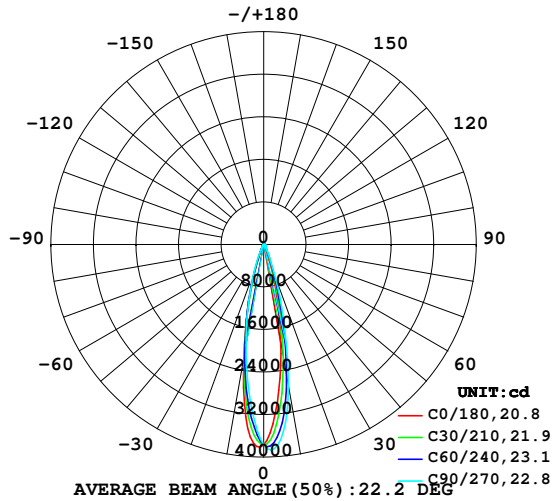


LUMINAIRE PHOTOMETRIC TEST REPORT

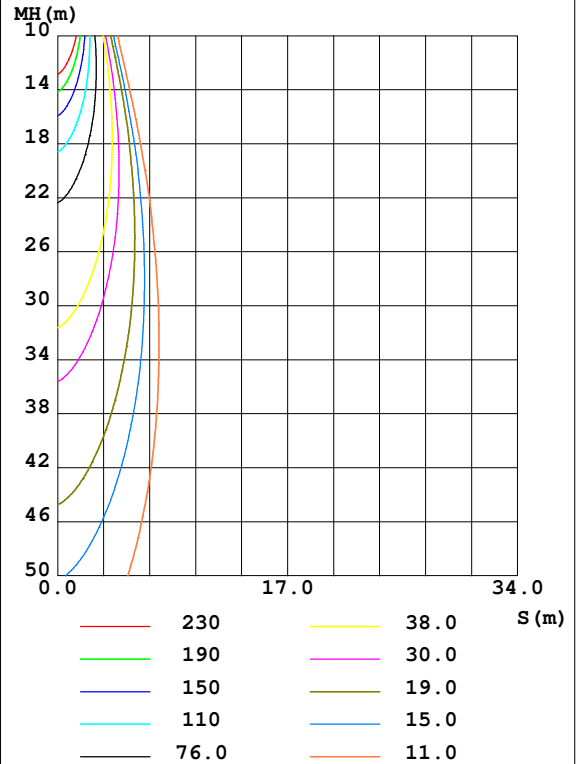
Test:U:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 126.06 lm/W			
MODEL	TCE	I _{max} (cd)	38873	S/MH (C0/180)	0.38
NOMINAL POWER (W)	65W	LOR (%)	100.0	S/MH (C90/270)	0.35
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	7810.1	η UP, DN (C0-180)	0.0, 53.3
NOMINAL FLUX (lm)	7810.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 46.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00

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	1859	2305	2699	2316	2175	2110	1931	1886	0- 10	2754	2754	35.3,35.3
20	315.2	461.0	585.6	432.7	396.8	417.3	478.3	377.7	10- 20	3036	5790	74.1,74.1
30	65.34	110.9	130.6	107.4	73.28	75.57	71.63	70.75	20- 30	877.8	6668	85.4,85.4
40	32.28	45.18	51.96	44.69	35.42	34.43	32.76	32.93	30- 40	358.5	7026	90,90
50	29.55	25.84	26.57	25.89	30.44	23.63	22.44	23.64	40- 50	238.5	7265	93,93
60	15.88	20.99	16.68	20.47	16.67	20.92	17.36	21.01	50- 60	201.5	7466	95.6,95.6
70	13.44	14.32	10.66	14.36	13.20	15.70	12.13	15.88	60- 70	158.6	7625	97.6,97.6
80	10.75	9.112	4.532	8.781	9.838	9.929	5.599	10.72	70- 80	119.1	7744	99.2,99.2
90	5.628	4.395	0.4420	4.180	5.656	4.613	0.6126	5.044	80- 90	66.37	7810	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 A10cd									UNIT: lm		

Conical surface Flux(90deg): 7151.7 lm

%lum = 91.6%

%lamp = 91.6%

Conical surface Flux(120deg): 7466.1 lm

%lum = 95.6%

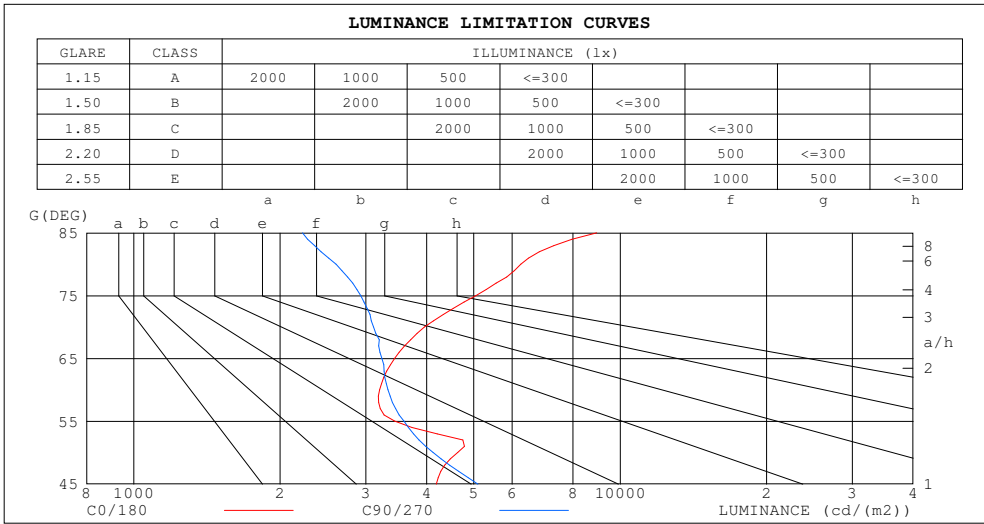
%lamp = 95.6%

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	8941	2221
80	6244	2606
75	5056	2928
70	3961	3112
65	3438	3237
60	3202	3332
55	3439	3591
50	4635	4127
45	4189	5103

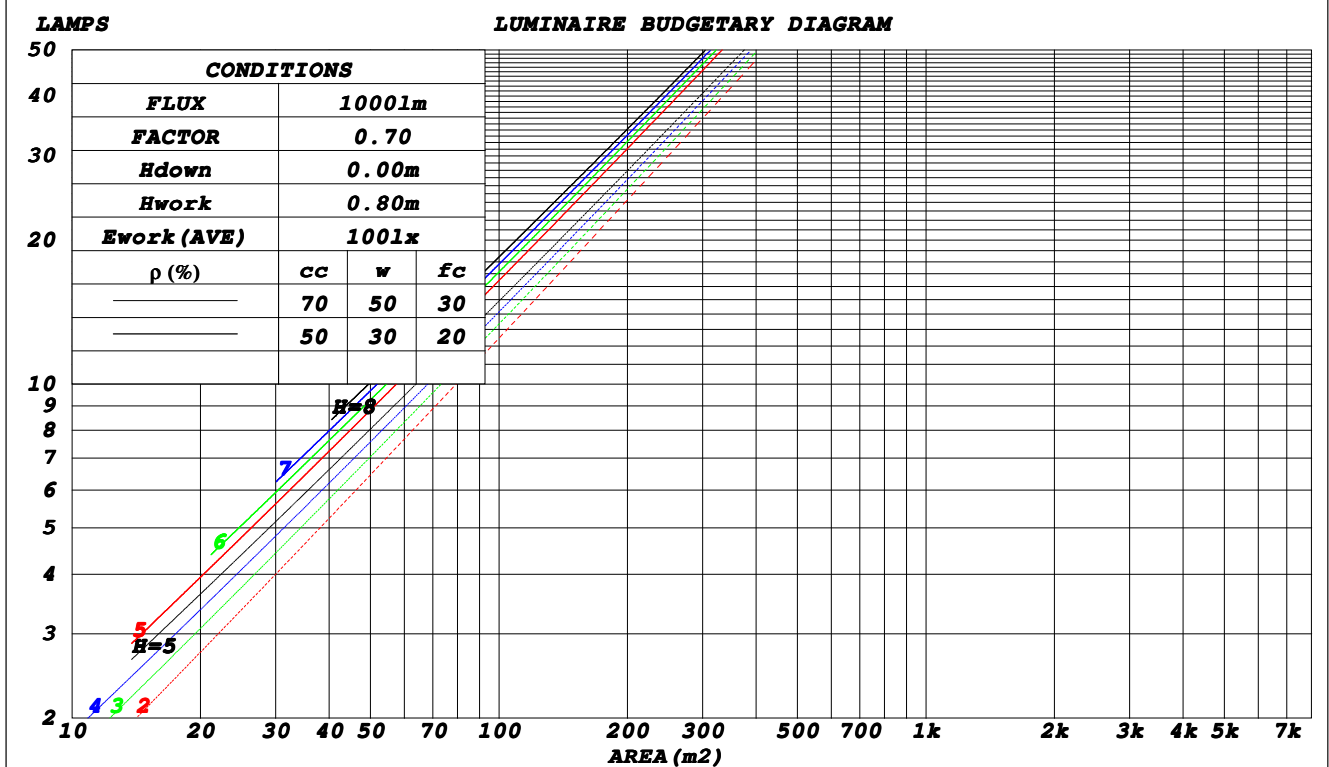
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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															



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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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	.166	.095	.030	.160	.091	.029	.147	.084	.027	.136	.078	.025	.125	.072	.023		
2.0	.152	.083	.026	.146	.080	.025	.136	.075	.023	.126	.071	.022	.117	.066	.021		
3.0	.139	.074	.022	.135	.072	.022	.126	.068	.021	.118	.065	.020	.110	.061	.019		
4.0	.129	.067	.020	.125	.065	.019	.118	.062	.019	.111	.059	.018	.104	.057	.017		
5.0	.120	.061	.018	.117	.060	.017	.110	.057	.017	.104	.055	.016	.099	.053	.016		
6.0	.113	.056	.016	.110	.055	.016	.104	.053	.016	.099	.051	.015	.094	.050	.015		
7.0	.106	.052	.015	.103	.051	.015	.099	.050	.014	.094	.048	.014	.090	.047	.014		
8.0	.100	.049	.014	.098	.048	.014	.094	.047	.013	.090	.045	.013	.086	.044	.013		
9.0	.095	.046	.013	.093	.045	.013	.089	.044	.013	.086	.043	.012	.082	.042	.012		
10.0	.090	.043	.012	.089	.043	.012	.085	.042	.012	.082	.041	.012	.079	.040	.011		

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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.139	.113	.093	.119	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011	
4.0	.127	.098	.076	.109	.085	.066	.075	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.117	.086	.064	.100	.075	.055	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006	
7.0	.100	.068	.046	.086	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.053	.035	.056	.038	.025	.032	.022	.015	.010	.007	.005	
9.0	.088	.056	.035	.076	.049	.030	.052	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.083	.051	.030	.071	.045	.027	.049	.031	.019	.029	.019	.011	.009	.006	.004	

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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					Viewed endwise				
x = 2H y = 2H	11.5	12.3	11.7	12.4	12.6	12.1	12.8	12.3	13.0	13.2	
	3H	13.2	13.9	13.5	14.1	14.3	13.3	14.0	13.5	14.2	
	4H	14.3	15.0	14.6	15.2	15.4	13.8	14.5	14.1	14.7	
	6H	15.6	16.3	15.9	16.5	16.7	14.2	14.9	14.5	15.1	
	8H	16.2	16.8	16.5	17.1	17.3	14.4	15.0	14.7	15.2	
	12H	16.8	17.4	17.1	17.7	18.0	14.4	15.0	14.7	15.3	
4H	2H	12.3	13.0	12.6	13.2	13.4	12.8	13.4	13.0	13.6	
	3H	14.3	14.9	14.6	15.2	15.4	14.3	14.9	14.6	15.1	
	4H	15.6	16.1	15.9	16.4	16.7	15.0	15.5	15.3	15.8	
	6H	16.9	17.4	17.3	17.8	18.1	15.6	16.1	15.9	16.4	
	8H	17.6	18.1	18.0	18.4	18.8	15.7	16.2	16.1	16.5	
	12H	18.3	18.7	18.7	19.1	19.5	15.8	16.3	16.2	16.6	
8H	4H	16.0	16.5	16.4	16.8	17.2	15.5	16.0	15.9	16.3	
	6H	17.7	18.0	18.1	18.4	18.8	16.3	16.7	16.8	17.1	
	8H	18.5	18.8	18.9	19.3	19.7	16.6	17.0	17.1	17.4	
	12H	19.4	19.7	19.9	20.1	20.6	16.9	17.2	17.3	17.6	
12H	4H	16.1	16.5	16.5	16.9	17.2	15.6	16.1	16.1	16.4	
	6H	17.8	18.1	18.2	18.5	19.0	16.6	16.9	17.0	17.3	
	8H	18.7	19.0	19.2	19.5	19.9	17.0	17.3	17.5	17.7	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.3					
1.5H	+ 0.3 / - 0.3					+ 0.4 / - 0.2					
2.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117, 7810 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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

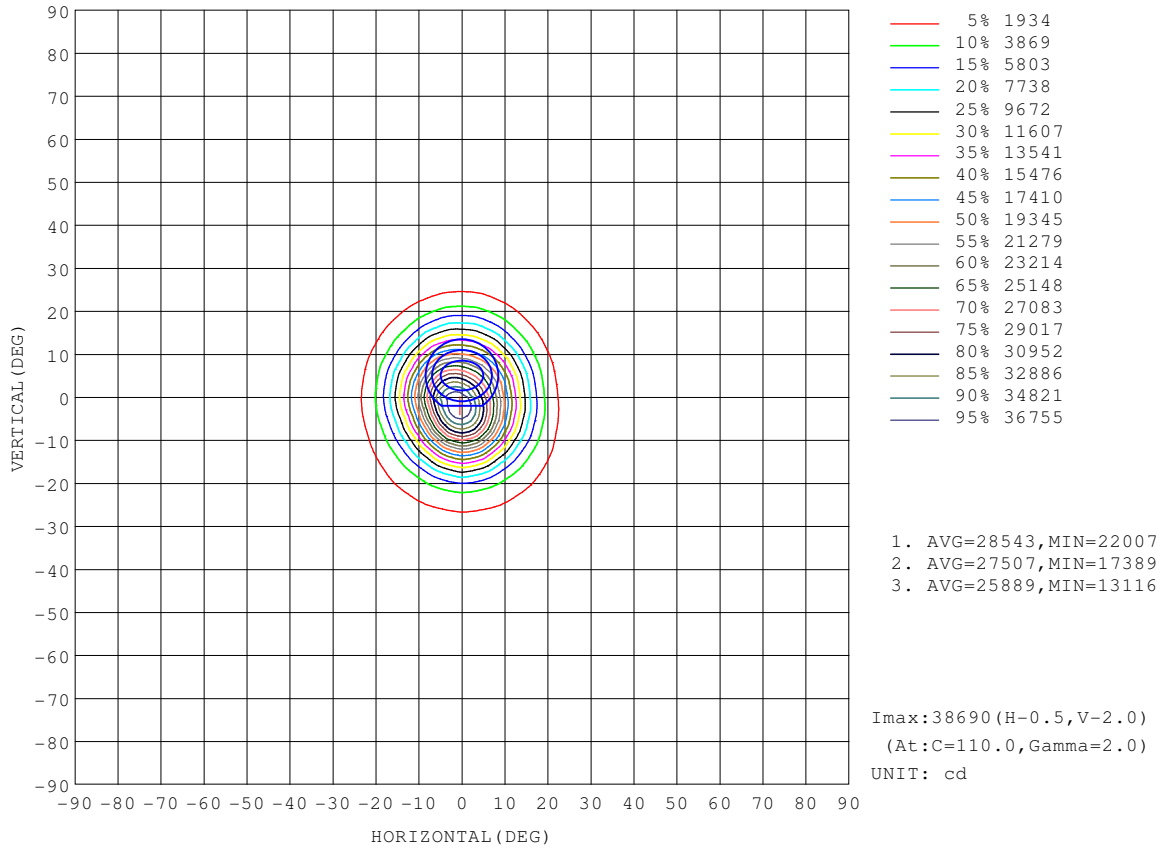
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	86	82	91	86	82	78
1.00	97	91	87	96	91	87	95	91	86	82
1.25	101	96	92	100	95	91	98	94	91	86
1.50	104	99	95	103	98	95	101	97	94	89
2.00	107	102	99	106	101	98	103	99	97	91
2.50	109	105	101	107	103	100	104	101	99	92
3.00	111	107	104	109	105	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	106	105	97
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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

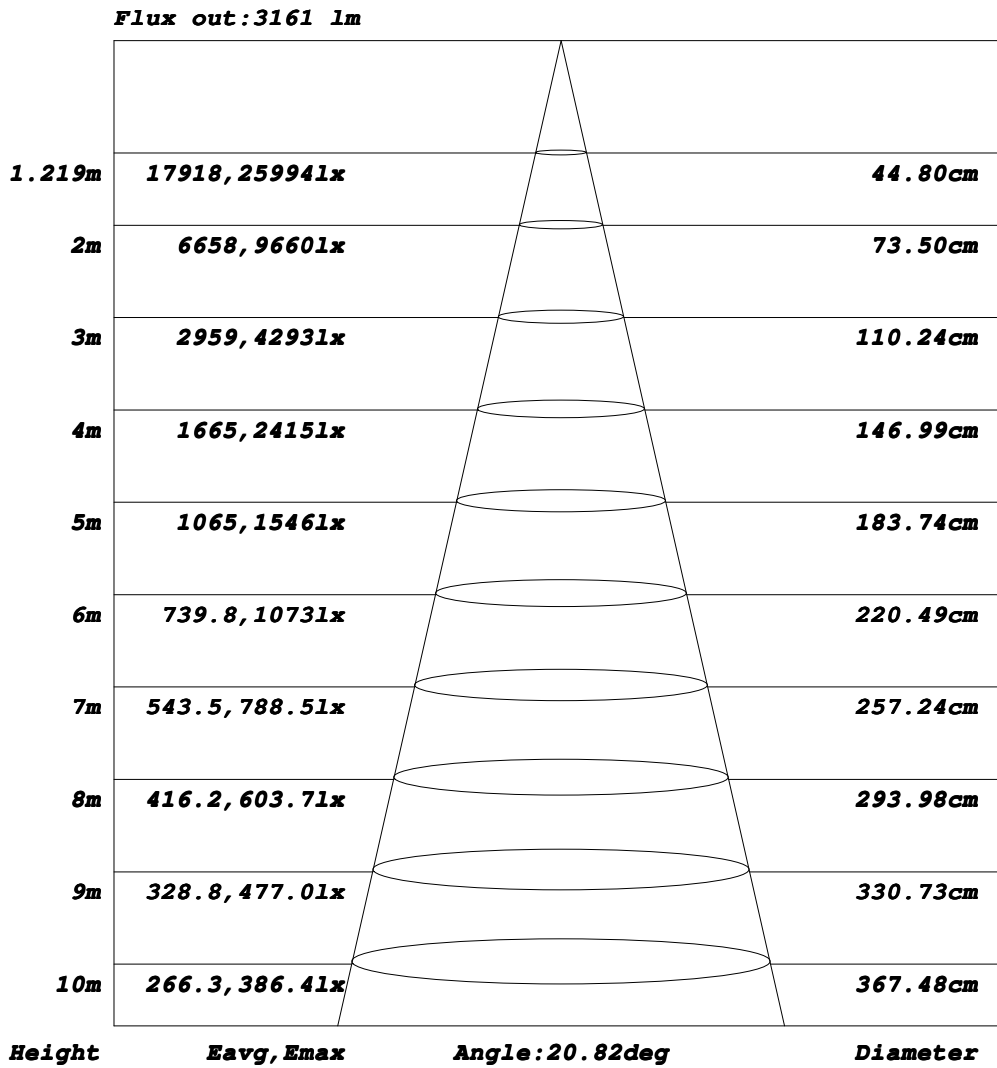


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



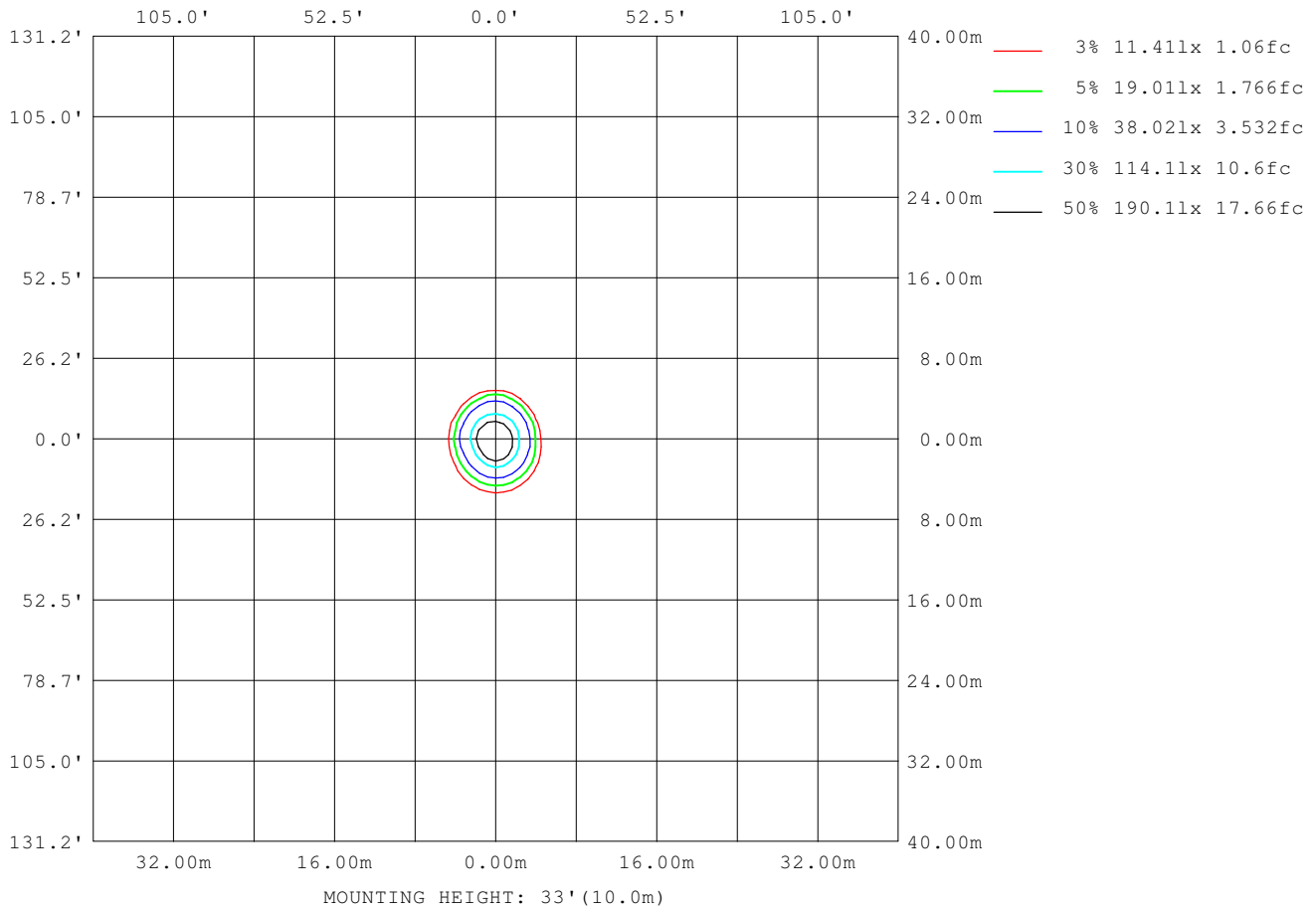
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

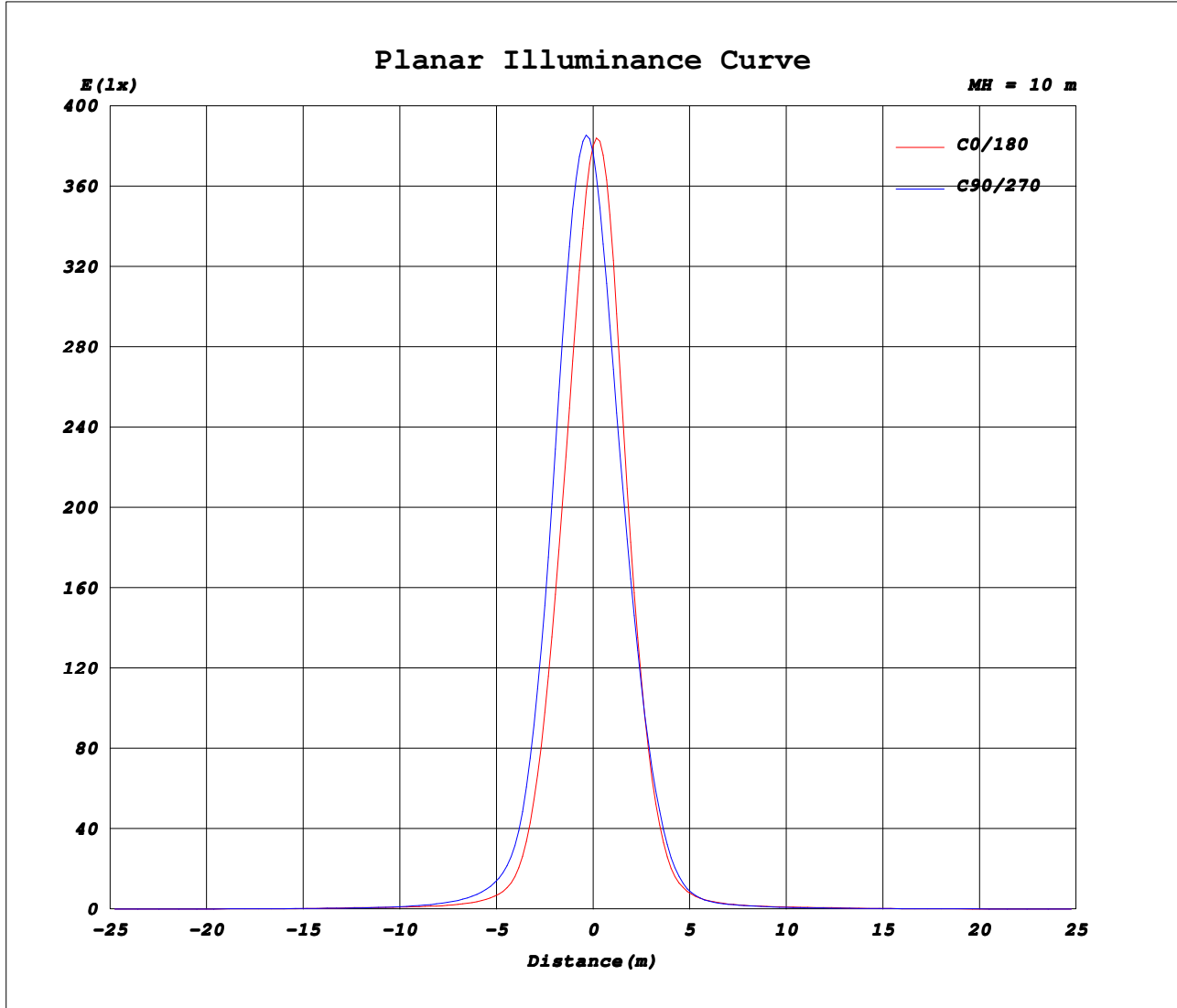
AvgL	cd/m2
L_0~180 (65) av	3420
L_0~180 (75) av	4984
L_0~180 (85) av	8795
L_90~270 (65) av	3432
L_90~270 (75) av	3185
L_90~270 (85) av	2610
L_45 (65) av	4239
L_45 (75) av	4821
L_45 (85) av	7916

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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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:230.23V I:0.2752A P:61.956W PF:0.9777 Freq:50.01Hz Lamp Flux:7810.1x1 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