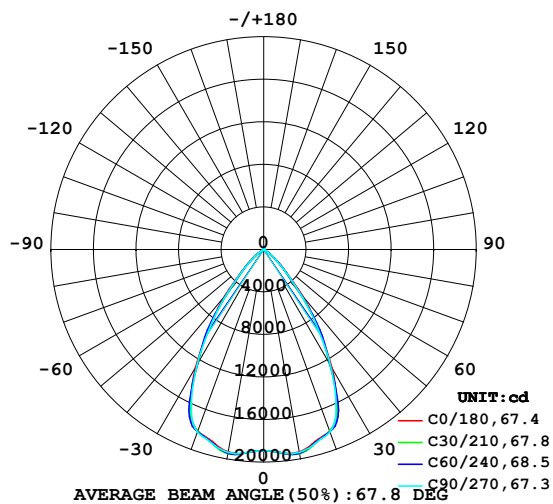


## LUMINAIRE PHOTOMETRIC TEST REPORT

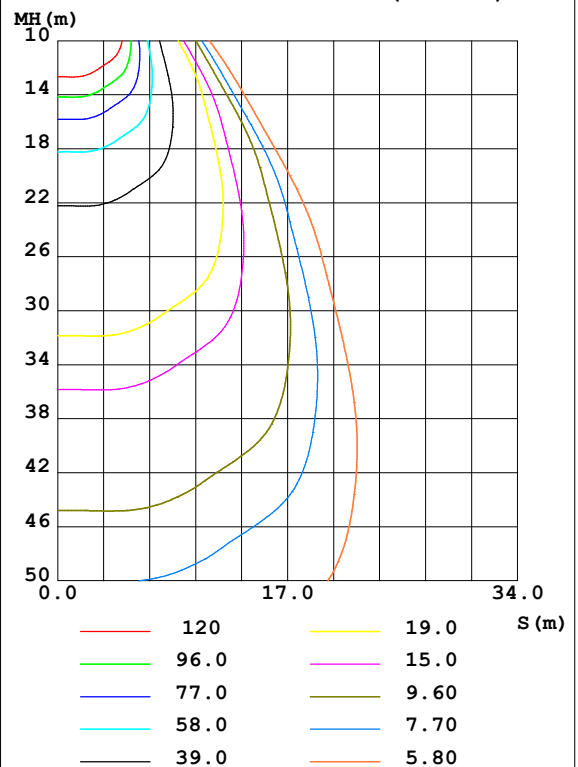
Test:U:230.3V I:0.6592A P:149.4W PF:0.9845 Freq:49.99Hz Lamp Flux:23103.5x1 lm		
NAME: H29APC-15-R280-70-50H-2523030R7	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 154.60 lm/W			
MODEL		I <sub>max</sub> (cd)	19540	S/MH (C0/180)	1.00
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	0.99
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	23103	η UP, DN (C0-180)	0.5, 49.5
NOMINAL FLUX (lm)	23103.5	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	1.05

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: 2020-06-24

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	1933	1953	1937	1953	1933	1953	1937	1953	0- 10	1843	1843	7.98, 7.98
20	1817	1816	1825	1816	1817	1816	1825	1816	10- 20	5325	7167	31, 31
30	1282	1226	1255	1226	1282	1226	1255	1226	20- 30	7346	14513	62.8, 62.8
40	568.2	496.7	522.8	496.7	568.2	496.7	522.8	496.7	30- 40	5493	20006	86.6, 86.6
50	145.0	129.7	136.0	129.7	145.0	129.7	136.0	129.7	40- 50	2205	22211	96.1, 96.1
60	18.66	17.79	19.32	17.79	18.66	17.79	19.32	17.79	50- 60	533.5	22744	98.4, 98.4
70	4.767	4.641	4.823	4.641	4.767	4.641	4.823	4.641	60- 70	93.48	22838	98.9, 98.9
80	1.218	1.211	1.209	1.211	1.218	1.211	1.209	1.211	70- 80	29.74	22868	99, 99
90	0.1192	0.1216	0.1279	0.1216	0.1192	0.1216	0.1279	0.1216	80- 90	3.858	22871	99, 99
100	0.4085	0.3868	0.4026	0.3868	0.4085	0.3868	0.4026	0.3868	90-100	2.523	22874	99, 99
110	1.152	1.125	1.135	1.125	1.152	1.125	1.135	1.125	100-110	7.634	22882	99, 99
120	2.443	2.410	2.412	2.410	2.443	2.410	2.412	2.410	110-120	17.15	22899	99.1, 99.1
130	4.191	4.163	4.164	4.163	4.191	4.163	4.164	4.163	120-130	28.94	22928	99.2, 99.2
140	6.370	6.351	6.349	6.351	6.370	6.351	6.349	6.351	130-140	40.31	22968	99.4, 99.4
150	8.638	8.609	8.633	8.609	8.638	8.609	8.633	8.609	140-150	46.80	23015	99.6, 99.6
160	10.60	10.57	10.59	10.57	10.60	10.57	10.59	10.57	150-160	44.23	23059	99.8, 99.8
170	12.31	12.28	12.30	12.28	12.31	12.28	12.30	12.28	160-170	32.29	23091	99.9, 99.9
180	13.23	13.20	13.23	13.20	13.23	13.20	13.23	13.20	170-180	12.11	23103	100, 100
DEG	LUMINOUS INTENSITY: *10cd									UNIT: lm		

Conical surface Flux(90deg): 21402 lm

%lum = 92.6%

%lamp = 92.6%

Conical surface Flux(120deg): 22744 lm

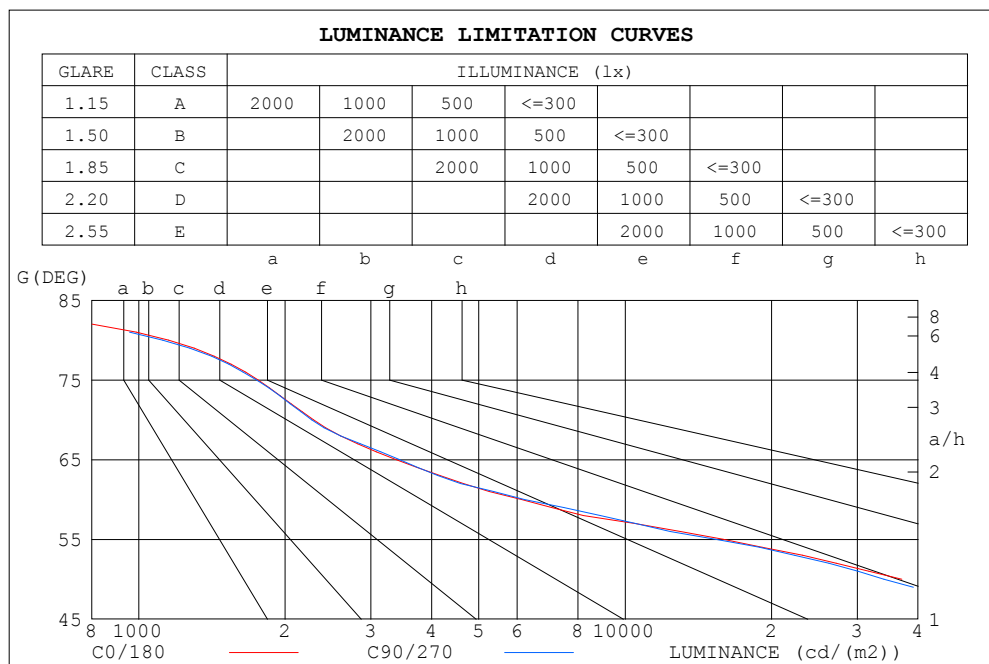
%lum = 98.4%

%lamp = 98.4%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

$\gamma$  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



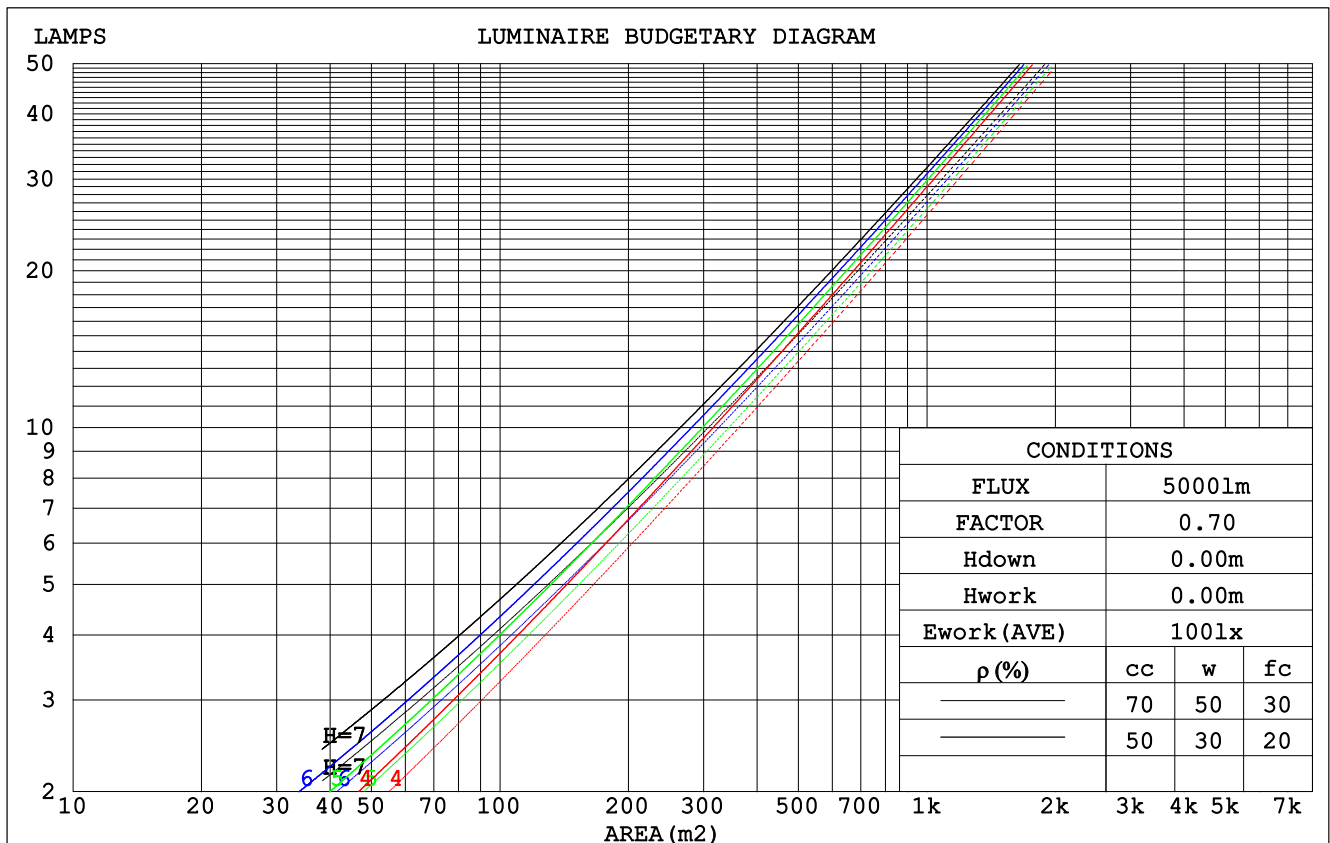
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	261	281
80	1152	1119
75	1759	1745
70	2288	2267
65	3378	3432
60	6126	6212
55	15882	15308
50	37033	34021
45	68189	64225

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: QC  
Test Date: 2020-06-24

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:

## 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	1.19	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	.90	.93	.91	.88	.90	.88	.86	.85
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.82	.87	.84	.81	.85	.82	.80	.78
4.0	.87	.81	.77	.86	.81	.76	.84	.79	.75	.82	.78	.74	.80	.76	.73	.72
5.0	.81	.75	.70	.80	.74	.70	.78	.73	.69	.76	.72	.68	.75	.71	.68	.66
6.0	.76	.69	.65	.75	.69	.64	.73	.68	.64	.71	.67	.63	.70	.66	.63	.61
7.0	.70	.64	.60	.70	.64	.59	.68	.63	.59	.67	.62	.59	.66	.61	.58	.57
8.0	.66	.60	.55	.65	.59	.55	.64	.59	.55	.63	.58	.54	.62	.57	.54	.53
9.0	.62	.56	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.58	.54	.50	.49
10.0	.58	.52	.48	.58	.52	.48	.57	.51	.48	.56	.51	.47	.55	.50	.47	.46



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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	.145	.084	.027	
2.0	.182	.100	.031	.176	.097	.030	.165	.092	.028	.154	.087	.027	.145	.082	.026	
3.0	.174	.093	.028	.169	.090	.027	.159	.086	.026	.150	.082	.025	.142	.079	.024	
4.0	.166	.086	.025	.162	.085	.025	.153	.081	.024	.145	.078	.024	.138	.075	.023	
5.0	.159	.081	.023	.155	.079	.023	.147	.077	.023	.140	.074	.022	.134	.072	.022	
6.0	.151	.076	.022	.148	.075	.022	.141	.072	.021	.135	.070	.021	.130	.068	.020	
7.0	.145	.072	.020	.142	.071	.020	.136	.069	.020	.130	.067	.019	.125	.065	.019	
8.0	.138	.068	.019	.136	.067	.019	.130	.065	.019	.125	.064	.018	.121	.062	.018	
9.0	.133	.064	.018	.130	.063	.018	.125	.062	.018	.121	.061	.017	.117	.059	.017	
10.0	.127	.061	.017	.125	.060	.017	.120	.059	.017	.116	.058	.016	.112	.057	.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	.116	.116	.116	.066	.066	.066	.021	.021	.021	
1.0	.180	.165	.152	.154	.142	.131	.105	.097	.090	.061	.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	.091	.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	.081	.058	.040	.047	.034	.024	.015	.011	.008	
6.0	.129	.087	.056	.111	.075	.049	.077	.052	.034	.044	.031	.020	.014	.010	.007	
7.0	.123	.079	.048	.106	.069	.042	.073	.048	.030	.042	.028	.018	.014	.009	.006	
8.0	.117	.073	.043	.101	.063	.037	.070	.045	.026	.041	.026	.016	.013	.009	.005	
9.0	.112	.068	.038	.097	.059	.033	.067	.041	.024	.039	.025	.014	.013	.008	.005	
10.0	.108	.064	.034	.093	.055	.030	.065	.039	.021	.038	.023	.013	.012	.008	.004	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-24

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	11.9	12.9	12.1	13.1	13.3	11.9	12.9	12.1	13.1	13.3
3H	11.7	12.7	12.0	12.9	13.1	11.7	12.7	12.0	12.9	13.1
4H	11.6	12.5	11.9	12.8	13.0	11.6	12.5	11.9	12.8	13.0
6H	11.5	12.4	11.9	12.6	12.9	11.5	12.4	11.9	12.6	12.9
8H	11.5	12.3	11.8	12.6	12.8	11.5	12.3	11.8	12.6	12.8
12H	11.5	12.2	11.8	12.5	12.8	11.4	12.2	11.8	12.5	12.8
4H 2H	11.6	12.5	11.9	12.8	13.0	11.6	12.5	11.9	12.8	13.0
3H	11.5	12.2	11.8	12.5	12.8	11.5	12.2	11.8	12.5	12.8
4H	11.4	12.1	11.7	12.4	12.7	11.4	12.1	11.7	12.4	12.7
6H	11.3	11.9	11.7	12.2	12.6	11.3	11.9	11.7	12.2	12.6
8H	11.2	11.8	11.6	12.2	12.5	11.2	11.8	11.6	12.2	12.5
12H	11.2	11.7	11.6	12.1	12.5	11.2	11.7	11.6	12.1	12.5
8H 4H	11.2	11.8	11.6	12.2	12.5	11.2	11.8	11.6	12.2	12.5
6H	11.1	11.6	11.6	12.0	12.4	11.1	11.6	11.6	12.0	12.4
8H	11.1	11.5	11.5	11.9	12.4	11.1	11.5	11.5	11.9	12.4
12H	11.0	11.4	11.5	11.8	12.3	11.0	11.4	11.5	11.8	12.3
12H 4H	11.2	11.7	11.6	12.1	12.5	11.2	11.7	11.6	12.1	12.5
6H	11.1	11.5	11.5	11.9	12.4	11.1	11.5	11.5	11.9	12.4
8H	11.0	11.4	11.5	11.8	12.3	11.0	11.4	11.5	11.8	12.3
Variations with the observer position at spacings:										
S = 1.0H	+ 3.1 / -11.0					+ 2.8 / -10.8				
1.5H	+ 4.6 / - 8.5					+ 4.3 / - 8.5				
2.0H	+ 6.4 / -10.4					+ 6.1 / -10.5				

CIE Pub.117, 23103 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.9)

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-24

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:

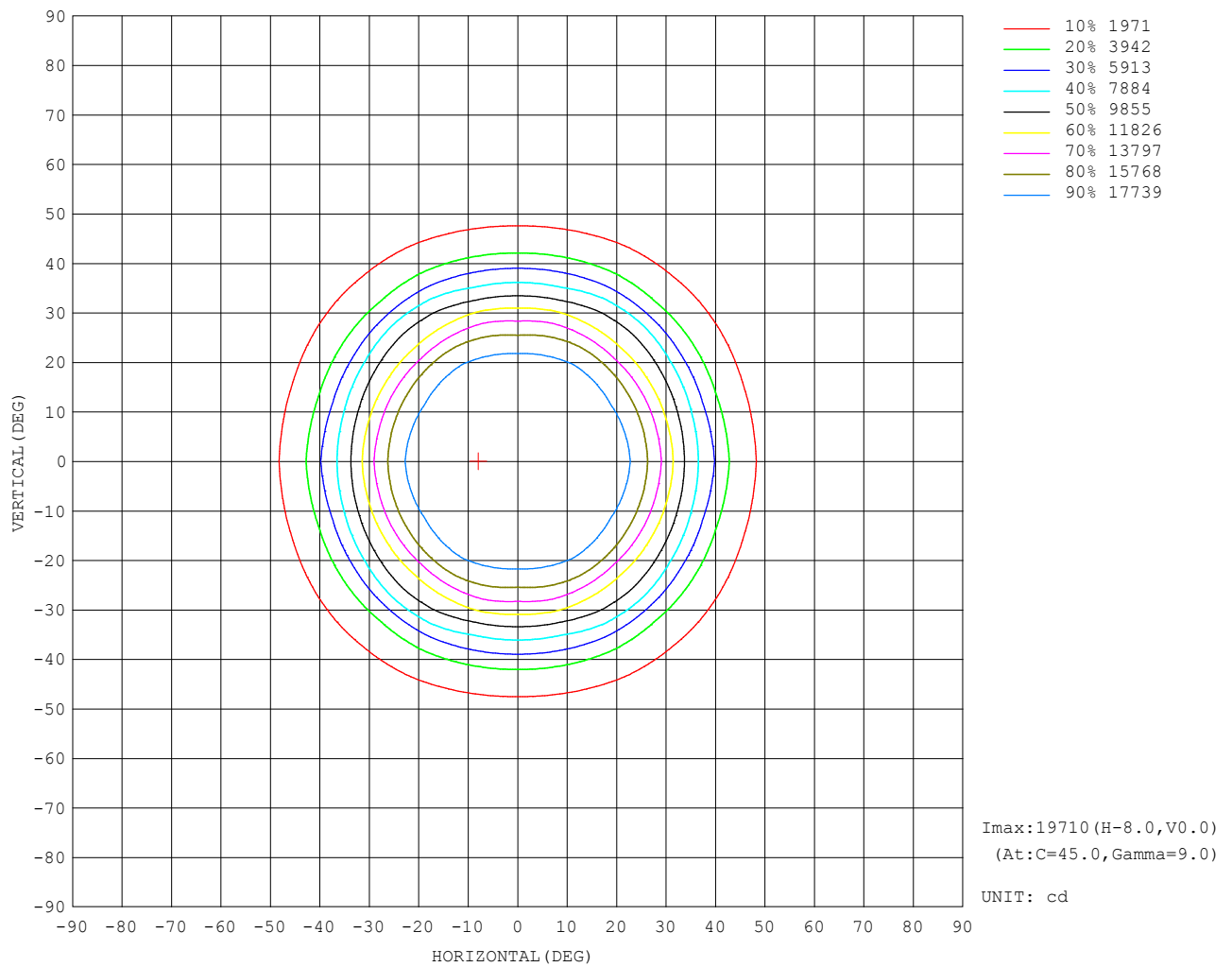
## UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	72	82	76	72	82	75	71	67
0.80	91	85	80	90	84	80	89	84	80	76
1.00	96	90	86	96	90	86	94	90	85	81
1.25	101	95	92	100	95	91	98	93	90	86
1.50	104	99	95	103	98	95	100	96	93	89
2.00	107	103	99	106	102	98	103	99	97	91
2.50	109	105	102	107	104	101	104	101	99	92
3.00	111	107	104	109	106	103	105	103	101	94
4.00	113	110	107	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: 2020-06-24

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

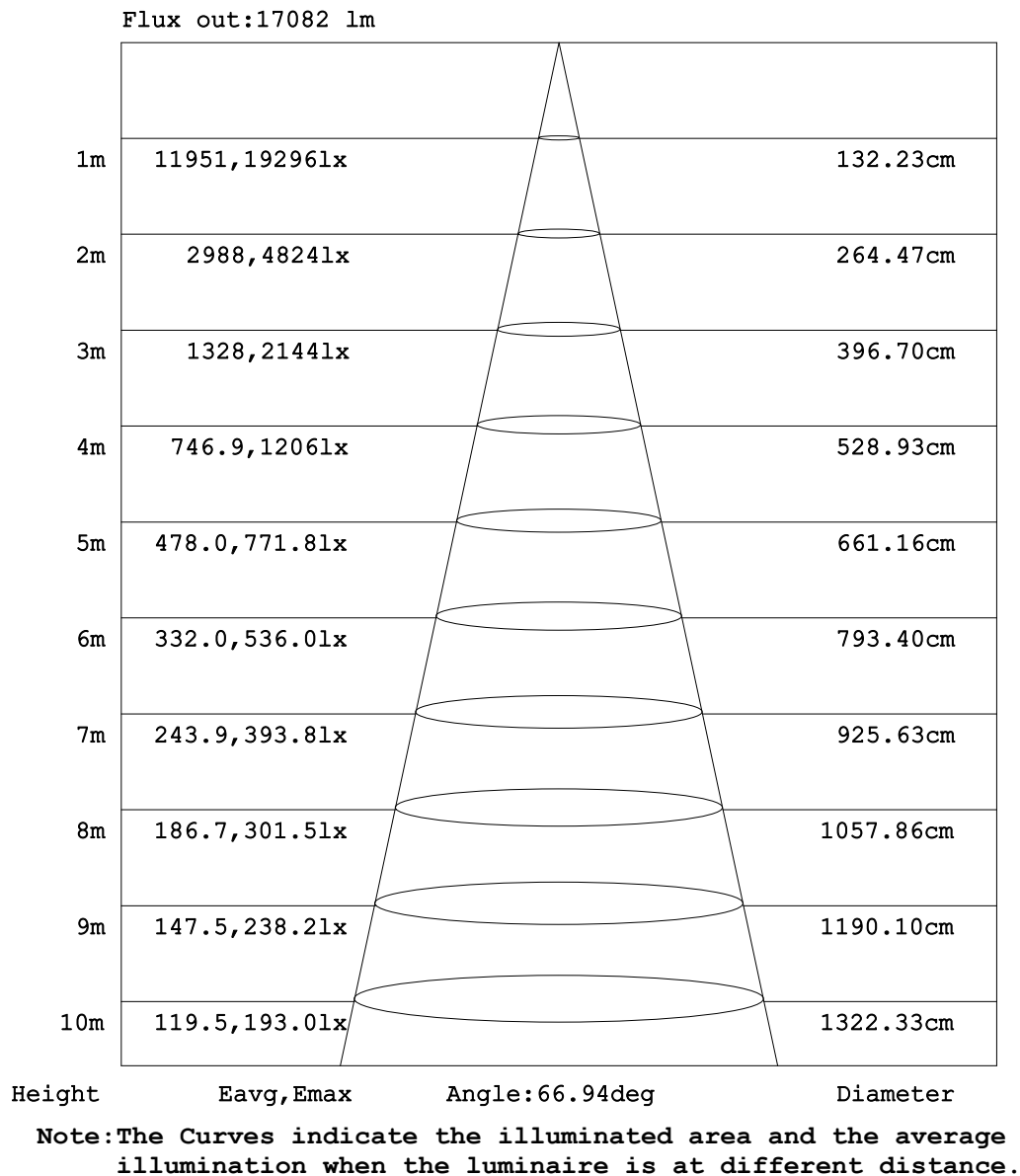


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-24

$\gamma$  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:



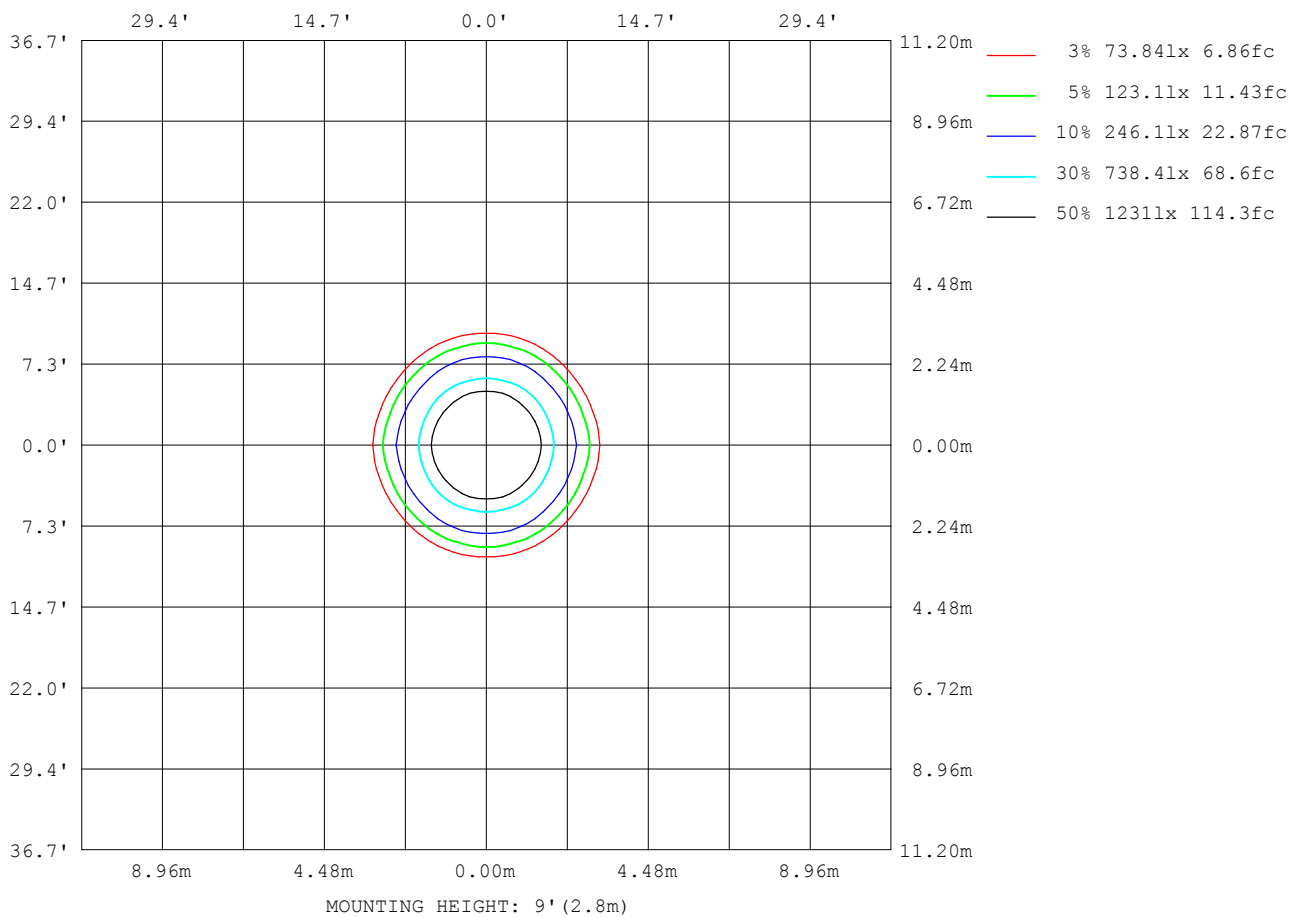
AAI Figure



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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: 2020-06-24

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:230.3V I:0.6592A P:149.4W PF:0.9845 Freq:49.99Hz Lamp Flux:23103.5x1 lm		
NAME: H29APC-15-R280-70-50H-2523030R7	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

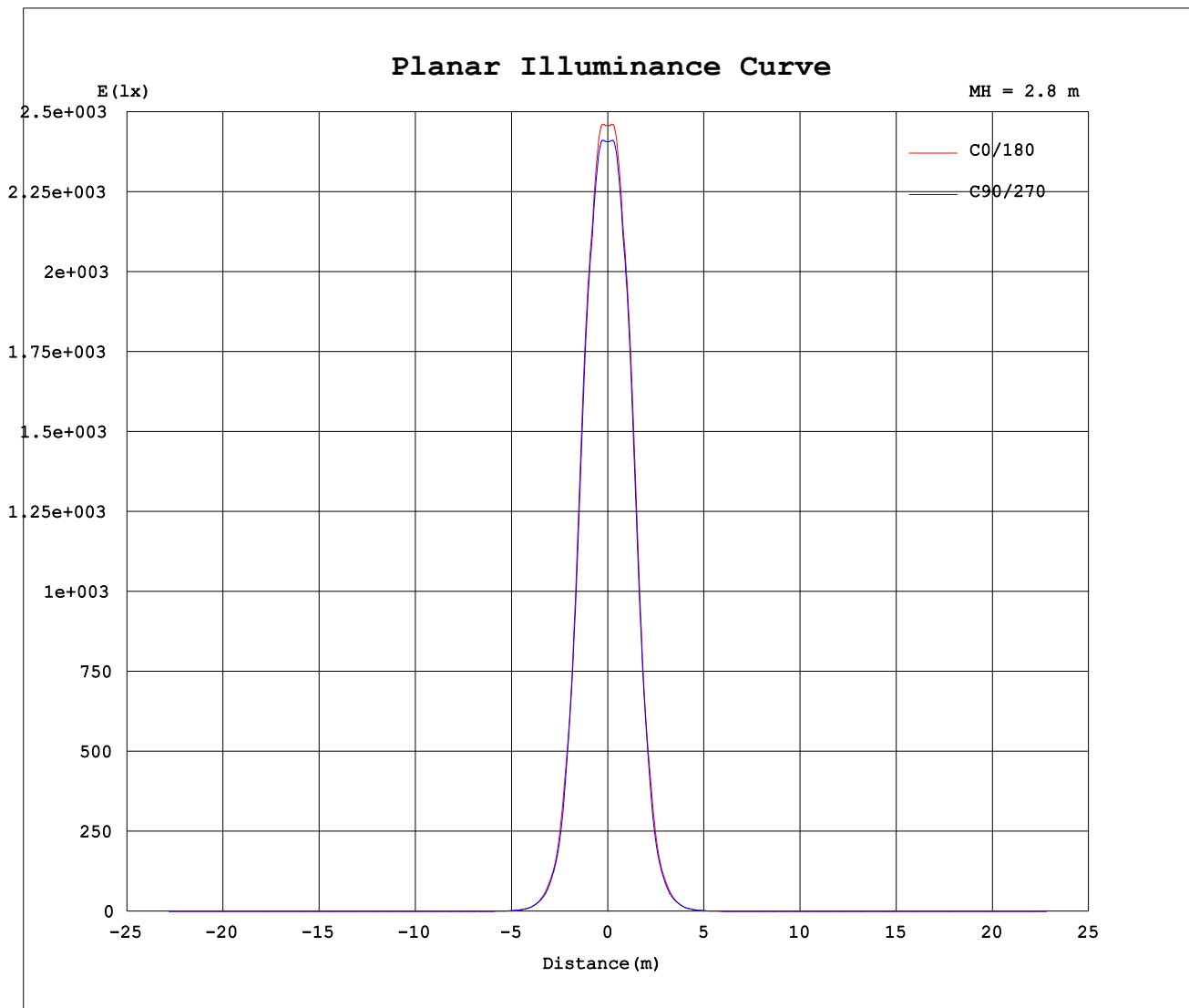
AvgL	cd/m2
L_0~180 (65) av	3319
L_0~180 (75) av	1728
L_0~180 (85) av	257
L_90~270 (65) av	3443
L_90~270 (75) av	1750
L_90~270 (85) av	282
L_45 (65) av	3251
L_45 (75) av	1700
L_45 (85) av	246

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2020-06-24

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: 2020-06-24

$\gamma$  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	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893	1893
5	1918	1918	1919	1920	1920	1918	1919	1918	1920	1920	1919	1918	1918	1918	1919	1920	1920	1918	1919
10	1933	1939	1951	1953	1946	1937	1937	1937	1946	1953	1951	1939	1933	1939	1951	1953	1946	1937	1937
15	1870	1882	1885	1890	1880	1882	1884	1882	1880	1890	1885	1882	1870	1882	1885	1890	1880	1882	1884
20	1817	1830	1818	1816	1823	1828	1825	1828	1823	1816	1818	1830	1817	1830	1818	1816	1823	1828	1825
25	1629	1645	1641	1652	1666	1637	1611	1637	1666	1652	1641	1645	1629	1645	1641	1652	1666	1637	1611
30	1282	1268	1243	1226	1250	1279	1255	1279	1250	1226	1243	1268	1282	1268	1243	1226	1250	1279	1255
35	872	885	896	928	925	868	869	868	925	928	896	885	872	885	896	928	925	868	869
40	568	516	499	497	526	525	523	525	526	497	499	516	568	516	499	497	526	525	523
45	294	275	270	264	278	275	282	275	278	264	270	275	294	275	270	264	278	275	282
50	145	139	133	130	135	139	136	139	135	130	133	139	145	139	133	130	135	139	136
55	55.5	51.1	50.7	47.1	51.3	50.4	54.6	50.4	51.3	47.1	50.7	51.1	55.5	51.1	50.7	47.1	51.3	50.4	54.6
60	18.7	17.9	18.9	17.8	18.4	18.5	19.3	18.5	18.4	17.8	18.9	17.9	18.7	17.9	18.9	17.8	18.4	18.5	19.3
65	8.70	8.52	8.73	8.52	8.54	8.72	9.02	8.72	8.54	8.52	8.73	8.52	8.70	8.52	8.73	8.52	8.54	8.72	9.02
70	4.77	4.69	4.70	4.64	4.70	4.75	4.82	4.75	4.70	4.64	4.70	4.69	4.77	4.69	4.70	4.64	4.70	4.75	4.82
75	2.77	2.76	2.76	2.73	2.75	2.78	2.81	2.78	2.75	2.73	2.76	2.76	2.77	2.76	2.76	2.73	2.75	2.78	2.81
80	1.22	1.21	1.22	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.22	1.21	1.22	1.21	1.22	1.21	1.21	1.21	1.21
85	0.14	0.14	0.13	0.13	0.13	0.15	0.15	0.15	0.13	0.13	0.13	0.14	0.14	0.14	0.13	0.13	0.13	0.15	0.15
90	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13
95	0.22	0.22	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.22	0.22	0.22	0.21	0.22	0.22	0.22	0.22
100	0.41	0.40	0.38	0.39	0.40	0.40	0.40	0.40	0.40	0.39	0.38	0.40	0.41	0.40	0.38	0.39	0.40	0.40	0.40
105	0.71	0.70	0.70	0.71	0.71	0.71	0.70	0.71	0.71	0.71	0.70	0.70	0.71	0.70	0.70	0.71	0.71	0.71	0.70
110	1.15	1.14	1.13	1.12	1.13	1.14	1.13	1.14	1.13	1.12	1.13	1.14	1.15	1.14	1.13	1.12	1.13	1.14	1.13
115	1.74	1.72	1.72	1.72	1.72	1.72	1.71	1.72	1.72	1.72	1.72	1.72	1.74	1.72	1.72	1.72	1.72	1.72	1.71
120	2.44	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.41	2.44	2.41	2.41	2.41	2.41	2.41	2.41
125	3.24	3.22	3.22	3.21	3.21	3.21	3.22	3.21	3.21	3.21	3.22	3.22	3.24	3.22	3.22	3.21	3.21	3.21	3.22
130	4.19	4.17	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.17	4.19	4.17	4.16	4.16	4.16	4.16	4.16
135	5.25	5.23	5.22	5.22	5.22	5.22	5.22	5.22	5.22	5.22	5.22	5.23	5.25	5.23	5.22	5.22	5.22	5.22	5.22
140	6.37	6.35	6.34	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.34	6.35	6.37	6.35	6.34	6.35	6.35	6.35	6.35
145	7.51	7.50	7.49	7.50	7.50	7.51	7.51	7.51	7.50	7.50	7.49	7.50	7.51	7.50	7.49	7.50	7.50	7.51	7.51
150	8.64	8.61	8.61	8.61	8.62	8.62	8.63	8.62	8.62	8.61	8.61	8.61	8.64	8.61	8.61	8.61	8.62	8.62	8.63
155	9.65	9.63	9.62	9.61	9.61	9.62	9.64	9.62	9.61	9.61	9.62	9.63	9.65	9.63	9.62	9.61	9.61	9.62	9.64
160	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
165	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
170	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
175	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
180	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:QC  
Test Date:2020-06-24

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	1893	1893	1893	1893	1893														
5	1918	1920	1920	1919	1918														
10	1937	1946	1953	1951	1939														
15	1882	1880	1890	1885	1882														
20	1828	1823	1816	1818	1830														
25	1637	1666	1652	1641	1645														
30	1279	1250	1226	1243	1268														
35	868	925	928	896	885														
40	525	526	497	499	516														
45	275	278	264	270	275														
50	139	135	130	133	139														
55	50.4	51.3	47.1	50.7	51.1														
60	18.5	18.4	17.8	18.9	17.9														
65	8.72	8.54	8.52	8.73	8.52														
70	4.75	4.70	4.64	4.70	4.69														
75	2.78	2.75	2.73	2.76	2.76														
80	1.21	1.21	1.21	1.22	1.21														
85	0.15	0.13	0.13	0.13	0.14														
90	0.13	0.12	0.12	0.12	0.12														
95	0.22	0.22	0.22	0.21	0.22														
100	0.40	0.40	0.39	0.38	0.40														
105	0.71	0.71	0.71	0.70	0.70														
110	1.14	1.13	1.12	1.13	1.14														
115	1.72	1.72	1.72	1.72	1.72														
120	2.41	2.41	2.41	2.41	2.41														
125	3.21	3.21	3.21	3.22	3.22														
130	4.16	4.16	4.16	4.16	4.17														
135	5.22	5.22	5.22	5.22	5.23														
140	6.35	6.35	6.35	6.34	6.35														
145	7.51	7.50	7.50	7.49	7.50														
150	8.62	8.62	8.61	8.61	8.61														
155	9.62	9.61	9.61	9.62	9.63														
160	10.6	10.6	10.6	10.6	10.6														
165	11.5	11.5	11.5	11.5	11.5														
170	12.3	12.3	12.3	12.3	12.3														
175	12.9	12.9	12.9	12.9	12.9														
180	13.2	13.2	13.2	13.2	13.2														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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	18934	18934	18934	18934	18934	18934	18934	18934	18934	18934
3.0	19016	19014	19012	19011	19018	19014	19023	19014	19018	19011
6.0	19262	19275	19300	19309	19304	19272	19269	19272	19304	19309
9.0	19362	19413	19517	19540	19482	19398	19391	19398	19482	19540
12.0	19152	19216	19355	19368	19272	19215	19239	19215	19272	19368
15.0	18702	18822	18855	18898	18798	18816	18842	18816	18798	18898
18.0	18393	18515	18466	18434	18464	18499	18513	18499	18464	18434
21.0	17989	18120	17984	18002	18099	18087	18039	18087	18099	18002
24.0	16863	17006	16978	17122	17220	16926	16726	16926	17220	17122
27.0	14993	15107	14965	14910	15099	15079	14788	15079	15099	14910
30.0	12823	12680	12435	12264	12495	12787	12549	12787	12495	12264
33.0	10271	10339	10340	10451	10513	10298	10209	10298	10513	10451
36.0	8058	8134	8155	8504	8488	7953	7993	7953	8488	8504
39.0	6347	5885	5720	5759	6025	5943	5915	5943	6025	5759
42.0	4296	3926	3804	3713	3980	3991	3991	3991	3980	3713
45.0	2937	2753	2699	2638	2778	2752	2825	2752	2778	2638
48.0	2007	1859	1793	1764	1871	1863	1852	1863	1871	1764
51.0	1215	1190	1147	1096	1136	1193	1179	1193	1136	1096
54.0	684.6	634.1	646.3	570.5	651.9	644.1	690.0	644.1	651.9	570.5
57.0	348.1	310.3	325.5	303.8	310.7	339.6	356.4	339.6	310.7	303.8
60.0	186.6	179.0	188.9	177.9	183.7	185.1	193.2	185.1	183.7	177.9
63.0	115.1	110.6	113.3	110.5	112.4	113.3	116.3	113.3	112.4	110.5
66.0	76.33	75.22	76.92	75.24	75.11	76.80	79.61	76.80	75.11	75.24
69.0	52.88	52.03	52.09	51.49	52.21	52.83	53.58	52.83	52.21	51.49
72.0	38.74	38.33	38.40	37.90	38.35	38.85	39.39	38.85	38.35	37.90
75.0	27.73	27.57	27.60	27.27	27.49	27.85	28.09	27.85	27.49	27.27
78.0	18.10	18.06	18.01	17.81	17.93	18.02	18.25	18.02	17.93	17.81
81.0	9.419	9.368	9.384	9.373	9.374	9.369	9.314	9.369	9.374	9.373
84.0	2.734	2.732	2.646	2.567	2.610	2.735	2.771	2.735	2.610	2.567
87.0	0.8879	0.9200	0.9270	0.9049	0.9283	0.9620	0.9810	0.9620	0.9283	0.9049
90.0	1.192	1.234	1.211	1.216	1.225	1.277	1.279	1.277	1.225	1.216
93.0	1.718	1.741	1.694	1.707	1.732	1.782	1.779	1.782	1.732	1.707
96.0	2.455	2.466	2.387	2.406	2.449	2.510	2.503	2.510	2.449	2.406
99.0	3.588	3.514	3.365	3.414	3.488	3.583	3.554	3.583	3.488	3.414
102.0	5.164	5.053	4.916	5.012	5.074	5.121	5.096	5.121	5.074	5.012
105.0	7.055	7.021	7.007	7.124	7.095	7.056	7.010	7.056	7.095	7.124
108.0	9.528	9.430	9.403	9.433	9.449	9.466	9.420	9.466	9.449	9.433
111.0	12.58	12.40	12.31	12.27	12.33	12.42	12.39	12.42	12.33	12.27
114.0	16.11	15.92	15.85	15.85	15.86	15.90	15.84	15.90	15.86	15.85
117.0	20.11	19.86	19.86	19.85	19.82	19.82	19.79	19.82	19.82	19.85
120.0	24.43	24.15	24.14	24.10	24.07	24.09	24.12	24.09	24.07	24.10
123.0	29.09	28.83	28.80	28.75	28.73	28.77	28.79	28.77	28.73	28.75
126.0	34.23	33.99	33.96	33.93	33.93	33.92	33.95	33.92	33.93	33.93
129.0	39.91	39.68	39.63	39.61	39.64	39.64	39.64	39.64	39.64	39.61
132.0	46.05	45.82	45.75	45.76	45.79	45.78	45.77	45.78	45.79	45.76
135.0	52.51	52.27	52.16	52.20	52.23	52.23	52.23	52.23	52.23	52.20
138.0	59.20	58.98	58.87	58.94	58.94	58.98	58.93	58.98	58.94	58.94
141.0	65.97	65.78	65.70	65.79	65.81	65.83	65.78	65.83	65.81	65.79
144.0	72.82	72.68	72.61	72.68	72.72	72.77	72.77	72.77	72.72	72.68
147.0	79.72	79.55	79.49	79.51	79.59	79.66	79.69	79.66	79.59	79.51
150.0	86.38	86.14	86.08	86.09	86.17	86.25	86.33	86.25	86.17	86.09
153.0	92.65	92.35	92.32	92.24	92.36	92.41	92.57	92.41	92.36	92.24
156.0	98.34	98.13	98.13	97.99	97.99	98.08	98.28	98.08	97.99	97.99
159.0	104.1	103.9	104.0	103.8	103.8	103.8	104.0	103.8	103.8	103.8
162.0	109.8	109.6	109.7	109.5	109.5	109.5	109.8	109.5	109.5	109.5
165.0	115.3	115.2	115.2	115.0	115.0	114.9	115.2	114.9	115.0	115.0
168.0	120.1	120.0	120.1	119.9	119.9	119.8	120.0	119.8	119.9	119.9
171.0	124.4	124.3	124.3	124.0	124.1	124.1	124.3	124.1	124.1	124.0
174.0	127.9	127.8	127.9	127.8	127.8	127.8	128.0	127.8	127.8	127.8
177.0	130.4	130.3	130.4	130.3	130.3	130.3	130.4	130.3	130.3	130.3
180.0	132.3	131.9	131.9	132.0	132.0	132.0	132.3	132.0	132.0	132.0
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	18934	18934	18934	18934	18934	18934	18934	18934	18934	18934
3.0	19012	19014	19016	19014	19012	19011	19018	19014	19023	19014
6.0	19300	19275	19262	19275	19300	19309	19304	19272	19269	19272
9.0	19517	19413	19362	19413	19517	19540	19482	19398	19391	19398
12.0	19355	19216	19152	19216	19355	19368	19272	19215	19239	19215
15.0	18855	18822	18702	18822	18855	18898	18798	18816	18842	18816
18.0	18466	18515	18393	18515	18466	18434	18464	18499	18513	18499
21.0	17984	18120	17989	18120	17984	18002	18099	18087	18039	18087
24.0	16978	17006	16863	17006	16978	17122	17220	16926	16726	16926
27.0	14965	15107	14993	15107	14965	14910	15099	15079	14788	15079
30.0	12435	12680	12823	12680	12435	12264	12495	12787	12549	12787

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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]

33.0	10340	10339	10271	10339	10340	10451	10513	10298	10209	10298
36.0	8155	8134	8058	8134	8155	8504	8488	7953	7993	7953
39.0	5720	5885	6347	5885	5720	5759	6025	5943	5915	5943
42.0	3804	3926	4296	3926	3804	3713	3980	3991	3991	3991
45.0	2699	2753	2937	2753	2699	2638	2778	2752	2825	2752
48.0	1793	1859	2007	1859	1793	1764	1871	1863	1852	1863
51.0	1147	1190	1215	1190	1147	1096	1136	1193	1179	1193
54.0	646.3	634.1	684.6	634.1	646.3	570.5	651.9	644.1	690.0	644.1
57.0	325.5	310.3	348.1	310.3	325.5	303.8	310.7	339.6	356.4	339.6
60.0	188.9	179.0	186.6	179.0	188.9	177.9	183.7	185.1	193.2	185.1
63.0	113.3	110.6	115.1	110.6	113.3	110.5	112.4	113.3	116.3	113.3
66.0	76.92	75.22	76.33	75.22	76.92	75.24	75.11	76.80	79.61	76.80
69.0	52.09	52.03	52.88	52.03	52.09	51.49	52.21	52.83	53.58	52.83
72.0	38.40	38.33	38.74	38.33	38.40	37.90	38.35	38.85	39.39	38.85
75.0	27.60	27.57	27.73	27.57	27.60	27.27	27.49	27.85	28.09	27.85
78.0	18.01	18.06	18.06	18.06	18.01	17.81	17.93	18.02	18.25	18.02
81.0	9.384	9.368	9.419	9.368	9.384	9.373	9.374	9.369	9.314	9.369
84.0	2.646	2.732	2.734	2.732	2.646	2.567	2.610	2.735	2.771	2.735
87.0	0.9270	0.9200	0.8879	0.9200	0.9270	0.9049	0.9283	0.9620	0.9810	0.9620
90.0	1.211	1.234	1.192	1.234	1.211	1.216	1.225	1.277	1.279	1.277
93.0	1.694	1.741	1.718	1.741	1.694	1.707	1.732	1.782	1.779	1.782
96.0	2.387	2.466	2.455	2.466	2.387	2.406	2.449	2.510	2.503	2.510
99.0	3.365	3.514	3.588	3.514	3.365	3.414	3.488	3.583	3.554	3.583
102.0	4.916	5.053	5.164	5.053	4.916	5.012	5.074	5.121	5.096	5.121
105.0	7.007	7.021	7.055	7.021	7.007	7.124	7.095	7.056	7.010	7.056
108.0	9.403	9.430	9.528	9.430	9.403	9.433	9.449	9.466	9.420	9.466
111.0	12.31	12.40	12.58	12.40	12.31	12.27	12.33	12.42	12.39	12.42
114.0	15.85	15.92	16.11	15.92	15.85	15.85	15.86	15.90	15.84	15.90
117.0	19.86	19.86	20.11	19.86	19.86	19.85	19.82	19.82	19.79	19.82
120.0	24.14	24.15	24.43	24.15	24.14	24.10	24.07	24.09	24.12	24.09
123.0	28.80	28.83	29.09	28.83	28.80	28.75	28.73	28.77	28.79	28.77
126.0	33.96	33.99	34.23	33.99	33.96	33.93	33.93	33.92	33.95	33.92
129.0	39.63	39.68	39.91	39.68	39.63	39.61	39.64	39.64	39.64	39.64
132.0	45.75	45.82	46.05	45.82	45.75	45.76	45.79	45.78	45.77	45.78
135.0	52.16	52.27	52.51	52.27	52.16	52.20	52.23	52.23	52.23	52.23
138.0	58.87	58.98	59.20	58.98	58.87	58.94	58.94	58.98	58.93	58.98
141.0	65.70	65.78	65.97	65.78	65.70	65.79	65.81	65.83	65.78	65.83
144.0	72.61	72.68	72.82	72.68	72.61	72.68	72.72	72.77	72.77	72.77
147.0	79.49	79.55	79.72	79.55	79.49	79.51	79.59	79.66	79.69	79.66
150.0	86.08	86.14	86.38	86.14	86.08	86.09	86.17	86.25	86.33	86.25
153.0	92.32	92.35	92.65	92.35	92.32	92.24	92.36	92.41	92.57	92.41
156.0	98.13	98.13	98.34	98.13	98.13	97.99	97.99	98.08	98.28	98.08
159.0	104.0	103.9	104.1	103.9	104.0	103.8	103.8	103.8	104.0	103.8
162.0	109.7	109.6	109.8	109.6	109.7	109.5	109.5	109.5	109.8	109.5
165.0	115.2	115.2	115.3	115.2	115.2	115.0	115.0	114.9	115.2	114.9
168.0	120.1	120.0	120.1	120.0	120.1	119.9	119.9	119.8	120.0	119.8
171.0	124.3	124.3	124.4	124.3	124.3	124.0	124.1	124.1	124.3	124.1
174.0	127.9	127.8	127.9	127.8	127.9	127.8	127.8	127.8	128.0	127.8
177.0	130.4	130.3	130.4	130.3	130.4	130.3	130.3	130.3	130.4	130.3
180.0	131.9	131.9	132.3	131.9	131.9	132.0	132.0	132.0	132.3	132.0
G/C	300.0	315.0	330.0	345.0						
0.0	18934	18934	18934	18934						
3.0	19018	19011	19012	19014						
6.0	19304	19309	19300	19275						
9.0	19482	19540	19517	19413						
12.0	19272	19368	19355	19216						
15.0	18798	18898	18855	18822						
18.0	18464	18434	18466	18515						
21.0	18099	18002	17984	18120						
24.0	17220	17122	16978	17006						
27.0	15099	14910	14965	15107						
30.0	12495	12264	12435	12680						
33.0	10513	10451	10340	10339						
36.0	8488	8504	8155	8134						
39.0	6025	5759	5720	5885						
42.0	3980	3713	3804	3926						
45.0	2778	2638	2699	2753						
48.0	1871	1764	1793	1859						
51.0	1136	1096	1147	1190						
54.0	651.9	570.5	646.3	634.1						
57.0	310.7	303.8	325.5	310.3						
60.0	183.7	177.9	188.9	179.0						
63.0	112.4	110.5	113.3	110.6						
66.0	75.11	75.24	76.92	75.22						

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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	52.21	51.49	52.09	52.03
72.0	38.35	37.90	38.40	38.33
75.0	27.49	27.27	27.60	27.57
78.0	17.93	17.81	18.01	18.06
81.0	9.374	9.373	9.384	9.368
84.0	2.610	2.567	2.646	2.732
87.0	0.9283	0.9049	0.9270	0.9200
90.0	1.225	1.216	1.211	1.234
93.0	1.732	1.707	1.694	1.741
96.0	2.449	2.406	2.387	2.466
99.0	3.488	3.414	3.365	3.514
102.0	5.074	5.012	4.916	5.053
105.0	7.095	7.124	7.007	7.021
108.0	9.449	9.433	9.403	9.430
111.0	12.33	12.27	12.31	12.40
114.0	15.86	15.85	15.85	15.92
117.0	19.82	19.85	19.86	19.86
120.0	24.07	24.10	24.14	24.15
123.0	28.73	28.75	28.80	28.83
126.0	33.93	33.93	33.96	33.99
129.0	39.64	39.61	39.63	39.68
132.0	45.79	45.76	45.75	45.82
135.0	52.23	52.20	52.16	52.27
138.0	58.94	58.94	58.87	58.98
141.0	65.81	65.79	65.70	65.78
144.0	72.72	72.68	72.61	72.68
147.0	79.59	79.51	79.49	79.55
150.0	86.17	86.09	86.08	86.14
153.0	92.36	92.24	92.32	92.35
156.0	97.99	97.99	98.13	98.13
159.0	103.8	103.8	104.0	103.9
162.0	109.5	109.5	109.7	109.6
165.0	115.0	115.0	115.2	115.2
168.0	119.9	119.9	120.1	120.0
171.0	124.1	124.0	124.3	124.3
174.0	127.8	127.8	127.9	127.8
177.0	130.3	130.3	130.4	130.3
180.0	132.0	132.0	131.9	131.9

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2020-06-24

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: