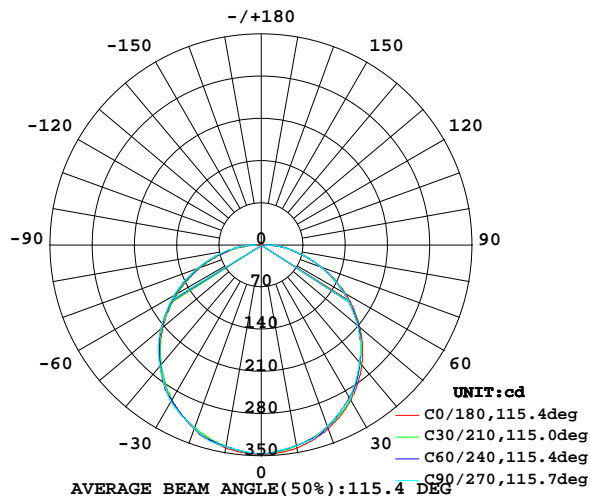


## LUMINAIRE PHOTOMETRIC TEST REPORT

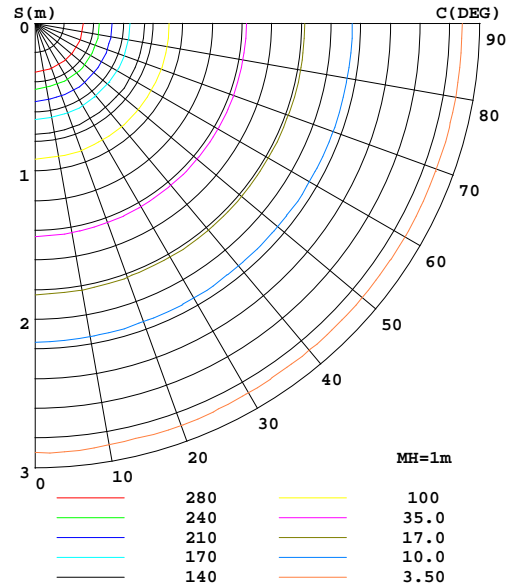
NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		I <sub>max</sub> (cd)	347.2	S/MH(C0/180)	1.27
NOMINAL POWER(W)	15	LOR(%)	74.5	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1043.2	h UP,DN(C0-180)	0.0,36.7
NOMINAL FLUX(lm)	1400	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,37.8
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.5	h down(%)	74.5	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.120m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
5	345.9	343.2	342.5	343.1	345.8	343.9	343.6	344.0	0- 5	8.251	8.251	0.79,0.59
10	341.6	337.8	337.7	337.6	341.7	339.1	339.9	339.4	5- 10	24.42	32.67	3.13,2.33
15	334.5	331.0	333.0	330.7	334.4	333.1	336.3	333.4	10- 15	39.85	72.52	6.95,5.18
20	324.8	323.0	320.1	322.4	324.5	325.6	324.4	326.2	15- 20	54.05	126.6	12.1,9.04
25	312.2	308.7	307.1	308.1	312.0	311.9	312.6	312.6	20- 25	66.36	192.9	18.5,13.8
30	297.2	292.5	294.2	291.8	296.8	296.5	300.8	297.1	25- 30	76.63	269.6	25.8,19.3
35	279.7	275.6	274.1	274.9	279.1	280.2	281.5	280.7	30- 35	84.50	354.1	33.9,25.3
40	259.9	257.0	254.1	256.4	259.2	262.4	262.1	262.8	35- 40	89.45	443.5	42.5,31.7
45	237.9	233.4	234.0	232.7	237.3	239.0	242.8	239.6	40- 45	91.62	535.2	51.3,38.2
50	214.1	209.8	208.7	208.8	213.2	215.4	217.7	216.4	45- 50	90.92	626.1	60,44.7
55	188.5	185.9	183.5	184.8	187.5	191.6	192.5	193.1	50- 55	87.11	713.2	68.4,50.9
60	161.6	158.0	158.2	157.3	160.6	163.9	167.4	165.1	55- 60	80.64	793.8	76.1,56.7
65	133.7	130.6	131.0	130.4	132.8	137.0	139.6	137.7	60- 65	71.79	865.6	83,61.8
70	105.6	103.6	103.7	103.6	104.9	109.7	111.9	110.3	65- 70	60.87	926.5	88.8,66.2
75	78.03	76.92	76.47	76.88	77.64	82.27	84.10	83.02	70- 75	48.53	975.0	93.5,69.6
80	52.38	51.33	52.90	51.20	51.97	55.87	59.17	56.75	75- 80	35.56	1011	96.9,72.2
85	26.25	28.31	29.33	27.87	22.67	31.89	34.23	32.47	80- 85	22.73	1033	99,73.8
90	1.946	5.477	5.762	4.734	1.993	8.172	9.298	8.443	85- 90	9.927	1043	100,74.5
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

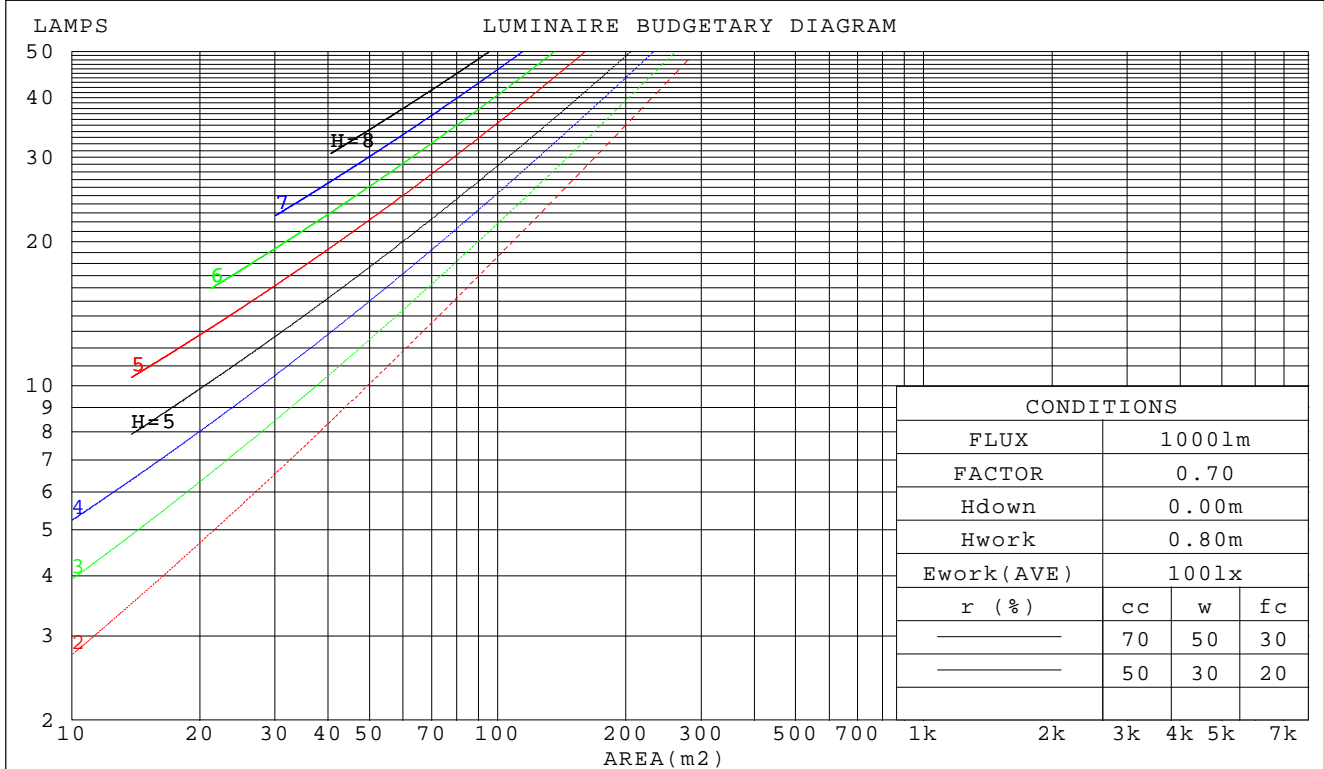
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:WCZ  
 Test Date:2015-04-18

g Range: 0 - 90DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.120m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 30DEG  
 Operators: WCZ  
 Test Date: 2015-04-18

g Range: 0 - 90DEG  
 g Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity: 65.0%  
 Test Distance: 6.120m [K=1.0000]  
 Remarks:

## WEC AND CCEC

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.246 .140 .044	.240 .137 .044	.230 .132 .042	.221 .128 .041	.213 .123 .040	
2.0	.227 .124 .038	.222 .122 .038	.213 .119 .037	.205 .115 .036	.198 .112 .035	
3.0	.208 .111 .033	.204 .109 .033	.196 .106 .032	.189 .103 .032	.182 .101 .031	
4.0	.191 .099 .029	.187 .098 .029	.180 .095 .029	.174 .093 .028	.168 .091 .028	
5.0	.175 .089 .026	.172 .088 .026	.166 .086 .025	.160 .085 .025	.155 .083 .025	
6.0	.162 .081 .023	.159 .080 .023	.154 .079 .023	.149 .077 .023	.144 .076 .023	
7.0	.151 .074 .021	.148 .074 .021	.143 .072 .021	.139 .071 .021	.134 .070 .021	
8.0	.140 .069 .019	.138 .068 .019	.134 .067 .019	.130 .066 .019	.126 .065 .019	
9.0	.131 .064 .018	.129 .063 .018	.125 .062 .018	.122 .061 .017	.118 .060 .017	
10.0	.123 .059 .016	.121 .059 .016	.118 .058 .016	.115 .057 .016	.111 .056 .016	

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.142 .142 .142	.121 .121 .121	.083 .083 .083	.048 .048 .048	.015 .015 .015	
1.0	.135 .116 .099	.116 .100 .085	.079 .069 .059	.046 .040 .034	.015 .013 .011	
2.0	.130 .098 .072	.111 .085 .062	.076 .059 .043	.044 .034 .025	.014 .011 .008	
3.0	.124 .085 .054	.106 .074 .047	.073 .051 .033	.042 .030 .020	.014 .010 .006	
4.0	.118 .075 .043	.101 .065 .037	.070 .045 .026	.040 .027 .015	.013 .009 .005	
5.0	.112 .068 .035	.097 .059 .030	.067 .041 .021	.039 .024 .013	.012 .008 .004	
6.0	.107 .061 .029	.092 .053 .025	.063 .037 .018	.037 .022 .011	.012 .007 .003	
7.0	.102 .056 .024	.088 .049 .021	.061 .034 .015	.035 .020 .009	.011 .007 .003	
8.0	.097 .052 .021	.083 .045 .018	.058 .032 .013	.034 .019 .008	.011 .006 .003	
9.0	.092 .048 .019	.080 .042 .016	.055 .029 .012	.032 .017 .007	.010 .006 .002	
10.0	.088 .045 .017	.076 .039 .014	.053 .028 .010	.031 .016 .006	.010 .005 .002	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.120m [K=1.0000]  
Remarks:

## Uncorrected UGR Table

NAME: 87584WTWT					TYPE:LED					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:150418003				
MFR.: Maxim Lighting International Inc					SUR.:					PROTECTION 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	21.1	22.7	21.4	22.9	23.1	21.0	22.6	21.3	22.8	23.0				
3H	22.8	24.2	23.1	24.4	24.7	22.7	24.1	23.0	24.4	24.6				
4H	23.5	24.9	23.8	25.1	25.4	23.4	24.8	23.7	25.0	25.3				
6H	24.1	25.4	24.4	25.6	25.9	24.0	25.3	24.4	25.6	25.9				
8H	24.3	25.5	24.6	25.8	26.1	24.3	25.5	24.6	25.8	26.1				
12H	24.4	25.6	24.8	25.9	26.2	24.5	25.7	24.8	26.0	26.3				
4H 2H	21.7	23.1	22.1	23.4	23.6	21.7	23.1	22.0	23.3	23.6				
3H	23.6	24.8	23.9	25.1	25.4	23.5	24.7	23.9	25.0	25.3				
4H	24.4	25.6	24.8	25.9	26.2	24.4	25.5	24.8	25.8	26.2				
6H	25.2	26.2	25.6	26.5	26.9	25.2	26.1	25.6	26.5	26.9				
8H	25.5	26.4	25.9	26.7	27.1	25.5	26.4	25.9	26.8	27.2				
12H	25.6	26.5	26.1	26.9	27.3	25.8	26.6	26.2	27.0	27.4				
8H 4H	24.8	25.7	25.2	26.1	26.4	24.7	25.6	25.1	26.0	26.4				
6H	25.7	26.5	26.1	26.9	27.3	25.7	26.4	26.1	26.8	27.3				
8H	26.1	26.8	26.6	27.2	27.7	26.1	26.8	26.6	27.2	27.7				
12H	26.4	27.0	26.9	27.5	27.9	26.5	27.1	27.0	27.6	28.1				
12H 4H	24.8	25.6	25.2	26.0	26.4	24.7	25.6	25.2	26.0	26.4				
6H	25.8	26.5	26.3	26.9	27.4	25.8	26.5	26.2	26.9	27.3				
8H	26.3	26.8	26.7	27.3	27.8	26.3	26.9	26.8	27.3	27.8				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2								
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3								
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3								

CIE Pub.117 Corrected 1400 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.2)

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:WCZ  
 Test Date:2015-04-18

g Range: 0 - 90DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.120m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

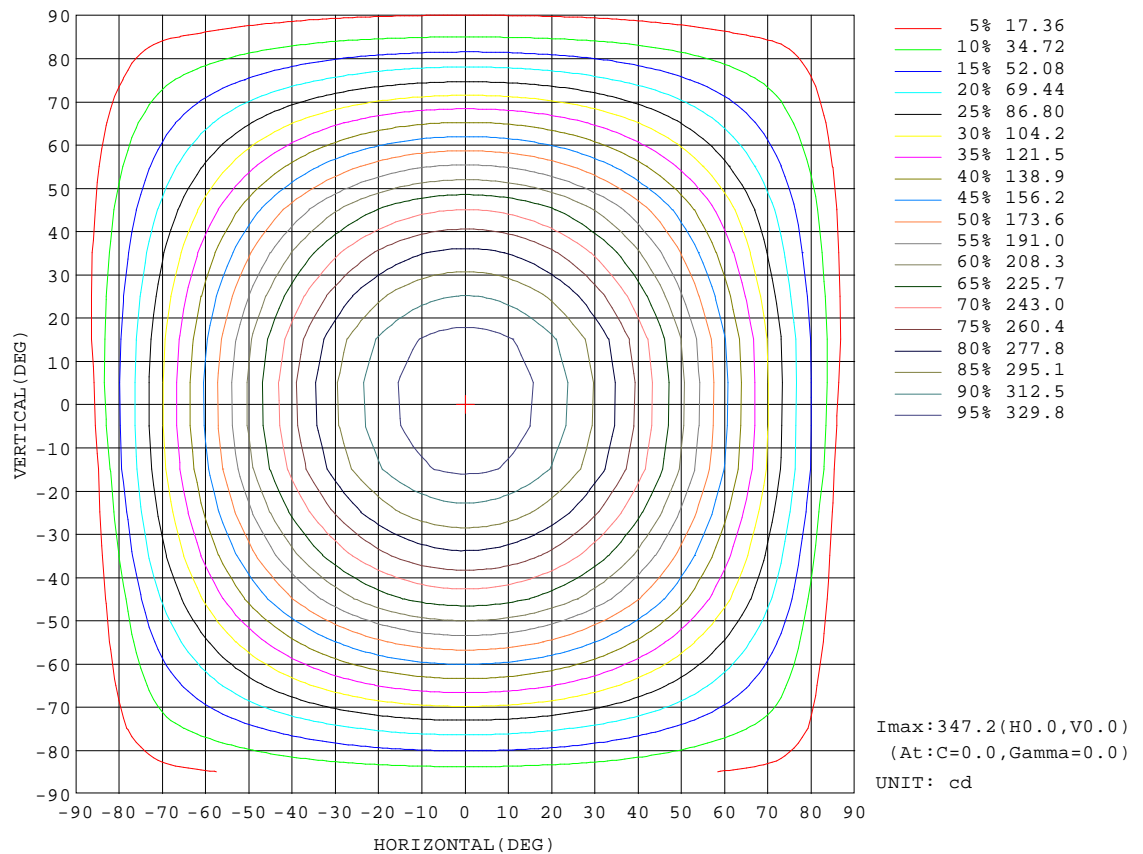
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	42	33	28	41	33	28	41	33	28	23
0.80	49	41	35	49	40	35	47	40	35	29
1.00	56	47	41	55	47	41	53	48	41	35
1.25	61	53	47	60	52	47	58	51	46	41
1.50	65	57	52	63	56	51	61	55	50	45
2.00	70	63	58	68	62	58	66	61	56	50
2.50	73	67	62	71	66	61	68	64	60	54
3.00	75	70	66	74	69	65	71	67	63	57
4.00	79	74	70	77	73	69	73	70	67	61
5.00	80	77	73	79	75	72	75	72	70	63
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:WCZ  
 Test Date:2015-04-18

g Range: 0 - 90DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
 Humidity:65.0%  
 Test Distance:6.120m [K=1.0000]  
 Remarks:

## ISOCANDELA DIAGRAM

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

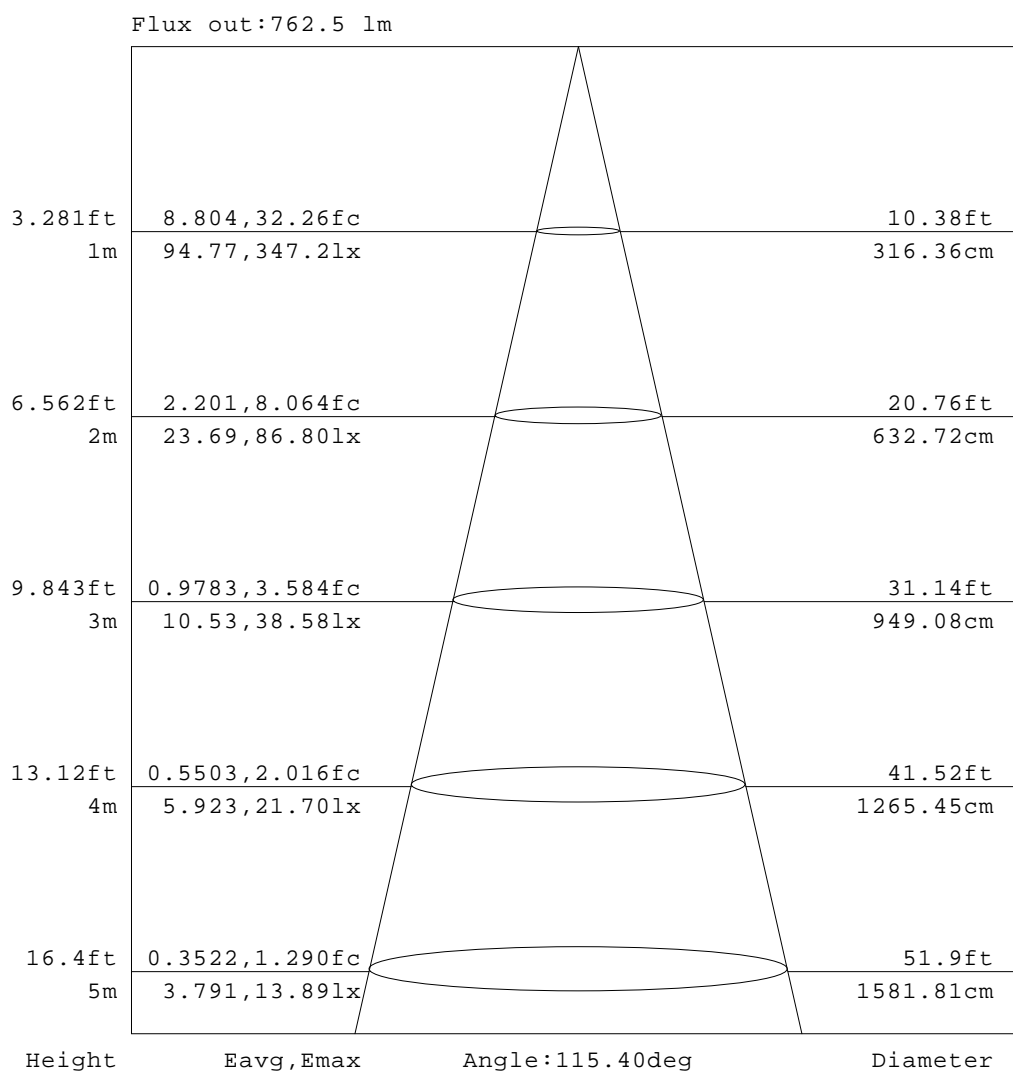


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators: WCZ  
Test Date: 2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity: 65.0%  
Test Distance: 6.120m [K=1.0000]  
Remarks:

## AAI Figure

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:



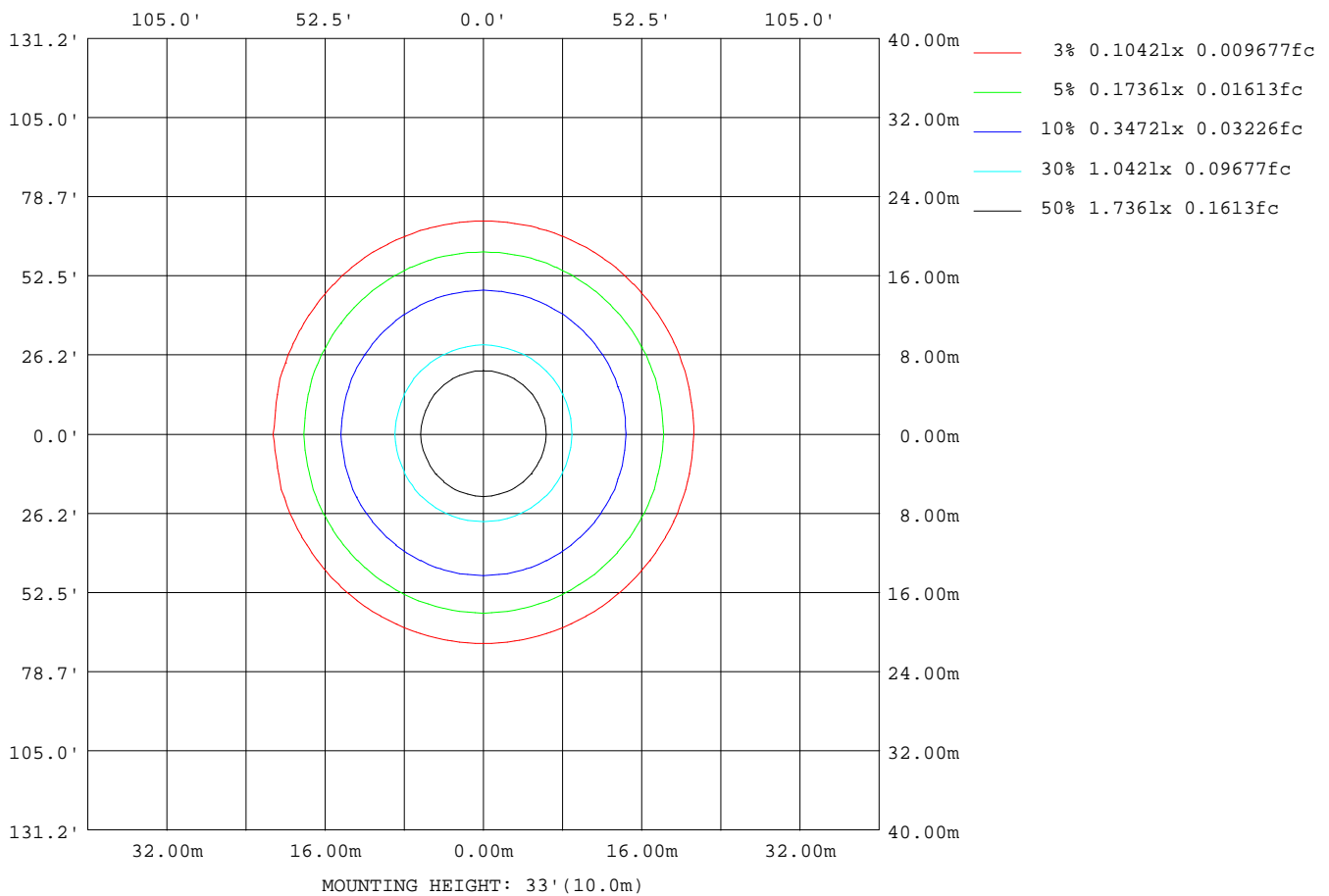
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity:65.0%  
Test Distance:6.120m [K=1.0000]  
Remarks:

## ISOLUX DIAGRAM

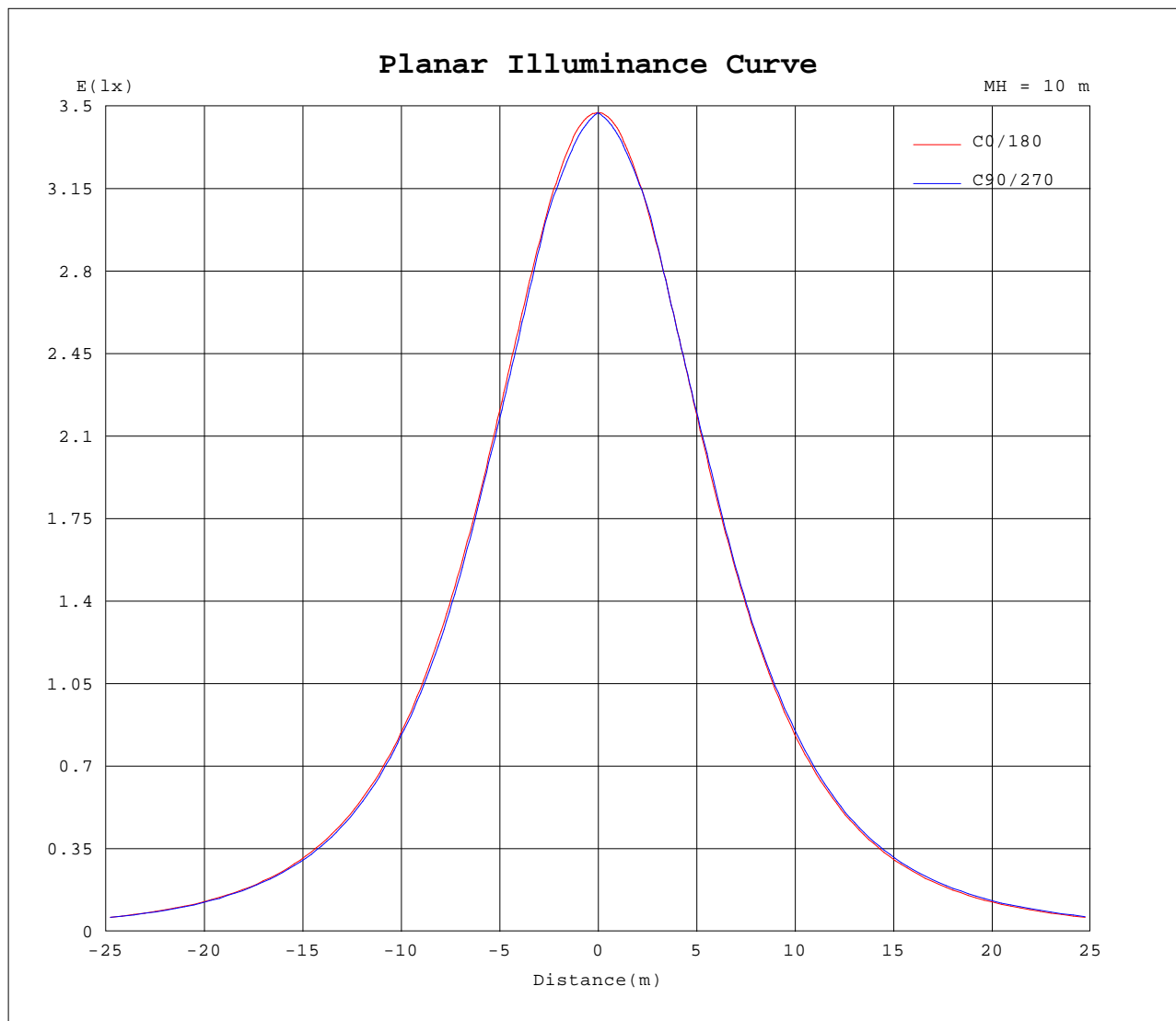
NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators: WCZ  
Test Date: 2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity: 65.0%  
Test Distance: 6.120m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators: WCZ  
Test Date: 2015-04-18

g Range: 0 - 90DEG  
g Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.275  
Humidity: 65.0%  
Test Distance: 6.120m [K=1.0000]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

```
g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:6.120m [K=1.0000]
Remarks:
```

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

```
g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:6.120m [K=1.0000]
Remarks:
```

## LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 87584WTWT	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:150418003
MFR.: Maxim Lighting International Inc	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

[illegible]

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:WCZ  
Test Date:2015-04-18

```
g Range: 0 - 90DEG
g Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:6.120m [K=1.0000]
Remarks:
```

