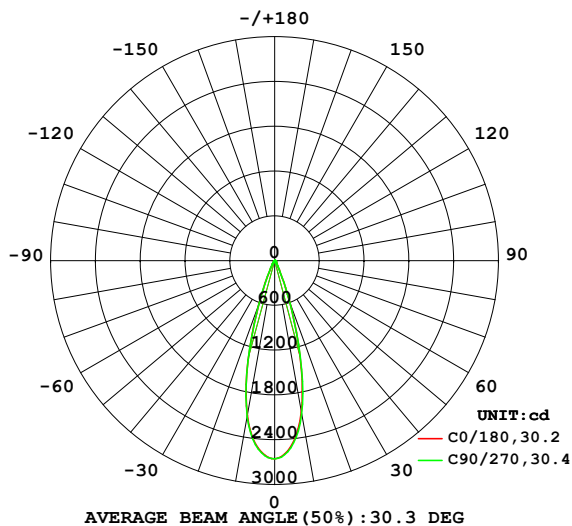


LUMINAIRE PHOTOMETRIC TEST REPORT

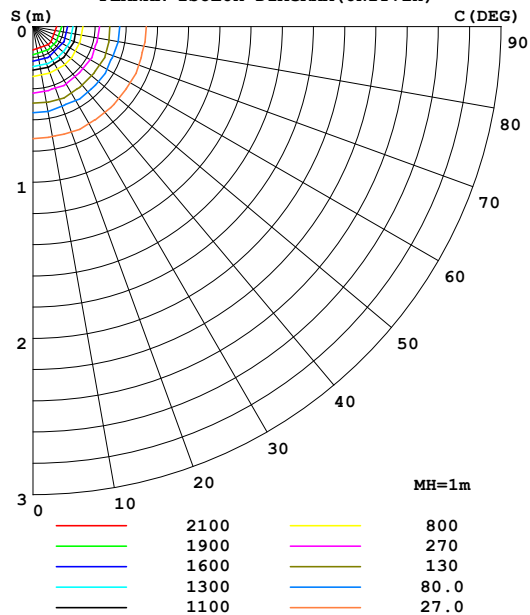
Test:U:240.2V I:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 83.92 lm/W
MODEL		I _{max} (cd)	2655	S/MH(C0/180)		0.48
NOMINAL POWER(W)	9	LOR(%)	100.0	S/MH(C90/270)		0.48
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	768.16	η UP,DN(C0-180)		0.0,49.6
NOMINAL FLUX(lm)	768.155	CIE CLASS	DIRECT	η UP,DN(C180-360)		0.0,50.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM		0.50
TEST VOLTAGE(V)	240.17	η down (%)	100.0	CIBSE SHR MAX		0.50

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:2023-12-21

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	2062	2058	2086	2121	2110	2101	2125	2094	0- 10	227.2	227.2	29.6,29.6
20	591.3	606.2	589.2	614.2	616.3	620.2	629.8	605.3	10- 20	360.1	587.3	76.5,76.5
30	93.59	96.65	95.19	95.11	92.59	97.74	101.5	96.29	20- 30	115.4	702.7	91.5,91.5
40	31.88	32.59	32.80	32.65	31.99	32.63	33.60	32.39	30- 40	35.39	738.1	96.1,96.1
50	13.28	13.50	13.68	13.74	13.18	13.50	13.89	13.76	40- 50	16.36	754.4	98.2,98.2
60	5.474	5.579	5.662	5.578	5.433	5.589	5.641	5.433	50- 60	8.011	762.4	99.3,99.3
70	2.432	2.534	2.694	2.623	2.590	2.644	2.662	2.393	60- 70	3.906	766.4	99.8,99.8
80	0.6600	0.6719	0.6220	0.6674	0.7167	0.6639	0.5584	0.5671	70- 80	1.620	768.0	100,100
90	0.0279	0.0266	0.0344	0.0203	0.0212	0.0205	0.0257	0.0203	80- 90	0.1817	768.2	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): 747.67 lm

%lum = 97.3%

%lamp = 97.3%

Conical surface Flux(120deg): 762.45 lm

%lum = 99.3%

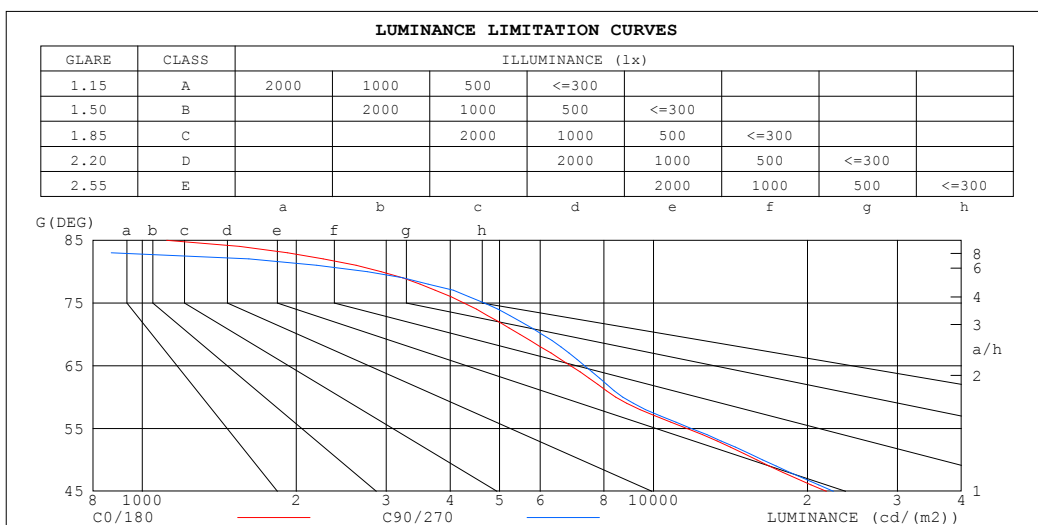
%lamp = 99.3%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:



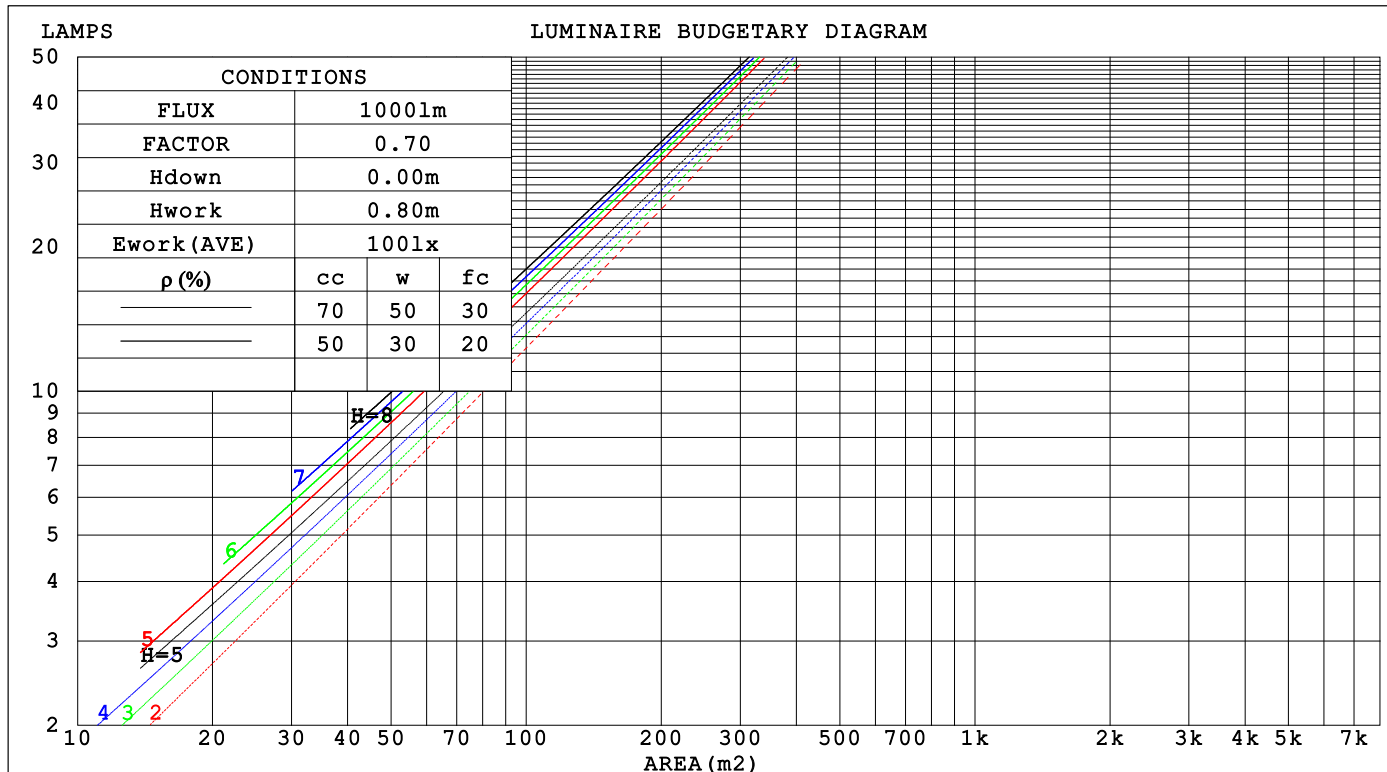
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400		Lamp Flux:768.155x1 lm
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	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:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz			UTHDi:0.18% ITHDi:18.12% KDisp:0.9400			Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: Norming Lighting			SUR.: 41mm			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	.146	.083	.026	.139	.079	.025	.126	.073	.023	.115	.066	.021	.105	.061	.020		
2.0	.136	.074	.023	.130	.072	.022	.120	.067	.021	.110	.062	.019	.102	.058	.018		
3.0	.127	.068	.020	.122	.066	.020	.114	.062	.019	.106	.058	.018	.098	.054	.017		
4.0	.119	.062	.018	.115	.060	.018	.108	.057	.017	.101	.054	.016	.095	.052	.016		
5.0	.112	.057	.017	.109	.056	.016	.103	.054	.016	.097	.051	.015	.092	.049	.015		
6.0	.106	.053	.015	.104	.052	.015	.098	.050	.015	.093	.048	.014	.088	.047	.014		
7.0	.101	.050	.014	.099	.049	.014	.094	.047	.014	.089	.046	.013	.085	.044	.013		
8.0	.096	.047	.013	.094	.046	.013	.090	.045	.013	.086	.044	.013	.082	.042	.012		
9.0	.092	.045	.012	.090	.044	.012	.086	.043	.012	.083	.042	.012	.080	.040	.012		
10.0	.088	.042	.012	.086	.042	.012	.083	.041	.011	.080	.040	.011	.077	.039	.011		

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	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016		
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013		
3.0	.137	.113	.095	.117	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011		
4.0	.125	.098	.078	.107	.085	.067	.074	.059	.048	.043	.035	.028	.014	.011	.009		
5.0	.115	.086	.065	.098	.074	.056	.068	.052	.040	.039	.030	.024	.013	.010	.008		
6.0	.106	.076	.055	.091	.066	.048	.063	.046	.034	.036	.027	.020	.012	.009	.007		
7.0	.099	.068	.047	.085	.059	.041	.059	.041	.029	.034	.024	.017	.011	.008	.006		
8.0	.092	.061	.040	.079	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005		
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.022	.030	.020	.013	.010	.007	.004		
10.0	.082	.051	.031	.070	.044	.027	.049	.031	.019	.028	.018	.011	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz UTHDi:0.18% ITHDi:18.12% KDisp:0.9400Lamp Flux:768.155x1 lm										
NAME: MD10-09-XX-04 2700K RA90 36D						TYPE:		WEIGHT:		
SPEC.:						DIM.:		SERIAL No.:		
MFR.: Norming Lighting						SUR.: 41mm		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	14.3	15.0	14.5	15.2	15.3	14.4	15.2	14.7	15.3	15.5
3H	14.5	15.2	14.8	15.4	15.5	14.7	15.3	14.9	15.5	15.7
4H	14.6	15.2	14.8	15.4	15.6	14.7	15.4	15.0	15.6	15.8
6H	14.6	15.1	14.8	15.4	15.6	14.7	15.3	15.0	15.6	15.8
8H	14.5	15.1	14.8	15.3	15.6	14.7	15.3	15.0	15.5	15.8
12H	14.5	15.0	14.8	15.3	15.6	14.6	15.2	15.0	15.5	15.7
4H 2H	14.4	15.0	14.6	15.2	15.4	14.5	15.1	14.7	15.3	15.5
3H	14.6	15.2	14.9	15.4	15.7	14.8	15.3	15.1	15.6	15.9
4H	14.7	15.2	15.1	15.5	15.8	14.9	15.4	15.2	15.7	16.0
6H	14.7	15.2	15.1	15.5	15.8	14.9	15.3	15.3	15.7	16.0
8H	14.7	15.1	15.1	15.5	15.8	14.9	15.3	15.2	15.6	16.0
12H	14.7	15.0	15.1	15.4	15.8	14.8	15.2	15.2	15.6	15.9
8H 4H	14.7	15.1	15.1	15.4	15.8	14.8	15.2	15.2	15.6	16.0
6H	14.7	15.0	15.1	15.4	15.8	14.9	15.2	15.3	15.6	16.0
8H	14.7	15.0	15.1	15.4	15.8	14.8	15.1	15.3	15.5	16.0
12H	14.6	14.9	15.1	15.3	15.8	14.8	15.0	15.2	15.5	15.9
12H 4H	14.6	15.0	15.0	15.4	15.8	14.8	15.2	15.2	15.5	15.9
6H	14.7	15.0	15.1	15.4	15.8	14.8	15.1	15.3	15.5	16.0
8H	14.6	14.9	15.1	15.3	15.8	14.8	15.0	15.2	15.5	15.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 1.5 / - 2.2					+ 1.5 / - 2.2				
1.5H	+ 2.3 / - 1.7					+ 2.4 / - 1.7				
2.0H	+ 2.5 / - 1.9					+ 2.5 / - 1.9				

CIE Pub.117, 768.2 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -0.9$)
Area: 0.0013 m²

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:

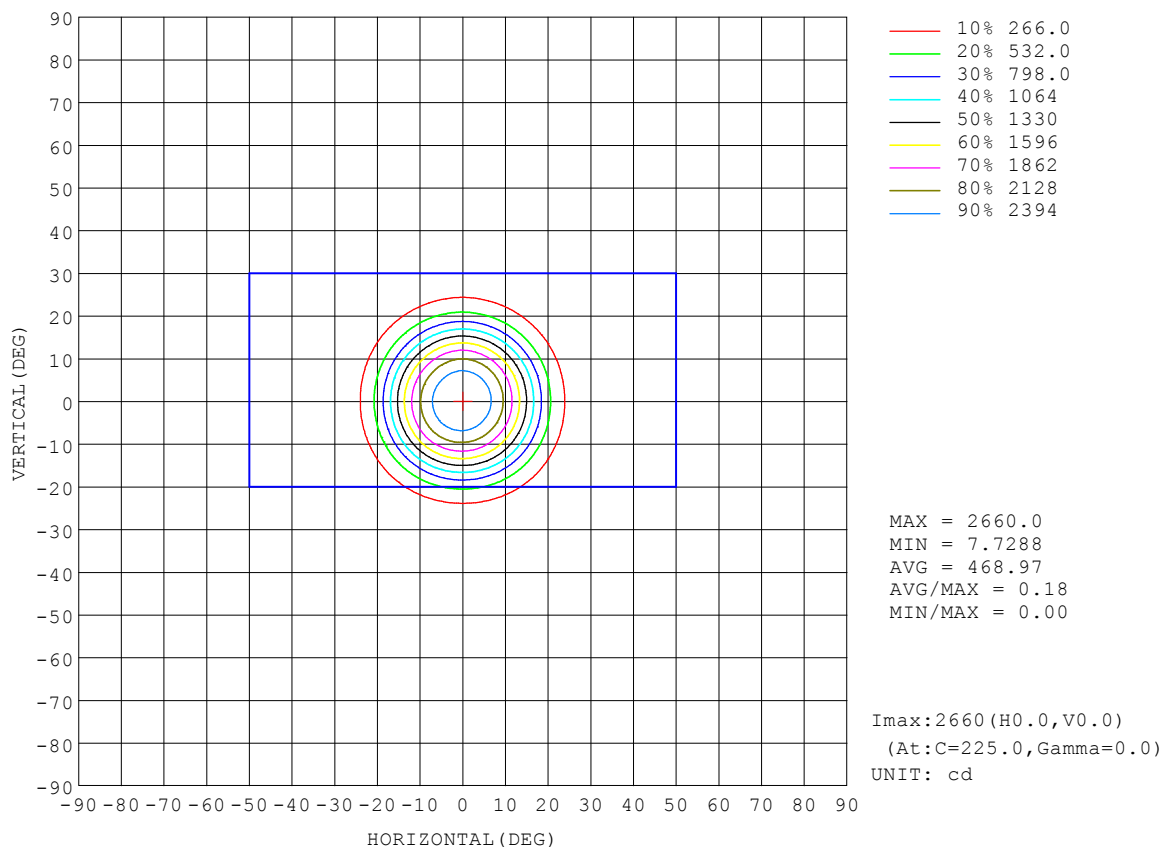
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	89	83	79	88	83	79	76
0.80	96	91	87	96	90	87	94	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	97	95	91
1.50	107	102	99	106	101	99	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	101	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	112	109	112	110	108	109	107	105	98
5.00	115	113	112	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:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:

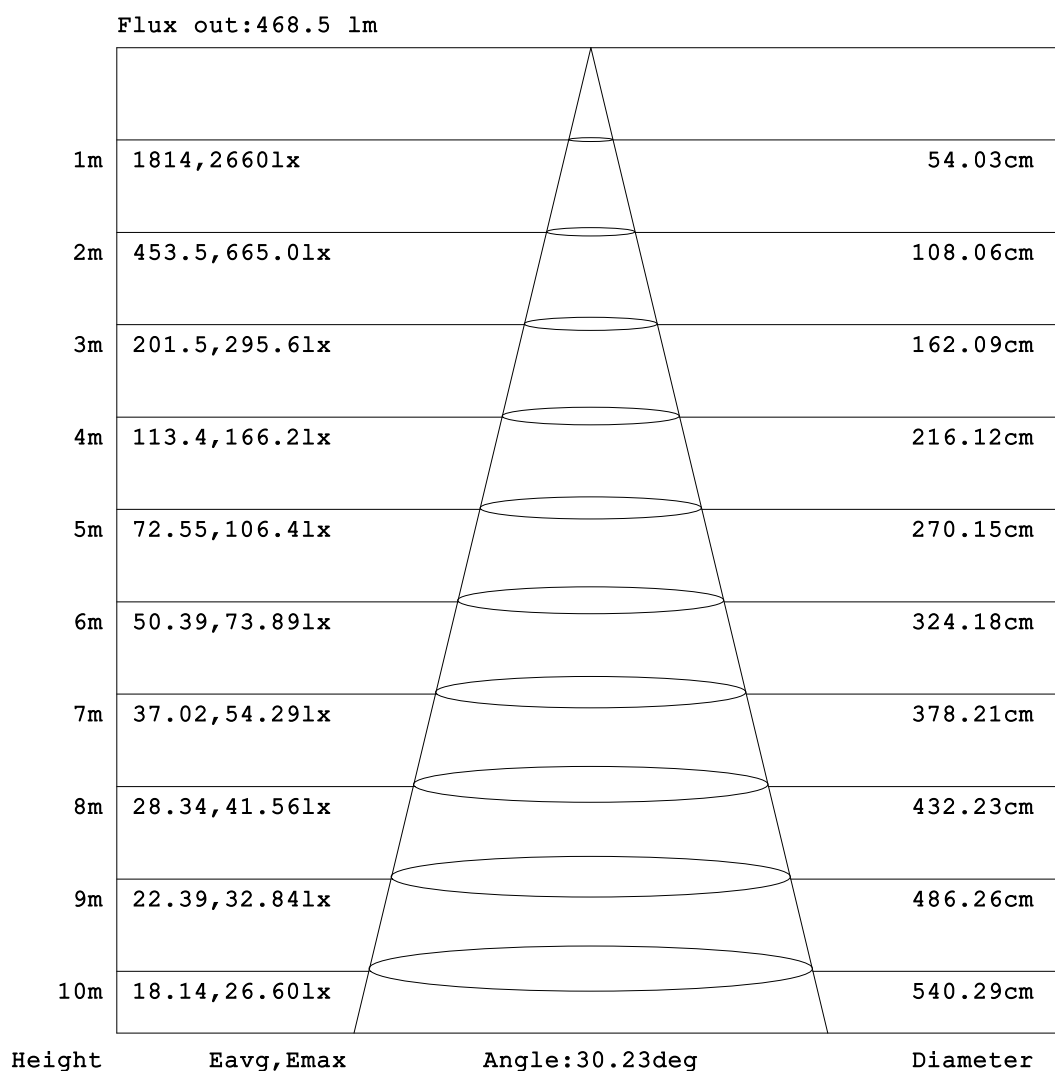


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:



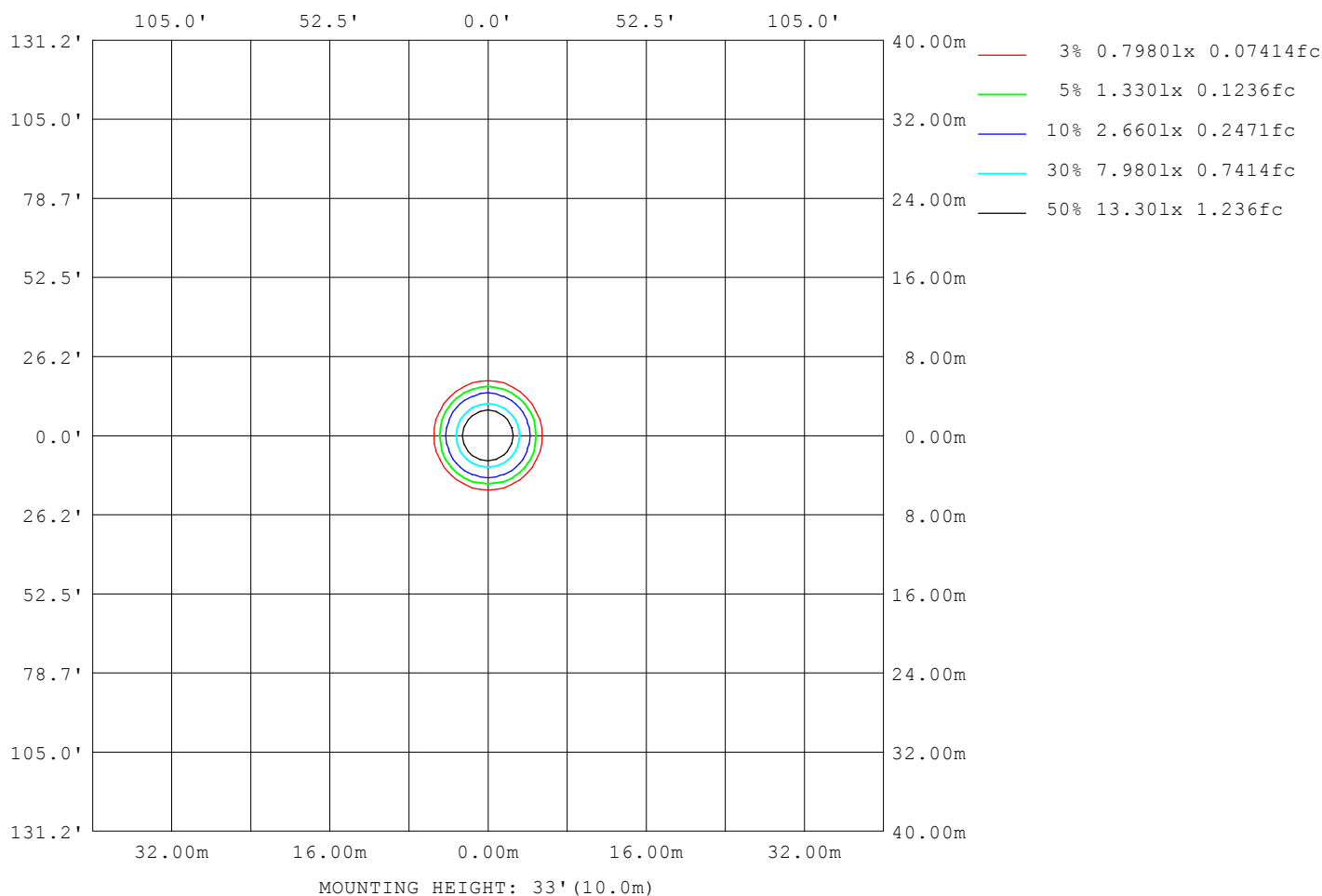
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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:0.0412A P:9.2W PF:0.9245 Freq:49.99Hz		
UTHDi:0.18% ITHDi:18.12% KDisp:0.9400 Lamp Flux:768.155x1 lm		
NAME: MD10-09-XX-04 2700K RA90 36D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 41mm	Shielding Angle:

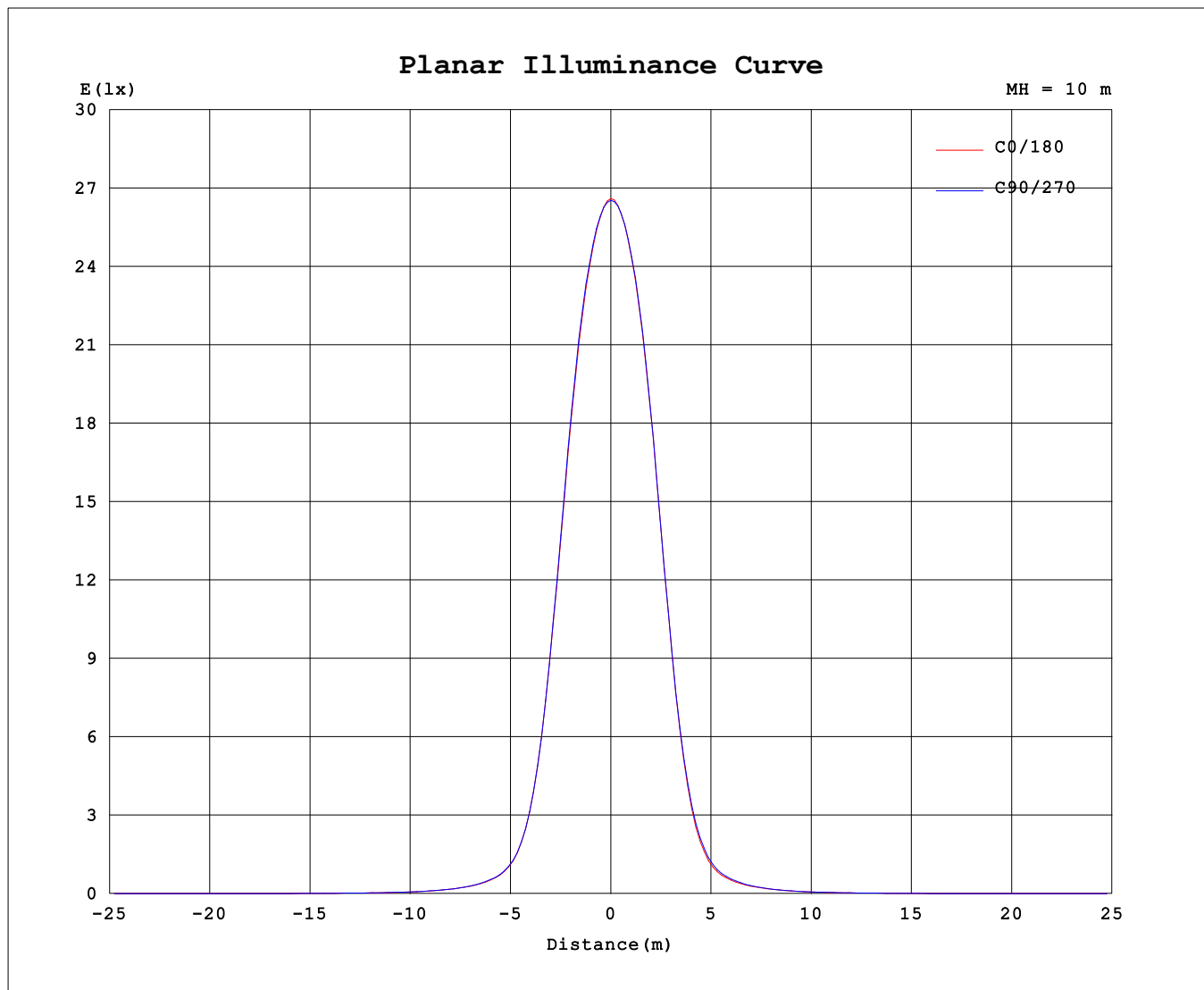
AvgL	cd/m2
L_0~180 (65) av	6953
L_0~180 (75) av	4418
L_0~180 (85) av	1235
L_90~270 (65) av	7321
L_90~270 (75) av	4622
L_90~270 (85) av	307
L_45 (65) av	7072
L_45 (75) av	4427
L_45 (85) av	210

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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: 2023-12-21

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	2655	2655	2655	2655	2655	2655	2655	2655
3.0	2595	2595	2605	2614	2608	2609	2616	2608
6.0	2439	2436	2456	2472	2466	2464	2478	2461
9.0	2178	2172	2203	2232	2219	2214	2235	2207
12.0	1793	1796	1816	1861	1853	1836	1860	1828
15.0	1319	1332	1334	1378	1377	1361	1380	1350
18.0	857.7	868.0	859.8	889.5	890.8	891.7	899.5	878.6
21.0	485.4	498.3	482.5	501.6	504.3	510.1	520.1	494.5
24.0	258.6	266.7	259.3	267.2	264.3	274.8	282.4	265.8
27.0	144.3	150.9	147.4	149.6	144.9	154.3	159.4	149.7
30.0	93.59	96.65	95.19	95.11	92.59	97.74	101.5	96.29
33.0	65.43	67.60	68.32	67.27	65.65	68.12	70.90	66.86
36.0	47.76	48.89	49.53	48.85	47.86	48.99	51.06	48.58
39.0	35.24	35.96	36.22	36.00	35.35	36.03	37.20	35.71
42.0	26.21	26.87	27.05	27.12	26.35	26.93	27.66	26.91
45.0	19.97	20.52	20.68	20.86	20.12	20.48	21.10	20.74
48.0	15.55	15.87	16.08	16.19	15.53	15.88	16.38	16.19
51.0	12.26	12.45	12.61	12.65	12.15	12.43	12.78	12.64
54.0	9.504	9.592	9.732	9.712	9.365	9.629	9.846	9.661
57.0	7.107	7.185	7.293	7.229	7.003	7.231	7.327	7.126
60.0	5.474	5.579	5.662	5.578	5.433	5.589	5.641	5.433
63.0	4.410	4.515	4.632	4.527	4.452	4.586	4.614	4.363
66.0	3.476	3.598	3.748	3.653	3.598	3.706	3.734	3.443
69.0	2.668	2.781	2.950	2.873	2.833	2.902	2.920	2.638
72.0	1.994	2.079	2.209	2.155	2.133	2.169	2.173	1.954
75.0	1.431	1.481	1.572	1.545	1.543	1.550	1.539	1.382
78.0	0.9428	0.9912	0.9799	1.018	1.025	0.9977	0.9162	0.8849
81.0	0.5317	0.5260	0.4463	0.5076	0.5717	0.5139	0.3892	0.4273
84.0	0.2101	0.1172	0.0439	0.1179	0.2378	0.1041	0.0334	0.0613
87.0	0.0405	0.0241	0.0373	0.0196	0.0343	0.0186	0.0318	0.0184
90.0	0.0279	0.0266	0.0344	0.0203	0.0212	0.0205	0.0257	0.0203

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2023-12-21

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: