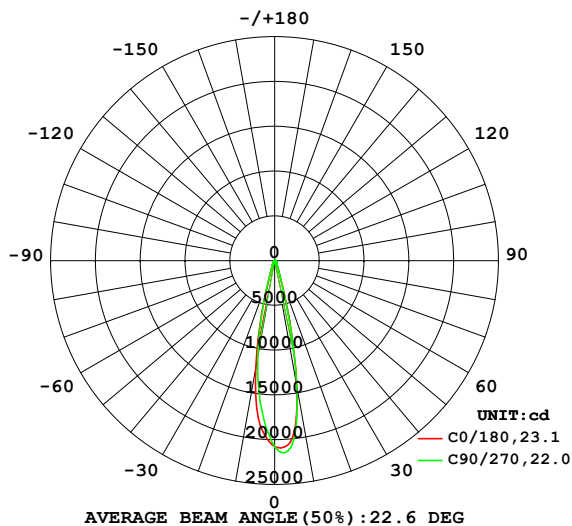


LUMINAIRE PHOTOMETRIC TEST REPORT

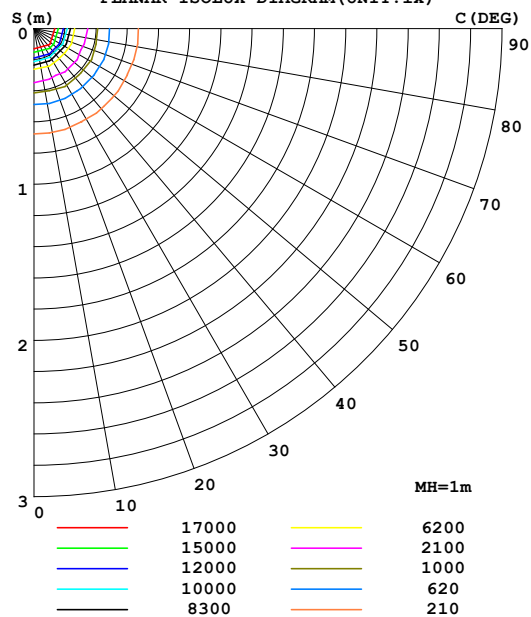
Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.51 lm/W
MODEL		Imax (cd)	21477	S/MH(C0/180)		0.36
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)		0.36
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3869.9	η UP,DN(C0-180)		0.0,54.3
NOMINAL FLUX(lm)	3869.9	CIE CLASS	DIRECT	η UP,DN(C180-360)		0.0,45.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.00
TEST VOLTAGE(V)	240.17	η down (%)	100.0	CIBSE SHR MAX		0.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [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	1424	1457	1432	1393	1225	1069	1100	1267	0- 10	1629	1629	42.1,42.1
20	173.2	178.4	169.3	158.1	140.6	128.5	133.3	151.4	10- 20	1466	3096	80,80
30	53.33	53.70	51.59	49.27	43.29	38.49	40.72	47.35	20- 30	392.7	3489	90.1,90.1
40	20.17	20.15	19.62	19.30	18.17	17.38	18.01	19.00	30- 40	191.1	3680	95.1,95.1
50	8.880	8.904	8.832	8.827	8.351	7.998	8.090	8.499	40- 50	98.30	3778	97.6,97.6
60	4.342	4.405	4.387	4.306	3.978	3.646	3.714	3.993	50- 60	54.52	3832	99,99
70	1.759	1.737	1.684	1.660	1.629	1.581	1.603	1.638	60- 70	28.29	3861	99.8,99.8
80	0.2348	0.2253	0.2321	0.2427	0.2366	0.2288	0.2317	0.2287	70- 80	8.137	3869	100,100
90	0.0186	0.0117	0.0200	0.0249	0.0163	0.0114	0.0147	0.0113	80- 90	0.9849	3870	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): 3736.5 lm

%lum = 96.6%

%lamp = 96.6%

Conical surface Flux(120deg): 3832.5 lm

%lum = 99.0%

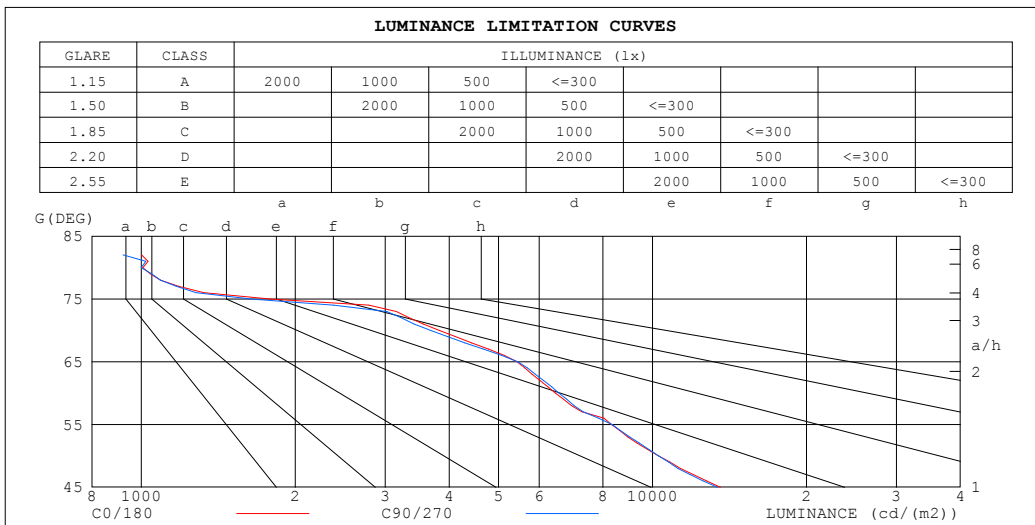
%lamp = 99.0%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:



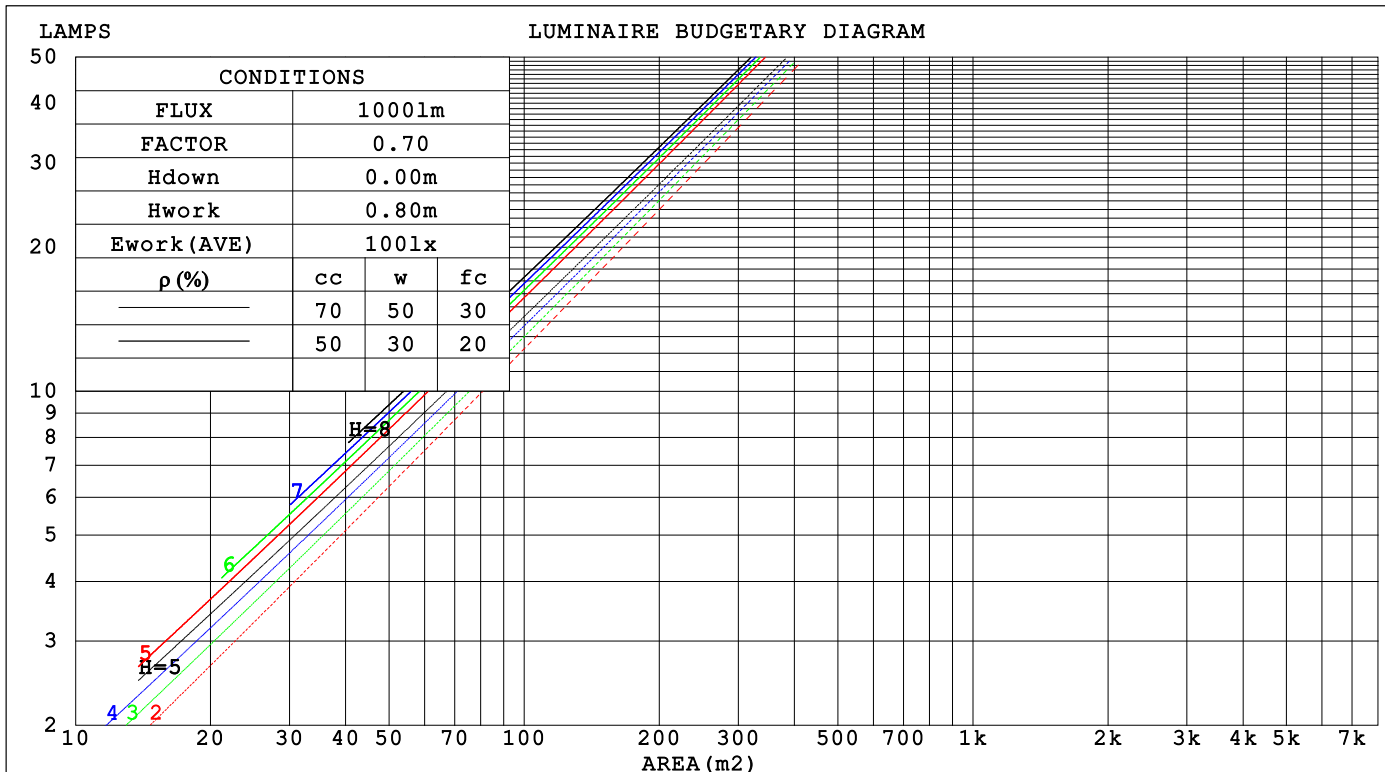
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity: 65.0%
Test Distance: 3.090m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 4TYPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.139	.079	.025	.132	.076	.024	.120	.069	.022	.109	.063	.020	.098	.057	.018		
2.0	.129	.071	.022	.124	.068	.021	.114	.063	.020	.104	.058	.018	.095	.054	.017		
3.0	.120	.064	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.092	.051	.016		
4.0	.112	.058	.017	.109	.057	.017	.101	.054	.016	.095	.051	.015	.088	.048	.015		
5.0	.105	.054	.016	.102	.052	.015	.096	.050	.015	.090	.048	.014	.085	.045	.014		
6.0	.099	.050	.014	.097	.049	.014	.091	.047	.014	.086	.045	.013	.082	.043	.013		
7.0	.094	.046	.013	.092	.046	.013	.087	.044	.013	.083	.042	.012	.079	.041	.012		
8.0	.089	.044	.012	.087	.043	.012	.083	.041	.012	.079	.040	.012	.076	.039	.011		
9.0	.085	.041	.011	.083	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011		
10.0	.081	.039	.011	.079	.038	.011	.076	.037	.011	.073	.036	.010	.070	.035	.010		

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	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	.168	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017		
2.0	.151	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014		
3.0	.136	.113	.095	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011		
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009		
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008		
6.0	.104	.076	.056	.089	.065	.048	.061	.046	.034	.036	.027	.020	.011	.009	.007		
7.0	.096	.067	.048	.082	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006		
8.0	.089	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005		
9.0	.083	.055	.036	.072	.048	.031	.050	.033	.022	.029	.020	.013	.009	.006	.004		
10.0	.078	.050	.031	.067	.044	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz UTHDi:0.18% ITHDi:4.20% KDisp:0.9893Lamp Flux:3869.9x1 lm										
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:						WEIGHT:				
SPEC.:						DIM.:		SERIAL No.:		
MFR.: Norming lighting						SUR.: 131mm		Shielding Angle:		
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	13.7	14.3	13.9	14.5	14.6	13.7	14.3	13.9	14.5	14.6
3H	14.0	14.6	14.2	14.8	15.0	14.0	14.6	14.2	14.8	14.9
4H	14.0	14.6	14.3	14.8	15.0	14.0	14.6	14.2	14.8	15.0
6H	14.0	14.5	14.2	14.7	15.0	13.9	14.5	14.2	14.7	14.9
8H	13.9	14.5	14.2	14.7	14.9	13.9	14.4	14.2	14.6	14.9
12H	13.9	14.4	14.2	14.6	14.9	13.8	14.3	14.1	14.6	14.9
4H 2H	13.8	14.4	14.1	14.6	14.8	13.8	14.4	14.0	14.6	14.8
3H	14.2	14.7	14.5	15.0	15.2	14.2	14.7	14.5	14.9	15.2
4H	14.2	14.7	14.6	15.0	15.3	14.2	14.6	14.5	14.9	15.2
6H	14.2	14.6	14.5	14.9	15.2	14.1	14.5	14.5	14.8	15.2
8H	14.1	14.5	14.5	14.8	15.2	14.1	14.4	14.4	14.8	15.2
12H	14.1	14.4	14.5	14.8	15.2	14.0	14.4	14.4	14.7	15.1
8H 4H	14.1	14.5	14.5	14.9	15.2	14.1	14.5	14.5	14.8	15.2
6H	14.1	14.4	14.5	14.8	15.2	14.0	14.3	14.4	14.7	15.1
8H	14.0	14.3	14.5	14.7	15.1	14.0	14.2	14.4	14.7	15.1
12H	14.0	14.2	14.4	14.6	15.1	13.9	14.1	14.4	14.6	15.1
12H 4H	14.1	14.4	14.5	14.8	15.2	14.0	14.4	14.4	14.8	15.1
6H	14.0	14.3	14.4	14.7	15.1	13.9	14.2	14.4	14.6	15.1
8H	14.0	14.2	14.4	14.6	15.1	13.9	14.1	14.4	14.6	15.1
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.4 / - 2.0					+ 1.3 / - 1.9				
1.5H	+ 2.2 / - 1.2					+ 1.9 / - 1.0				
2.0H	+ 2.0 / - 1.6					+ 2.0 / - 1.5				

CIE Pub.117, 3870 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.7)
Area: 0.0134 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

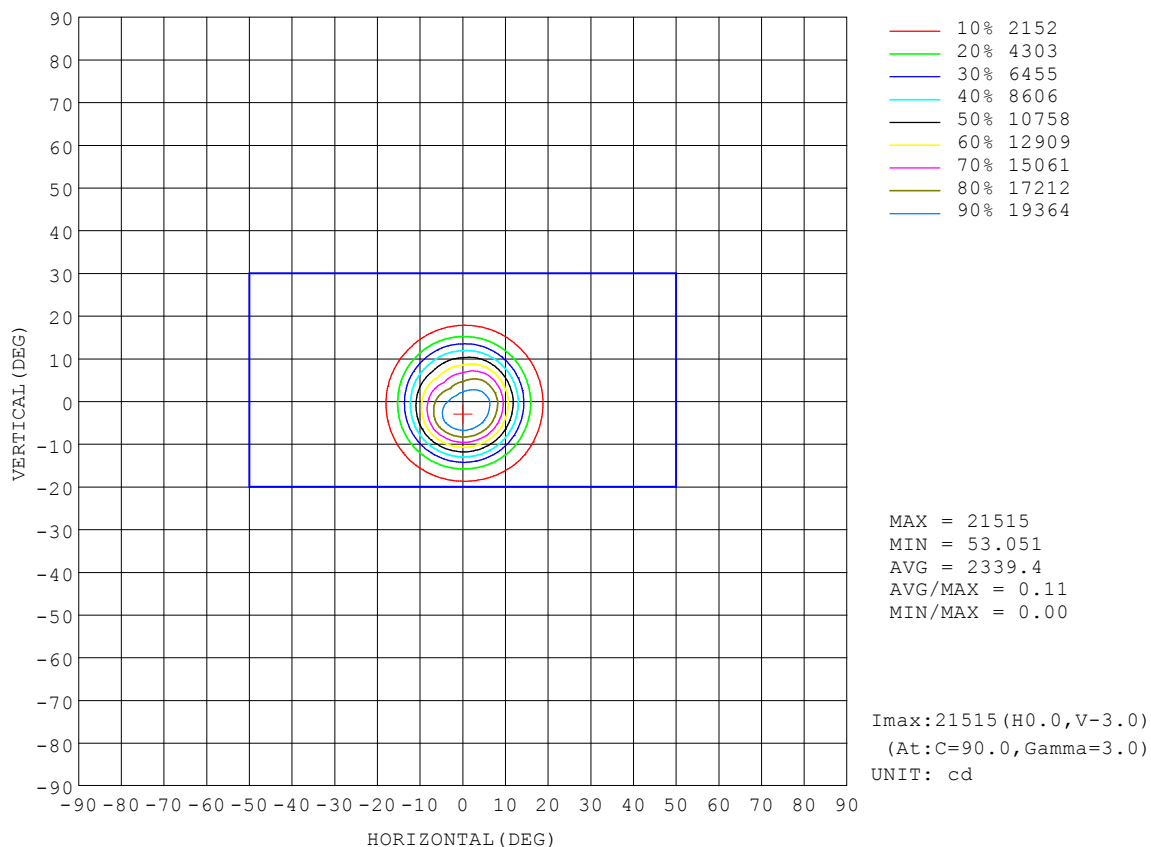
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	79	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	95	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity: 65.0%
 Test Distance: 3.090m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

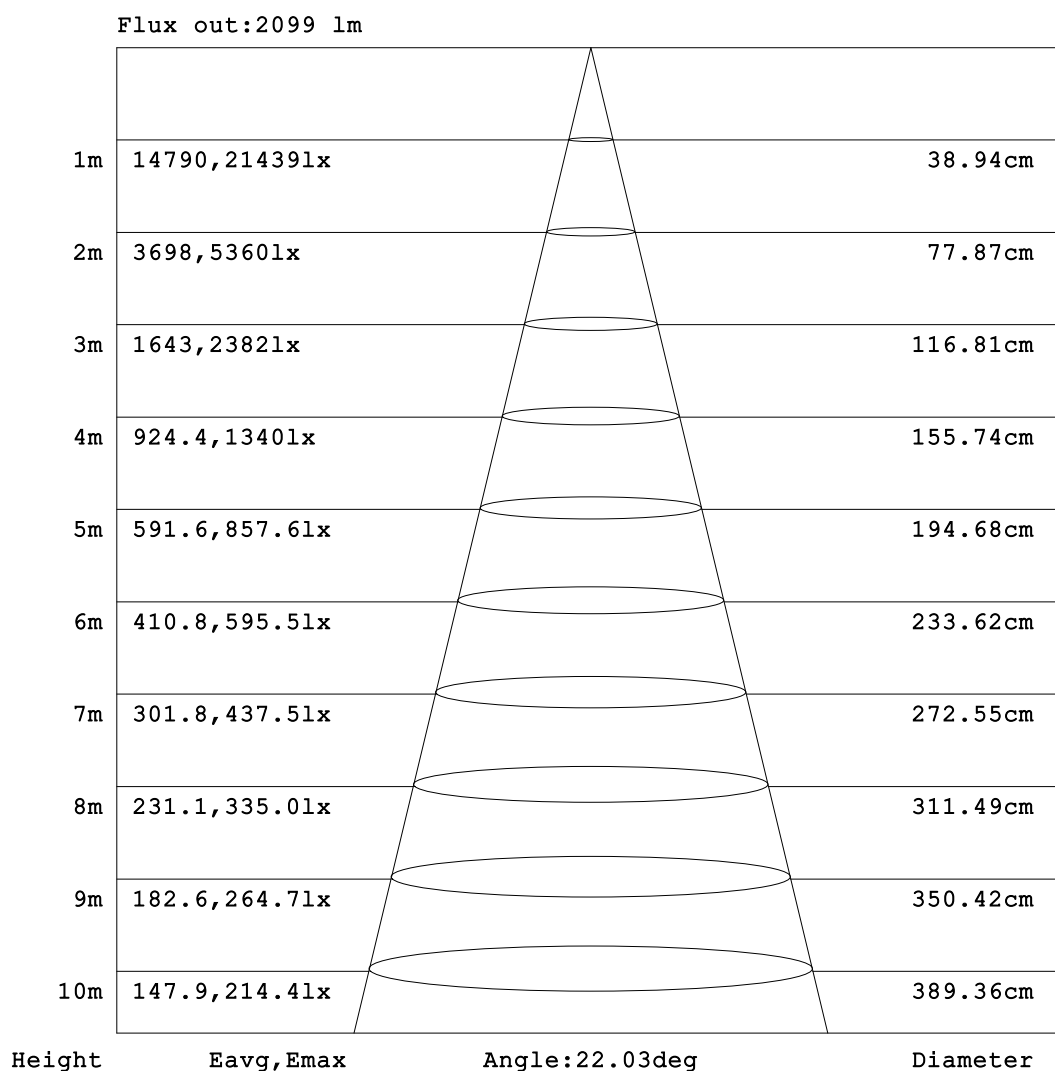


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity: 65.0%
Test Distance: 3.090m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893		Lamp Flux:3869.9x1 lm
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:



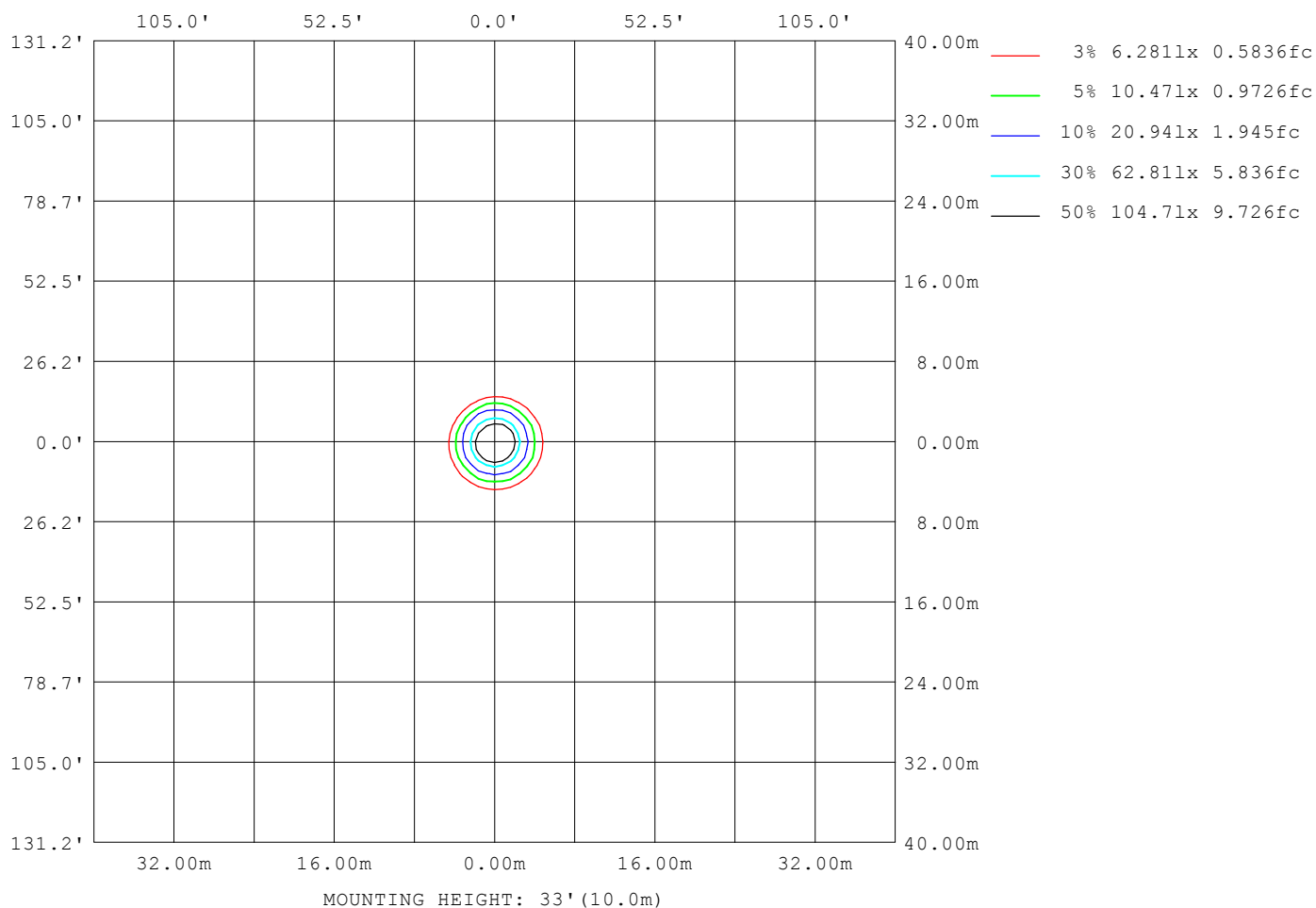
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893		Lamp Flux:3869.9x1 lm
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:240.2V I:0.1689A P:40.1W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.20% KDisp:0.9893 Lamp Flux:3869.9x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 3000K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

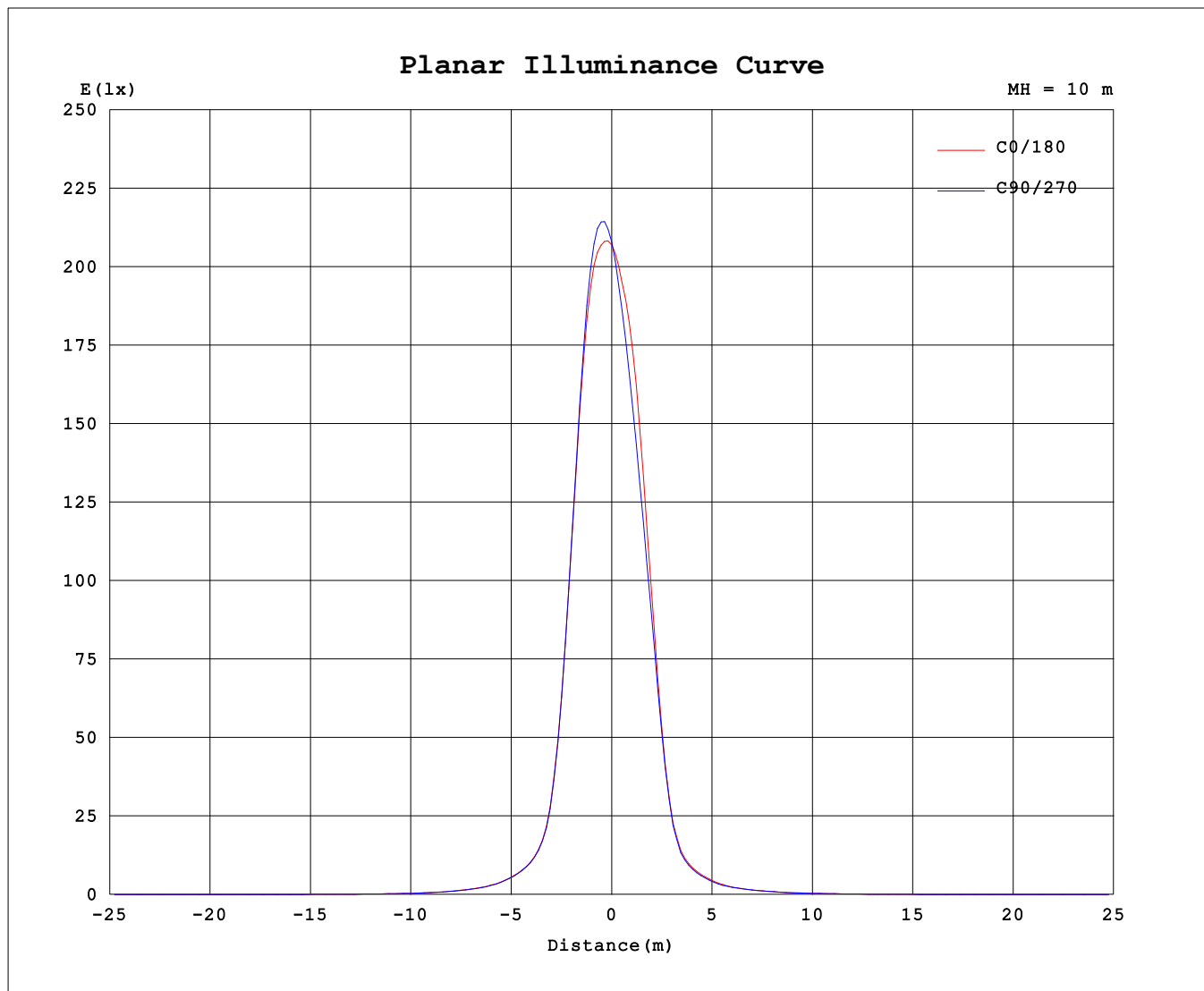
AvgL	cd/m2
L_0~180 (65) av	5224
L_0~180 (75) av	1709
L_0~180 (85) av	584
L_90~270 (65) av	5084
L_90~270 (75) av	1650
L_90~270 (85) av	576
L_45 (65) av	5112
L_45 (75) av	1693
L_45 (85) av	540

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
 Humidity:65.0%
 Test Distance:3.090m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity: 65.0%
Test Distance: 3.090m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks:

```

Photometric Data Table [cd]

G/C	0.0	45.0	90.0	135.0	180.0	225.0	270.0	315.0
0.0	20758	20758	20758	20758	20758	20758	20758	20758
3.0	20833	21443	21477	20964	19634	18465	18668	19683
6.0	19708	20251	20214	19536	17680	15325	15755	17949
9.0	16005	16389	16154	15751	13837	11865	12252	14316
12.0	10434	10697	10425	10044	9003	8217	8387	9309
15.0	5460	5605	5365	5043	4586	4354	4458	4832
18.0	2537	2612	2471	2304	2146	1881	2053	2206
21.0	1487	1528	1458	1366	1215	1112	1151	1304
24.0	1033	1051	1013	957.1	850.4	770.5	799.7	915.4
27.0	745.7	755.4	728.4	688.5	605.4	535.9	563.7	653.5
30.0	533.3	537.0	515.9	492.7	432.9	384.9	407.2	473.5
33.0	394.3	394.7	379.1	365.8	334.9	306.7	320.5	359.7
36.0	300.1	300.4	286.3	278.5	252.2	244.9	257.6	277.5
39.0	225.0	226.2	214.5	211.8	197.3	190.6	199.2	211.2
42.0	166.3	165.9	164.6	162.2	155.1	148.0	151.7	158.4
45.0	129.1	129.0	126.8	126.9	120.6	116.6	118.8	123.1
48.0	101.9	102.3	100.3	100.5	95.38	92.89	94.09	97.75
51.0	82.74	83.27	82.84	82.97	78.29	74.46	75.21	79.03
54.0	68.13	68.74	68.09	68.36	63.94	60.14	61.11	64.57
57.0	53.22	53.80	53.30	53.00	49.08	45.44	46.04	49.38
60.0	43.42	44.05	43.87	43.06	39.78	36.46	37.14	39.93
63.0	35.48	36.00	35.83	34.87	32.54	29.89	30.41	32.59
66.0	28.02	28.17	27.57	26.95	25.82	24.16	24.68	25.99
69.0	19.81	19.76	19.03	18.90	18.31	17.70	17.96	18.48
72.0	13.86	13.69	13.30	13.09	12.80	12.58	12.78	12.91
75.0	6.220	6.088	5.681	5.826	5.637	5.699	5.763	5.873
78.0	3.045	2.979	3.031	3.140	2.981	2.897	2.920	2.941
81.0	2.165	2.059	2.134	2.246	2.186	2.111	2.150	2.119
84.0	0.8409	0.7300	0.7883	0.8736	0.8379	0.7700	0.8546	0.7712
87.0	0.4077	0.3064	0.3792	0.3963	0.3428	0.3258	0.4138	0.3321
90.0	0.1856	0.1166	0.2001	0.2491	0.1634	0.1140	0.1469	0.1127

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.453
Humidity:65.0%
Test Distance:3.090m [K=1.0000]
Remarks: