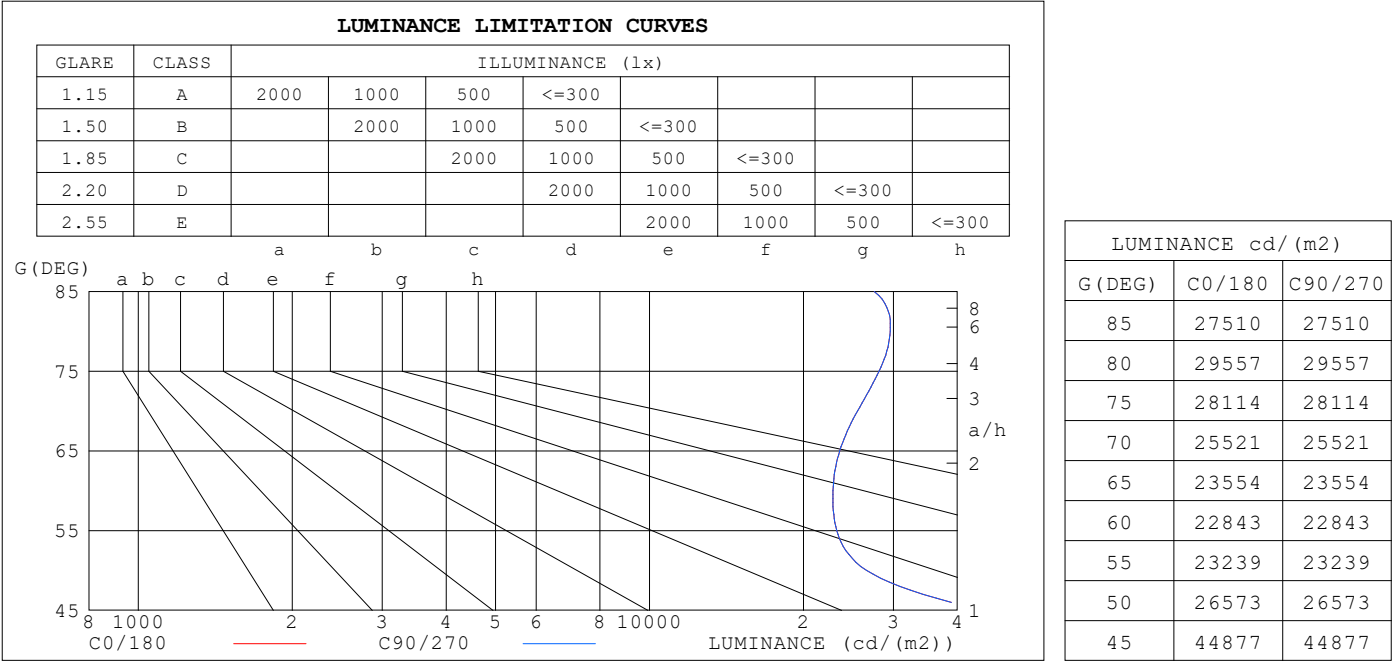
%lum = 92.3%

%lamp = 92.3%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:LYQ
 Test Date:2026-07-21
 Stability time:0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity:65.0%
 Test Distance:10.250m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

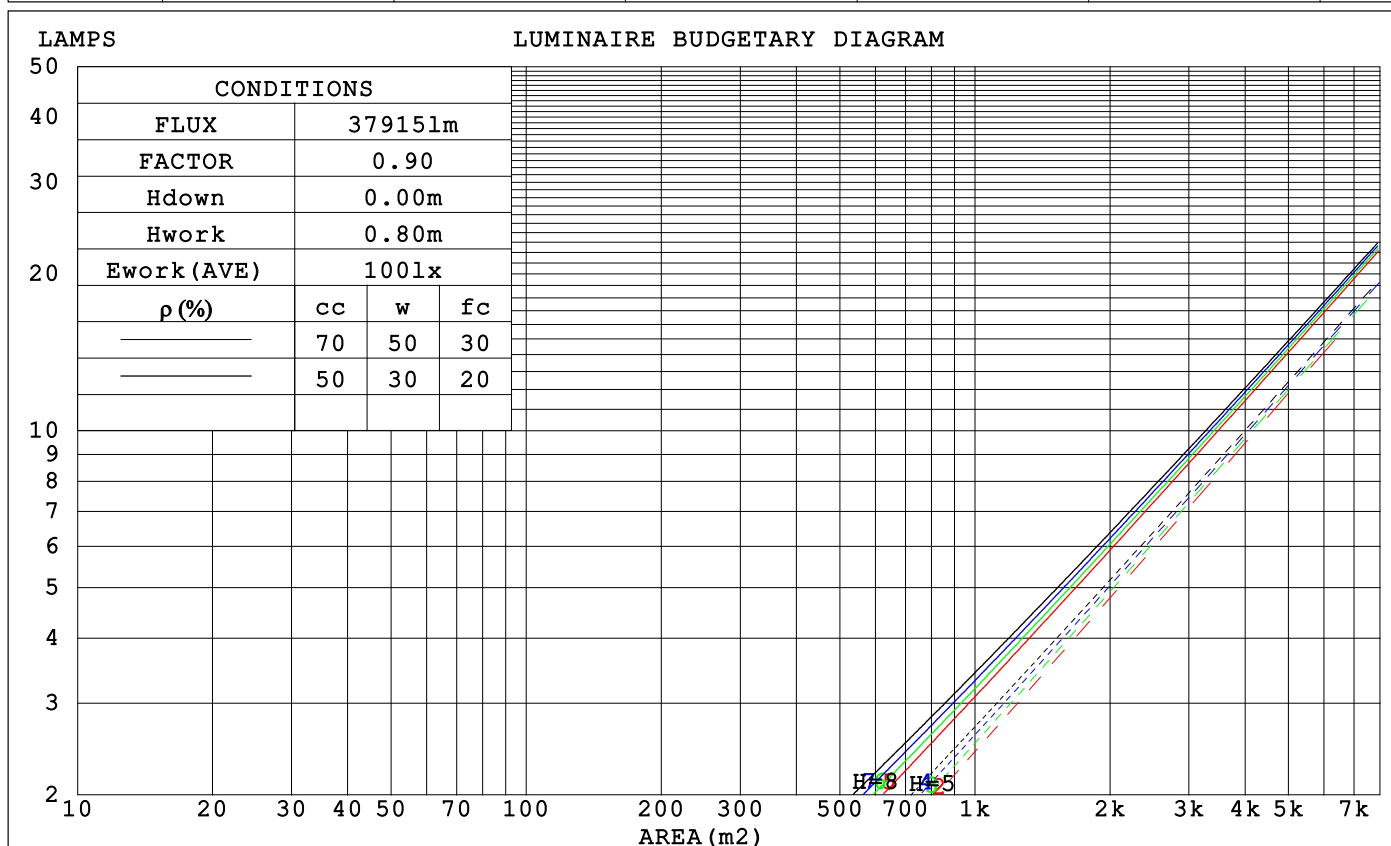


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYQ
Test Date:2026-07-21
Stability time:0 s

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.00
1.0	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.90
2.0	.98	.93	.89	.96	.92	.88	.93	.89	.86	.90	.87	.84	.87	.84	.82	.80
3.0	.90	.83	.79	.88	.82	.78	.85	.81	.77	.83	.79	.75	.81	.77	.74	.72
4.0	.82	.75	.70	.81	.75	.70	.79	.73	.69	.77	.72	.68	.75	.71	.67	.65
5.0	.76	.69	.63	.75	.68	.63	.73	.67	.63	.71	.66	.62	.69	.65	.61	.60
6.0	.70	.63	.58	.69	.62	.57	.67	.61	.57	.66	.61	.57	.65	.60	.56	.54
7.0	.65	.58	.53	.64	.57	.53	.63	.57	.52	.61	.56	.52	.60	.55	.52	.50
8.0	.60	.53	.48	.60	.53	.48	.59	.52	.48	.57	.52	.48	.56	.51	.48	.46
9.0	.56	.49	.45	.56	.49	.45	.55	.49	.44	.54	.48	.44	.53	.48	.44	.43
10.0	.53	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.41	.50	.45	.41	.40



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:LYQ
 Test Date:2026-07-21
 Stability time:0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity:65.0%
 Test Distance:10.250m [K=1.0000]
 Remarks:

WEC AND CCEC

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.230	.131	.041	.223	.127	.040	.211	.121	.039	.199	.115	.037	.188	.109	.035	
2.0	.217	.119	.037	.211	.116	.036	.200	.111	.035	.190	.107	.033	.181	.102	.032	
3.0	.204	.109	.033	.199	.107	.032	.189	.103	.031	.180	.099	.030	.172	.095	.030	
4.0	.192	.100	.029	.187	.098	.029	.179	.095	.028	.171	.092	.028	.164	.089	.027	
5.0	.180	.092	.027	.176	.091	.026	.169	.088	.026	.162	.086	.025	.156	.083	.025	
6.0	.170	.085	.024	.167	.084	.024	.160	.082	.024	.154	.080	.024	.148	.078	.023	
7.0	.161	.080	.023	.158	.079	.022	.152	.077	.022	.147	.075	.022	.142	.074	.022	
8.0	.153	.075	.021	.150	.074	.021	.145	.072	.021	.140	.071	.020	.135	.069	.020	
9.0	.145	.070	.020	.143	.070	.020	.138	.068	.019	.134	.067	.019	.129	.066	.019	
10.0	.138	.066	.018	.136	.066	.018	.132	.065	.018	.128	.063	.018	.124	.062	.018	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.175	.157	.141	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.162	.132	.107	.139	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.152	.114	.084	.130	.098	.073	.089	.068	.051	.052	.040	.030	.017	.013	.010	
4.0	.143	.100	.067	.122	.086	.058	.084	.060	.041	.049	.035	.024	.016	.011	.008	
5.0	.135	.089	.055	.116	.077	.048	.080	.054	.034	.046	.031	.020	.015	.010	.007	
6.0	.128	.080	.045	.110	.069	.040	.076	.048	.028	.044	.028	.017	.014	.009	.005	
7.0	.121	.072	.038	.104	.063	.033	.072	.044	.024	.042	.026	.014	.014	.008	.005	
8.0	.115	.066	.033	.099	.058	.029	.069	.040	.020	.040	.024	.012	.013	.008	.004	
9.0	.110	.061	.029	.095	.053	.025	.066	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.105	.057	.025	.091	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: LYQ
 Test Date: 2026-07-21
 Stability time: 0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity: 65.0%
 Test Distance: 10.250m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

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	19.2	20.5	19.6	20.8	21.1	19.2	20.5	19.6	20.8	21.1
3H	21.6	22.7	22.0	23.0	23.3	21.6	22.7	22.0	23.0	23.3
4H	22.7	23.7	23.1	24.1	24.4	22.7	23.7	23.1	24.1	24.4
6H	23.6	24.6	24.1	24.9	25.3	23.6	24.6	24.1	24.9	25.3
8H	24.0	24.9	24.4	25.3	25.7	24.0	24.9	24.4	25.3	25.7
12H	24.2	25.1	24.7	25.4	25.9	24.2	25.1	24.7	25.4	25.9
4H 2H	19.9	20.9	20.3	21.3	21.7	19.9	20.9	20.3	21.3	21.7
3H	22.5	23.4	23.0	23.8	24.2	22.5	23.4	23.0	23.8	24.2
4H	23.8	24.6	24.3	25.0	25.4	23.8	24.6	24.3	25.0	25.4
6H	24.9	25.6	25.4	26.0	26.5	24.9	25.6	25.4	26.0	26.5
8H	25.3	25.9	25.8	26.4	26.9	25.3	25.9	25.8	26.4	26.9
12H	25.6	26.1	26.1	26.6	27.1	25.6	26.1	26.1	26.6	27.1
8H 4H	24.3	24.9	24.7	25.3	25.8	24.3	24.9	24.7	25.3	25.8
6H	25.6	26.0	26.1	26.5	27.0	25.6	26.0	26.1	26.5	27.0
8H	26.1	26.5	26.6	27.0	27.5	26.1	26.5	26.6	27.0	27.5
12H	26.5	26.8	27.0	27.3	27.9	26.5	26.8	27.0	27.3	27.9
12H 4H	24.3	24.9	24.8	25.4	25.8	24.3	24.9	24.8	25.4	25.8
6H	25.7	26.1	26.2	26.6	27.1	25.7	26.1	26.2	26.6	27.1
8H	26.2	26.6	26.8	27.1	27.7	26.2	26.6	26.8	27.1	27.7
CIE190: 2010										

CIE190: 2010

The luminaire data in the presentation of the associated IES information used by the URG calculation

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: LYQ
 Test Date: 2026-07-21
 Stability time: 0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity: 65.0%
 Test Distance: 10.250m [K=1.0000]
 Remarks:

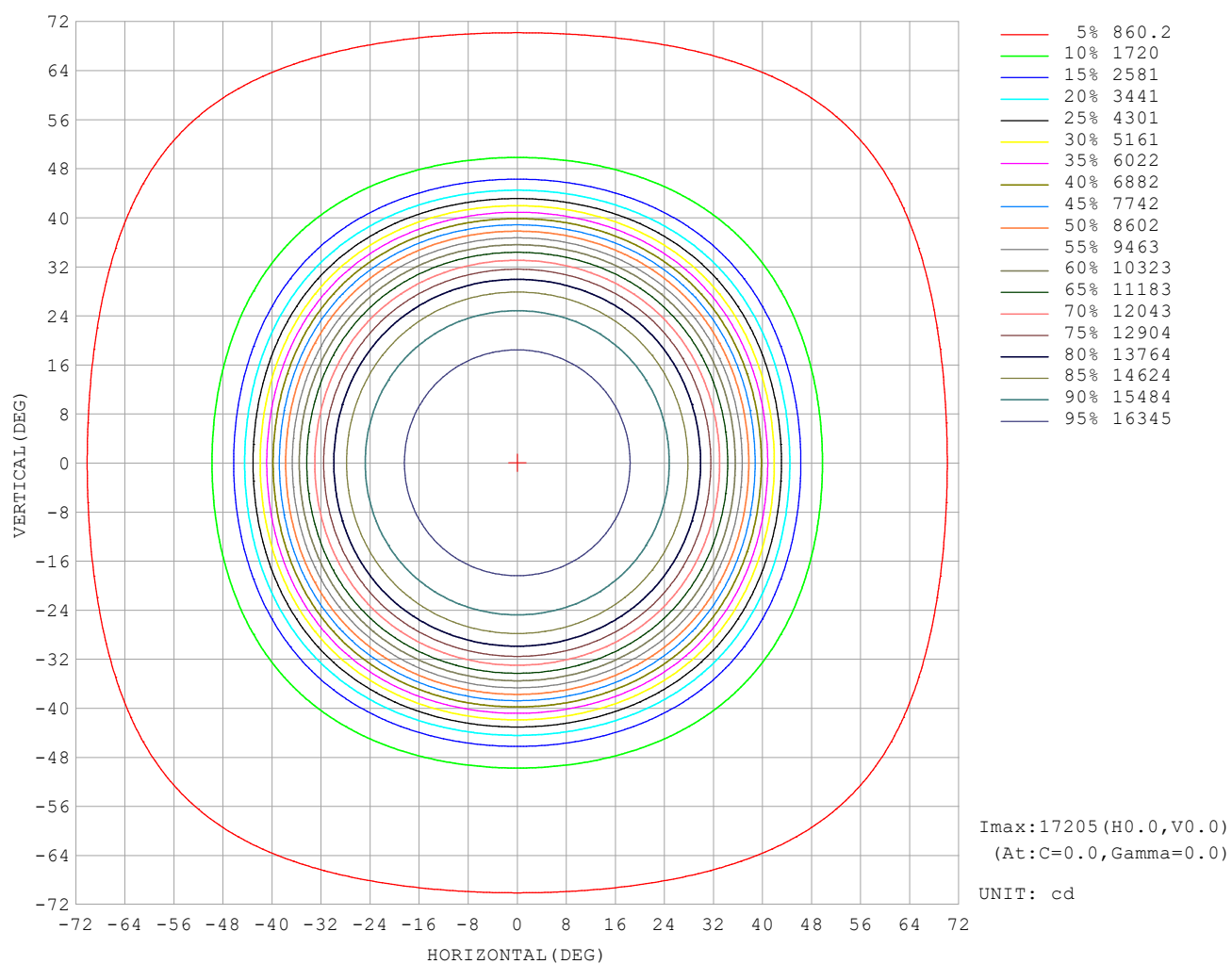
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	78	70	65	77	69	65	76	69	64	60
0.80	86	78	73	85	78	73	84	77	73	68
1.00	92	84	79	91	84	79	89	84	79	74
1.25	97	90	85	95	89	85	93	88	84	79
1.50	100	94	89	99	93	89	96	91	87	82
2.00	104	98	94	102	97	93	99	95	92	86
2.50	106	101	97	105	100	96	101	97	94	88
3.00	108	104	100	107	102	99	103	100	97	90
4.00	111	107	104	109	106	103	105	102	100	93
5.00	113	110	107	111	108	105	106	104	102	94
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: LYQ
 Test Date: 2026-07-21
 Stability time: 0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity: 65.0%
 Test Distance: 10.250m [K=1.0000]
 Remarks:

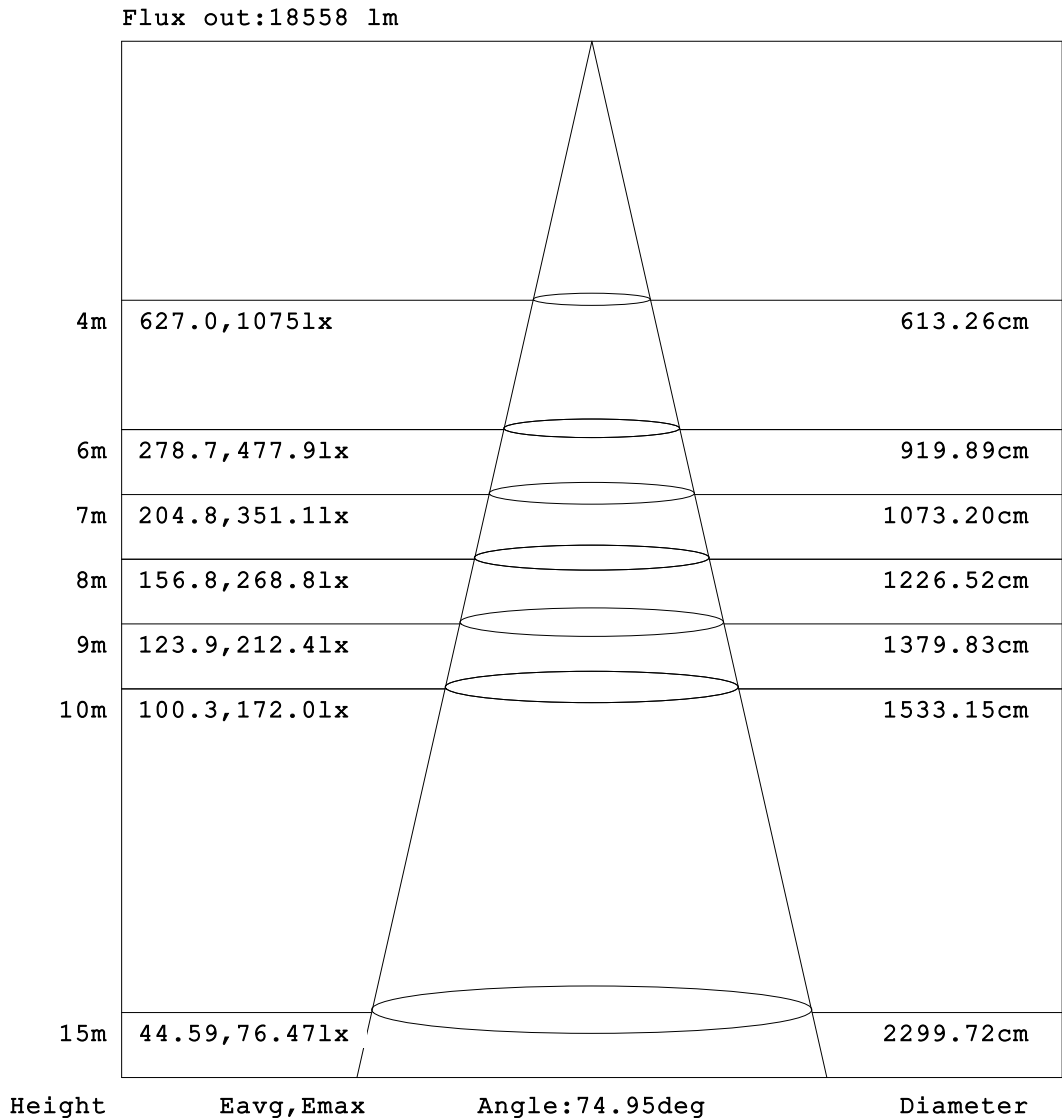
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYQ
Test Date:2026-07-21
Stability time:0 s

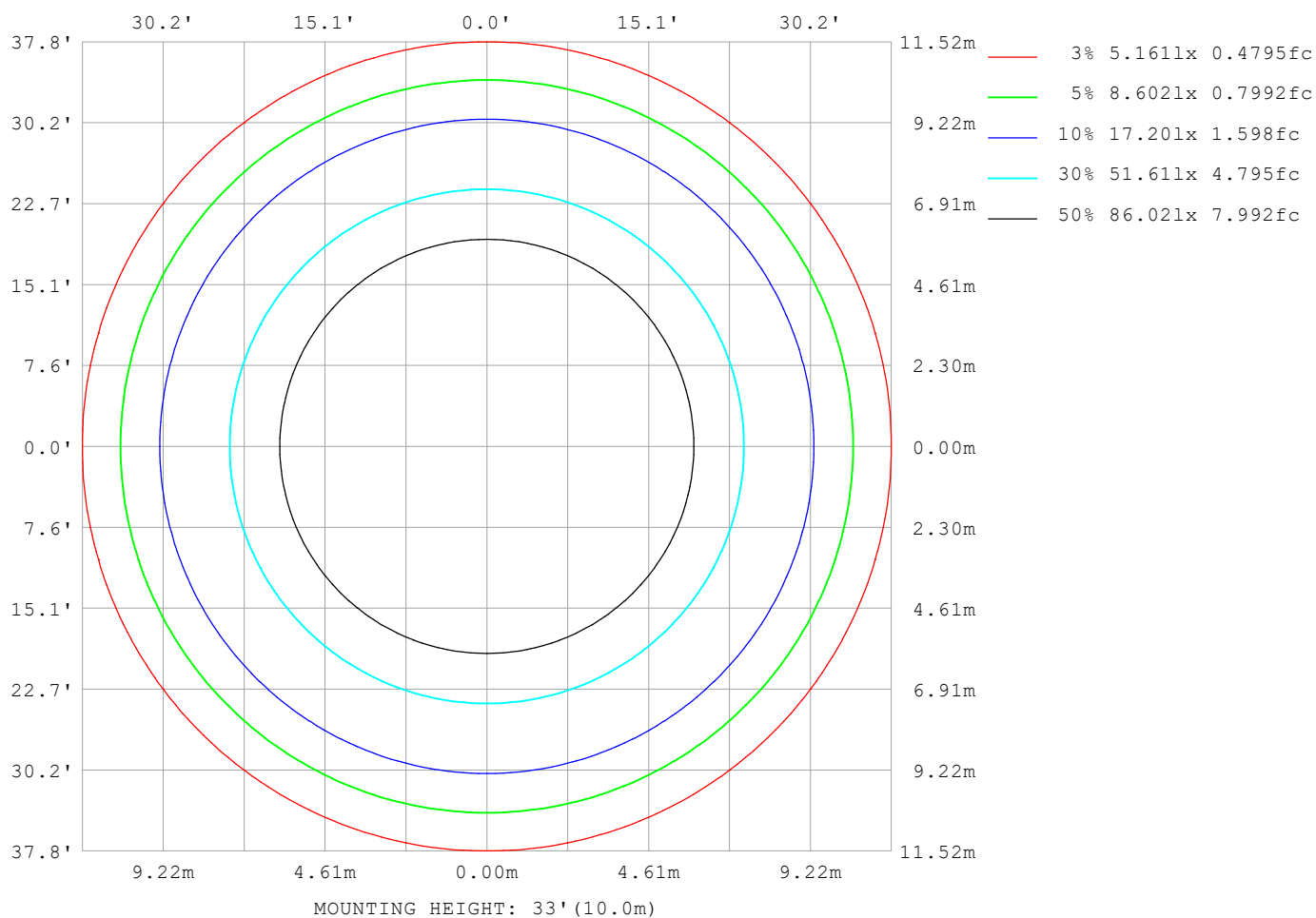
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

AAI Figure



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

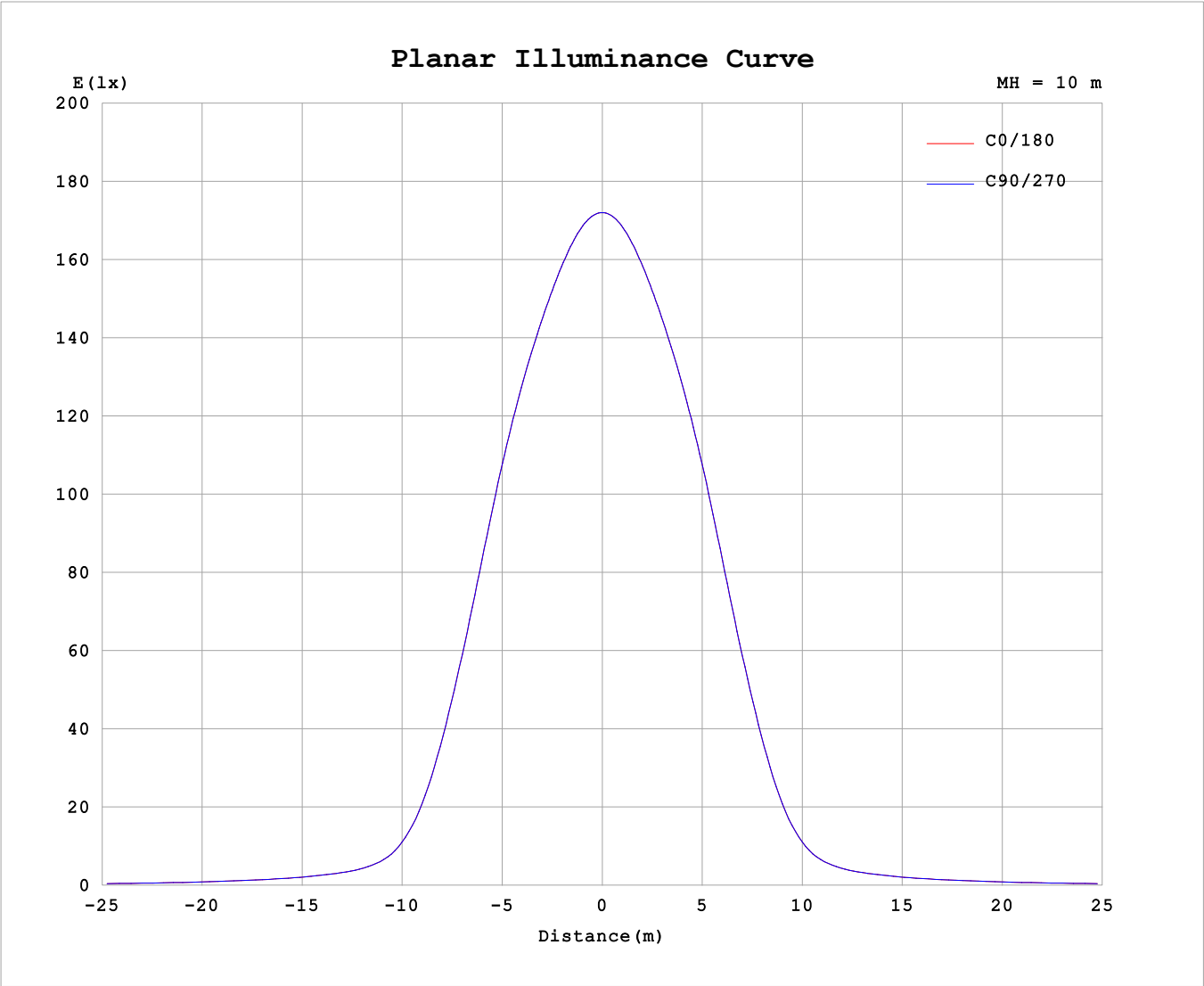
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYQ
Test Date: 2026-07-21
Stability time: 0 s

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity: 65.0%
Test Distance: 10.250m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYQ
Test Date:2026-07-21
Stability time:0 s

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

UNIT: X10cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

UNIT: X10cd

[illegible]

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

```