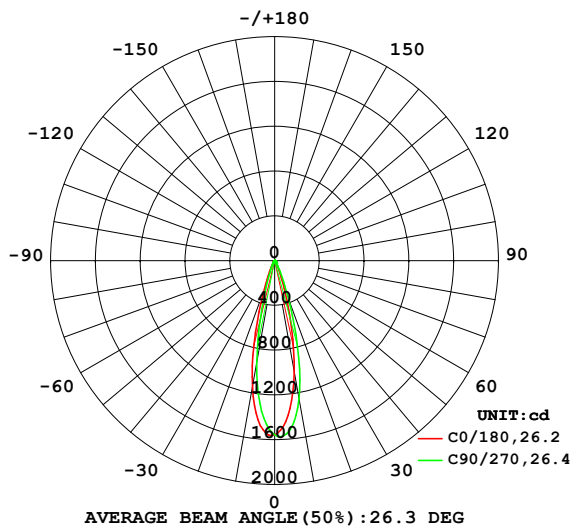


LUMINAIRE PHOTOMETRIC TEST REPORT

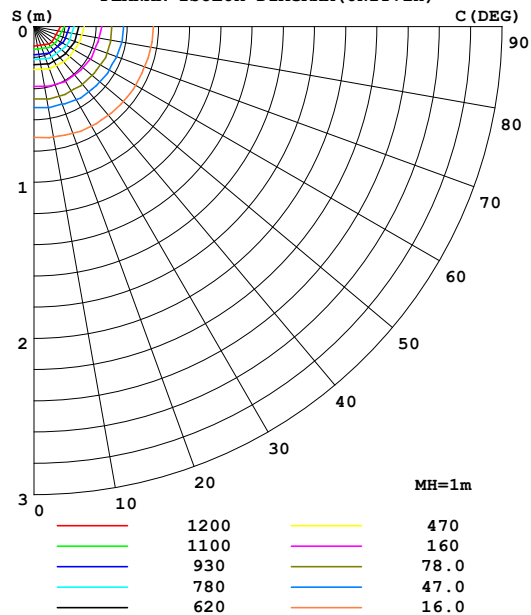
Test:U:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 71.19 lm/W
MODEL		I _{max} (cd)	1576	S/MH(C0/180)		0.44
NOMINAL POWER(W)	6	LOR(%)	100.0	S/MH(C90/270)		0.38
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	392.46	η UP,DN(C0-180)		0.0,55.2
NOMINAL FLUX(lm)	392.455	CIE CLASS	DIRECT	η UP,DN(C180-360)		0.0,44.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM		0.00
TEST VOLTAGE(V)	240.25	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: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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	1009	1148	1256	1243	1148	1041	925.1	908.7	0- 10	125.7	125.7	32,32
20	218.4	294.2	361.2	358.7	272.4	206.1	173.1	175.0	10- 20	166.6	292.3	74.5,74.5
30	47.49	58.72	66.29	62.93	53.40	45.12	40.32	39.37	20- 30	53.37	345.6	88.1,88.1
40	21.95	24.93	25.89	24.12	22.26	20.61	19.58	19.75	30- 40	20.50	366.1	93.3,93.3
50	11.20	13.22	13.92	13.43	12.71	11.20	10.20	10.19	40- 50	13.04	379.2	96.6,96.6
60	4.801	5.732	6.000	5.907	5.690	4.954	4.475	4.453	50- 60	7.295	386.5	98.5,98.5
70	2.271	2.775	2.753	2.700	2.689	2.353	2.166	2.187	60- 70	3.620	390.1	99.4,99.4
80	1.065	1.357	1.291	1.265	1.270	1.041	0.9297	0.9292	70- 80	1.862	392.0	99.9,99.9
90	0.0099	0.0064	0.0129	0.0077	0.0067	0.0061	0.0100	0.0090	80- 90	0.4969	392.5	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): 373.37 lm

%lum = 95.1%

%lamp = 95.1%

Conical surface Flux(120deg): 386.48 lm

%lum = 98.5%

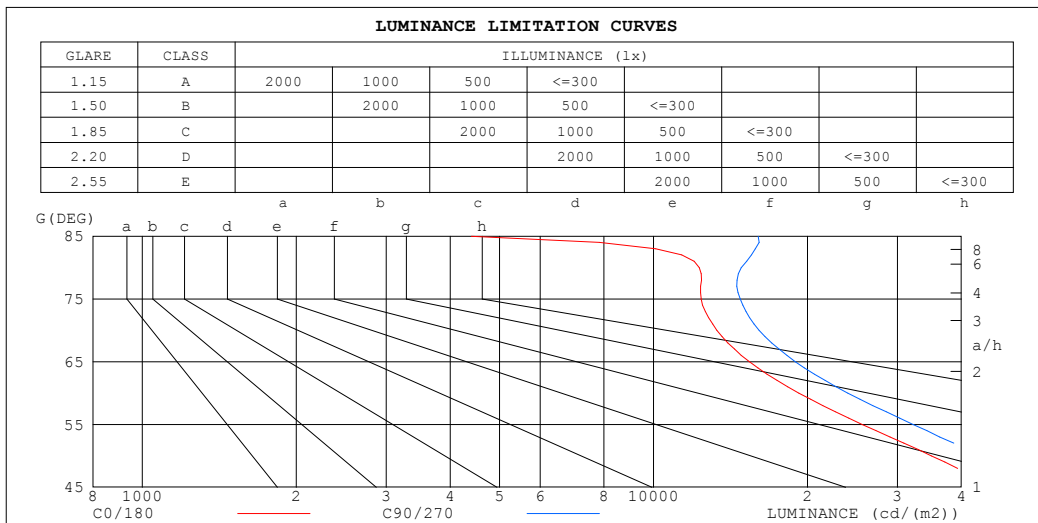
%lamp = 98.5%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4398	16026
80	12296	14853
75	12390	14771
70	13306	16085
65	15402	18931
60	19246	23982
55	25594	32196
50	34931	43266
45	46192	54743

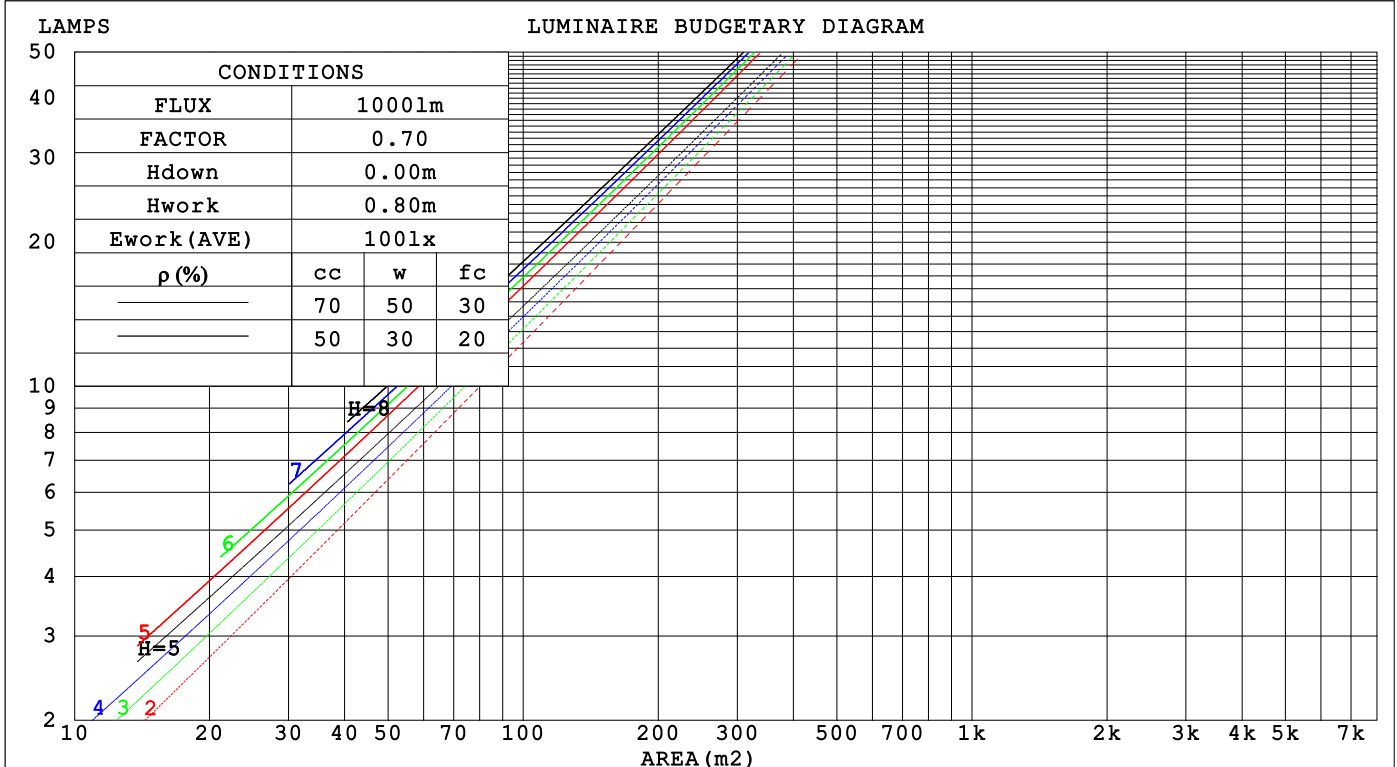
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936		
Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz			UTHDi:0.17% ITHDi:24.82% KDisp:0.8936			Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: Norming Lighting			SUR.: 26mm			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	.151	.086	.027	.144	.082	.026	.132	.076	.024	.120	.069	.022	.110	.064	.021		
2.0	.141	.077	.024	.135	.074	.023	.125	.069	.022	.115	.065	.020	.107	.060	.019		
3.0	.131	.070	.021	.127	.068	.020	.118	.064	.019	.110	.060	.018	.103	.057	.018		
4.0	.123	.064	.019	.119	.062	.018	.112	.059	.018	.105	.056	.017	.099	.054	.016		
5.0	.116	.059	.017	.112	.058	.017	.106	.055	.016	.100	.053	.016	.095	.051	.015		
6.0	.109	.055	.016	.106	.054	.015	.101	.052	.015	.096	.050	.015	.091	.048	.014		
7.0	.103	.051	.014	.101	.050	.014	.096	.049	.014	.092	.047	.014	.088	.045	.013		
8.0	.098	.048	.014	.096	.047	.013	.092	.046	.013	.088	.045	.013	.084	.043	.013		
9.0	.094	.045	.013	.092	.045	.013	.088	.044	.012	.085	.042	.012	.081	.041	.012		
10.0	.090	.043	.012	.088	.042	.012	.085	.041	.012	.081	.040	.011	.078	.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	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013		
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011		
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009		
5.0	.116	.086	.064	.099	.074	.056	.068	.052	.039	.040	.031	.023	.013	.010	.008		
6.0	.107	.076	.054	.092	.066	.047	.063	.046	.033	.037	.027	.020	.012	.009	.007		
7.0	.099	.068	.046	.086	.059	.040	.059	.041	.029	.034	.024	.017	.011	.008	.006		
8.0	.093	.061	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005		
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.021	.030	.020	.013	.010	.007	.004		
10.0	.082	.051	.030	.071	.044	.027	.049	.031	.019	.029	.018	.011	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz UTHDi:0.17% ITHDi:24.82% KDisp:0.8936Lamp Flux:392.455x1 lm										
NAME: MD10-06-XX-16 4000K RA90 18D						TYPE:		WEIGHT:		
SPEC.:						DIM.:		SERIAL No.:		
MFR.: Norming Lighting						SUR.: 26mm		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	18.3	19.0	18.5	19.1	19.3	19.1	19.8	19.3	20.0	20.1
3H	18.6	19.3	18.9	19.5	19.7	19.4	20.1	19.7	20.3	20.5
4H	18.8	19.4	19.0	19.6	19.8	19.6	20.3	19.9	20.5	20.7
6H	18.9	19.5	19.2	19.7	20.0	19.8	20.4	20.0	20.6	20.8
8H	19.0	19.5	19.3	19.8	20.0	19.8	20.4	20.1	20.7	20.9
12H	18.9	19.5	19.3	19.8	20.0	19.9	20.5	20.2	20.7	21.0
4H 2H	18.5	19.1	18.7	19.3	19.5	19.2	19.8	19.4	20.0	20.2
3H	18.9	19.5	19.3	19.8	20.0	19.7	20.2	20.0	20.5	20.8
4H	19.2	19.7	19.5	20.0	20.3	19.9	20.5	20.3	20.7	21.0
6H	19.4	19.9	19.8	20.2	20.6	20.2	20.7	20.6	21.0	21.3
8H	19.5	20.0	19.9	20.3	20.7	20.3	20.7	20.7	21.1	21.5
12H	19.5	19.9	19.9	20.3	20.7	20.4	20.8	20.8	21.2	21.6
8H 4H	19.3	19.7	19.7	20.1	20.4	20.0	20.4	20.4	20.8	21.1
6H	19.7	20.0	20.1	20.4	20.8	20.4	20.7	20.8	21.1	21.5
8H	19.8	20.1	20.2	20.5	21.0	20.5	20.9	21.0	21.3	21.7
12H	19.8	20.1	20.3	20.5	21.0	20.7	21.0	21.2	21.4	21.9
12H 4H	19.3	19.7	19.7	20.0	20.4	20.0	20.4	20.4	20.7	21.1
6H	19.7	20.0	20.1	20.4	20.9	20.4	20.7	20.8	21.1	21.5
8H	19.9	20.1	20.3	20.6	21.0	20.6	20.9	21.1	21.3	21.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.8 / - 1.1					+ 0.7 / - 1.0				
1.5H	+ 0.7 / - 0.8					+ 0.9 / - 0.8				
2.0H	+ 1.8 / - 1.4					+ 1.8 / - 1.3				

CIE Pub.117, 392.5 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -3.2$)
Area: 0.0005 m²

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:

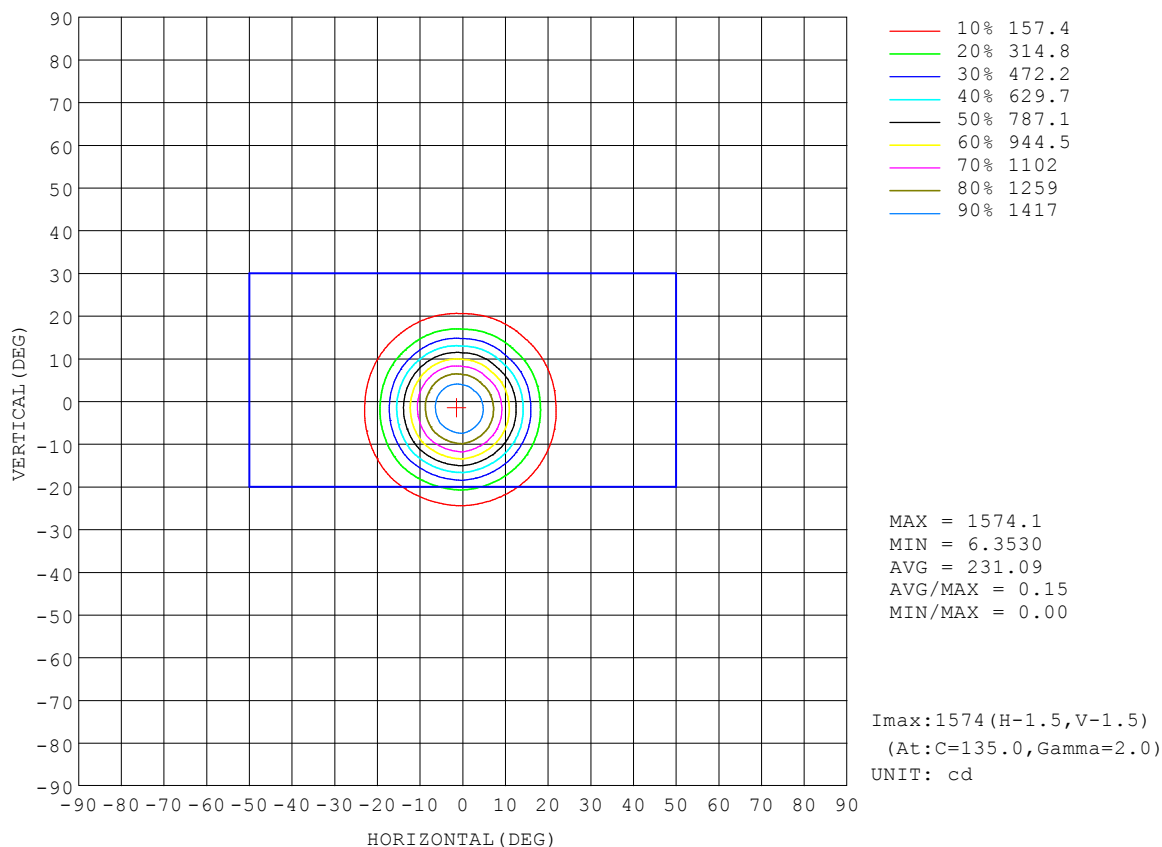
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	108	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	106	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	107	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: MEDIUM
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:

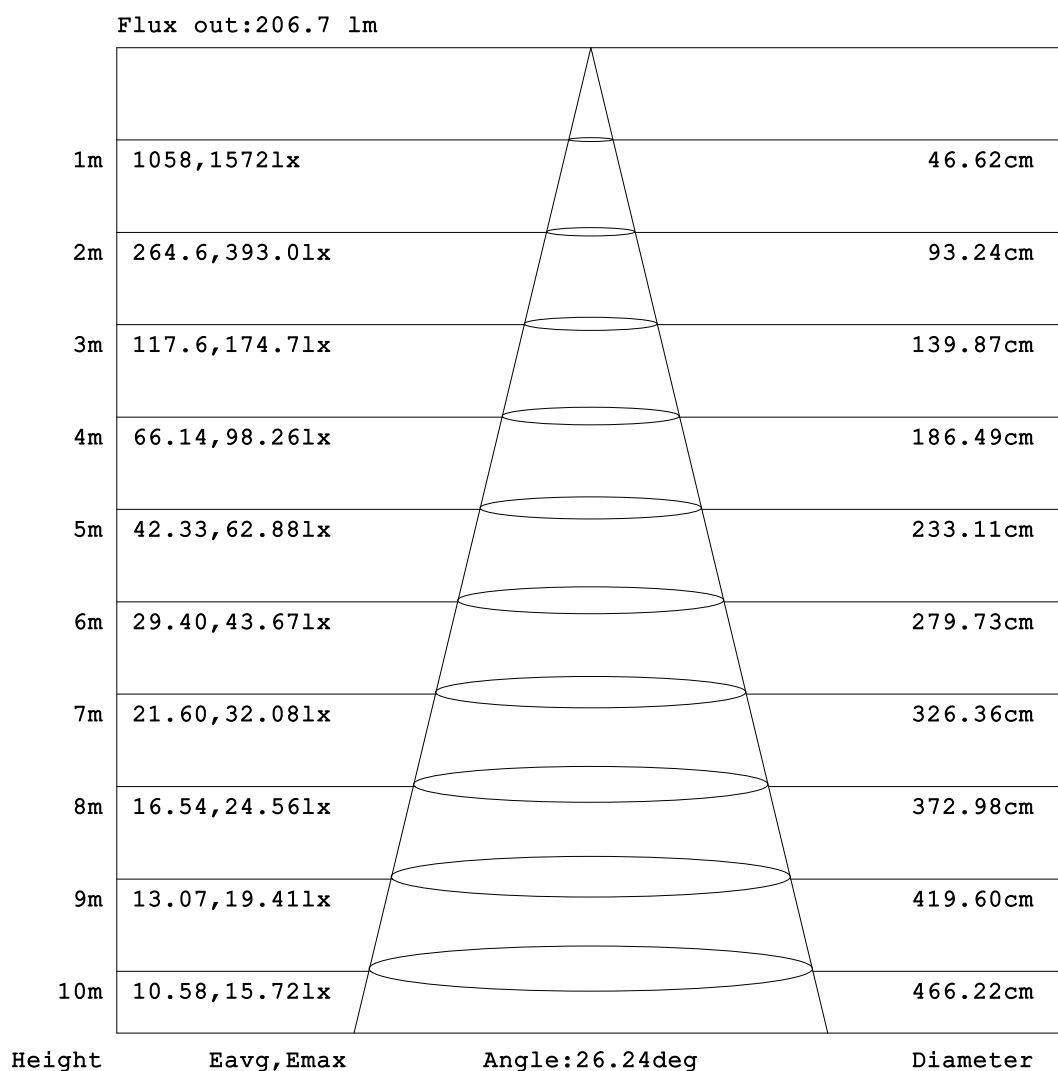


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:



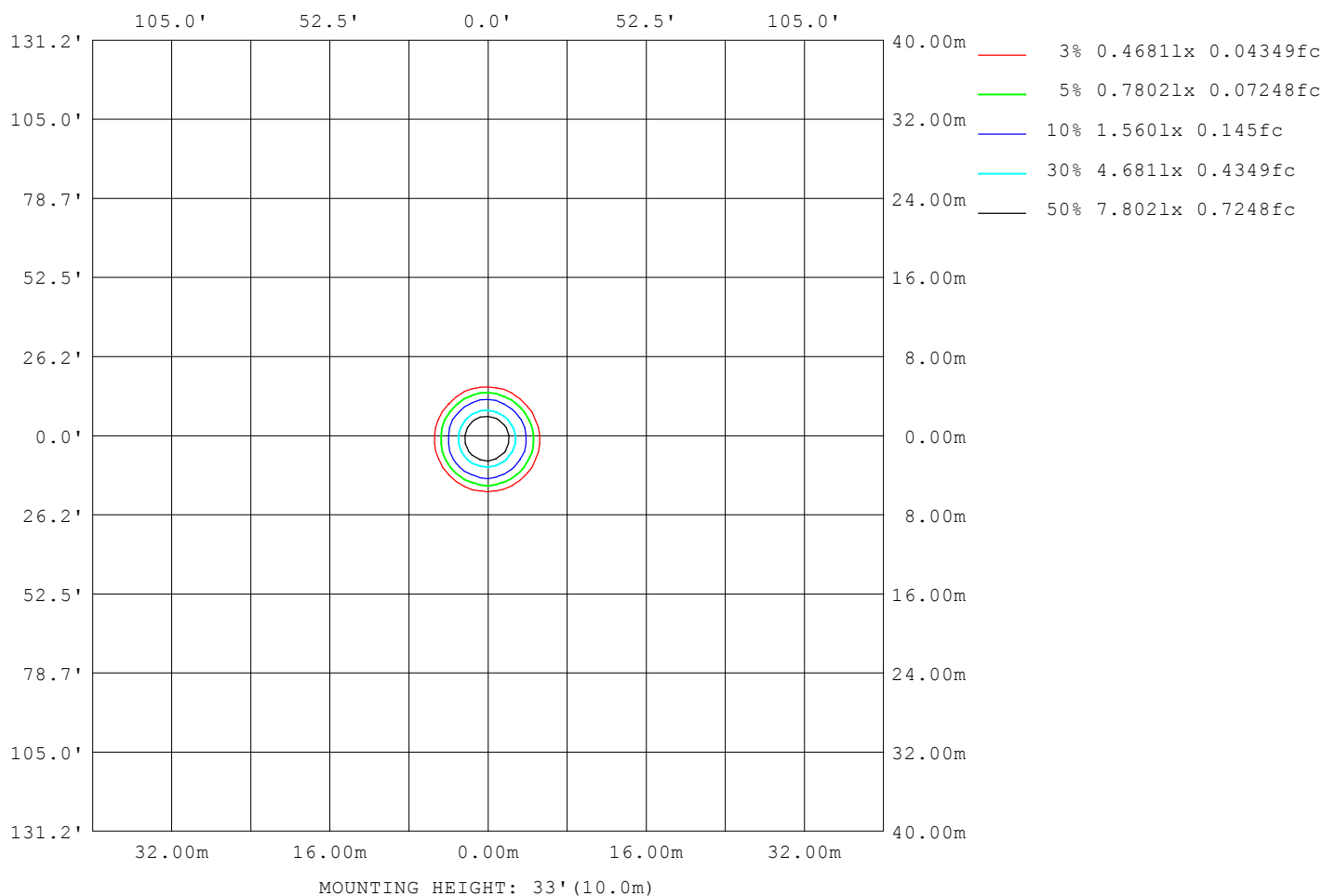
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz		
UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2024-03-16

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:240.3V I:0.0265A P:5.5W PF:0.8664 Freq:49.99Hz UTHDi:0.17% ITHDi:24.82% KDisp:0.8936 Lamp Flux:392.455x1 lm		
NAME: MD10-06-XX-16 4000K RA90 18D	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 26mm	Shielding Angle:

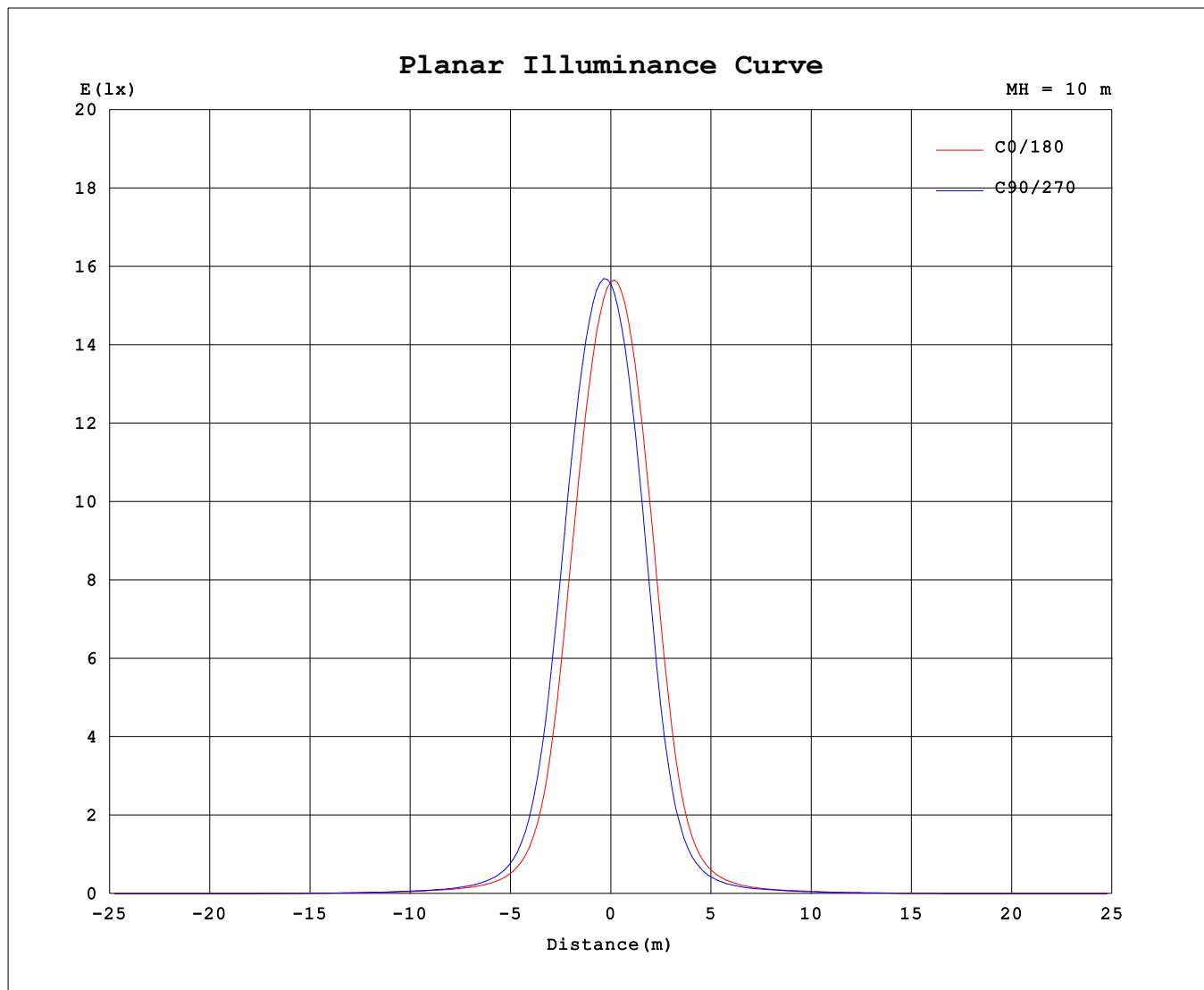
AvgL	cd/m2
L_0~180 (65) av	16804
L_0~180 (75) av	13490
L_0~180 (85) av	8807
L_90~270 (65) av	16741
L_90~270 (75) av	13210
L_90~270 (85) av	8719
L_45 (65) av	16925
L_45 (75) av	13523
L_45 (85) av	8933

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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: MEDIUM
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-03-16

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	1557	1557	1557	1557	1557	1557	1557	1557
3.0	1482	1531	1567	1569	1541	1500	1460	1451
6.0	1325	1421	1491	1486	1430	1362	1280	1259
9.0	1098	1229	1329	1316	1230	1134	1024	1004
12.0	822.8	968.9	1087	1077	963.9	837.4	721.1	714.2
15.0	541.4	677.6	794.4	791.5	664.1	534.6	445.8	448.1
18.0	319.5	421.2	512.0	511.2	400.4	305.1	253.2	257.3
21.0	180.9	244.1	300.4	296.9	224.2	170.3	144.1	145.1
24.0	106.5	141.7	170.6	167.3	128.7	101.1	87.25	87.06
27.0	68.53	87.66	101.7	98.71	79.73	65.41	57.19	56.11
30.0	47.49	58.72	66.29	62.93	53.40	45.12	40.32	39.37
33.0	35.29	42.09	46.34	43.29	38.25	33.18	30.45	30.03
36.0	27.99	32.44	34.71	32.21	29.22	26.06	24.53	24.59
39.0	23.21	26.48	27.74	25.74	23.62	21.71	20.62	20.82
42.0	19.60	22.28	22.99	21.50	20.07	18.61	17.57	17.71
45.0	16.30	18.74	19.37	18.27	17.26	15.79	14.72	14.77
48.0	13.13	15.39	16.04	15.33	14.54	13.01	11.93	11.92
51.0	10.34	12.19	12.88	12.49	11.81	10.38	9.415	9.384
54.0	7.989	9.454	10.08	9.836	9.303	8.093	7.331	7.295
57.0	6.166	7.320	7.772	7.616	7.259	6.301	5.704	5.679
60.0	4.801	5.732	6.000	5.907	5.690	4.954	4.475	4.453
63.0	3.779	4.535	4.689	4.621	4.488	3.926	3.554	3.546
66.0	3.013	3.643	3.713	3.644	3.584	3.139	2.863	2.866
69.0	2.435	2.964	2.962	2.908	2.882	2.529	2.318	2.341
72.0	1.975	2.429	2.384	2.338	2.338	2.034	1.880	1.896
75.0	1.600	1.978	1.913	1.883	1.892	1.624	1.506	1.515
78.0	1.288	1.589	1.515	1.485	1.496	1.277	1.175	1.181
81.0	0.9371	1.236	1.191	1.162	1.154	0.9087	0.7650	0.7734
84.0	0.4089	0.7819	0.8413	0.8415	0.7463	0.3965	0.1944	0.1996
87.0	0.0129	0.1666	0.3265	0.3489	0.1853	0.0079	0.0106	0.0064
90.0	0.0099	0.0064	0.0129	0.0077	0.0067	0.0061	0.0100	0.0090

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-03-16

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: