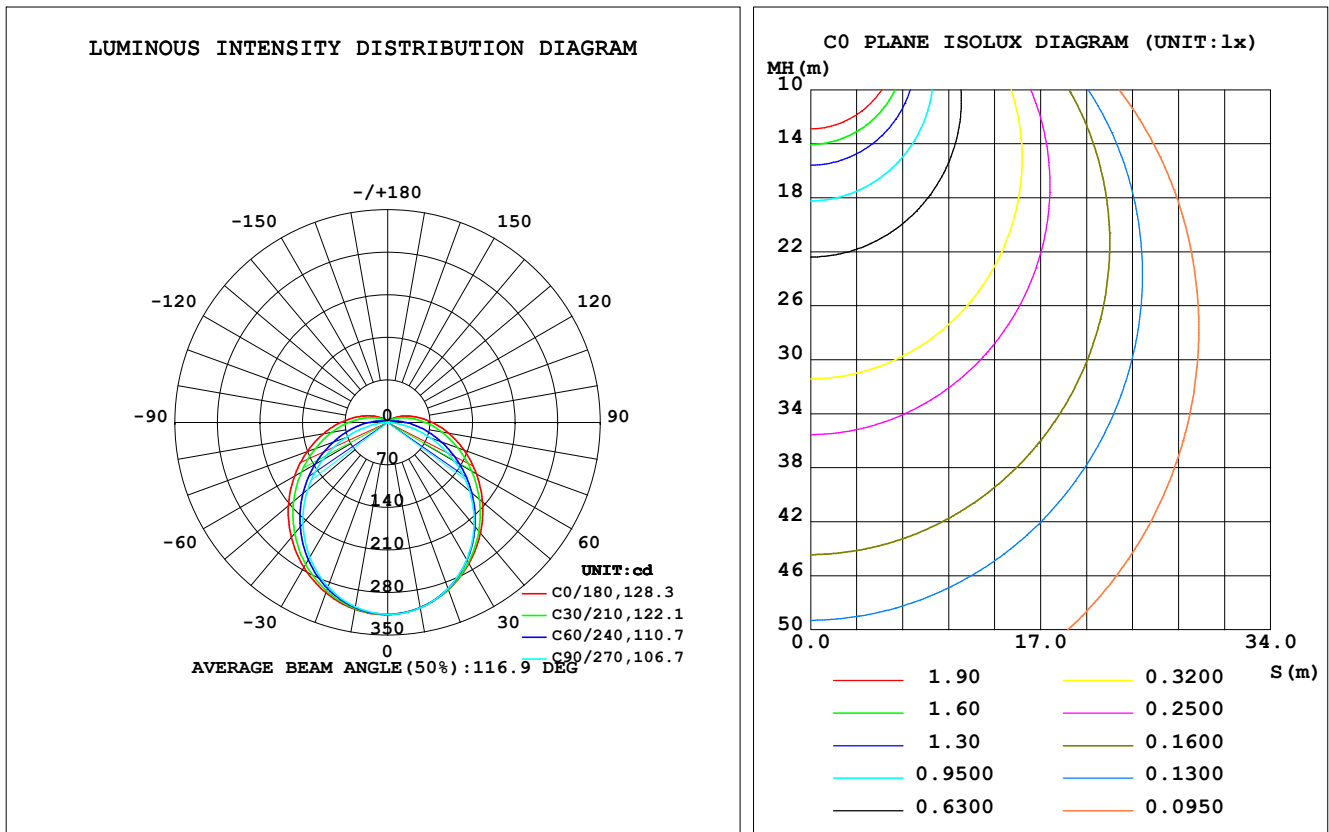


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.4V I:0.0400A P:8.236W PF:0.9343 Freq:50.00Hz Lamp Flux:1100x1 lm		
NAME: T8 LED TUBE	TYPE:	WEIGHT:0.2
SPEC.:	DIM.:	SERIAL No.:
	SUR.:0.025*0.6	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 130.84 lm/W			
MODEL	NET-55-02-01	I _{max} (cd)	316.3	S/MH (C0/180)	1.30
NOMINAL POWER (W)	8	LOR (%)	98.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)	AC220	TOTAL FLUX (lm)	1077.7	η UP, DN (C0-180)	3.6, 45.3
NOMINAL FLUX (lm)	1100	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.7, 45.4
LAMPS INSIDE	1	η up (%)	7.3	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	AC220	η down (%)	90.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [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	309.5	309.6	309.8	310.3	312.0	310.1	308.0	308.6	0- 10	29.85	29.85	2.77,2.71
20	292.7	291.6	290.8	293.5	298.0	292.8	287.6	290.1	10- 20	85.28	115.1	10.7,10.5
30	267.9	263.8	260.5	266.6	275.4	265.6	256.4	261.8	20- 30	128.8	243.9	22.6,22.2
40	237.5	228.6	221.5	232.1	246.7	231.3	217.0	226.5	30- 40	155.2	399.1	37,36.3
50	203.8	189.0	176.0	192.3	213.5	192.1	172.1	187.0	40- 50	162.6	561.7	52.1,51.1
60	168.5	148.0	126.4	150.8	177.4	151.2	123.7	146.2	50- 60	152.0	713.7	66.2,64.9
70	134.0	108.6	75.14	110.5	141.3	111.4	73.87	107.0	60- 70	127.3	841.0	78,76.5
80	101.8	73.80	27.30	74.68	107.3	76.05	27.25	72.51	70- 80	94.40	935.4	86.8,85
90	73.53	46.40	0.4586	46.46	77.40	47.90	0.6576	45.52	80- 90	61.68	997.1	92.5,90.6
100	50.12	27.25	0.3160	26.77	52.43	27.92	0.3790	26.76	90-100	37.86	1035	96,94.1
110	31.83	15.06	0.4604	14.31	32.70	15.13	0.5234	14.15	100-110	21.81	1057	98.1,96.1
120	18.29	7.616	0.6409	7.096	18.42	7.625	0.7218	7.120	110-120	11.31	1068	99.1,97.1
130	9.106	3.554	0.8215	3.333	9.026	3.631	0.9383	3.013	120-130	5.252	1073	99.6,97.6
140	3.741	1.628	1.002	1.729	3.119	1.919	1.110	1.607	130-140	2.175	1075	99.8,97.8
150	1.598	1.208	1.155	1.385	1.705	1.489	1.263	1.331	140-150	0.9893	1076	99.9,97.9
160	1.382	1.286	1.282	1.418	1.534	1.510	1.395	1.399	150-160	0.6359	1077	99.9,97.9
170	1.413	1.399	1.399	1.463	1.432	1.497	1.444	1.458	160-170	0.4019	1078	100,98
180	1.516	1.503	1.507	1.521	1.471	1.512	1.489	1.521	170-180	0.1395	1078	100,98
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 480.68 lm

%lum = 44.6%

%lamp = 43.7%

Conical surface Flux(120deg): 713.73 lm

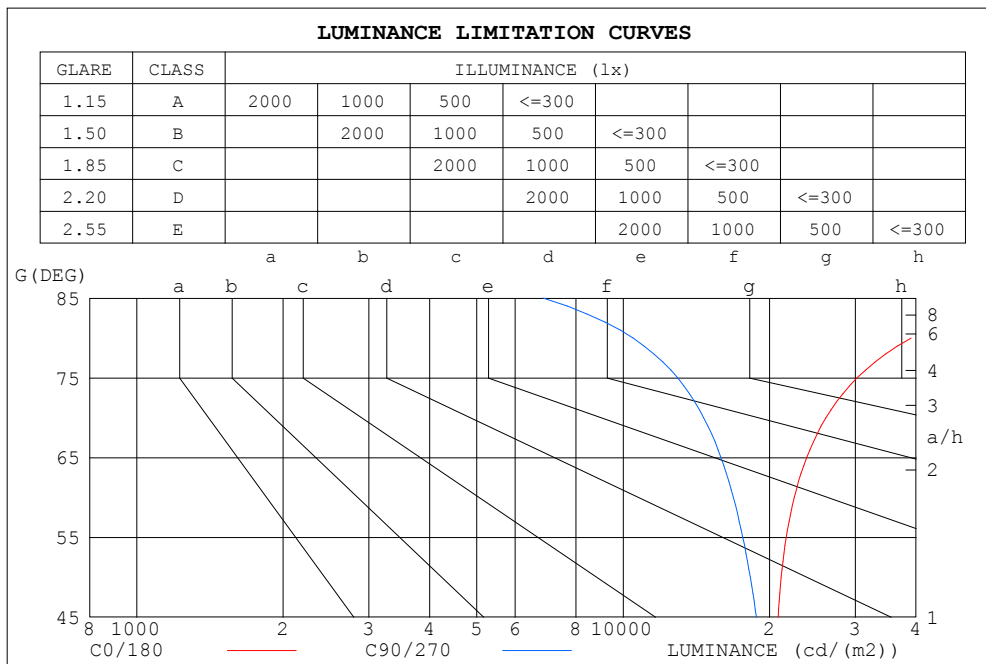
%lum = 66.2%

%lamp = 64.9%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:HXQ
 Test Date:2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.300m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



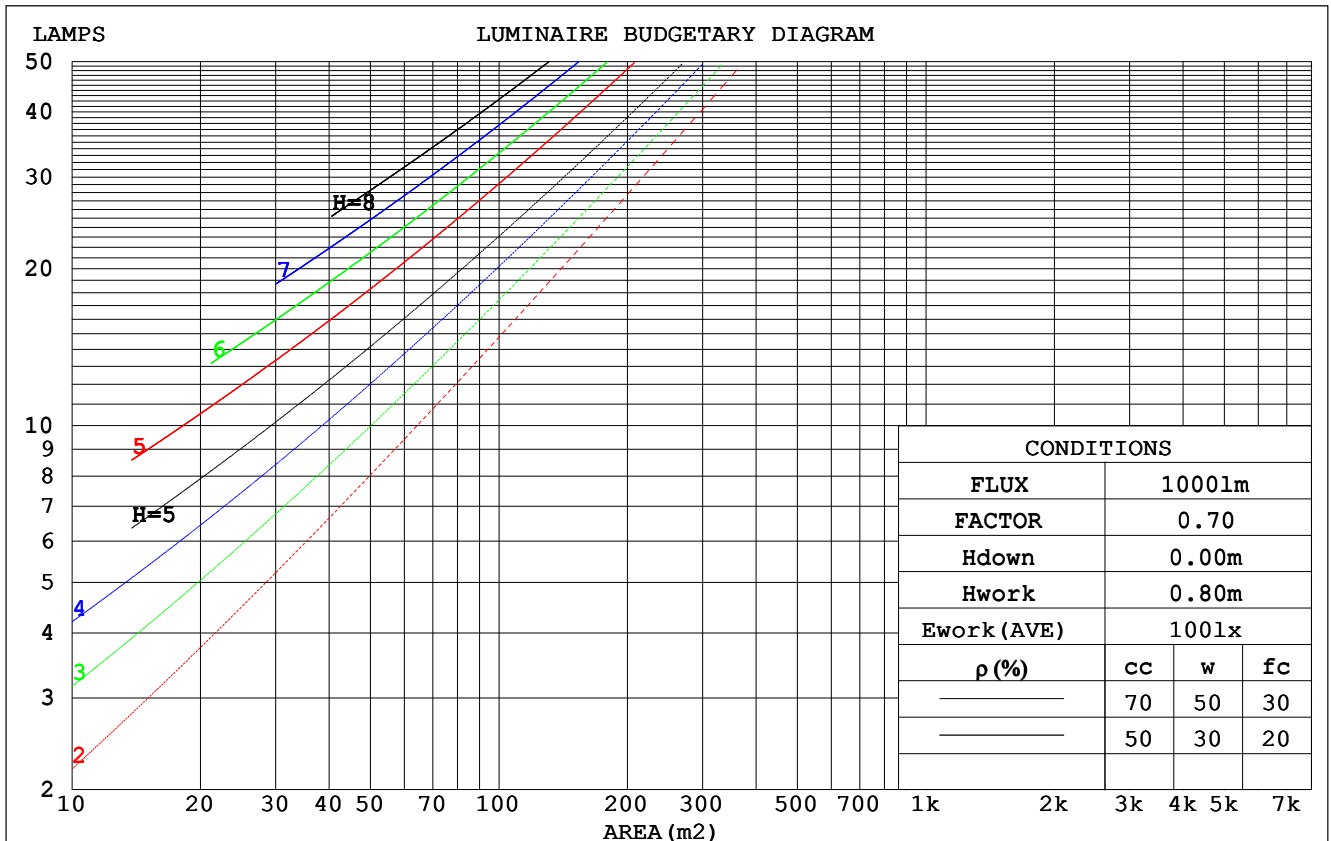
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	66639	6849
80	39090	10482
75	30248	12951
70	26110	14646
65	23829	15892
60	22462	16854
55	21654	17620
50	21135	18256
45	20836	18802

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	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						Coefficients of Utilization (CU)									
0.0	1.15	1.15	1.15	1.11	1.11	1.11	1.05	1.05	1.05	.99	.99	.99	.93	.93	.93	.91
1.0	.97	.93	.88	.94	.90	.86	.89	.85	.82	.84	.81	.78	.79	.77	.74	.72
2.0	.84	.77	.70	.82	.75	.69	.77	.71	.66	.72	.68	.64	.68	.65	.61	.59
3.0	.73	.65	.58	.71	.63	.57	.67	.60	.55	.63	.58	.53	.60	.55	.51	.49
4.0	.65	.56	.49	.63	.54	.48	.59	.52	.46	.56	.50	.45	.53	.48	.44	.41
5.0	.58	.48	.42	.56	.48	.41	.53	.46	.40	.50	.44	.39	.48	.42	.38	.35
6.0	.52	.43	.36	.50	.42	.36	.48	.40	.35	.46	.39	.34	.43	.38	.33	.31
7.0	.47	.38	.32	.46	.37	.31	.44	.36	.31	.41	.35	.30	.40	.34	.29	.27
8.0	.43	.34	.28	.42	.34	.28	.40	.33	.27	.38	.32	.27	.36	.31	.26	.24
9.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.35	.29	.24	.34	.28	.24	.22
10.0	.36	.28	.23	.35	.28	.23	.34	.27	.22	.32	.26	.22	.31	.25	.21	.20



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.352	.200	.063	.343	.196	.062	.326	.187	.060	.310	.179	.057	.295	.171	.055	
2.0	.313	.171	.053	.304	.168	.052	.289	.161	.050	.275	.154	.048	.261	.148	.047	
3.0	.281	.150	.045	.274	.147	.044	.260	.141	.043	.247	.135	.042	.235	.130	.040	
4.0	.255	.133	.039	.249	.130	.038	.236	.125	.037	.225	.121	.036	.214	.116	.035	
5.0	.234	.119	.034	.228	.117	.034	.216	.113	.033	.206	.109	.032	.196	.105	.031	
6.0	.215	.108	.031	.210	.106	.030	.199	.102	.030	.190	.099	.029	.181	.095	.028	
7.0	.199	.098	.028	.194	.097	.028	.185	.093	.027	.176	.090	.026	.168	.087	.026	
8.0	.185	.090	.025	.181	.089	.025	.172	.086	.025	.164	.083	.024	.157	.081	.023	
9.0	.173	.084	.023	.169	.082	.023	.161	.080	.023	.154	.077	.022	.147	.075	.022	
10.0	.162	.078	.022	.158	.076	.021	.151	.074	.021	.145	.072	.020	.139	.070	.020	

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	.242	.242	.242	.207	.207	.207	.141	.141	.141	.081	.081	.081	.026	.026	.026	
1.0	.236	.209	.184	.202	.179	.158	.138	.123	.110	.080	.071	.064	.025	.023	.021	
2.0	.229	.186	.149	.196	.160	.129	.134	.111	.090	.078	.064	.053	.025	.021	.017	
3.0	.221	.169	.127	.190	.146	.110	.130	.101	.077	.075	.059	.046	.024	.019	.015	
4.0	.214	.156	.113	.183	.135	.098	.126	.094	.069	.073	.055	.041	.023	.018	.013	
5.0	.206	.146	.102	.177	.127	.089	.122	.089	.063	.071	.052	.037	.023	.017	.012	
6.0	.199	.138	.095	.171	.120	.083	.118	.084	.059	.068	.049	.035	.022	.016	.012	
7.0	.192	.132	.090	.165	.114	.078	.114	.080	.055	.066	.047	.033	.021	.015	.011	
8.0	.185	.126	.086	.160	.109	.075	.110	.077	.053	.064	.045	.032	.021	.015	.010	
9.0	.179	.121	.082	.154	.105	.072	.107	.074	.051	.062	.044	.030	.020	.014	.010	
10.0	.174	.117	.080	.150	.102	.070	.104	.072	.049	.061	.042	.030	.020	.014	.010	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:HXQ
 Test Date:2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.300m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

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	22.9	24.3	23.2	24.7	25.0	21.7	23.2	22.1	23.5	23.9
3H	25.1	26.5	25.5	26.8	27.2	23.2	24.5	23.6	24.9	25.3
4H	26.3	27.6	26.7	28.0	28.4	23.7	25.0	24.2	25.4	25.8
6H	27.6	28.8	28.1	29.2	29.7	24.1	25.3	24.6	25.8	26.2
8H	28.3	29.5	28.8	29.9	30.4	24.2	25.4	24.7	25.8	26.3
12H	29.2	30.3	29.6	30.7	31.2	24.2	25.4	24.7	25.8	26.3
4H 2H	23.4	24.7	23.9	25.1	25.5	22.6	23.9	23.0	24.3	24.7
3H	25.9	27.1	26.4	27.5	28.0	24.2	25.4	24.7	25.8	26.3
4H	27.3	28.4	27.8	28.8	29.3	25.0	26.0	25.5	26.5	27.0
6H	28.8	29.8	29.3	30.2	30.8	25.5	26.5	26.1	27.0	27.5
8H	29.7	30.5	30.2	31.0	31.6	25.7	26.6	26.2	27.1	27.7
12H	30.6	31.4	31.2	31.9	32.5	25.8	26.6	26.4	27.2	27.7
8H 4H	27.6	28.5	28.2	29.0	29.6	25.7	26.6	26.2	27.1	27.6
6H	29.4	30.2	30.0	30.7	31.3	26.6	27.3	27.1	27.8	28.4
8H	30.5	31.1	31.0	31.7	32.3	26.9	27.6	27.5	28.1	28.7
12H	31.7	32.3	32.3	32.8	33.5	27.2	27.8	27.8	28.3	29.0
12H 4H	27.6	28.5	28.2	29.0	29.5	25.9	26.7	26.4	27.2	27.8
6H	29.5	30.2	30.1	30.8	31.4	26.9	27.6	27.5	28.2	28.8
8H	30.7	31.3	31.3	31.8	32.5	27.4	28.0	28.0	28.6	29.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.4				

CIE Pub.117, 1100 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:HXQ
 Test Date:2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.300m [K=1.0000]
 Remarks:

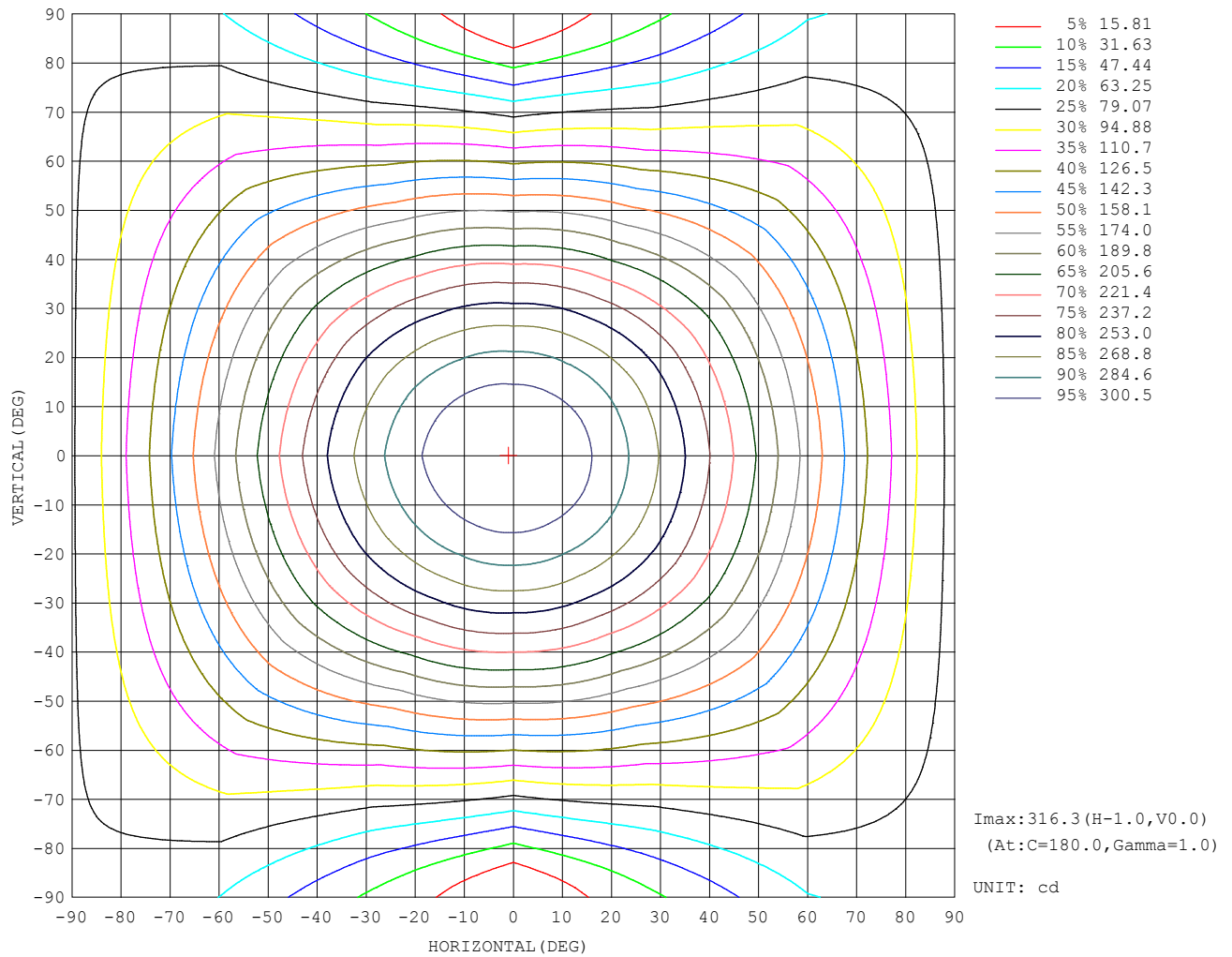
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	52	40	33	51	40	33	50	39	33	26
0.80	61	49	41	60	49	41	58	48	41	34
1.00	69	57	49	68	56	49	65	57	48	41
1.25	76	64	56	74	63	56	71	62	55	47
1.50	81	70	62	79	69	61	75	66	60	51
2.00	87	78	70	85	76	69	81	73	67	58
2.50	92	83	76	89	81	74	84	78	72	62
3.00	95	87	80	92	85	79	87	81	76	66
4.00	99	92	87	96	90	85	91	86	82	71
5.00	102	96	91	99	94	89	93	89	85	74
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

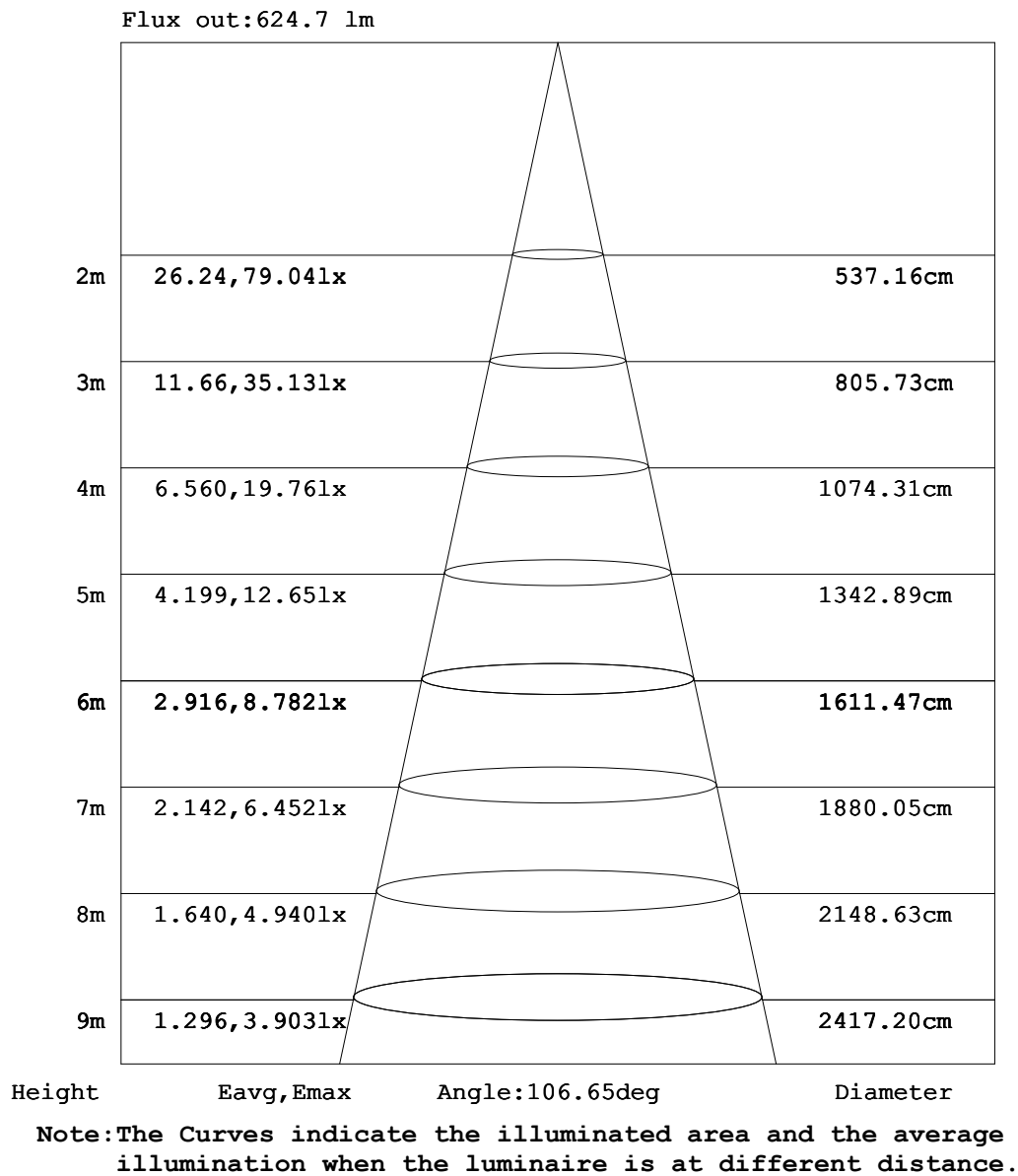
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:HXQ
Test Date:2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
Humidity:65.0%
Test Distance:11.300m [K=1.0000]
Remarks:

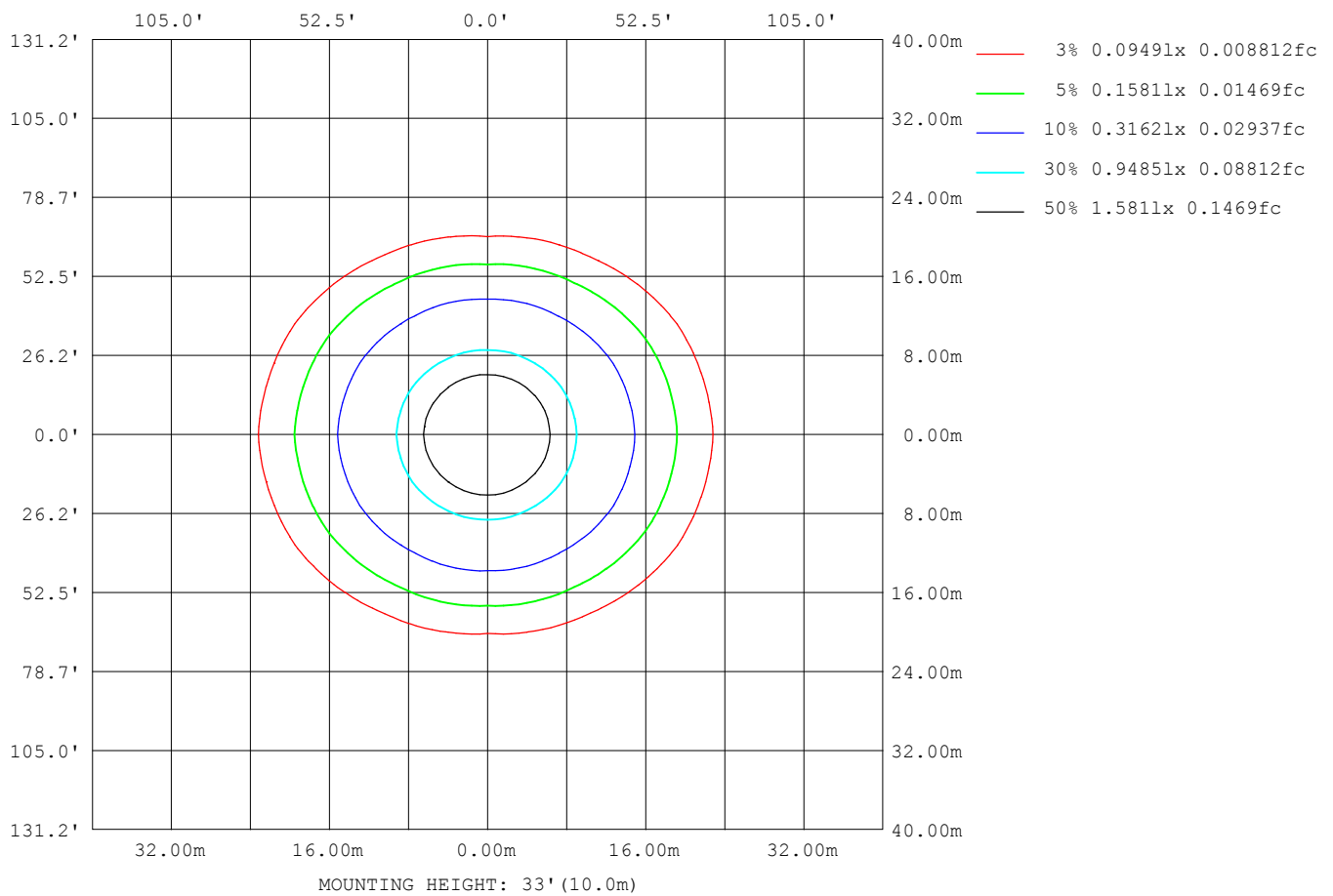
AAI Figure



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.4V I:0.0400A P:8.236W PF:0.9343 Freq:50.00Hz Lamp Flux:1100x1 lm		
NAME: T8 LED TUBE	TYPE:	WEIGHT:0.2
SPEC.:	DIM.:	SERIAL No.:
	SUR.:0.025*0.6	Shielding Angle:

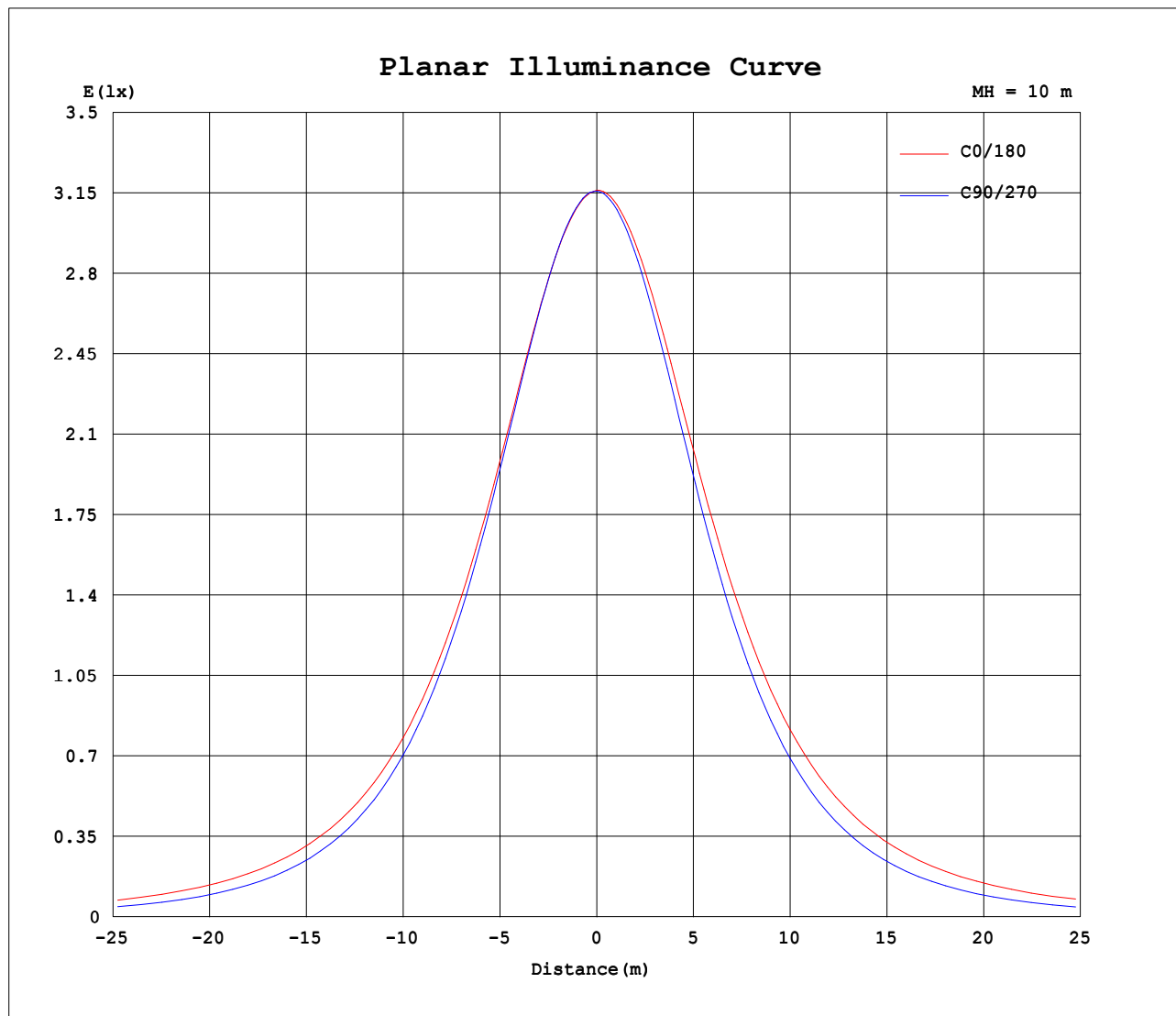
AvgL	cd/m2
L_0~180 (65) av	24471
L_0~180 (75) av	31080
L_0~180 (85) av	68435
L_90~270 (65) av	15737
L_90~270 (75) av	12860
L_90~270 (85) av	7043
L_45 (65) av	20354
L_45 (75) av	23638
L_45 (85) av	46388

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:HXQ
 Test Date:2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.300m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	316	316	316	316	316	316	316	316	316	316	316	316						
5	314	314	314	314	314	314	315	315	314	314	313	314						
10	310	310	310	310	310	311	312	311	309	308	308	309						
15	302	302	302	302	303	304	306	304	301	299	300	301						
20	293	293	291	291	292	295	298	295	291	288	289	291						
25	281	280	277	277	279	283	288	283	277	273	275	279						
30	268	266	261	261	263	270	275	270	261	256	259	265						
35	253	250	243	242	245	255	262	255	244	238	241	249						
40	238	234	224	221	226	238	247	238	224	217	221	232						
45	221	216	203	199	205	221	231	220	204	195	200	214						
50	204	197	181	176	183	202	213	202	182	172	179	196						
55	186	178	159	152	160	183	196	183	160	148	156	177						
60	168	159	137	126	138	164	177	164	138	124	134	158						
65	151	141	115	101	116	145	159	145	116	98.8	113	140						
70	134	123	94.1	75.1	94.8	126	141	127	95.7	73.9	91.9	122						
75	117	106	74.7	50.3	75.0	109	124	110	76.4	49.6	72.8	105						
80	102	90.2	57.4	27.3	57.2	92.2	107	93.2	58.9	27.3	55.7	89.4						
85	87.1	75.6	42.6	8.95	42.0	77.0	91.8	78.1	43.9	9.46	41.1	74.8						
90	73.5	62.3	30.5	0.46	29.8	63.2	77.4	64.3	31.5	0.66	29.3	61.7						
95	61.2	50.5	21.2	0.25	20.3	50.9	64.3	52.0	21.8	0.32	20.2	50.0						
100	50.1	40.2	14.3	0.32	13.5	40.1	52.4	41.2	14.6	0.38	13.7	39.9						
105	40.4	31.4	9.50	0.39	8.65	30.9	41.9	31.9	9.56	0.42	8.82	30.3						
110	31.8	24.0	6.15	0.46	5.46	23.2	32.7	24.1	6.12	0.52	5.56	22.7						
115	24.5	17.8	3.93	0.53	3.42	16.9	24.9	17.8	3.88	0.61	3.30	16.7						
120	18.3	12.9	2.38	0.64	2.20	12.0	18.4	12.7	2.58	0.72	2.01	12.2						
125	13.2	8.96	1.57	0.73	1.55	8.17	13.2	8.71	1.82	0.82	1.45	8.46						
130	9.11	5.96	1.15	0.82	1.29	5.37	9.03	5.79	1.47	0.94	1.15	4.88						
135	5.96	3.64	0.97	0.91	1.20	3.44	5.91	3.74	1.37	1.01	1.12	3.16						
140	3.74	2.25	1.00	1.00	1.19	2.27	3.12	2.47	1.37	1.11	1.16	2.06						
145	2.36	1.43	1.08	1.09	1.21	1.69	2.31	1.81	1.40	1.19	1.22	1.55						
150	1.60	1.26	1.16	1.16	1.27	1.50	1.70	1.55	1.43	1.26	1.28	1.38						
155	1.39	1.26	1.23	1.23	1.32	1.46	1.50	1.54	1.46	1.34	1.34	1.39						
160	1.38	1.30	1.27	1.28	1.38	1.46	1.53	1.54	1.48	1.40	1.38	1.42						
165	1.37	1.36	1.34	1.36	1.41	1.47	1.40	1.53	1.50	1.43	1.41	1.44						
170	1.41	1.40	1.40	1.40	1.45	1.47	1.43	1.48	1.51	1.44	1.45	1.46						
175	1.48	1.44	1.43	1.45	1.51	1.47	1.46	1.46	1.52	1.49	1.47	1.49						
180	1.52	1.49	1.52	1.51	1.53	1.51	1.47	1.51	1.52	1.49	1.50	1.54						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: HXQ
 Test Date: 2020-03-12

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.300m [K=1.0000]
 Remarks: