

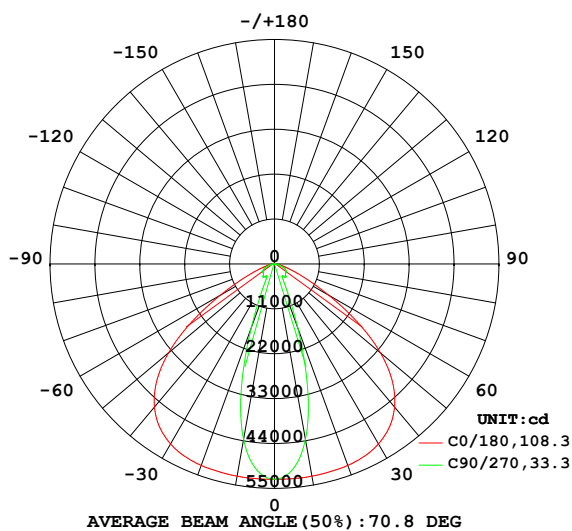
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

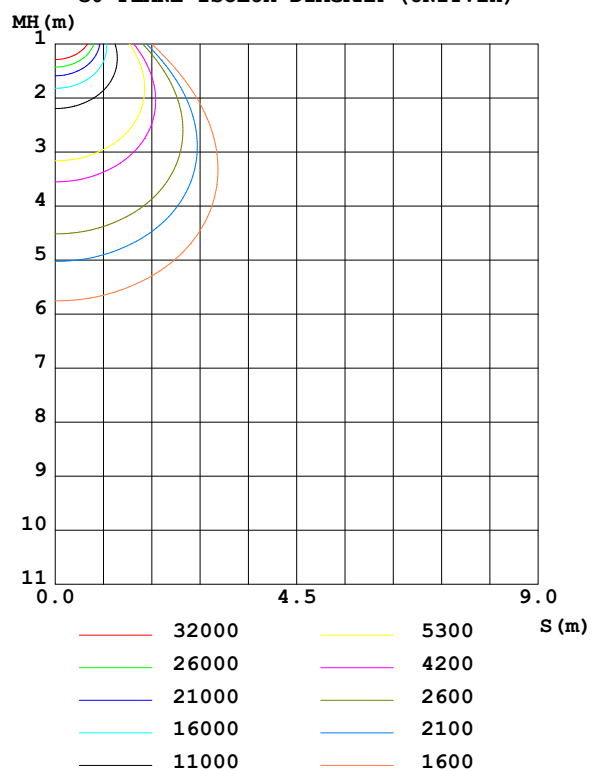
Test:U:229.9V I:1.327A P:302.1W PF:0.990 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:54801.1lx1 lm		
NAME: LHB09-300H-5070-L00407	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 181.43 lm/W			
MODEL	/	I _{max} (cd)	52830	S/MH (C0/180)	1.43
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	0.52
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	54801	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	54801.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	5279	4815	4365	4815	5279	4815	4365	4815	0- 10	4824	4824	8.8,8.8
20	5253	3132	1663	3132	5253	3132	1663	3132	10- 20	11473	16297	29.7,29.7
30	5093	1044	392.4	1044	5093	1044	392.4	1044	20- 30	11355	27652	50.5,50.5
40	4577	400.2	424.1	400.2	4577	400.2	424.1	400.2	30- 40	9194	36846	67.2,67.2
50	3389	308.7	357.0	308.7	3389	308.7	357.0	308.7	40- 50	7386	44231	80.7,80.7
60	1535	236.8	324.6	236.8	1535	236.8	324.6	236.8	50- 60	5241	49472	90.3,90.3
70	448.5	183.8	205.6	183.8	448.5	183.8	205.6	183.8	60- 70	3377	52849	96.4,96.4
80	106.9	72.51	62.52	72.51	106.9	72.51	62.52	72.51	70- 80	1633	54482	99.4,99.4
90	0.7472	0.6755	1.540	0.6755	0.7472	0.6755	1.540	0.6755	80- 90	318.7	54801	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): 40804 lm

%lum = 74.5%

%lamp = 74.5%

Conical surface Flux(120deg): 49472 lm

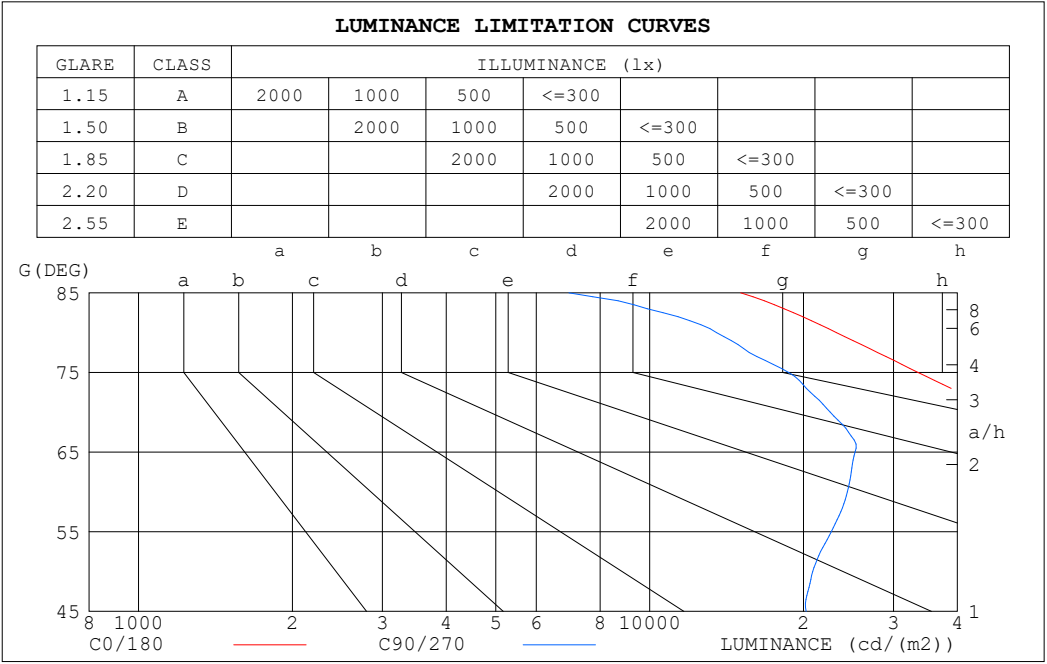
%lum = 90.3%

%lamp = 90.3%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15074	6950
80	23196	13514
75	33508	18700
70	49416	22566
65	75736	25228
60	115671	24369
55	162561	22665
50	198690	20844
45	217978	20238

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:LYJ

Test Date:2022-08-17

γ Range: 0 - 90DEG

γ Interval: 0.5DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446

Humidity:65.0%

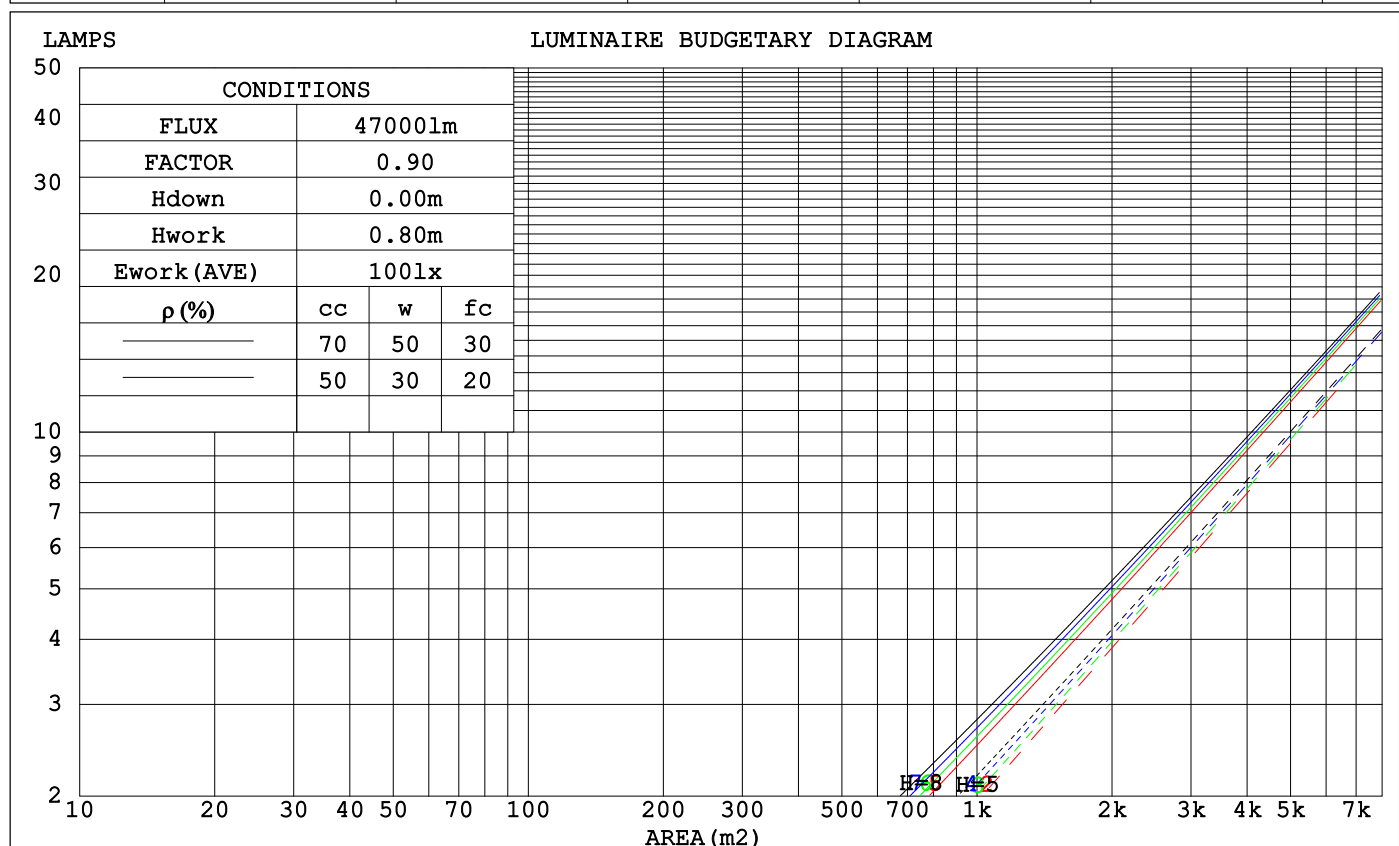
Test Distance:26.000m [K=0.4548]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	1.04	1.02	1.06	1.03	.00	1.01	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.82	.77	.87	.81	.76	.84	.79	.75	.82	.77	.74	.79	.76	.73	.71
4.0	.81	.74	.68	.80	.73	.68	.77	.72	.67	.75	.70	.66	.73	.69	.65	.64
5.0	.74	.67	.62	.73	.66	.61	.71	.65	.61	.70	.64	.60	.68	.63	.60	.58
6.0	.69	.61	.56	.68	.61	.56	.66	.60	.55	.65	.59	.55	.63	.58	.55	.53
7.0	.64	.56	.51	.63	.56	.51	.62	.55	.51	.60	.55	.51	.59	.54	.50	.49
8.0	.59	.52	.47	.59	.52	.47	.58	.51	.47	.57	.51	.47	.55	.50	.47	.45
9.0	.56	.49	.44	.55	.48	.44	.54	.48	.44	.53	.48	.44	.52	.47	.43	.42
10.0	.52	.46	.41	.52	.45	.41	.51	.45	.41	.50	.45	.41	.49	.44	.41	.39



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:LYJ
 Test Date:2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4548]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	.235	.134	.042	.228	.130	.041	.216	.124	.039	.204	.117	.038	.193	.112	.036		
2.0	.225	.123	.038	.219	.121	.037	.208	.116	.036	.198	.111	.035	.188	.107	.034		
3.0	.212	.113	.034	.206	.111	.033	.197	.107	.032	.188	.103	.032	.180	.099	.031		
4.0	.198	.103	.030	.194	.101	.030	.185	.098	.029	.177	.095	.029	.170	.092	.028		
5.0	.186	.095	.027	.182	.093	.027	.174	.091	.027	.167	.088	.026	.161	.086	.026		
6.0	.174	.087	.025	.171	.086	.025	.164	.084	.024	.158	.082	.024	.152	.080	.024		
7.0	.164	.081	.023	.161	.080	.023	.155	.078	.023	.150	.077	.022	.144	.075	.022		
8.0	.155	.076	.021	.152	.075	.021	.147	.073	.021	.142	.072	.021	.137	.070	.021		
9.0	.146	.071	.020	.144	.070	.020	.139	.069	.020	.135	.068	.019	.131	.066	.019		
10.0	.139	.067	.018	.137	.066	.018	.132	.065	.018	.128	.064	.018	.125	.063	.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	.140	.150	.135	.121	.103	.093	.083	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.153	.114	.083	.131	.098	.072	.090	.068	.050	.052	.040	.030	.017	.013	.010	
4.0	.144	.100	.066	.124	.086	.057	.085	.060	.040	.049	.035	.024	.016	.011	.008	
5.0	.136	.089	.054	.117	.077	.047	.081	.054	.033	.047	.032	.020	.015	.010	.006	
6.0	.129	.080	.045	.111	.069	.039	.076	.048	.028	.044	.029	.016	.014	.009	.005	
7.0	.122	.073	.038	.105	.063	.033	.073	.044	.023	.042	.026	.014	.014	.009	.005	
8.0	.116	.067	.033	.100	.058	.028	.069	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.111	.062	.028	.095	.053	.025	.066	.038	.018	.038	.022	.011	.012	.007	.003	
10.0	.105	.057	.025	.091	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:LYJ
 Test Date:2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:26.000m [K=0.4548]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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	23.4	24.8	23.8	25.1	25.4	19.7	21.0	20.0	21.3	21.6
3H	26.7	27.9	27.0	28.2	28.6	22.0	23.2	22.4	23.5	23.9
4H	27.3	28.5	27.7	28.8	29.2	22.6	23.7	23.0	24.1	24.5
6H	27.6	28.7	28.0	29.0	29.4	22.9	24.0	23.3	24.3	24.7
8H	27.7	28.6	28.1	29.0	29.4	23.0	24.0	23.4	24.3	24.7
12H	27.7	28.6	28.1	29.0	29.4	23.0	23.9	23.4	24.3	24.7
4H 2H	23.4	24.6	23.8	24.9	25.3	20.1	21.2	20.5	21.6	22.0
3H	26.7	27.6	27.1	28.0	28.4	22.7	23.7	23.2	24.1	24.5
4H	27.4	28.2	27.8	28.6	29.1	23.5	24.3	23.9	24.7	25.2
6H	27.8	28.5	28.2	28.9	29.4	23.9	24.6	24.3	25.0	25.5
8H	27.9	28.5	28.3	29.0	29.4	24.0	24.6	24.4	25.1	25.5
12H	27.9	28.5	28.4	29.0	29.4	24.0	24.6	24.5	25.0	25.5
8H 4H	27.4	28.0	27.8	28.5	29.0	23.7	24.4	24.2	24.8	25.3
6H	27.8	28.3	28.3	28.8	29.3	24.2	24.8	24.7	25.3	25.7
8H	27.9	28.4	28.4	28.9	29.4	24.3	24.8	24.9	25.3	25.8
12H	28.0	28.4	28.5	28.9	29.5	24.4	24.8	24.9	25.3	25.9
12H 4H	27.3	27.9	27.8	28.4	28.9	23.7	24.3	24.2	24.8	25.3
6H	27.8	28.3	28.3	28.7	29.3	24.2	24.7	24.8	25.2	25.7
8H	27.9	28.3	28.4	28.8	29.4	24.4	24.8	24.9	25.3	25.9
CIE190: 2010										

CIE190: 2010
Area: 0.26645 m2

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:LYJ
Test Date:2022-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

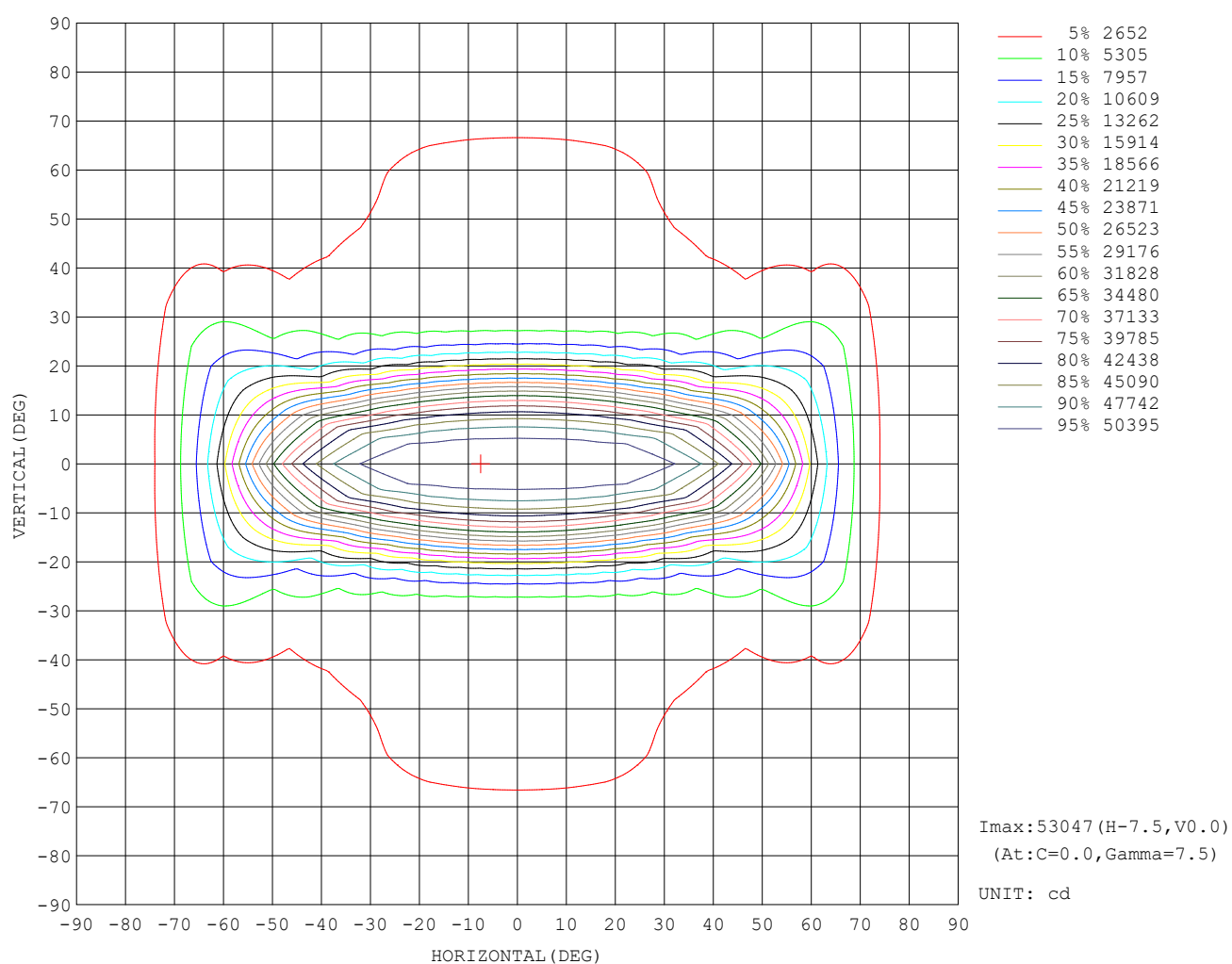
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	71	62	56	71	62	56	70	61	56	51
0.80	80	71	66	79	71	66	78	70	65	60
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	85	80	92	84	79	89	83	78	73
1.50	97	90	84	95	89	84	93	87	83	77
2.00	102	96	91	100	94	90	97	92	88	82
2.50	105	99	94	103	98	93	99	95	92	85
3.00	107	102	98	105	101	97	101	98	95	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	110	106	104	105	103	101	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004						Suspended			SHRNOM = 1.25	

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 Operators: LYJ
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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4548]
 Remarks:

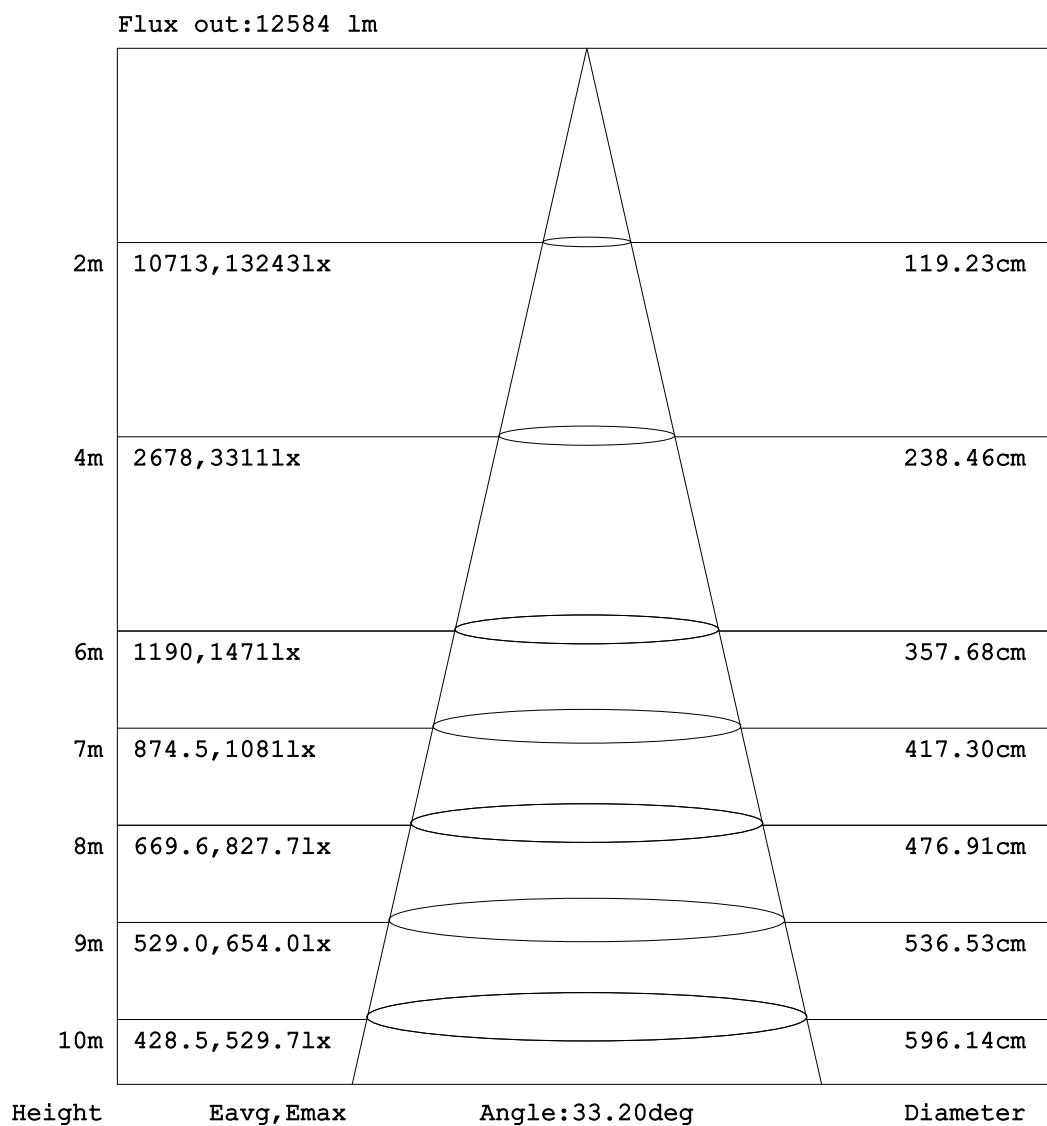
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

AAI Figure



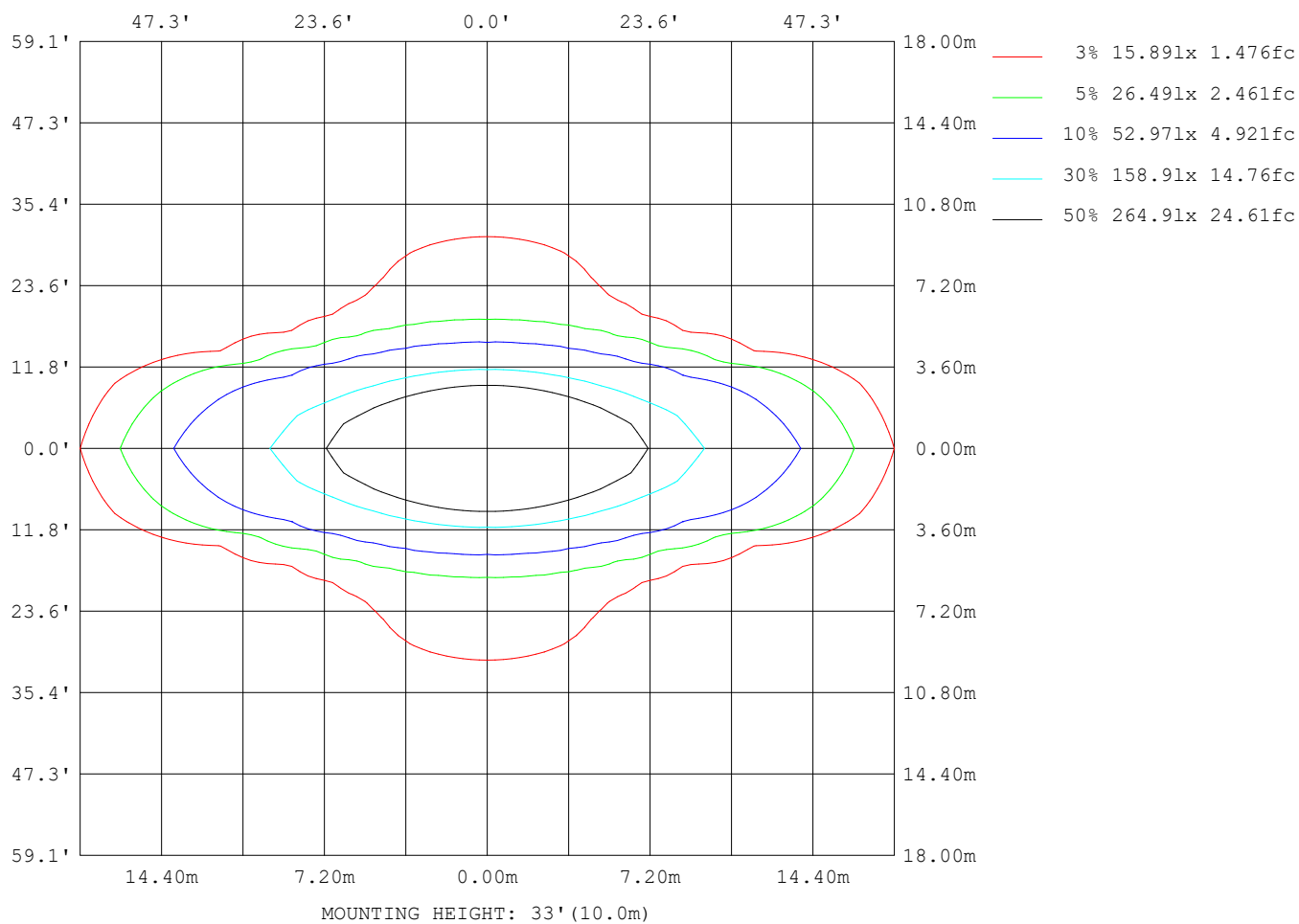
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

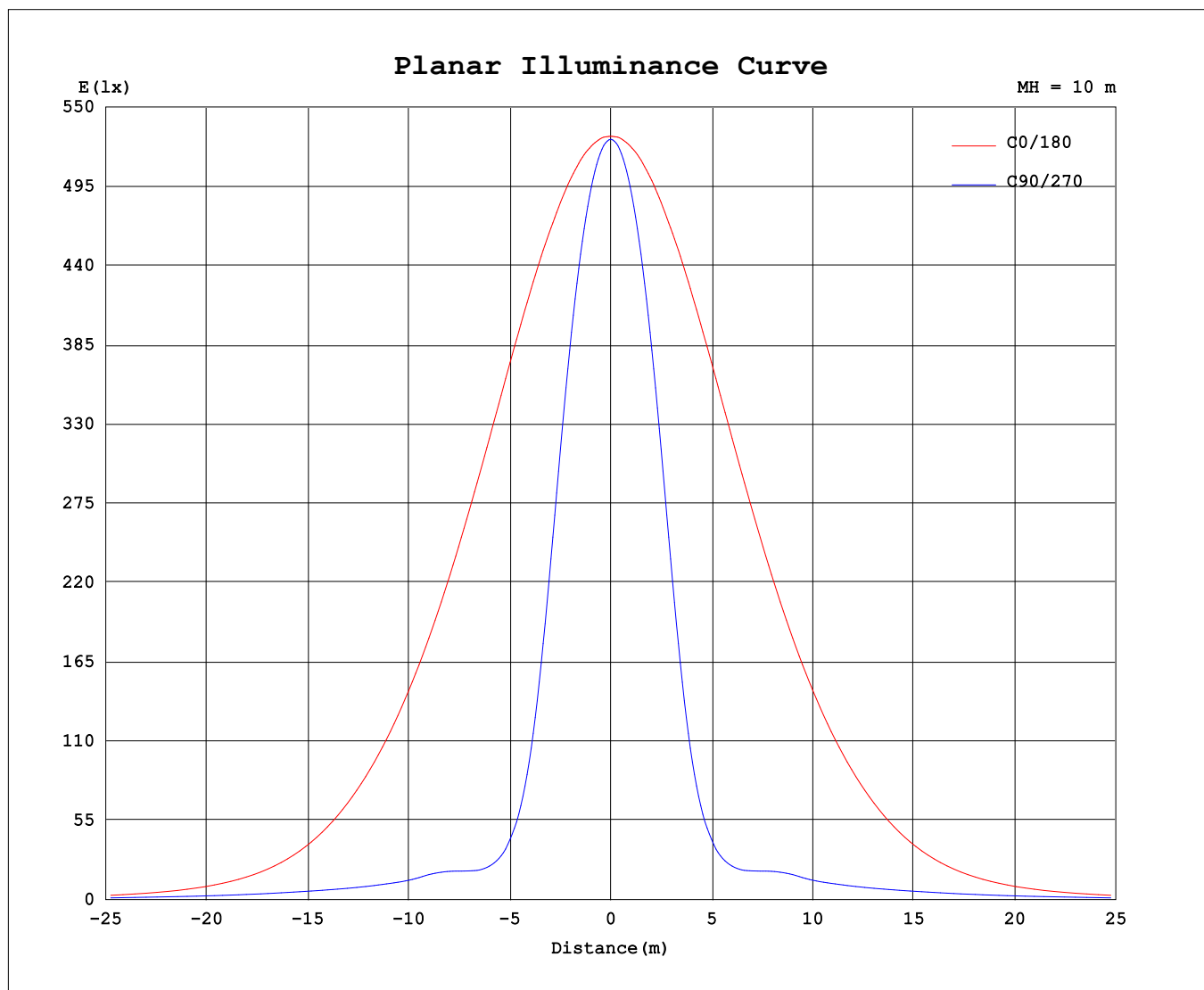
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 26.000m [K=0.4548]
Remarks:

UNIT: X10cd

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 10.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Temperature: 25.3°C	Humidity: 65.0%
Operators: LYJ	Test Distance: 26.000m [K=0.4548]
Test Date: 2022-08-17	Remarks:

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

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UNIT: X10cd

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:26.000m [K=0.4548]
Remarks:

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