

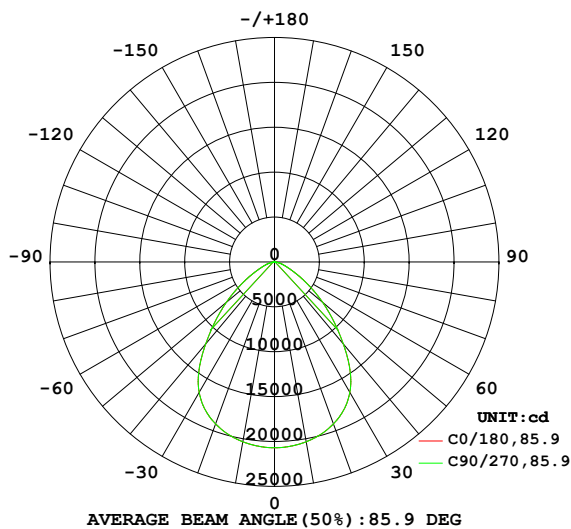
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

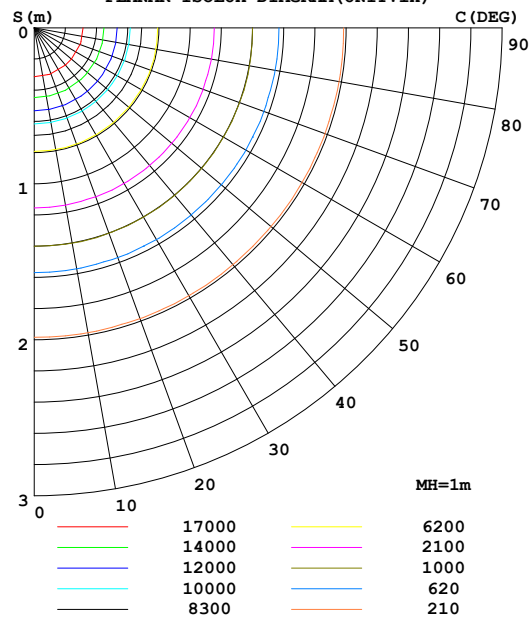
Test:U:230.0V I:1.054A P:240.0W PF:0.990 Freq:50.00Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:39587.2x1 lm		
NAME: HB74-240-5080-H00220	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 164.95 lm/W			
MODEL	/	Imax (cd)	20695	S/MH (C0/180)	1.20
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	39587	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	39587.2	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	/	η down (%)	100.0	CIBSE SHR MAX	1.25

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: 2023-10-06

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	2034	2034	2034	2034	2034	2034	2034	2034	0- 10	1958	1958	4.95,4.95
20	1919	1919	1919	1919	1919	1919	1919	1919	10- 20	5608	7566	19.1,19.1
30	1679	1679	1679	1679	1679	1679	1679	1679	20- 30	8362	15928	40.2,40.2
40	1192	1192	1192	1192	1192	1192	1192	1192	30- 40	9076	25005	63.2,63.2
50	700.4	700.4	700.4	700.4	700.4	700.4	700.4	700.4	40- 50	7199	32204	81.3,81.3
60	316.1	316.1	316.1	316.1	316.1	316.1	316.1	316.1	50- 60	4403	36607	92.5,92.5
70	120.9	120.9	120.9	120.9	120.9	120.9	120.9	120.9	60- 70	1992	38599	97.5,97.5
80	40.49	40.49	40.49	40.49	40.49	40.49	40.49	40.49	70- 80	801.2	39400	99.5,99.5
90	0.2601	0.2601	0.2601	0.2601	0.2601	0.2601	0.2601	0.2601	80- 90	187.2	39587	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): 28920 lm

%lum = 73.1%

%lamp = 73.1%

Conical surface Flux(130deg): 37818 lm

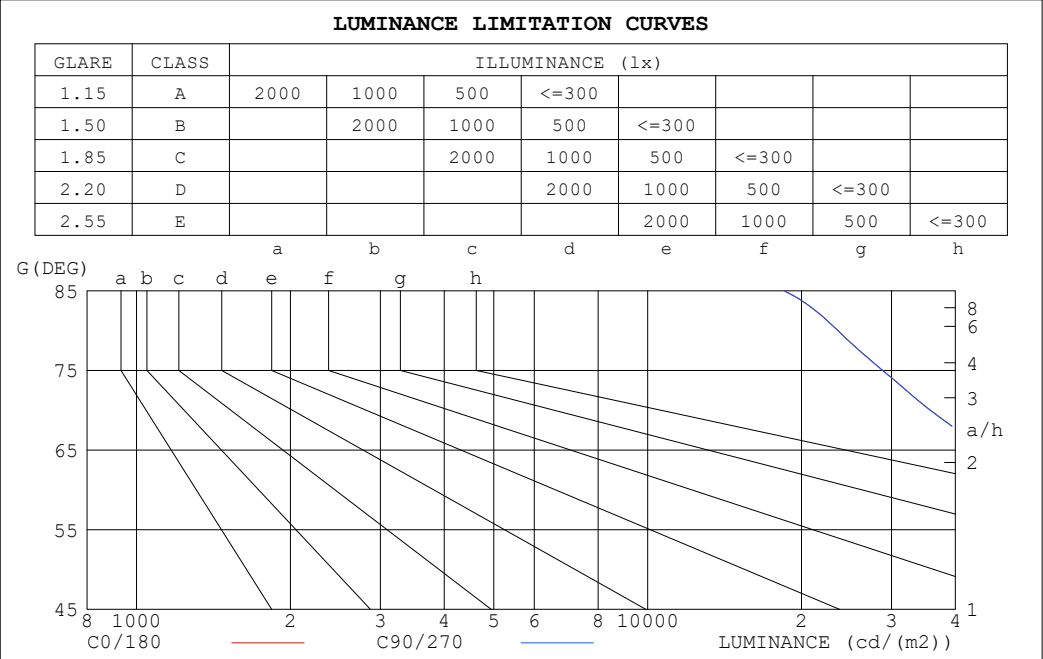
%lum = 95.5%

%lamp = 95.5%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
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Operators:ZZX
Test Date:2023-10-06

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	18486	18486
80	23575	23575
75	28832	28832
70	35743	35743
65	46356	46356
60	63918	63918
55	85942	85942
50	110179	110179
45	133223	133223

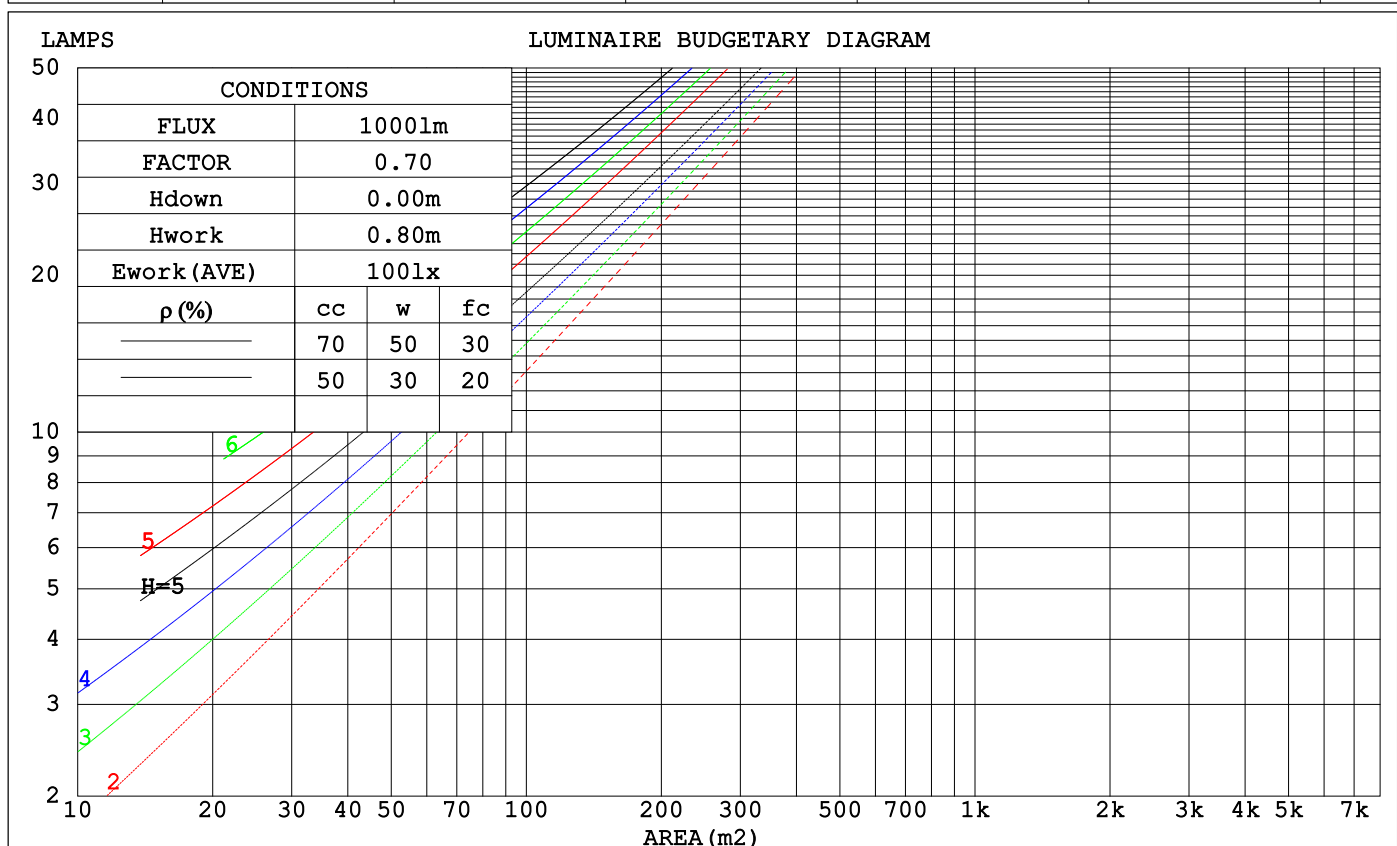
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Test Distance:26.000m [K=0.4559]
Remarks:

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															



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Test Date:2023-10-06

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	.240	.136	.043	.233	.133	.042	.220	.126	.040	.208	.120	.039	.197	.114	.037	
2.0	.233	.127	.039	.227	.125	.038	.215	.120	.037	.205	.115	.036	.196	.111	.035	
3.0	.221	.118	.035	.216	.115	.035	.206	.112	.034	.197	.108	.033	.188	.104	.032	
4.0	.208	.108	.032	.204	.107	.032	.195	.104	.031	.187	.101	.030	.180	.098	.030	
5.0	.196	.100	.029	.192	.099	.029	.185	.096	.028	.178	.094	.028	.171	.091	.027	
6.0	.185	.093	.027	.182	.092	.026	.175	.090	.026	.169	.088	.026	.163	.086	.025	
7.0	.175	.086	.025	.172	.086	.024	.166	.084	.024	.160	.082	.024	.155	.080	.024	
8.0	.165	.081	.023	.162	.080	.023	.157	.078	.022	.152	.077	.022	.147	.076	.022	
9.0	.157	.076	.021	.154	.075	.021	.149	.074	.021	.145	.072	.021	.140	.071	.021	
10.0	.149	.071	.020	.146	.071	.020	.142	.069	.020	.138	.068	.019	.134	.067	.019	

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	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.086	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.120	.077	.045	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.074	.036	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 Operators:ZZX
 Test Date:2023-10-06

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	25.6	27.0	26.0	27.3	27.7	25.6	27.0	26.0	27.3	27.7
3H	26.3	27.5	26.6	27.8	28.2	26.3	27.5	26.6	27.8	28.2
4H	26.4	27.6	26.8	27.9	28.3	26.4	27.6	26.8	27.9	28.3
6H	26.6	27.6	27.0	28.0	28.4	26.6	27.6	27.0	28.0	28.4
8H	26.6	27.6	27.0	28.0	28.4	26.6	27.6	27.0	28.0	28.4
12H	26.6	27.5	27.0	27.9	28.3	26.6	27.5	27.0	27.9	28.3
4H 2H	25.8	27.0	26.2	27.3	27.7	25.8	27.0	26.2	27.3	27.7
3H	26.6	27.5	27.0	27.9	28.3	26.6	27.5	27.0	27.9	28.3
4H	26.9	27.7	27.3	28.1	28.6	26.9	27.7	27.3	28.1	28.6
6H	27.0	27.8	27.5	28.2	28.7	27.0	27.8	27.5	28.2	28.7
8H	27.1	27.8	27.6	28.2	28.7	27.1	27.8	27.6	28.2	28.7
12H	27.1	27.7	27.6	28.2	28.7	27.1	27.7	27.6	28.2	28.7
8H 4H	26.9	27.6	27.4	28.0	28.5	26.9	27.6	27.4	28.0	28.5
6H	27.1	27.7	27.6	28.2	28.7	27.1	27.7	27.6	28.2	28.7
8H	27.2	27.7	27.7	28.2	28.7	27.2	27.7	27.7	28.2	28.7
12H	27.3	27.7	27.8	28.2	28.8	27.3	27.7	27.8	28.2	28.8
12H 4H	26.9	27.5	27.4	28.0	28.4	26.9	27.5	27.4	28.0	28.4
6H	27.1	27.6	27.7	28.1	28.6	27.1	27.6	27.7	28.1	28.6
8H	27.2	27.7	27.7	28.2	28.7	27.2	27.7	27.7	28.2	28.7
CIE190: 2010										

CIE190: 2010
Area: 0.0989 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-06

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

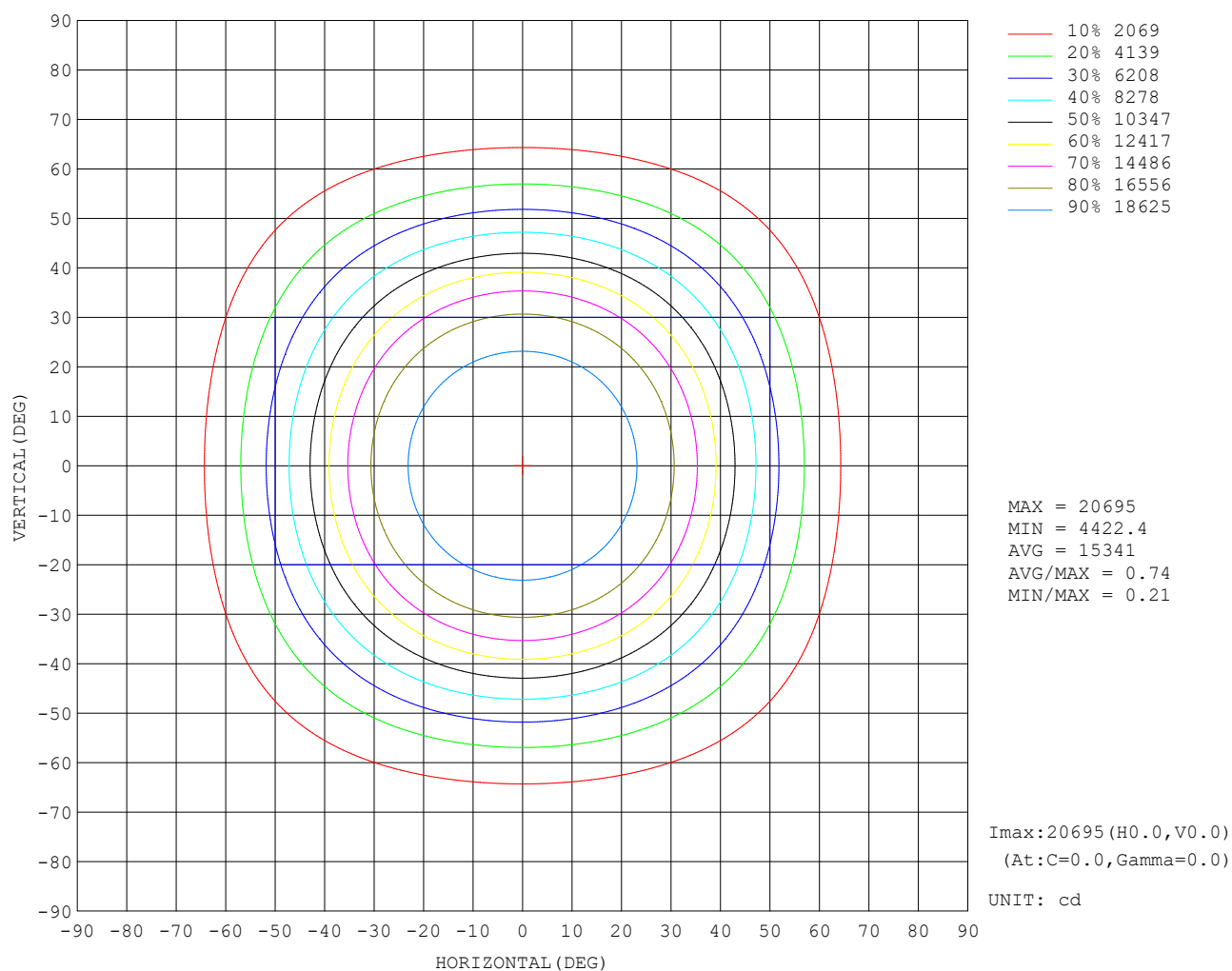
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	53	67	58	52	66	58	52	47
0.80	78	69	63	77	68	63	76	68	62	56
1.00	86	77	71	85	77	71	83	77	71	65
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	89	83	95	88	83	92	86	82	76
2.00	102	95	90	100	94	90	97	92	88	82
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	98	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
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
 Temperature: 25.3°C
 Operators: ZZX
 Test Date: 2023-10-06

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:

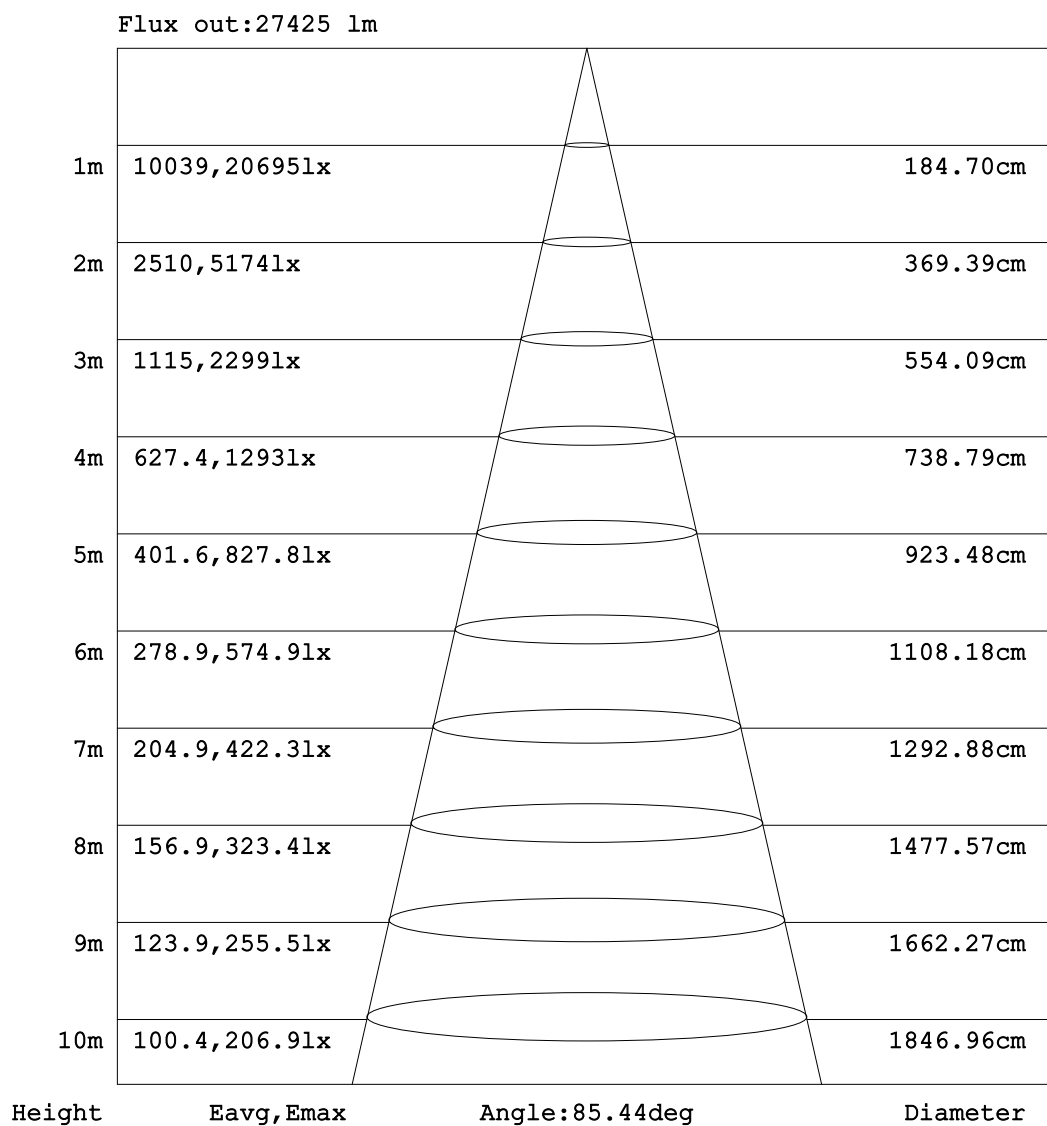
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: ZZK
Test Date: 2023-10-06

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



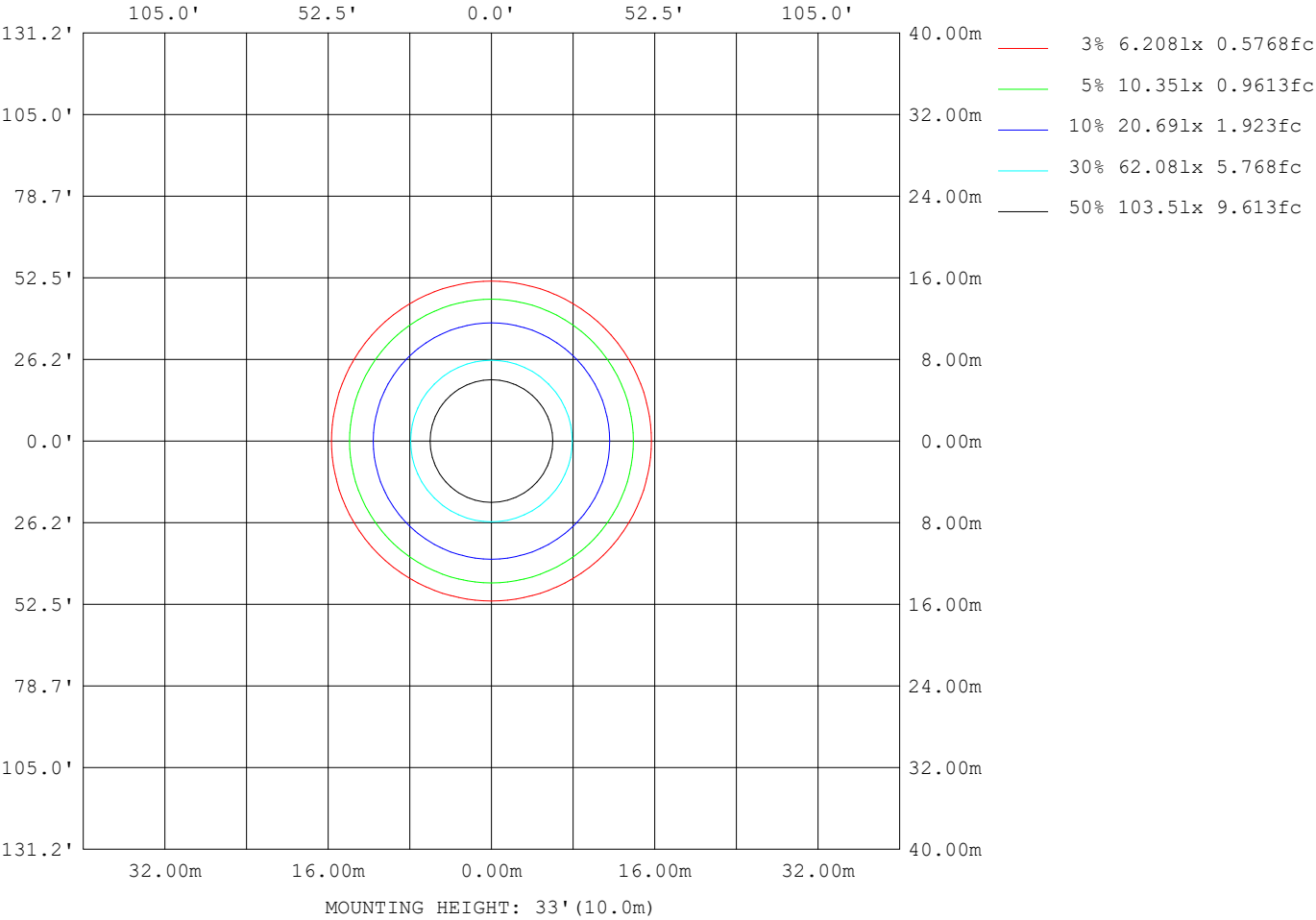
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:ZZX
Test Date:2023-10-06

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: 2023-10-06

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:1.054A P:240.0W PF:0.990 Freq:50.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:39587.2x1 lm		
NAME: HB74-240-5080-H00220	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

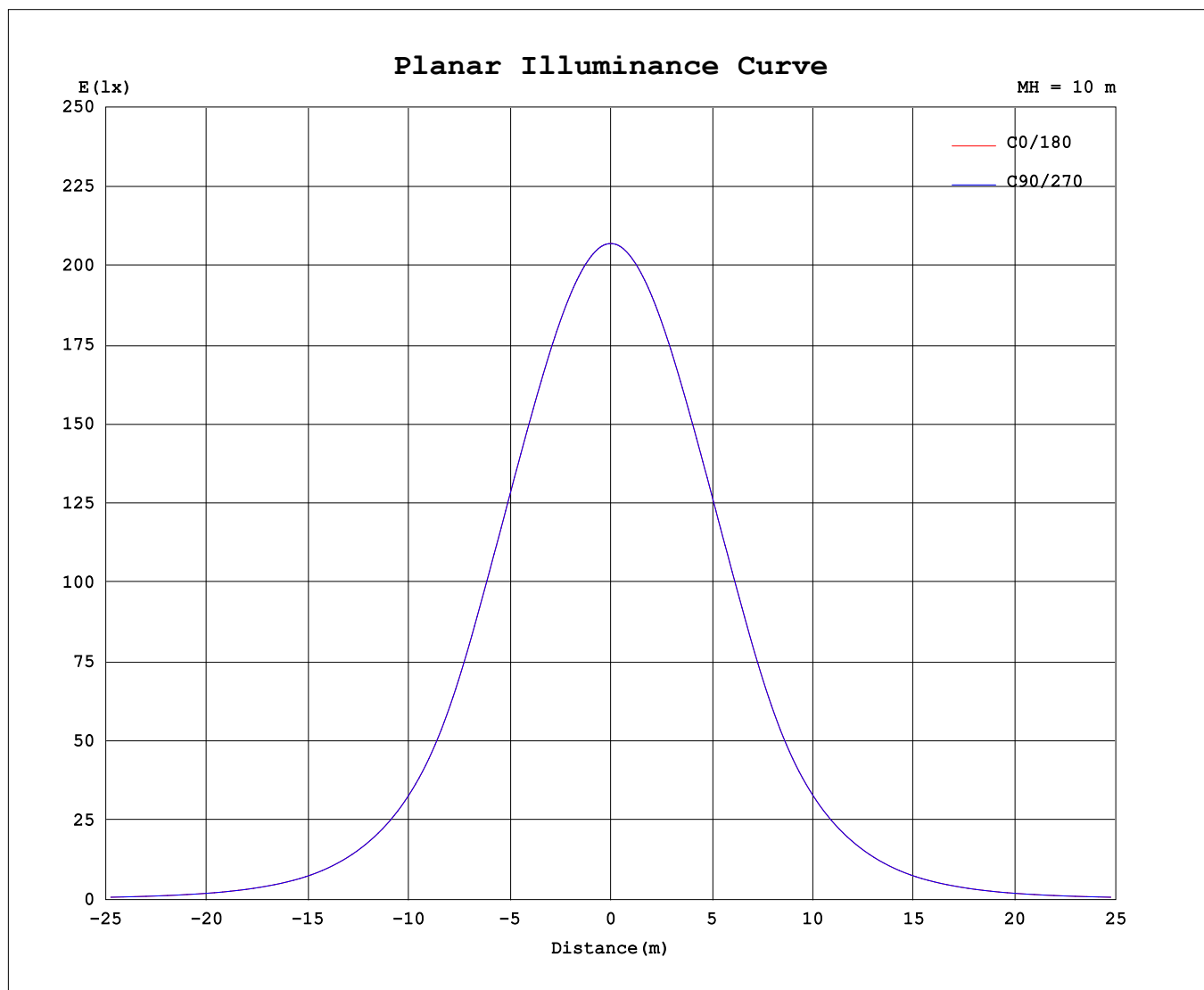
AvgL	cd/m2
L_0~180 (65) av	46356
L_0~180 (75) av	28832
L_0~180 (85) av	18486
L_90~270 (65) av	46356
L_90~270 (75) av	28832
L_90~270 (85) av	18486
L_45 (65) av	46356
L_45 (75) av	28832
L_45 (85) av	18486

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:ZZX
Test Date:2023-10-06

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: 2023-10-06

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: 2023-10-06

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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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