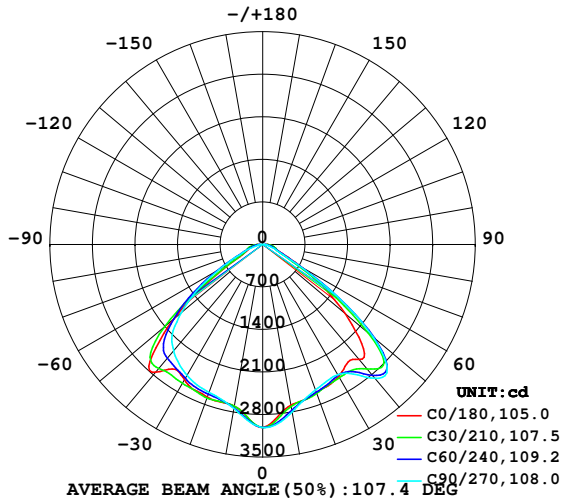


LUMINAIRE PHOTOMETRIC TEST REPORT

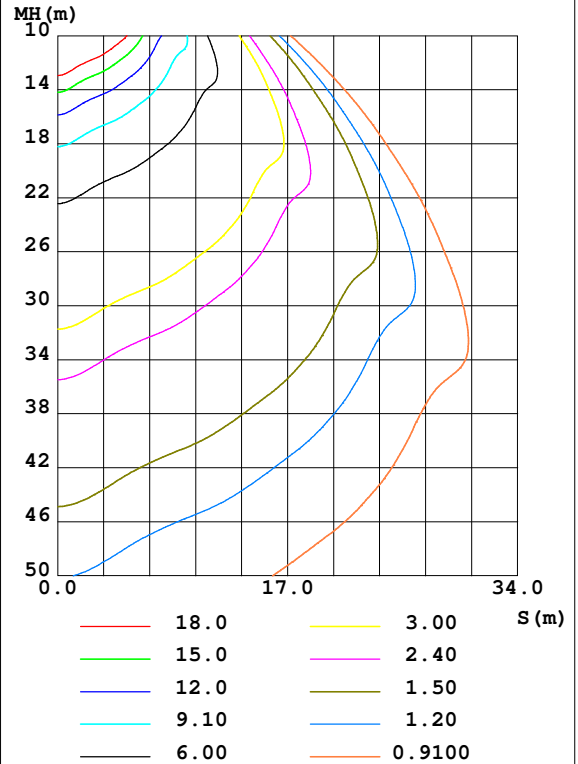
Test:U:230.23V I:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.66 lm/W			
MODEL	TCE	I _{max} (cd)	3108	S/MH (C0/180)	1.28
NOMINAL POWER (W)	65W	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	7655.4	η UP, DN (C0-180)	0.0, 51.0
NOMINAL FLUX (lm)	7655.41	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.55

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	2685	2733	2799	2711	2701	2715	2741	2706	0- 10	270.0	270.0	3.53,3.53
20	2593	2612	2548	2643	2672	2667	2589	2640	10- 20	751.9	1022	13.3,13.3
30	2506	2512	2475	2578	2575	2598	2490	2532	20- 30	1192	2214	28.9,28.9
40	2469	2764	2878	3041	2746	2586	2280	2344	30- 40	1604	3818	49.9,49.9
50	1775	2412	2377	2437	1916	2025	1748	1944	40- 50	1925	5743	75,75
60	703.0	683.6	659.8	547.8	559.6	817.1	842.8	926.1	50- 60	1203	6947	90.7,90.7
70	244.3	244.7	207.7	253.6	266.0	310.9	289.1	320.7	60- 70	394.7	7341	95.9,95.9
80	162.8	148.9	70.27	160.2	188.0	180.7	83.98	179.4	70- 80	210.7	7552	98.6,98.6
90	67.35	58.30	8.471	65.32	80.82	68.52	10.43	62.83	80- 90	103.5	7655	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:cd									UNIT:lm		

Conical surface Flux(90deg): 4795 lm

%lum = 62.6%

%lamp = 62.6%

Conical surface Flux(120deg): 6946.5 lm

%lum = 90.7%

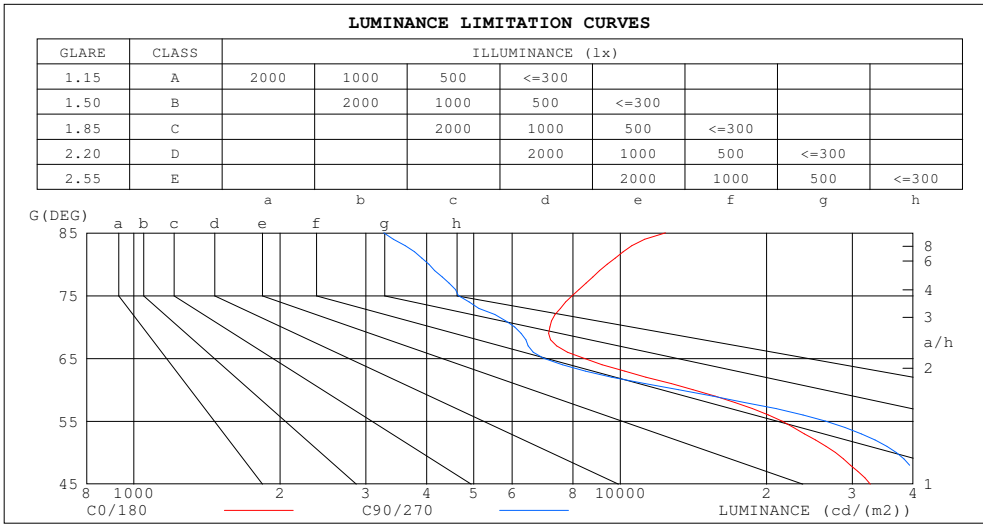
%lamp = 90.7%

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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 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	12382	3268
80	9405	4044
75	7967	4650
70	7167	6068
65	8430	6970
60	14107	13187
55	21503	26430
50	27713	36964
45	32693	40962

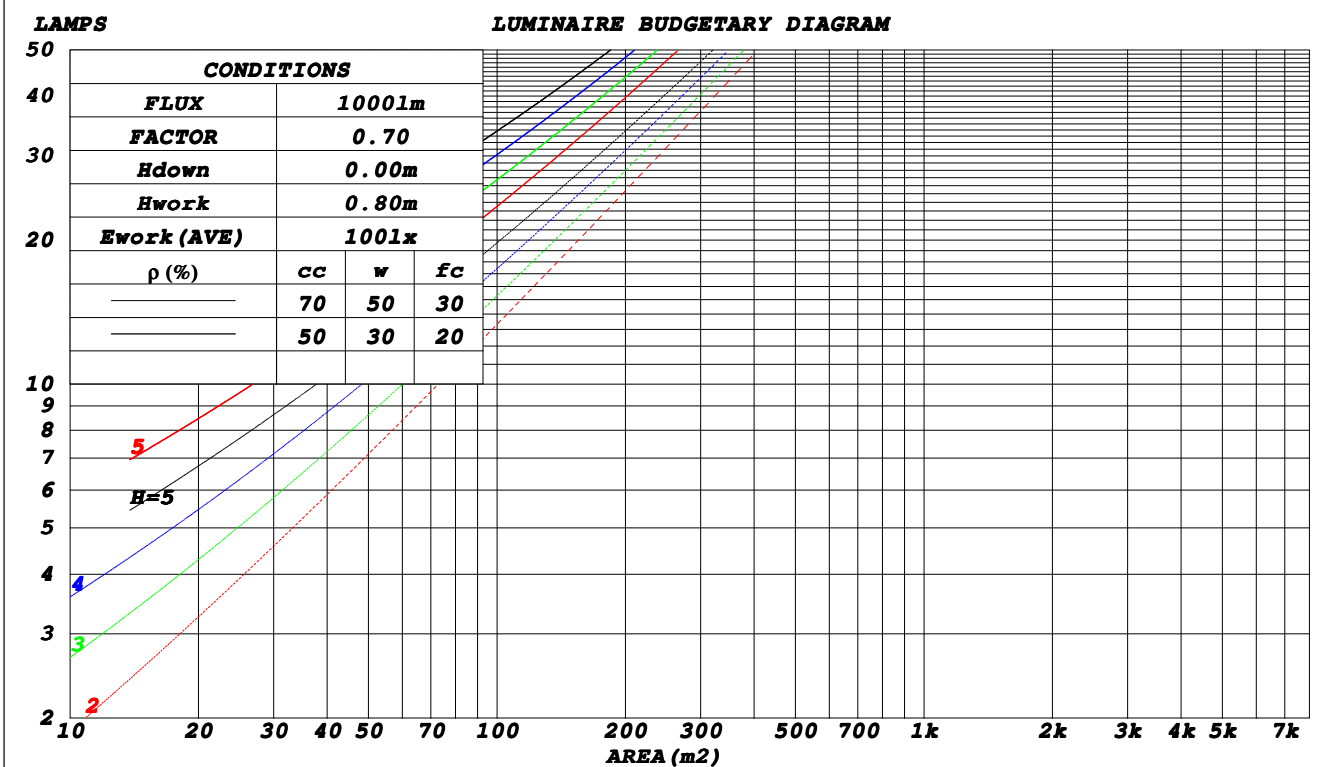
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: LITPA
Test Date: 17 April 2019

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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 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	1.06	1.02	.99	1.04	1.00	.97	.00	.97	.94	.96	.94	.91	.92	.90	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.78	.83	.79	.77	.75
3.0	.84	.76	.70	.82	.75	.70	.79	.73	.69	.77	.72	.67	.74	.70	.66	.64
4.0	.75	.67	.60	.73	.66	.60	.71	.64	.59	.69	.63	.58	.67	.62	.58	.56
5.0	.67	.59	.52	.66	.58	.52	.64	.57	.51	.62	.56	.51	.60	.55	.50	.48
6.0	.60	.52	.46	.59	.51	.46	.58	.51	.45	.56	.50	.45	.54	.49	.44	.42
7.0	.55	.46	.40	.54	.46	.40	.52	.45	.40	.51	.45	.40	.50	.44	.39	.38
8.0	.50	.42	.36	.49	.41	.36	.48	.41	.36	.47	.40	.35	.45	.40	.35	.33
9.0	.46	.38	.32	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.30
10.0	.42	.34	.29	.41	.34	.29	.40	.34	.29	.40	.33	.29	.39	.33	.29	.27



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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 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	.268	.152	.048	.261	.149	.047	.248	.142	.045	.236	.136	.044	.225	.130	.042		
2.0	.257	.141	.043	.251	.138	.043	.239	.133	.041	.229	.128	.040	.219	.124	.039		
3.0	.243	.129	.039	.237	.127	.038	.227	.123	.037	.218	.119	.037	.209	.116	.036		
4.0	.228	.119	.035	.223	.117	.035	.215	.114	.034	.206	.111	.033	.199	.108	.033		
5.0	.214	.109	.032	.210	.108	.031	.202	.105	.031	.195	.103	.031	.188	.100	.030		
6.0	.201	.101	.029	.197	.100	.029	.190	.098	.028	.184	.096	.028	.178	.094	.028		
7.0	.189	.094	.027	.186	.093	.026	.180	.091	.026	.174	.089	.026	.168	.087	.026		
8.0	.178	.087	.024	.175	.086	.024	.170	.085	.024	.164	.083	.024	.159	.082	.024		
9.0	.168	.081	.023	.165	.081	.023	.160	.079	.022	.156	.078	.022	.151	.077	.022		
10.0	.159	.076	.021	.157	.076	.021	.152	.074	.021	.148	.073	.021	.143	.072	.021		

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	.177	.157	.138	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.137	.098	.068	.094	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.130	.087	.053	.089	.061	.038	.052	.035	.022	.017	.012	.007	
5.0	.145	.090	.050	.124	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.138	.081	.041	.119	.071	.036	.082	.049	.025	.047	.029	.015	.015	.010	.005	
7.0	.132	.075	.035	.113	.065	.030	.078	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.126	.069	.030	.108	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.120	.064	.026	.104	.055	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.036	.014	.040	.022	.008	.013	.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:230.23V I:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 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	3H	23.5	24.9	23.8	25.1	25.3	24.3	25.7	24.6	25.9	26.1	
	4H	23.5	24.8	23.8	25.1	25.3	24.3	25.6	24.6	25.8	26.0	
	6H	23.6	24.8	23.9	25.1	25.3	24.2	25.5	24.5	25.7	26.0	
	8H	23.8	24.9	24.1	25.2	25.5	24.2	25.3	24.5	25.6	25.9	
	12H	23.9	25.0	24.2	25.3	25.5	24.2	25.3	24.5	25.5	25.8	
		24.0	25.0	24.3	25.3	25.6	24.1	25.2	24.5	25.5	25.8	
4H	2H	23.5	24.7	23.8	25.0	25.2	24.2	25.5	24.6	25.7	26.0	
	3H	23.6	24.7	24.0	25.0	25.3	24.3	25.3	24.6	25.6	25.9	
	4H	23.8	24.8	24.2	25.1	25.4	24.3	25.3	24.7	25.6	25.9	
	6H	24.1	25.0	24.5	25.3	25.7	24.3	25.2	24.7	25.5	25.9	
	8H	24.3	25.1	24.7	25.5	25.8	24.3	25.1	24.7	25.5	25.8	
	12H	24.5	25.2	24.9	25.6	26.0	24.3	25.0	24.7	25.4	25.8	
8H	4H	23.9	24.6	24.3	25.0	25.4	24.3	25.1	24.7	25.5	25.8	
	6H	24.3	25.0	24.8	25.4	25.8	24.4	25.1	24.8	25.5	25.9	
	8H	24.6	25.2	25.1	25.6	26.1	24.5	25.0	24.9	25.4	25.9	
	12H	24.9	25.4	25.4	25.9	26.4	24.5	25.0	25.0	25.4	25.9	
	12H	4H	23.8	24.6	24.3	24.9	25.3	24.3	25.0	24.7	25.4	25.8
		6H	24.3	24.9	24.8	25.3	25.8	24.4	25.0	24.9	25.4	25.9
8H		24.7	25.2	25.2	25.6	26.1	24.5	25.0	25.0	25.5	25.9	
Variations with the observer position at spacings:												
S = 1.0H	+ 0.9 / - 0.9					+ 0.9 / - 0.9						
1.5H	+ 1.1 / - 1.5					+ 0.7 / - 2.0						
2.0H	+ 2.0 / - 2.9					+ 2.4 / - 4.3						

UTILIZATION FACTORS TABLE

Test:U:230.23V I:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

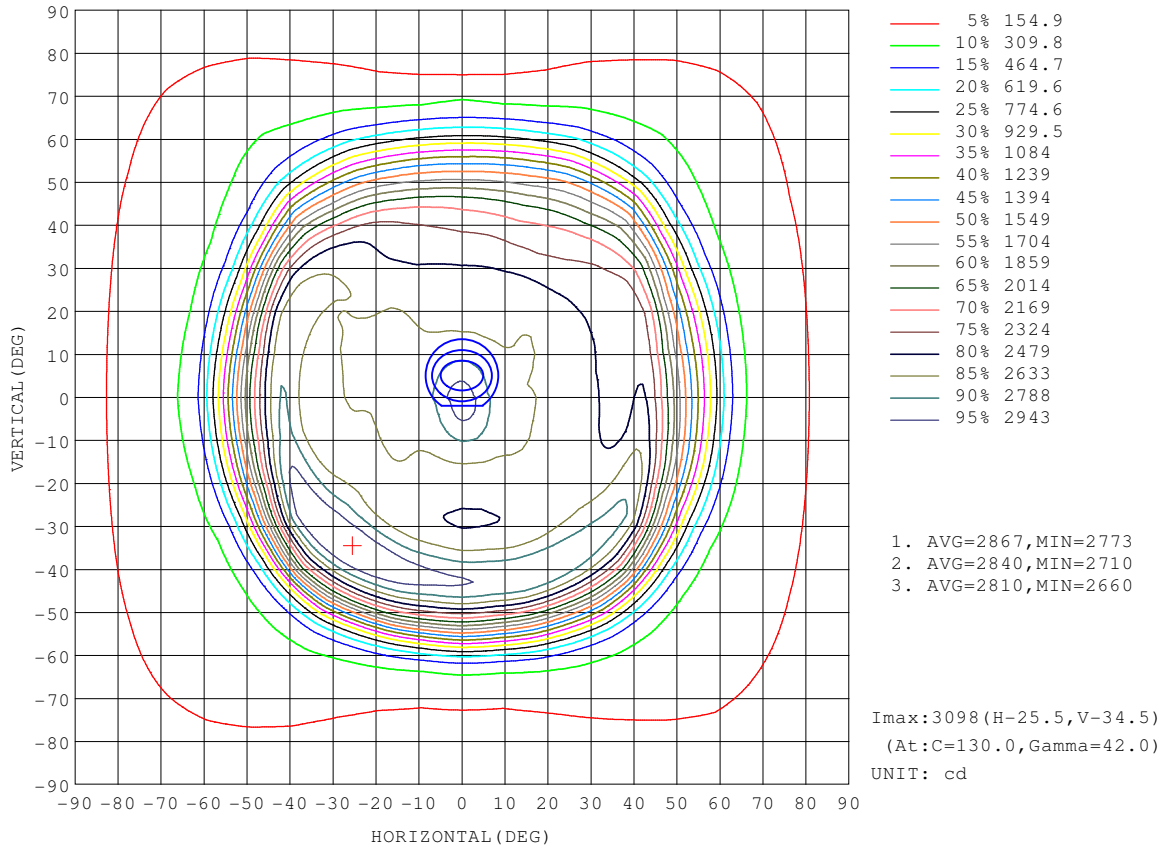
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	59	48	41	58	47	41	35
0.80	71	60	53	70	59	53	68	58	52	46
1.00	80	70	63	79	69	63	77	71	62	56
1.25	87	78	72	86	77	71	83	76	70	64
1.50	92	83	77	91	83	77	88	81	76	69
2.00	99	91	86	97	90	85	94	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	101	97	101	98	95	86
5.00	110	105	102	107	103	100	103	100	97	88
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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

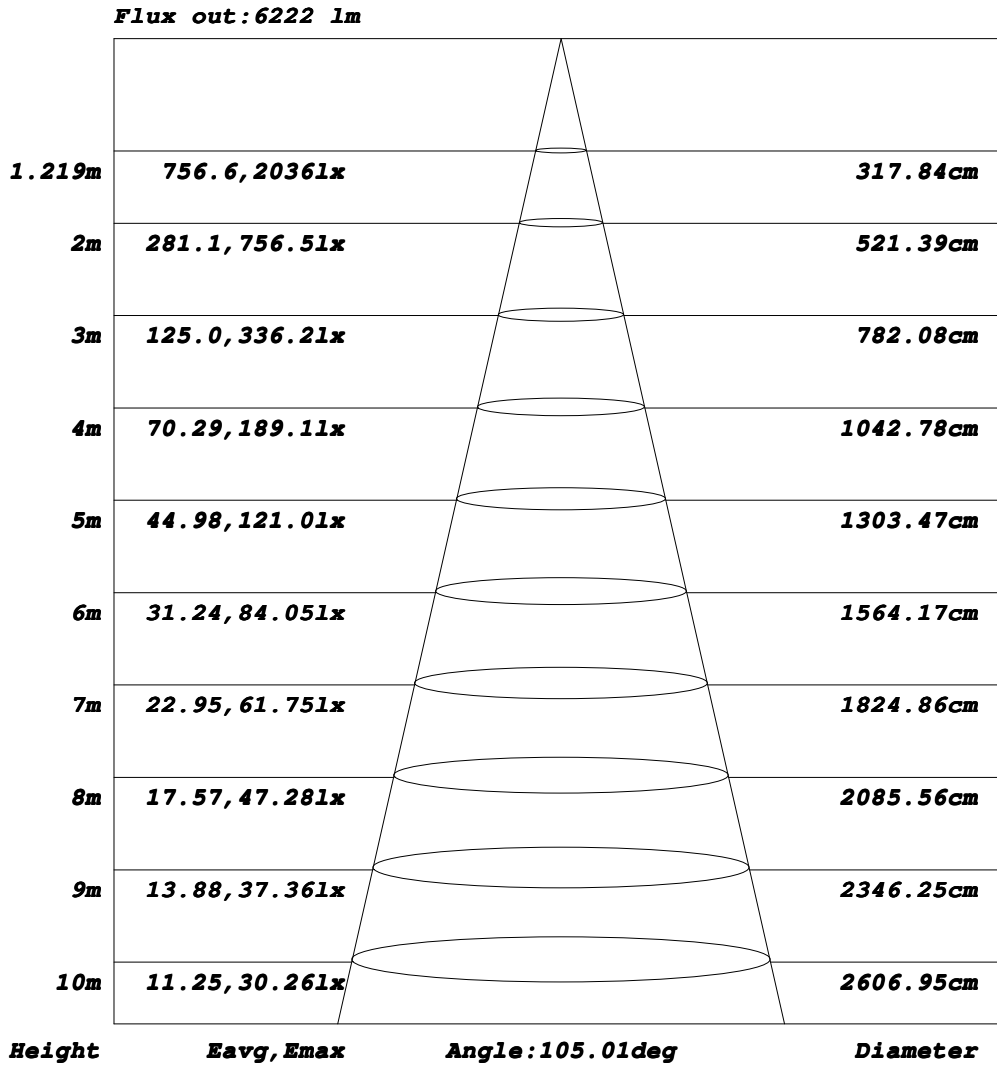


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:LITPA
Test Date:17 April 2019

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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:



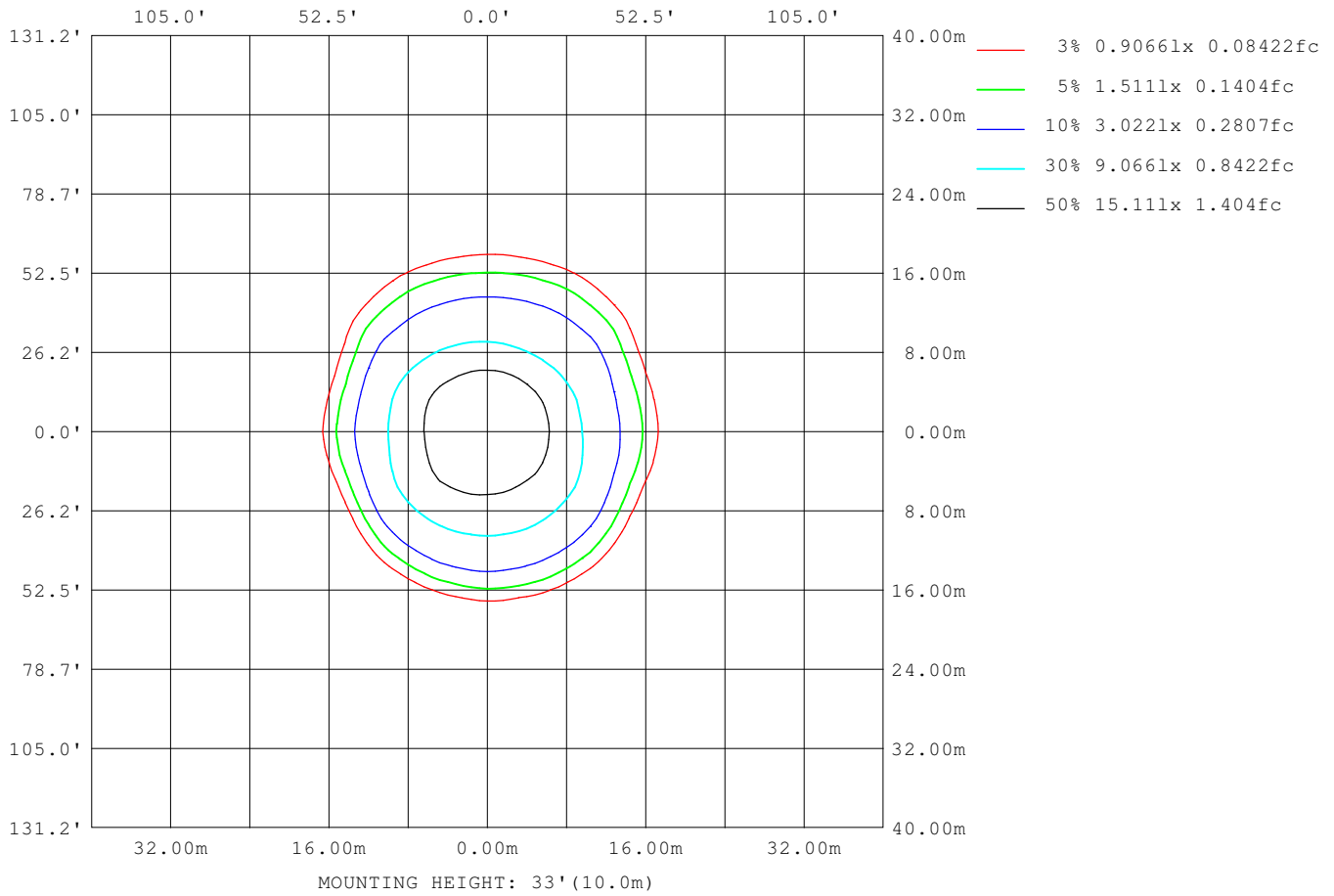
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

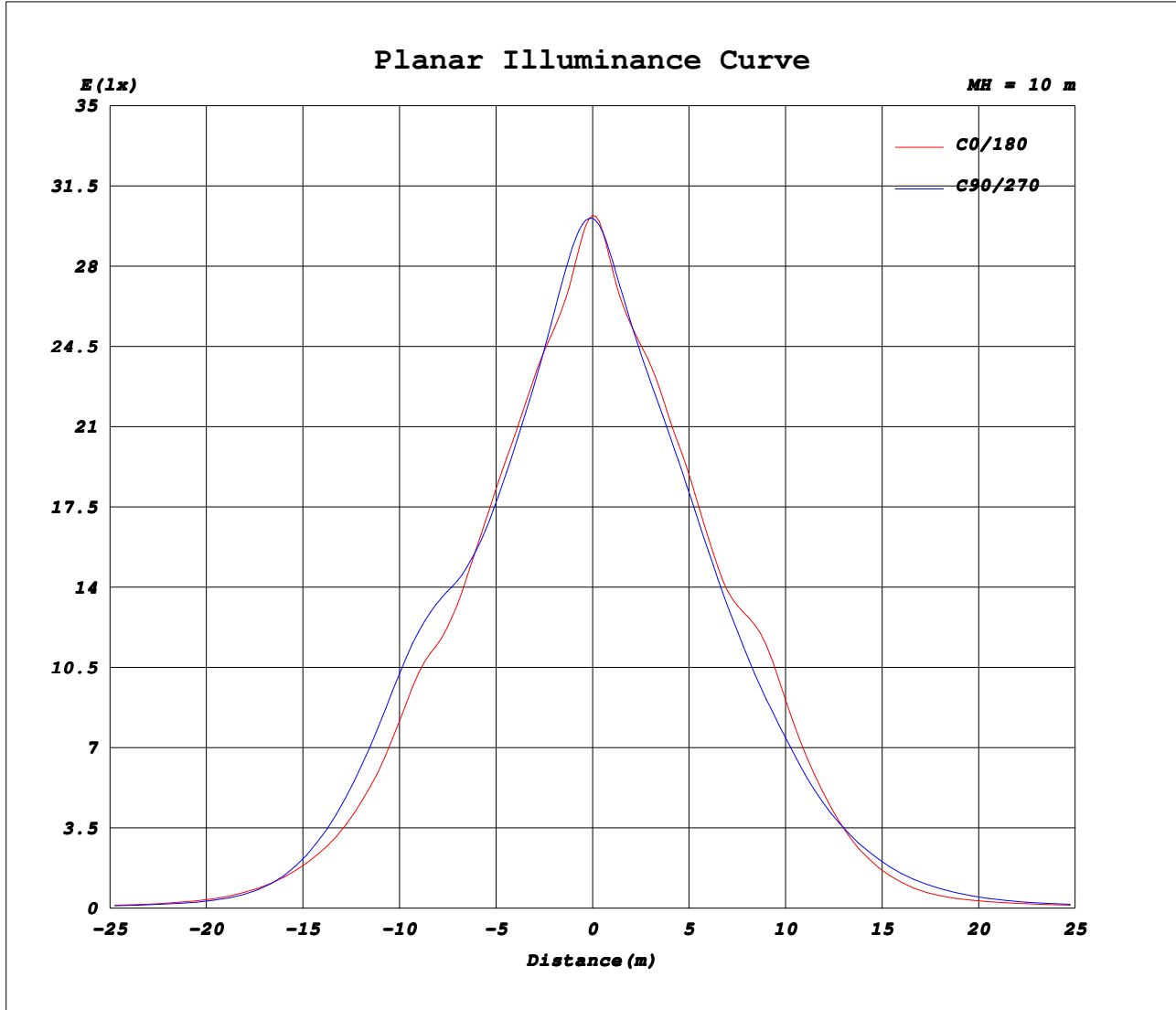
AvgL	cd/m2
L_0~180 (65) av	8158
L_0~180 (75) av	8493
L_0~180 (85) av	13386
L_90~270 (65) av	8997
L_90~270 (75) av	5297
L_90~270 (85) av	3688
L_45 (65) av	9380
L_45 (75) av	8619
L_45 (85) av	12224

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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[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:0.2750A P:61.909W PF:0.9778 Freq:50.01Hz Lamp Flux:7655.41x1 lm		
NAME: TCE	TYPE:LED	WEIGHT:3.2kg
SPEC.:65W	DIM.: 68mmX1430mmX78mm	SERIAL No.:
MFR.: LITPA AYDINLATMA	SUR.:	Shielding Angle:

Table--2

UNIT: cd

[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