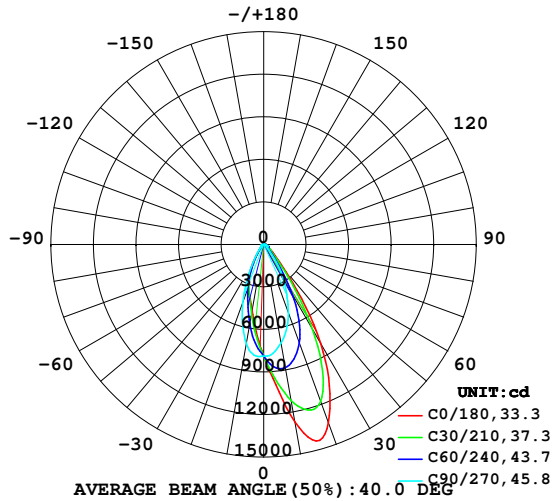


LUMINAIRE PHOTOMETRIC TEST REPORT

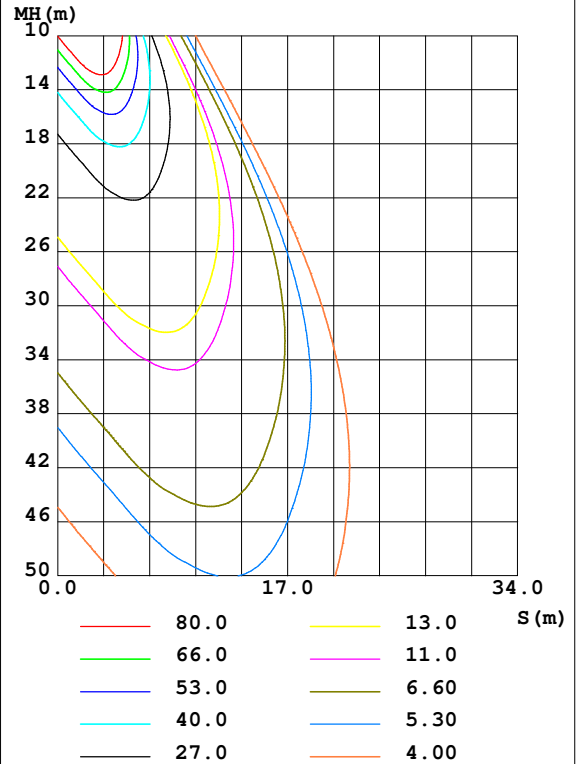
Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 124.02 lm/W			
MODEL	TCE	I _{max} (cd)	14430	S/MH (C0/180)	0.45
NOMINAL POWER(W)	65W	LOR (%)	100.0	S/MH (C90/270)	0.67
RATED VOLTAGE(V)	220.0	TOTAL FLUX (lm)	7668.9	η UP, DN (C0-180)	0.0, 53.2
NOMINAL FLUX (lm)	7668.93	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 46.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.65

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: LITPA
 Test Date: 17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 5.680m [K=1.0000]
 Remarks: TCE-65W-VS
 OT-60

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1273	998.5	706.9	523.5	476.8	524.1	710.2	1079	0- 10	753.8	753.8	9.83,9.83
20	1336	943.2	509.6	363.9	320.5	312.1	430.2	1071	10- 20	2086	2840	37,37
30	804.9	504.4	274.4	207.7	160.4	132.2	160.5	518.5	20- 30	2326	5167	67.4,67.4
40	218.3	149.2	86.28	56.00	37.04	38.16	50.89	131.5	30- 40	1255	6421	83.7,83.7
50	76.36	57.63	29.78	25.26	22.89	23.09	27.52	57.55	40- 50	456.9	6878	89.7,89.7
60	32.90	39.79	27.79	24.73	21.15	22.37	23.83	39.47	50- 60	293.8	7172	93.5,93.5
70	23.35	25.12	16.80	15.93	16.48	18.35	18.82	29.91	60- 70	243.4	7415	96.7,96.7
80	14.59	13.88	6.005	9.735	12.19	11.78	7.919	16.87	70- 80	165.6	7581	98.9,98.9
90	8.045	6.704	0.5541	4.565	5.364	5.285	0.6545	7.602	80- 90	87.90	7669	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: μ 10cd									UNIT: lm		

Conical surface Flux(90deg): 6689.1 lm

%lum = 87.2%

%lamp = 87.2%

Conical surface Flux(120deg): 7172 lm

%lum = 93.5%

%lamp = 93.5%

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: LITPA
 Test Date: 17 April 2019

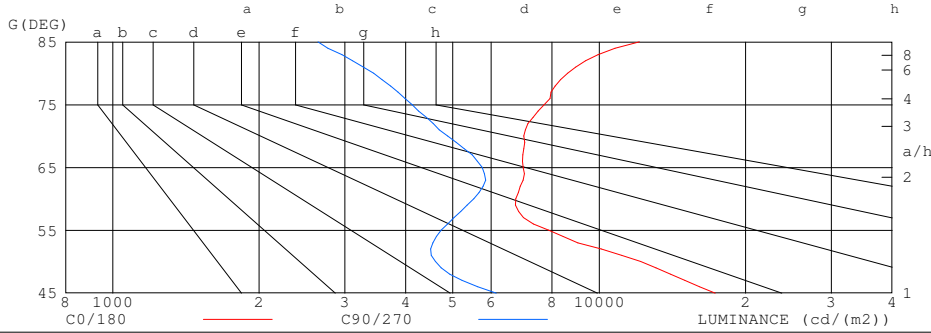
γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 5.680m [K=1.0000]
 Remarks: TCE-65W-VS
 OT-60

LUMINANCE LIMITATION CURVES

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	12091	2642
80	8611	3438
75	7707	4122
70	6995	4882
65	6982	5747
60	6742	5527
55	7859	4735
50	12172	4607
45	17332	6141

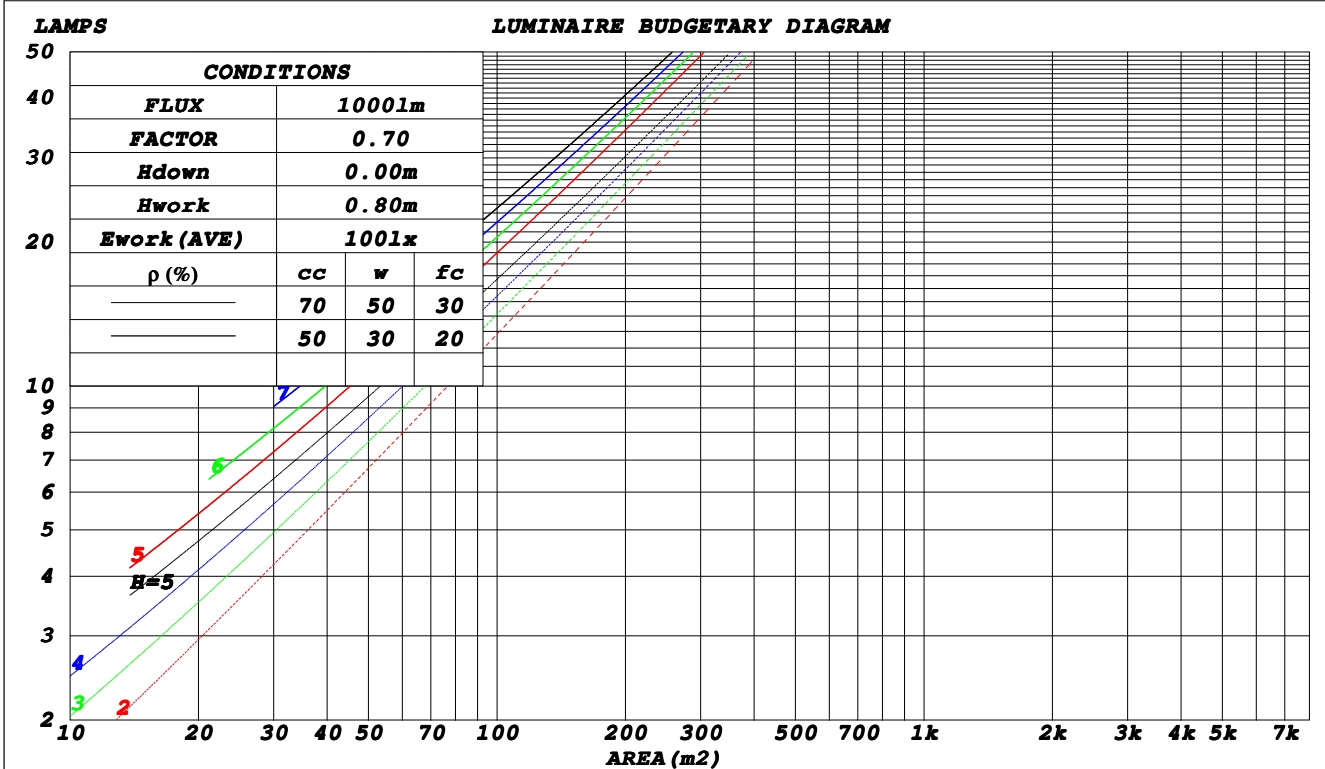
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	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	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	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.95	.94	.93	.91
2.0	1.00	.96	.92	.99	.94	.91	.95	.92	.89	.92	.89	.87	.89	.87	.85	.83
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.82	.79	.84	.81	.78	.76
4.0	.86	.80	.75	.85	.79	.75	.83	.78	.74	.81	.77	.73	.79	.75	.72	.71
5.0	.80	.74	.69	.79	.73	.69	.78	.72	.68	.76	.71	.68	.74	.70	.67	.66
6.0	.75	.69	.64	.74	.68	.64	.73	.67	.63	.71	.67	.63	.70	.66	.63	.61
7.0	.71	.64	.60	.70	.64	.60	.69	.63	.59	.67	.63	.59	.66	.62	.59	.57
8.0	.67	.60	.56	.66	.60	.56	.65	.59	.55	.64	.59	.55	.63	.58	.55	.53
9.0	.63	.57	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.60	.55	.52	.50
10.0	.59	.53	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.57	.52	.49	.47



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

WEC AND CCEC

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.212	.120	.038	.205	.117	.037	.192	.110	.035	.180	.104	.033	.169	.098	.032		
2.0	.197	.108	.033	.191	.105	.032	.181	.100	.031	.171	.096	.030	.161	.091	.029		
3.0	.184	.098	.029	.179	.096	.029	.170	.092	.028	.161	.088	.027	.153	.085	.026		
4.0	.173	.090	.026	.168	.088	.026	.160	.085	.025	.153	.082	.025	.146	.079	.024		
5.0	.162	.083	.024	.159	.081	.024	.151	.079	.023	.145	.076	.023	.139	.074	.022		
6.0	.153	.077	.022	.150	.076	.022	.144	.074	.021	.138	.072	.021	.132	.070	.021		
7.0	.145	.072	.020	.142	.071	.020	.137	.069	.020	.131	.067	.020	.127	.066	.019		
8.0	.138	.067	.019	.135	.067	.019	.130	.065	.019	.126	.064	.018	.121	.062	.018		
9.0	.131	.063	.018	.129	.063	.018	.124	.061	.017	.120	.060	.017	.116	.059	.017		
10.0	.125	.060	.017	.123	.059	.017	.119	.058	.016	.115	.057	.016	.112	.056	.016		

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	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	.174	.157	.142	.148	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.095	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.129	.088	.057	.111	.076	.050	.077	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.122	.079	.048	.105	.068	.042	.072	.048	.029	.042	.028	.018	.014	.009	.006	
7.0	.115	.071	.041	.099	.062	.035	.068	.043	.025	.040	.026	.015	.013	.008	.005	
8.0	.109	.065	.035	.094	.056	.030	.065	.040	.022	.038	.023	.013	.012	.008	.004	
9.0	.104	.060	.030	.089	.052	.026	.062	.037	.019	.036	.022	.011	.012	.007	.004	
10.0	.099	.056	.027	.085	.048	.023	.059	.034	.016	.035	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 5.680m [K=1.0000]
Remarks: TCE-65W-VS
 OT-60

UGR(Unified Glare Rating) Table

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm										
NAME: TCE					TYPE:LED			WEIGHT:3.2kg		
SPEC.:65W					DIM.: 68mmX1430mmX78mm			SERIAL No.:		
MFR.: LITPA AYDINLATMA					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				
x = 2H y = 2H						20.5	21.5	20.7	21.7	21.8
						16.4	17.4	16.6	17.6	17.8
						20.8	21.8	21.1	22.0	22.2
						17.3	18.2	17.5	18.4	18.6
						21.1	22.1	21.4	22.3	22.5
						17.6	18.5	17.8	18.7	18.9
4H	2H	20.5	21.4	20.8	21.6	21.9	17.1	18.0	17.4	18.2
	3H	21.1	21.9	21.4	22.1	22.4	18.2	19.0	18.6	19.3
	4H	21.5	22.2	21.9	22.6	22.9	18.7	19.4	19.0	19.7
	6H	22.1	22.7	22.5	23.1	23.4	19.0	19.6	19.4	20.0
	8H	22.4	23.0	22.8	23.3	23.7	19.1	19.7	19.5	20.0
	12H	22.7	23.3	23.1	23.6	24.0	19.1	19.7	19.5	20.1
8H	4H	21.7	22.3	22.1	22.6	23.0	19.1	19.7	19.5	20.1
	6H	22.4	22.9	22.9	23.3	23.7	19.7	20.2	20.1	20.6
	8H	22.9	23.3	23.3	23.7	24.2	19.9	20.3	20.4	20.8
	12H	23.4	23.8	23.9	24.2	24.7	20.1	20.4	20.5	20.9
	4H	21.6	22.2	22.1	22.6	23.0	19.2	19.8	19.6	20.1
	6H	22.5	22.9	22.9	23.3	23.8	19.9	20.3	20.4	20.8
12H	8H	23.0	23.4	23.5	23.8	24.3	20.2	20.6	20.7	21.0
Variations with the observer position at spacings:										
S = 1.0H	+ 1.4 / - 0.9					+ 0.5 / - 0.5				
1.5H	+ 2.6 / - 1.0					+ 0.9 / - 0.6				
2.0H	+ 1.3 / - 0.4					+ 0.6 / - 0.7				

CIE Pub.117, 7669 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 7.1$)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:LITPA
 Test Date:17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity:65.0%
 Test Distance:5.680m [K=1.0000]
 Remarks: TCE-65W-VS
 OT-60

UTILIZATION FACTORS TABLE

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

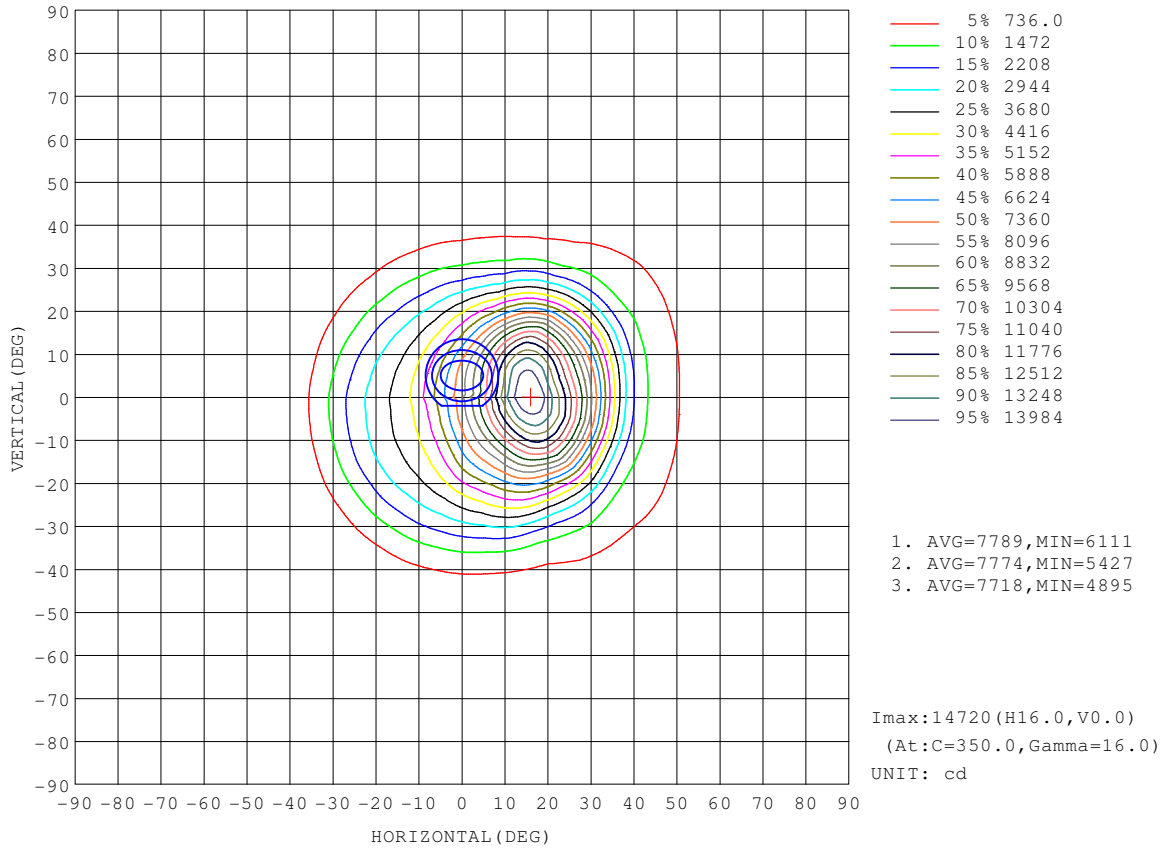
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	74	70	81	74	70	80	74	70	66
0.80	89	82	78	89	82	78	87	81	77	73
1.00	94	88	83	93	87	83	92	87	82	78
1.25	99	93	88	98	92	88	96	91	87	82
1.50	102	96	92	101	95	92	98	94	90	85
2.00	105	100	96	104	99	96	101	97	94	88
2.50	108	103	99	106	102	98	103	99	96	90
3.00	109	105	102	108	104	101	104	101	99	92
4.00	112	108	106	110	107	104	106	104	102	94
5.00	113	111	108	111	109	107	107	105	104	96
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: LITPA
 Test Date: 17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
 Humidity: 65.0%
 Test Distance: 5.680m [K=1.0000]
 Remarks: TCE-65W-VS
 OT-60

ISOCANDELA DIAGRAM

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

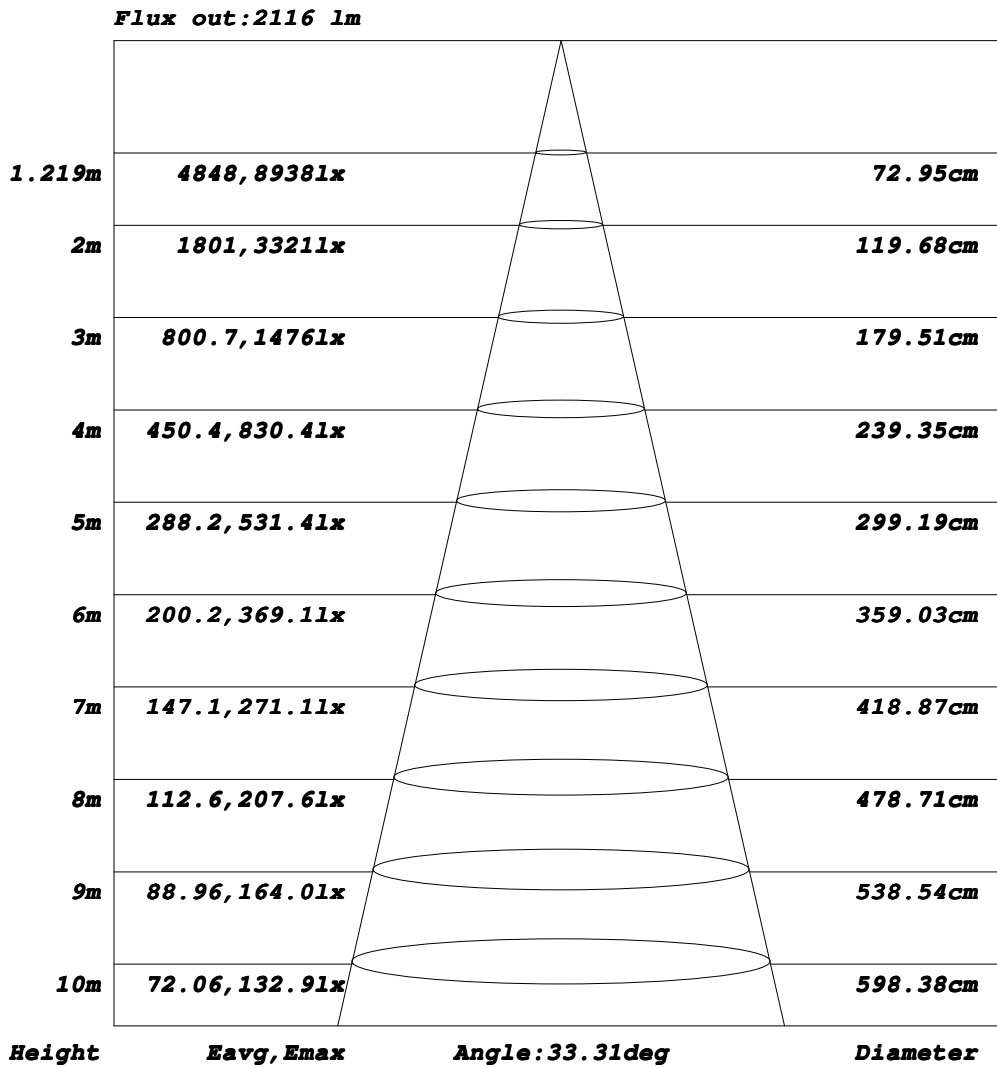


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

AAI Figure

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



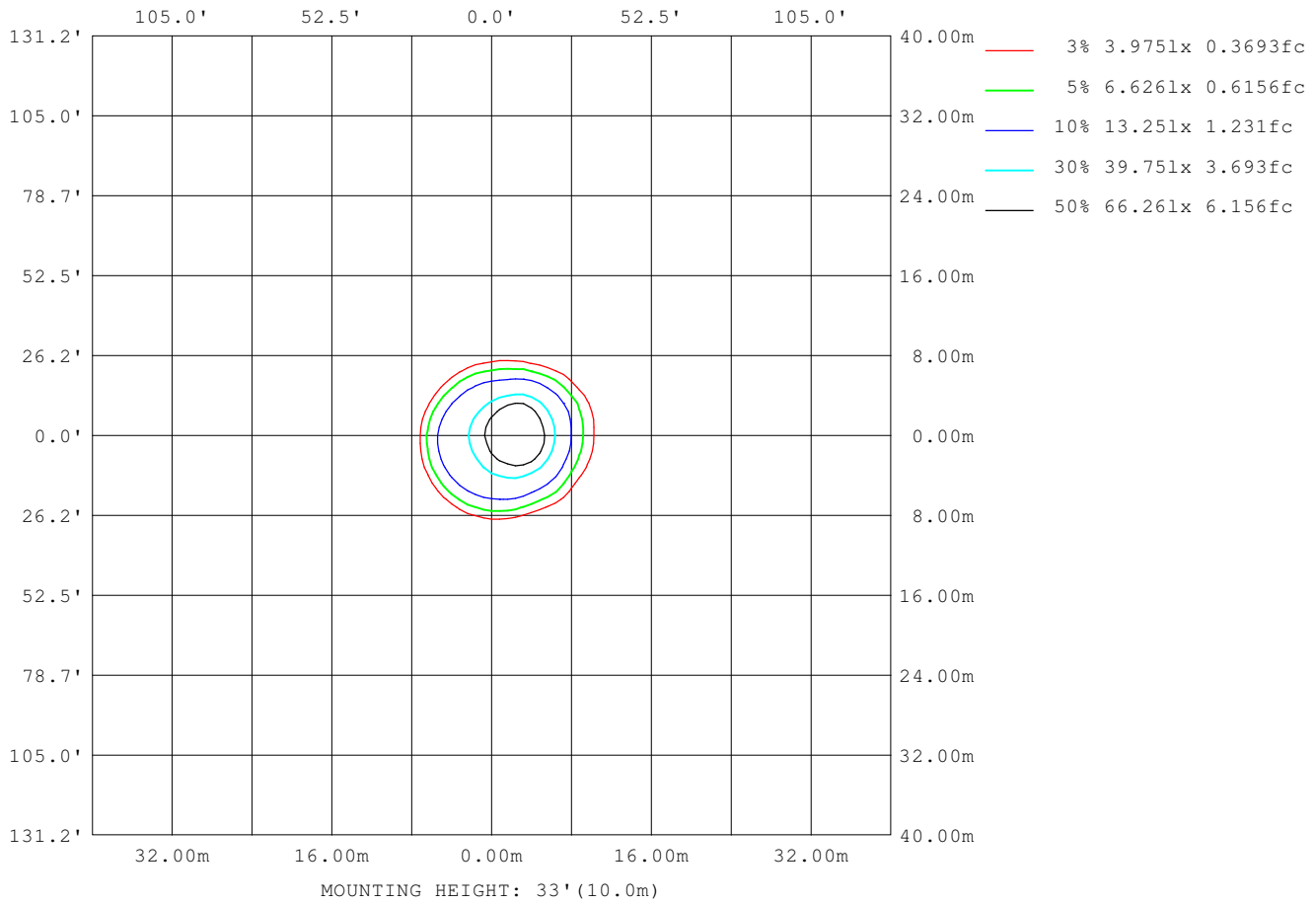
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

ISOLUX DIAGRAM

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

LED Avg.L Report

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

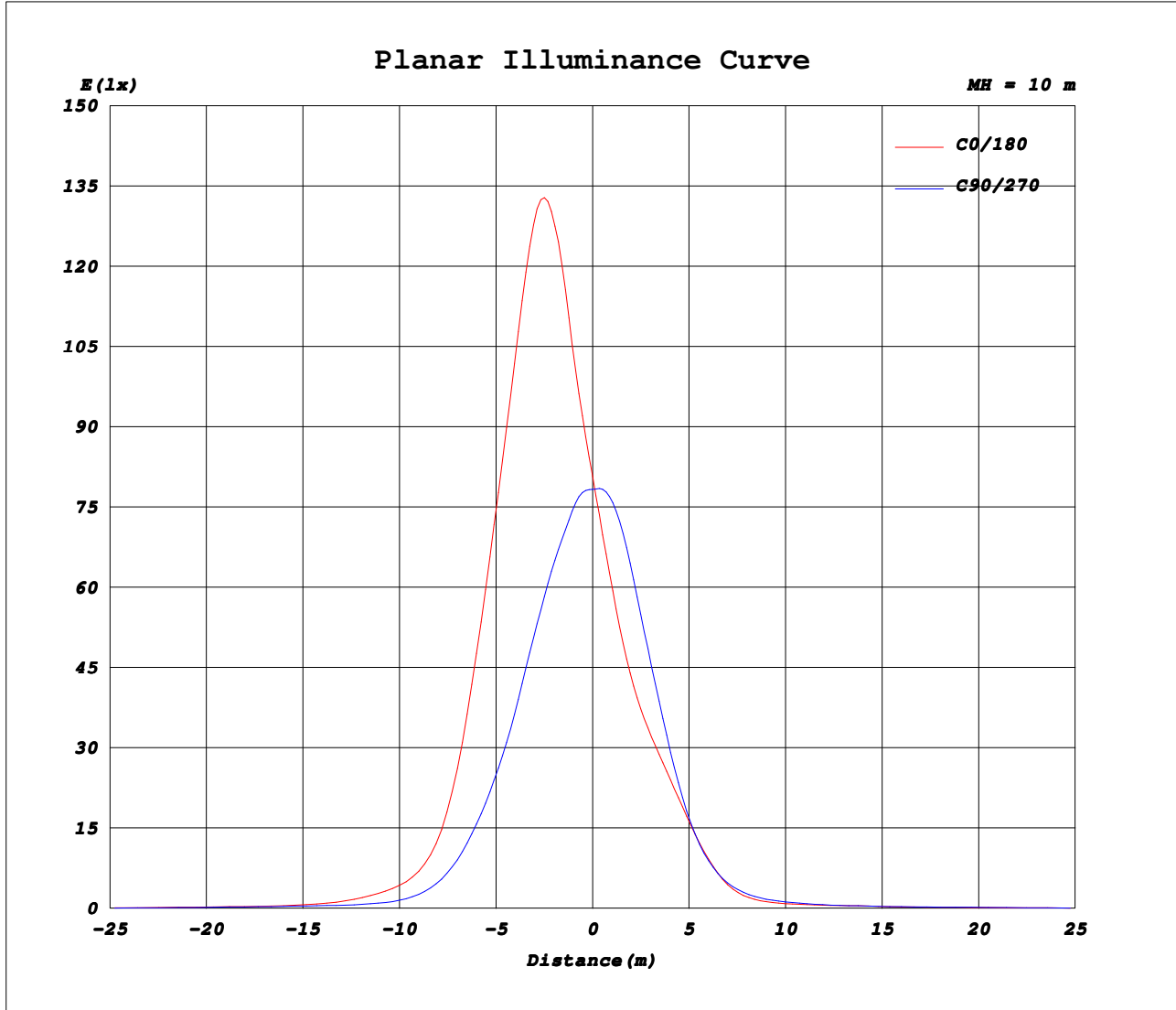
AvgL	cd/m2
L_0~180 (65) av	5730
L_0~180 (75) av	6580
L_0~180 (85) av	10931
L_90~270 (65) av	5657
L_90~270 (75) av	4668
L_90~270 (85) av	3230
L_45 (65) av	6532
L_45 (75) av	6737
L_45 (85) av	10417

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity: 65.0%
Test Distance: 5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--1

UNIT: ;Á10cd

[illegible]

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.29V I:0.2746A P:61.836W PF:0.9777 Freq:50.01Hz Lamp Flux:7668.93x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--2

UNIT: ;Á10cd

[illegible]

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.400
Humidity:65.0%
Test Distance:5.680m [K=1.0000]
Remarks: TCE-65W-VS
OT-60