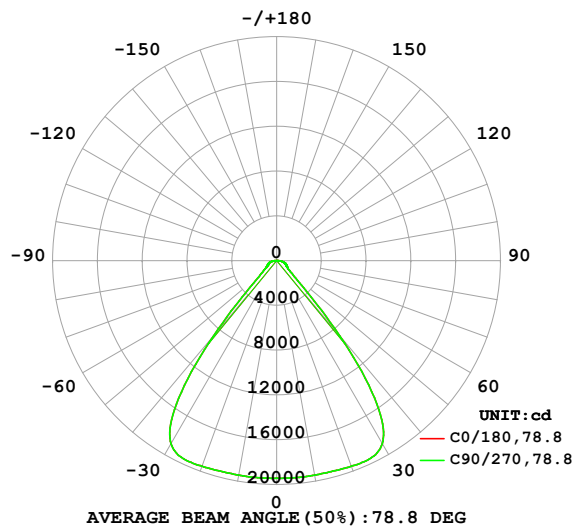


LUMINAIRE PHOTOMETRIC TEST REPORT

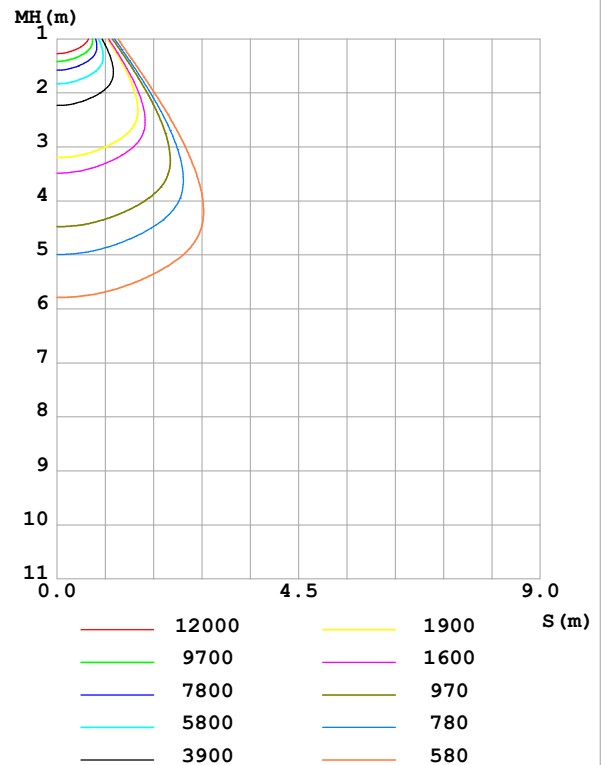
Test:U:230.21V I:0.8495A P:192.83W PF:0.9860 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:31729.6x1 lm		
NAME: HB74-200 (200W)-H42202	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 164.55 lm/W			
MODEL	/	Imax (cd)	19584	S/MH(C0/180)	1.15
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.15
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	31730	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	31729.6	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℃
Operators:LYQ
Test Date:2026-07-21

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	1945	1945	1945	1945	1945	1945	1945	1945	0- 10	1857	1857	5.85,5.85
20	1954	1954	1954	1954	1954	1954	1954	1954	10- 20	5523	7380	23.3,23.3
30	1888	1888	1888	1888	1888	1888	1888	1888	20- 30	8996	16376	51.6,51.6
40	878.4	878.4	878.4	878.4	878.4	878.4	878.4	878.4	30- 40	9277	25653	80.8,80.8
50	175.6	175.6	175.6	175.6	175.6	175.6	175.6	175.6	40- 50	3069	28722	90.5,90.5
60	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1	50- 60	1155	29877	94.2,94.2
70	81.24	81.24	81.24	81.24	81.24	81.24	81.24	81.24	60- 70	902.2	30779	97,97
80	47.51	47.51	47.51	47.51	47.51	47.51	47.51	47.51	70- 80	704.6	31484	99.2,99.2
90	0.6039	0.6039	0.6039	0.6039	0.6039	0.6039	0.6039	0.6039	80- 90	245.9	31730	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): 27751 lm

%lum = 87.5%

%lamp = 87.5%

Conical surface Flux(120deg): 29877 lm

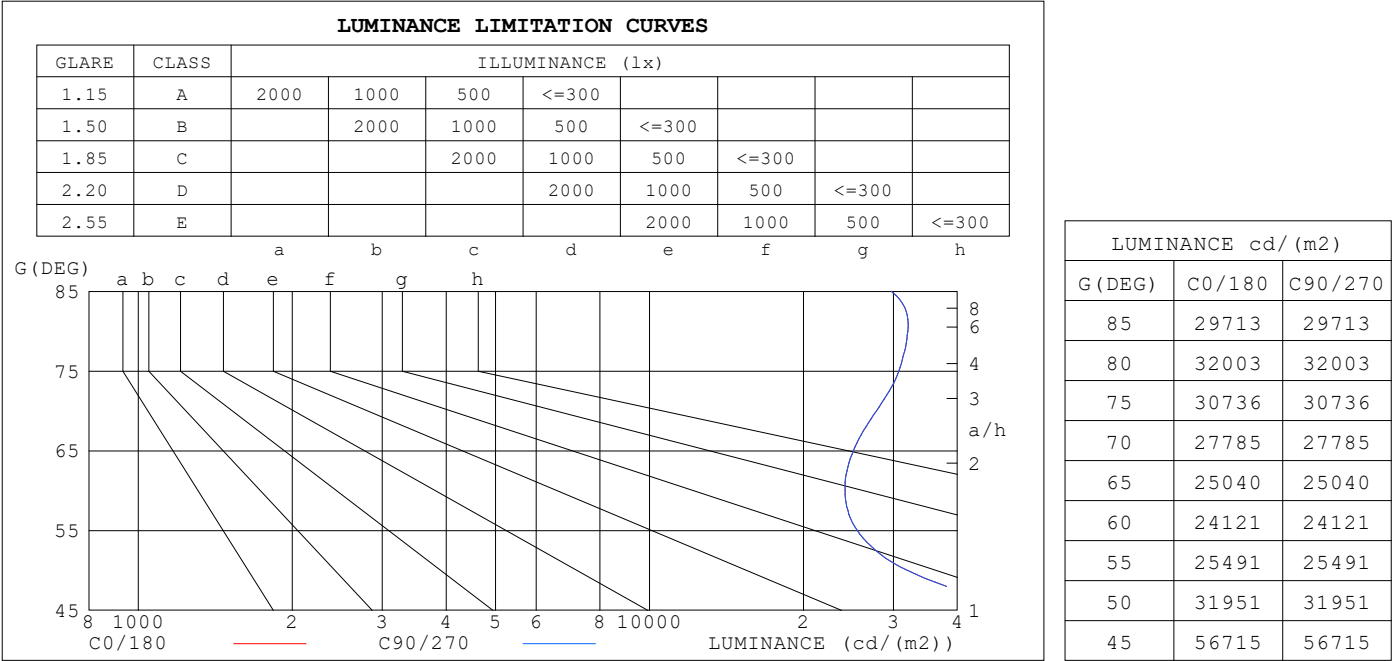
%lum = 94.2%

%lamp = 94.2%

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

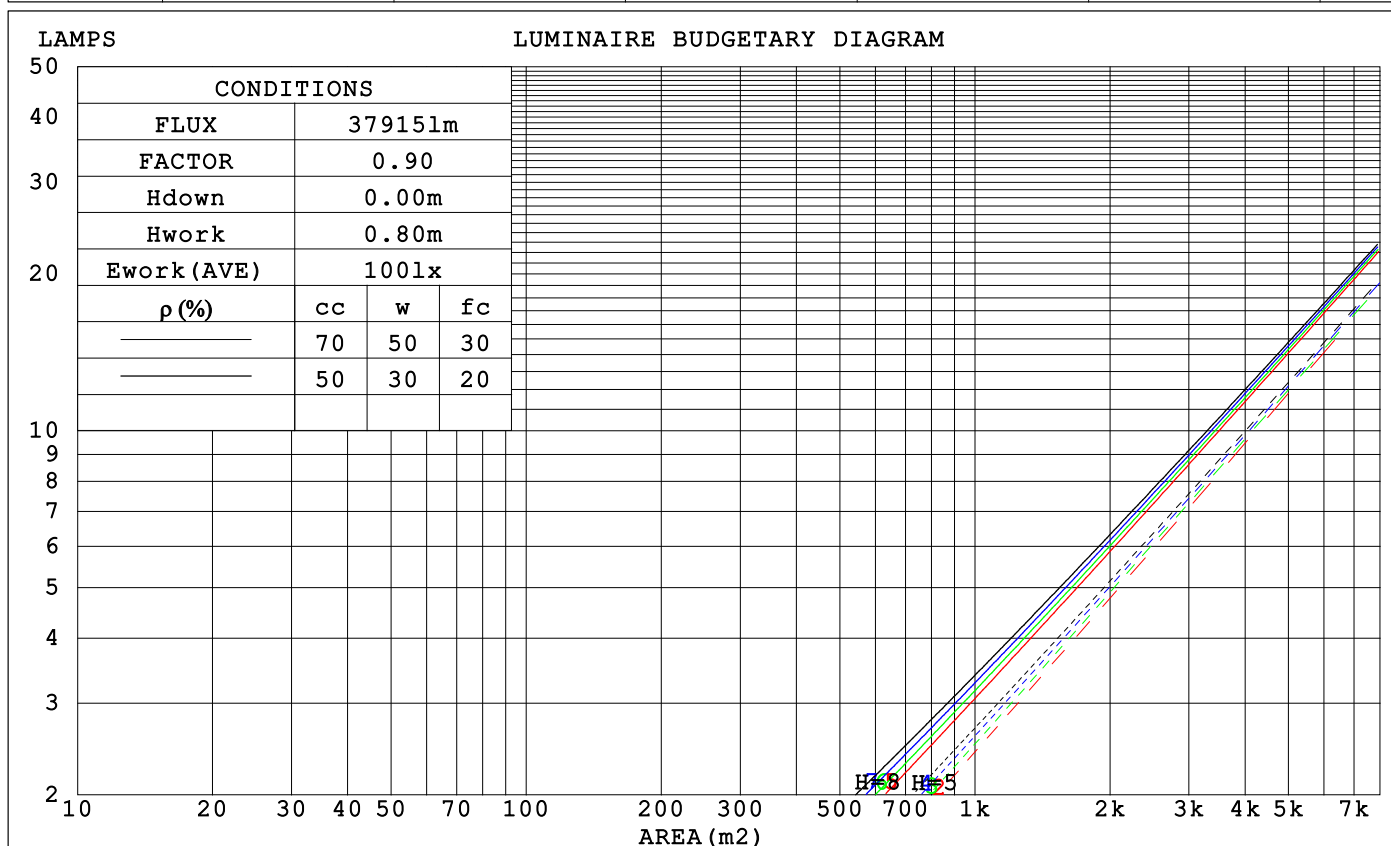
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
 Humidity:65.0%
 Test Distance:10.250m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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			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	1.03	1.06	1.04	1.01	1.02	.00	.98	.98	.97	.95	.95	.93	.92	.90
2.0	.99	.94	.90	.97	.93	.89	.94	.90	.87	.91	.88	.85	.88	.85	.83	.81
3.0	.91	.84	.80	.89	.83	.79	.86	.82	.78	.84	.80	.76	.81	.78	.75	.73
4.0	.83	.76	.71	.82	.76	.71	.80	.74	.70	.78	.73	.69	.76	.72	.68	.67
5.0	.77	.70	.64	.76	.69	.64	.74	.68	.64	.72	.67	.63	.70	.66	.62	.61
6.0	.71	.64	.59	.70	.63	.58	.68	.62	.58	.67	.62	.58	.65	.61	.57	.55
7.0	.66	.58	.54	.65	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.52	.51
8.0	.61	.54	.49	.60	.54	.49	.59	.53	.49	.58	.52	.49	.57	.52	.48	.47
9.0	.57	.50	.45	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.48	.45	.43
10.0	.53	.46	.42	.52	.46	.42	.52	.46	.42	.51	.45	.41	.50	.45	.41	.40



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

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	.222	.126	.040	.215	.122	.039	.202	.116	.037	.190	.110	.035	.179	.104	.033	
2.0	.210	.115	.035	.205	.113	.035	.194	.108	.033	.183	.103	.032	.174	.098	.031	
3.0	.199	.106	.032	.193	.104	.031	.184	.100	.030	.175	.096	.029	.167	.093	.029	
4.0	.187	.097	.029	.183	.096	.028	.175	.093	.028	.167	.090	.027	.160	.087	.026	
5.0	.177	.090	.026	.173	.089	.026	.166	.086	.025	.159	.084	.025	.153	.082	.025	
6.0	.168	.084	.024	.164	.083	.024	.158	.081	.024	.152	.079	.023	.146	.077	.023	
7.0	.159	.079	.022	.156	.078	.022	.150	.076	.022	.145	.074	.022	.140	.073	.021	
8.0	.151	.074	.021	.149	.073	.021	.143	.072	.020	.139	.070	.020	.134	.069	.020	
9.0	.144	.070	.019	.142	.069	.019	.137	.068	.019	.133	.067	.019	.129	.065	.019	
10.0	.138	.066	.018	.135	.065	.018	.131	.064	.018	.127	.063	.018	.123	.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	.174	.157	.141	.149	.135	.122	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.161	.132	.108	.138	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.151	.114	.084	.129	.098	.073	.089	.068	.051	.051	.040	.030	.016	.013	.010	
4.0	.142	.100	.068	.122	.086	.059	.084	.060	.041	.048	.035	.024	.016	.011	.008	
5.0	.134	.088	.055	.115	.077	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.127	.080	.046	.109	.069	.040	.075	.048	.028	.044	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.104	.063	.034	.072	.044	.024	.042	.026	.014	.013	.008	.005	
8.0	.115	.066	.033	.099	.058	.029	.068	.040	.020	.040	.024	.012	.013	.008	.004	
9.0	.110	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.105	.057	.025	.090	.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

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	18.5	19.7	18.9	20.0	20.3	18.5	19.7	18.9	20.0	20.3
3H	20.9	21.9	21.3	22.3	22.6	20.9	21.9	21.3	22.3	22.6
4H	22.1	23.0	22.5	23.4	23.8	22.1	23.0	22.5	23.4	23.8
6H	23.0	23.9	23.4	24.3	24.7	23.0	23.9	23.4	24.3	24.7
8H	23.4	24.2	23.8	24.6	25.0	23.4	24.2	23.8	24.6	25.0
12H	23.6	24.4	24.0	24.8	25.2	23.6	24.4	24.0	24.8	25.2
4H 2H	19.2	20.2	19.6	20.5	20.9	19.2	20.2	19.6	20.5	20.9
3H	21.9	22.7	22.3	23.1	23.5	21.9	22.7	22.3	23.1	23.5
4H	23.2	23.9	23.6	24.3	24.8	23.2	23.9	23.6	24.3	24.8
6H	24.3	24.9	24.8	25.3	25.8	24.3	24.9	24.8	25.3	25.8
8H	24.7	25.3	25.2	25.7	26.2	24.7	25.3	25.2	25.7	26.2
12H	25.0	25.5	25.5	26.0	26.4	25.0	25.5	25.5	26.0	26.4
8H 4H	23.6	24.2	24.1	24.7	25.1	23.6	24.2	24.1	24.7	25.1
6H	24.9	25.4	25.4	25.9	26.4	24.9	25.4	25.4	25.9	26.4
8H	25.4	25.8	25.9	26.3	26.8	25.4	25.8	25.9	26.3	26.8
12H	25.8	26.2	26.3	26.7	27.2	25.8	26.2	26.3	26.7	27.2
12H 4H	23.7	24.2	24.2	24.7	25.2	23.7	24.2	24.2	24.7	25.2
6H	25.0	25.4	25.6	25.9	26.5	25.0	25.4	25.6	25.9	26.5
8H	25.6	26.0	26.1	26.5	27.0	25.6	26.0	26.1	26.5	27.0
CIE190: 2010										

CIE190: 2010

Area: 0.0854865 m2

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

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:

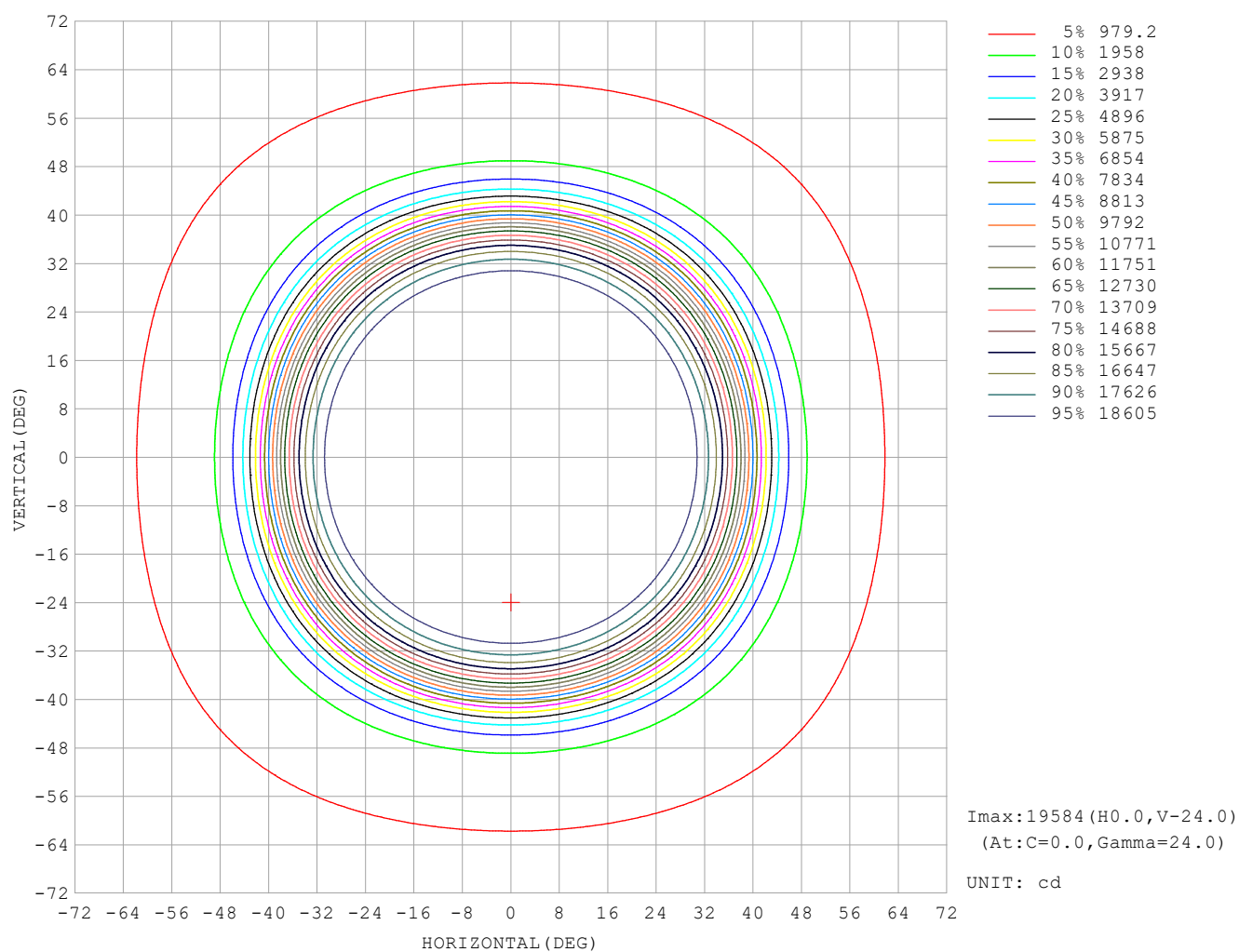
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	80	72	68	79	72	67	78	72	67	63
0.80	88	81	76	87	80	76	86	80	75	71
1.00	93	86	82	92	86	82	91	86	81	76
1.25	98	92	87	97	91	87	95	90	86	81
1.50	101	95	91	100	95	91	98	93	90	84
2.00	105	100	96	104	99	95	101	97	94	88
2.50	107	103	99	106	101	98	102	99	96	89
3.00	109	105	102	107	104	100	104	101	98	91
4.00	112	108	105	110	107	104	106	103	101	94
5.00	113	110	108	111	108	106	107	105	103	95
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

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:

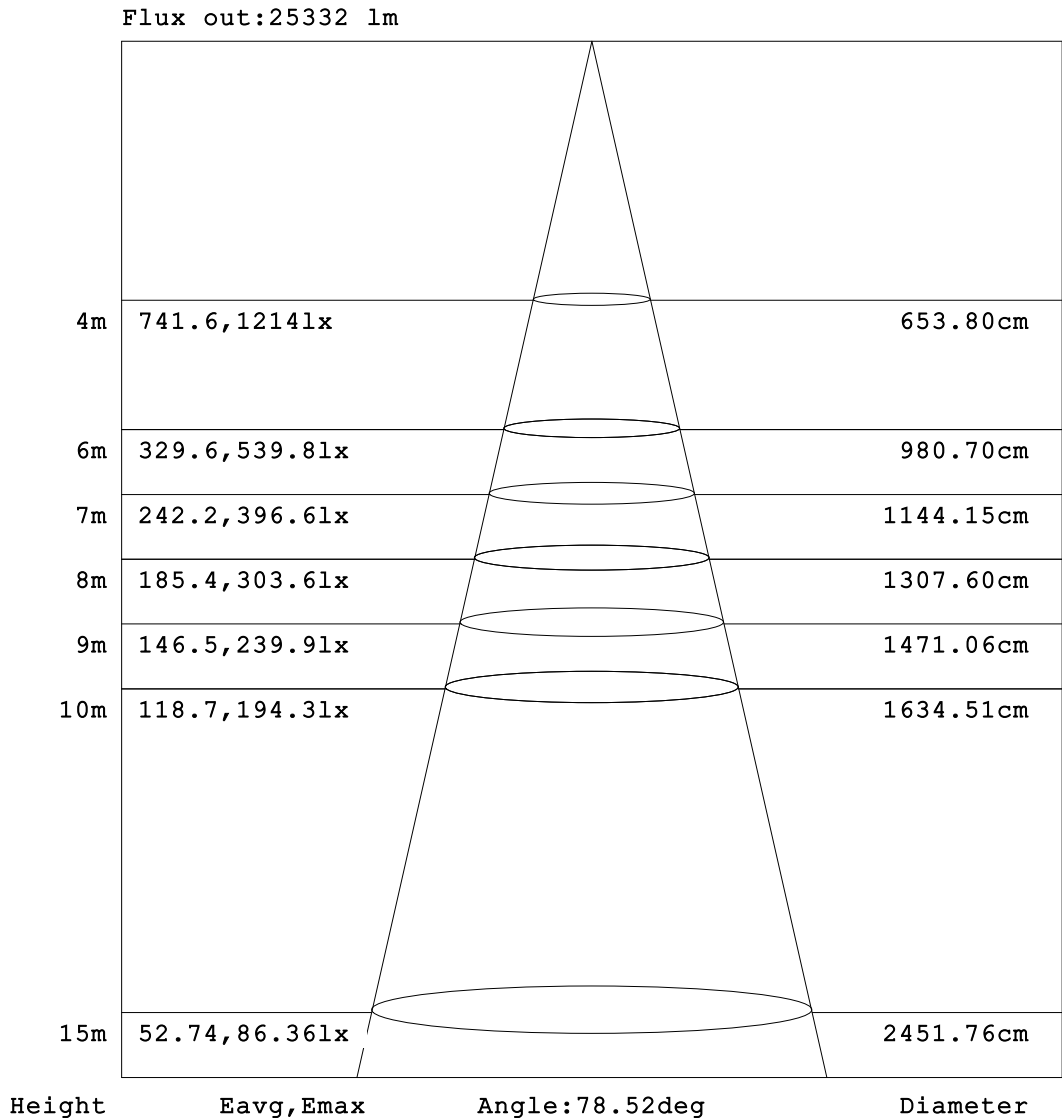
ISOCANDELA DIAGRAM



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

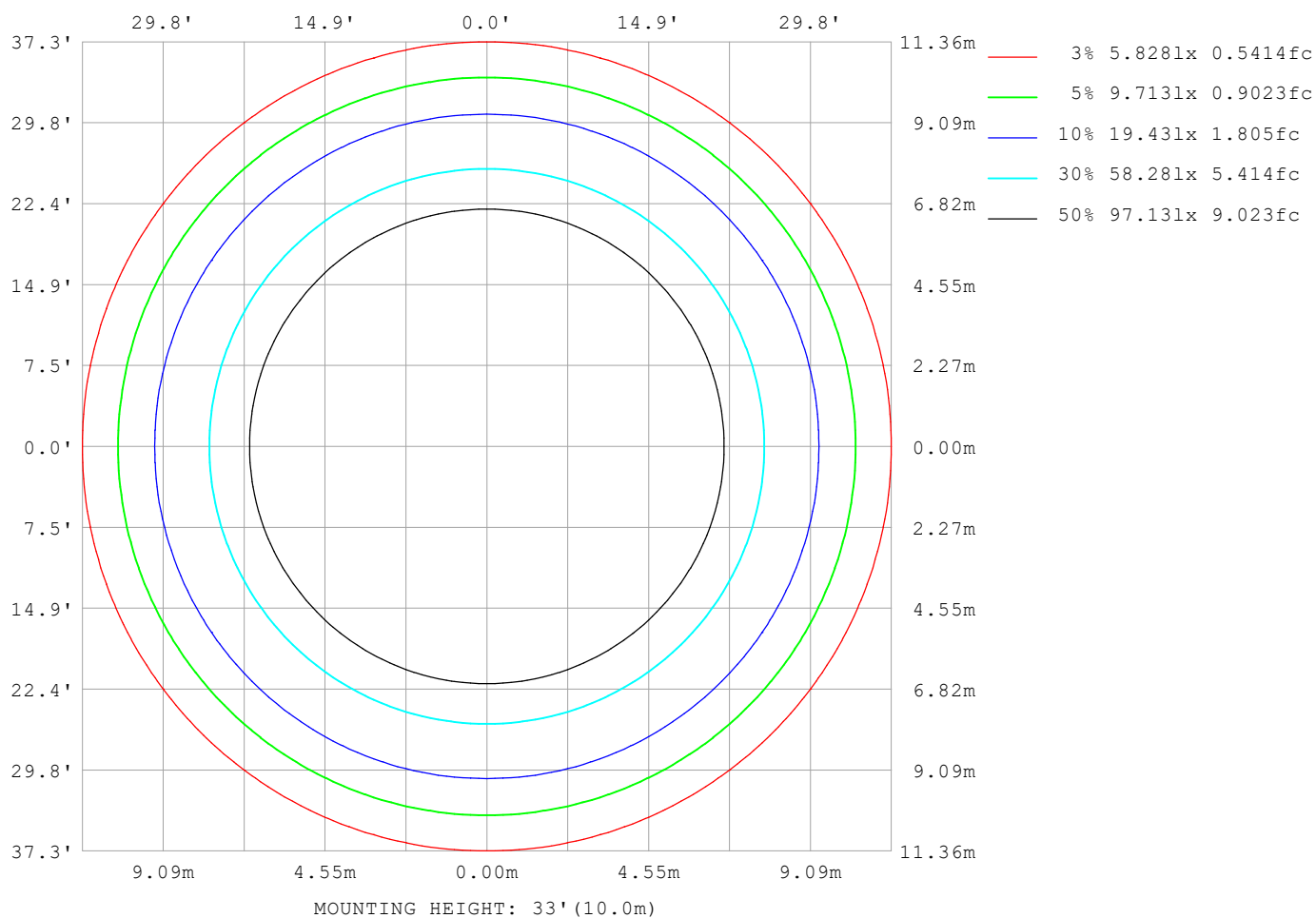
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

AAI Figure



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

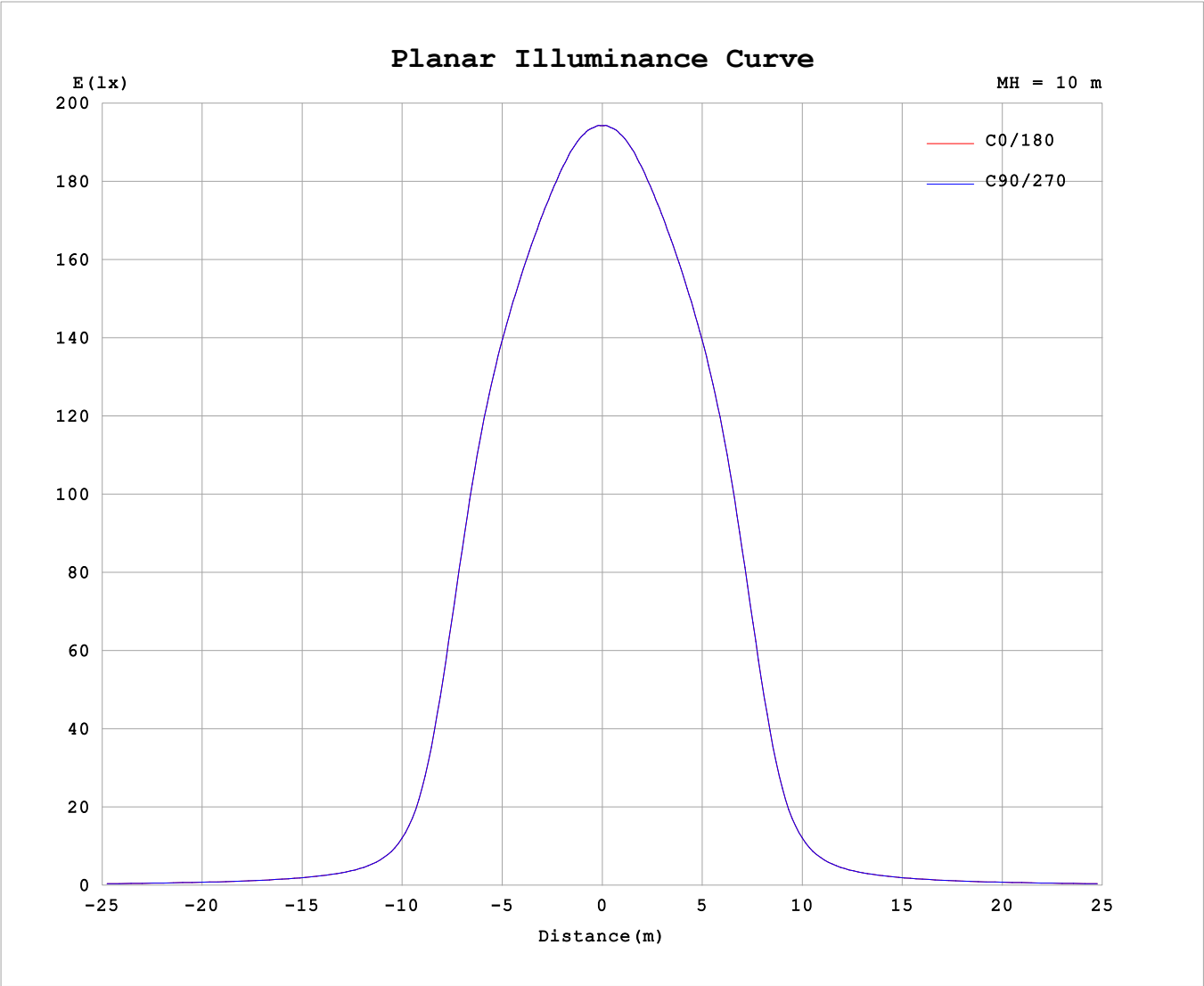
ISOLUX DIAGRAM



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

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	γ Range: 0 - 90DEG
C Interval: 15.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Temperature:25.3℃	Humidity:65.0%
Operators:LYQ	Test Distance:10.250m [K=1.0000]
Test Date:2026-07-21	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:

```