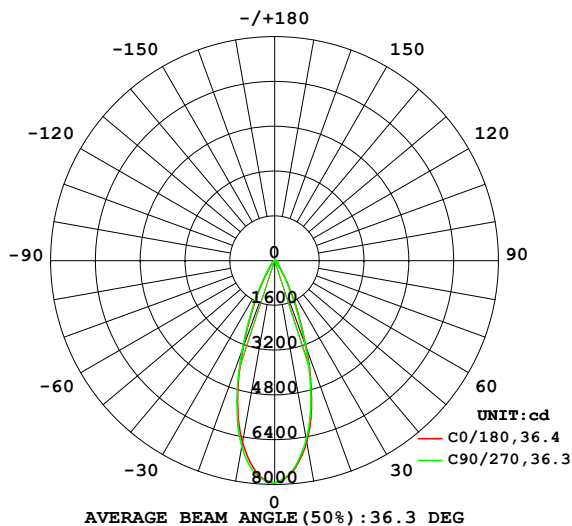


LUMINAIRE PHOTOMETRIC TEST REPORT

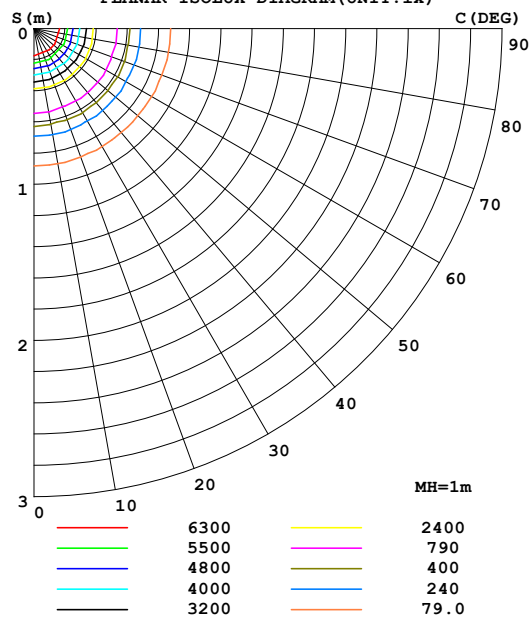
Test:U:240.4V I:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 113.12 lm/W			
MODEL		I _{max} (cd)	7942	S/MH(C0/180)	0.58
NOMINAL POWER(W)	30	LOR(%)	100.0	S/MH(C90/270)	0.59
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3406.3	η UP,DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	3406.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	240.31	η down (%)	100.0	CIBSE SHR MAX	0.60

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:2024-10-31

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	6586	6532	6494	6575	6606	6687	6764	6667	0- 10	691.8	691.8	20.3,20.3
20	3300	3255	3184	3252	3296	3353	3402	3333	10- 20	1385	2077	61,61
30	881.9	842.4	812.0	859.0	857.3	878.7	934.5	905.1	20- 30	845.8	2923	85.8,85.8
40	207.2	202.4	202.3	212.8	203.0	203.8	224.1	215.9	30- 40	267.8	3191	93.7,93.7
50	95.75	92.28	97.78	102.6	100.5	97.31	105.6	101.9	40- 50	109.2	3300	96.9,96.9
60	53.31	49.48	53.00	54.65	53.59	50.54	56.36	54.90	50- 60	66.60	3366	98.8,98.8
70	16.44	15.04	13.50	12.79	13.33	14.60	16.63	16.46	60- 70	33.86	3400	99.8,99.8
80	2.403	2.293	2.138	1.982	1.997	2.080	2.291	2.371	70- 80	5.002	3405	100,100
90	0.1244	0.0891	0.1381	0.0955	0.1004	0.0914	0.1072	0.0855	80- 90	0.9643	3406	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:cd									UNIT:lm		

Conical surface Flux(90deg): 3252.9 lm

%lum = 95.5%

%lamp = 95.5%

Conical surface Flux(120deg): 3366.5 lm

%lum = 98.8%

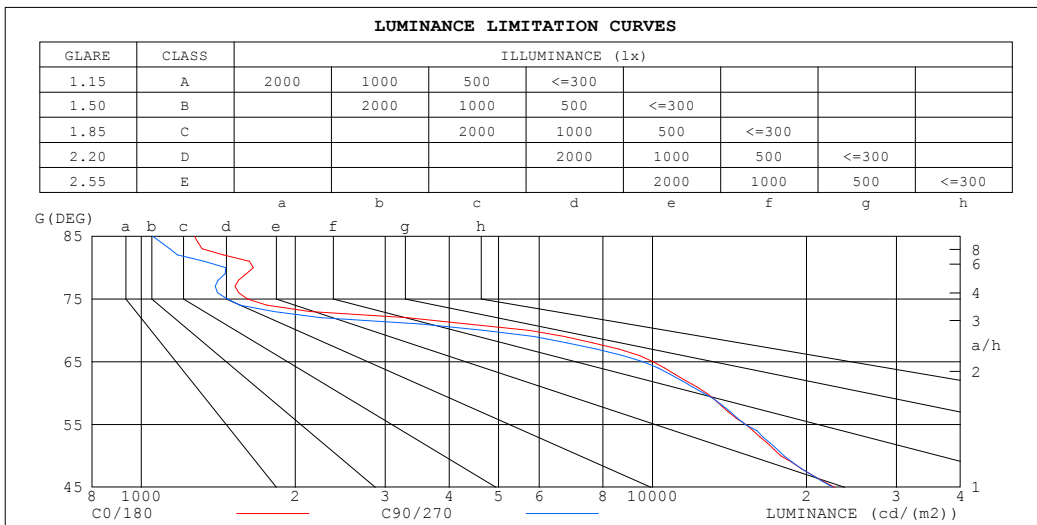
%lamp = 98.8%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:



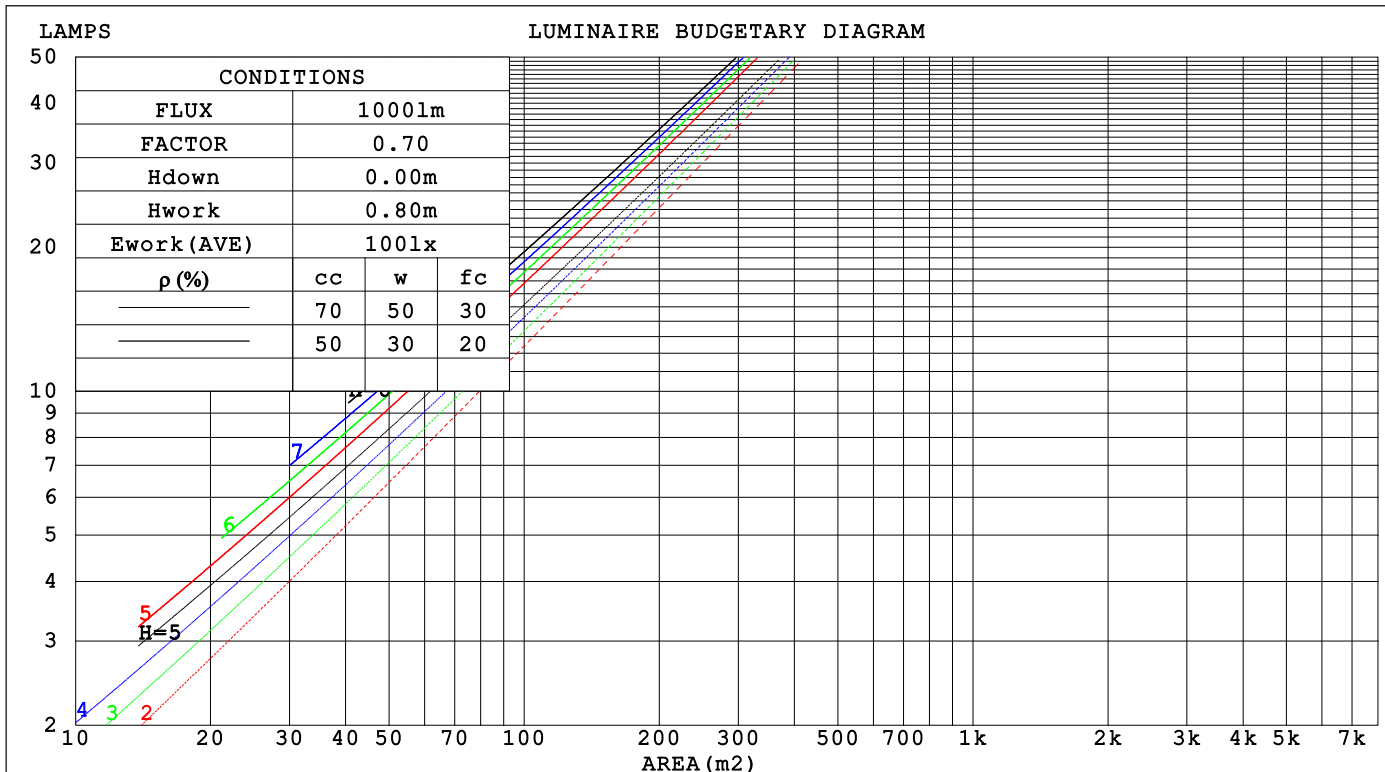
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	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:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	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	.160	.091	.029	.154	.088	.028	.141	.081	.026	.130	.075	.024	.119	.069	.022		
2.0	.152	.083	.026	.146	.080	.025	.136	.075	.023	.126	.071	.022	.117	.066	.021		
3.0	.143	.076	.023	.138	.074	.022	.130	.070	.021	.121	.067	.020	.114	.063	.020		
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018		
5.0	.128	.065	.019	.125	.064	.019	.118	.061	.018	.112	.059	.018	.106	.057	.017		
6.0	.122	.061	.017	.119	.060	.017	.113	.058	.017	.108	.056	.016	.103	.054	.016		
7.0	.116	.057	.016	.113	.056	.016	.108	.055	.016	.104	.053	.015	.099	.052	.015		
8.0	.110	.054	.015	.108	.053	.015	.104	.052	.015	.100	.050	.015	.096	.049	.014		
9.0	.106	.051	.014	.104	.051	.014	.100	.049	.014	.096	.048	.014	.093	.047	.014		
10.0	.101	.049	.013	.099	.048	.013	.096	.047	.013	.093	.046	.013	.089	.045	.013		

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013		
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011		
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.087	.062	.102	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007		
6.0	.111	.077	.052	.095	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.104	.069	.045	.090	.060	.039	.062	.042	.028	.036	.025	.016	.012	.008	.005		
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005		
9.0	.093	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004		
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm										
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:								WEIGHT:		
SPEC.:				DIM.:				SERIAL No.:		
MFR.: Norming lighting				SUR.: 104mm				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	16.7	17.5	17.0	17.7	17.9	16.6	17.4	16.8	17.6	17.7
3H	17.0	17.7	17.2	17.9	18.1	16.8	17.5	17.0	17.7	17.9
4H	16.9	17.6	17.2	17.8	18.0	16.7	17.4	17.0	17.6	17.8
6H	16.8	17.5	17.1	17.7	18.0	16.6	17.3	16.9	17.5	17.8
8H	16.8	17.4	17.1	17.7	17.9	16.6	17.2	16.9	17.5	17.7
12H	16.7	17.3	17.0	17.6	17.9	16.5	17.2	16.8	17.4	17.7
4H 2H	16.8	17.5	17.1	17.7	18.0	16.7	17.4	16.9	17.6	17.8
3H	17.1	17.7	17.4	17.9	18.2	16.9	17.5	17.2	17.8	18.0
4H	17.0	17.5	17.3	17.8	18.1	16.8	17.4	17.1	17.7	18.0
6H	16.9	17.4	17.3	17.7	18.1	16.7	17.2	17.1	17.5	17.9
8H	16.9	17.3	17.2	17.7	18.0	16.7	17.1	17.1	17.5	17.8
12H	16.8	17.2	17.2	17.6	18.0	16.6	17.0	17.0	17.4	17.8
8H 4H	16.8	17.3	17.2	17.7	18.0	16.7	17.1	17.1	17.5	17.8
6H	16.8	17.2	17.2	17.5	18.0	16.6	17.0	17.0	17.4	17.8
8H	16.7	17.1	17.2	17.5	17.9	16.5	16.9	17.0	17.3	17.7
12H	16.7	17.0	17.1	17.4	17.9	16.5	16.8	17.0	17.2	17.7
12H 4H	16.8	17.2	17.2	17.6	18.0	16.6	17.0	17.0	17.4	17.8
6H	16.7	17.1	17.2	17.5	17.9	16.5	16.9	17.0	17.3	17.7
8H	16.7	17.0	17.1	17.4	17.9	16.5	16.8	17.0	17.2	17.7
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.5 / - 1.8					+ 1.3 / - 1.8				
1.5H	+ 2.4 / - 1.2					+ 2.2 / - 1.2				
2.0H	+ 1.7 / - 1.4					+ 1.6 / - 1.5				

CIE Pub.117, 3406 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.3$)
Area: 0.0084 m²

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:		WEIGHT:
SPEC.:		SERIAL No.:
MFR.: Norming lighting		Shielding Angle:
SUR.: 104mm		

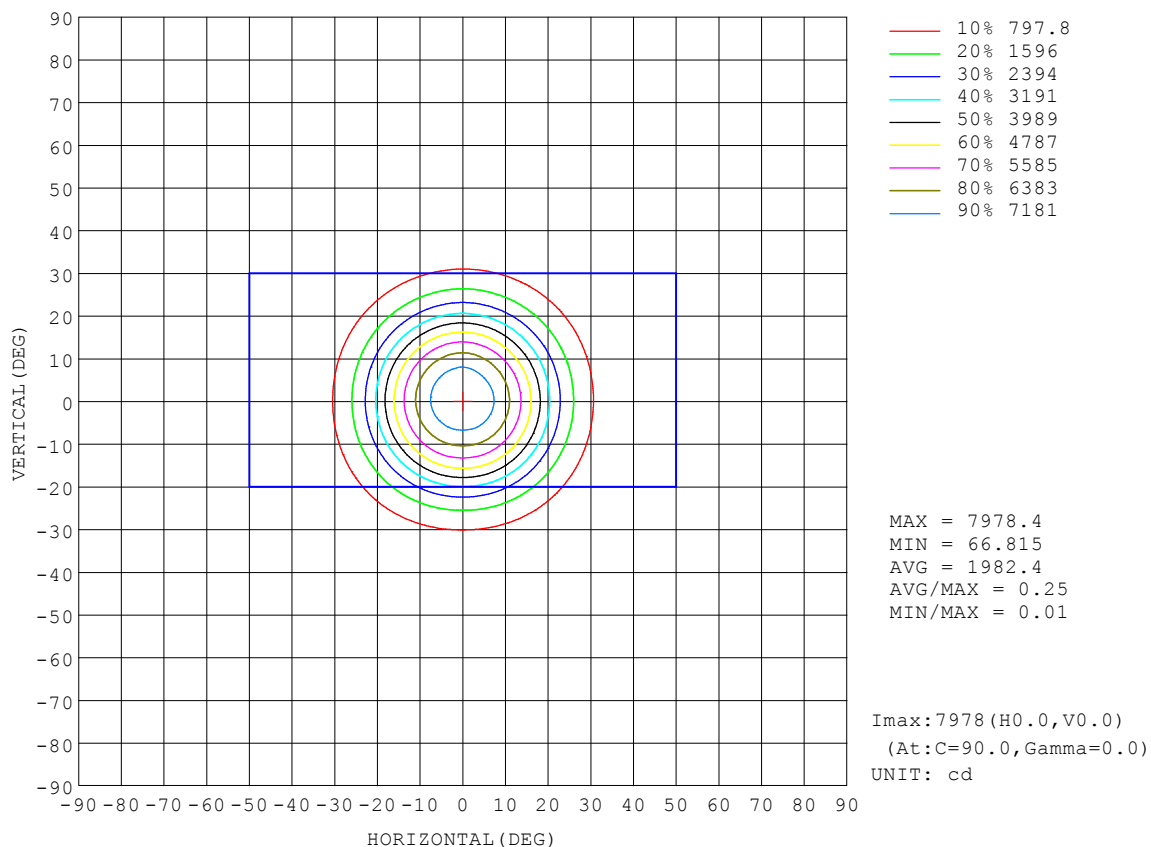
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	81	77	87	81	77	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	98	94	100	96	93	89
1.50	106	101	98	105	101	97	103	99	96	92
2.00	109	104	101	107	103	101	104	101	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	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:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:

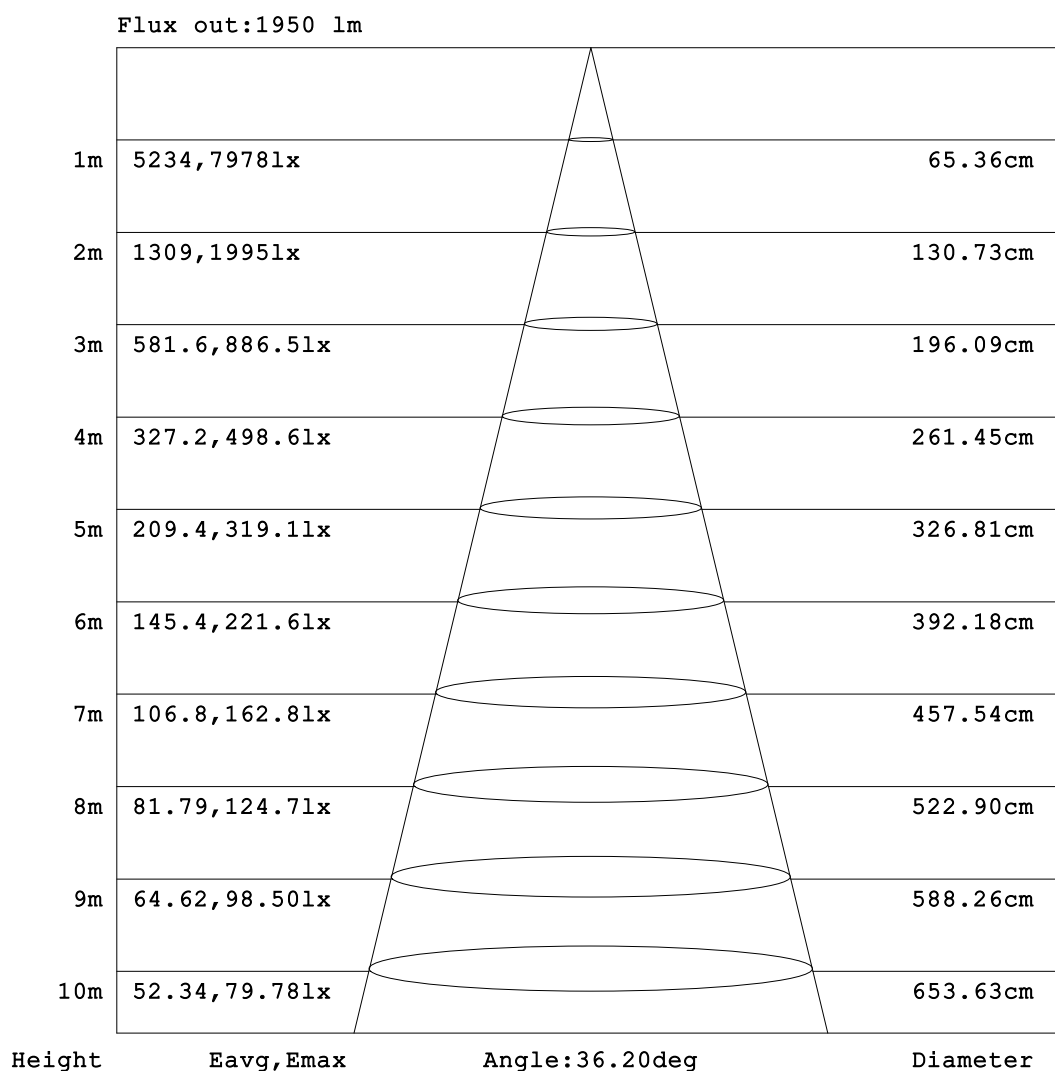


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822		Lamp Flux:3406.3x1 lm
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:



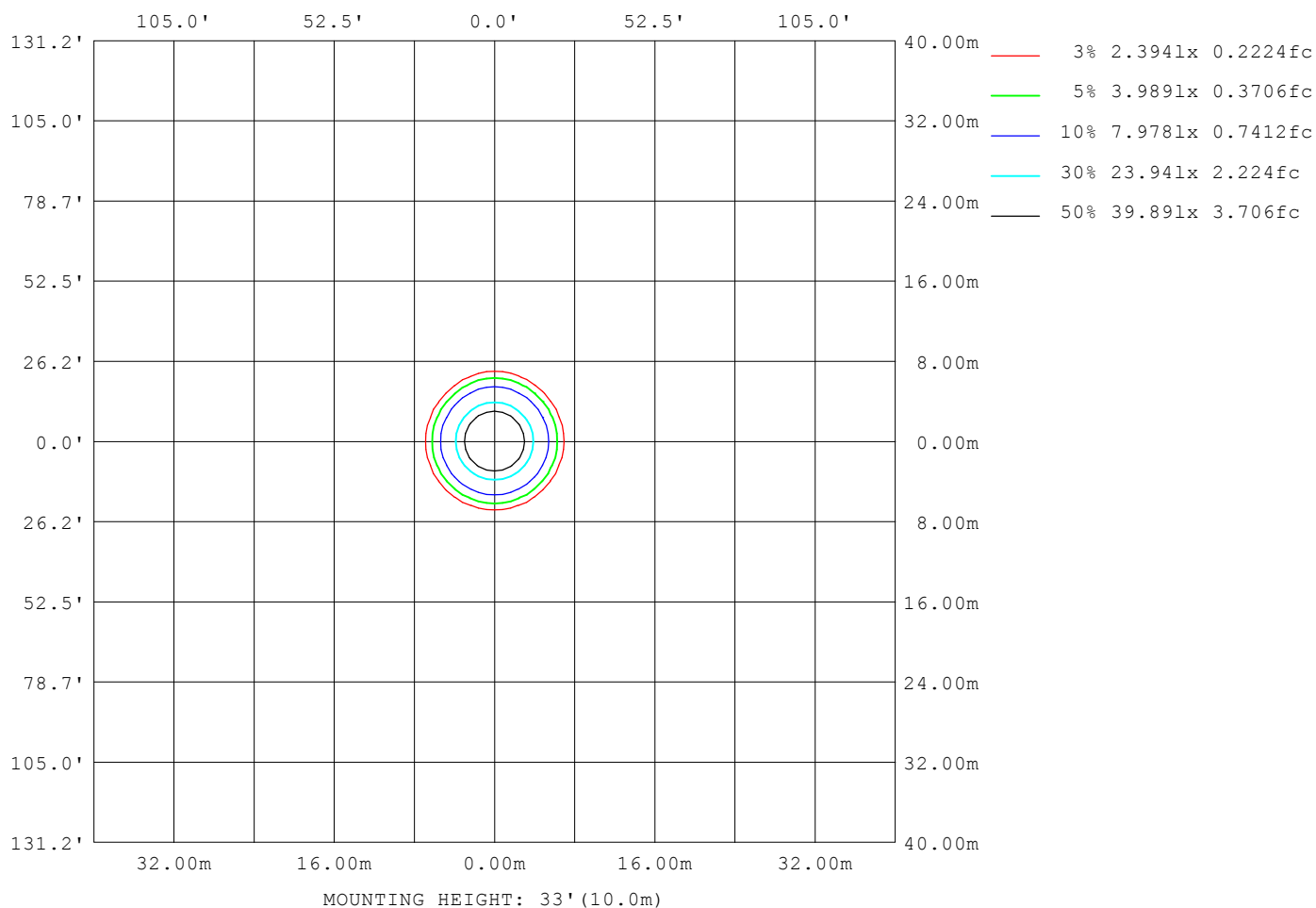
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822		Lamp Flux:3406.3x1 lm
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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:0.1278A P:30.1W PF:0.9804 Freq:49.99Hz		
UTHDi:0.17% ITHDi:5.90% KDisp:0.9822 Lamp Flux:3406.3x1 lm		
NAME: FUSION GT-TR02-AHD-035-COB-01SC 3000K RA90 36D TYPE:	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming lighting	SUR.: 104mm	Shielding Angle:

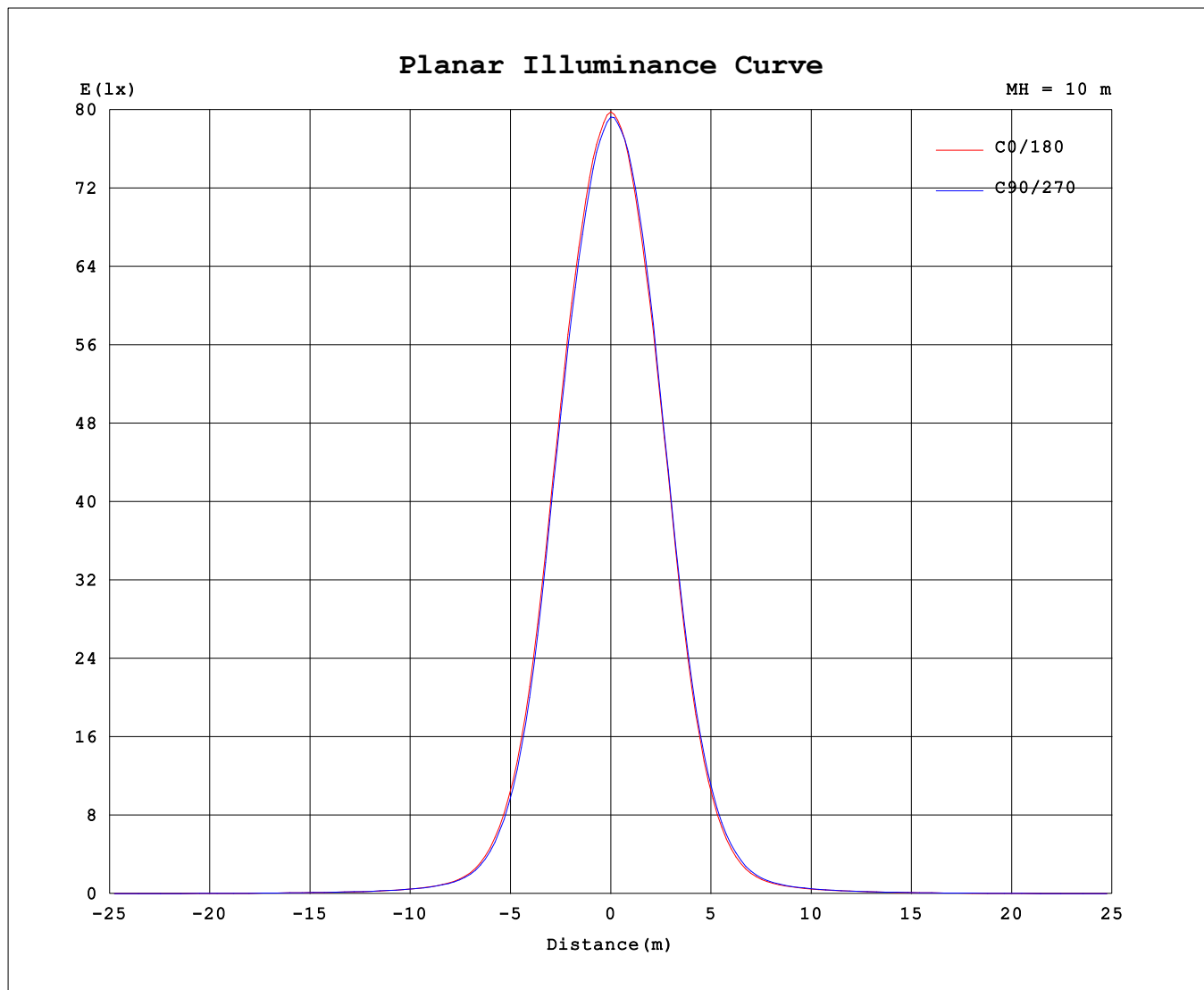
AvgL	cd/m2
L_0~180 (65) av	9914
L_0~180 (75) av	1519
L_0~180 (85) av	1110
L_90~270 (65) av	10062
L_90~270 (75) av	1507
L_90~270 (85) av	1113
L_45 (65) av	9732
L_45 (75) av	1503
L_45 (85) av	1054

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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: 2024-10-31

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	7942	7942	7942	7942	7942	7942	7942	7942
3.0	7761	7744	7741	7789	7808	7814	7837	7781
6.0	7399	7348	7332	7403	7431	7482	7542	7454
9.0	6813	6760	6731	6804	6836	6918	6997	6890
12.0	6071	6023	5969	6055	6094	6152	6219	6126
15.0	5110	5076	5032	5104	5139	5186	5227	5145
18.0	4032	3994	3937	4012	4047	4100	4134	4060
21.0	2958	2908	2840	2907	2954	3000	3058	2992
24.0	2063	2026	1958	2039	2070	2089	2159	2094
27.0	1377	1338	1288	1352	1365	1388	1459	1404
30.0	881.9	842.4	812.0	859.0	857.3	878.7	934.5	905.1
33.0	534.9	515.0	496.4	530.8	518.2	524.8	580.1	556.5
36.0	336.8	325.8	316.7	335.6	324.1	327.5	361.6	351.1
39.0	230.1	226.7	223.1	233.0	226.5	225.8	246.1	239.8
42.0	171.5	167.2	169.4	176.6	169.9	169.6	184.9	179.1
45.0	134.2	130.3	134.1	140.3	135.5	133.7	146.0	140.6
48.0	109.1	104.9	110.0	115.3	112.3	109.2	119.5	114.7
51.0	91.05	86.66	92.90	96.94	95.30	92.27	99.40	96.89
54.0	77.28	72.34	79.11	81.96	79.80	76.74	83.28	81.56
57.0	64.03	59.71	65.06	67.72	65.65	61.33	67.97	66.49
60.0	53.31	49.48	53.00	54.65	53.59	50.54	56.36	54.90
63.0	41.97	38.88	41.39	42.86	42.21	39.92	44.49	43.27
66.0	32.01	29.39	29.87	30.62	30.66	29.80	33.50	33.05
69.0	20.15	18.51	17.69	17.48	17.65	18.56	20.73	20.43
72.0	8.533	6.433	5.819	5.365	5.556	6.207	7.198	8.366
75.0	3.493	3.396	3.211	3.082	3.111	3.167	3.341	3.423
78.0	2.693	2.604	2.472	2.340	2.362	2.394	2.587	2.659
81.0	2.128	1.961	1.747	1.601	1.602	1.712	1.993	2.086
84.0	1.128	1.012	0.9621	0.8755	0.8859	0.8964	1.053	1.083
87.0	0.5469	0.4403	0.4139	0.3424	0.3518	0.3696	0.4943	0.4935
90.0	0.1244	0.0891	0.1381	0.0955	0.1004	0.0914	0.1072	0.0855

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-10-31

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: