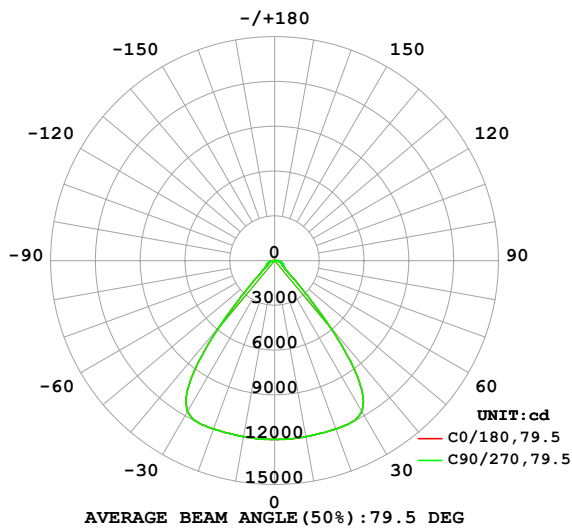


LUMINAIRE PHOTOMETRIC TEST REPORT

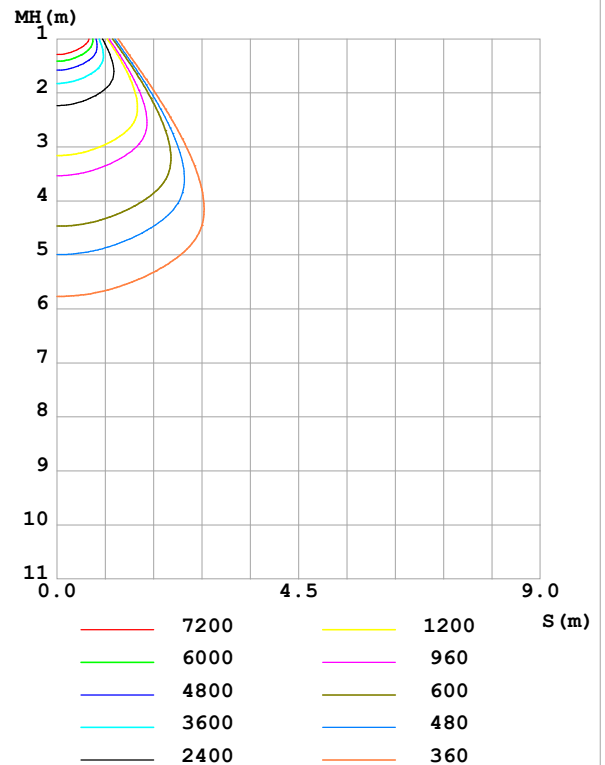
Test:U:230.27V I:0.5082A P:111.91W PF:0.9564 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:19729.3x1 lm		
NAME: HB74-200 (120W)-H42202	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 176.29 lm/W			
MODEL	/	I _{max} (cd)	12019	S/MH(C0/180)	1.16
NOMINAL POWER(W)	/	LOR(%)	100.0	S/MH(C90/270)	1.16
RATED VOLTAGE(V)	/	TOTAL FLUX(lm)	19729	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	19729.3	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	1197	1197	1197	1197	1197	1197	1197	1197	0- 10	1144	1144	5.8,5.8
20	1200	1200	1200	1200	1200	1200	1200	1200	10- 20	3396	4539	23,23
30	1166	1166	1166	1166	1166	1166	1166	1166	20- 30	5529	10068	51,51
40	573.1	573.1	573.1	573.1	573.1	573.1	573.1	573.1	30- 40	5859	15927	80.7,80.7
50	109.6	109.6	109.6	109.6	109.6	109.6	109.6	109.6	40- 50	1989	17916	90.8,90.8
60	62.08	62.08	62.08	62.08	62.08	62.08	62.08	62.08	50- 60	705.5	18621	94.4,94.4
70	48.60	48.60	48.60	48.60	48.60	48.60	48.60	48.60	60- 70	541.1	19163	97.1,97.1
80	28.25	28.25	28.25	28.25	28.25	28.25	28.25	28.25	70- 80	420.7	19583	99.3,99.3
90	0.3517	0.3517	0.3517	0.3517	0.3517	0.3517	0.3517	0.3517	80- 90	146.0	19729	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): 17300 lm

%lum = 87.7%

%lamp = 87.7%

Conical surface Flux(120deg): 18621 lm

%lum = 94.4%

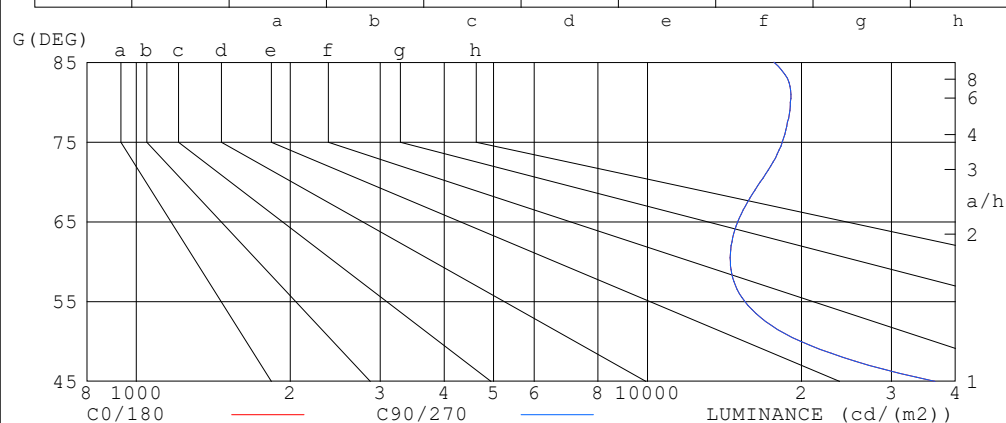
%lamp = 94.4%

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

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	17684	17684
80	19033	19033
75	18348	18348
70	16620	16620
65	15016	15016
60	14523	14523
55	15507	15507
50	19937	19937
45	36480	36480

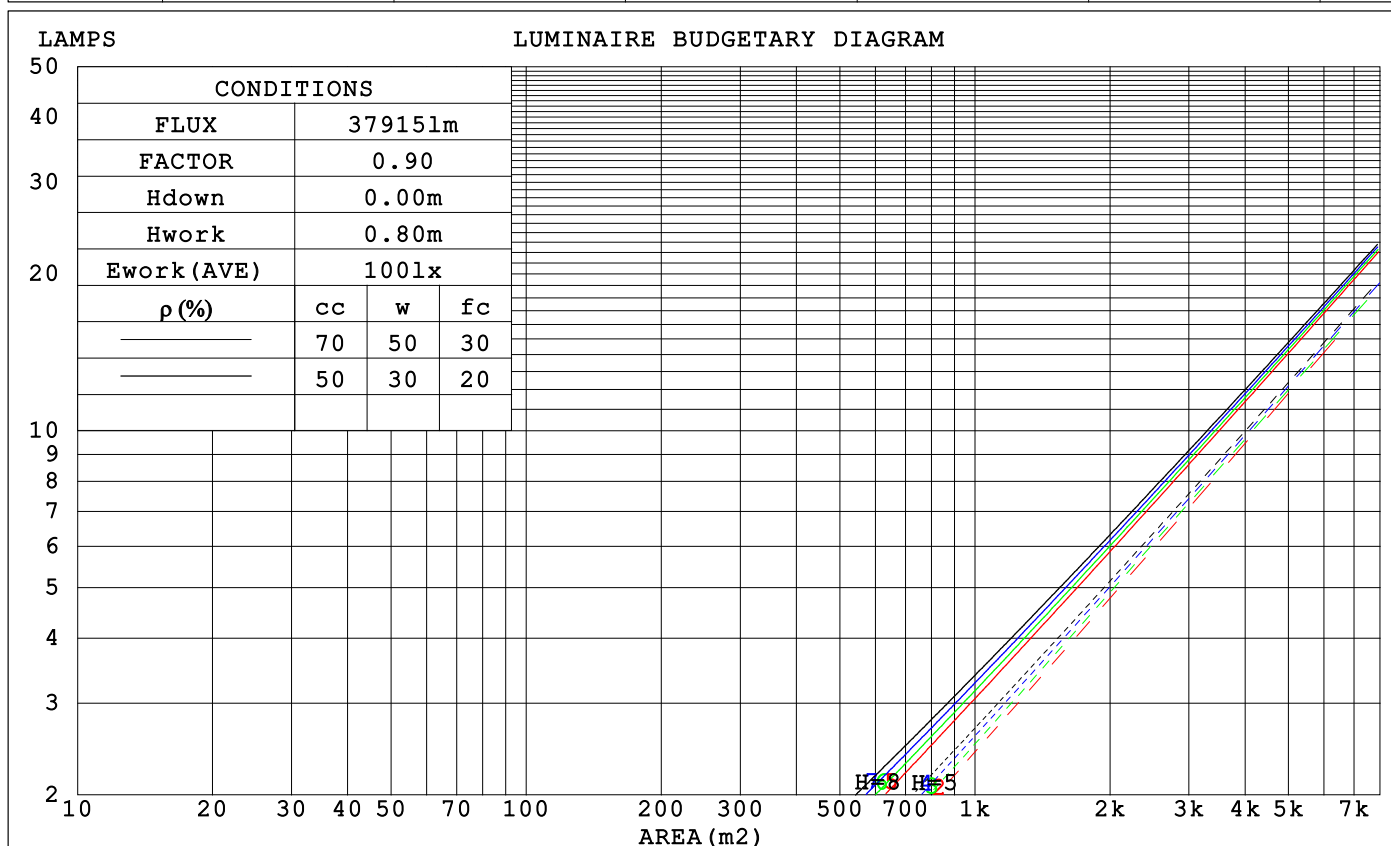
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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

```

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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	1.09	1.05	1.03	1.06	1.04	1.01	1.02	.00	.98	.98	.97	.95	.95	.94	.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	.77	.73	.69	.76	.72	.68	.67
5.0	.77	.70	.64	.76	.69	.64	.74	.68	.63	.72	.67	.63	.70	.66	.62	.61
6.0	.71	.64	.59	.70	.63	.58	.68	.62	.58	.67	.61	.57	.65	.61	.57	.55
7.0	.65	.58	.53	.65	.58	.53	.63	.57	.53	.62	.57	.53	.61	.56	.52	.51
8.0	.61	.54	.49	.60	.53	.49	.59	.53	.49	.58	.52	.48	.57	.52	.48	.47
9.0	.57	.50	.45	.56	.49	.45	.55	.49	.45	.54	.49	.45	.53	.48	.44	.43
10.0	.53	.46	.42	.52	.46	.42	.51	.46	.41	.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	.221	.126	.040	.214	.122	.039	.201	.115	.037	.189	.109	.035	.179	.104	.033															
2.0	.210	.115	.035	.204	.112	.035	.193	.107	.033	.183	.103	.032	.174	.098	.031															
3.0	.198	.106	.032	.193	.104	.031	.184	.100	.030	.175	.096	.029	.167	.092	.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	.165	.083	.024	.158	.081	.024	.152	.079	.023	.146	.077	.023															
7.0	.159	.079	.022	.156	.078	.022	.151	.076	.022	.145	.074	.022	.140	.073	.021															
8.0	.152	.074	.021	.149	.073	.021	.144	.072	.021	.139	.070	.020	.134	.069	.020															
9.0	.144	.070	.020	.142	.069	.019	.137	.068	.019	.133	.067	.019	.129	.065	.019															
10.0	.138	.066	.018	.136	.065	.018	.131	.064	.018	.127	.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	.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	.121	.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	.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

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	16.7	17.8	17.0	18.1	18.5	16.7	17.8	17.0	18.1	18.5
3H	19.0	20.0	19.4	20.4	20.7	19.0	20.0	19.4	20.4	20.7
4H	20.2	21.1	20.6	21.5	21.9	20.2	21.1	20.6	21.5	21.9
6H	21.1	22.0	21.5	22.4	22.7	21.1	22.0	21.5	22.4	22.7
8H	21.4	22.3	21.9	22.7	23.1	21.4	22.3	21.9	22.7	23.1
12H	21.7	22.5	22.1	22.8	23.3	21.7	22.5	22.1	22.8	23.3
4H 2H	17.3	18.3	17.7	18.6	19.0	17.3	18.3	17.7	18.6	19.0
3H	20.0	20.8	20.4	21.2	21.6	20.0	20.8	20.4	21.2	21.6
4H	21.3	22.0	21.7	22.4	22.8	21.3	22.0	21.7	22.4	22.8
6H	22.4	23.0	22.8	23.4	23.9	22.4	23.0	22.8	23.4	23.9
8H	22.8	23.3	23.2	23.8	24.3	22.8	23.3	23.2	23.8	24.3
12H	23.0	23.5	23.5	24.0	24.5	23.0	23.5	23.5	24.0	24.5
8H 4H	21.7	22.3	22.2	22.7	23.2	21.7	22.3	22.2	22.7	23.2
6H	23.0	23.4	23.5	23.9	24.4	23.0	23.4	23.5	23.9	24.4
8H	23.5	23.9	24.0	24.4	24.9	23.5	23.9	24.0	24.4	24.9
12H	23.9	24.2	24.4	24.7	25.3	23.9	24.2	24.4	24.7	25.3
12H 4H	21.8	22.3	22.3	22.8	23.2	21.8	22.3	22.3	22.8	23.2
6H	23.1	23.5	23.6	24.0	24.5	23.1	23.5	23.6	24.0	24.5
8H	23.7	24.0	24.2	24.5	25.1	23.7	24.0	24.2	24.5	25.1
CIE190: 2010										

CIE190: 2010

Area: 0.0854865 m2

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:

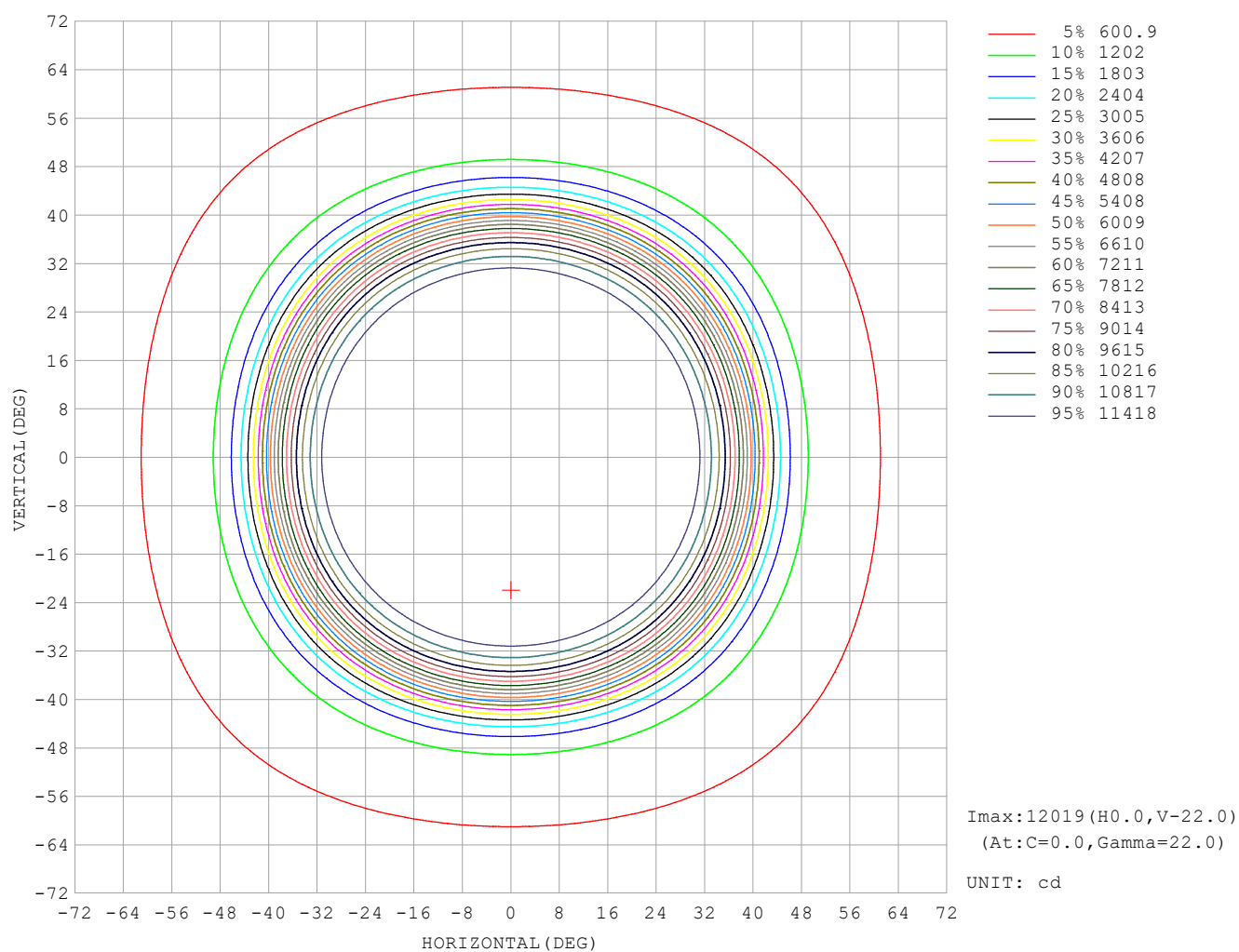
UTILIZATION FACTORS TABLE

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	67	79	72	67	78	71	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	90
3.00	109	105	102	107	104	101	104	101	98	91
4.00	112	108	105	110	107	104	106	103	101	94
5.00	113	110	108	111	109	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:

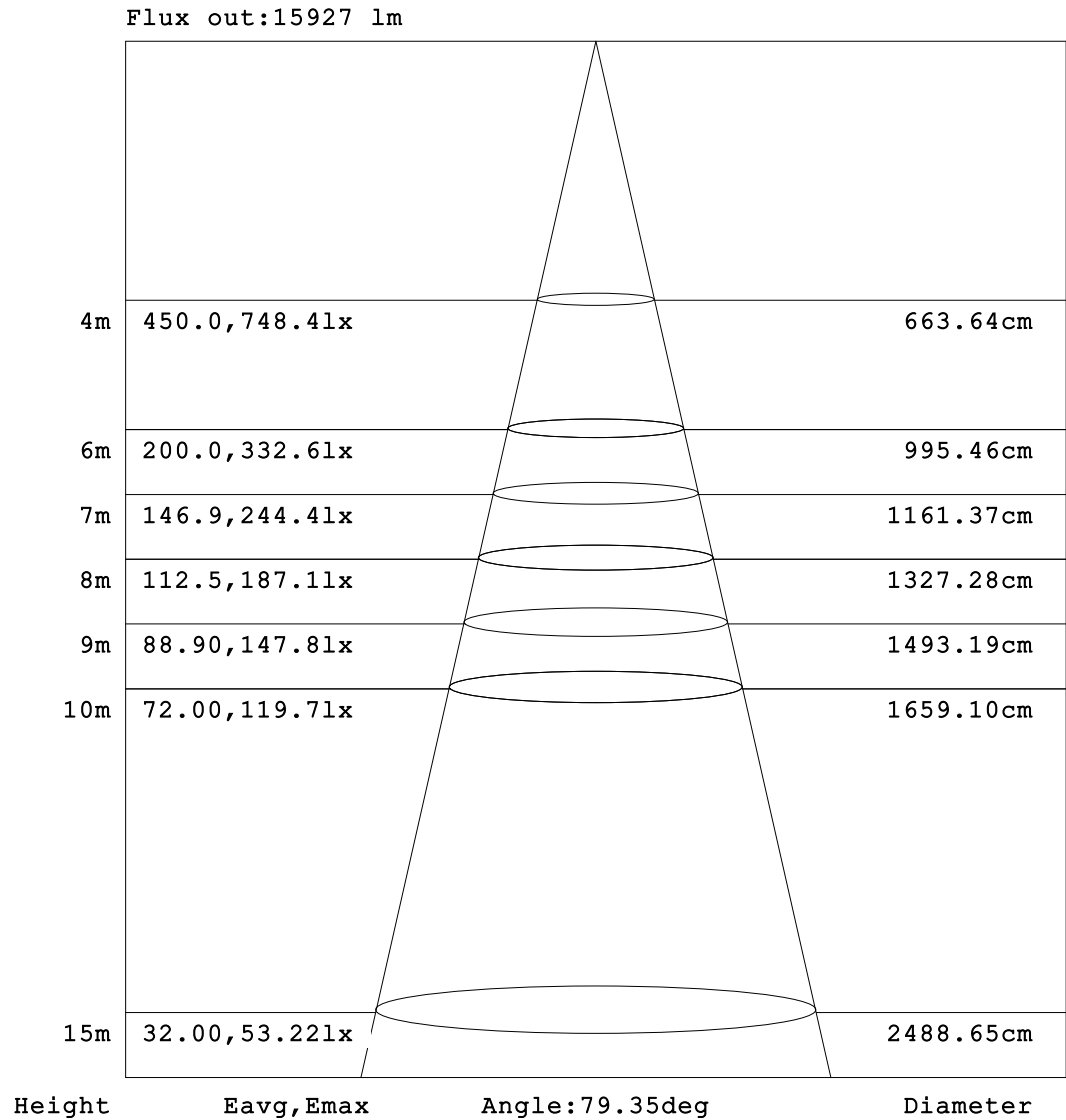
ISOCANDELA DIAGRAM



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

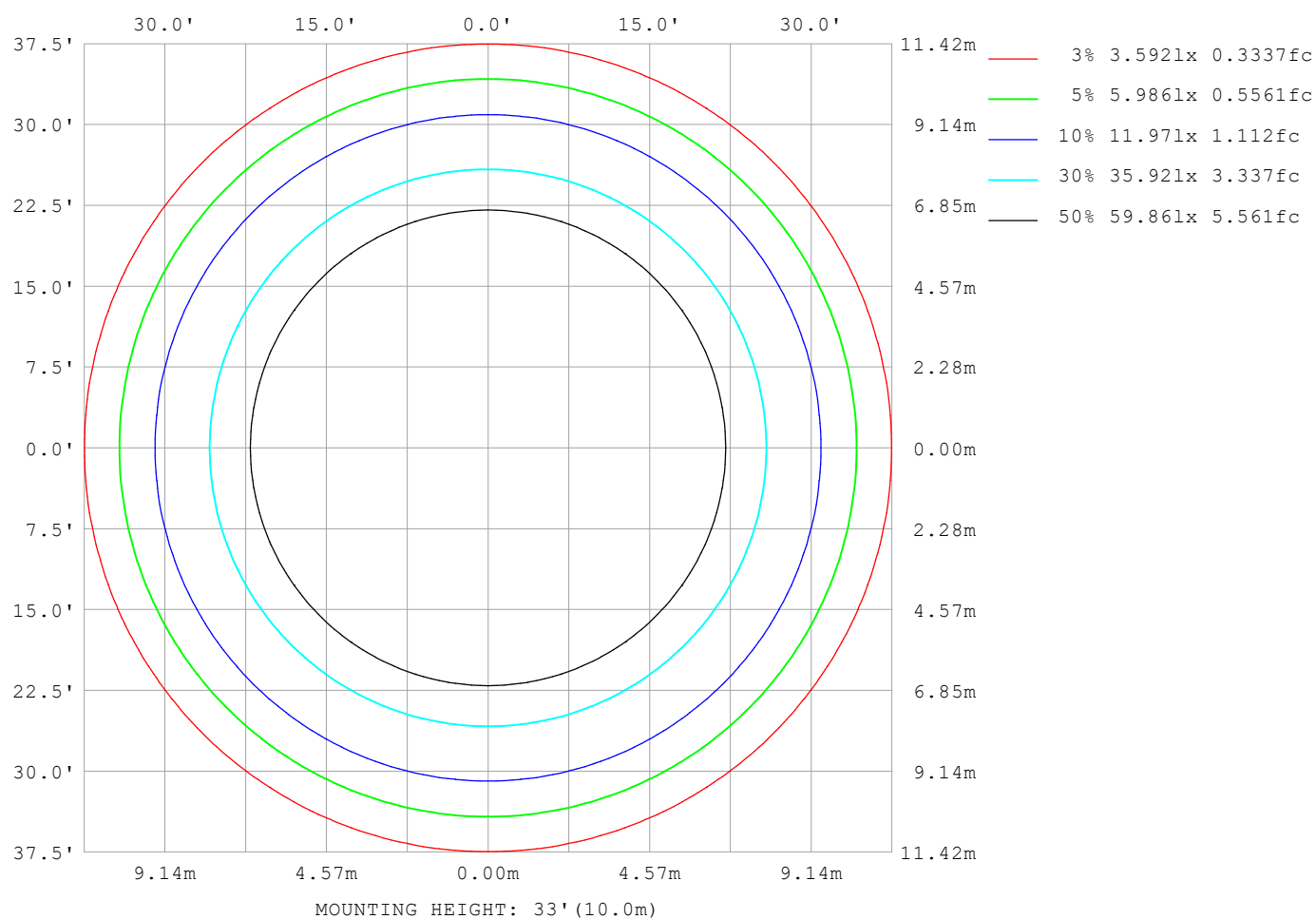
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.00.491
Humidity:65.0%
Test Distance:10.250m [K=1.0000]
Remarks:

AAI Figure



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

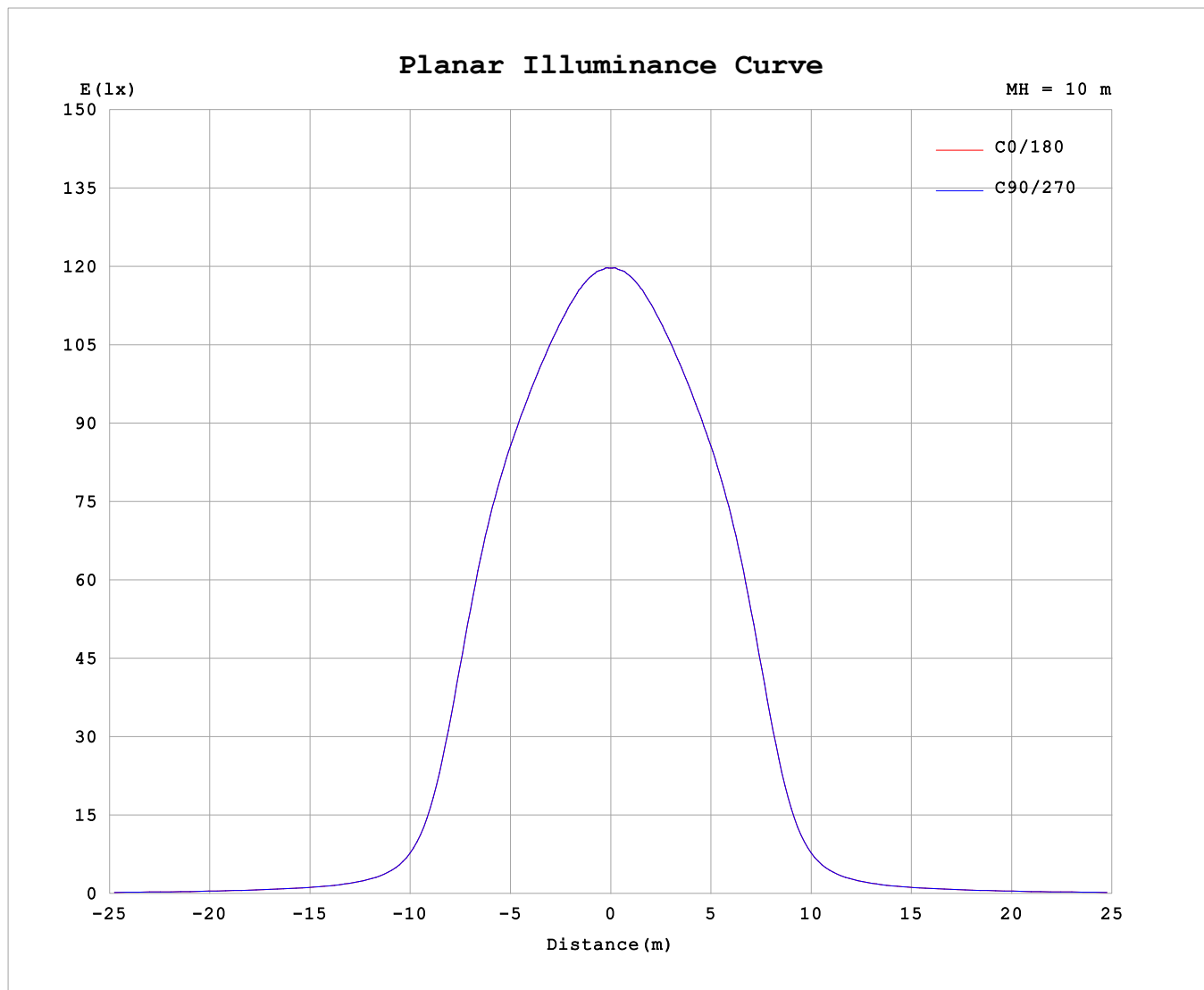
ISOLUX DIAGRAM



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
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:

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:

```