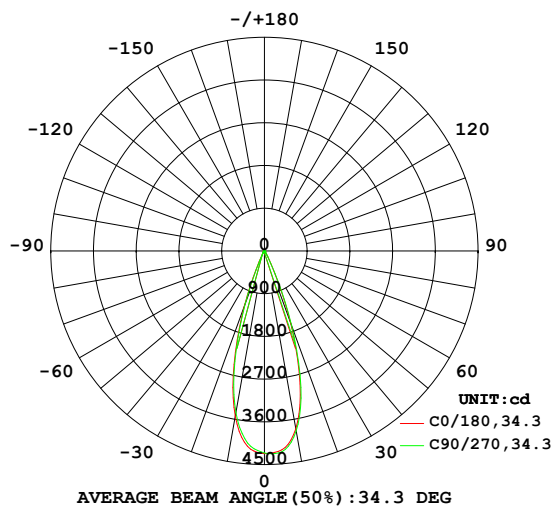


LUMINAIRE PHOTOMETRIC TEST REPORT

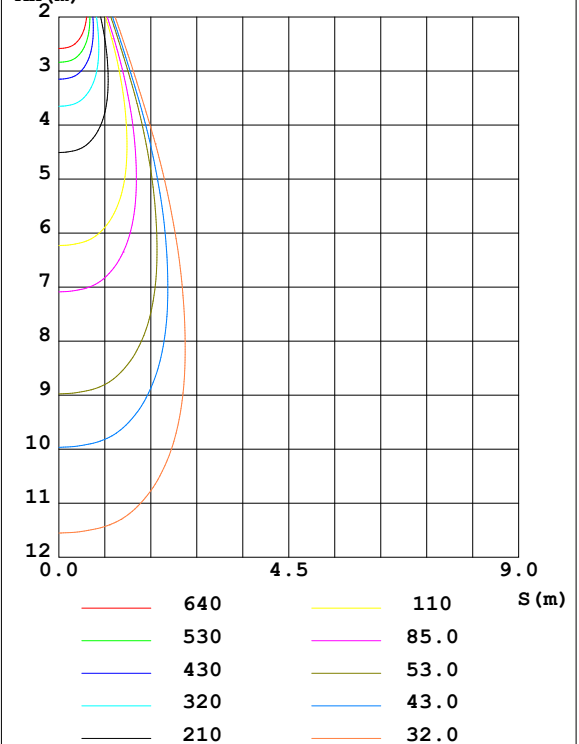
Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.16 lm/W			
MODEL	CLU028 1204	I _{max} (cd)	4274	S/MH (C0/180)	0.51
NOMINAL POWER (W)	15W	LOR (%)	100.0	S/MH (C90/270)	0.50
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1398.8	η UP, DN (C0-180)	0.2, 54.4
NOMINAL FLUX (lm)	1398.79	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 45.3
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220.2	η down (%)	99.7	CIBSE SHR MAX	0.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

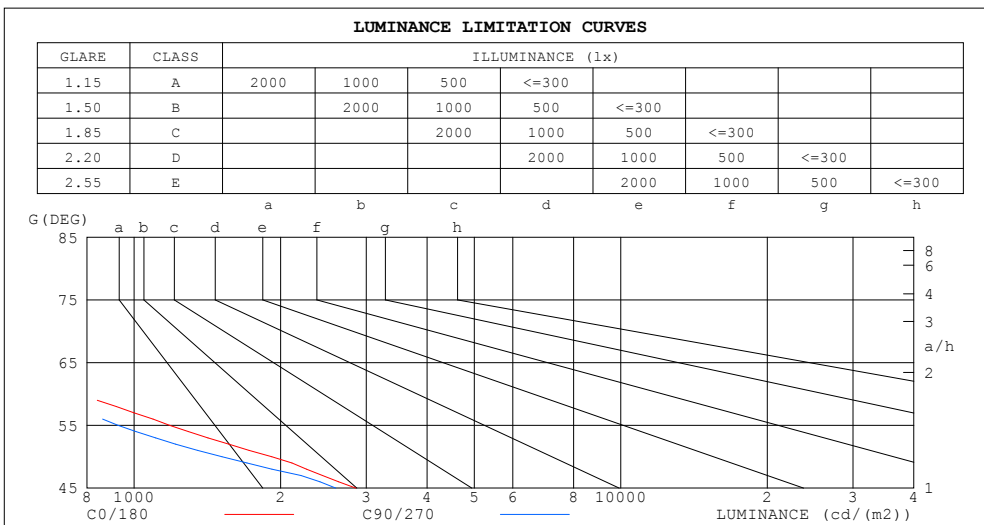
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	3806	3850	3535	3458					0- 10	381.3	381.3	27.3,27.3
20	1612	1677	1236	1178					10- 20	711.7	1093	78.1,78.1
30	145.5	138.6	107.3	94.50					20- 30	238.0	1331	95.2,95.2
40	34.56	33.84	30.45	29.14					30- 40	38.03	1369	97.9,97.9
50	12.70	10.04	12.25	12.35					40- 50	15.63	1385	99,99
60	3.917	2.774	3.789	3.668					50- 60	6.114	1391	99.4,99.4
70	1.444	1.041	1.456	1.404					60- 70	2.146	1393	99.6,99.6
80	0.7835	0.5648	0.7335	0.7225					70- 80	1.085	1394	99.7,99.7
90	0.0006	0.0312	0.0087	0.0018					80- 90	0.3136	1394	99.7,99.7
100	0	0	0.0087	0.0052					90-100	0.0045	1394	99.7,99.7
110	0.0052	0.0052	0.0296	0.0140					100-110	0.0070	1394	99.7,99.7
120	0.0139	0.0297	0.0471	0.0366					110-120	0.0215	1394	99.7,99.7
130	0.0714	0.0785	0.0890	0.0784					120-130	0.0448	1394	99.7,99.7
140	0.5663	0.5361	0.3232	0.3277					130-140	0.1488	1395	99.7,99.7
150	2.520	2.449	1.626	1.673					140-150	0.6882	1395	99.7,99.7
160	5.044	5.024	3.783	3.868					150-160	1.474	1397	99.9,99.9
170	6.572	6.567	5.305	5.288					160-170	1.469	1398	100,100
180	7.050	7.113	7.071	7.109					170-180	0.6074	1399	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	438	184
80	438	316
75	388	331
70	410	295
65	502	381
60	761	539
55	1183	927
50	1918	1516
45	2854	2597

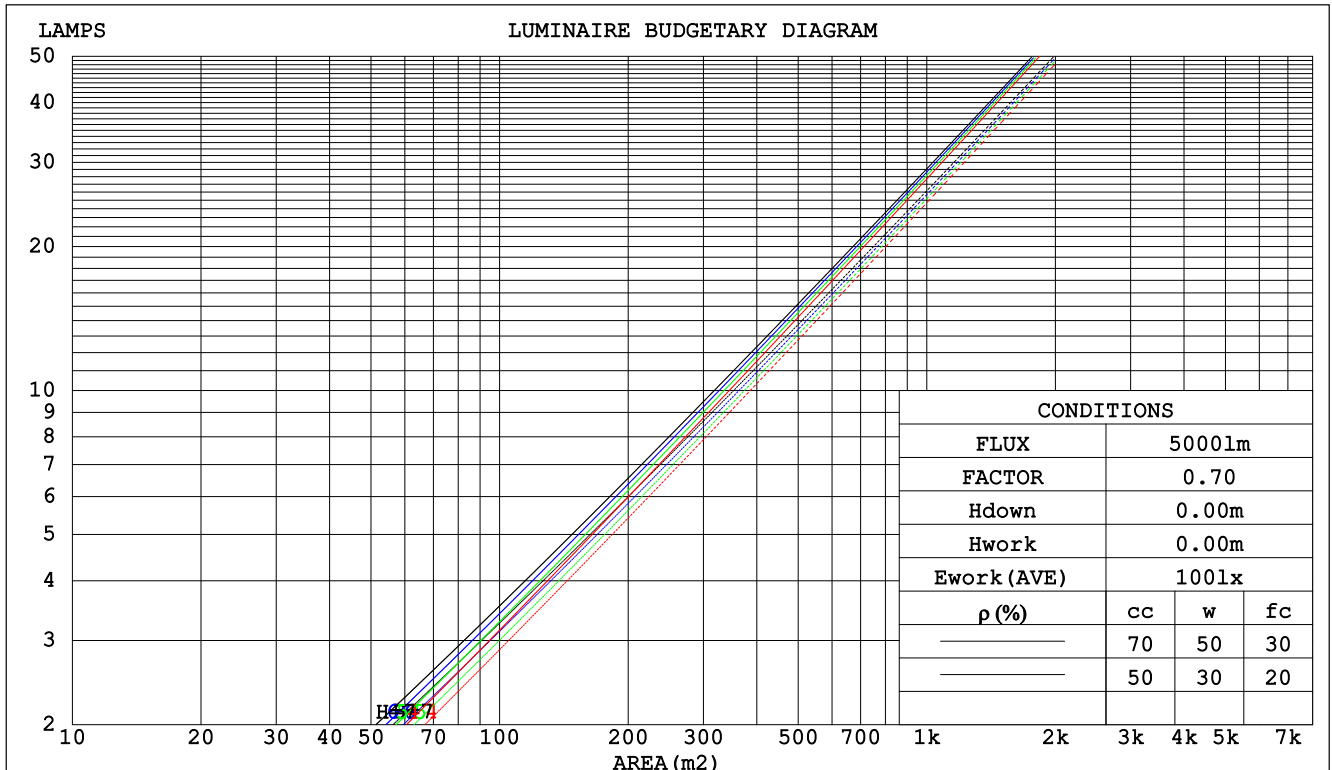
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	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	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	1.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.91	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.86	.93	.89	.86	.91	.88	.85	.90	.87	.85	.88	.86	.84	.83
6.0	.90	.86	.83	.90	.86	.83	.88	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.82	.80	.85	.82	.79	.84	.81	.79	.83	.81	.78	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.75
9.0	.81	.77	.74	.81	.77	.74	.80	.77	.74	.79	.76	.74	.79	.76	.73	.72
10.0	.79	.75	.72	.79	.75	.72	.78	.74	.72	.77	.74	.71	.77	.73	.71	.70



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm					
NAME: 11365LED-X			TYPE:		WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600			DIM.:		SERIAL No.:
MFR.: CETTIGA			SUR.:		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	.142	.081	.026	.136	.077	.025	.123	.071	.023	.111	.064	.021	.101	.058	.019	
2.0	.132	.073	.022	.127	.070	.022	.116	.065	.020	.107	.060	.019	.098	.055	.017	
3.0	.124	.066	.020	.119	.064	.019	.110	.060	.018	.102	.056	.017	.095	.052	.016	
4.0	.116	.060	.018	.112	.059	.017	.105	.056	.017	.098	.053	.016	.092	.050	.015	
5.0	.110	.056	.016	.106	.055	.016	.100	.052	.015	.094	.050	.015	.089	.047	.014	
6.0	.104	.052	.015	.101	.051	.015	.096	.049	.014	.091	.047	.014	.086	.045	.013	
7.0	.099	.049	.014	.097	.048	.014	.092	.046	.013	.087	.045	.013	.083	.043	.013	
8.0	.095	.046	.013	.092	.045	.013	.088	.044	.013	.084	.043	.012	.080	.041	.012	
9.0	.091	.044	.012	.089	.043	.012	.085	.042	.012	.081	.041	.012	.078	.040	.011	
10.0	.087	.042	.012	.085	.041	.011	.082	.040	.011	.079	.039	.011	.076	.038	.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	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.171	.160	.150	.146	.137	.129	.100	.095	.089	.058	.055	.052	.018	.018	.017	
2.0	.153	.135	.120	.131	.116	.104	.090	.080	.072	.052	.047	.042	.017	.015	.014	
3.0	.139	.116	.097	.119	.100	.085	.082	.069	.059	.047	.041	.035	.015	.013	.011	
4.0	.127	.101	.081	.109	.087	.070	.075	.061	.049	.043	.035	.029	.014	.012	.010	
5.0	.116	.088	.068	.100	.076	.059	.069	.053	.042	.040	.031	.025	.013	.010	.008	
6.0	.108	.078	.057	.093	.068	.050	.064	.048	.035	.037	.028	.021	.012	.009	.007	
7.0	.100	.070	.049	.086	.061	.043	.060	.043	.030	.035	.025	.018	.011	.008	.006	
8.0	.094	.064	.043	.081	.055	.037	.056	.039	.026	.033	.023	.016	.011	.007	.005	
9.0	.088	.058	.038	.076	.050	.033	.053	.035	.023	.031	.021	.014	.010	.007	.005	
10.0	.084	.053	.033	.072	.046	.029	.050	.033	.021	.029	.019	.012	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm											
NAME: 11365LED-X					TYPE:			WEIGHT:			
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600					DIM.:			SERIAL No.:			
MFR.: CETTIGA					SUR.:			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		4.1	4.8	4.3	4.9	5.1	3.7	4.4	3.9	4.6	4.7
3H		4.0	4.7	4.3	4.9	5.1	3.6	4.3	3.9	4.5	4.7
4H		4.0	4.6	4.3	4.8	5.1	3.6	4.2	3.9	4.4	4.6
6H		4.0	4.6	4.3	4.8	5.1	3.6	4.1	3.9	4.4	4.6
8H		4.0	4.5	4.3	4.8	5.1	3.5	4.1	3.8	4.3	4.6
12H		4.0	4.5	4.3	4.8	5.0	3.5	4.0	3.8	4.3	4.6
4H	2H	3.9	4.5	4.2	4.8	5.0	3.6	4.2	3.8	4.4	4.6
	3H	3.9	4.4	4.2	4.7	5.0	3.5	4.0	3.8	4.3	4.6
	4H	3.9	4.4	4.2	4.7	5.0	3.5	4.0	3.8	4.3	4.6
	6H	3.9	4.3	4.3	4.7	5.0	3.5	3.9	3.9	4.2	4.6
	8H	3.9	4.3	4.3	4.7	5.0	3.5	3.9	3.9	4.2	4.6
	12H	3.9	4.3	4.3	4.7	5.1	3.4	3.8	3.8	4.2	4.6
8H	4H	3.8	4.2	4.2	4.5	4.9	3.4	3.8	3.8	4.1	4.5
	6H	3.8	4.2	4.3	4.6	5.0	3.4	3.7	3.8	4.1	4.6
	8H	3.9	4.2	4.3	4.6	5.0	3.4	3.7	3.9	4.1	4.6
	12H	3.9	4.1	4.4	4.6	5.1	3.4	3.6	3.8	4.1	4.5
12H	4H	3.7	4.1	4.2	4.5	4.9	3.3	3.7	3.8	4.1	4.5
	6H	3.8	4.1	4.2	4.5	5.0	3.4	3.7	3.8	4.1	4.5
	8H	3.8	4.1	4.3	4.5	5.0	3.4	3.6	3.8	4.1	4.5
Variations with the observer position at spacings:											
S = 1.0H		+ 2.2 / - 3.7					+ 2.4 / - 4.5				
1.5H		+ 3.4 / - 3.1					+ 3.7 / - 3.4				
2.0H		+ 3.8 / - 3.4					+ 4.0 / - 3.4				

CIE Pub.117, 1399 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.2)
Area: 0.0103 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

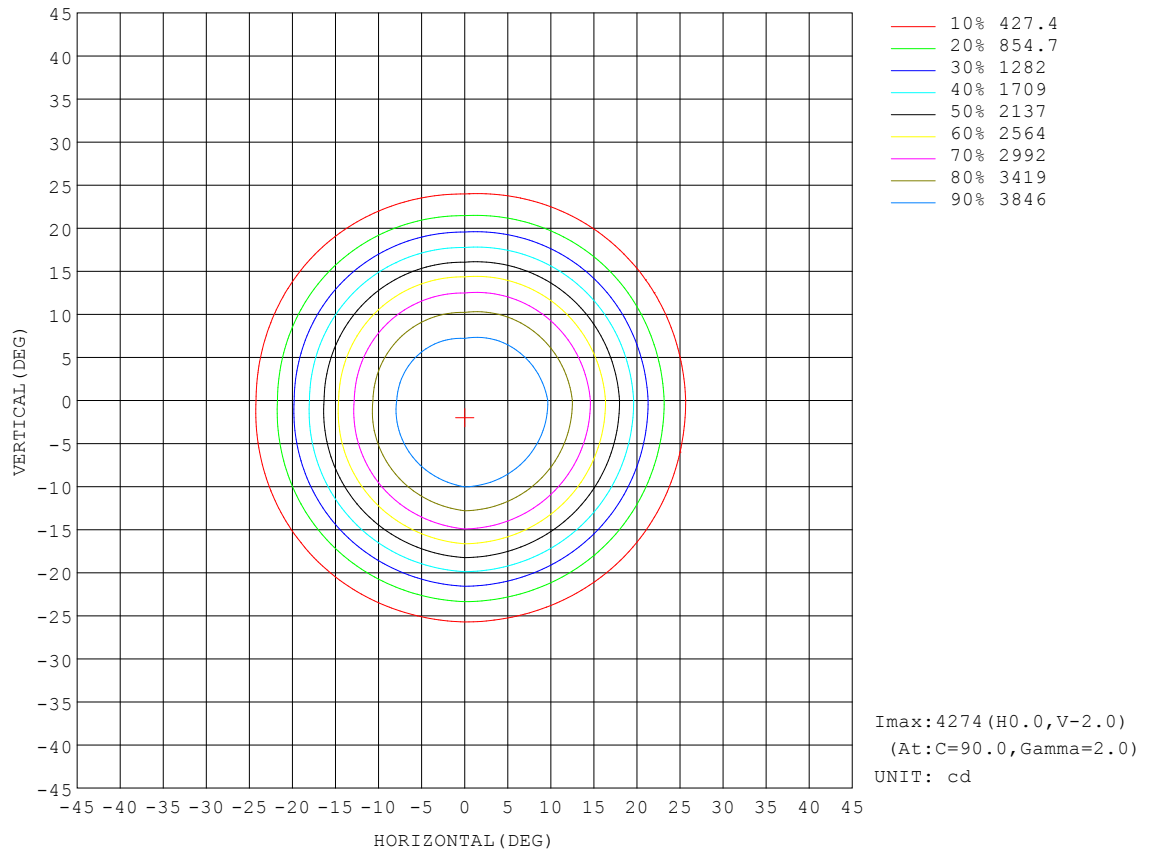
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	77
0.80	97	92	89	97	92	88	95	91	88	85
1.00	101	96	93	100	96	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	96	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	108	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
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: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

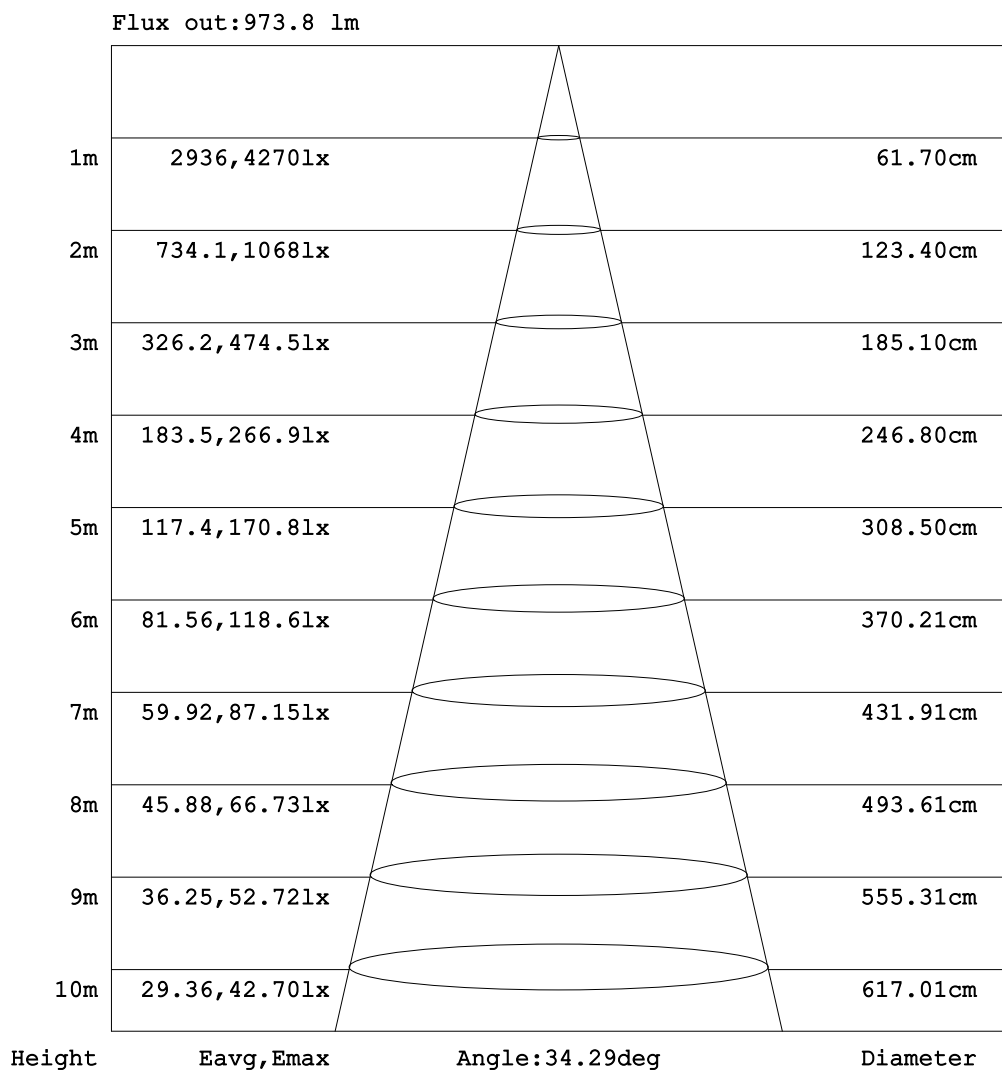


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

AAI Figure

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



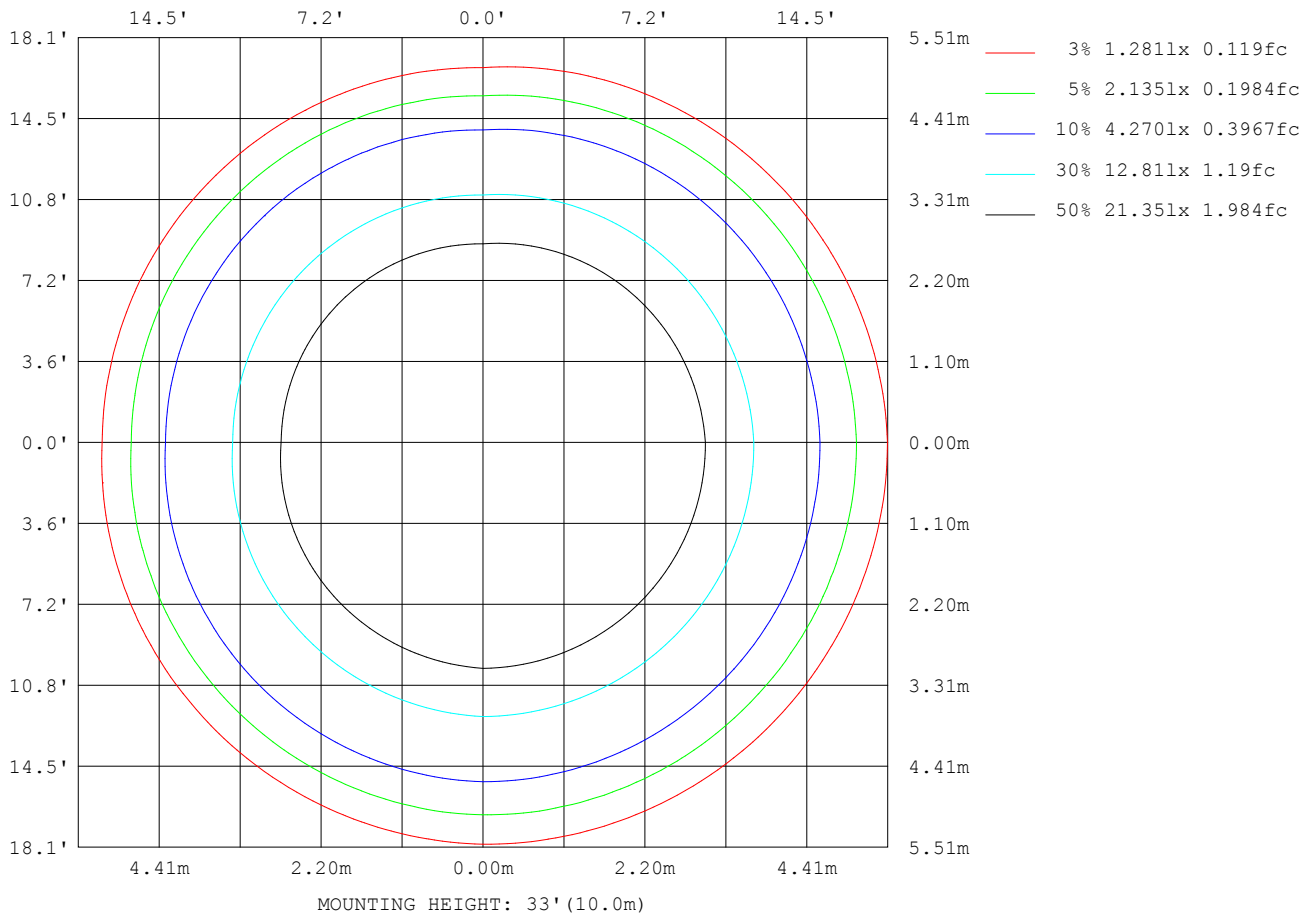
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Xie Bi
Test Date:2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:6.810m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

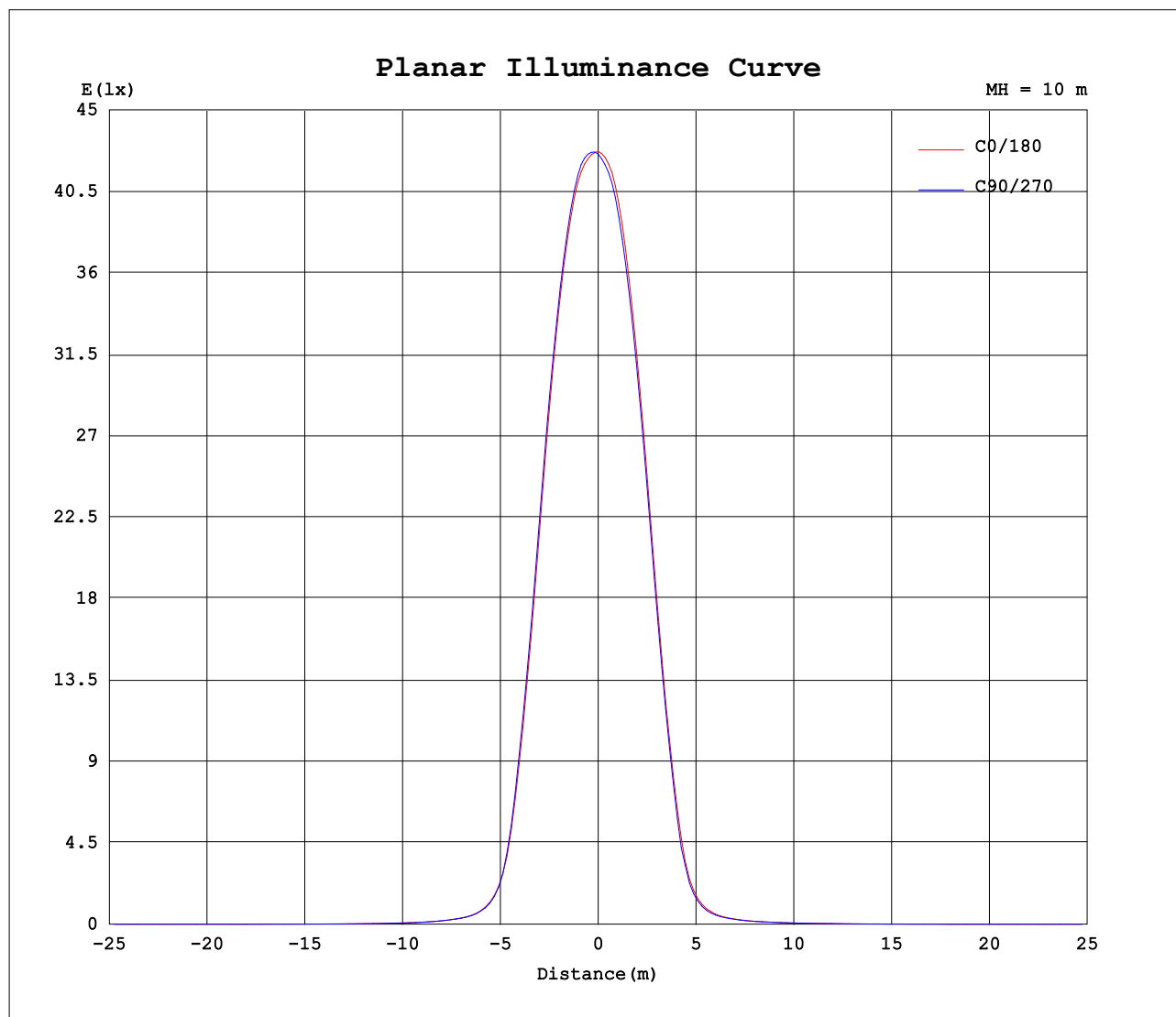
AvgL	cd/m2
L_0~180 (65) av	505
L_0~180 (75) av	402
L_0~180 (85) av	387
L_90~270 (65) av	443
L_90~270 (75) av	386
L_90~270 (85) av	189
L_45 (65) av	466
L_45 (75) av	392
L_45 (85) av	260

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Xie Bi
 Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:6.810m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Xie Bi
Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 6.810m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:231.27V I:0.0643A P:14.106W PF:0.9492 Freq:49.37Hz Lamp Flux:1398.79x1 lm		
NAME: 11365LED-X	TYPE:	WEIGHT:
SPEC.:P-11365LED-X-15W3036-CI35036R90-OS600	DIM.:	SERIAL No.:
MFR.: CETTIGA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	4270	4255	4270	4255															
5	4205	4245	4126	4062															
10	3806	3850	3535	3458															
15	2900	2974	2473	2405															
20	1612	1677	1236	1178															
25	505	533	337	306															
30	146	139	107	94.5															
35	62.9	61.1	51.6	48.7															
40	34.6	33.8	30.5	29.1															
45	20.8	18.9	19.5	19.7															
50	12.7	10.0	12.3	12.3															
55	6.99	5.48	6.81	6.75															
60	3.92	2.77	3.79	3.67															
65	2.19	1.66	2.21	2.20															
70	1.44	1.04	1.46	1.40															
75	1.03	0.88	1.11	1.17															
80	0.78	0.56	0.73	0.72															
85	0.39	0.17	0.30	0.17															
90	0.00	0.03	0.01	0.00															
95	0.00	0.01	0.01	0.00															
100	0.00	0.00	0.01	0.01															
105	0.00	0.00	0.01	0.01															
110	0.01	0.01	0.03	0.01															
115	0.01	0.02	0.03	0.02															
120	0.01	0.03	0.05	0.04															
125	0.03	0.04	0.06	0.05															
130	0.07	0.08	0.09	0.08															
135	0.19	0.19	0.14	0.14															
140	0.57	0.54	0.32	0.33															
145	1.35	1.30	0.79	0.82															
150	2.52	2.45	1.63	1.67															
155	3.83	3.76	2.70	2.76															
160	5.04	5.02	3.78	3.87															
165	5.95	5.97	4.63	4.67															
170	6.57	6.57	5.31	5.29															
175	6.99	7.01	6.16	6.18															
180	7.05	7.11	7.07	7.11															

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C Interval: 90.0DEG
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
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