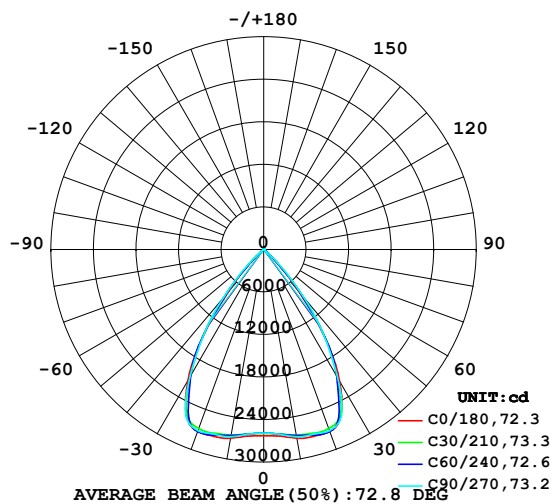


## LUMINAIRE PHOTOMETRIC TEST REPORT

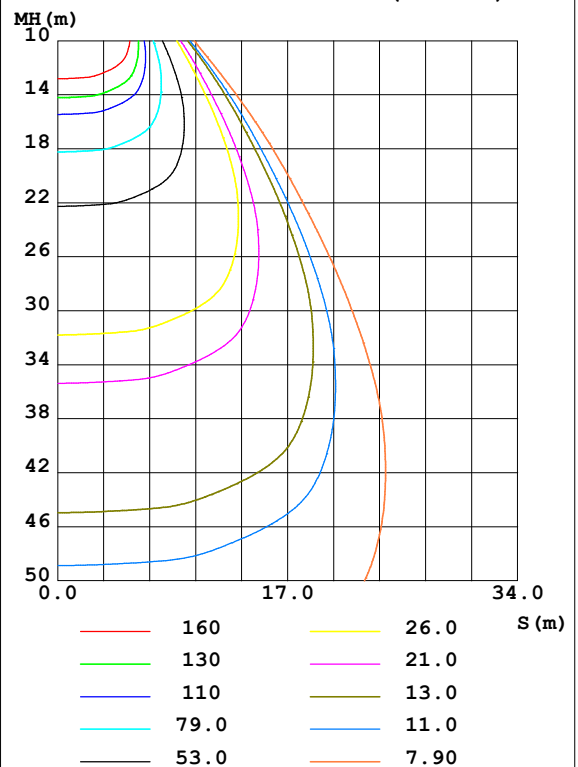
Test:U:230.3V I:0.8687A P:196.8W PF:0.9834 Freq:49.99Hz Lamp Flux:34054.2x1 lm		
NAME: H29APC-20-R360-70-50H-3803030R7	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 173.07 lm/W			
MODEL		I <sub>max</sub> (cd)	27376	S/MH (C0/180)	1.05
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH (C90/270)	1.06
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	34054	η UP,DN(C0-180)	0.5,49.5
NOMINAL FLUX(lm)	34054.2	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	1.10

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:2020-06-17

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	2703	2653	2680	2653	2703	2653	2680	2653	0- 10	2515	2515	7.39,7.39
20	2728	2711	2717	2711	2728	2711	2717	2711	10- 20	7655	10171	29.9,29.9
30	2144	2052	2089	2052	2144	2052	2089	2052	20- 30	11433	21604	63.4,63.4
40	769.0	874.2	874.1	874.2	769.0	874.2	874.1	874.2	30- 40	9132	30736	90.3,90.3
50	47.59	67.06	69.39	67.06	47.59	67.06	69.39	67.06	40- 50	2721	33457	98.2,98.2
60	7.934	8.076	7.927	8.076	7.934	8.076	7.927	8.076	50- 60	185.0	33642	98.8,98.8
70	3.444	3.506	3.466	3.506	3.444	3.506	3.466	3.506	60- 70	51.65	33693	98.9,98.9
80	1.225	1.245	1.252	1.245	1.225	1.245	1.252	1.245	70- 80	25.13	33719	99,99
90	0.0797	0.0823	0.0832	0.0823	0.0797	0.0823	0.0832	0.0823	80- 90	4.185	33723	99,99
100	0.4436	0.4623	0.4524	0.4623	0.4436	0.4623	0.4524	0.4623	90-100	2.246	33725	99,99
110	1.656	1.608	1.590	1.608	1.656	1.608	1.590	1.608	100-110	10.14	33735	99.1,99.1
120	3.567	3.498	3.518	3.498	3.567	3.498	3.518	3.498	110-120	24.68	33760	99.1,99.1
130	6.153	6.072	6.096	6.072	6.153	6.072	6.096	6.072	120-130	42.20	33802	99.3,99.3
140	9.299	9.182	9.197	9.182	9.299	9.182	9.197	9.182	130-140	58.66	33861	99.4,99.4
150	12.31	12.18	12.18	12.18	12.31	12.18	12.18	12.18	140-150	67.01	33928	99.6,99.6
160	15.17	15.00	15.00	15.00	15.17	15.00	15.00	15.00	150-160	62.50	33990	99.8,99.8
170	18.10	17.84	17.88	17.84	18.10	17.84	17.88	17.84	160-170	46.33	34036	99.9,99.9
180	19.50	19.28	19.28	19.28	19.50	19.28	19.28	19.28	170-180	17.70	34054	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 32824 lm

%lum = 96.4%

%lamp = 96.4%

Conical surface Flux(120deg): 33642 lm

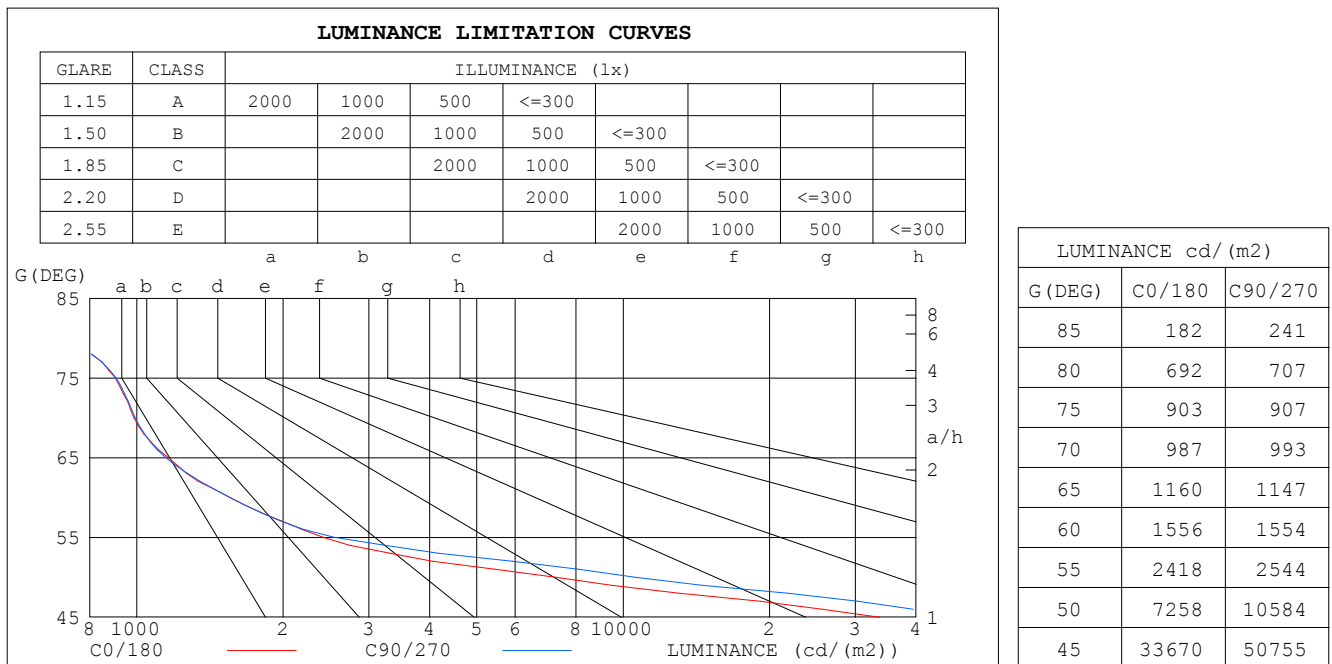
%lum = 98.8%

%lamp = 98.8%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2020-06-17

$\gamma$  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

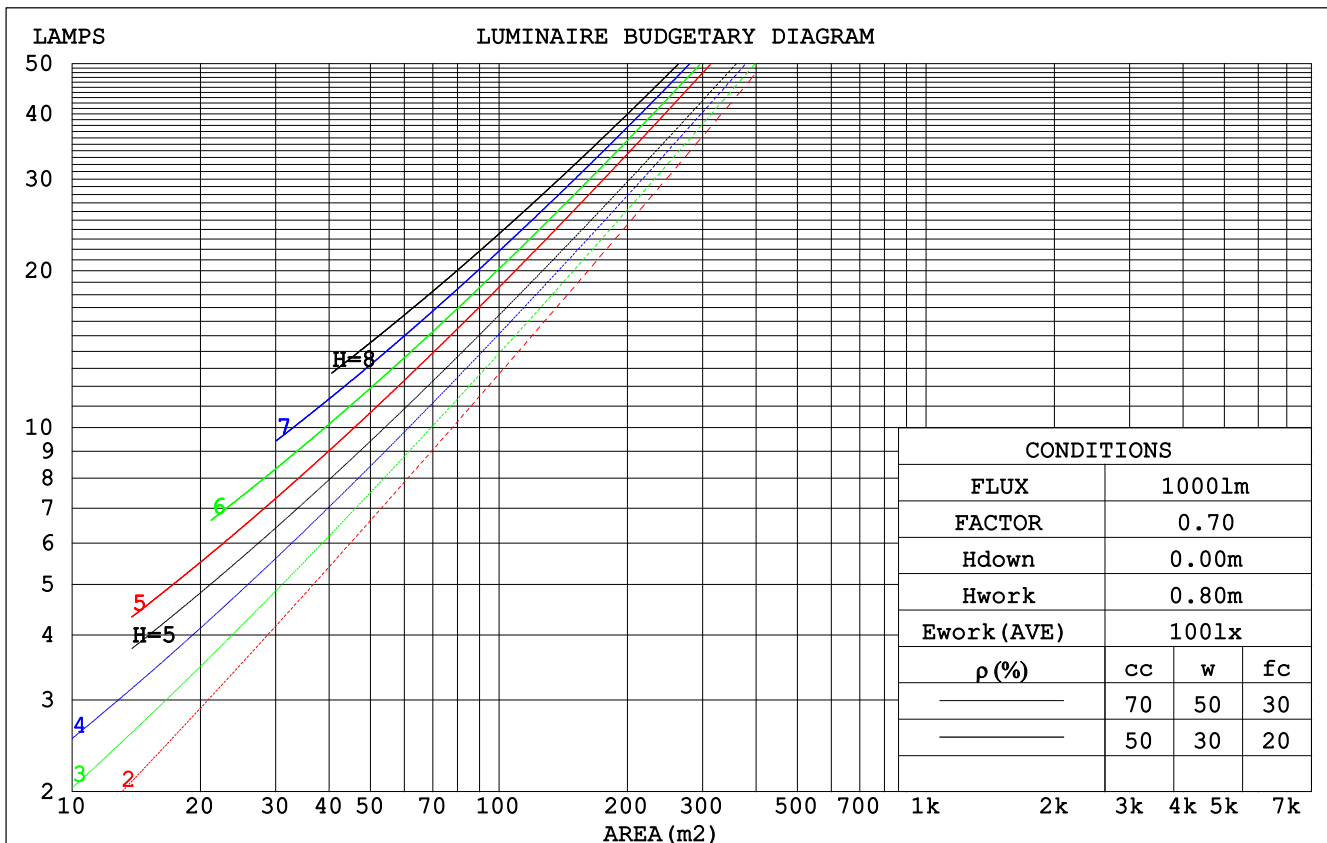


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-06-17

$\gamma$  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	1.08	1.05	1.08	1.06	1.03	1.04	1.02	1.00	.90	.98	.97	.96	.95	.94	.92
2.0	1.02	.98	.94	1.00	.96	.93	.97	.94	.91	.94	.91	.89	.91	.89	.87	.85
3.0	.95	.89	.85	.93	.88	.84	.90	.86	.83	.88	.84	.82	.85	.83	.80	.78
4.0	.88	.82	.78	.87	.81	.77	.84	.80	.76	.82	.78	.75	.80	.77	.74	.72
5.0	.82	.75	.71	.81	.75	.71	.79	.74	.70	.77	.73	.69	.75	.71	.68	.67
6.0	.76	.70	.65	.75	.69	.65	.74	.68	.64	.72	.67	.64	.71	.67	.63	.62
7.0	.71	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.59	.66	.62	.59	.57
8.0	.66	.60	.56	.66	.60	.56	.65	.59	.55	.63	.59	.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	.58	.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: 2020-06-17

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	.185	.105	.033	.178	.102	.032	.165	.095	.030	.153	.088	.028	.142	.082	.027	
2.0	.179	.098	.030	.173	.095	.029	.162	.090	.028	.151	.085	.027	.142	.080	.025	
3.0	.171	.091	.027	.166	.089	.027	.156	.085	.026	.148	.081	.025	.139	.077	.024	
4.0	.164	.085	.025	.159	.083	.025	.151	.080	.024	.143	.077	.023	.136	.074	.022	
5.0	.157	.080	.023	.153	.078	.023	.145	.076	.022	.138	.073	.022	.132	.071	.021	
6.0	.150	.075	.021	.146	.074	.021	.140	.072	.021	.134	.069	.020	.128	.067	.020	
7.0	.143	.071	.020	.140	.070	.020	.134	.068	.020	.129	.066	.019	.124	.064	.019	
8.0	.137	.067	.019	.135	.066	.019	.129	.065	.018	.124	.063	.018	.120	.061	.018	
9.0	.132	.064	.018	.129	.063	.018	.124	.062	.017	.120	.060	.017	.116	.059	.017	
10.0	.126	.061	.017	.124	.060	.017	.120	.059	.017	.116	.057	.016	.112	.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	.198	.198	.198	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.179	.165	.152	.153	.141	.131	.105	.097	.090	.060	.056	.053	.019	.018	.017	
2.0	.165	.140	.119	.141	.120	.103	.097	.083	.072	.056	.048	.042	.018	.016	.014	
3.0	.153	.121	.096	.131	.105	.083	.090	.073	.058	.052	.042	.034	.017	.014	.011	
4.0	.143	.107	.079	.123	.092	.068	.085	.064	.048	.049	.038	.028	.016	.012	.009	
5.0	.135	.095	.066	.116	.082	.057	.080	.058	.040	.046	.034	.024	.015	.011	.008	
6.0	.128	.086	.056	.110	.075	.049	.076	.052	.034	.044	.031	.021	.014	.010	.007	
7.0	.122	.079	.048	.105	.068	.042	.073	.048	.030	.042	.028	.018	.014	.009	.006	
8.0	.117	.073	.043	.100	.063	.037	.070	.044	.026	.040	.026	.016	.013	.009	.005	
9.0	.112	.068	.038	.096	.059	.033	.067	.041	.023	.039	.024	.014	.013	.008	.005	
10.0	.107	.063	.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:2020-06-17

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	10.3	11.4	10.6	11.5	11.7	10.3	11.3	10.5	11.5	11.7
3H	10.2	11.1	10.4	11.3	11.5	10.1	11.0	10.4	11.2	11.5
4H	10.1	10.9	10.4	11.2	11.4	10.0	10.9	10.3	11.1	11.4
6H	10.0	10.8	10.3	11.0	11.3	9.9	10.7	10.2	11.0	11.3
8H	9.9	10.7	10.3	11.0	11.3	9.9	10.7	10.2	10.9	11.2
12H	9.9	10.6	10.2	10.9	11.2	9.8	10.6	10.2	10.9	11.2
4H 2H	10.1	10.9	10.4	11.2	11.4	10.0	10.9	10.3	11.1	11.4
3H	9.9	10.6	10.2	10.9	11.2	9.8	10.6	10.2	10.9	11.2
4H	9.8	10.5	10.2	10.8	11.1	9.7	10.4	10.1	10.7	11.1
6H	9.7	10.3	10.1	10.6	11.0	9.6	10.2	10.0	10.6	10.9
8H	9.6	10.2	10.1	10.6	10.9	9.6	10.1	10.0	10.5	10.9
12H	9.6	10.1	10.0	10.5	10.9	9.5	10.0	10.0	10.4	10.8
8H 4H	9.6	10.2	10.1	10.6	10.9	9.6	10.1	10.0	10.5	10.9
6H	9.5	10.0	10.0	10.4	10.8	9.5	9.9	9.9	10.3	10.8
8H	9.5	9.9	10.0	10.3	10.8	9.4	9.8	9.9	10.3	10.7
12H	9.4	9.8	9.9	10.2	10.7	9.4	9.7	9.9	10.2	10.7
12H 4H	9.6	10.1	10.0	10.5	10.9	9.5	10.0	10.0	10.4	10.8
6H	9.5	9.9	10.0	10.3	10.8	9.4	9.8	9.9	10.3	10.7
8H	9.4	9.8	9.9	10.2	10.7	9.4	9.7	9.9	10.2	10.7
Variations with the observer position at spacings:										
S = 1.0H	+ 3.0 / -19.3					+ 3.3 / -19.2				
1.5H	+ 5.5 / -17.7					+ 5.7 / -17.4				
2.0H	+ 7.4 / -11.5					+ 9.2 / -12.1				

CIE Pub.117, 34054 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.3)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-17

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:

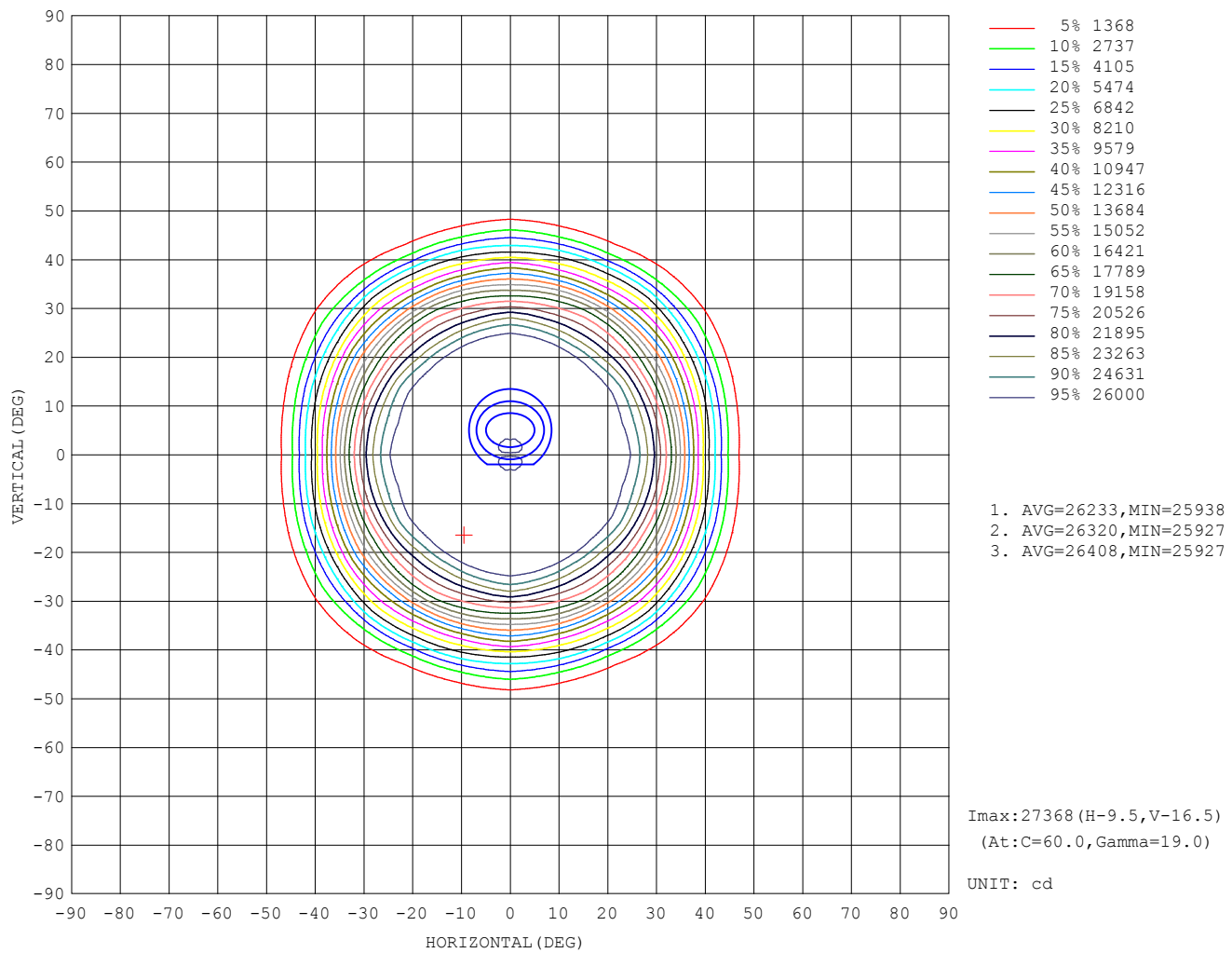
## UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	87	83	91	86	83	79
1.00	98	92	89	97	92	88	95	92	88	83
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	97	104	99	96	101	98	95	90
2.00	108	104	100	106	103	100	104	101	98	93
2.50	110	106	103	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	103	102	95
4.00	113	110	108	111	109	107	107	105	104	96
5.00	115	112	110	112	110	109	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: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-17

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

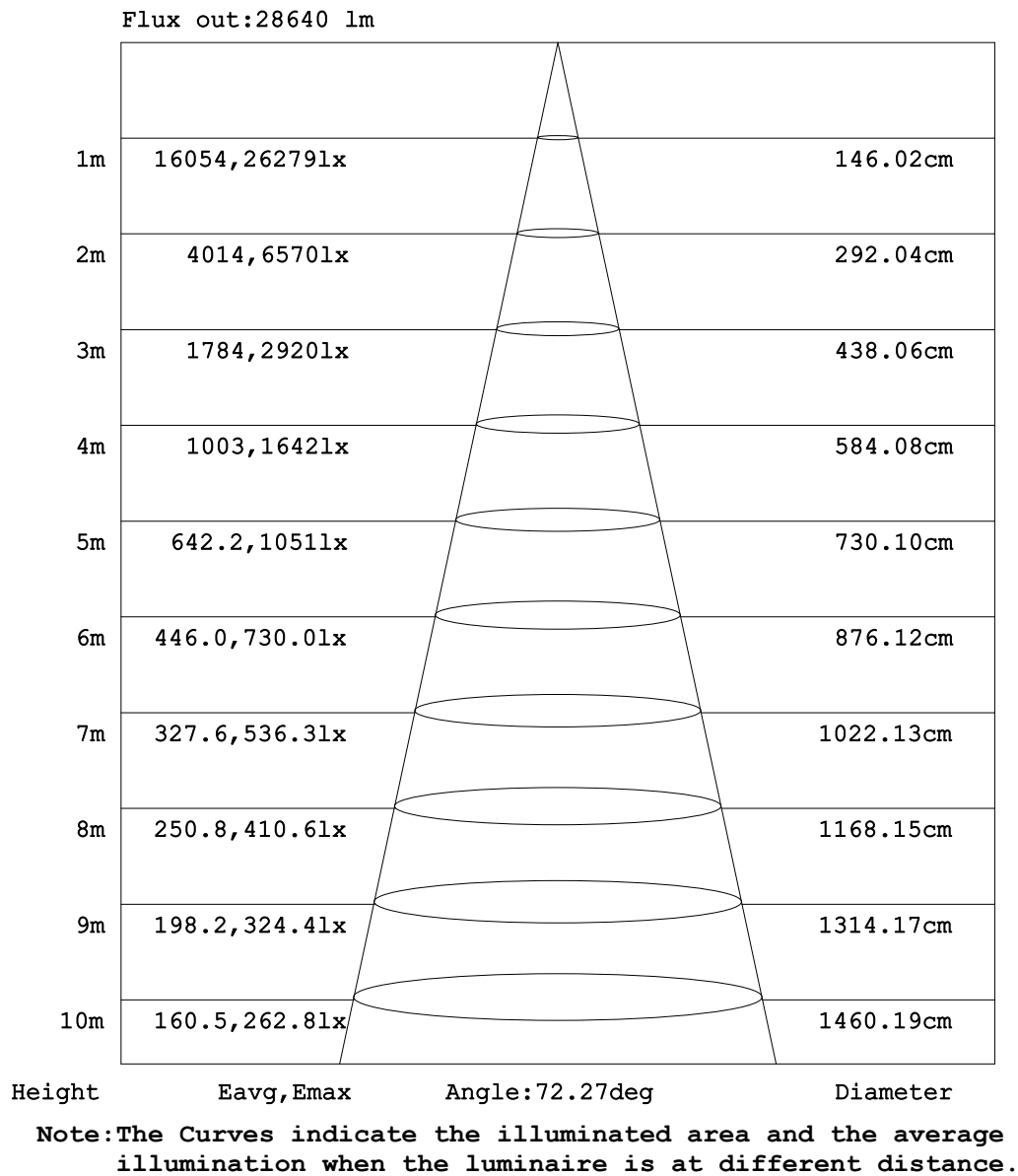


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-06-17

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:



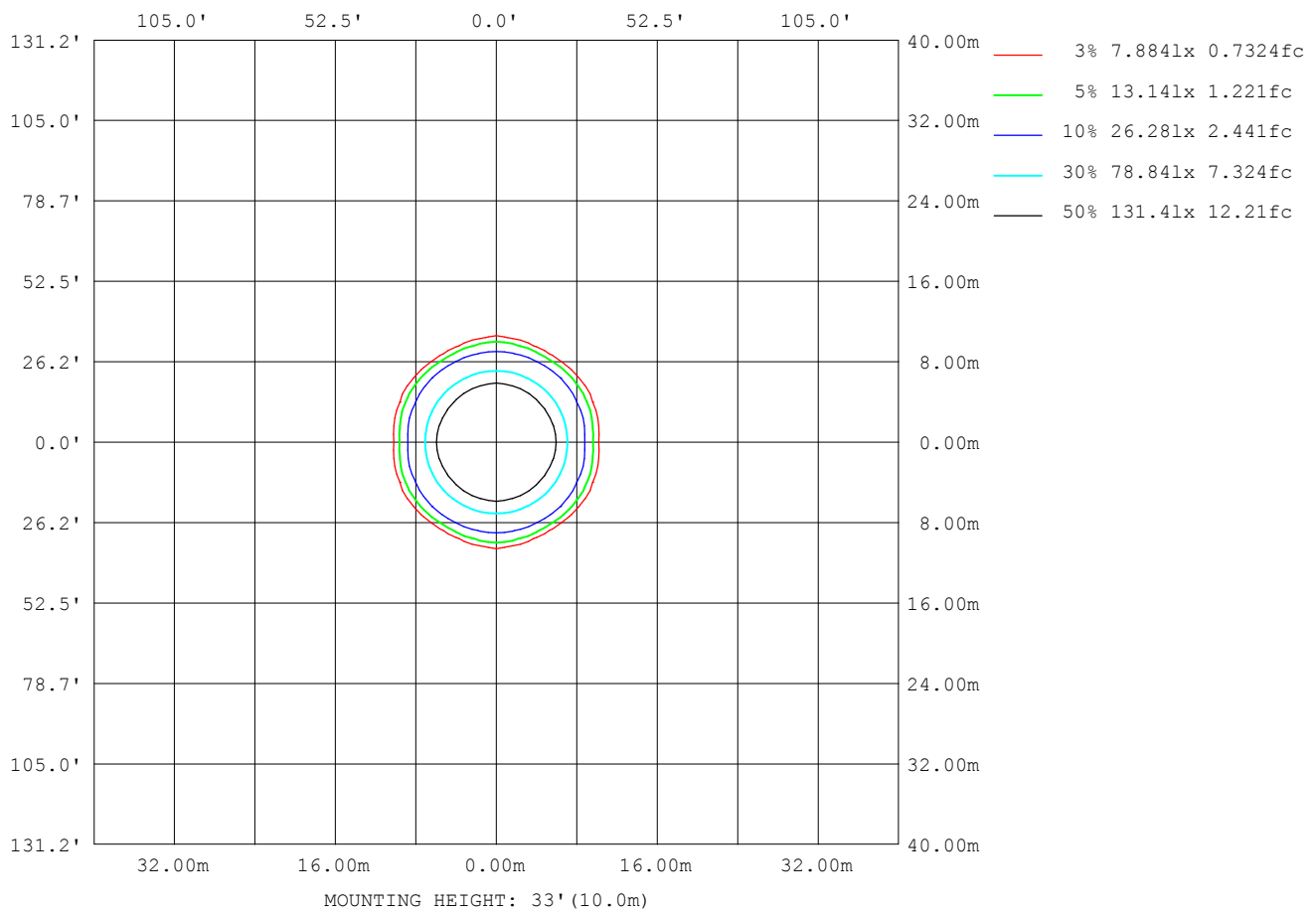
AAI Figure



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2020-06-17

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: 2020-06-17

$\gamma$  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:

## LED Avg.L Report

Test:U:230.3V I:0.8687A P:196.8W PF:0.9834 Freq:49.99Hz Lamp Flux:34054.2x1 lm		
NAME: H29APC-20-R360-70-50H-3803030R7	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

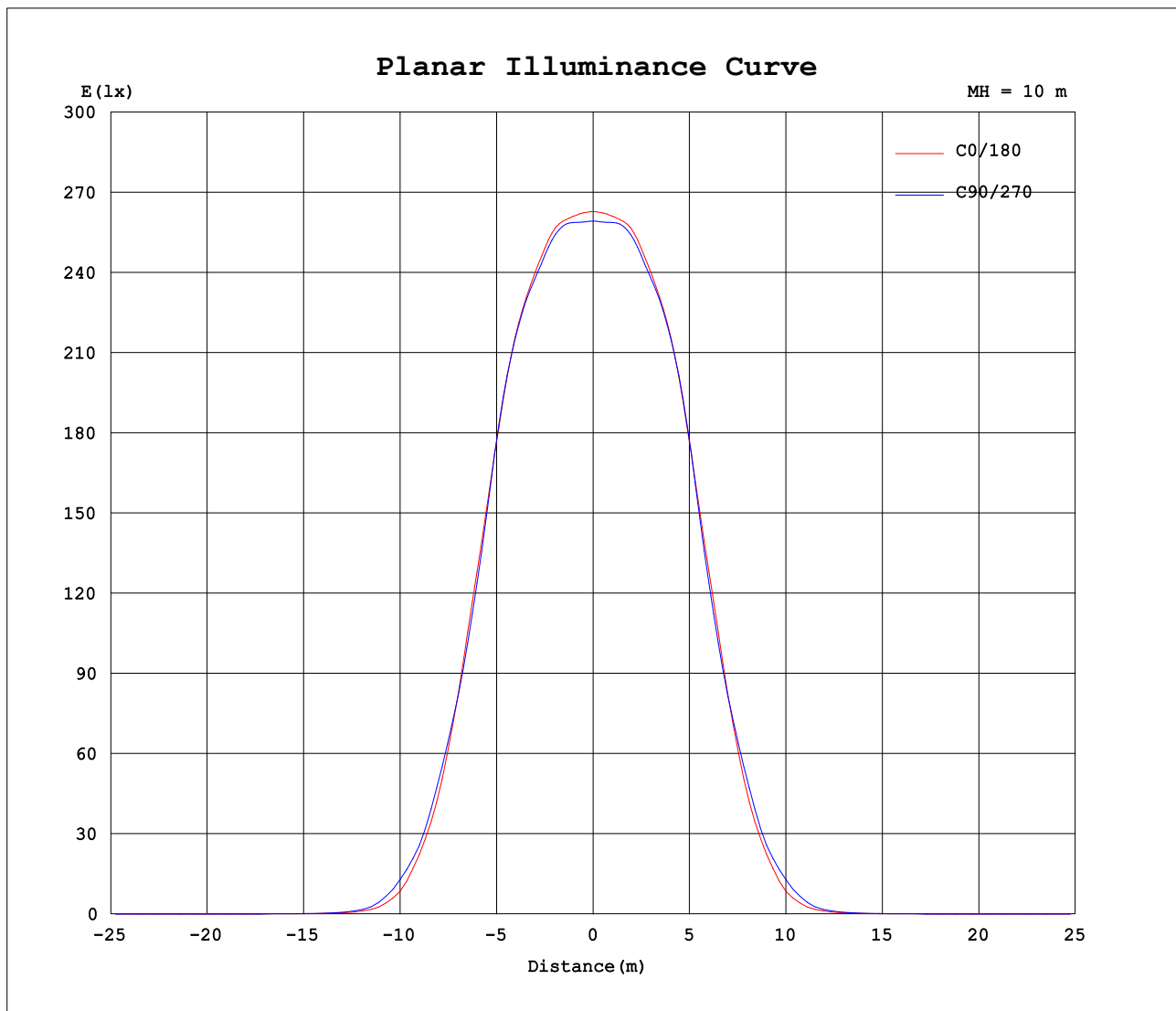
AvgL	cd/m2
L_0~180 (65) av	1160
L_0~180 (75) av	903
L_0~180 (85) av	182
L_90~270 (65) av	1147
L_90~270 (75) av	907
L_90~270 (85) av	241
L_45 (65) av	1166
L_45 (75) av	912
L_45 (85) av	205

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2020-06-17

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: 2020-06-17

$\gamma$  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	2628	2598	2595	2592	2592	2591	2592	2591	2592	2592	2595	2598	2628	2598	2595	2592	2592	2591	2592
5	2644	2614	2612	2612	2615	2615	2617	2615	2615	2612	2612	2614	2644	2614	2612	2612	2615	2615	2617
10	2703	2666	2654	2653	2664	2676	2680	2676	2664	2653	2654	2666	2703	2666	2654	2653	2664	2676	2680
15	2729	2687	2684	2699	2712	2707	2699	2707	2712	2699	2684	2687	2729	2687	2684	2699	2712	2707	2699
20	2728	2689	2688	2711	2734	2726	2717	2726	2734	2711	2688	2689	2728	2689	2688	2711	2734	2726	2717
25	2581	2540	2564	2518	2521	2560	2594	2560	2521	2518	2564	2540	2581	2540	2564	2518	2521	2560	2594
30	2144	2119	2071	2052	2061	2054	2089	2054	2061	2052	2071	2119	2144	2119	2071	2052	2061	2054	2089
35	1491	1481	1503	1493	1499	1496	1482	1496	1499	1493	1503	1481	1491	1481	1503	1493	1499	1496	1482
40	769	831	870	874	833	839	874	839	833	874	870	831	769	831	870	874	833	839	874
45	243	303	336	304	277	314	366	314	277	304	336	303	243	303	336	304	277	314	366
50	47.6	61.8	70.7	67.1	54.6	60.7	69.4	60.7	54.6	67.1	70.7	61.8	47.6	61.8	70.7	67.1	54.6	60.7	69.4
55	14.1	14.4	14.6	15.8	15.4	15.5	14.9	15.5	15.4	15.8	14.6	14.4	14.1	14.4	14.6	15.8	15.4	15.5	14.9
60	7.93	7.96	7.70	8.08	8.27	8.10	7.93	8.10	8.27	8.08	7.70	7.96	7.93	7.96	7.70	8.08	8.27	8.10	7.93
65	5.00	4.97	4.78	5.02	5.12	5.07	4.94	5.07	5.12	5.02	4.78	4.97	5.00	4.97	4.78	5.02	5.12	5.07	4.94
70	3.44	3.46	3.34	3.51	3.54	3.54	3.47	3.54	3.54	3.51	3.34	3.46	3.44	3.46	3.34	3.51	3.54	3.54	3.47
75	2.39	2.40	2.33	2.41	2.42	2.45	2.39	2.45	2.42	2.41	2.33	2.40	2.39	2.40	2.33	2.41	2.42	2.45	2.39
80	1.22	1.23	1.21	1.25	1.26	1.28	1.25	1.28	1.26	1.25	1.21	1.23	1.22	1.23	1.21	1.25	1.26	1.28	1.25
85	0.16	0.17	0.18	0.18	0.20	0.20	0.21	0.20	0.20	0.18	0.18	0.17	0.16	0.17	0.18	0.18	0.20	0.20	0.21
90	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
95	0.16	0.18	0.18	0.17	0.16	0.17	0.18	0.17	0.16	0.17	0.18	0.18	0.16	0.18	0.18	0.17	0.16	0.17	0.18
100	0.44	0.45	0.46	0.46	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.45	0.44	0.45	0.46	0.46	0.45	0.45	0.45
105	0.95	0.92	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.92	0.95	0.92	0.93	0.93	0.92	0.92	0.92
110	1.66	1.61	1.60	1.61	1.60	1.60	1.59	1.60	1.60	1.61	1.60	1.61	1.66	1.61	1.60	1.61	1.60	1.60	1.59
115	2.54	2.47	2.46	2.46	2.46	2.47	2.47	2.47	2.46	2.46	2.46	2.47	2.54	2.47	2.46	2.46	2.46	2.47	2.47
120	3.57	3.48	3.48	3.50	3.51	3.51	3.52	3.51	3.51	3.50	3.48	3.48	3.57	3.48	3.48	3.50	3.51	3.51	3.52
125	4.76	4.66	4.67	4.69	4.70	4.71	4.72	4.71	4.70	4.69	4.67	4.66	4.76	4.66	4.67	4.69	4.70	4.71	4.72
130	6.15	6.05	6.06	6.07	6.08	6.09	6.10	6.09	6.08	6.07	6.06	6.05	6.15	6.05	6.06	6.07	6.08	6.09	6.10
135	7.70	7.58	7.59	7.60	7.61	7.61	7.62	7.61	7.61	7.60	7.59	7.58	7.70	7.58	7.59	7.60	7.61	7.61	7.62
140	9.30	9.18	9.18	9.18	9.19	9.20	9.20	9.20	9.19	9.18	9.18	9.18	9.30	9.18	9.18	9.18	9.19	9.20	9.20
145	10.9	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.9	10.7	10.7	10.7	10.7	10.7	10.7
150	12.3	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.3	12.2	12.2	12.2	12.2	12.2	12.2
155	13.7	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.7	13.6	13.6	13.6	13.6	13.6	13.6
160	15.2	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.2	15.0	15.0	15.0	15.0	15.0	15.0
165	16.7	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.7	16.5	16.5	16.5	16.5	16.5	16.5
170	18.1	17.9	17.9	17.8	17.8	17.9	17.9	17.9	17.8	17.8	17.9	17.9	18.1	17.9	17.9	17.8	17.8	17.9	17.9
175	19.1	18.9	18.9	18.9	18.8	18.9	18.9	18.9	18.8	18.9	18.9	18.9	19.1	18.9	18.9	18.9	18.8	18.9	18.9
180	19.5	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.5	19.3	19.3	19.3	19.3	19.3	19.3

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-17

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	2591	2592	2592	2595	2598														
5	2615	2615	2612	2612	2614														
10	2676	2664	2653	2654	2666														
15	2707	2712	2699	2684	2687														
20	2726	2734	2711	2688	2689														
25	2560	2521	2518	2564	2540														
30	2054	2061	2052	2071	2119														
35	1496	1499	1493	1503	1481														
40	839	833	874	870	831														
45	314	277	304	336	303														
50	60.7	54.6	67.1	70.7	61.8														
55	15.5	15.4	15.8	14.6	14.4														
60	8.10	8.27	8.08	7.70	7.96														
65	5.07	5.12	5.02	4.78	4.97														
70	3.54	3.54	3.51	3.34	3.46														
75	2.45	2.42	2.41	2.33	2.40														
80	1.28	1.26	1.25	1.21	1.23														
85	0.20	0.20	0.18	0.18	0.17														
90	0.08	0.08	0.08	0.08	0.08														
95	0.17	0.16	0.17	0.18	0.18														
100	0.45	0.45	0.46	0.46	0.45														
105	0.92	0.92	0.93	0.93	0.92														
110	1.60	1.60	1.61	1.60	1.61														
115	2.47	2.46	2.46	2.46	2.47														
120	3.51	3.51	3.50	3.48	3.48														
125	4.71	4.70	4.69	4.67	4.66														
130	6.09	6.08	6.07	6.06	6.05														
135	7.61	7.61	7.60	7.59	7.58														
140	9.20	9.19	9.18	9.18	9.18														
145	10.7	10.7	10.7	10.7	10.7														
150	12.2	12.2	12.2	12.2	12.2														
155	13.6	13.6	13.6	13.6	13.6														
160	15.0	15.0	15.0	15.0	15.0														
165	16.5	16.5	16.5	16.5	16.5														
170	17.9	17.8	17.8	17.9	17.9														
175	18.9	18.8	18.9	18.9	18.9														
180	19.3	19.3	19.3	19.3	19.3														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-17

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	26279	25977	25953	25922	25920	25906	25923	25906	25920	25922
3.0	26333	26029	26008	25991	25990	25976	26000	25976	25990	25991
6.0	26532	26217	26206	26210	26244	26270	26304	26270	26244	26210
9.0	26891	26552	26470	26460	26543	26655	26705	26655	26543	26460
12.0	27225	26806	26664	26678	26803	26915	26935	26915	26803	26678
15.0	27287	26870	26838	26989	27118	27066	26987	27066	27118	26989
18.0	27329	26939	26969	27164	27364	27222	27155	27222	27364	27164
21.0	27206	26775	26806	26994	27227	27202	27103	27202	27227	26994
24.0	26365	25921	26128	25900	26014	26284	26447	26284	26014	25900
27.0	24324	23981	24035	23305	23296	23680	24333	23680	23296	23305
30.0	21439	21187	20708	20519	20609	20539	20893	20539	20609	20519
33.0	17880	17599	17337	17565	17788	17477	17191	17477	17788	17565
36.0	13364	13426	13786	13451	13436	13552	13665	13552	13436	13451
39.0	8941	9516	9960	9800	9382	9502	10062	9502	9382	9800
42.0	5466	6066	6213	6564	6178	6358	6282	6358	6178	6564
45.0	2428	3027	3358	3042	2775	3142	3661	3142	2775	3042
48.0	890.9	1224	1429	1300	1029	1198	1491	1198	1029	1300
51.0	349.7	452.4	508.6	477.5	394.3	427.9	519.9	427.9	394.3	477.5
54.0	164.1	180.9	182.8	190.5	179.5	187.4	193.9	187.4	179.5	190.5
57.0	111.0	111.1	108.2	115.9	120.4	114.2	110.3	114.2	120.4	115.9
60.0	79.34	79.60	77.05	80.76	82.73	81.02	79.27	81.02	82.73	80.76
63.0	58.64	58.77	57.10	59.39	60.12	59.89	58.93	59.89	60.12	59.39
66.0	45.97	45.95	44.23	46.53	47.30	47.03	45.75	47.03	47.30	46.53
69.0	36.84	36.94	35.71	37.47	37.88	37.88	36.99	37.88	37.88	37.47
72.0	30.20	30.32	29.39	30.63	30.90	30.94	30.30	30.94	30.90	30.63
75.0	23.85	23.95	23.34	24.07	24.23	24.47	23.94	24.47	24.23	24.07
78.0	17.10	17.16	16.67	17.23	17.52	17.65	17.15	17.65	17.52	17.23
81.0	9.741	9.914	9.750	10.01	10.14	10.41	10.23	10.41	10.14	10.01
84.0	3.267	3.338	3.441	3.537	3.754	3.820	3.818	3.820	3.754	3.537
87.0	0.7258	0.7292	0.7265	0.7237	0.7294	0.7203	0.7476	0.7203	0.7294	0.7237
90.0	0.7967	0.8455	0.8379	0.8231	0.8017	0.8001	0.8318	0.8001	0.8017	0.8231
93.0	1.107	1.235	1.261	1.214	1.109	1.154	1.228	1.154	1.109	1.214
96.0	2.012	2.168	2.216	2.146	1.966	2.094	2.209	2.094	1.966	2.146
99.0	3.707	3.805	3.899	3.908	3.727	3.777	3.822	3.777	3.727	3.908
102.0	6.167	6.143	6.285	6.241	6.039	6.097	6.169	6.097	6.039	6.241
105.0	9.463	9.248	9.303	9.330	9.170	9.211	9.219	9.211	9.170	9.330
108.0	13.50	13.14	13.09	13.21	13.14	13.09	12.99	13.09	13.14	13.21
111.0	18.20	17.67	17.54	17.61	17.55	17.53	17.47	17.53	17.55	17.61
114.0	23.46	22.84	22.70	22.71	22.68	22.75	22.79	22.75	22.68	22.71
117.0	29.35	28.60	28.49	28.61	28.64	28.75	28.74	28.75	28.64	28.61
120.0	35.67	34.83	34.80	34.98	35.13	35.14	35.18	35.14	35.13	34.98
123.0	42.60	41.67	41.73	41.92	42.06	42.09	42.15	42.09	42.06	41.92
126.0	50.24	49.26	49.35	49.51	49.66	49.71	49.78	49.71	49.66	49.51
129.0	58.61	57.59	57.68	57.82	57.93	58.01	58.08	58.01	57.93	57.82
132.0	67.59	66.49	66.60	66.72	66.81	66.89	66.95	66.89	66.81	66.72
135.0	76.97	75.83	75.90	76.00	76.10	76.14	76.19	76.14	76.10	76.00
138.0	86.61	85.41	85.42	85.48	85.59	85.65	85.64	85.65	85.59	85.48
141.0	96.11	94.93	94.93	94.93	95.00	95.11	95.10	95.11	95.00	94.93
144.0	105.5	104.3	104.4	104.3	104.3	104.4	104.4	104.4	104.3	104.3
147.0	114.5	113.2	113.3	113.3	113.4	113.3	113.3	113.3	113.4	113.3
150.0	123.1	121.8	121.8	121.8	122.0	121.9	121.8	121.9	122.0	121.8
153.0	131.2	129.9	130.0	130.0	130.2	130.1	130.0	130.1	130.2	130.0
156.0	139.8	138.5	138.4	138.5	138.8	138.7	138.5	138.7	138.8	138.5
159.0	148.8	147.0	147.0	147.2	147.4	147.3	147.1	147.3	147.4	147.2
162.0	158.0	156.1	156.1	156.3	156.2	156.2	156.2	156.2	156.3	156.1
165.0	167.0	165.1	165.0	164.9	165.1	165.1	165.1	165.1	165.1	164.9
168.0	175.8	173.8	173.5	173.4	173.5	173.6	173.5	173.5	173.4	173.5
171.0	183.2	181.1	180.9	180.6	180.6	180.7	181.0	180.7	180.6	180.6
174.0	189.5	187.3	187.2	187.1	187.0	187.1	187.2	187.1	187.0	187.1
177.0	193.2	191.0	190.9	190.9	190.7	190.8	190.8	190.8	190.7	190.9
180.0	195.0	192.9	192.9	192.8	192.6	192.6	192.8	192.6	192.6	192.8
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	25953	25977	26279	25977	25953	25922	25920	25906	25923	25906
3.0	26008	26029	26333	26029	26008	25991	25990	25976	26000	25976
6.0	26206	26217	26532	26217	26206	26210	26244	26270	26304	26270
9.0	26470	26552	26891	26552	26470	26460	26543	26655	26705	26655
12.0	26664	26806	27225	26806	26664	26678	26803	26915	26935	26915
15.0	26838	26870	27287	26838	26806	26989	27118	27066	26987	27066
18.0	26969	26939	27329	26969	26939	27164	27364	27222	27155	27222
21.0	26806	26775	27206	26775	26806	26994	27227	27202	27103	27202
24.0	26128	25921	26365	25921	26128	25900	26014	26284	26447	26284
27.0	24035	23981	24324	23981	24035	23305	23296	23680	24333	23680
30.0	20708	21187	21439	21187	20708	20519	20609	20539	20893	20539

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-06-17

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	17337	17599	17880	17599	17337	17565	17788	17477	17191	17477
36.0	13786	13426	13364	13426	13786	13451	13436	13552	13665	13552
39.0	9960	9516	8941	9516	9960	9800	9382	9502	10062	9502
42.0	6213	6066	5466	6066	6213	6564	6178	6358	6282	6358
45.0	3358	3027	2428	3027	3358	3042	2775	3142	3661	3142
48.0	1429	1224	890.9	1224	1429	1300	1029	1198	1491	1198
51.0	508.6	452.4	349.7	452.4	508.6	477.5	394.3	427.9	519.9	427.9
54.0	182.8	180.9	164.1	180.9	182.8	190.5	179.5	187.4	193.9	187.4
57.0	108.2	111.1	111.0	111.1	108.2	115.9	120.4	114.2	110.3	114.2
60.0	77.05	79.60	79.34	79.60	77.05	80.76	82.73	81.02	79.27	81.02
63.0	57.10	58.77	58.64	58.77	57.10	59.39	60.12	59.89	58.93	59.89
66.0	44.23	45.95	45.97	45.95	44.23	46.53	47.30	47.03	45.75	47.03
69.0	35.71	36.94	36.84	36.94	35.71	37.47	37.88	37.88	36.99	37.88
72.0	29.39	30.32	30.20	30.32	29.39	30.63	30.90	30.94	30.30	30.94
75.0	23.34	23.95	23.85	23.95	23.34	24.07	24.23	24.47	23.94	24.47
78.0	16.67	17.16	17.10	17.16	16.67	17.23	17.52	17.65	17.15	17.65
81.0	9.750	9.914	9.741	9.914	9.750	10.01	10.14	10.41	10.23	10.41
84.0	3.441	3.338	3.267	3.338	3.441	3.537	3.754	3.820	3.818	3.820
87.0	0.7265	0.7292	0.7258	0.7292	0.7265	0.7237	0.7294	0.7203	0.7476	0.7203
90.0	0.8379	0.8455	0.7967	0.8455	0.8379	0.8231	0.8017	0.8001	0.8318	0.8001
93.0	1.261	1.235	1.107	1.235	1.261	1.214	1.109	1.154	1.228	1.154
96.0	2.216	2.168	2.012	2.168	2.216	2.146	1.966	2.094	2.209	2.094
99.0	3.899	3.805	3.707	3.805	3.899	3.908	3.727	3.777	3.822	3.777
102.0	6.285	6.143	6.167	6.143	6.285	6.241	6.039	6.097	6.169	6.097
105.0	9.303	9.248	9.463	9.248	9.303	9.330	9.170	9.211	9.219	9.211
108.0	13.09	13.14	13.50	13.14	13.09	13.21	13.14	13.09	12.99	13.09
111.0	17.54	17.67	18.20	17.67	17.54	17.61	17.55	17.53	17.47	17.53
114.0	22.70	22.84	23.46	22.84	22.70	22.71	22.68	22.75	22.79	22.75
117.0	28.49	28.60	29.35	28.60	28.49	28.61	28.64	28.75	28.74	28.75
120.0	34.80	34.83	35.67	34.83	34.80	34.98	35.13	35.14	35.18	35.14
123.0	41.73	41.67	42.60	41.67	41.73	41.92	42.06	42.09	42.15	42.09
126.0	49.35	49.26	50.24	49.26	49.35	49.51	49.66	49.71	49.78	49.71
129.0	57.68	57.59	58.61	57.59	57.68	57.82	57.93	58.01	58.08	58.01
132.0	66.60	66.49	67.59	66.49	66.60	66.72	66.81	66.89	66.95	66.89
135.0	75.90	75.83	76.97	75.83	75.90	76.00	76.10	76.14	76.19	76.14
138.0	85.42	85.41	86.61	85.41	85.42	85.48	85.59	85.65	85.64	85.65
141.0	94.93	94.93	96.11	94.93	94.93	94.93	95.00	95.11	95.10	95.11
144.0	104.4	104.3	105.5	104.3	104.4	104.3	104.3	104.4	104.4	104.4
147.0	113.3	113.2	114.5	113.2	113.3	113.3	113.4	113.3	113.3	113.3
150.0	121.8	121.8	123.1	121.8	121.8	121.8	122.0	121.9	121.8	121.9
153.0	130.0	129.9	131.2	129.9	130.0	130.0	130.2	130.1	130.0	130.1
156.0	138.4	138.5	139.8	138.5	138.4	138.5	138.8	138.7	138.5	138.7
159.0	147.0	147.0	148.8	147.0	147.0	147.2	147.4	147.3	147.1	147.3
162.0	156.1	156.1	158.0	156.1	156.1	156.1	156.3	156.2	156.2	156.2
165.0	165.0	165.1	167.0	165.1	165.0	164.9	165.1	165.1	165.1	165.1
168.0	173.5	173.8	175.8	173.8	173.5	173.3	173.4	173.5	173.6	173.5
171.0	180.9	181.1	183.2	181.1	180.9	180.6	180.6	180.7	181.0	180.7
174.0	187.2	187.3	189.5	187.3	187.2	187.1	187.0	187.1	187.2	187.1
177.0	190.9	191.0	193.2	191.0	190.9	190.9	190.7	190.8	191.0	190.8
180.0	192.9	192.9	195.0	192.9	192.9	192.8	192.6	192.6	192.8	192.6
G/C	300.0	315.0	330.0	345.0						
0.0	25920	25922	25953	25977						
3.0	25990	25991	26008	26029						
6.0	26244	26210	26206	26217						
9.0	26543	26460	26470	26552						
12.0	26803	26678	26664	26806						
15.0	27118	26989	26838	26870						
18.0	27364	27164	26969	26939						
21.0	27227	26994	26806	26775						
24.0	26014	25900	26128	25921						
27.0	23296	23305	24035	23981						
30.0	20609	20519	20708	21187						
33.0	17788	17565	17337	17599						
36.0	13436	13451	13786	13426						
39.0	9382	9800	9960	9516						
42.0	6178	6564	6213	6066						
45.0	2775	3042	3358	3027						
48.0	1029	1300	1429	1224						
51.0	394.3	477.5	508.6	452.4						
54.0	179.5	190.5	182.8	180.9						
57.0	120.4	115.9	108.2	111.1						
60.0	82.73	80.76	77.05	79.60						
63.0	60.12	59.39	57.10	58.77						
66.0	47.30	46.53	44.23	45.95						

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-17

v Range: 0 - 180DEG  
 v 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	37.88	37.47	35.71	36.94
72.0	30.90	30.63	29.39	30.32
75.0	24.23	24.07	23.34	23.95
78.0	17.52	17.23	16.67	17.16
81.0	10.14	10.01	9.750	9.914
84.0	3.754	3.537	3.441	3.338
87.0	0.7294	0.7237	0.7265	0.7292
90.0	0.8017	0.8231	0.8379	0.8455
93.0	1.109	1.214	1.261	1.235
96.0	1.966	2.146	2.216	2.168
99.0	3.727	3.908	3.899	3.805
102.0	6.039	6.241	6.285	6.143
105.0	9.170	9.330	9.303	9.248
108.0	13.14	13.21	13.09	13.14
111.0	17.55	17.61	17.54	17.67
114.0	22.68	22.71	22.70	22.84
117.0	28.64	28.61	28.49	28.60
120.0	35.13	34.98	34.80	34.83
123.0	42.06	41.92	41.73	41.67
126.0	49.66	49.51	49.35	49.26
129.0	57.93	57.82	57.68	57.59
132.0	66.81	66.72	66.60	66.49
135.0	76.10	76.00	75.90	75.83
138.0	85.59	85.48	85.42	85.41
141.0	95.00	94.93	94.93	94.93
144.0	104.3	104.3	104.4	104.3
147.0	113.4	113.3	113.3	113.2
150.0	122.0	121.8	121.8	121.8
153.0	130.2	130.0	130.0	129.9
156.0	138.8	138.5	138.4	138.5
159.0	147.4	147.2	147.0	147.0
162.0	156.3	156.1	156.1	156.1
165.0	165.1	164.9	165.0	165.1
168.0	173.4	173.3	173.5	173.8
171.0	180.6	180.6	180.9	181.1
174.0	187.0	187.1	187.2	187.3
177.0	190.7	190.9	190.9	191.0
180.0	192.6	192.8	192.9	192.9

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-17

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: