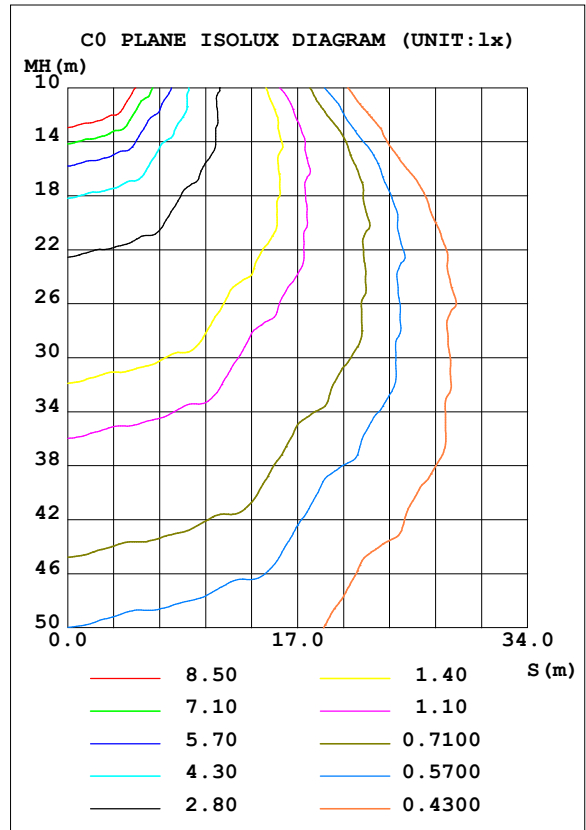
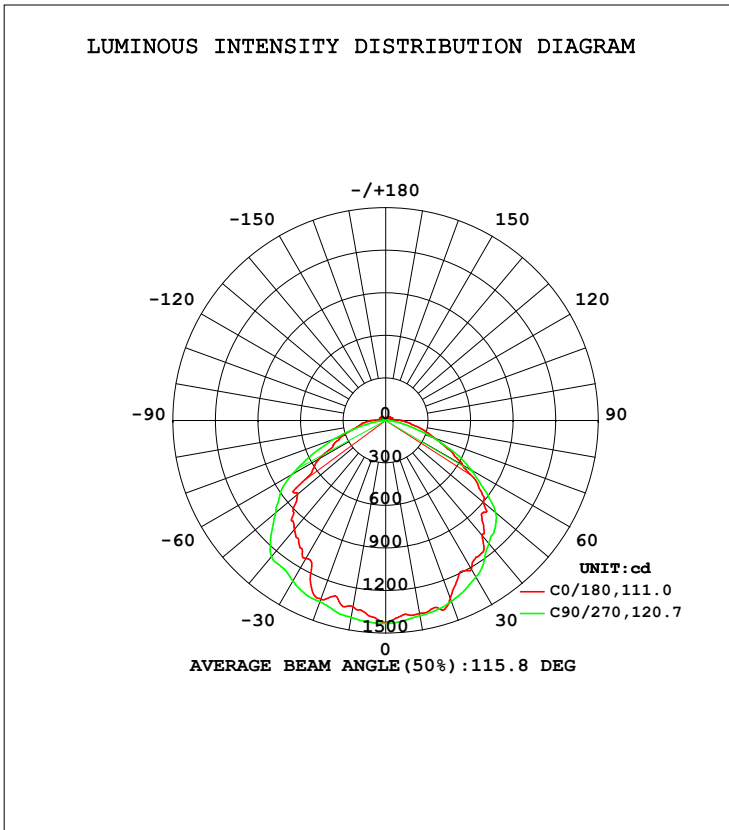


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.50 lm/W			
MODEL	4'LED Wrap	I _{max} (cd)	1432	S/MH (C0/180)	1.21
NOMINAL POWER (W)	36	LOR (%)	100.0	S/MH (C90/270)	1.36
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	4343.0	η UP, DN (C0-180)	1.4, 49.0
NOMINAL FLUX (lm)	4343.02	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.5, 48.1
LAMPS INSIDE	1	η up (%)	2.9	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)		η down (%)	97.1	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Paul
 Test Date: 2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity: 65.0%
 Test Distance: 2.900m [K=0.8389]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	1382	1398	1334	1410				0- 10	133.2	133.2	3.07,3.07
20	1334	1357	1341	1360				10- 20	387.2	520.4	12,12
30	1211	1275	1123	1309				20- 30	592.3	1113	25.6,25.6
40	1058	1133	1002	1253				30- 40	736.3	1849	42.6,42.6
50	899.5	1010	813.5	1014				40- 50	795.5	2644	60.9,60.9
60	623.7	698.7	546.7	766.4				50- 60	719.6	3364	77.5,77.5
70	367.2	357.7	329.3	391.5				60- 70	498.0	3862	88.9,88.9
80	203.3	102.6	181.8	98.79				70- 80	254.9	4117	94.8,94.8
90	110.3	14.32	96.60	0.8384				80- 90	101.7	4219	97.1,97.1
100	13.57	3.617	10.42	1.119				90-100	36.22	4255	98,98
110	43.62	9.576	47.19	5.189				100-110	9.813	4265	98.2,98.2
120	37.03	9.351	36.99	16.44				110-120	26.39	4291	98.8,98.8
130	36.23	6.474	37.54	20.65				120-130	23.24	4314	99.3,99.3
140	25.13	1.417	26.06	15.22				130-140	17.44	4332	99.7,99.7
150	10.68	2.073	10.04	7.943				140-150	7.588	4339	99.9,99.9
160	4.861	2.838	5.348	4.588				150-160	2.635	4342	100,100
170	0.9040	2.407	2.797	2.838				160-170	0.7921	4343	100,100
180	1.682	2.369	1.760	1.788				170-180	0.2219	4343	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

Conical surface Flux(90deg): 2246.7 lm

%lum = 51.7%
 %lamp = 51.7%

Conical surface Flux(120deg): 3364 lm

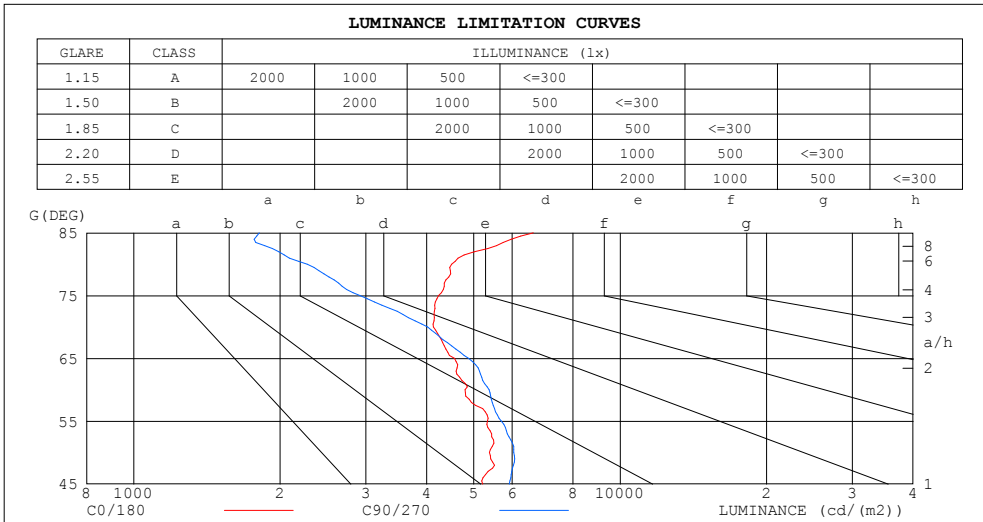
%lum = 77.5%
 %lamp = 77.5%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6626	1811
80	4503	2273
75	4234	2921
70	4129	4022
65	4564	4884
60	4798	5374
55	5337	5696
50	5382	6046
45	5217	5916

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Paul
Test Date:2016-11-11

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
Humidity:65.0%
Test Distance:2.900m [K=0.8389]
Remarks:

WEC AND CCEC

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm														
NAME: CT-D02136AB					TYPE:					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: EVERFINE					SUR.:1.22*0.21					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	.310	.176	.056	.302	.172	.055	.287	.165	.053	.273	.157	.051	.260	.151	.049	
2.0	.290	.159	.049	.283	.156	.048	.270	.150	.047	.258	.144	.045	.246	.139	.044	
3.0	.268	.143	.043	.262	.140	.042	.250	.136	.041	.240	.131	.040	.230	.127	.039	
4.0	.248	.129	.038	.242	.127	.038	.232	.123	.037	.222	.119	.036	.213	.116	.035	
5.0	.230	.117	.034	.225	.115	.034	.215	.112	.033	.207	.109	.032	.198	.106	.032	
6.0	.213	.107	.031	.209	.105	.030	.200	.103	.030	.192	.100	.029	.185	.097	.029	
7.0	.198	.098	.028	.195	.097	.028	.187	.095	.027	.180	.092	.027	.173	.090	.026	
8.0	.185	.091	.025	.182	.090	.025	.175	.087	.025	.169	.085	.025	.163	.084	.024	
9.0	.174	.084	.023	.171	.083	.023	.164	.081	.023	.159	.080	.023	.153	.078	.022	
10.0	.163	.078	.022	.161	.078	.022	.155	.076	.021	.150	.074	.021	.145	.073	.021	

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	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.202	.178	.156	.173	.153	.135	.118	.105	.093	.068	.061	.054	.022	.020	.018	
2.0	.194	.154	.120	.166	.133	.104	.114	.092	.073	.066	.053	.043	.021	.017	.014	
3.0	.186	.137	.097	.160	.118	.084	.110	.082	.059	.063	.048	.035	.020	.016	.011	
4.0	.179	.123	.081	.154	.107	.070	.106	.074	.049	.061	.043	.029	.020	.014	.010	
5.0	.172	.113	.070	.147	.098	.061	.102	.068	.043	.059	.040	.025	.019	.013	.008	
6.0	.165	.105	.062	.141	.091	.054	.098	.063	.038	.057	.037	.023	.018	.012	.007	
7.0	.158	.098	.056	.136	.085	.049	.094	.059	.034	.055	.035	.021	.018	.011	.007	
8.0	.151	.092	.051	.130	.080	.045	.090	.056	.032	.052	.033	.019	.017	.011	.006	
9.0	.145	.087	.048	.125	.076	.042	.087	.053	.030	.051	.031	.018	.016	.010	.006	
10.0	.140	.083	.045	.121	.072	.039	.084	.051	.028	.049	.030	.017	.016	.010	.006	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm										
NAME: CT-D02136AB					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: EVERFINE					SUR.:1.22*0.21			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	13.4	14.9	13.7	15.1	15.4	13.8	15.3	14.1	15.5	15.8
3H	14.7	16.0	15.0	16.3	16.6	14.9	16.3	15.3	16.6	16.9
4H	15.2	16.5	15.6	16.8	17.2	15.2	16.5	15.6	16.8	17.1
6H	15.8	17.0	16.2	17.3	17.7	15.4	16.6	15.8	16.9	17.3
8H	16.1	17.3	16.5	17.6	17.9	15.4	16.6	15.8	16.9	17.3
12H	16.4	17.5	16.8	17.9	18.3	15.4	16.5	15.8	16.9	17.2
4H 2H	14.0	15.3	14.3	15.6	15.9	14.3	15.6	14.6	15.9	16.2
3H	15.4	16.5	15.8	16.9	17.2	15.6	16.7	16.0	17.0	17.4
4H	16.1	17.1	16.5	17.5	17.9	16.0	17.0	16.4	17.4	17.8
6H	16.8	17.7	17.2	18.1	18.5	16.2	17.1	16.7	17.5	18.0
8H	17.1	18.0	17.6	18.4	18.9	16.3	17.1	16.7	17.6	18.0
12H	17.6	18.3	18.0	18.8	19.2	16.3	17.1	16.8	17.5	18.0
8H 4H	16.3	17.1	16.7	17.5	18.0	16.2	17.0	16.6	17.4	17.9
6H	17.1	17.8	17.6	18.3	18.8	16.5	17.3	17.0	17.7	18.2
8H	17.6	18.2	18.1	18.7	19.2	16.7	17.3	17.2	17.8	18.3
12H	18.2	18.7	18.7	19.2	19.8	16.8	17.3	17.3	17.8	18.4
12H 4H	16.3	17.0	16.7	17.5	17.9	16.2	16.9	16.6	17.4	17.9
6H	17.2	17.8	17.7	18.3	18.8	16.6	17.2	17.1	17.7	18.2
8H	17.7	18.2	18.2	18.7	19.3	16.8	17.3	17.3	17.8	18.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.4					+ 0.3 / - 0.5				
2.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.3				

CIE Pub.117, 4343 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 5.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Paul
Test Date:2016-11-11

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
Humidity:65.0%
Test Distance:2.900m [K=0.8389]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:

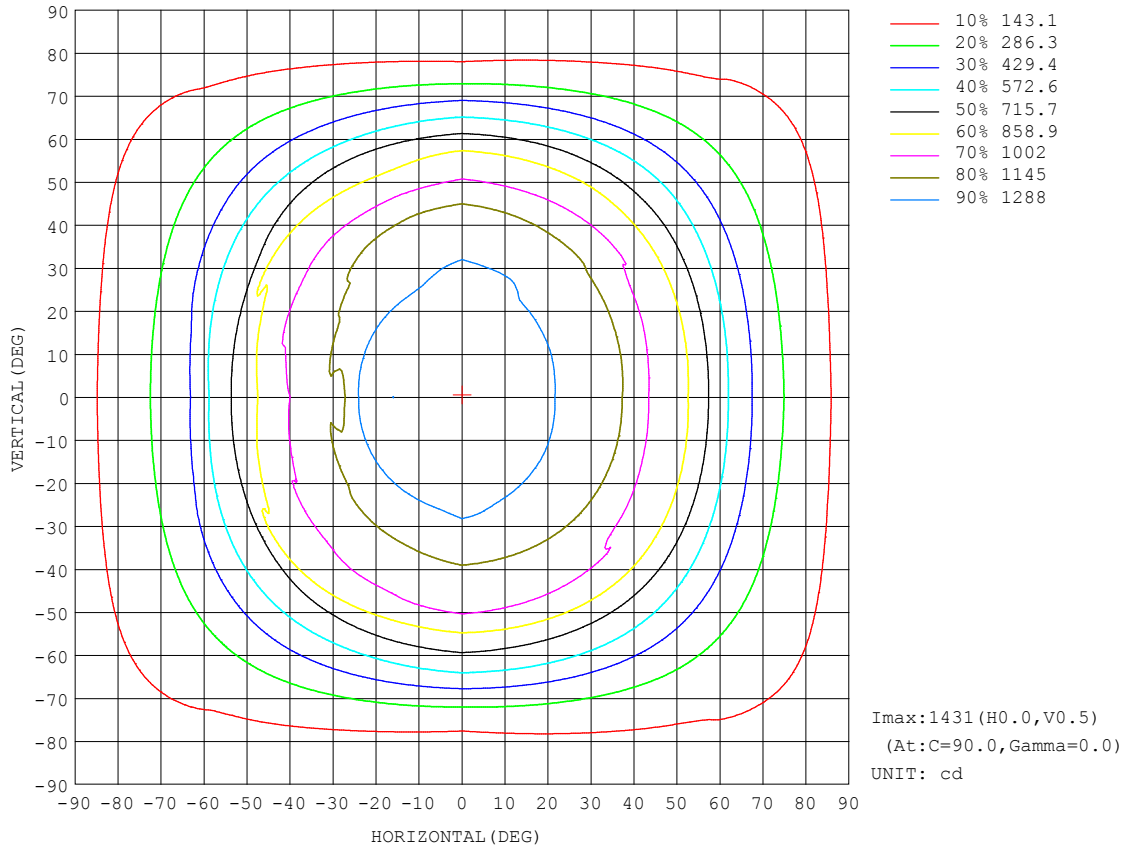
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	64	56	73	63	56	71	64	55	48
1.25	82	71	64	80	71	64	77	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	79	92	84	78	88	81	76	68
2.50	98	90	84	96	88	83	91	85	81	72
3.00	101	94	89	99	93	87	94	89	85	76
4.00	105	99	95	103	97	93	98	94	90	80
5.00	108	103	98	105	100	97	100	96	93	83
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:

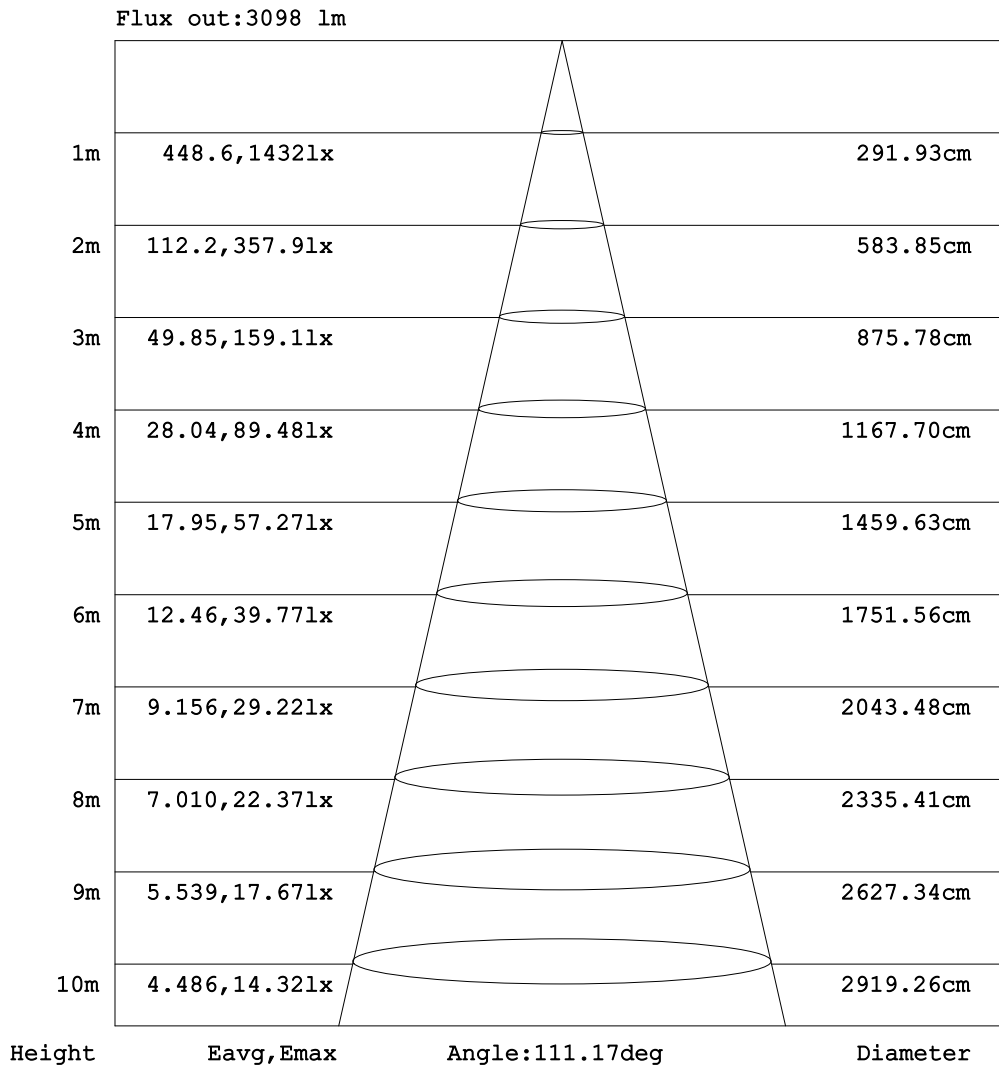


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks:

AAI Figure

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:

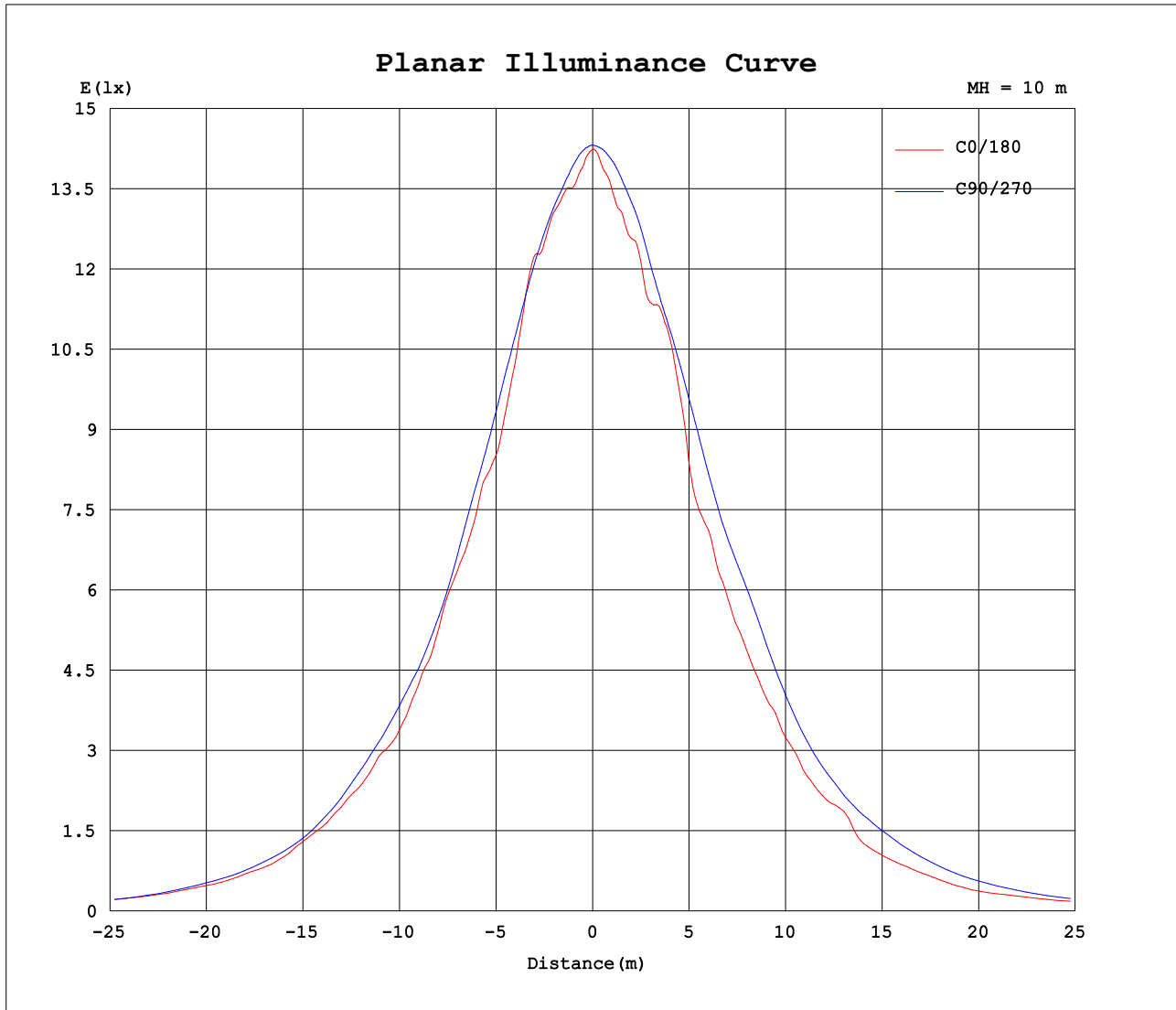


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Paul
Test Date:2016-11-11

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
Humidity:65.0%
Test Distance:2.900m [K=0.8389]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.3070A P:36.34W PF:0.9859 Freq:60.01Hz Lamp Flux:4343.02x1 lm		
NAME: CT-D02136AB	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVERFINE	SUR.:1.22*0.21	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270																
0	1424	1432	1424	1432																
5	1377	1419	1382	1426																
10	1382	1398	1334	1410																
15	1365	1385	1304	1391																
20	1334	1357	1341	1360																
25	1215	1320	1258	1349																
30	1211	1275	1123	1309																
35	1158	1211	1066	1268																
40	1058	1133	1002	1253																
45	959	1088	918	1143																
50	899	1010	813	1014																
55	796	849	635	911																
60	624	699	547	766																
65	502	537	409	576																
70	367	358	329	392																
75	285	197	232	220																
80	203	103	182	98.8																
85	150	41.0	141	25.6																
90	110	14.3	96.6	0.84																
95	71.1	2.14	57.1	0.64																
100	13.6	3.62	10.4	1.12																
105	0.74	6.72	6.48	2.23																
110	43.6	9.58	47.2	5.19																
115	45.7	10.0	42.1	11.3																
120	37.0	9.35	37.0	16.4																
125	36.9	8.42	38.8	24.5																
130	36.2	6.47	37.5	20.6																
135	35.6	4.02	34.2	17.4																
140	25.1	1.42	26.1	15.2																
145	16.8	1.23	14.9	11.9																
150	10.7	2.07	10.0	7.94																
155	6.18	2.67	6.53	5.91																
160	4.86	2.84	5.35	4.59																
165	3.93	2.71	1.09	0.89																
170	0.90	2.41	2.80	2.84																
175	2.27	2.18	2.60	2.61																
180	1.68	2.37	1.76	1.79																

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Paul
 Test Date:2016-11-11

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.364
 Humidity:65.0%
 Test Distance:2.900m [K=0.8389]
 Remarks: