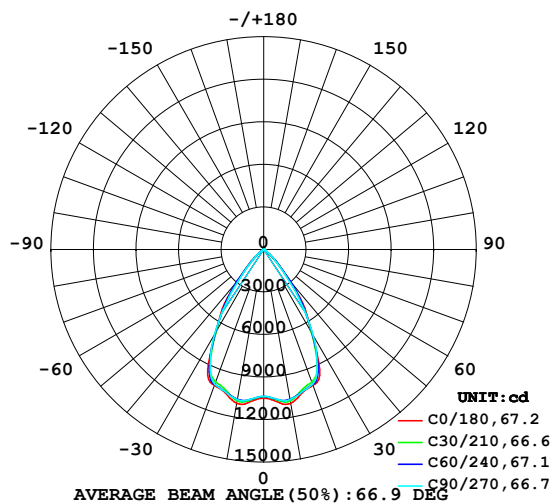


## LUMINAIRE PHOTOMETRIC TEST REPORT

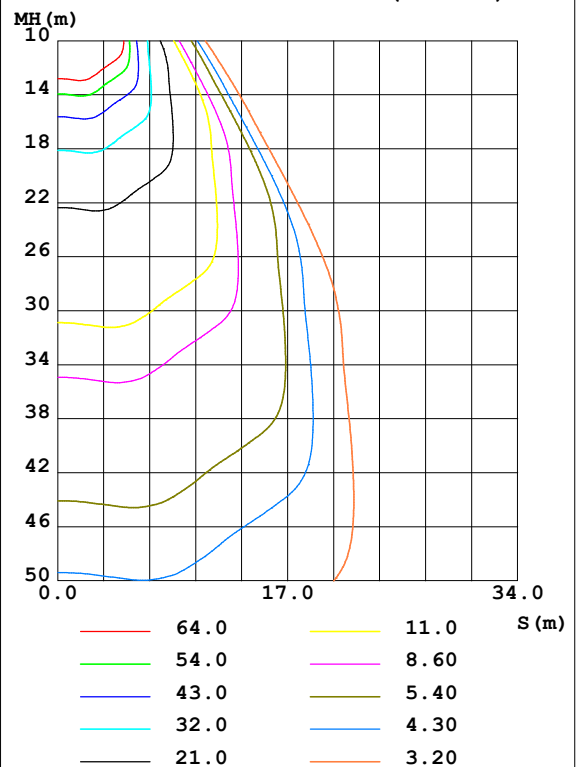
Test:U:230.4V I:0.4539A P:101.3W PF:0.9690 Freq:49.99Hz Lamp Flux:12520.5x1 lm		
NAME: H29APC-10-R280-70-40H-2523030R8	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.55 lm/W			
MODEL		I <sub>max</sub> (cd)	11048	S/MH (C0/180)	1.01
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH (C90/270)	0.99
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	12521	η UP,DN(C0-180)	0.5,49.5
NOMINAL FLUX(lm)	12520.5	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,49.5
LAMPS INSIDE	1	η up (%)	1.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230	η down (%)	99.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-07-06

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 53.0%  
Test Distance: 10.380m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	1103	1076	1075	1076	1103	1076	1075	1076	0- 10	1024	1024	8.18, 8.18
20	1020	1008	1011	1008	1020	1008	1011	1008	10- 20	2938	3962	31.6, 31.6
30	680.3	686.1	695.8	686.1	680.3	686.1	695.8	686.1	20- 30	4039	8001	63.9, 63.9
40	276.6	265.9	252.3	265.9	276.6	265.9	252.3	265.9	30- 40	2943	10944	87.4, 87.4
50	69.26	64.99	61.84	64.99	69.26	64.99	61.84	64.99	40- 50	1110	12055	96.3, 96.3
60	10.07	9.771	10.11	9.771	10.07	9.771	10.11	9.771	50- 60	246.7	12301	98.2, 98.2
70	3.790	3.723	3.732	3.723	3.790	3.723	3.732	3.723	60- 70	58.71	12360	98.7, 98.7
80	1.620	1.584	1.621	1.584	1.620	1.584	1.621	1.584	70- 80	27.70	12388	98.9, 98.9
90	0.0617	0.0575	0.0569	0.0575	0.0617	0.0575	0.0569	0.0575	80- 90	7.240	12395	99, 99
100	0.2035	0.1919	0.1815	0.1919	0.2035	0.1919	0.1815	0.1919	90-100	1.205	12396	99, 99
110	0.5970	0.5837	0.5828	0.5837	0.5970	0.5837	0.5828	0.5837	100-110	3.861	12400	99, 99
120	1.314	1.293	1.286	1.293	1.314	1.293	1.286	1.293	110-120	9.048	12409	99.1, 99.1
130	2.277	2.250	2.245	2.250	2.277	2.250	2.245	2.250	120-130	15.57	12425	99.2, 99.2
140	3.486	3.457	3.453	3.457	3.486	3.457	3.453	3.457	130-140	21.90	12446	99.4, 99.4
150	4.764	4.714	4.708	4.714	4.764	4.714	4.708	4.714	140-150	25.58	12472	99.6, 99.6
160	5.825	5.779	5.780	5.779	5.825	5.779	5.780	5.779	150-160	24.18	12496	99.8, 99.8
170	6.767	6.718	6.708	6.718	6.767	6.718	6.708	6.718	160-170	17.65	12514	99.9, 99.9
180	7.295	7.217	7.198	7.217	7.295	7.217	7.198	7.217	170-180	6.620	12521	100, 100
DEG	LUMINOUS INTENSITY: *10cd									UNIT: lm		

Conical surface Flux(90deg): 11662 lm

%lum = 93.1%

%lamp = 93.1%

Conical surface Flux(120deg): 12301 lm

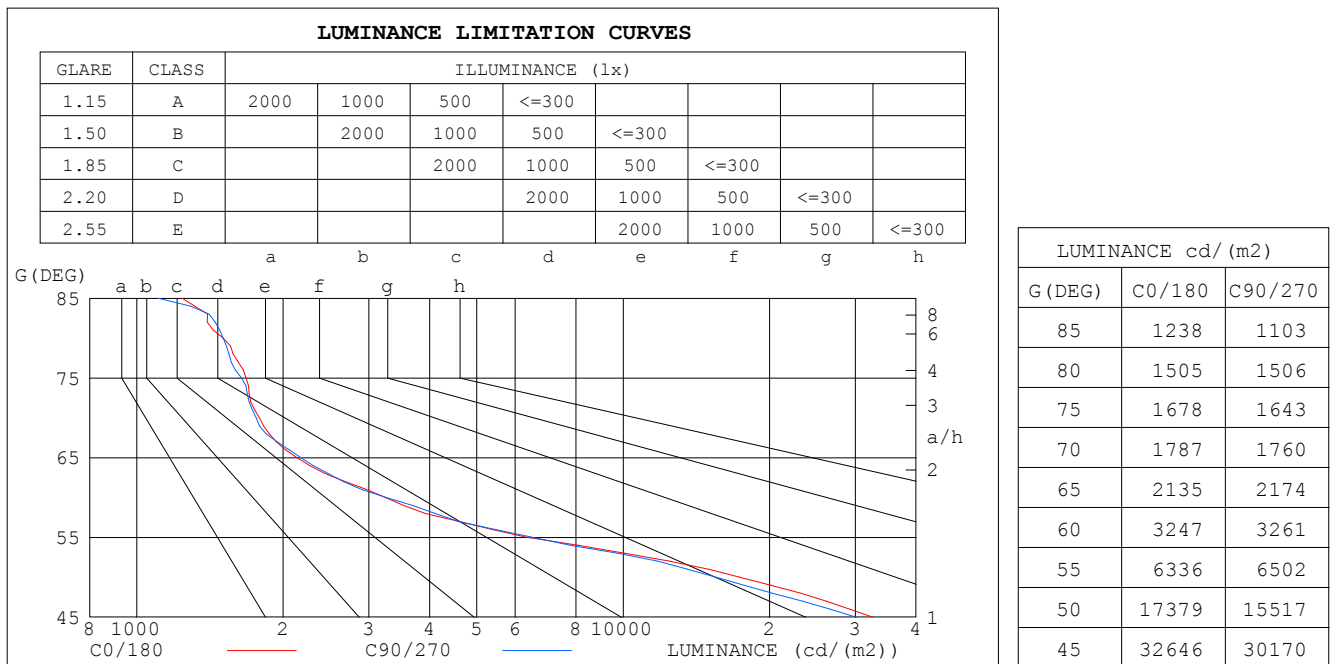
%lum = 98.2%

%lamp = 98.2%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

## LUMINANCE LIMITATION CURVES

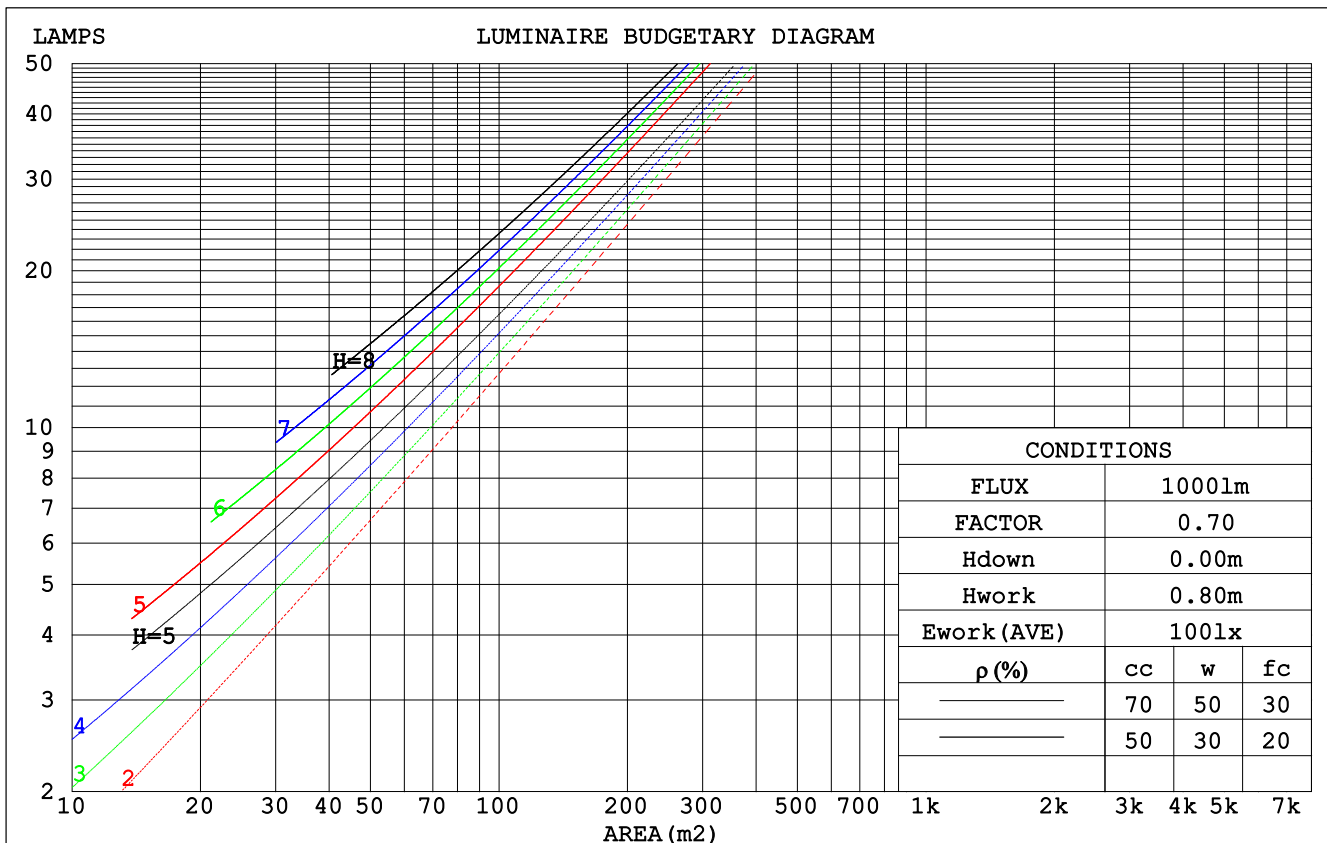


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-07-06

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 53.0%  
Test Distance: 10.380m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
p <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.10	1.07	1.05	1.08	1.05	1.03	1.03	1.02	.00	.00	.98	.97	.96	.95	.94	.92
2.0	1.02	.97	.94	.00	.96	.93	.96	.93	.91	.93	.91	.88	.90	.88	.86	.85
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.83	.87	.84	.81	.85	.82	.80	.78
4.0	.87	.82	.77	.86	.81	.77	.84	.79	.76	.82	.78	.75	.80	.76	.74	.72
5.0	.81	.75	.71	.80	.75	.70	.78	.73	.70	.77	.72	.69	.75	.71	.68	.67
6.0	.76	.70	.65	.75	.69	.65	.73	.68	.64	.72	.67	.64	.70	.66	.63	.62
7.0	.71	.65	.60	.70	.64	.60	.69	.63	.59	.67	.63	.59	.66	.62	.59	.57
8.0	.66	.60	.56	.66	.60	.56	.65	.59	.55	.63	.58	.55	.62	.58	.55	.53
9.0	.62	.56	.52	.62	.56	.52	.61	.55	.51	.60	.55	.51	.59	.54	.51	.50
10.0	.59	.52	.48	.58	.52	.48	.57	.52	.48	.56	.51	.48	.55	.51	.48	.46



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [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	.188	.107	.034	.181	.103	.033	.168	.096	.031	.156	.090	.029	.144	.084	.027	
2.0	.181	.099	.030	.175	.096	.030	.164	.091	.028	.154	.086	.027	.144	.081	.026	
3.0	.173	.092	.028	.168	.090	.027	.158	.086	.026	.149	.082	.025	.141	.078	.024	
4.0	.165	.086	.025	.161	.084	.025	.152	.081	.024	.144	.078	.023	.137	.075	.023	
5.0	.158	.080	.023	.154	.079	.023	.146	.076	.022	.139	.074	.022	.133	.071	.021	
6.0	.150	.075	.022	.147	.074	.021	.140	.072	.021	.134	.070	.021	.129	.068	.020	
7.0	.144	.071	.020	.141	.070	.020	.135	.068	.020	.129	.066	.019	.124	.064	.019	
8.0	.137	.067	.019	.135	.066	.019	.129	.065	.018	.124	.063	.018	.120	.062	.018	
9.0	.132	.064	.018	.129	.063	.018	.124	.061	.017	.120	.060	.017	.116	.059	.017	
10.0	.126	.060	.017	.124	.060	.017	.120	.059	.016	.115	.057	.016	.112	.056	.016	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.198	.198	.198	.169	.169	.169	.116	.116	.116	.066	.066	.066	.021	.021	.021	
1.0	.180	.165	.152	.154	.142	.131	.105	.097	.090	.060	.056	.053	.019	.018	.017	
2.0	.165	.140	.119	.142	.121	.103	.097	.083	.072	.056	.049	.042	.018	.016	.014	
3.0	.154	.121	.096	.132	.105	.083	.090	.073	.058	.052	.043	.034	.017	.014	.011	
4.0	.144	.107	.079	.124	.092	.068	.085	.064	.048	.049	.038	.028	.016	.012	.009	
5.0	.136	.096	.066	.117	.083	.057	.080	.058	.040	.047	.034	.024	.015	.011	.008	
6.0	.129	.086	.056	.111	.075	.049	.076	.052	.035	.044	.031	.021	.014	.010	.007	
7.0	.123	.079	.049	.105	.069	.042	.073	.048	.030	.042	.028	.018	.014	.009	.006	
8.0	.117	.073	.043	.101	.063	.037	.070	.044	.026	.041	.026	.016	.013	.009	.005	
9.0	.112	.068	.038	.096	.059	.033	.067	.041	.024	.039	.024	.014	.013	.008	.005	
10.0	.107	.064	.034	.093	.055	.030	.064	.039	.021	.037	.023	.013	.012	.008	.004	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-07-06

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:53.0%  
Test Distance:10.380m [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		11.6	12.6	11.9	12.8	13.0	11.6	12.6	11.8	12.8	13.0	
	3H	11.4	12.4	11.7	12.6	12.8	11.4	12.3	11.7	12.6	12.8	
	4H	11.4	12.2	11.7	12.5	12.7	11.3	12.2	11.6	12.4	12.7	
	6H	11.3	12.1	11.6	12.4	12.6	11.2	12.1	11.6	12.3	12.6	
	8H	11.2	12.0	11.6	12.3	12.6	11.2	12.0	11.5	12.3	12.5	
	12H	11.2	11.9	11.5	12.2	12.5	11.2	11.9	11.5	12.2	12.5	
	4H	2H	11.4	12.2	11.7	12.5	12.7	11.3	12.2	11.6	12.4	12.7
		3H	11.2	11.9	11.5	12.2	12.5	11.2	11.9	11.5	12.2	12.5
		4H	11.1	11.8	11.5	12.1	12.4	11.1	11.8	11.4	12.1	12.4
		6H	11.0	11.6	11.4	12.0	12.3	11.0	11.6	11.4	11.9	12.3
		8H	11.0	11.5	11.4	11.9	12.3	11.0	11.5	11.4	11.9	12.3
		12H	10.9	11.4	11.4	11.8	12.2	10.9	11.4	11.3	11.8	12.2
	8H	4H	11.0	11.5	11.4	11.9	12.3	10.9	11.5	11.4	11.9	12.3
		6H	10.9	11.3	11.3	11.8	12.2	10.9	11.3	11.3	11.7	12.2
		8H	10.9	11.2	11.3	11.7	12.1	10.8	11.2	11.3	11.6	12.1
		12H	10.8	11.1	11.3	11.6	12.1	10.8	11.1	11.3	11.6	12.1
	12H	4H	10.9	11.4	11.4	11.8	12.2	10.9	11.4	11.3	11.8	12.2
		6H	10.8	11.2	11.3	11.7	12.1	10.8	11.2	11.3	11.6	12.1
		8H	10.8	11.1	11.3	11.6	12.1	10.8	11.1	11.3	11.6	12.1
Variations with the observer position at spacings:												
S = 1.0H	+ 3.3 / -10.2					+ 2.7 / -10.2						
1.5H	+ 5.0 / - 8.7					+ 4.4 / - 8.2						
2.0H	+ 6.2 / - 7.6					+ 5.9 / - 7.4						

CIE Pub.117, 12521 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 8.8)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-07-06

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:53.0%  
Test Distance:10.380m [K=1.0000]  
Remarks:

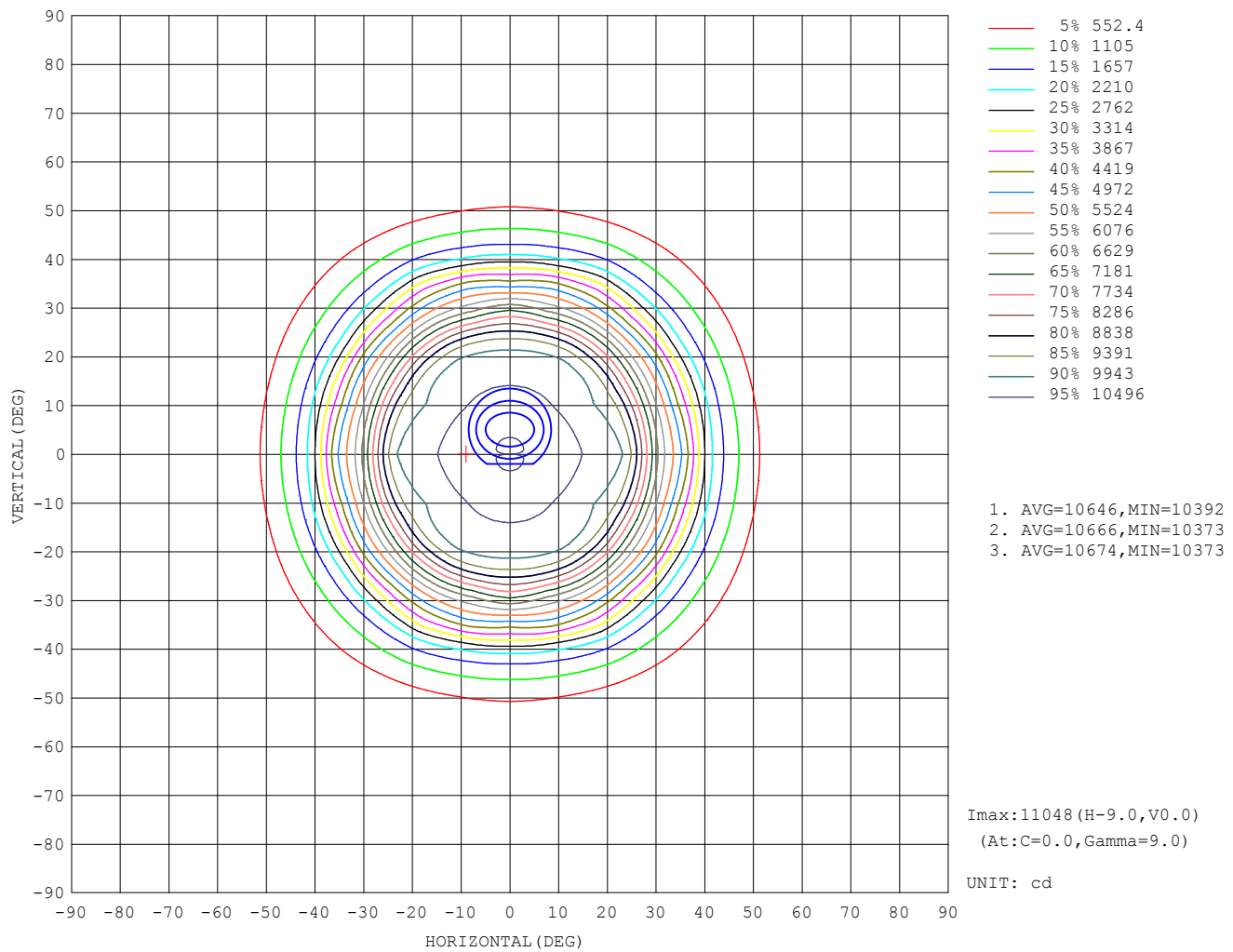
# UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	84	77	72	83	76	72	82	76	72	68
0.80	92	85	81	91	85	81	90	84	80	76
1.00	97	91	87	96	90	86	94	90	86	82
1.25	101	96	92	100	95	91	98	94	91	86
1.50	104	99	95	103	98	95	100	97	94	89
2.00	107	103	99	106	102	99	103	100	97	91
2.50	109	105	102	107	104	101	104	101	99	93
3.00	111	107	104	109	106	103	105	103	101	94
4.00	113	110	108	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

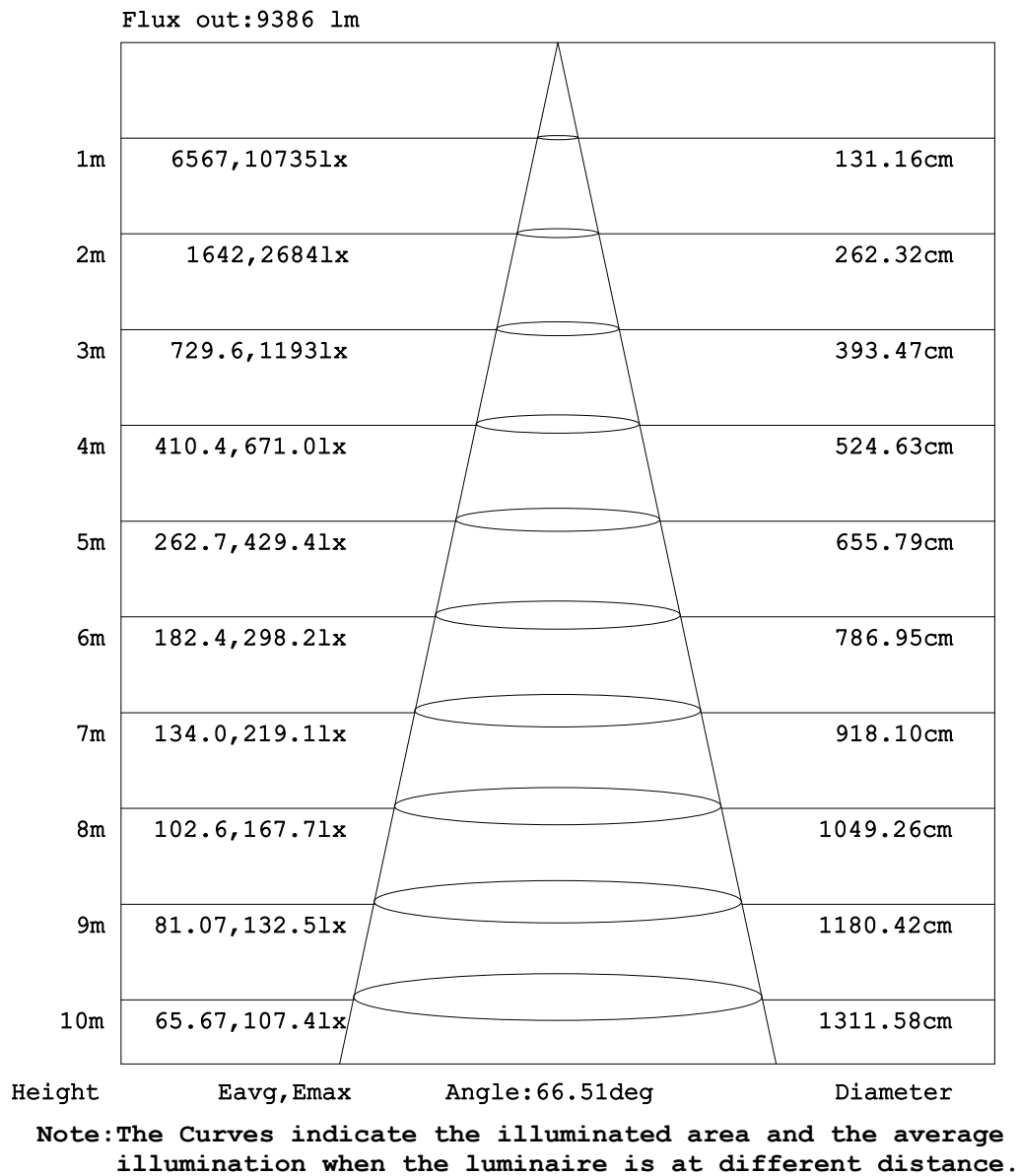
## ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-07-06

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 53.0%  
Test Distance: 10.380m [K=1.0000]  
Remarks:

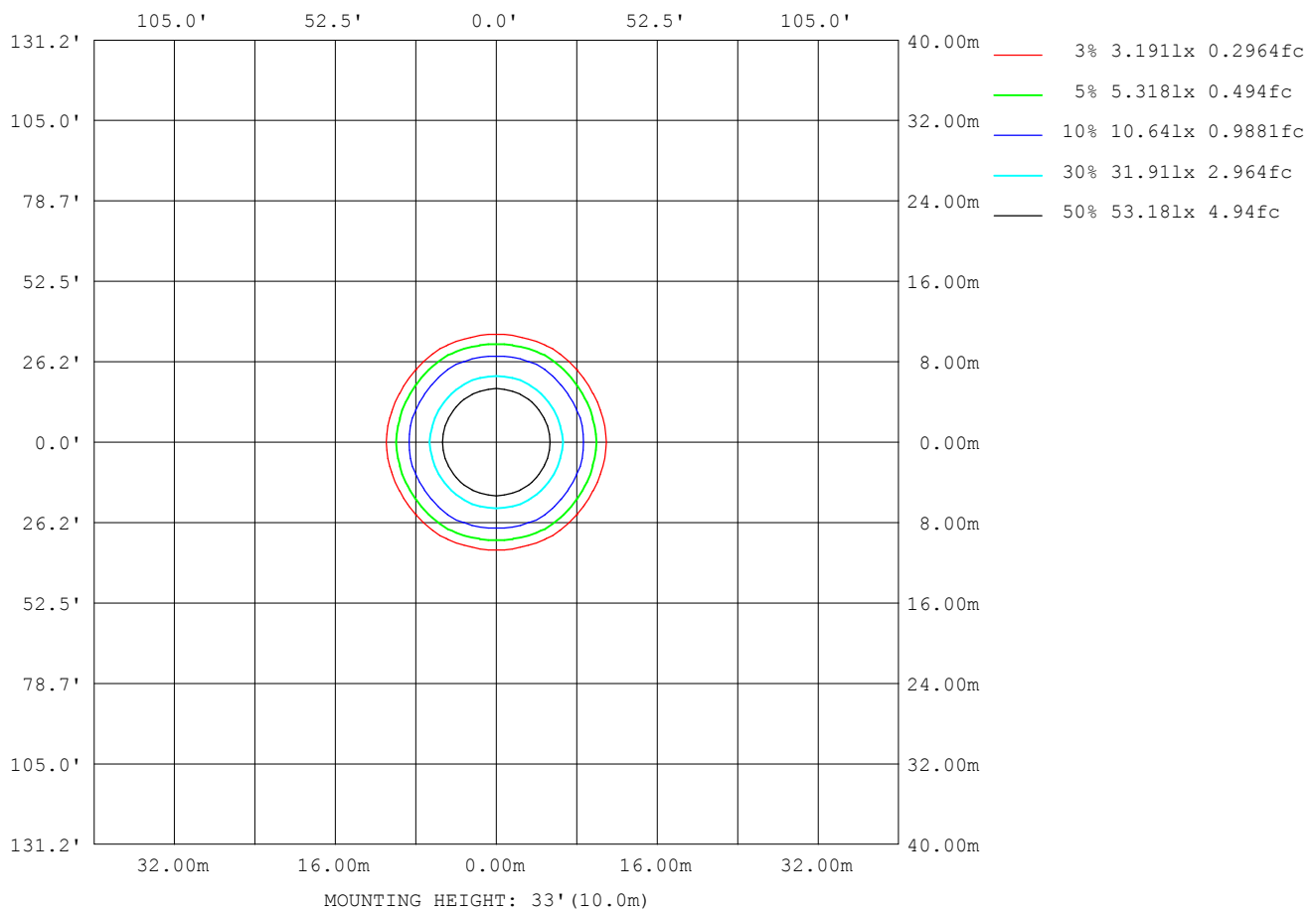
AAI Figure



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

# ISOLUX DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:230.4V I:0.4539A P:101.3W PF:0.9690 Freq:49.99Hz Lamp Flux:12520.5x1 lm		
NAME: H29APC-10-R280-70-40H-2523030R8	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

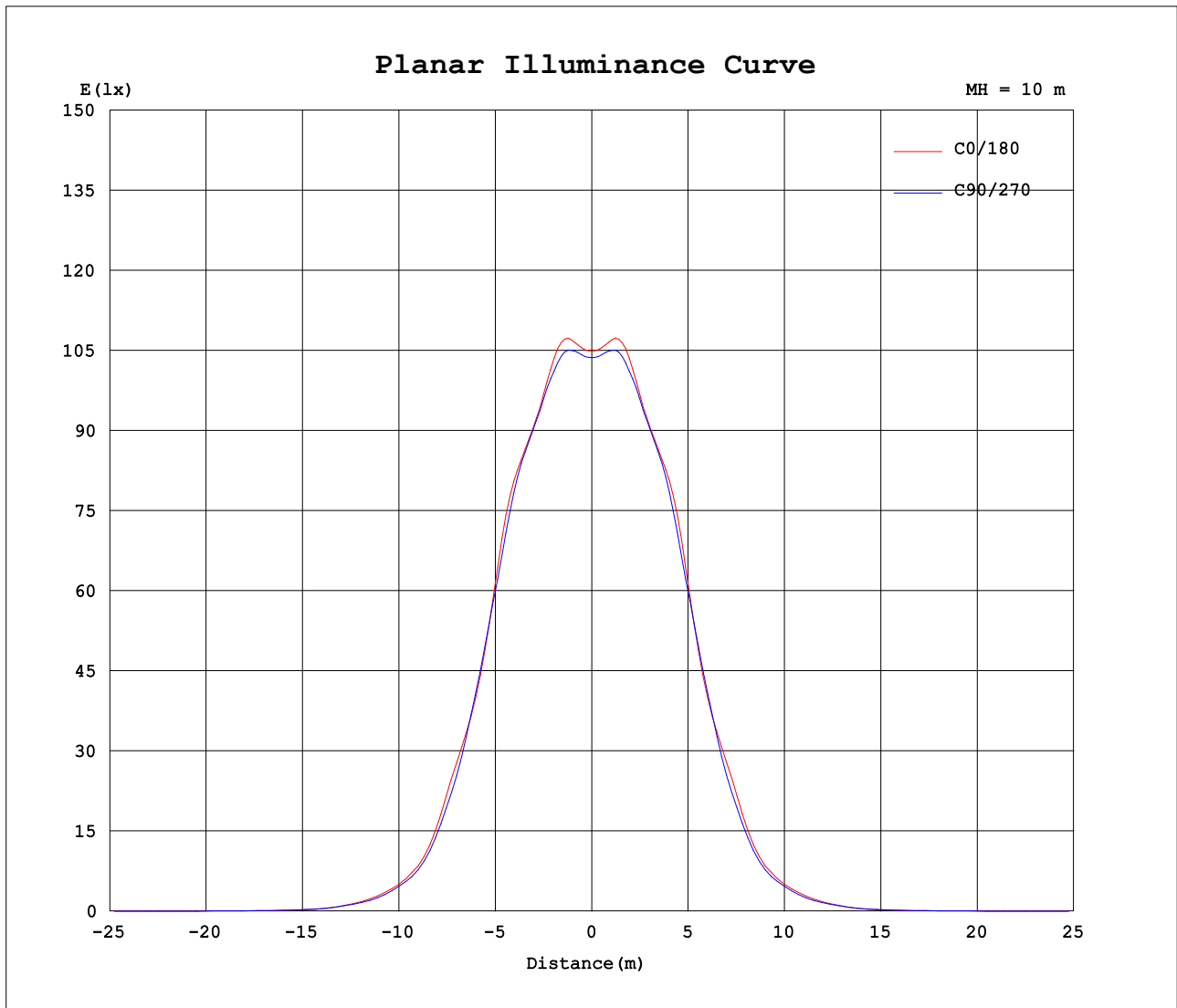
AvgL	cd/m2
L_0~180 (65) av	2135
L_0~180 (75) av	1678
L_0~180 (85) av	1238
L_90~270 (65) av	2174
L_90~270 (75) av	1643
L_90~270 (85) av	1103
L_45 (65) av	2134
L_45 (75) av	1630
L_45 (85) av	1038

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-07-06

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 53.0%  
Test Distance: 10.380m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: ×10cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1049	1039	1039	1038	1037	1037	1037	1037	1037	1038	1039	1039	1049	1039	1039	1038	1037	1037	1037
5	1078	1067	1065	1063	1061	1060	1061	1060	1061	1063	1065	1067	1078	1067	1065	1063	1061	1060	1061
10	1103	1090	1085	1076	1072	1073	1075	1073	1072	1076	1085	1090	1103	1090	1085	1076	1072	1073	1075
15	1047	1037	1029	1033	1040	1042	1041	1042	1040	1033	1029	1037	1047	1037	1029	1033	1040	1042	1041
20	1020	1003	994	1008	1014	1011	1011	1011	1014	1008	994	1003	1020	1003	994	1008	1014	1011	1011
25	935	909	894	906	910	897	893	897	910	906	894	909	935	909	894	906	910	897	893
30	680	673	675	686	686	671	696	671	686	686	675	673	680	673	675	686	686	671	696
35	507	474	479	464	485	491	463	491	485	464	479	474	507	474	479	464	485	491	463
40	277	275	261	266	291	261	252	261	291	266	261	275	277	275	261	266	291	261	252
45	143	139	135	137	140	133	132	133	140	137	135	139	143	139	135	137	140	133	132
50	69.3	65.7	63.4	65.0	62.9	61.1	61.8	61.1	62.9	65.0	63.4	65.7	69.3	65.7	63.4	65.0	62.9	61.1	61.8
55	22.5	22.5	22.3	22.0	23.6	21.9	23.1	21.9	23.6	22.0	22.3	22.5	22.5	22.5	22.3	22.0	23.6	21.9	23.1
60	10.1	9.86	9.98	9.77	9.93	9.58	10.1	9.58	9.93	9.77	9.98	9.86	10.1	9.86	9.98	9.77	9.93	9.58	10.1
65	5.59	5.56	5.69	5.59	5.51	5.51	5.70	5.51	5.51	5.59	5.69	5.56	5.59	5.56	5.69	5.59	5.51	5.51	5.70
70	3.79	3.71	3.74	3.72	3.73	3.68	3.73	3.68	3.73	3.72	3.74	3.71	3.79	3.71	3.74	3.72	3.73	3.68	3.73
75	2.69	2.65	2.62	2.62	2.62	2.61	2.64	2.61	2.62	2.62	2.62	2.65	2.69	2.65	2.62	2.62	2.62	2.61	2.64
80	1.62	1.59	1.61	1.58	1.60	1.58	1.62	1.58	1.60	1.58	1.61	1.59	1.62	1.59	1.61	1.58	1.60	1.58	1.62
85	0.67	0.61	0.59	0.56	0.60	0.57	0.60	0.57	0.60	0.56	0.59	0.61	0.67	0.61	0.59	0.56	0.60	0.57	0.60
90	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
95	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
100	0.20	0.20	0.19	0.19	0.19	0.19	0.18	0.19	0.19	0.19	0.19	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.18
105	0.38	0.36	0.35	0.35	0.35	0.36	0.35	0.36	0.35	0.35	0.35	0.36	0.38	0.36	0.35	0.35	0.35	0.36	0.35
110	0.60	0.59	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.60	0.59	0.58	0.58	0.58	0.58	0.58
115	0.92	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.92	0.91	0.91	0.90	0.90	0.90	0.90
120	1.31	1.30	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.30	1.31	1.30	1.29	1.29	1.29	1.29	1.29
125	1.75	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.75	1.73	1.73	1.73	1.73	1.73	1.73
130	2.28	2.26	2.25	2.25	2.24	2.25	2.24	2.25	2.24	2.25	2.25	2.26	2.28	2.26	2.25	2.25	2.24	2.25	2.24
135	2.87	2.85	2.84	2.84	2.83	2.83	2.83	2.83	2.83	2.84	2.84	2.85	2.87	2.85	2.84	2.84	2.83	2.83	2.83
140	3.49	3.46	3.46	3.46	3.45	3.45	3.45	3.45	3.45	3.46	3.46	3.46	3.49	3.46	3.46	3.46	3.45	3.45	3.45
145	4.13	4.11	4.11	4.10	4.09	4.10	4.10	4.10	4.09	4.10	4.11	4.11	4.13	4.11	4.11	4.10	4.09	4.10	4.10
150	4.76	4.73	4.73	4.71	4.70	4.71	4.71	4.71	4.70	4.71	4.73	4.73	4.76	4.73	4.73	4.71	4.70	4.71	4.71
155	5.29	5.26	5.26	5.25	5.25	5.25	5.25	5.25	5.25	5.25	5.26	5.26	5.29	5.26	5.26	5.25	5.25	5.25	5.25
160	5.82	5.78	5.79	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.79	5.78	5.82	5.78	5.79	5.78	5.78	5.78	5.78
165	6.33	6.29	6.28	6.28	6.28	6.28	6.27	6.28	6.28	6.28	6.28	6.29	6.33	6.29	6.28	6.28	6.28	6.28	6.27
170	6.77	6.72	6.72	6.72	6.72	6.71	6.71	6.71	6.72	6.72	6.72	6.72	6.77	6.72	6.72	6.72	6.72	6.71	6.71
175	7.12	7.06	7.05	7.05	7.05	7.03	7.03	7.03	7.05	7.05	7.05	7.06	7.12	7.06	7.05	7.05	7.05	7.03	7.03
180	7.29	7.23	7.21	7.22	7.24	7.22	7.20	7.22	7.24	7.22	7.21	7.23	7.29	7.23	7.21	7.22	7.24	7.22	7.20

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-07-06

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:53.0%  
Test Distance:10.380m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Table--2

UNIT: ×10cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	1037	1037	1038	1039	1039														
5	1060	1061	1063	1065	1067														
10	1073	1072	1076	1085	1090														
15	1042	1040	1033	1029	1037														
20	1011	1014	1008	994	1003														
25	897	910	906	894	909														
30	671	686	686	675	673														
35	491	485	464	479	474														
40	261	291	266	261	275														
45	133	140	137	135	139														
50	61.1	62.9	65.0	63.4	65.7														
55	21.9	23.6	22.0	22.3	22.5														
60	9.58	9.93	9.77	9.98	9.86														
65	5.51	5.51	5.59	5.69	5.56														
70	3.68	3.73	3.72	3.74	3.71														
75	2.61	2.62	2.62	2.62	2.65														
80	1.58	1.60	1.58	1.61	1.59														
85	0.57	0.60	0.56	0.59	0.61														
90	0.06	0.06	0.06	0.06	0.06														
95	0.10	0.10	0.10	0.10	0.11														
100	0.19	0.19	0.19	0.19	0.20														
105	0.36	0.35	0.35	0.35	0.36														
110	0.58	0.58	0.58	0.58	0.59														
115	0.90	0.90	0.90	0.91	0.91														
120	1.29	1.29	1.29	1.29	1.30														
125	1.73	1.73	1.73	1.73	1.73														
130	2.25	2.24	2.25	2.25	2.26														
135	2.83	2.83	2.84	2.84	2.85														
140	3.45	3.45	3.46	3.46	3.46														
145	4.10	4.09	4.10	4.11	4.11														
150	4.71	4.70	4.71	4.73	4.73														
155	5.25	5.25	5.25	5.26	5.26														
160	5.78	5.78	5.78	5.79	5.78														
165	6.28	6.28	6.28	6.28	6.29														
170	6.71	6.72	6.72	6.72	6.72														
175	7.03	7.05	7.05	7.05	7.06														
180	7.22	7.24	7.22	7.21	7.23														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	10494	10390	10385	10375	10375	10367	10370	10367	10375	10375
3.0	10597	10494	10484	10475	10469	10468	10468	10468	10469	10475
6.0	10881	10765	10735	10711	10679	10672	10681	10672	10679	10711
9.0	11048	10926	10885	10802	10755	10763	10780	10763	10755	10802
12.0	10842	10731	10665	10609	10615	10620	10650	10620	10615	10609
15.0	10474	10368	10288	10331	10396	10415	10406	10415	10396	10331
18.0	10285	10135	10052	10153	10220	10205	10231	10205	10220	10153
21.0	10163	9976	9856	10000	10080	10022	10001	10022	10080	10000
24.0	9726	9444	9291	9406	9453	9348	9289	9348	9453	9406
27.0	8339	8218	8128	8234	8260	8127	8212	8127	8260	8234
30.0	6803	6726	6749	6861	6860	6706	6958	6706	6860	6861
33.0	5693	5534	5560	5508	5583	5629	5565	5629	5583	5508
36.0	4707	4332	4372	4224	4453	4510	4200	4510	4453	4224
39.0	3221	3150	3008	3044	3352	3075	2935	3075	3352	3044
42.0	2079	2091	1997	2020	2140	1949	1904	1949	2140	2020
45.0	1431	1393	1351	1370	1404	1329	1323	1329	1404	1370
48.0	962.5	914.6	865.3	884.1	908.6	848.7	840.7	848.7	908.6	884.1
51.0	585.3	551.0	543.4	547.8	531.0	509.4	529.8	509.4	531.0	547.8
54.0	293.9	280.9	278.9	274.8	295.2	263.7	283.8	263.7	295.2	274.8
57.0	155.7	157.5	157.1	150.6	154.1	150.1	154.9	150.1	154.1	150.6
60.0	100.7	98.60	99.82	97.71	99.27	95.80	101.1	95.80	99.27	97.71
63.0	68.59	67.99	68.47	68.10	67.90	66.77	69.64	66.77	67.90	68.10
66.0	51.04	50.87	51.83	51.00	50.19	50.41	51.89	50.41	50.19	51.00
69.0	40.52	39.59	39.81	39.79	39.83	39.29	39.74	39.29	39.83	39.79
72.0	32.86	32.25	32.43	32.05	32.37	31.94	32.60	31.94	32.37	32.05
75.0	26.93	26.48	26.17	26.16	26.17	26.08	26.36	26.08	26.17	26.16
78.0	20.33	19.98	19.96	19.66	19.91	19.61	19.94	19.61	19.91	19.66
81.0	13.94	13.81	14.04	13.74	13.96	13.99	14.36	13.99	13.96	13.74
84.0	8.534	8.332	8.398	8.108	8.413	8.334	8.364	8.334	8.413	8.108
87.0	2.273	2.439	2.187	1.964	1.893	1.879	1.976	1.879	1.893	1.964
90.0	0.6174	0.5895	0.5837	0.5753	0.5652	0.5660	0.5692	0.5660	0.5652	0.5753
93.0	0.8689	0.8324	0.8024	0.8180	0.7965	0.8023	0.7928	0.8023	0.7965	0.8180
96.0	1.244	1.196	1.157	1.171	1.164	1.157	1.130	1.157	1.164	1.171
99.0	1.789	1.717	1.647	1.692	1.698	1.659	1.605	1.659	1.698	1.692
102.0	2.645	2.538	2.426	2.476	2.504	2.465	2.363	2.465	2.504	2.476
105.0	3.758	3.629	3.529	3.526	3.542	3.578	3.473	3.578	3.542	3.526
108.0	4.982	4.869	4.800	4.815	4.791	4.850	4.808	4.850	4.791	4.815
111.0	6.528	6.412	6.381	6.404	6.360	6.381	6.380	6.381	6.360	6.404
114.0	8.515	8.380	8.339	8.343	8.271	8.273	8.274	8.273	8.271	8.343
117.0	10.78	10.61	10.57	10.55	10.50	10.48	10.46	10.48	10.50	10.55
120.0	13.14	12.98	12.95	12.93	12.92	12.88	12.86	12.88	12.92	12.93
123.0	15.66	15.50	15.48	15.46	15.43	15.43	15.40	15.43	15.43	15.46
126.0	18.50	18.30	18.28	18.25	18.23	18.23	18.23	18.23	18.23	18.25
129.0	21.65	21.46	21.42	21.39	21.34	21.35	21.35	21.35	21.34	21.39
132.0	25.10	24.88	24.84	24.80	24.76	24.75	24.72	24.75	24.76	24.80
135.0	28.70	28.46	28.42	28.39	28.34	28.32	28.29	28.32	28.34	28.39
138.0	32.38	32.13	32.09	32.07	32.00	32.00	31.99	32.00	32.00	32.07
141.0	36.11	35.90	35.87	35.84	35.76	35.79	35.82	35.79	35.76	35.84
144.0	40.00	39.78	39.76	39.71	39.60	39.67	39.72	39.67	39.60	39.71
147.0	43.94	43.65	43.64	43.53	43.41	43.45	43.49	43.45	43.41	43.53
150.0	47.64	47.30	47.27	47.14	47.05	47.11	47.08	47.11	47.05	47.14
153.0	50.85	50.53	50.52	50.38	50.35	50.37	50.34	50.37	50.35	50.38
156.0	54.00	53.69	53.70	53.58	53.55	53.56	53.55	53.56	53.55	53.58
159.0	57.18	56.79	56.88	56.75	56.70	56.75	56.75	56.75	56.70	56.75
162.0	60.40	59.97	60.03	59.92	59.92	59.93	59.93	59.93	59.92	59.92
165.0	63.32	62.87	62.84	62.78	62.79	62.75	62.74	62.75	62.79	62.78
168.0	66.10	65.62	65.56	65.57	65.57	65.53	65.49	65.53	65.57	65.57
171.0	68.34	67.82	67.82	67.82	67.84	67.75	67.74	67.75	67.84	67.82
174.0	70.46	69.91	69.85	69.83	69.82	69.68	69.64	69.68	69.82	69.83
177.0	72.01	71.37	71.25	71.26	71.33	71.14	71.06	71.14	71.33	71.26
180.0	72.95	72.31	72.12	72.17	72.35	72.17	71.98	72.17	72.35	72.17
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	10385	10390	10494	10390	10385	10375	10375	10367	10370	10367
3.0	10484	10494	10597	10494	10484	10475	10469	10468	10468	10468
6.0	10735	10765	10881	10765	10735	10711	10679	10672	10681	10672
9.0	10885	10926	11048	10926	10885	10802	10755	10763	10780	10763
12.0	10665	10731	10842	10731	10665	10609	10615	10620	10650	10620
15.0	10288	10368	10474	10368	10288	10331	10396	10415	10406	10415
18.0	10052	10135	10285	10135	10052	10153	10220	10205	10231	10205
21.0	9856	9976	10163	9976	9856	10000	10080	10022	10001	10022
24.0	9291	9444	9726	9444	9291	9406	9453	9348	9289	9348
27.0	8128	8218	8339	8218	8128	8234	8260	8127	8212	8127
30.0	6749	6726	6803	6726	6749	6861	6860	6706	6958	6706

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

Photometric Data Table [cd]

33.0	5560	5534	5693	5534	5560	5508	5583	5629	5565	5629
36.0	4372	4332	4707	4332	4372	4224	4453	4510	4200	4510
39.0	3008	3150	3221	3150	3008	3044	3352	3075	2935	3075
42.0	1997	2091	2079	2091	1997	2020	2140	1949	1904	1949
45.0	1351	1393	1431	1393	1351	1370	1404	1329	1323	1329
48.0	865.3	914.6	962.5	914.6	865.3	884.1	908.6	848.7	840.7	848.7
51.0	543.4	551.0	585.3	551.0	543.4	547.8	531.0	509.4	529.8	509.4
54.0	278.9	280.9	293.9	280.9	278.9	274.8	295.2	263.7	283.8	263.7
57.0	157.1	157.5	155.7	157.5	157.1	150.6	154.1	150.1	154.9	150.1
60.0	99.82	98.60	100.7	98.60	99.82	97.71	99.27	95.80	101.1	95.80
63.0	68.47	67.99	68.59	67.99	68.47	68.10	67.90	66.77	69.64	66.77
66.0	51.83	50.87	51.04	50.87	51.83	51.00	50.19	50.41	51.89	50.41
69.0	39.81	39.59	40.52	39.59	39.81	39.79	39.83	39.29	39.74	39.29
72.0	32.43	32.25	32.86	32.25	32.43	32.05	32.37	31.94	32.60	31.94
75.0	26.17	26.48	26.93	26.48	26.17	26.16	26.17	26.08	26.36	26.08
78.0	19.96	19.98	20.33	19.98	19.96	19.66	19.91	19.61	19.94	19.61
81.0	14.04	13.81	13.94	13.81	14.04	13.74	13.96	13.99	14.36	13.99
84.0	8.398	8.332	8.534	8.332	8.398	8.108	8.413	8.334	8.364	8.334
87.0	2.187	2.439	2.273	2.439	2.187	1.964	1.893	1.879	1.976	1.879
90.0	0.5837	0.5895	0.6174	0.5895	0.5837	0.5753	0.5652	0.5660	0.5692	0.5660
93.0	0.8024	0.8324	0.8689	0.8324	0.8024	0.8180	0.7965	0.8023	0.7928	0.8023
96.0	1.157	1.196	1.244	1.196	1.157	1.171	1.164	1.157	1.130	1.157
99.0	1.647	1.717	1.789	1.717	1.647	1.692	1.698	1.659	1.605	1.659
102.0	2.426	2.538	2.645	2.538	2.426	2.476	2.504	2.465	2.363	2.465
105.0	3.529	3.629	3.758	3.629	3.529	3.529	3.542	3.578	3.473	3.578
108.0	4.800	4.869	4.982	4.869	4.800	4.815	4.791	4.850	4.808	4.850
111.0	6.381	6.412	6.528	6.412	6.381	6.404	6.360	6.381	6.380	6.381
114.0	8.339	8.380	8.515	8.380	8.339	8.343	8.271	8.273	8.274	8.273
117.0	10.57	10.61	10.78	10.61	10.57	10.55	10.50	10.48	10.46	10.48
120.0	12.95	12.98	13.14	12.98	12.95	12.93	12.92	12.88	12.86	12.88
123.0	15.48	15.50	15.66	15.50	15.48	15.46	15.43	15.43	15.40	15.43
126.0	18.28	18.30	18.50	18.30	18.28	18.25	18.23	18.23	18.23	18.23
129.0	21.42	21.46	21.65	21.46	21.42	21.39	21.34	21.35	21.35	21.35
132.0	24.84	24.88	25.10	24.88	24.84	24.80	24.76	24.75	24.72	24.75
135.0	28.42	28.46	28.70	28.46	28.42	28.39	28.34	28.32	28.29	28.32
138.0	32.09	32.13	32.38	32.13	32.09	32.07	32.00	32.00	31.99	32.00
141.0	35.87	35.90	36.11	35.90	35.87	35.84	35.76	35.79	35.82	35.79
144.0	39.76	39.78	40.00	39.78	39.76	39.71	39.60	39.67	39.72	39.67
147.0	43.64	43.65	43.94	43.65	43.64	43.53	43.41	43.45	43.49	43.45
150.0	47.27	47.30	47.64	47.30	47.27	47.14	47.05	47.11	47.08	47.11
153.0	50.52	50.53	50.85	50.53	50.52	50.38	50.35	50.37	50.34	50.37
156.0	53.70	53.69	54.00	53.69	53.70	53.58	53.55	53.56	53.55	53.56
159.0	56.88	56.79	57.18	56.79	56.88	56.75	56.70	56.75	56.75	56.75
162.0	60.03	59.97	60.40	59.97	60.03	59.92	59.92	59.93	59.93	59.93
165.0	62.84	62.87	63.32	62.87	62.84	62.78	62.79	62.75	62.74	62.75
168.0	65.56	65.62	66.10	65.62	65.56	65.57	65.57	65.53	65.49	65.53
171.0	67.82	67.82	68.34	67.82	67.82	67.82	67.84	67.75	67.74	67.75
174.0	69.85	69.91	70.46	69.91	69.85	69.83	69.82	69.68	69.64	69.68
177.0	71.25	71.37	72.01	71.37	71.25	71.26	71.33	71.14	71.06	71.14
180.0	72.12	72.31	72.95	72.31	72.12	72.17	72.35	72.17	71.98	72.17
G/C	300.0	315.0	330.0	345.0						
0.0	10375	10375	10385	10390						
3.0	10469	10475	10484	10494						
6.0	10679	10711	10735	10765						
9.0	10755	10802	10885	10926						
12.0	10615	10609	10665	10731						
15.0	10396	10331	10288	10368						
18.0	10220	10153	10052	10135						
21.0	10080	10000	9856	9976						
24.0	9453	9406	9291	9444						
27.0	8260	8234	8128	8218						
30.0	6860	6861	6749	6726						
33.0	5583	5508	5560	5534						
36.0	4453	4224	4372	4332						
39.0	3352	3044	3008	3150						
42.0	2140	2020	1997	2091						
45.0	1404	1370	1351	1393						
48.0	908.6	884.1	865.3	914.6						
51.0	531.0	547.8	543.4	551.0						
54.0	295.2	274.8	278.9	280.9						
57.0	154.1	150.6	157.1	157.5						
60.0	99.27	97.71	99.82	98.60						
63.0	67.90	68.10	68.47	67.99						
66.0	50.19	51.00	51.83	50.87						

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

## Photometric Data Table [cd]

69.0	39.83	39.79	39.81	39.59
72.0	32.37	32.05	32.43	32.25
75.0	26.17	26.16	26.17	26.48
78.0	19.91	19.66	19.96	19.98
81.0	13.96	13.74	14.04	13.81
84.0	8.413	8.108	8.398	8.332
87.0	1.893	1.964	2.187	2.439
90.0	0.5652	0.5753	0.5837	0.5895
93.0	0.7965	0.8180	0.8024	0.8324
96.0	1.164	1.171	1.157	1.196
99.0	1.698	1.692	1.647	1.717
102.0	2.504	2.476	2.426	2.538
105.0	3.542	3.526	3.529	3.629
108.0	4.791	4.815	4.800	4.869
111.0	6.360	6.404	6.381	6.412
114.0	8.271	8.343	8.339	8.380
117.0	10.50	10.55	10.57	10.61
120.0	12.92	12.93	12.95	12.98
123.0	15.43	15.46	15.48	15.50
126.0	18.23	18.25	18.28	18.30
129.0	21.34	21.39	21.42	21.46
132.0	24.76	24.80	24.84	24.88
135.0	28.34	28.39	28.42	28.46
138.0	32.00	32.07	32.09	32.13
141.0	35.76	35.84	35.87	35.90
144.0	39.60	39.71	39.76	39.78
147.0	43.41	43.53	43.64	43.65
150.0	47.05	47.14	47.27	47.30
153.0	50.35	50.38	50.52	50.53
156.0	53.55	53.58	53.70	53.69
159.0	56.70	56.75	56.88	56.79
162.0	59.92	59.92	60.03	59.97
165.0	62.79	62.78	62.84	62.87
168.0	65.57	65.57	65.56	65.62
171.0	67.84	67.82	67.82	67.82
174.0	69.82	69.83	69.85	69.91
177.0	71.33	71.26	71.25	71.37
180.0	72.35	72.17	72.12	72.31

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-07-06

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks: