

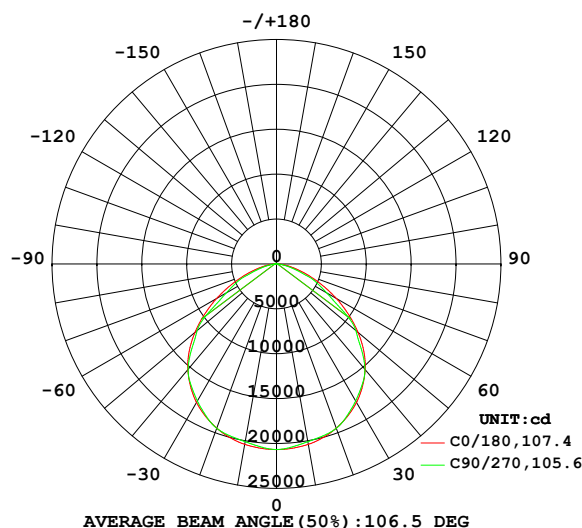
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

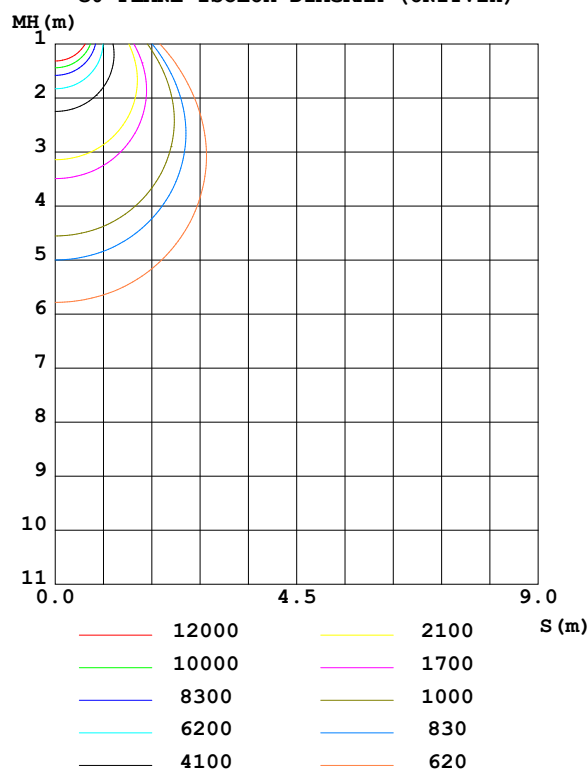
Test:U:229.9V I:1.333A P:303.5W PF:0.990 Freq:50.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:53537.2x1 lm		
NAME: LHB09-300H-5070-L00404	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 176.38 lm/W			
MODEL	/	Imax (cd)	20673	S/MH (C0/180)	1.28
NOMINAL POWER (W)	/	LOR (%)	100.0	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	/	TOTAL FLUX (lm)	53537	η UP,DN (C0-180)	0.0,50.0
NOMINAL FLUX (lm)	53537.2	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	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
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	2040	2017	2010	2017	2040	2017	2010	2017	0- 10	1948	1948	3.64,3.64
20	1946	1931	1948	1931	1946	1931	1948	1931	10- 20	5608	7556	14.1,14.1
30	1782	1786	1763	1786	1782	1786	1763	1786	20- 30	8599	16155	30.2,30.2
40	1536	1512	1532	1512	1536	1512	1532	1512	30- 40	10370	26525	49.5,49.5
50	1185	1165	1153	1165	1185	1165	1153	1165	40- 50	10434	36959	69,69
60	772.1	766.4	646.5	766.4	772.1	766.4	646.5	766.4	50- 60	8454	45413	84.8,84.8
70	387.3	349.5	310.9	349.5	387.3	349.5	310.9	349.5	60- 70	5273	50685	94.7,94.7
80	133.4	114.0	89.45	114.0	133.4	114.0	89.45	114.0	70- 80	2359	53044	99.1,99.1
90	1.102	1.404	3.191	1.404	1.102	1.404	3.191	1.404	80- 90	493.1	53537	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): 31873 lm

%lum = 59.5%

%lamp = 59.5%

Conical surface Flux(120deg): 45413 lm

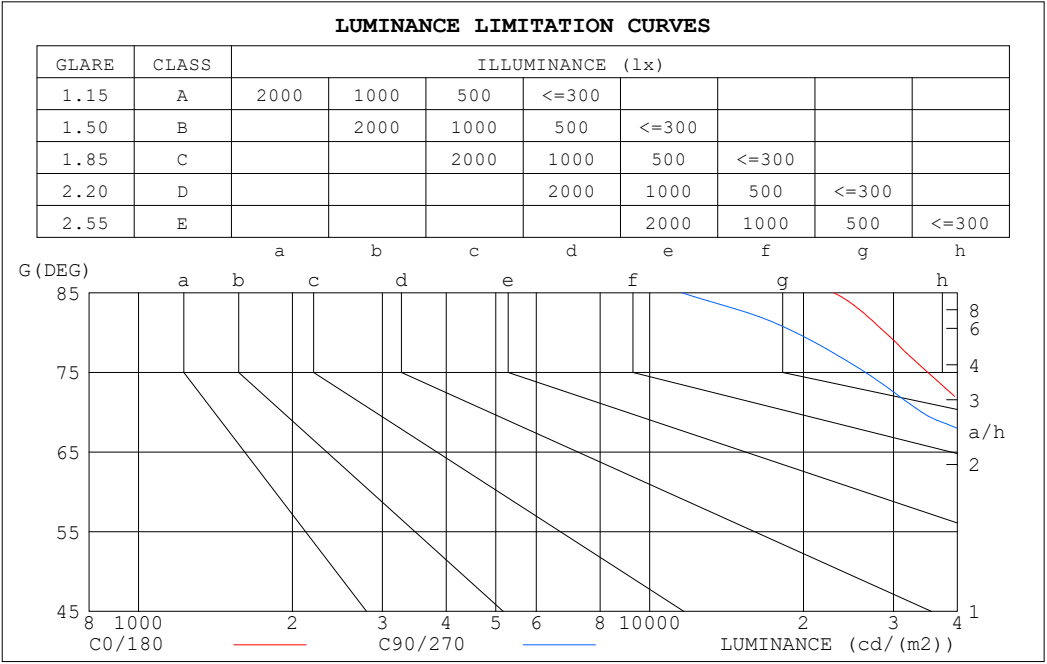
%lum = 84.8%

%lamp = 84.8%

C Range: 0 - 360DEG
C Interval: 15.0DEG
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	22940	11587
80	28919	19318
75	35029	26461
70	42609	34092
65	50514	43871
60	58107	48495
55	64173	58152
50	69380	67285
45	73220	70763

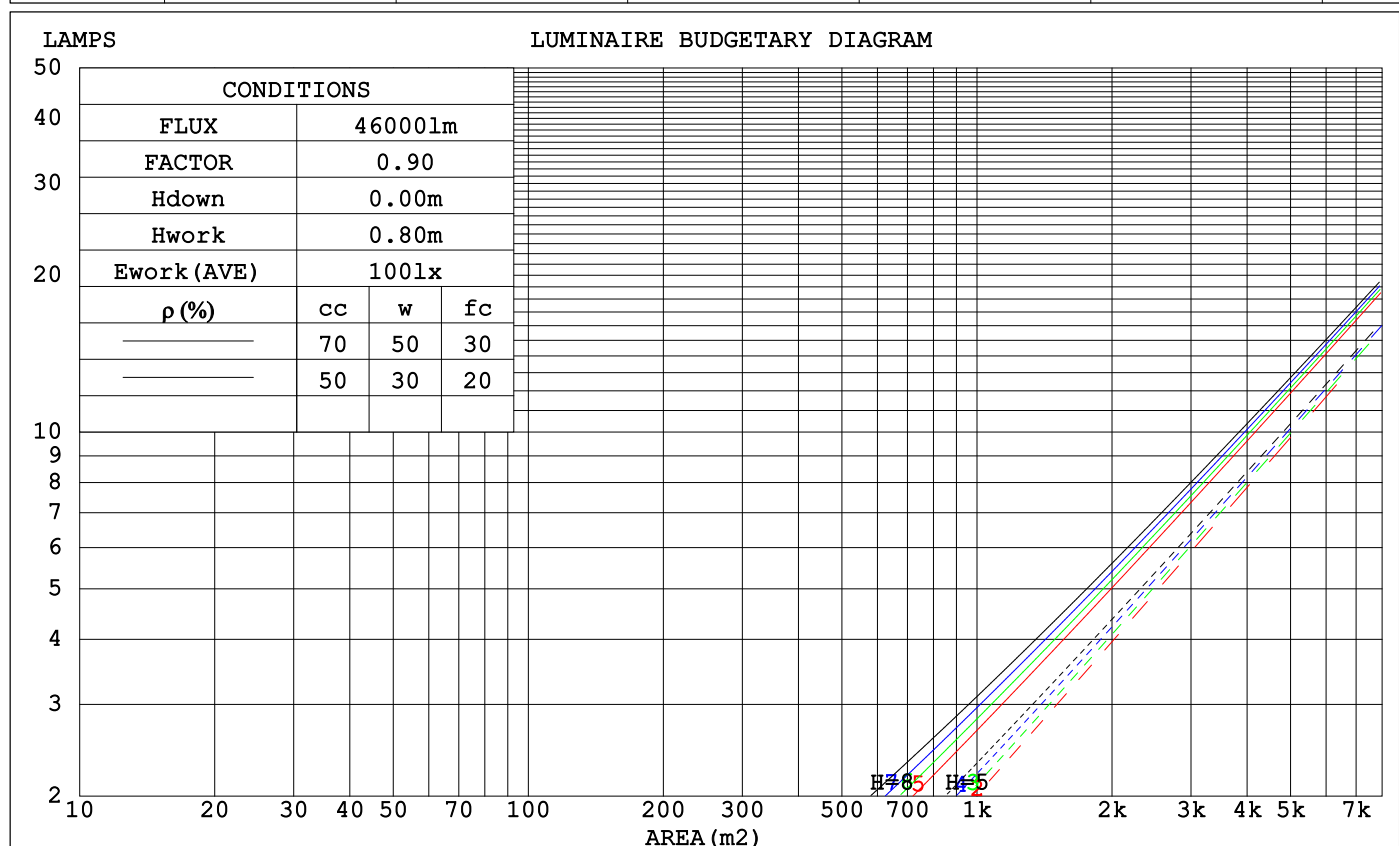
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:LYJ
Test Date:2022-08-17

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

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	1.05	1.02	.98	1.03	.90	.96	.99	.96	.93	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.87	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.81	.73	.68	.78	.72	.67	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.63	.57	.67	.61	.56	.65	.60	.56	.54
5.0	.66	.57	.51	.64	.56	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.47
6.0	.59	.51	.44	.58	.50	.44	.56	.49	.44	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.27



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 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	.279	.159	.050	.272	.155	.049	.259	.149	.048	.247	.143	.046	.236	.137	.044	
2.0	.269	.147	.045	.262	.145	.045	.251	.140	.043	.240	.135	.042	.231	.130	.041	
3.0	.252	.134	.040	.247	.132	.040	.237	.128	.039	.227	.125	.038	.219	.121	.037	
4.0	.235	.122	.036	.231	.121	.036	.222	.118	.035	.213	.115	.035	.206	.112	.034	
5.0	.219	.112	.032	.215	.111	.032	.207	.108	.032	.200	.105	.031	.193	.103	.031	
6.0	.205	.103	.029	.201	.102	.029	.194	.099	.029	.187	.097	.029	.181	.095	.028	
7.0	.192	.095	.027	.188	.094	.027	.182	.092	.027	.176	.090	.026	.171	.089	.026	
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024	
9.0	.169	.082	.023	.167	.081	.023	.161	.080	.023	.157	.079	.022	.152	.077	.022	
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.072	.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	.081	.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	.153	.101	.060	.132	.087	.052	.091	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.126	.078	.042	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 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

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	26.5	28.0	26.8	28.3	28.7	25.6	27.2	26.0	27.5	27.8
3H	27.7	29.1	28.1	29.5	29.8	26.9	28.3	27.3	28.6	29.0
4H	28.1	29.5	28.5	29.8	30.2	27.2	28.5	27.6	28.8	29.2
6H	28.4	29.6	28.8	30.0	30.4	27.3	28.5	27.7	28.9	29.3
8H	28.5	29.6	28.9	30.0	30.4	27.3	28.5	27.8	28.9	29.3
12H	28.5	29.6	29.0	30.0	30.4	27.3	28.4	27.8	28.8	29.2
4H 2H	26.8	28.1	27.2	28.5	28.9	26.1	27.5	26.5	27.8	28.2
3H	28.3	29.4	28.7	29.8	30.2	27.6	28.7	28.0	29.1	29.5
4H	28.8	29.8	29.3	30.2	30.7	27.9	28.9	28.4	29.3	29.8
6H	29.2	30.1	29.7	30.5	31.0	28.2	29.0	28.6	29.5	29.9
8H	29.3	30.1	29.8	30.6	31.0	28.2	29.0	28.7	29.4	29.9
12H	29.4	30.1	29.9	30.6	31.0	28.2	28.9	28.7	29.4	29.9
8H 4H	29.0	29.7	29.4	30.2	30.7	28.1	28.9	28.6	29.4	29.8
6H	29.4	30.1	29.9	30.6	31.0	28.4	29.1	28.9	29.6	30.0
8H	29.6	30.2	30.1	30.7	31.2	28.5	29.1	29.0	29.6	30.1
12H	29.7	30.2	30.2	30.7	31.3	28.5	29.0	29.0	29.5	30.1
12H 4H	28.9	29.7	29.4	30.1	30.6	28.1	28.9	28.6	29.3	29.8
6H	29.4	30.0	29.9	30.5	31.0	28.4	29.0	29.0	29.5	30.0
8H	29.6	30.1	30.1	30.6	31.2	28.5	29.1	29.0	29.5	30.1
CIE190: 2010										

CIE190: 2010
Area: 0.26645 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
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

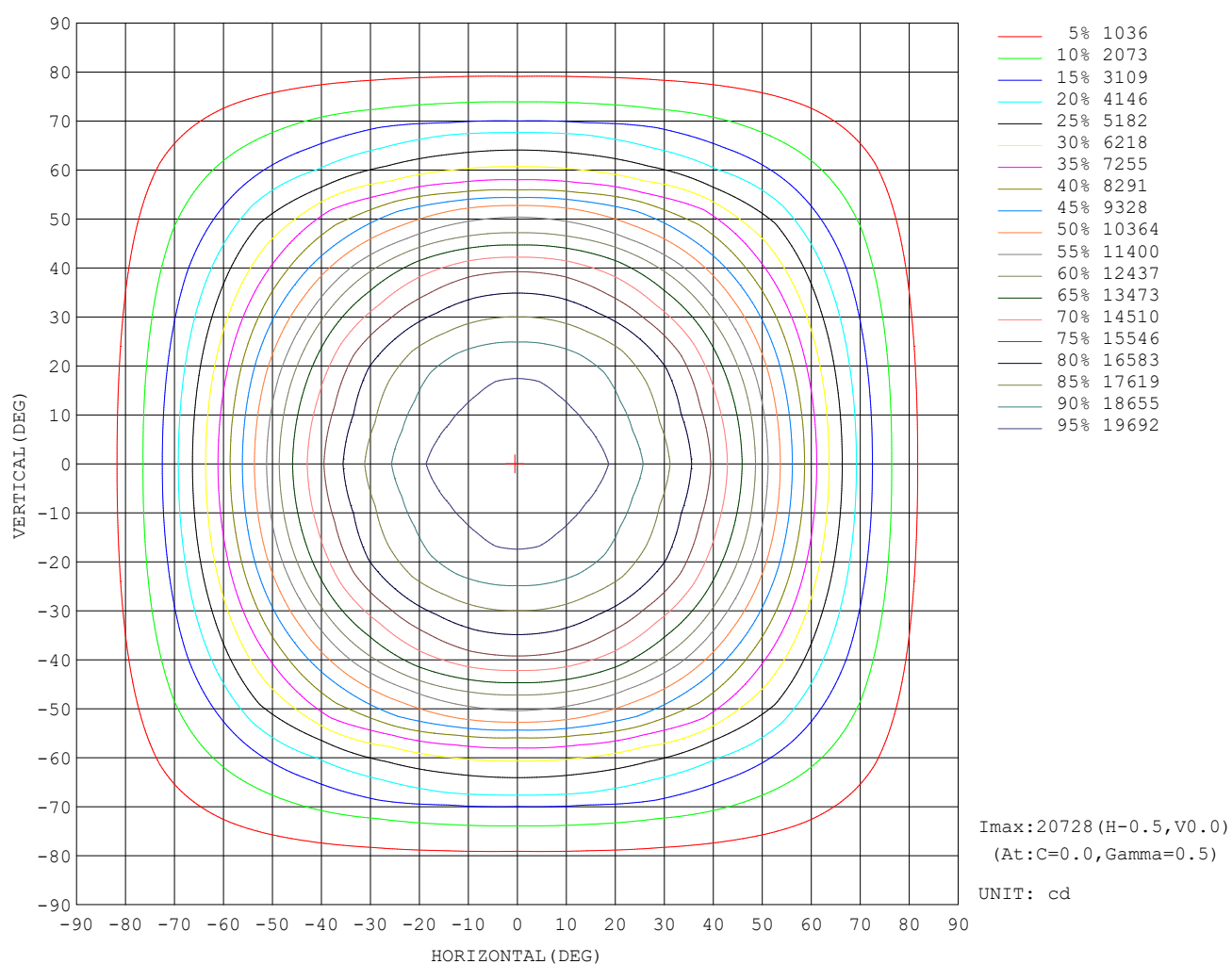
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	60	49	42	59	49	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	69	62	78	68	61	76	69	61	54
1.25	86	76	70	85	76	69	82	74	68	62
1.50	91	82	75	89	81	75	86	79	74	67
2.00	97	90	84	96	88	83	92	86	81	74
2.50	101	94	88	99	92	87	95	90	86	78
3.00	104	98	93	102	96	92	98	93	90	81
4.00	108	102	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: 15.0DEG
 Test Speed: HIGH
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 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:

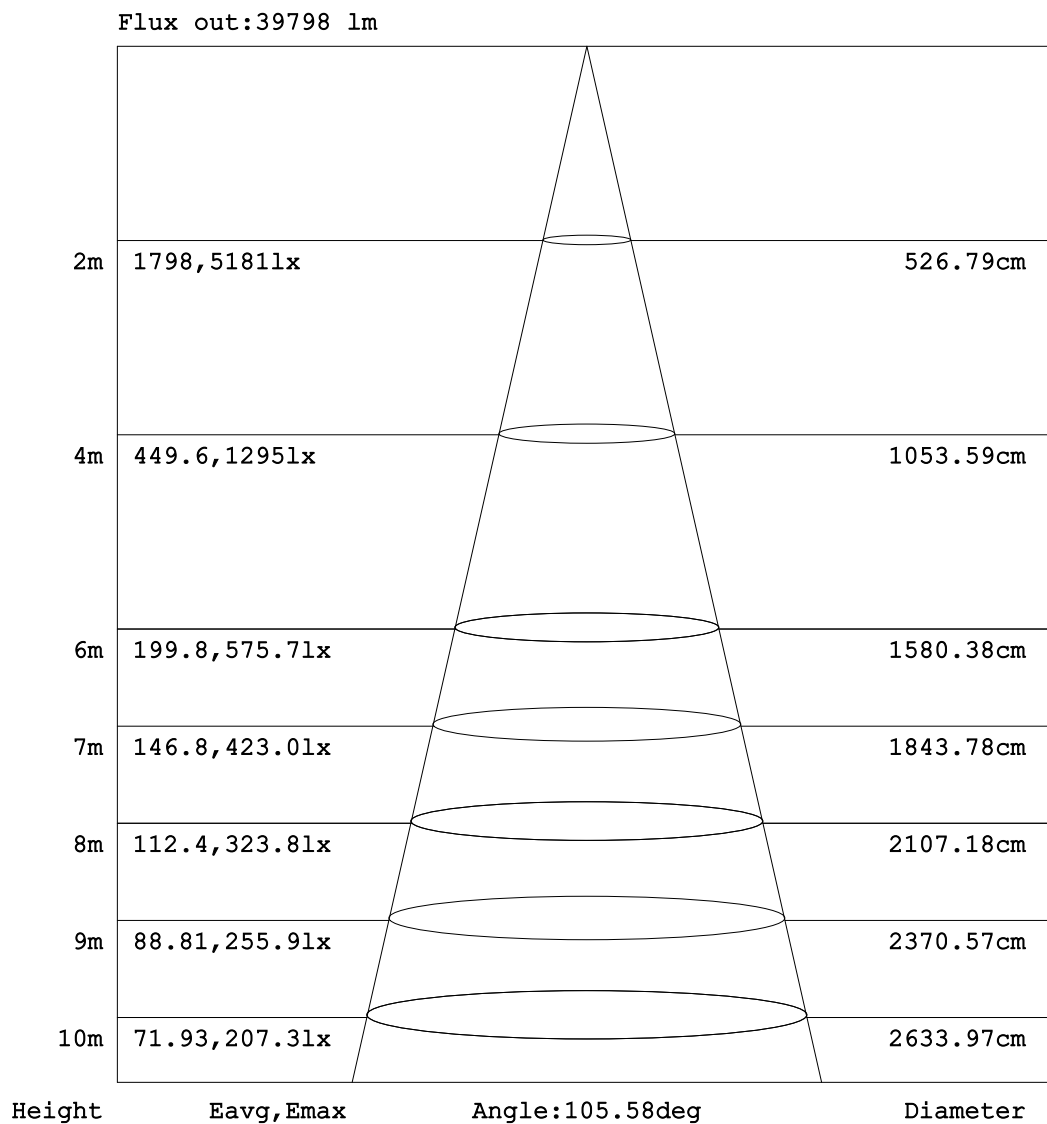
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
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



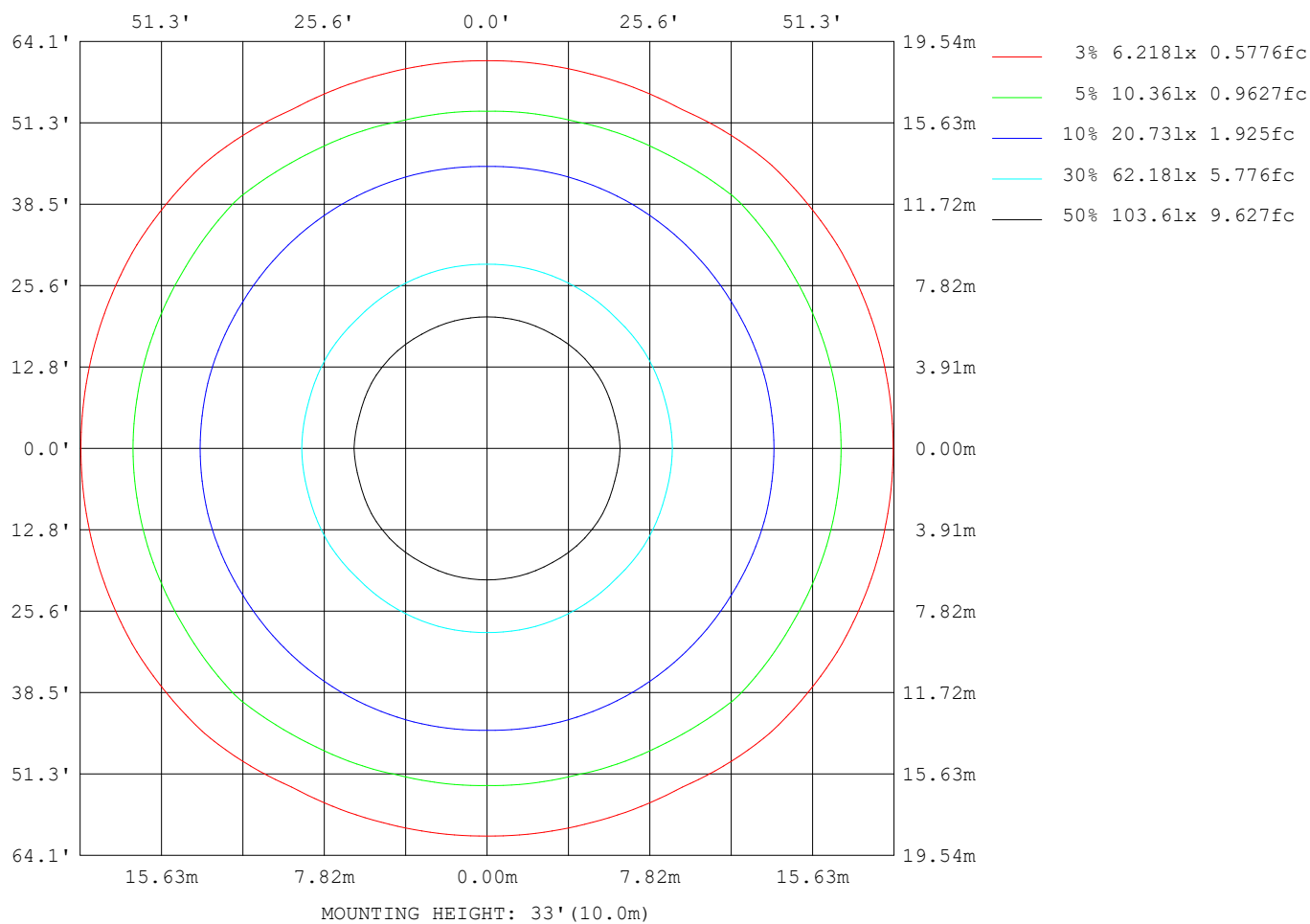
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
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

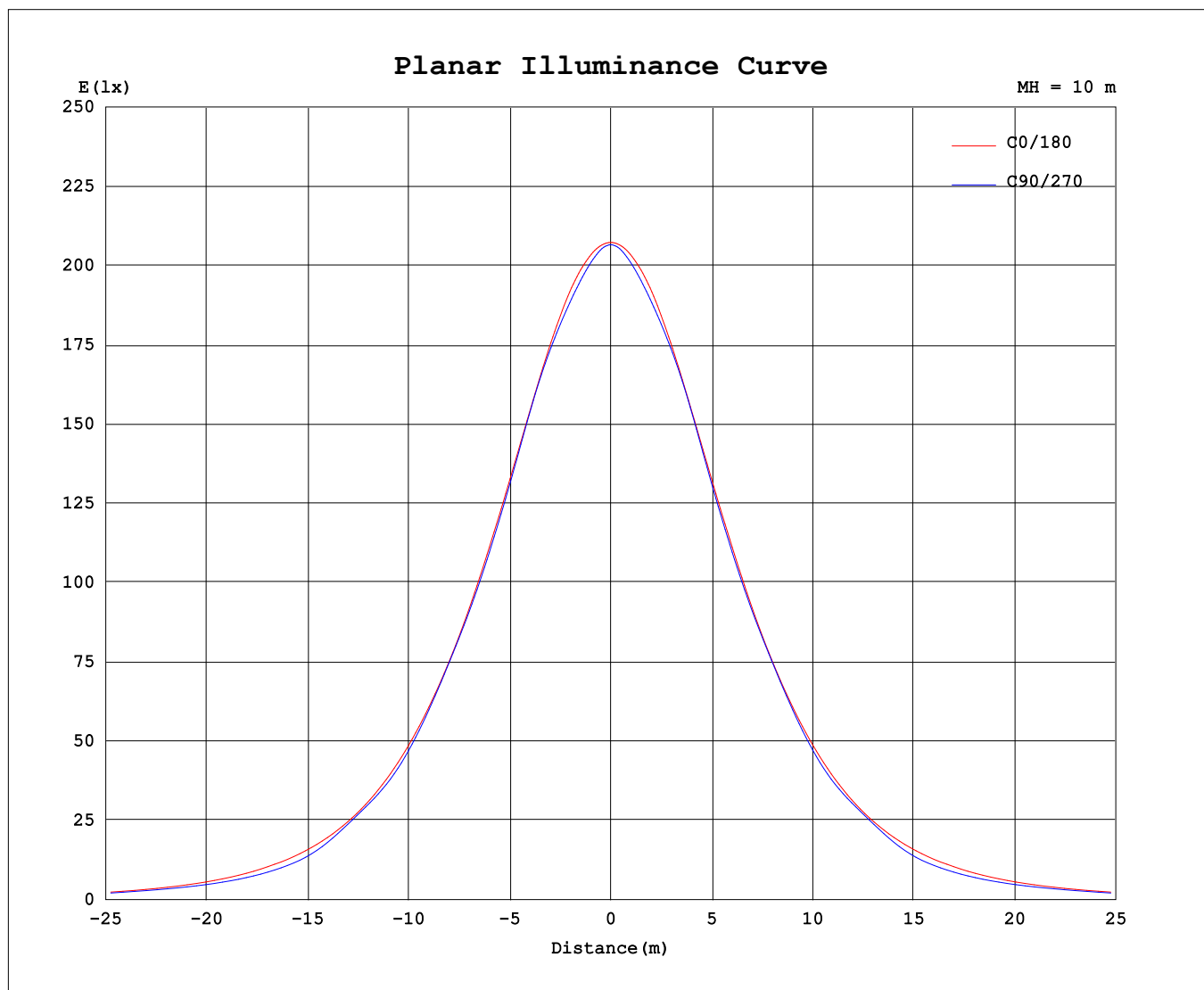
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
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: 15.0DEG
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:

XX

UNIT: X10cd

C Range: 0 - 360DEG	γ Range: 0 - 90DEG
C Interval: 15.0DEG	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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LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: X10cd

[illegible]

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: LYJ
Test Date: 2022-08-17

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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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