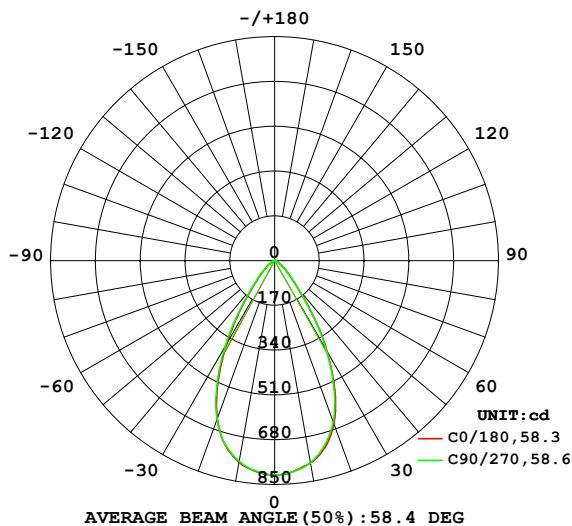


LUMINAIRE PHOTOMETRIC TEST REPORT

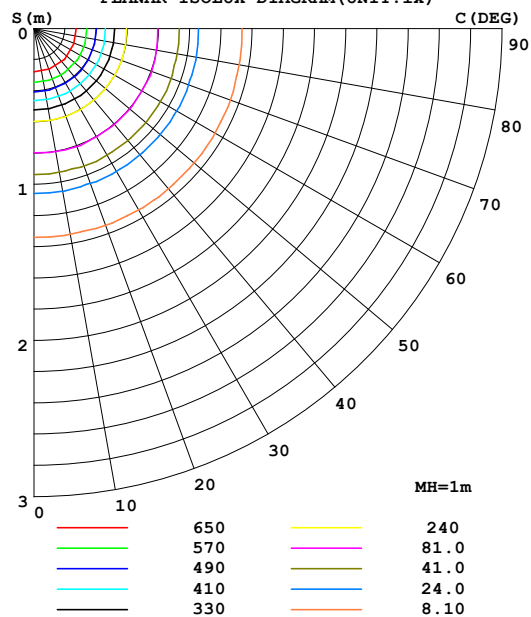
Test:U:240.4V I:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388 Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 76.86 lm/W
MODEL		Imax (cd)	814.0	S/MH(C0/180)	0.86	
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.87	
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	775.77	η UP,DN(C0-180)	0.0,51.0	
NOMINAL FLUX(lm)	775.768	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	240.36	η down (%)	100.0	CIBSE SHR MAX	0.90	

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:2024-06-06

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	779.6	779.9	779.3	778.7	777.0	773.9	774.0	777.4	0- 10	75.90	75.90	9.78,9.78
20	657.4	658.3	651.0	646.9	637.3	633.8	640.7	649.3	10- 20	202.9	278.8	35.9,35.9
30	398.9	405.8	395.4	383.3	364.1	366.8	378.6	387.2	20- 30	238.3	517.1	66.7,66.7
40	141.5	145.5	140.1	133.9	124.8	126.1	132.7	135.8	30- 40	152.6	669.7	86.3,86.3
50	51.05	52.61	50.84	49.22	45.45	47.26	48.92	49.81	40- 50	64.74	734.5	94.7,94.7
60	18.26	18.98	18.12	17.78	16.30	17.01	17.14	17.63	50- 60	27.63	762.1	98.2,98.2
70	5.481	5.833	5.712	5.410	4.791	4.773	4.819	5.335	60- 70	10.39	772.5	99.6,99.6
80	0.8183	1.236	1.216	1.169	0.9520	1.160	1.043	0.9341	70- 80	2.906	775.4	100,100
90	0.0099	0.0032	0.0103	0.0036	0.0048	0.0087	0.0109	0.0052	80- 90	0.3570	775.8	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): 708.72 lm

%lum = 91.4%

%lamp = 91.4%

Conical surface Flux(120deg): 762.11 lm

%lum = 98.2%

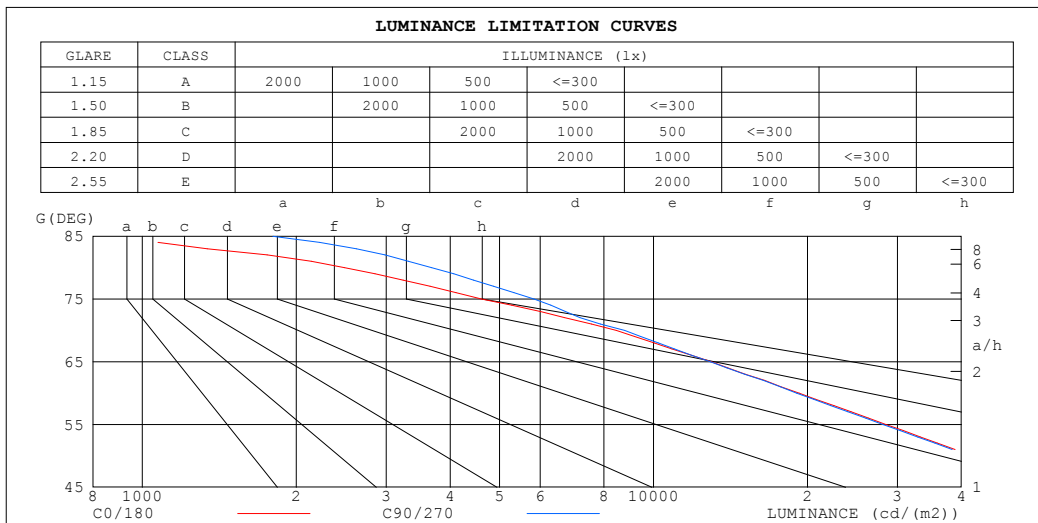
%lamp = 98.2%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388 Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:



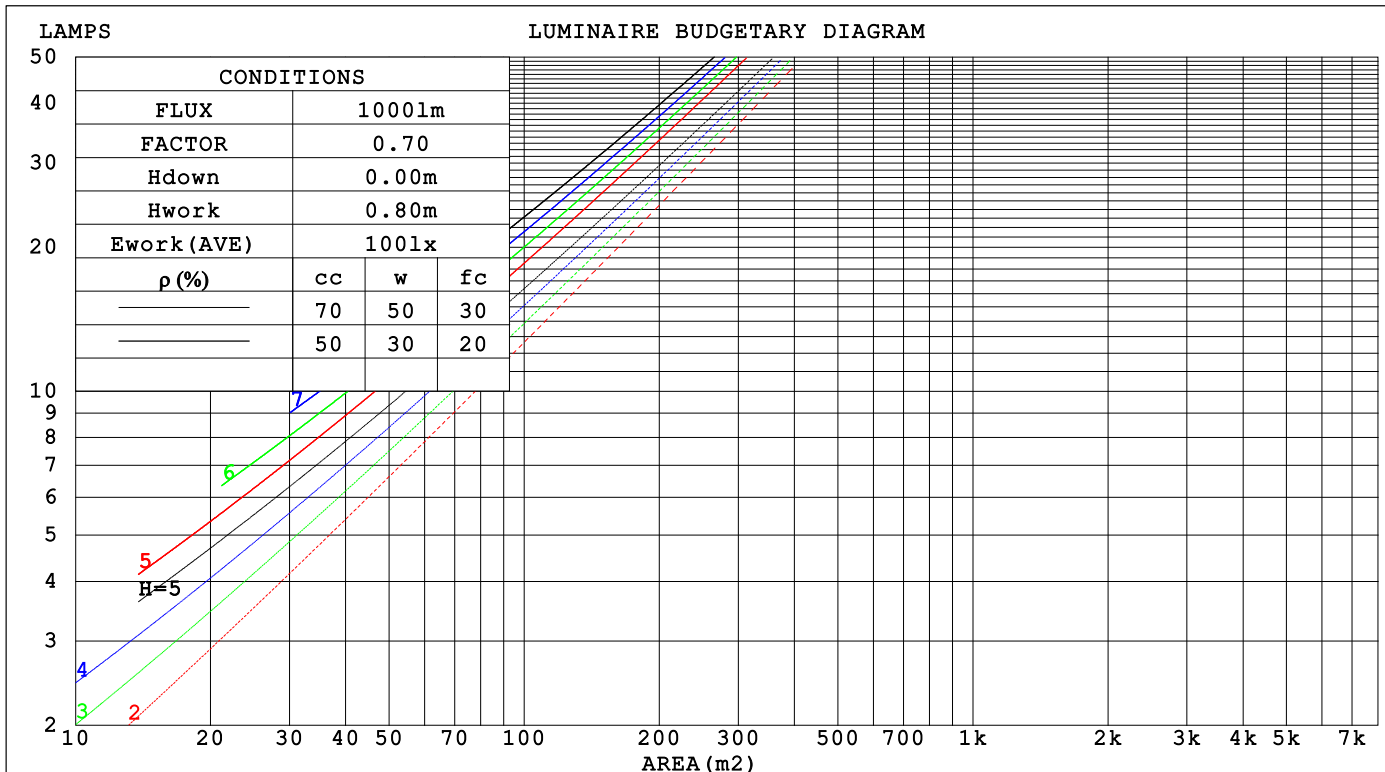
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388		
Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	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:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz			UTHDi:0.16% ITHDi:20.01% KDisp:0.9388			Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.: Norming Lighting			SUR.: 50mm			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	.188	.107	.034	.181	.104	.033	.169	.097	.031	.157	.091	.029	.147	.085	.027		
2.0	.181	.099	.030	.176	.097	.030	.165	.092	.028	.155	.087	.027	.146	.083	.026		
3.0	.173	.092	.028	.168	.090	.027	.159	.086	.026	.150	.082	.025	.143	.079	.024		
4.0	.165	.086	.025	.160	.084	.025	.152	.081	.024	.145	.078	.023	.138	.075	.023		
5.0	.157	.080	.023	.153	.078	.023	.146	.076	.022	.139	.074	.022	.133	.071	.021		
6.0	.149	.075	.021	.146	.074	.021	.140	.072	.021	.134	.070	.020	.129	.068	.020		
7.0	.142	.070	.020	.139	.069	.020	.134	.068	.019	.129	.066	.019	.124	.064	.019		
8.0	.136	.066	.019	.133	.065	.019	.128	.064	.018	.124	.063	.018	.119	.061	.018		
9.0	.130	.063	.018	.127	.062	.017	.123	.061	.017	.119	.060	.017	.115	.058	.017		
10.0	.124	.059	.017	.122	.059	.016	.118	.058	.016	.114	.057	.016	.111	.056	.016		

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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016		
2.0	.158	.132	.111	.135	.114	.096	.092	.079	.067	.053	.046	.039	.017	.015	.013		
3.0	.146	.114	.088	.125	.098	.076	.086	.068	.054	.050	.040	.032	.016	.013	.010		
4.0	.136	.099	.071	.117	.086	.062	.080	.060	.043	.046	.035	.026	.015	.011	.008		
5.0	.128	.088	.058	.110	.076	.051	.075	.053	.036	.044	.031	.021	.014	.010	.007		
6.0	.120	.078	.048	.103	.068	.042	.071	.048	.030	.041	.028	.018	.013	.009	.006		
7.0	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005		
8.0	.108	.065	.035	.093	.056	.031	.064	.040	.022	.038	.023	.013	.012	.008	.004		
9.0	.103	.060	.030	.089	.052	.027	.062	.036	.019	.036	.022	.011	.012	.007	.004		
10.0	.099	.055	.027	.085	.048	.023	.059	.034	.017	.034	.020	.010	.011	.007	.003		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz UTHDi:0.16% ITHDi:20.01% KDisp:0.9388Lamp Flux:775.768x1 lm										
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK						TYPE:		WEIGHT:		
SPEC.:						DIM.:		SERIAL No.:		
MFR.: Norming Lighting						SUR.: 50mm		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	23.0	24.0	23.2	24.2	24.3	22.9	23.9	23.1	24.1	24.3
3H	22.9	23.8	23.2	24.1	24.3	22.9	23.8	23.1	24.0	24.2
4H	22.9	23.7	23.1	24.0	24.2	22.8	23.7	23.1	23.9	24.1
6H	22.8	23.6	23.1	23.8	24.1	22.7	23.5	23.0	23.8	24.0
8H	22.7	23.5	23.0	23.8	24.0	22.7	23.5	23.0	23.7	24.0
12H	22.7	23.4	23.0	23.7	24.0	22.6	23.4	23.0	23.7	23.9
4H 2H	22.8	23.7	23.1	24.0	24.2	22.8	23.7	23.1	23.9	24.1
3H	22.8	23.6	23.1	23.9	24.1	22.8	23.5	23.1	23.8	24.1
4H	22.8	23.4	23.1	23.8	24.1	22.7	23.4	23.1	23.7	24.0
6H	22.7	23.3	23.1	23.6	24.0	22.6	23.3	23.0	23.6	23.9
8H	22.6	23.2	23.0	23.5	23.9	22.6	23.2	23.0	23.5	23.9
12H	22.6	23.1	23.0	23.5	23.9	22.6	23.1	23.0	23.4	23.8
8H 4H	22.6	23.2	23.0	23.6	23.9	22.6	23.2	23.0	23.5	23.9
6H	22.6	23.0	23.0	23.4	23.8	22.5	23.0	23.0	23.4	23.8
8H	22.5	22.9	23.0	23.3	23.8	22.5	22.9	22.9	23.3	23.8
12H	22.5	22.8	22.9	23.3	23.7	22.4	22.8	22.9	23.2	23.7
12H 4H	22.6	23.1	23.0	23.5	23.9	22.6	23.1	23.0	23.4	23.8
6H	22.5	22.9	23.0	23.3	23.8	22.5	22.9	22.9	23.3	23.7
8H	22.5	22.8	22.9	23.3	23.7	22.4	22.8	22.9	23.2	23.7
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 2.3 / - 4.1					+ 2.2 / - 4.0				
1.5H	+ 3.4 / - 2.9					+ 3.3 / - 2.9				
2.0H	+ 3.6 / - 3.6					+ 3.5 / - 3.5				

CIE Pub.117, 775.8 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -0.9)
Area: 0.0019 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388 Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:

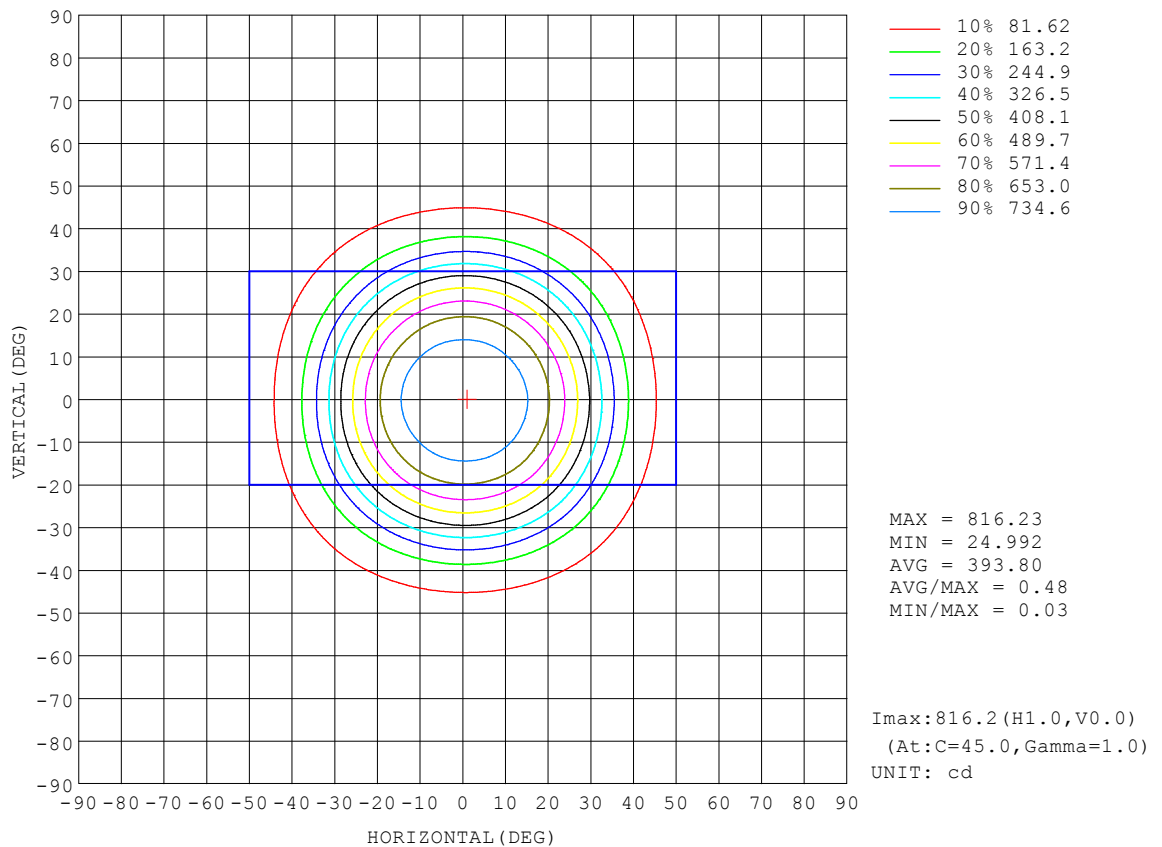
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	71	82	76	71	81	75	71	67
0.80	91	84	80	90	84	80	89	83	80	75
1.00	96	90	86	95	90	86	94	90	85	81
1.25	101	95	91	100	94	91	98	93	90	85
1.50	104	99	95	103	98	94	100	96	93	88
2.00	107	103	99	106	101	98	103	99	97	91
2.50	109	105	102	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	107	105	97
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:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388 Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:

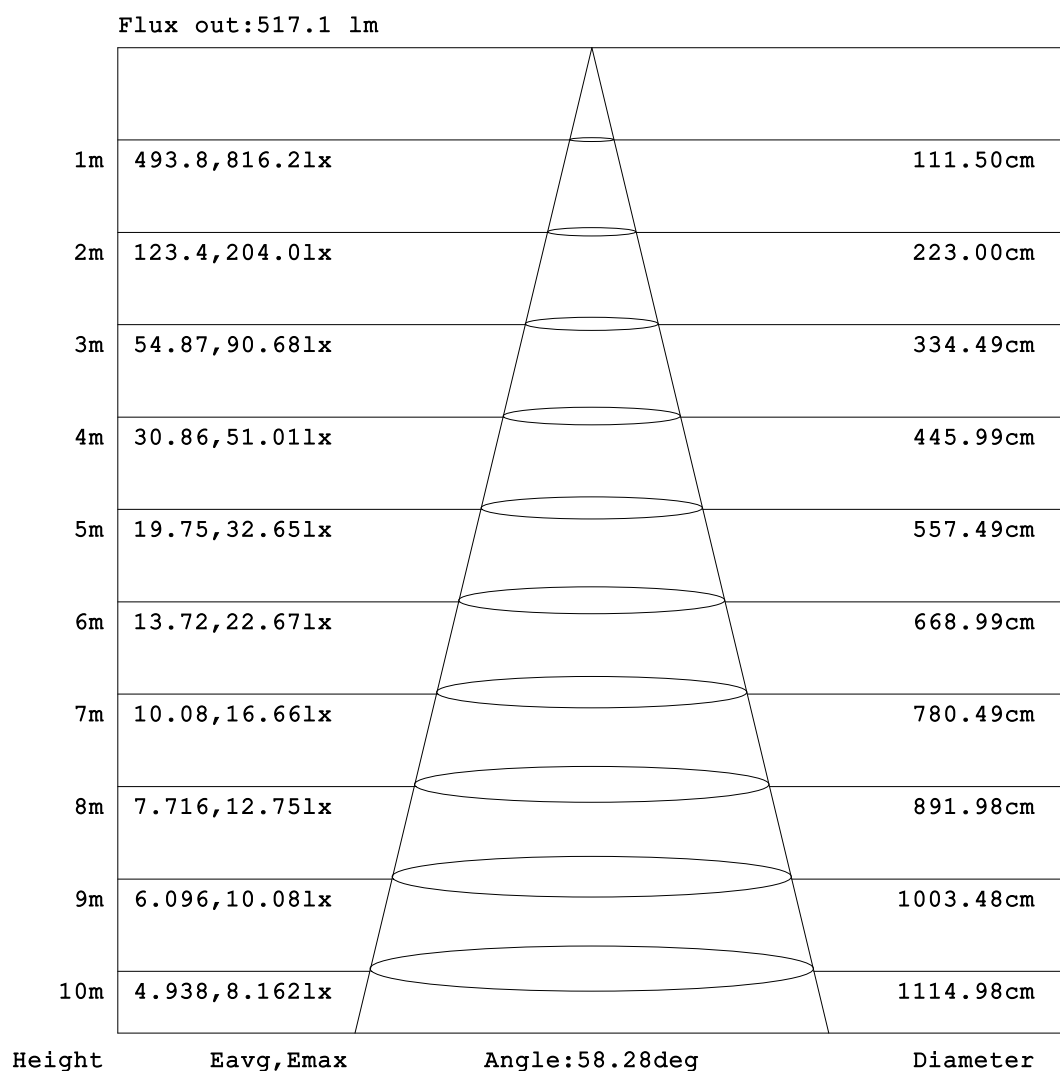


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388		Lamp Flux:775.768x1 lm
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:



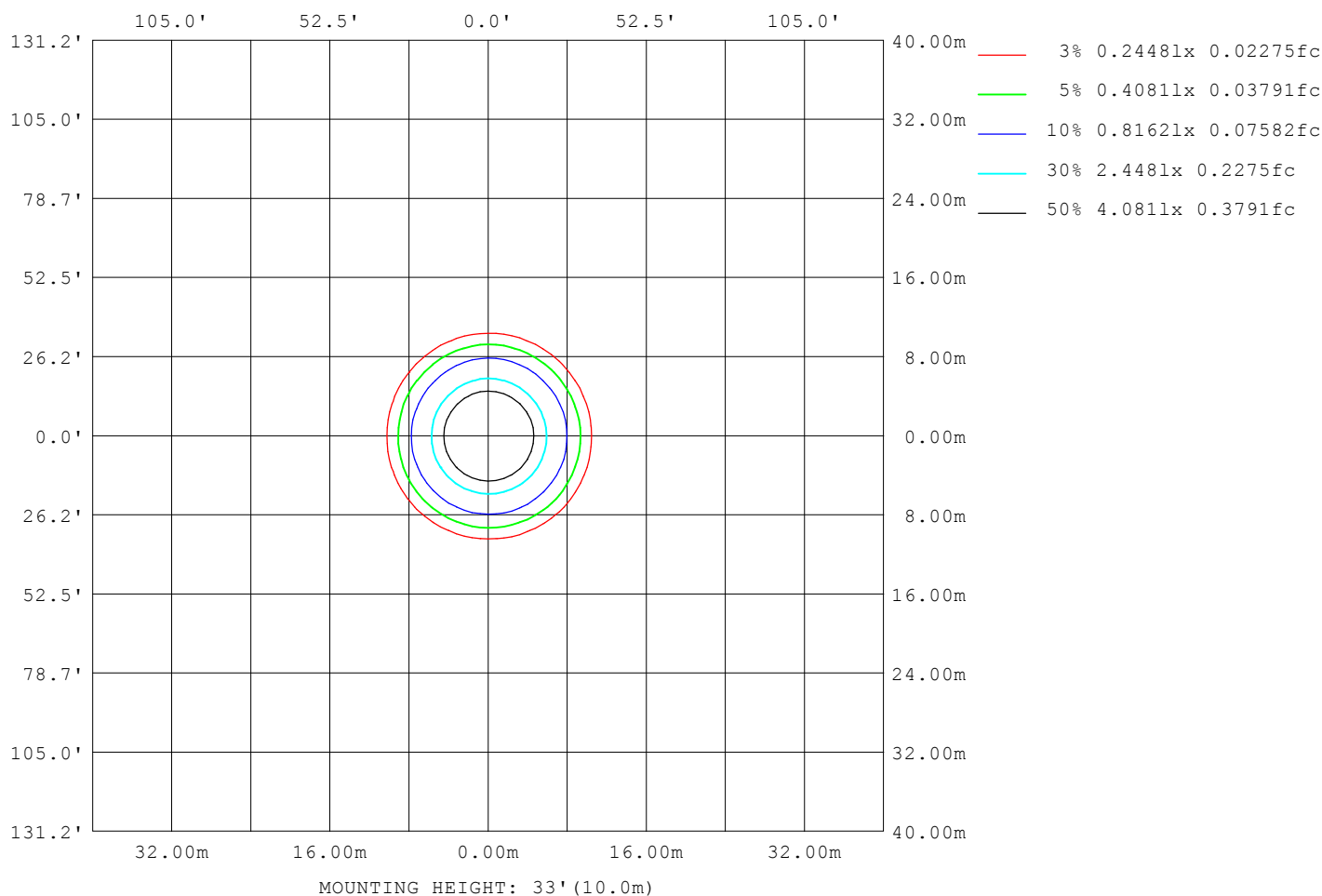
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388		Lamp Flux:775.768x1 lm
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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:0.0456A P:10.1W PF:0.9204 Freq:49.99Hz		
UTHDi:0.16% ITHDi:20.01% KDisp:0.9388 Lamp Flux:775.768x1 lm		
NAME: DL54-10-PR-01 2700K RA90 60D MAX BLACK	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Norming Lighting	SUR.: 50mm	Shielding Angle:

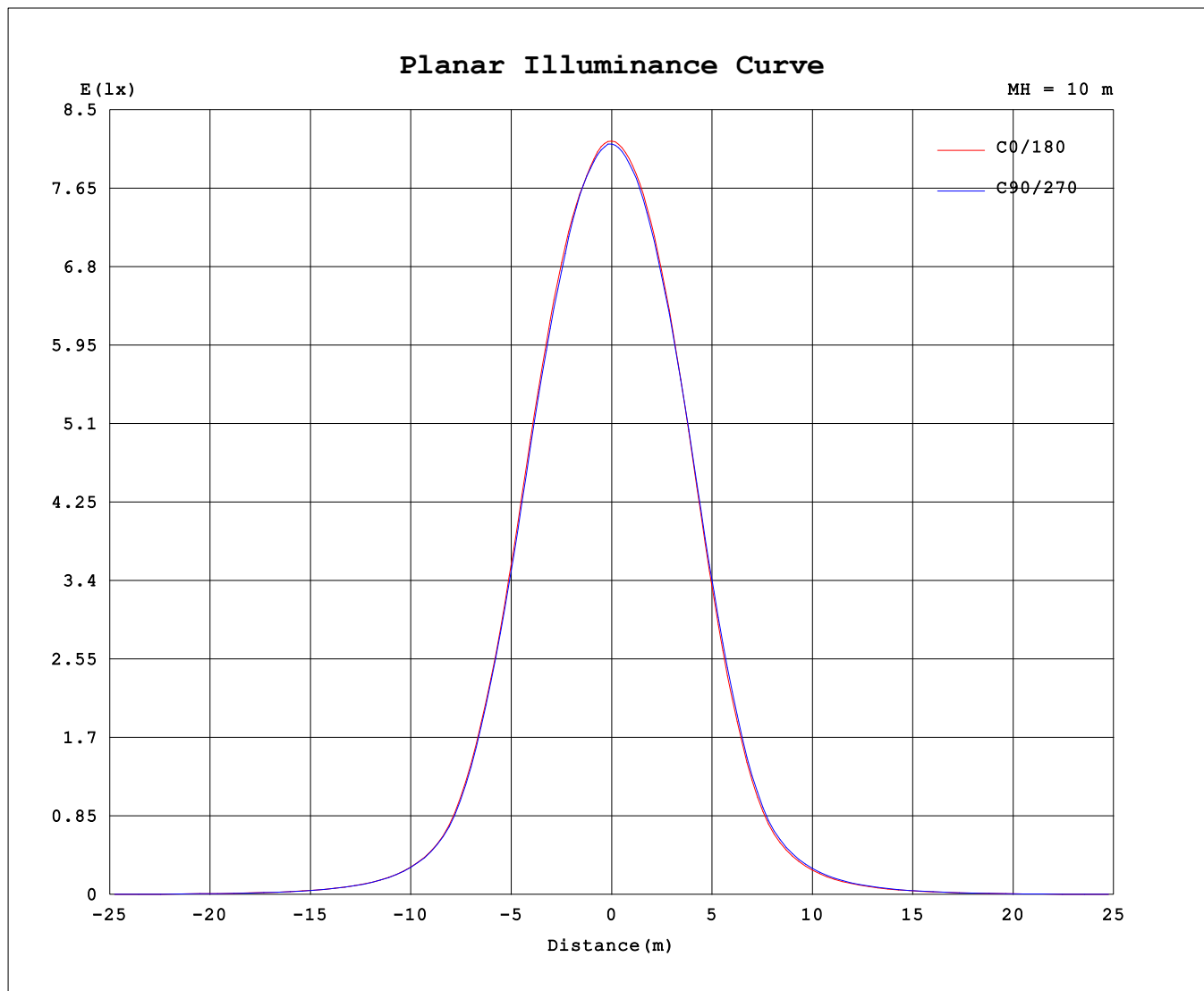
AvgL	cd/m2
L_0~180 (65) av	12355
L_0~180 (75) av	4832
L_0~180 (85) av	852
L_90~270 (65) av	12569
L_90~270 (75) av	5373
L_90~270 (85) av	1454
L_45 (65) av	12700
L_45 (75) av	5394
L_45 (85) av	1432

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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: 2024-06-06

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	813.8	813.8	813.8	813.8	813.8	813.8	813.8	813.8
3.0	811.0	811.8	810.6	810.5	810.0	808.9	809.0	809.5
6.0	799.4	801.2	800.3	801.2	800.2	797.8	798.1	798.7
9.0	785.2	786.4	786.6	785.6	784.4	781.1	781.3	784.7
12.0	765.8	765.4	762.2	761.1	759.7	756.2	756.2	762.6
15.0	735.7	734.4	728.5	727.7	725.2	721.7	722.9	729.7
18.0	693.4	692.9	686.0	684.2	677.2	674.1	678.0	686.0
21.0	638.3	639.1	630.9	625.6	614.5	611.4	619.5	628.7
24.0	567.7	571.5	559.1	551.4	537.5	535.2	546.1	555.6
27.0	486.5	489.7	478.9	468.5	452.5	453.1	464.8	473.5
30.0	398.9	405.8	395.4	383.3	364.1	366.8	378.6	387.2
33.0	314.7	319.6	309.1	295.4	278.9	278.8	290.2	300.8
36.0	230.2	234.9	224.8	215.6	198.9	198.7	209.9	217.6
39.0	159.6	162.5	156.5	149.7	139.3	139.9	147.4	152.1
42.0	114.5	117.8	113.4	108.9	101.6	103.2	108.6	110.0
45.0	84.34	86.53	83.65	80.33	74.82	76.96	80.47	82.05
48.0	62.25	64.01	62.01	59.69	55.35	57.49	59.78	60.66
51.0	46.37	47.60	45.97	44.65	41.19	42.75	44.24	45.17
54.0	34.34	35.23	34.00	33.18	30.43	31.83	32.50	33.38
57.0	25.13	25.75	24.83	24.45	22.44	23.37	23.73	24.51
60.0	18.26	18.98	18.12	17.78	16.30	17.01	17.14	17.63
63.0	13.00	13.58	13.02	12.82	11.92	12.22	12.33	12.57
66.0	9.167	9.657	9.196	9.017	8.408	8.557	8.670	8.945
69.0	6.236	6.622	6.432	6.163	5.522	5.600	5.814	6.119
72.0	3.921	4.310	4.219	4.047	3.828	3.691	3.766	3.847
75.0	2.260	2.934	2.872	2.692	2.492	2.473	2.412	2.512
78.0	1.275	1.791	1.758	1.678	1.466	1.613	1.483	1.430
81.0	0.6342	0.9796	0.9862	0.9561	0.7342	0.9509	0.8481	0.7292
84.0	0.2125	0.4055	0.4419	0.4325	0.2598	0.4020	0.3477	0.2719
87.0	0.0250	0.0766	0.0905	0.0602	0.0377	0.0293	0.0106	0.0034
90.0	0.0099	0.0032	0.0103	0.0036	0.0048	0.0087	0.0109	0.0052

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2024-06-06

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: