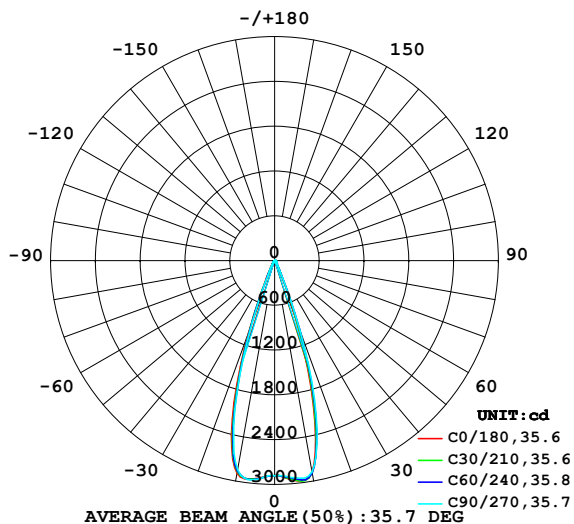


LUMINAIRE PHOTOMETRIC TEST REPORT

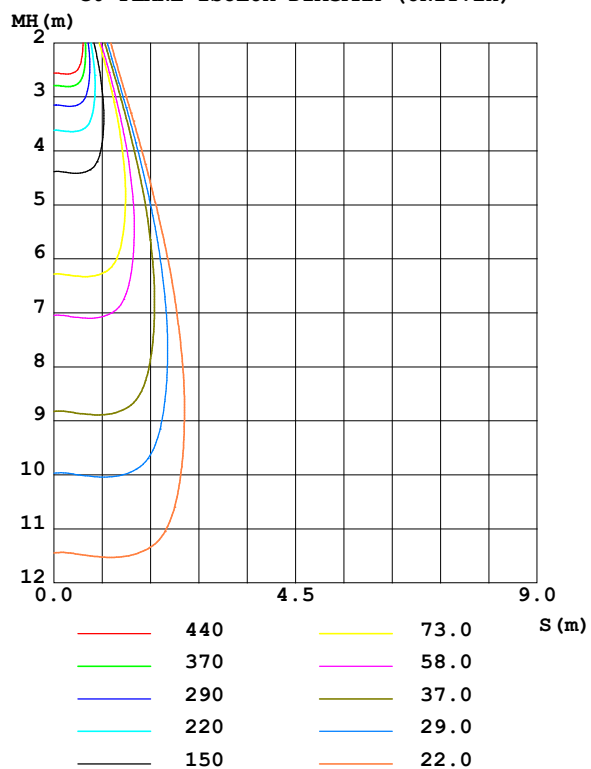
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 98.40 lm/W
MODEL	TL45-11G40-36-S	Imax (cd)	2977	S/MH(C0/180)	0.53	
NOMINAL POWER(W)	11	LOR(%)	100.0	S/MH(C90/270)	0.52	
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	1052.9	η UP,DN(C0-180)	0.0,51.1	
NOMINAL FLUX(lm)	1052.85	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.9	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	230	η down (%)	100.0	CIBSE SHR MAX	0.50	

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: 2020-10-29

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:

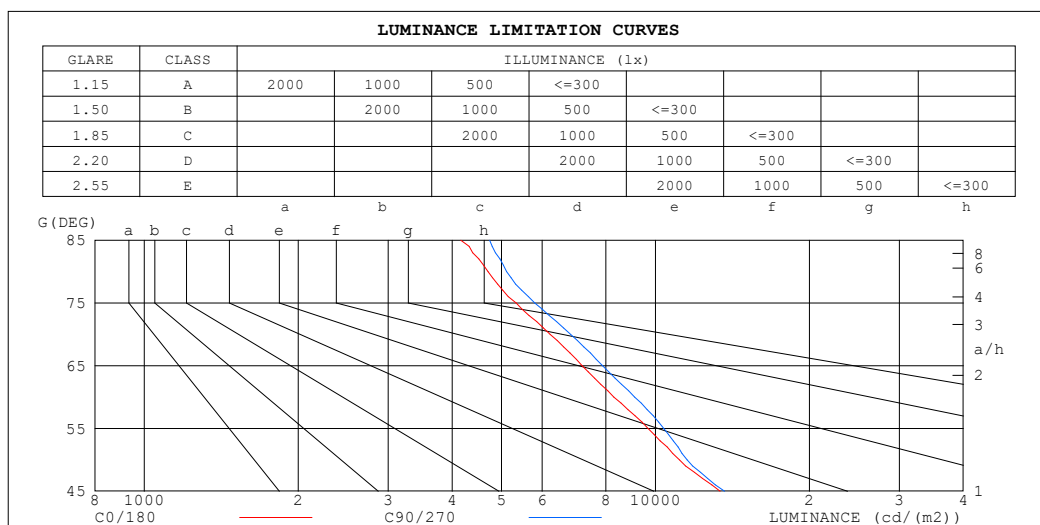
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2882	2909	2877	2898	2894	2852	2849	2847	0- 10	279.6	279.6	26.6,26.6
20	832.4	976.2	1010	1056	1014	917.5	883.8	799.1	10- 20	545.6	825.2	78.4,78.4
30	96.20	102.8	104.5	105.8	103.3	93.46	89.87	88.61	20- 30	143.7	968.9	92,92
40	35.91	36.59	37.04	37.18	39.10	35.50	33.16	33.03	30- 40	36.86	1006	95.5,95.5
50	18.88	19.26	19.57	19.90	20.51	19.38	18.38	17.86	40- 50	19.98	1026	97.4,97.4
60	10.93	11.51	12.02	11.88	11.78	11.35	10.97	10.72	50- 60	13.49	1039	98.7,98.7
70	5.612	5.831	6.164	6.246	6.200	6.019	5.841	5.709	60- 70	8.432	1048	99.5,99.5
80	2.153	2.231	2.343	2.367	2.218	2.138	2.020	2.000	70- 80	4.116	1052	99.9,99.9
90	0.6061	0.6218	0.5948	0.5992	0.2072	0.2425	0.2426	0.2154	80- 90	1.101	1053	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:2020-10-29

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

NAME :	TYPE :	WEIGHT :
SPEC. :	DIM. :	SERIAL No. :
MFR. :	SUR. : 58	Shielding Angle :



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4162	4740
80	4701	5111
75	5338	5808
70	6220	6827
65	7188	7880
60	8288	9110
55	9671	10379
50	11133	11534
45	13386	13648

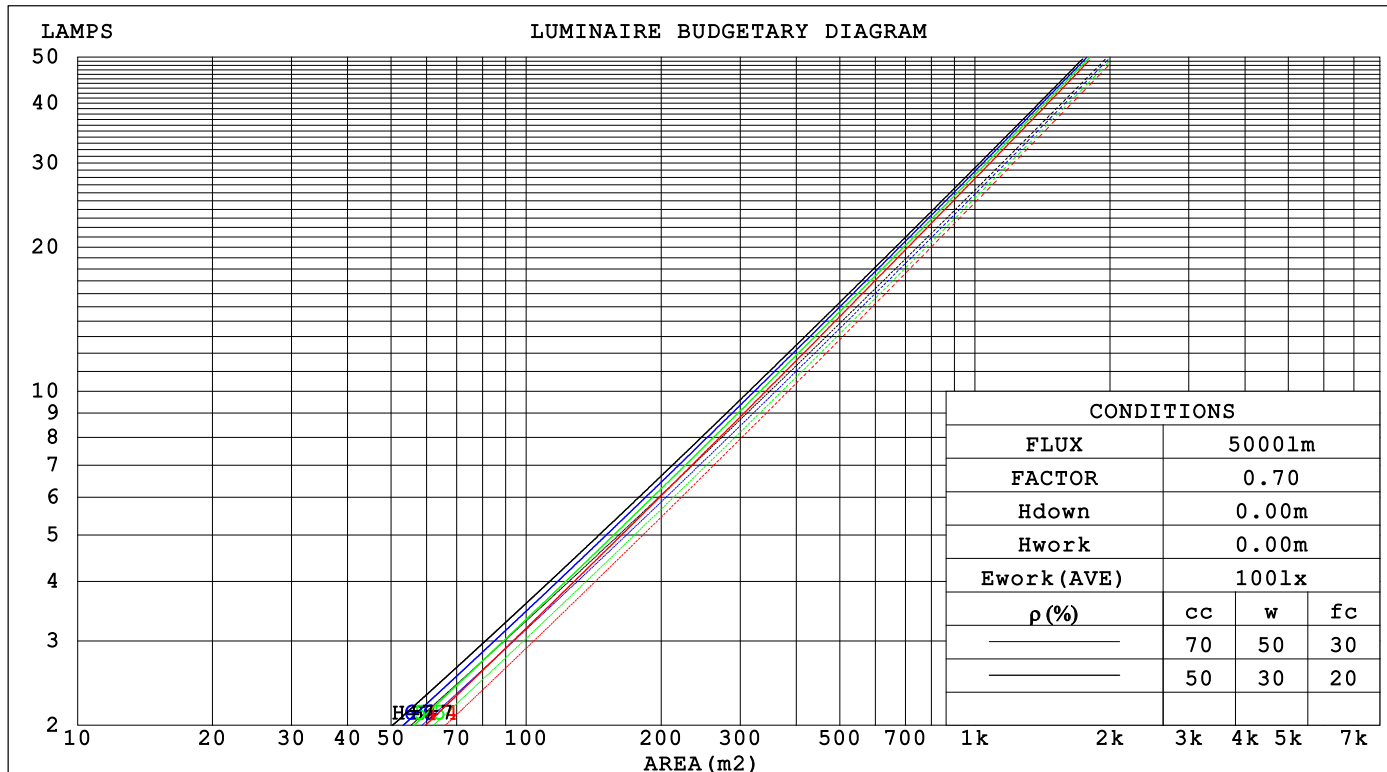
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{fc}	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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3.0	1.01	.97	.94	1.00	.96	.94	.98	.95	.92	.95	.93	.91	.93	.91	.89	.88
4.0	.97	.93	.89	.96	.92	.89	.94	.90	.88	.92	.89	.87	.90	.88	.86	.85
5.0	.93	.88	.85	.92	.88	.85	.90	.87	.84	.89	.86	.83	.87	.85	.83	.81
6.0	.89	.85	.82	.89	.84	.81	.87	.84	.81	.86	.83	.80	.85	.82	.80	.79
7.0	.86	.82	.78	.85	.81	.78	.84	.81	.78	.83	.80	.77	.82	.79	.77	.76
8.0	.83	.79	.76	.83	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.75	.74
9.0	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.72	.78	.75	.72	.71
10.0	.78	.74	.71	.77	.73	.71	.77	.73	.70	.76	.73	.70	.75	.72	.70	.69



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	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	.149 .085 .027	.142 .081 .026	.130 .074 .024	.118 .068 .022	.108 .062 .020	
2.0	.138 .076 .023	.133 .073 .023	.123 .068 .021	.113 .063 .020	.104 .059 .019	
3.0	.129 .069 .021	.125 .067 .020	.116 .063 .019	.108 .059 .018	.100 .056 .017	
4.0	.121 .063 .018	.117 .061 .018	.110 .058 .017	.103 .055 .017	.097 .053 .016	
5.0	.114 .058 .017	.111 .057 .017	.104 .054 .016	.099 .052 .015	.093 .050 .015	
6.0	.108 .054 .015	.105 .053 .015	.099 .051 .015	.094 .049 .014	.090 .047 .014	
7.0	.102 .051 .014	.100 .050 .014	.095 .048 .014	.091 .046 .014	.087 .045 .013	
8.0	.097 .048 .013	.095 .047 .013	.091 .046 .013	.087 .044 .013	.084 .043 .012	
9.0	.093 .045 .013	.091 .044 .012	.088 .043 .012	.084 .042 .012	.081 .041 .012	
10.0	.089 .043 .012	.087 .042 .012	.084 .041 .012	.081 .040 .011	.078 .039 .011	

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	.169 .158 .147	.145 .135 .127	.099 .093 .088	.057 .054 .051	.018 .017 .016	
2.0	.152 .133 .117	.130 .114 .101	.089 .079 .070	.051 .046 .041	.016 .015 .013	
3.0	.137 .113 .094	.118 .098 .082	.081 .068 .057	.047 .040 .034	.015 .013 .011	
4.0	.125 .098 .077	.107 .085 .067	.074 .059 .047	.043 .035 .028	.014 .011 .009	
5.0	.115 .086 .064	.099 .074 .056	.068 .052 .040	.039 .031 .023	.013 .010 .008	
6.0	.106 .076 .054	.091 .066 .047	.063 .046 .034	.037 .027 .020	.012 .009 .007	
7.0	.099 .068 .046	.085 .059 .040	.059 .041 .029	.034 .024 .017	.011 .008 .006	
8.0	.093 .061 .040	.080 .053 .035	.055 .037 .025	.032 .022 .015	.010 .007 .005	
9.0	.087 .056 .035	.075 .048 .030	.052 .034 .022	.030 .020 .013	.010 .007 .004	
10.0	.082 .051 .030	.071 .044 .027	.049 .031 .019	.029 .018 .011	.009 .006 .004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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

NAME:	TYPE:					WEIGHT:				
SPEC.:	DIM.:					SERIAL No.:				
MFR.:	SUR.: 58					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	13.7	13.8	13.1	13.8	13.3	14.0	14.1
3H	13.5	14.2	13.8	14.4	14.6	13.9	14.5	14.1	14.7	14.9
4H	13.8	14.4	14.1	14.6	14.9	14.2	14.8	14.4	15.0	15.2
6H	14.0	14.6	14.3	14.8	15.0	14.3	14.9	14.6	15.2	15.4
8H	14.0	14.6	14.3	14.9	15.1	14.4	15.0	14.7	15.2	15.5
12H	14.1	14.6	14.4	14.9	15.1	14.4	15.0	14.7	15.3	15.5
4H 2H	13.2	13.8	13.4	14.0	14.2	13.4	14.0	13.7	14.2	14.5
3H	14.0	14.6	14.3	14.8	15.1	14.3	14.9	14.6	15.1	15.4
4H	14.4	14.9	14.7	15.2	15.5	14.7	15.2	15.0	15.5	15.8
6H	14.6	15.1	15.0	15.4	15.8	15.0	15.4	15.3	15.7	16.1
8H	14.7	15.1	15.1	15.5	15.9	15.1	15.5	15.4	15.8	16.2
12H	14.8	15.2	15.2	15.5	15.9	15.1	15.5	15.5	15.9	16.3
8H 4H	14.5	14.9	14.8	15.2	15.6	14.8	15.2	15.1	15.5	15.9
6H	14.8	15.2	15.2	15.6	16.0	15.1	15.5	15.5	15.9	16.3
8H	15.0	15.3	15.4	15.7	16.1	15.3	15.6	15.7	16.0	16.4
12H	15.1	15.3	15.5	15.8	16.2	15.4	15.7	15.9	16.1	16.6
12H 4H	14.4	14.8	14.8	15.2	15.6	14.7	15.1	15.1	15.5	15.9
6H	14.8	15.1	15.3	15.6	16.0	15.1	15.4	15.6	15.8	16.3
8H	15.0	15.3	15.5	15.7	16.2	15.3	15.6	15.8	16.0	16.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.5 / - 0.7					+ 0.5 / - 0.7				
1.5H	+ 0.7 / - 0.5					+ 0.8 / - 0.5				
2.0H	+ 0.8 / - 0.7					+ 0.7 / - 0.6				

CIE Pub.117, 1053 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)
Area: 0.00264 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

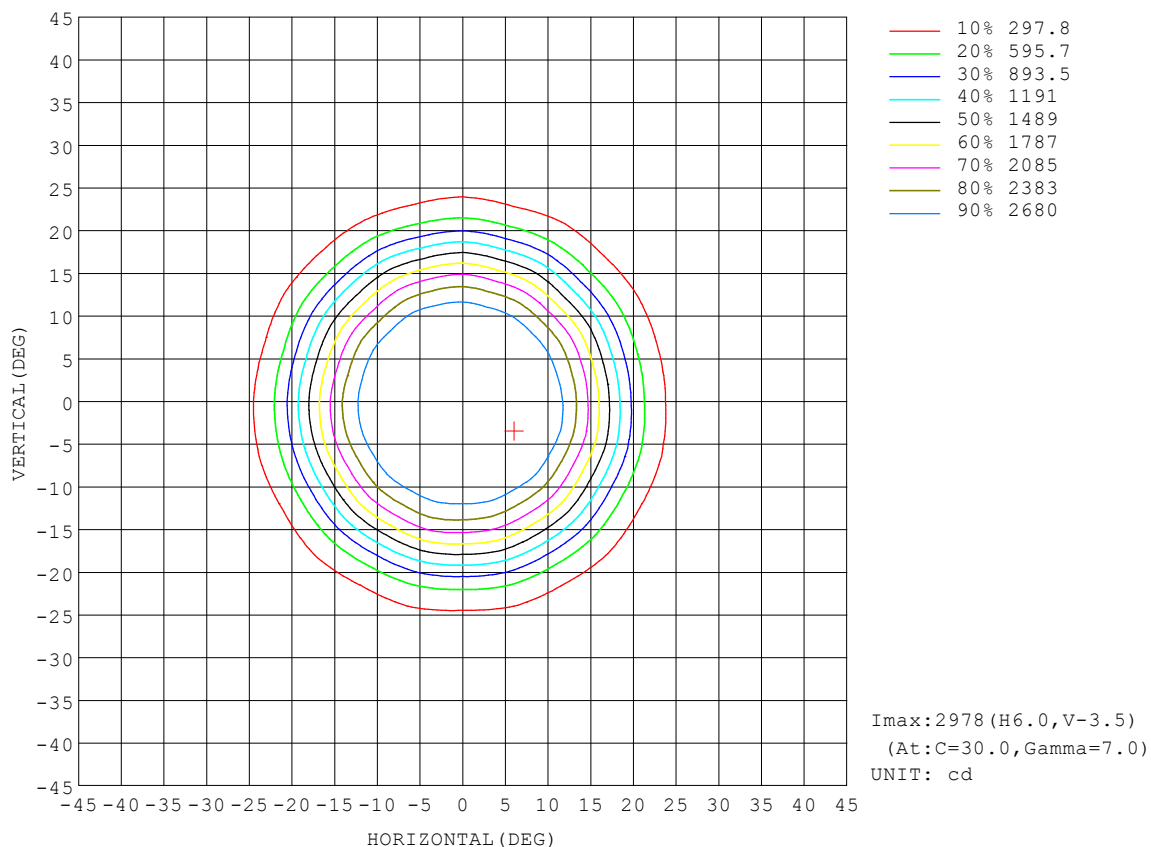
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	79	88	83	79	88	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	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: 2020-10-29

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

NAME :	TYPE :	WEIGHT :
SPEC. :	DIM. :	SERIAL No. :
MFR. :	SUR. : 58	Shielding Angle :

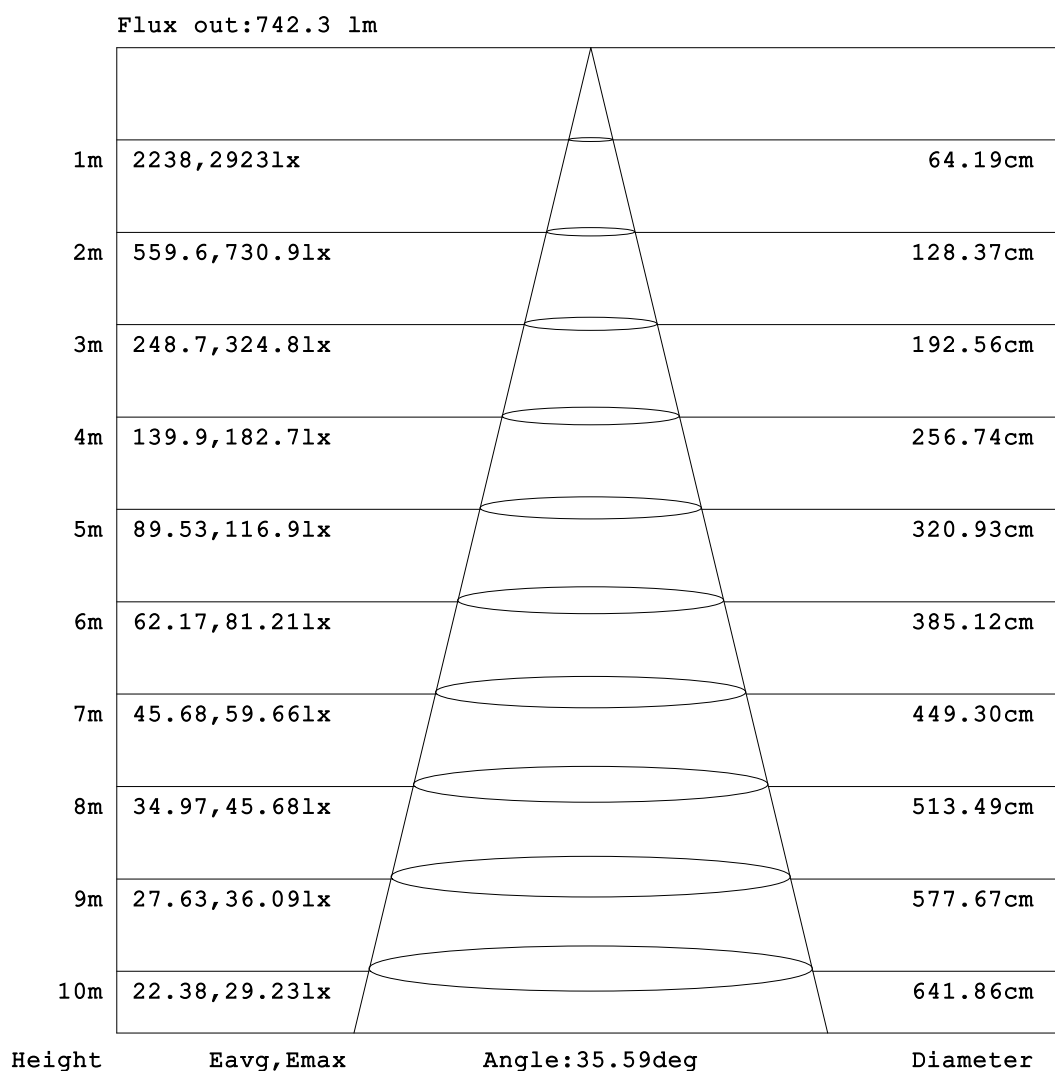


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:



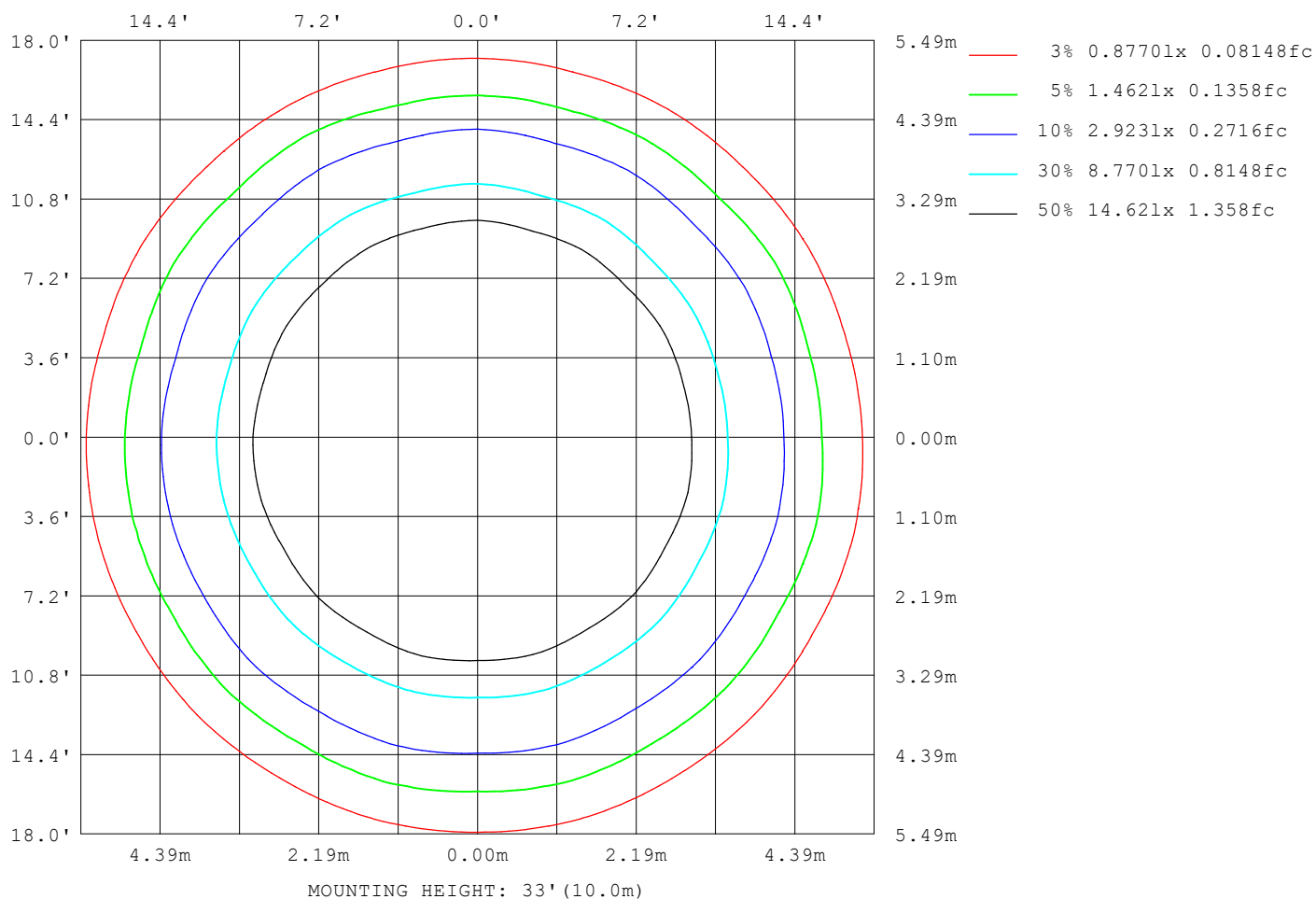
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-10-29

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

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

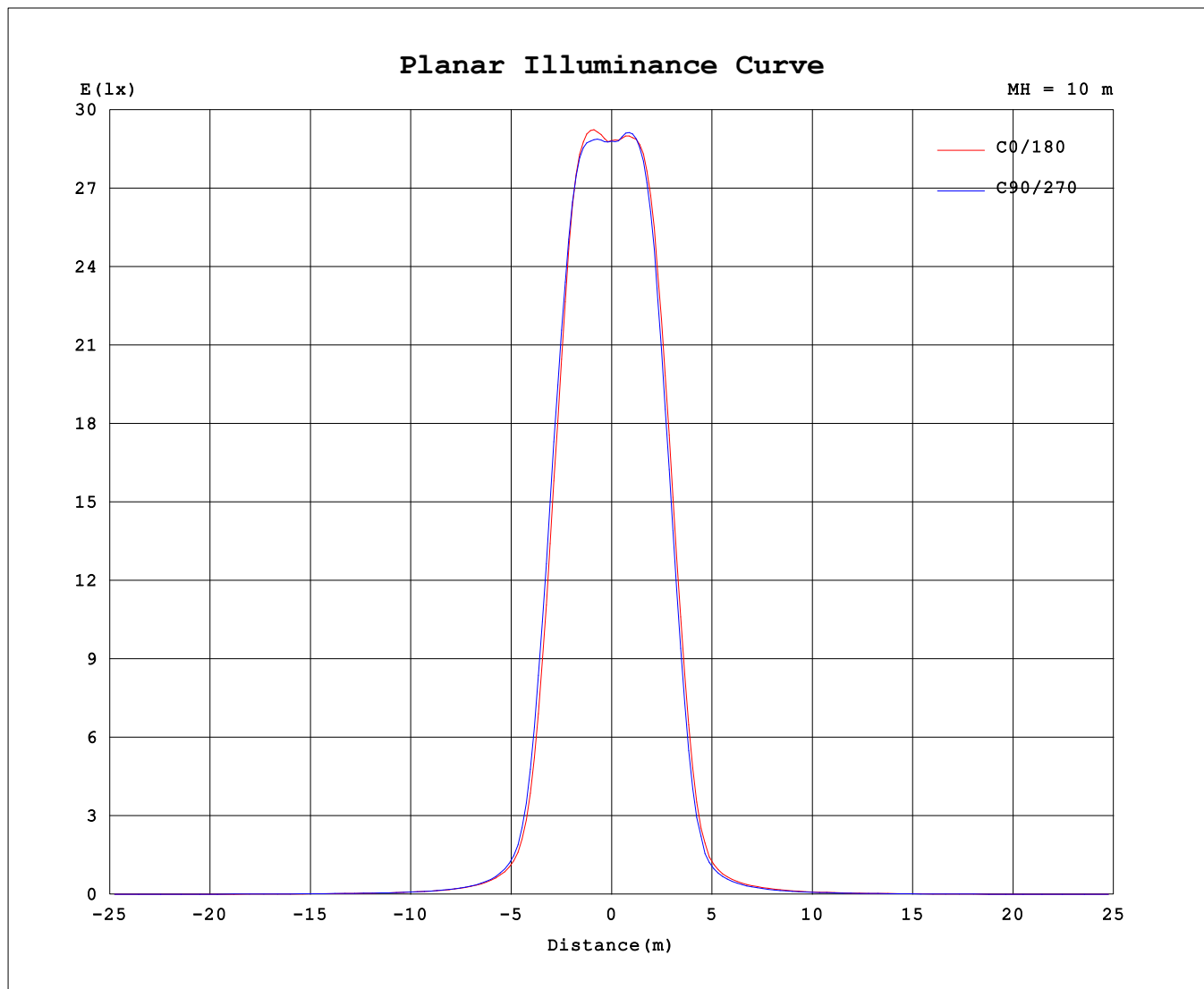
AvgL	cd/m2
L_0~180 (65) av	7551
L_0~180 (75) av	5554
L_0~180 (85) av	3764
L_90~270 (65) av	7646
L_90~270 (75) av	5616
L_90~270 (85) av	3834
L_45 (65) av	7580
L_45 (75) av	5588
L_45 (85) av	3768

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

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: 2020-10-29

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:

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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:

```