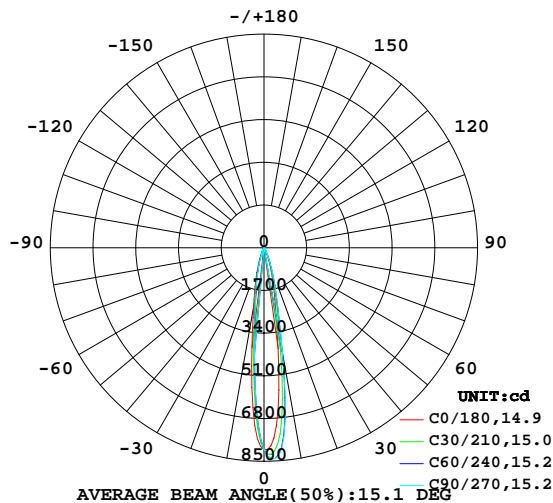


LUMINAIRE PHOTOMETRIC TEST REPORT

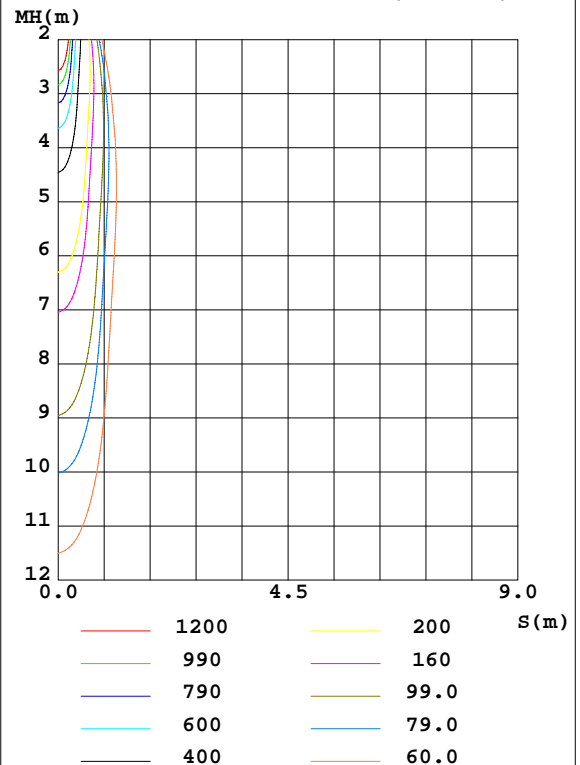
Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm					
NAME:		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:46		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 69.99 lm/W
MODEL	ALR55-15G30-12	I _{max} (cd)	8404	S/MH(C0/180)	0.28	
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.35	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	1056.8	η UP,DN(C0-180)	0.0,39.6	
NOMINAL FLUX(lm)	1056.78	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,60.4	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	225.1	η down(%)	100.0	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:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

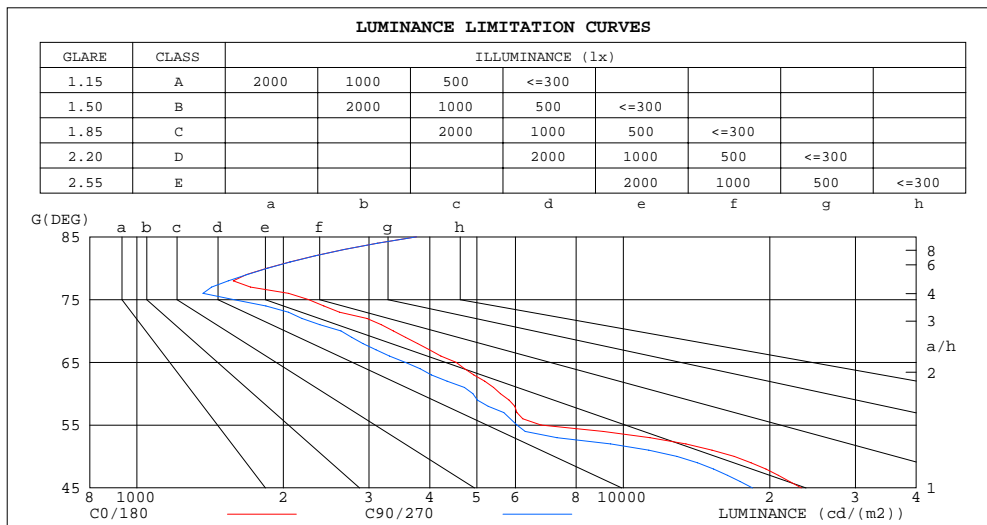
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2417	1994	1886	2194	2845	3760	4247	3164	0- 10	469.4	469.4	44.4,44.4
20	554.0	443.5	400.9	492.9	639.4	795.8	874.7	719.7	10- 20	377.7	847.0	80.2,80.2
30	114.1	96.03	89.70	99.34	121.3	147.3	157.8	137.4	20- 30	130.3	977.4	92.5,92.5
40	41.93	35.55	32.55	34.40	42.27	48.39	51.03	46.98	30- 40	44.59	1022	96.7,96.7
50	18.27	14.60	13.79	15.32	18.31	20.20	21.02	21.12	40- 50	21.11	1043	98.7,98.7
60	4.697	4.174	4.082	4.065	4.939	5.445	5.354	5.263	50- 60	8.699	1052	99.5,99.5
70	1.935	1.519	1.495	1.668	2.220	2.587	2.628	2.485	60- 70	3.236	1055	99.8,99.8
80	0.5407	0.5345	0.5364	0.5507	0.5343	0.7322	0.6765	0.5741	70- 80	1.269	1056	99.9,99.9
90	0.6139	0.6758	0.6741	0.6470	0.1901	0.2475	0.2430	0.2131	80- 90	0.5302	1057	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3756	3757
80	1852	1857
75	2252	1579
70	3365	2627
65	4531	3561
60	5587	4907
55	6777	6042
50	16907	12895
45	23221	18437

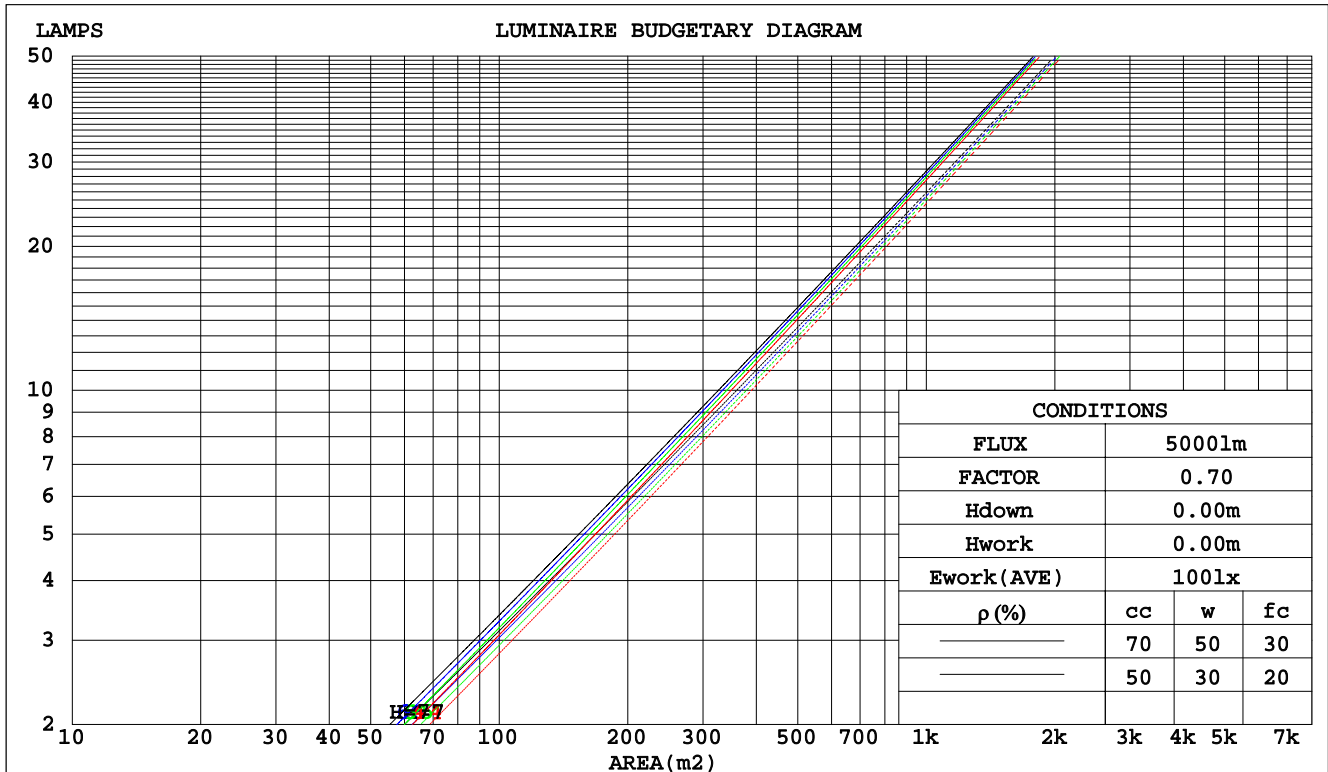
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						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	1.02	1.02	1.02	.00
1.0	1.13	1.11	1.09	1.11	1.09	1.08	1.07	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97
2.0	1.08	1.05	1.02	1.06	1.04	1.01	1.03	1.01	.99	1.00	.99	.97	.98	.96	.95	.94
3.0	1.03	.00	.97	1.02	.99	.96	.00	.97	.95	.97	.95	.93	.95	.93	.92	.91
4.0	.00	.96	.93	.98	.95	.92	.97	.94	.91	.95	.92	.90	.93	.91	.89	.88
5.0	.96	.92	.89	.95	.92	.89	.94	.90	.88	.92	.89	.87	.91	.88	.87	.86
6.0	.93	.89	.86	.92	.89	.86	.91	.88	.85	.90	.87	.85	.89	.86	.84	.83
7.0	.90	.86	.83	.90	.86	.83	.89	.85	.83	.88	.85	.82	.87	.84	.82	.81
8.0	.88	.84	.81	.87	.84	.81	.86	.83	.81	.86	.83	.80	.85	.82	.80	.79
9.0	.86	.82	.79	.85	.81	.79	.84	.81	.79	.84	.81	.78	.83	.80	.78	.77
10.0	.83	.80	.77	.83	.79	.77	.82	.79	.77	.82	.79	.77	.81	.78	.76	.76



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm									
NAME:				TYPE:			WEIGHT:		
SPEC.:				DIM.:			SERIAL No.:		
MFR.:				SUR.:46			Shielding Angle:		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.135	.077	.024	.128	.073	.023	.116	.067	.021	.105	.060	.019	.094	.055	.018	
2.0	.125	.068	.021	.119	.066	.020	.109	.061	.019	.100	.056	.018	.091	.052	.016	
3.0	.116	.062	.018	.112	.060	.018	.103	.056	.017	.095	.052	.016	.088	.049	.015	
4.0	.108	.056	.017	.105	.055	.016	.097	.052	.015	.091	.049	.015	.085	.046	.014	
5.0	.102	.052	.015	.098	.051	.015	.092	.048	.014	.087	.046	.014	.081	.044	.013	
6.0	.096	.048	.014	.093	.047	.014	.088	.045	.013	.083	.043	.013	.078	.041	.012	
7.0	.091	.045	.013	.088	.044	.013	.084	.042	.012	.080	.041	.012	.076	.039	.012	
8.0	.086	.042	.012	.084	.041	.012	.080	.040	.011	.076	.039	.011	.073	.037	.011	
9.0	.082	.040	.011	.080	.039	.011	.077	.038	.011	.073	.037	.011	.070	.036	.010	
10.0	.078	.038	.010	.077	.037	.010	.074	.036	.010	.071	.035	.010	.068	.034	.010	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.128	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.116	.098	.083	.079	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.122	.098	.079	.105	.085	.069	.072	.059	.049	.042	.035	.029	.013	.011	.009	
5.0	.111	.085	.066	.096	.074	.058	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.102	.075	.056	.088	.065	.049	.061	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.095	.067	.048	.081	.058	.042	.056	.041	.030	.033	.024	.018	.011	.008	.006	
8.0	.088	.060	.041	.076	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.082	.055	.036	.071	.047	.031	.049	.033	.022	.029	.020	.013	.009	.006	.004	
10.0	.077	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.:			SUR.:46			Shielding Angle:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	12.8	13.5	13.0	13.6	13.8	11.9	12.5	12.1	12.7	12.8
3H	12.9	13.4	13.1	13.6	13.8	11.9	12.5	12.1	12.7	12.8
4H	12.8	13.4	13.1	13.6	13.8	11.8	12.4	12.1	12.6	12.8
6H	12.8	13.3	13.0	13.5	13.8	11.8	12.3	12.1	12.6	12.8
8H	12.7	13.3	13.0	13.5	13.7	11.8	12.3	12.1	12.5	12.8
12H	12.7	13.2	13.0	13.5	13.8	11.8	12.3	12.1	12.5	12.8
4H 2H	12.7	13.3	13.0	13.5	13.7	11.8	12.4	12.1	12.6	12.8
3H	12.7	13.2	13.1	13.5	13.8	11.8	12.3	12.1	12.6	12.8
4H	12.7	13.2	13.1	13.5	13.8	11.8	12.2	12.1	12.5	12.8
6H	12.7	13.1	13.0	13.4	13.7	11.7	12.2	12.1	12.5	12.8
8H	12.6	13.0	13.0	13.4	13.7	11.7	12.1	12.1	12.5	12.8
12H	12.7	13.0	13.1	13.4	13.8	11.8	12.1	12.2	12.5	12.9
8H 4H	12.6	13.0	13.0	13.3	13.7	11.7	12.0	12.1	12.4	12.8
6H	12.5	12.9	13.0	13.2	13.7	11.6	12.0	12.1	12.3	12.8
8H	12.5	12.8	13.0	13.2	13.7	11.7	12.0	12.1	12.4	12.8
12H	12.6	12.8	13.1	13.3	13.7	11.8	12.0	12.2	12.4	12.9
12H 4H	12.5	12.9	12.9	13.3	13.6	11.6	12.0	12.0	12.3	12.7
6H	12.5	12.8	12.9	13.2	13.6	11.6	11.9	12.0	12.3	12.7
8H	12.5	12.8	13.0	13.2	13.7	11.6	11.9	12.1	12.3	12.8
Variations with the observer position at spacings:										
S = 1.0H	+ 2.3 / - 4.2					+ 1.9 / - 3.8				
1.5H	+ 3.1 / - 4.7					+ 2.4 / - 3.8				
2.0H	+ 4.5 / - 3.6					+ 4.1 / - 3.1				

CIE Pub.117, 1057 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.2$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

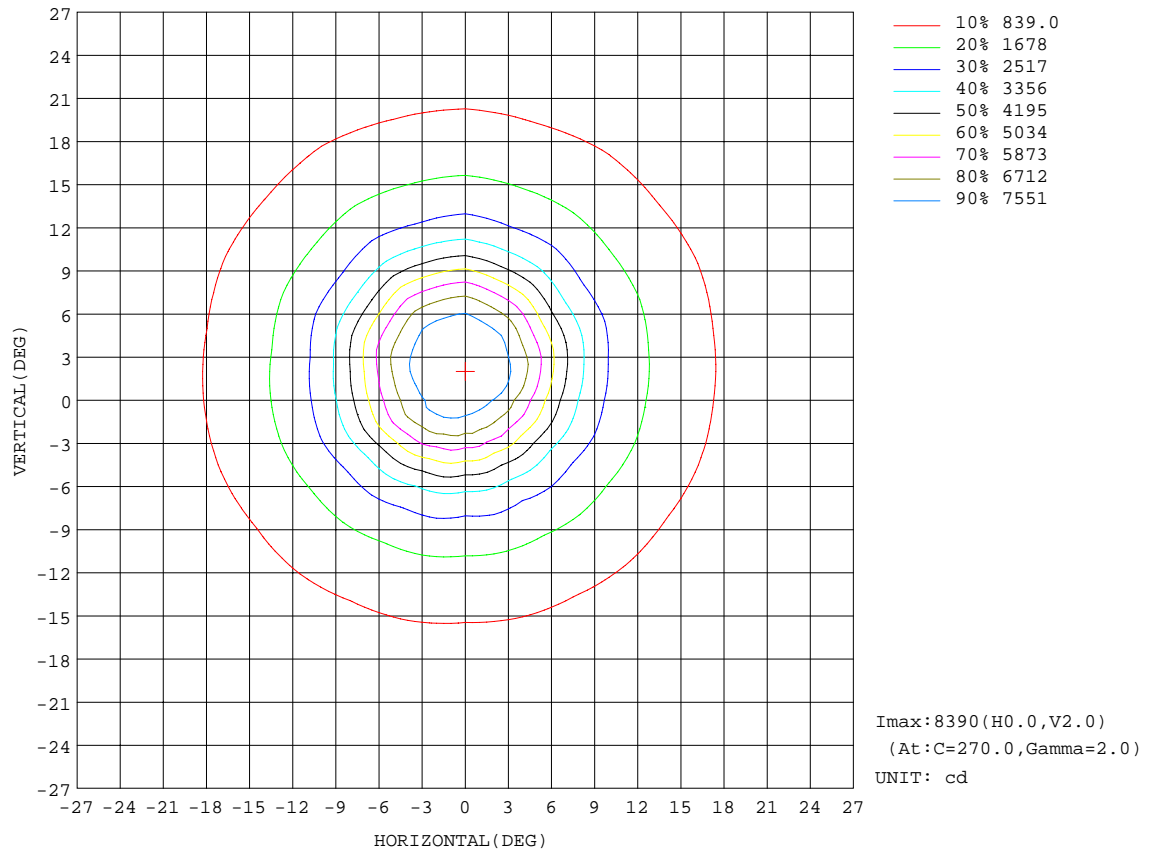
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	101	98	95	91
1.50	107	103	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	104	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	112	110	109	108	107	99
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:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

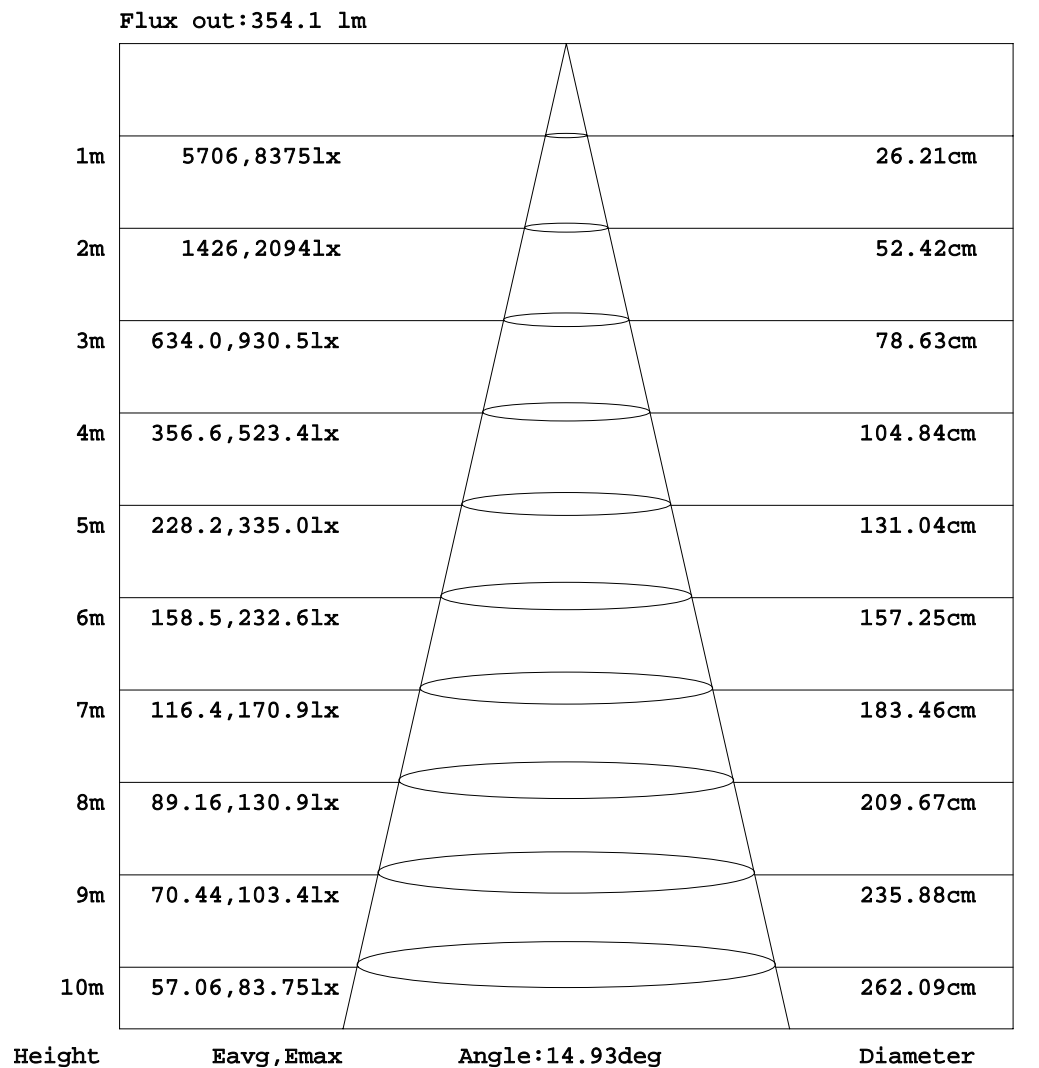


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

AAI Figure

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



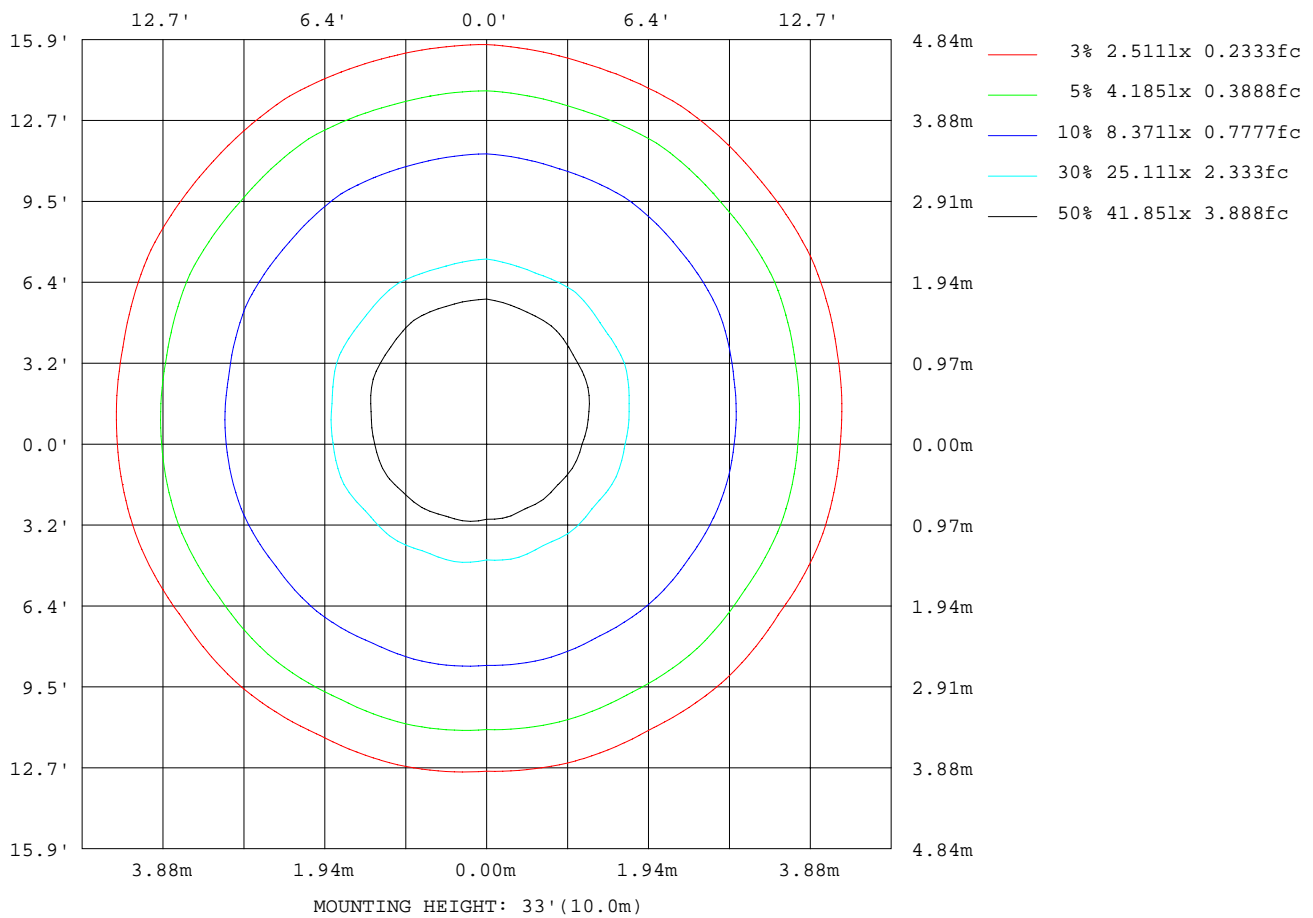
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-06-16

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.240m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:225.2V I:0.0700A P:15.10W PF:0.9600 Freq:50.00Hz Lamp Flux:1056.78x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:46	Shielding Angle:

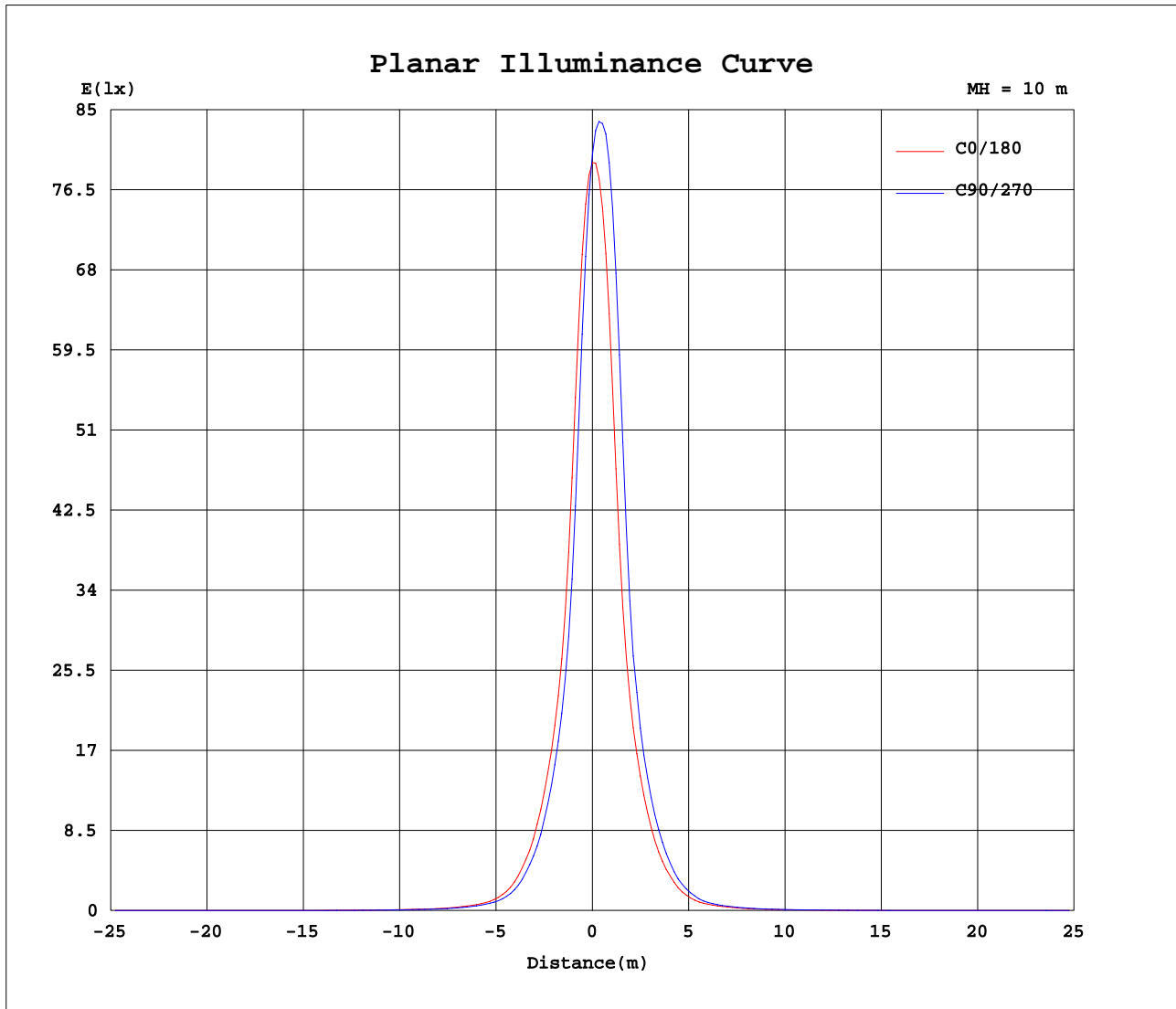
AvgL	cd/m2
L_0~180(65)av	4658
L_0~180(75)av	2621
L_0~180(85)av	3157
L_90~270(65)av	4548
L_90~270(75)av	2729
L_90~270(85)av	3315
L_45(65)av	4556
L_45(75)av	2675
L_45(85)av	3425

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-06-16

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```