

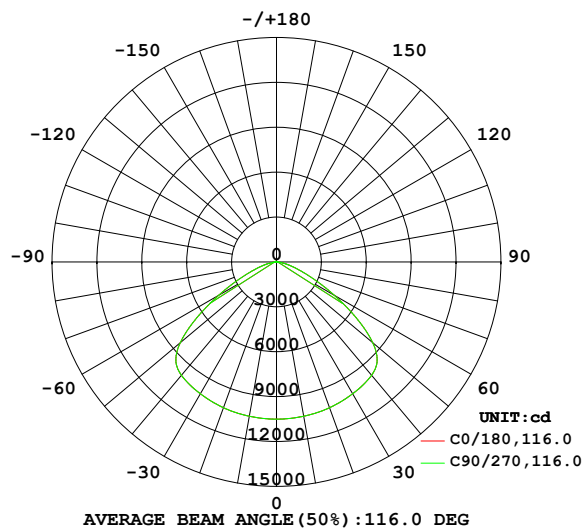
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

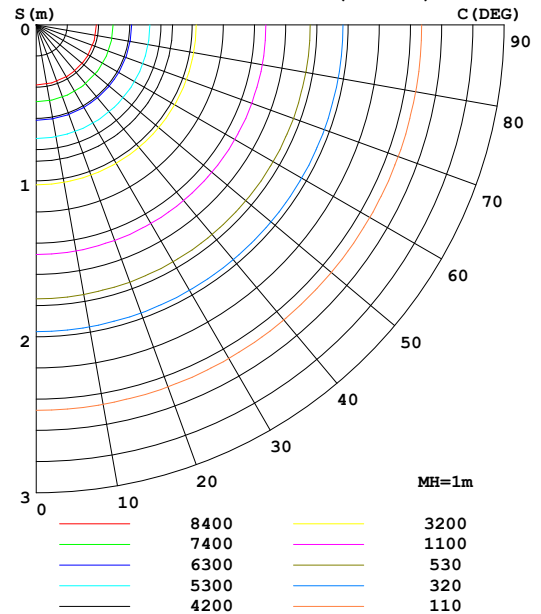
Test:U:230.0V I:0.880A P:200.0W PF:0.988 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:32130.8x1 lm		
NAME: HB74-200-5080-H00219	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 160.65 lm/W			
MODEL	/	I _{max} (cd)	10507	S/MH (C0/180)	1.47
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.47
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	32131	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	32130.8	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-10-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4559]
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	1047	1047	1047	1047	1047	1047	1047	1047	0- 10	1001	1001	3.12,3.12
20	1037	1037	1037	1037	1037	1037	1037	1037	10- 20	2954	3955	12.3,12.3
30	1017	1017	1017	1017	1017	1017	1017	1017	20- 30	4754	8708	27.1,27.1
40	988.7	988.7	988.7	988.7	988.7	988.7	988.7	988.7	30- 40	6308	15016	46.7,46.7
50	839.1	839.1	839.1	839.1	839.1	839.1	839.1	839.1	40- 50	7246	22262	69.3,69.3
60	446.9	446.9	446.9	446.9	446.9	446.9	446.9	446.9	50- 60	5773	28034	87.3,87.3
70	167.4	167.4	167.4	167.4	167.4	167.4	167.4	167.4	60- 70	2865	30899	96.2,96.2
80	46.25	46.25	46.25	46.25	46.25	46.25	46.25	46.25	70- 80	1040	31939	99.4,99.4
90	0.2912	0.2912	0.2912	0.2912	0.2912	0.2912	0.2912	0.2912	80- 90	192.1	32131	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): 18617 lm

%lum = 57.9%

%lamp = 57.9%

Conical surface Flux(130deg): 29786 lm

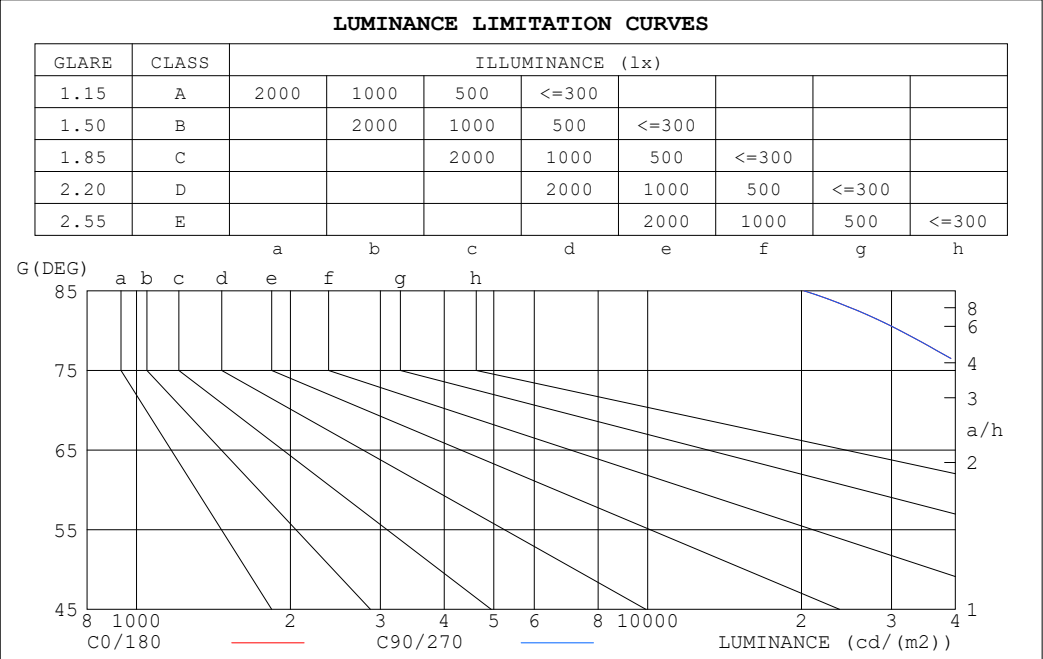
%lum = 92.7%

%lamp = 92.7%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	20230	20230
80	31189	31189
75	42880	42880
70	57315	57315
65	78074	78074
60	104662	104662
55	132612	132612
50	152850	152850
45	157304	157304

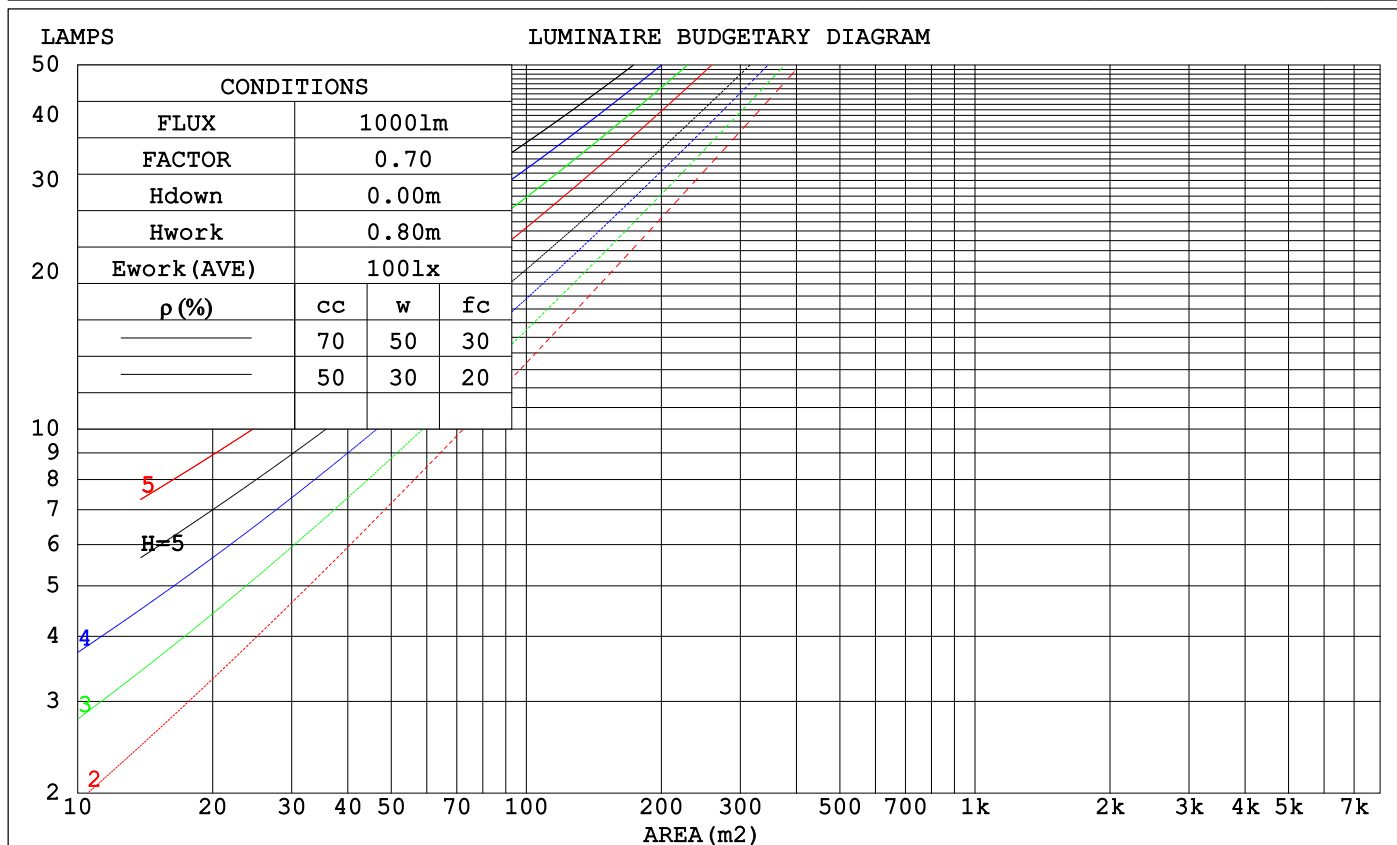
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
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	1.06	1.02	.99	1.04	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.85	.81	.88	.83	.79	.85	.80	.77	.82	.78	.75	.73
3.0	.82	.74	.68	.81	.74	.68	.78	.72	.67	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.65	.56	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.58	.50	.43	.58	.49	.43	.56	.48	.43	.54	.48	.43	.53	.47	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.51	.43	.38	.49	.42	.38	.48	.42	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



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γ Range: 0 - 90DEG
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Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
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	.274	.156	.049	.267	.152	.048	.254	.145	.046	.242	.139	.045	.230	.134	.043	
2.0	.266	.146	.045	.260	.143	.044	.249	.138	.043	.238	.134	.042	.228	.129	.041	
3.0	.252	.134	.040	.247	.132	.040	.236	.128	.039	.227	.124	.038	.218	.121	.037	
4.0	.236	.123	.036	.232	.121	.036	.223	.118	.035	.214	.115	.035	.207	.112	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.202	.106	.032	.195	.104	.031	
6.0	.207	.104	.030	.203	.103	.030	.196	.101	.029	.190	.099	.029	.183	.097	.029	
7.0	.194	.096	.027	.191	.095	.027	.184	.093	.027	.178	.091	.027	.173	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021	

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	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.147	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:ZZX
 Test Date:2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity:65.0%
 Test Distance:26.000m [K=0.4559]
 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	28.9	30.5	29.2	30.8	31.1	28.9	30.5	29.2	30.8	31.1
3H	29.5	31.0	29.9	31.3	31.6	29.5	31.0	29.9	31.3	31.6
4H	29.7	31.0	30.1	31.4	31.8	29.7	31.0	30.1	31.4	31.8
6H	29.8	31.0	30.2	31.4	31.8	29.8	31.0	30.2	31.4	31.8
8H	29.8	31.0	30.2	31.3	31.7	29.8	31.0	30.2	31.3	31.7
12H	29.8	30.9	30.2	31.3	31.7	29.8	30.9	30.2	31.3	31.7
4H 2H	29.1	30.5	29.5	30.8	31.2	29.1	30.5	29.5	30.8	31.2
3H	29.9	31.0	30.4	31.4	31.8	29.9	31.0	30.4	31.4	31.8
4H	30.2	31.2	30.6	31.6	32.0	30.2	31.2	30.6	31.6	32.0
6H	30.3	31.2	30.8	31.6	32.1	30.3	31.2	30.8	31.6	32.1
8H	30.3	31.1	30.8	31.6	32.0	30.3	31.1	30.8	31.6	32.0
12H	30.3	31.0	30.8	31.5	32.0	30.3	31.0	30.8	31.5	32.0
8H 4H	30.2	31.0	30.7	31.5	31.9	30.2	31.0	30.7	31.5	31.9
6H	30.4	31.1	30.9	31.5	32.0	30.4	31.1	30.9	31.5	32.0
8H	30.4	31.0	30.9	31.5	32.0	30.4	31.0	30.9	31.5	32.0
12H	30.5	31.0	31.0	31.5	32.0	30.5	31.0	31.0	31.5	32.0
12H 4H	30.2	30.9	30.7	31.4	31.9	30.2	30.9	30.7	31.4	31.9
6H	30.4	31.0	30.9	31.4	32.0	30.4	31.0	30.9	31.4	32.0
8H	30.4	31.0	30.9	31.5	32.0	30.4	31.0	30.9	31.5	32.0
CIE190: 2010										

CIE190: 2010
Area: 0.0854 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

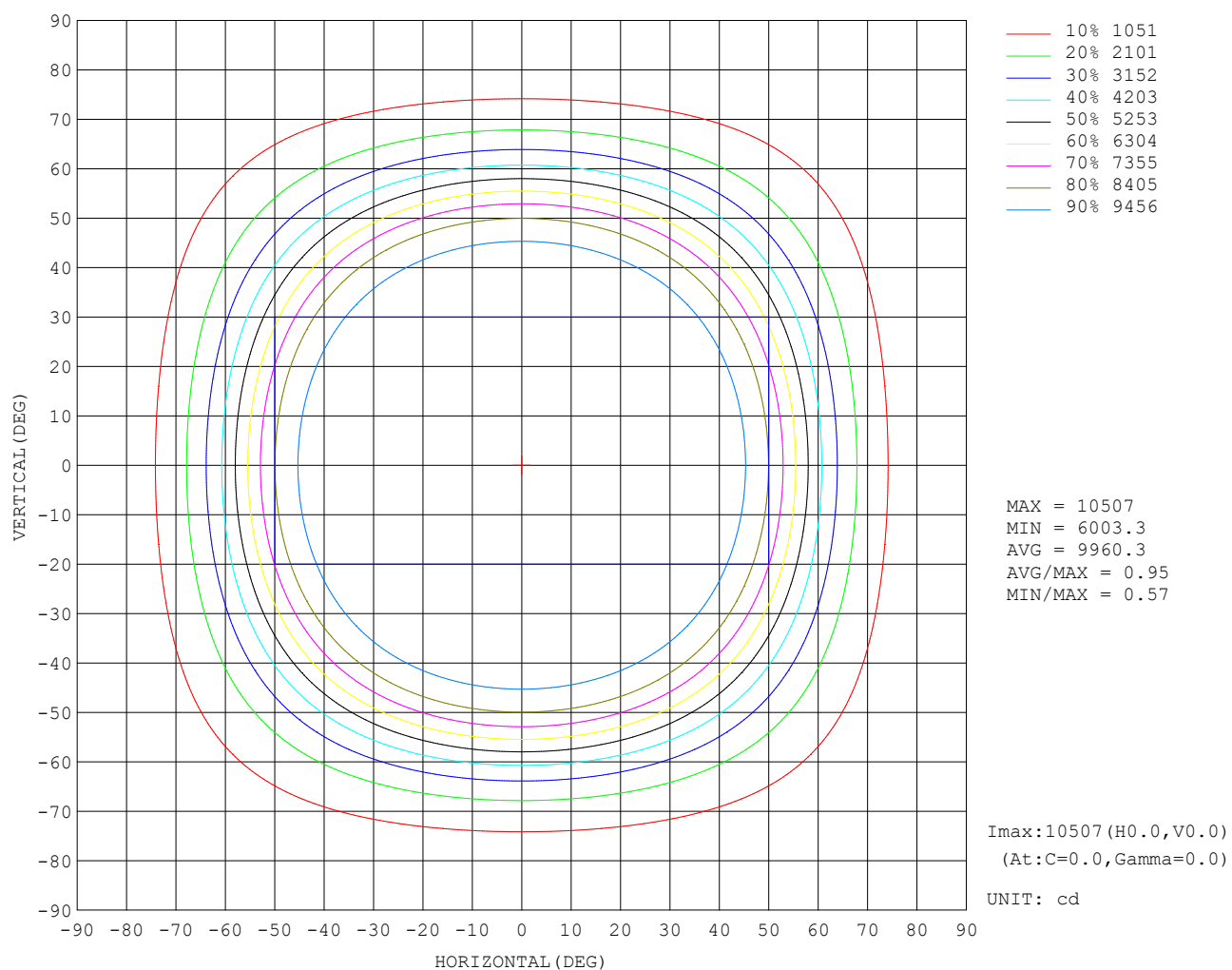
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	33
0.80	69	57	50	68	57	50	66	56	50	43
1.00	78	68	61	77	67	60	75	68	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	81	75	89	81	75	86	79	73	66
2.00	97	90	84	96	89	83	92	86	82	74
2.50	101	94	88	99	93	88	95	90	86	78
3.00	104	98	93	102	96	92	98	94	90	82
4.00	108	103	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	100	103	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: 22.5DEG
 Test Speed: HIGH
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 Operators: ZZX
 Test Date: 2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
 Humidity: 65.0%
 Test Distance: 26.000m [K=0.4559]
 Remarks:

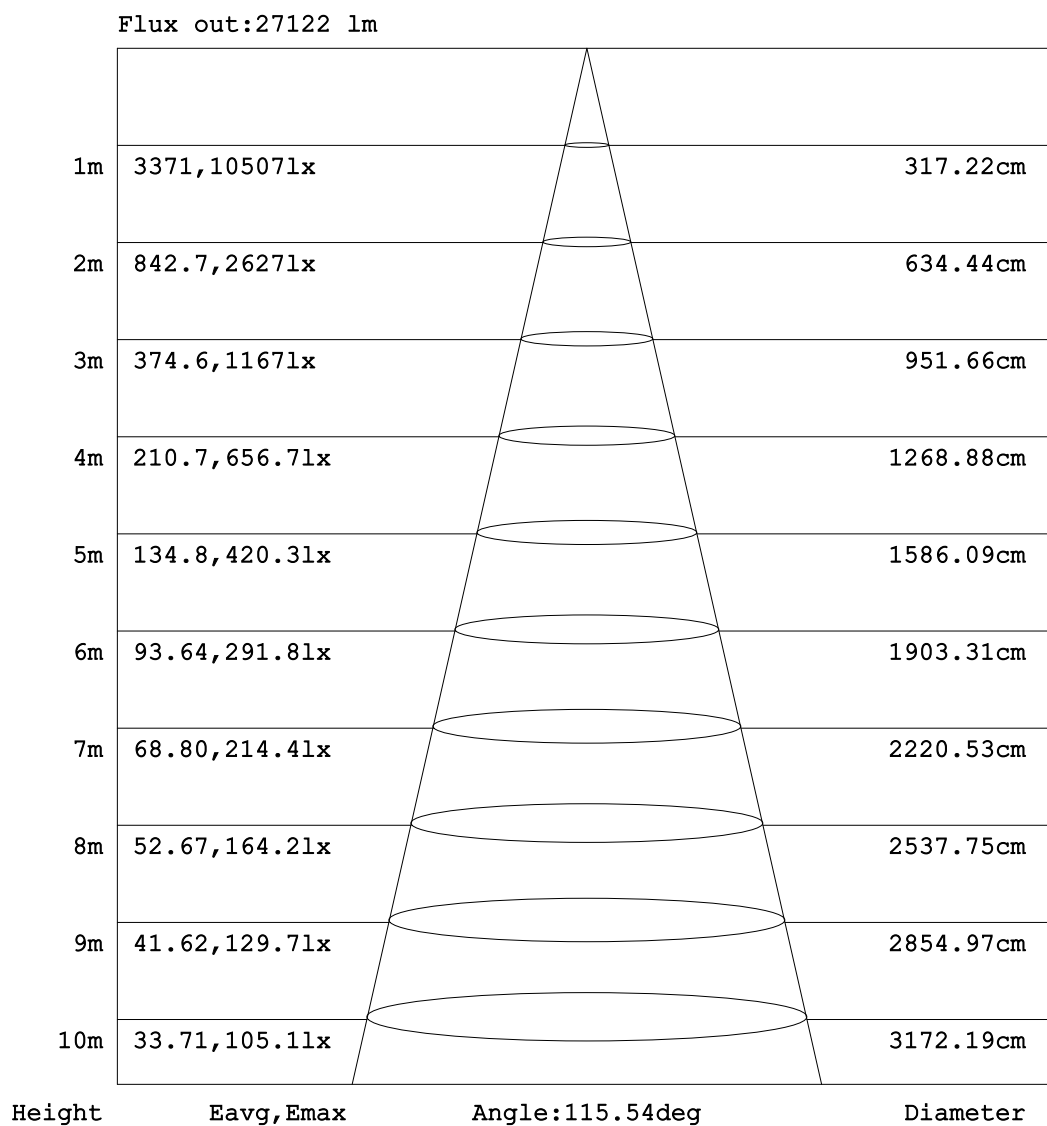
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

AAI Figure



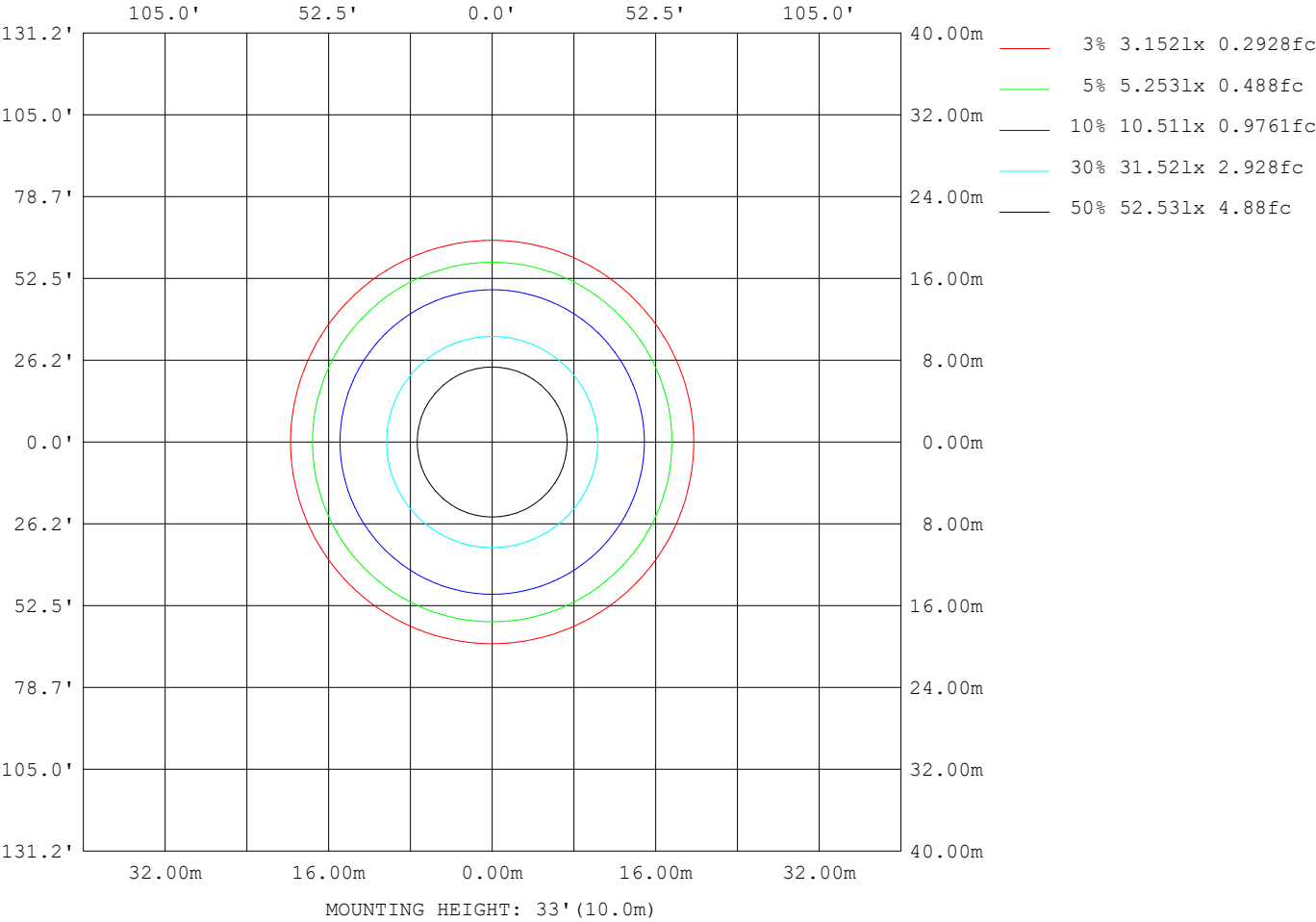
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:230.0V I:0.880A P:200.0W PF:0.988 Freq:50.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:32130.8x1 lm		
NAME: HB74-200-5080-H00219	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

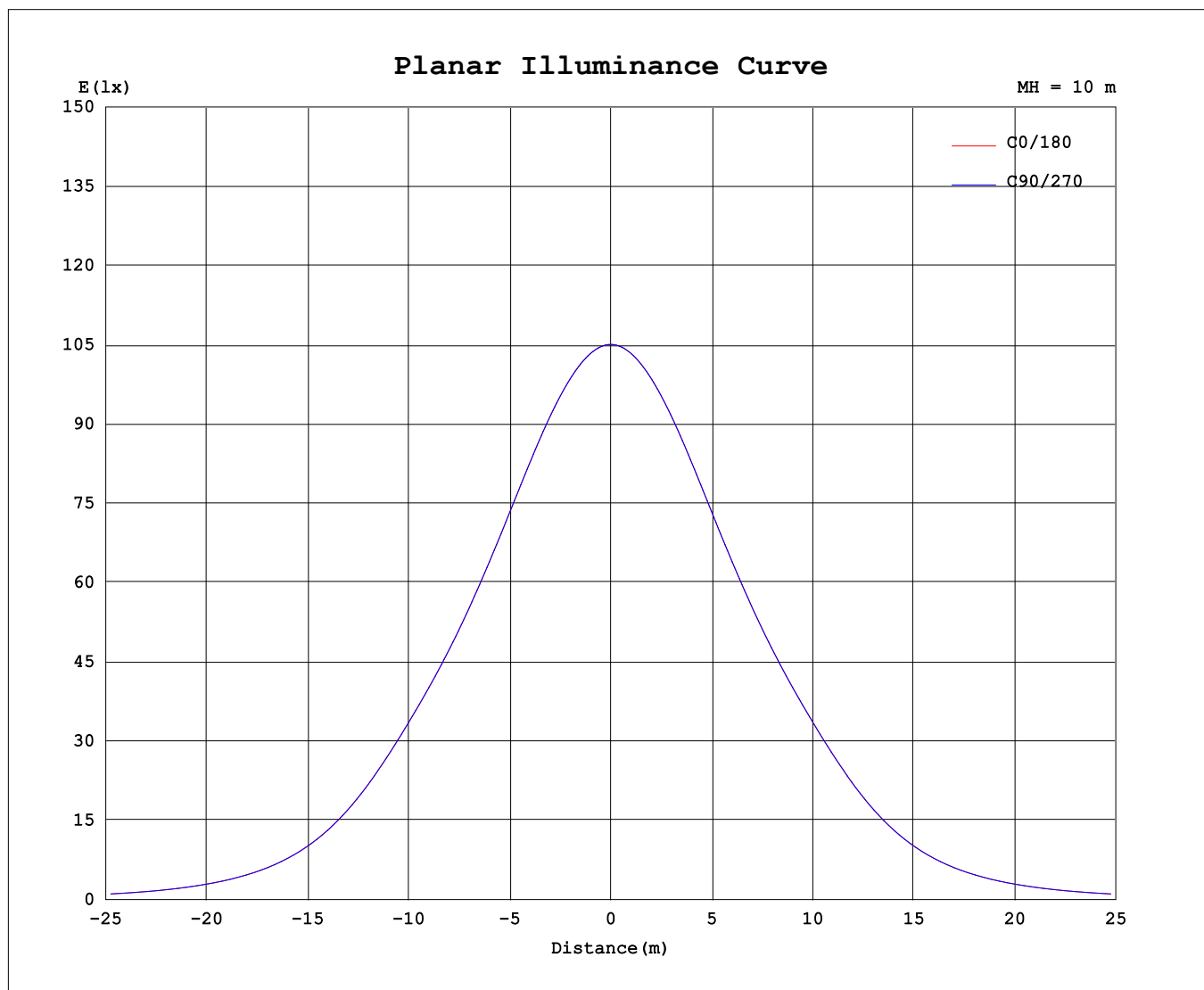
AvgL	cd/m2
L_0~180 (65) av	78074
L_0~180 (75) av	42880
L_0~180 (85) av	20230
L_90~270 (65) av	78074
L_90~270 (75) av	42880
L_90~270 (85) av	20230
L_45 (65) av	78074
L_45 (75) av	42880
L_45 (85) av	20230

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:ZZX
Test Date:2023-10-09

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-10-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity: 65.0%
Test Distance: 26.000m [K=0.4559]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

UNIT: X10cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZX
Test Date: 2023-10-09

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γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.465
Humidity:65.0%
Test Distance:26.000m [K=0.4559]
Remarks:

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