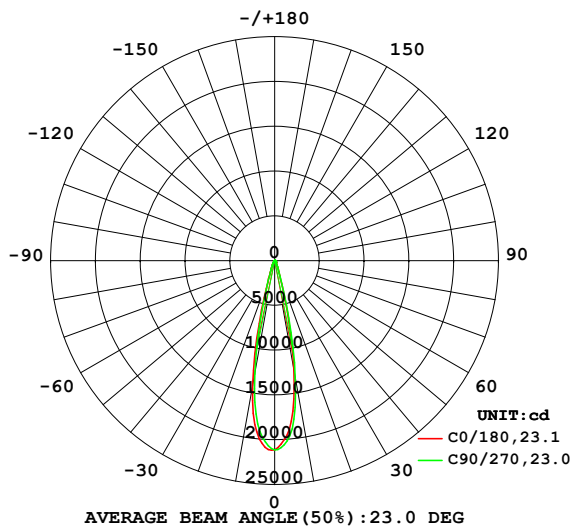


LUMINAIRE PHOTOMETRIC TEST REPORT

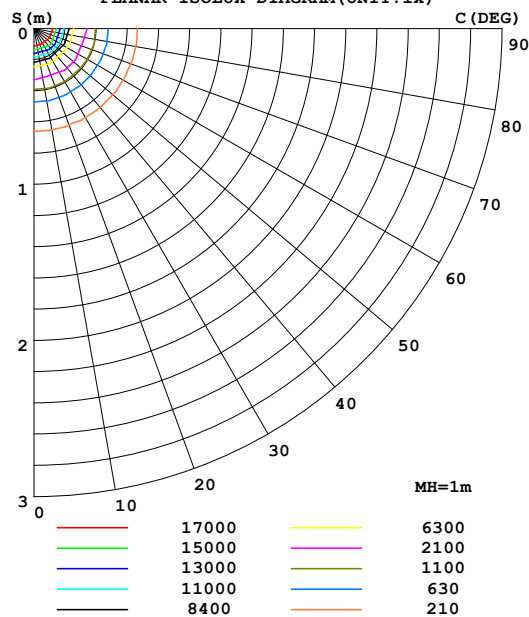
Test:U:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 99.37 lm/W
MODEL		Imax (cd)	21177	S/MH(C0/180)	0.38	
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	0.36	
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3951.6	η UP,DN(C0-180)	0.0,50.0	
NOMINAL FLUX(lm)	3951.63	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	240.33	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:2024-10-28

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	1239	1310	1337	1377	1419	1370	1286	1221	0- 10	1657	1657	41.9,41.9
20	150.7	158.8	160.3	164.9	167.0	159.8	153.0	147.9	10- 20	1499	3156	79.9,79.9
30	47.61	49.57	49.20	49.88	50.03	49.14	47.30	46.38	20- 30	402.9	3559	90.1,90.1
40	18.81	19.53	19.38	20.23	19.93	19.42	19.31	18.88	30- 40	196.3	3756	95,95
50	8.532	8.784	8.813	9.119	9.080	8.880	8.719	8.553	40- 50	101.1	3857	97.6,97.6
60	4.101	4.257	4.348	4.452	4.372	4.201	4.132	4.069	50- 60	56.32	3913	99,99
70	1.655	1.700	1.737	1.768	1.779	1.725	1.710	1.646	60- 70	29.27	3942	99.8,99.8
80	0.2389	0.2762	0.2479	0.2450	0.2492	0.2403	0.2369	0.2291	70- 80	8.429	3951	100,100
90	0.0203	0.0260	0.0208	0.0119	0.0131	0.0114	0.0144	0.0117	80- 90	1.040	3952	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): 3813.9 lm

%lum = 96.5%

%lamp = 96.5%

Conical surface Flux(120deg): 3912.9 lm

%lum = 99.0%

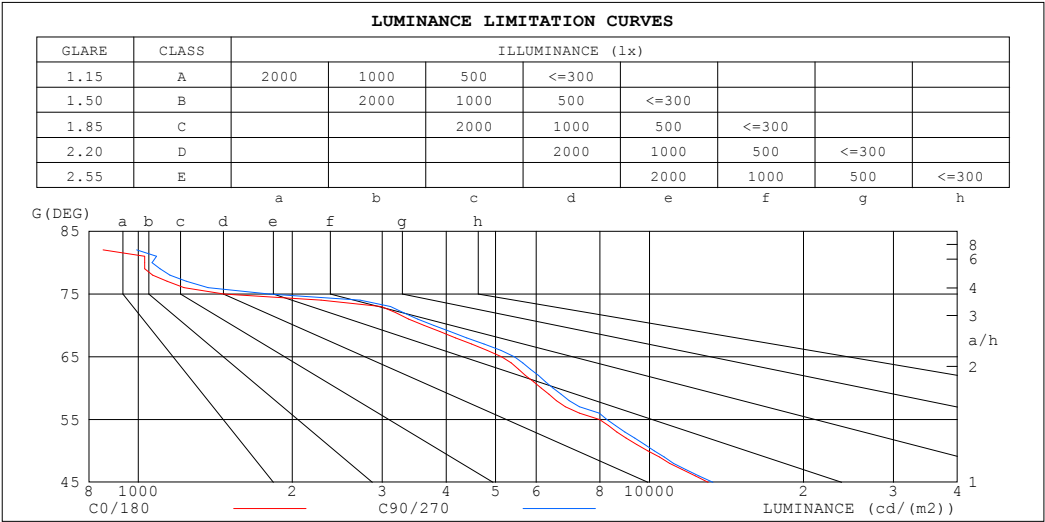
%lamp = 99.0%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	549	588
80	1029	1064
75	1470	1806
70	3621	3785
65	5136	5443
60	6138	6482
55	7984	8248
50	9933	10220
45	13021	13311

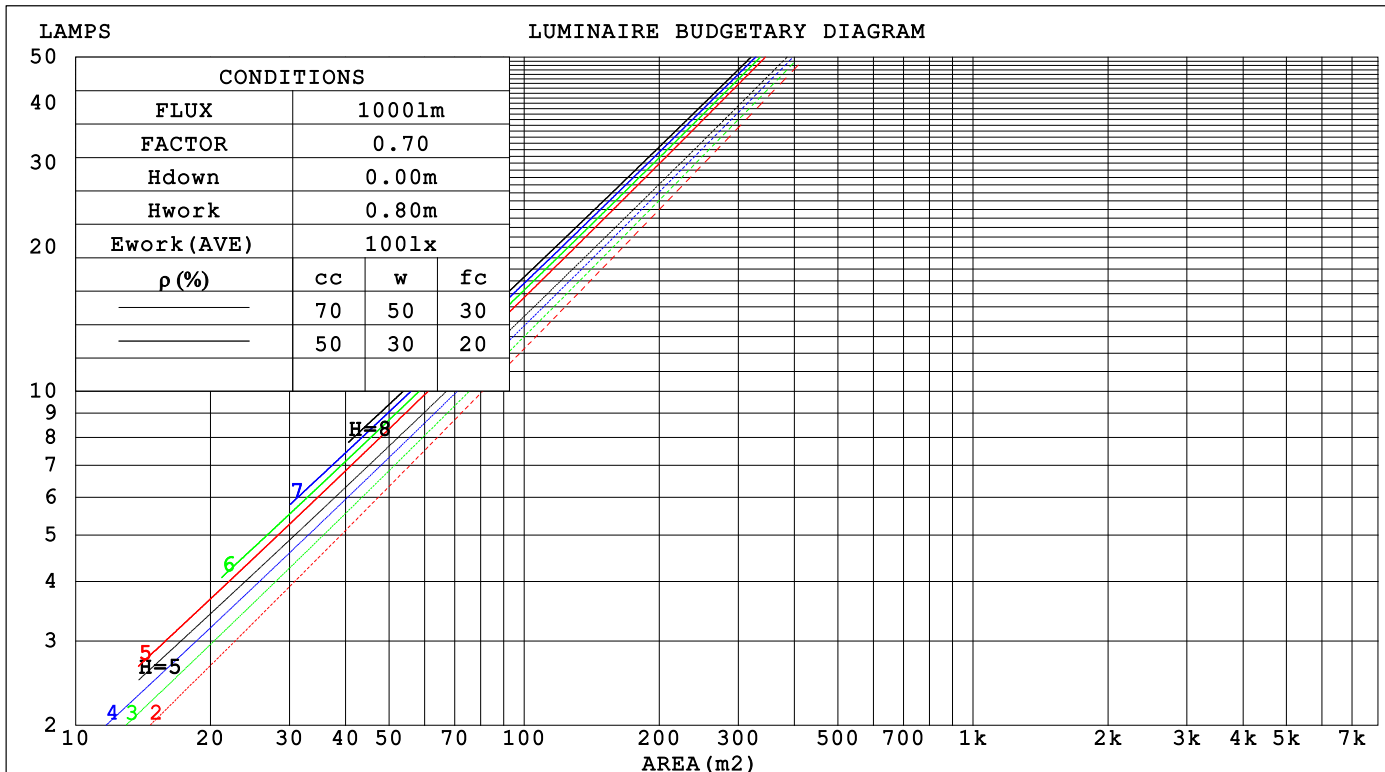
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K 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:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891		
Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K 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	.133	.076	.024	.120	.069	.022	.109	.063	.020	.098	.057	.018		
2.0	.130	.071	.022	.124	.068	.021	.114	.063	.020	.104	.059	.018	.096	.054	.017		
3.0	.121	.064	.019	.116	.062	.019	.107	.058	.018	.100	.055	.017	.092	.051	.016		
4.0	.113	.059	.017	.109	.057	.017	.102	.054	.016	.095	.051	.015	.089	.048	.015		
5.0	.106	.054	.016	.102	.053	.015	.096	.050	.015	.091	.048	.014	.085	.046	.014		
6.0	.100	.050	.014	.097	.049	.014	.091	.047	.014	.087	.045	.013	.082	.043	.013		
7.0	.094	.047	.013	.092	.046	.013	.087	.044	.013	.083	.042	.012	.079	.041	.012		
8.0	.089	.044	.012	.087	.043	.012	.083	.042	.012	.079	.040	.012	.076	.039	.011		
9.0	.085	.041	.011	.083	.041	.011	.080	.039	.011	.076	.038	.011	.073	.037	.011		
10.0	.081	.039	.011	.079	.038	.011	.076	.037	.011	.073	.036	.010	.071	.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	.169	.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	.066	.048	.061	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.067	.047	.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	.034	.022	.029	.020	.013	.009	.006	.004	
10.0	.078	.050	.031	.068	.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:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz UTHDi:0.18% ITHDi:4.25% KDisp:0.9891Lamp Flux:3951.63x1 lm										
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K 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	13.3	14.0	13.6	14.2	14.3	13.4	14.1	13.6	14.2	14.4
3H	13.6	14.3	13.9	14.4	14.6	13.8	14.4	14.0	14.6	14.7
4H	13.7	14.2	13.9	14.5	14.7	13.8	14.4	14.0	14.6	14.8
6H	13.6	14.1	13.9	14.4	14.6	13.7	14.3	14.0	14.5	14.7
8H	13.6	14.1	13.8	14.3	14.6	13.7	14.2	14.0	14.5	14.7
12H	13.5	14.0	13.8	14.3	14.6	13.6	14.2	13.9	14.4	14.7
4H 2H	13.5	14.1	13.7	14.3	14.5	13.6	14.2	13.8	14.4	14.6
3H	13.9	14.4	14.2	14.6	14.9	14.0	14.5	14.3	14.7	15.0
4H	13.9	14.3	14.2	14.6	14.9	14.0	14.5	14.3	14.8	15.1
6H	13.8	14.2	14.2	14.5	14.9	13.9	14.3	14.3	14.7	15.0
8H	13.8	14.1	14.1	14.5	14.9	13.9	14.3	14.3	14.6	15.0
12H	13.7	14.1	14.1	14.4	14.8	13.8	14.2	14.2	14.6	14.9
8H 4H	13.8	14.2	14.2	14.5	14.9	13.9	14.3	14.3	14.6	15.0
6H	13.7	14.0	14.1	14.4	14.8	13.8	14.1	14.2	14.5	14.9
8H	13.7	14.0	14.1	14.4	14.8	13.8	14.1	14.2	14.5	14.9
12H	13.6	13.9	14.1	14.3	14.8	13.7	14.0	14.2	14.4	14.9
12H 4H	13.7	14.1	14.1	14.5	14.8	13.8	14.2	14.2	14.6	14.9
6H	13.7	13.9	14.1	14.4	14.8	13.8	14.1	14.2	14.5	14.9
8H	13.6	13.9	14.1	14.3	14.8	13.7	14.0	14.2	14.4	14.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.4 / - 2.0					+ 1.2 / - 1.8				
1.5H	+ 2.1 / - 1.2					+ 1.9 / - 1.1				
2.0H	+ 2.1 / - 1.6					+ 2.0 / - 1.6				

CIE Pub.117, 3952 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.8)
Area: 0.0134 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 40WPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

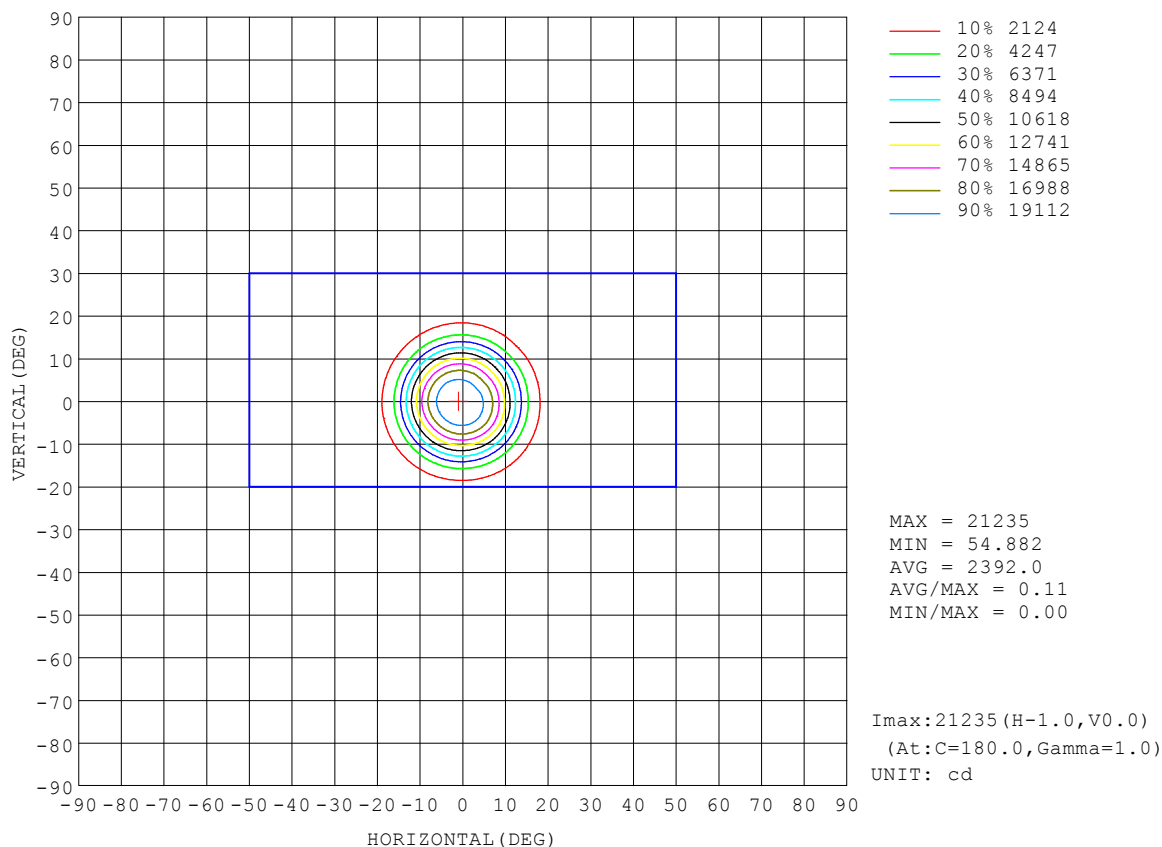
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	79	87	82	78	75
0.80	96	90	86	95	90	86	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:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 4TYPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

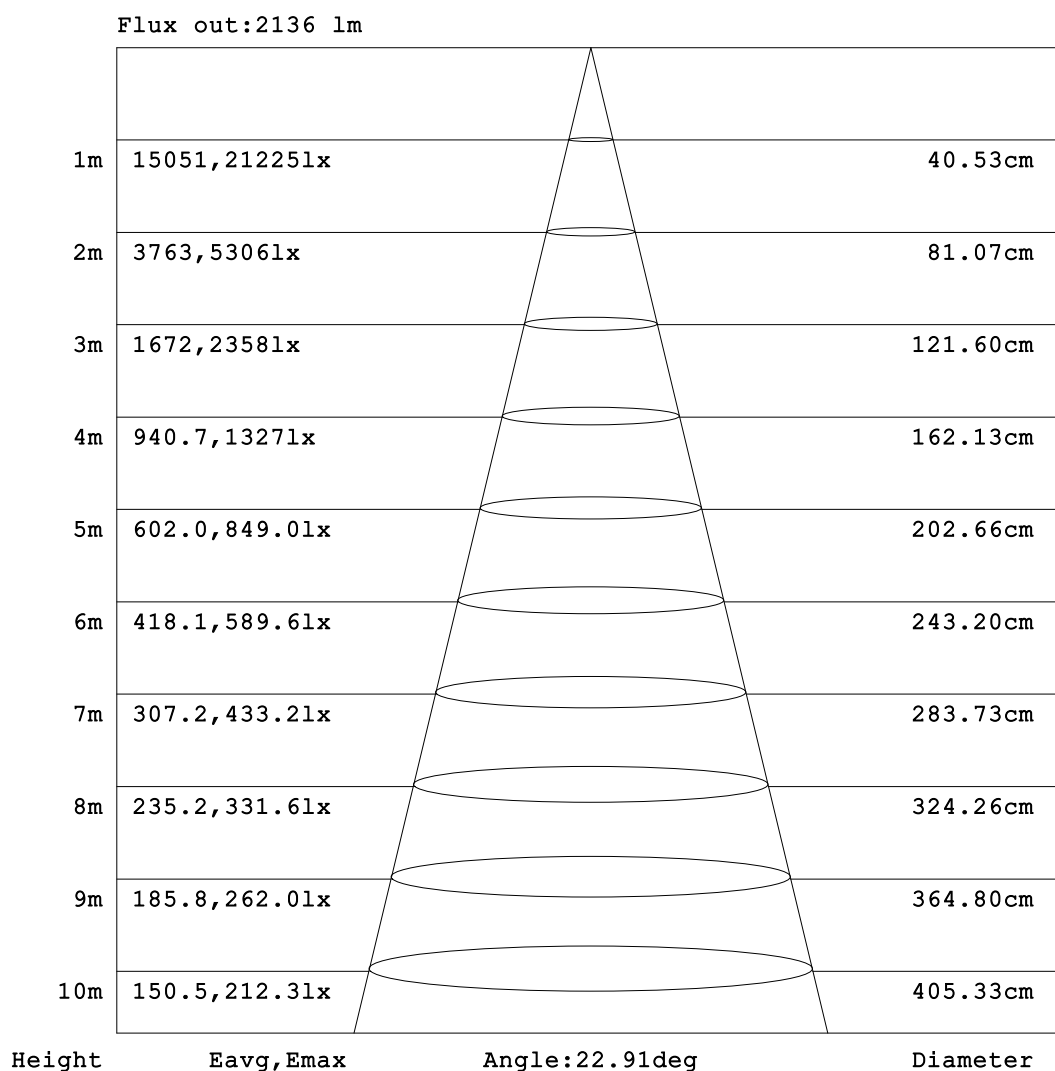


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891		Lamp Flux:3951.63x1 lm
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:



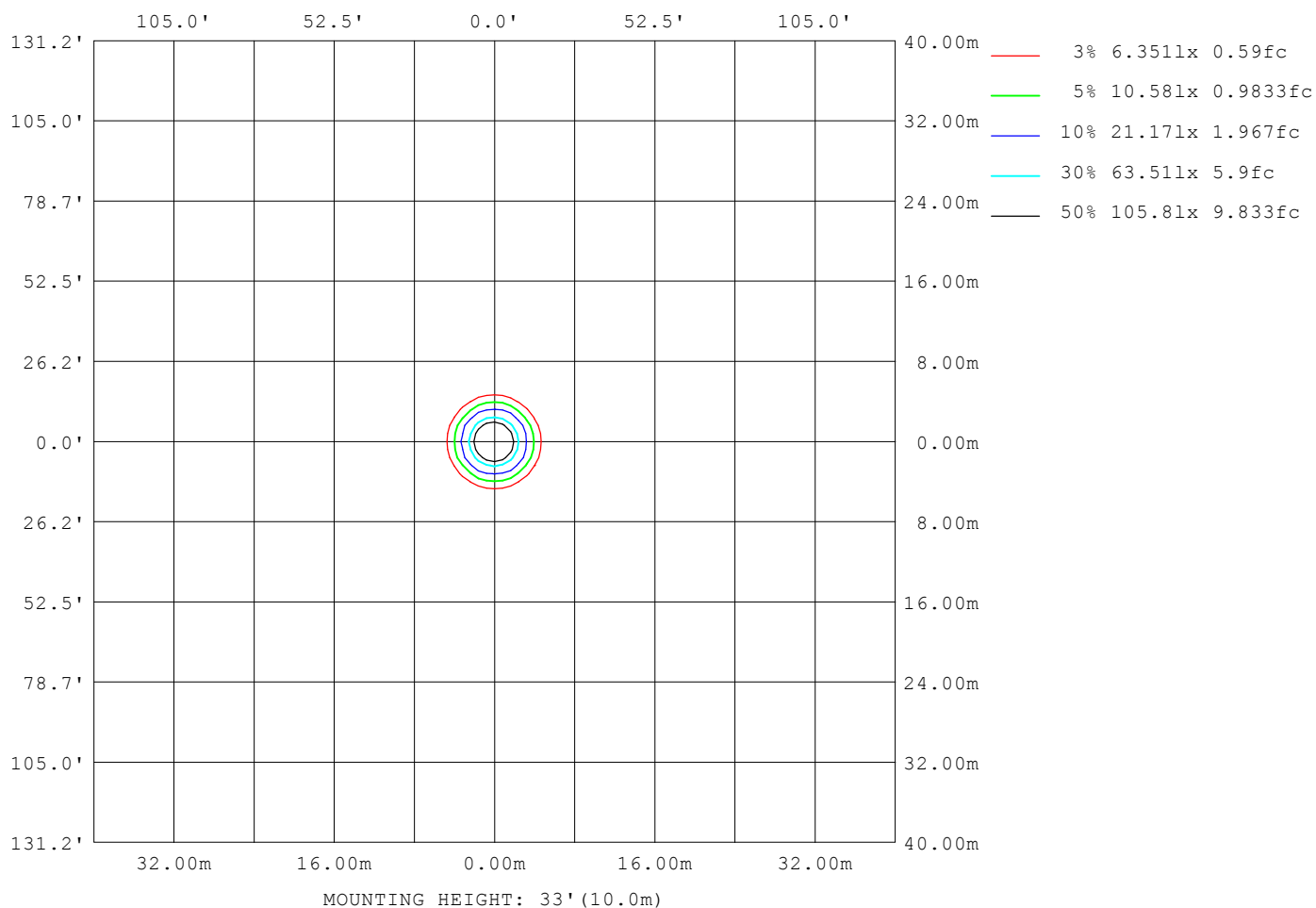
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz		
UTHDi:0.18% ITHDi:4.25% KDisp:0.9891		Lamp Flux:3951.63x1 lm
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K 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:2024-10-28

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:240.4V I:0.1674A P:39.8W PF:0.9883 Freq:49.99Hz UTHDi:0.18% ITHDi:4.25% KDisp:0.9891 Lamp Flux:3951.63x1 lm		
NAME: FUSION GT-TR03-AHD-045-COB-01SC 2700K RA90 24D 40WPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 131mm	Shielding Angle:

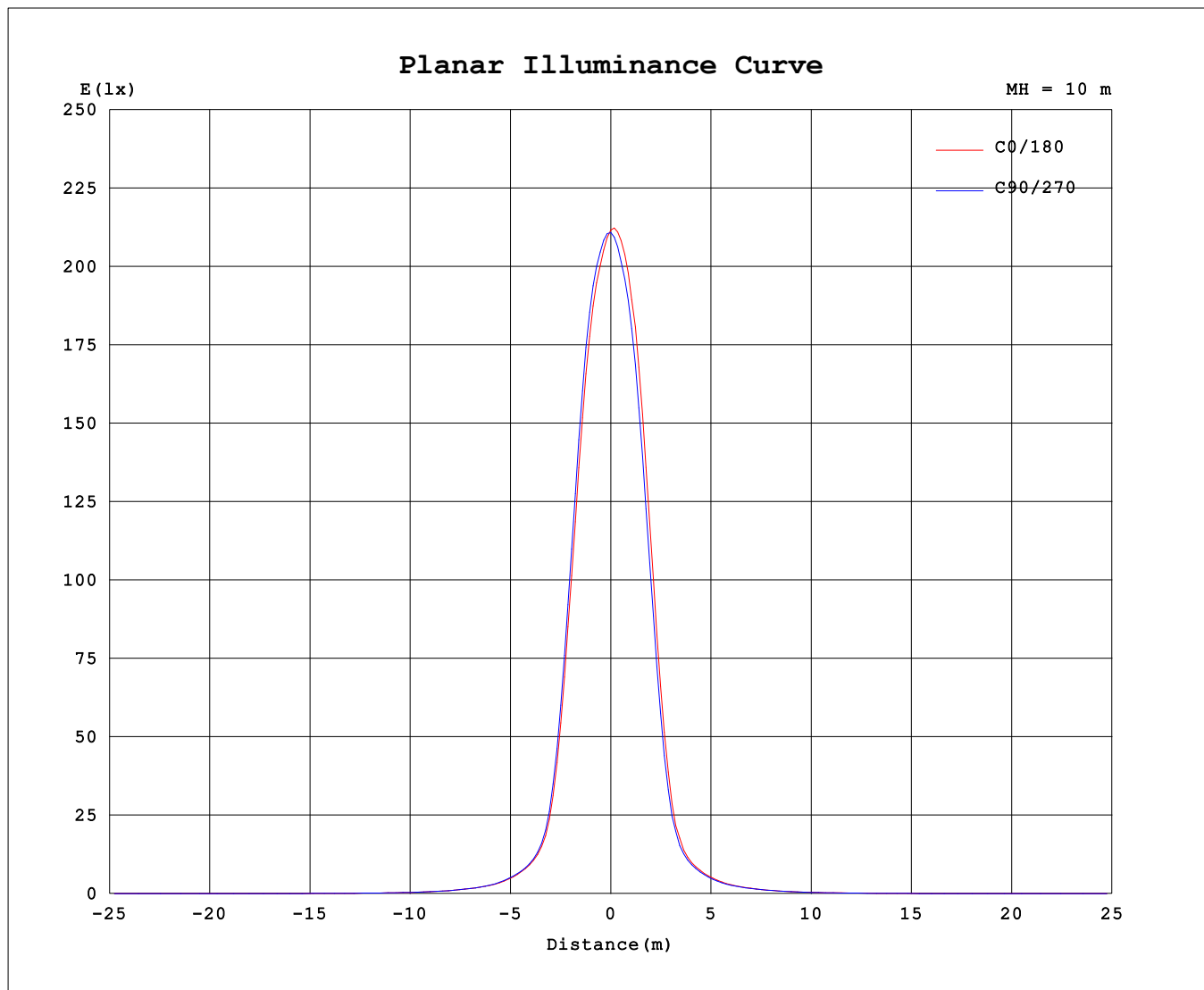
AvgL	cd/m2
L_0~180 (65) av	5299
L_0~180 (75) av	1759
L_0~180 (85) av	592
L_90~270 (65) av	5318
L_90~270 (75) av	1782
L_90~270 (85) av	594
L_45 (65) av	5295
L_45 (75) av	1767
L_45 (85) av	651

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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: 2024-10-28

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	21111	21111	21111	21111	21111	21111	21111	21111
3.0	20063	20374	20574	20731	20852	20627	20263	19994
6.0	18024	18698	18877	19095	19204	18975	18340	17777
9.0	14058	14807	15042	15386	15818	15322	14496	13823
12.0	9073	9531	9865	10331	10676	10143	9482	8989
15.0	4627	4916	5152	5491	5693	5293	4893	4577
18.0	2155	2303	2359	2443	2527	2377	2325	2105
21.0	1308	1369	1379	1416	1423	1373	1320	1285
24.0	926.1	954.8	957.5	978.7	979.5	952.2	920.8	907.1
27.0	660.6	688.5	688.8	701.9	700.8	688.0	656.6	643.4
30.0	476.1	495.7	492.0	498.8	500.3	491.4	473.0	463.8
33.0	360.8	373.4	364.6	371.4	373.7	372.6	361.9	354.2
36.0	279.3	289.7	279.6	289.4	284.6	279.8	283.2	277.9
39.0	208.5	218.3	211.3	221.1	217.8	213.5	215.6	209.1
42.0	157.3	163.1	163.8	170.4	169.0	163.0	162.0	158.7
45.0	123.0	127.4	126.3	133.0	132.3	127.3	126.8	123.8
48.0	97.92	101.2	100.1	104.5	103.9	101.4	100.7	98.41
51.0	79.33	81.99	82.57	85.58	85.29	83.15	81.26	79.65
54.0	65.27	67.46	67.65	70.36	70.13	68.13	66.73	65.40
57.0	49.78	51.91	53.31	55.23	54.28	52.31	51.02	49.89
60.0	41.01	42.57	43.48	44.52	43.72	42.01	41.32	40.69
63.0	33.62	34.77	35.62	36.24	35.72	34.27	33.68	33.12
66.0	26.18	26.98	27.95	28.61	28.44	27.32	26.92	26.26
69.0	18.61	19.23	19.57	20.14	20.24	19.48	19.40	18.59
72.0	13.16	13.49	13.68	13.92	13.92	13.48	13.47	13.04
75.0	5.086	5.564	6.273	6.923	7.117	6.616	6.089	5.405
78.0	2.965	3.231	3.214	3.291	3.209	3.072	3.020	2.923
81.0	2.151	2.599	2.279	2.216	2.265	2.234	2.191	2.091
84.0	0.7952	1.127	0.8408	0.8141	0.9307	0.8397	0.8545	0.7293
87.0	0.3594	0.3986	0.3993	0.3550	0.4062	0.3716	0.4121	0.2921
90.0	0.2025	0.2602	0.2081	0.1191	0.1307	0.1140	0.1441	0.1175

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-28

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: