



ATC MIDDLE EAST FZCO



 rafeed[®]
LED
Eseries

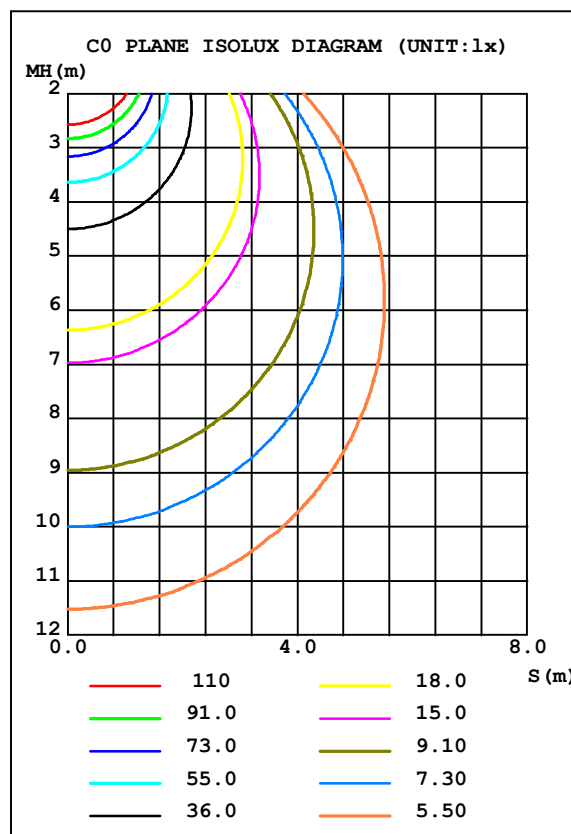
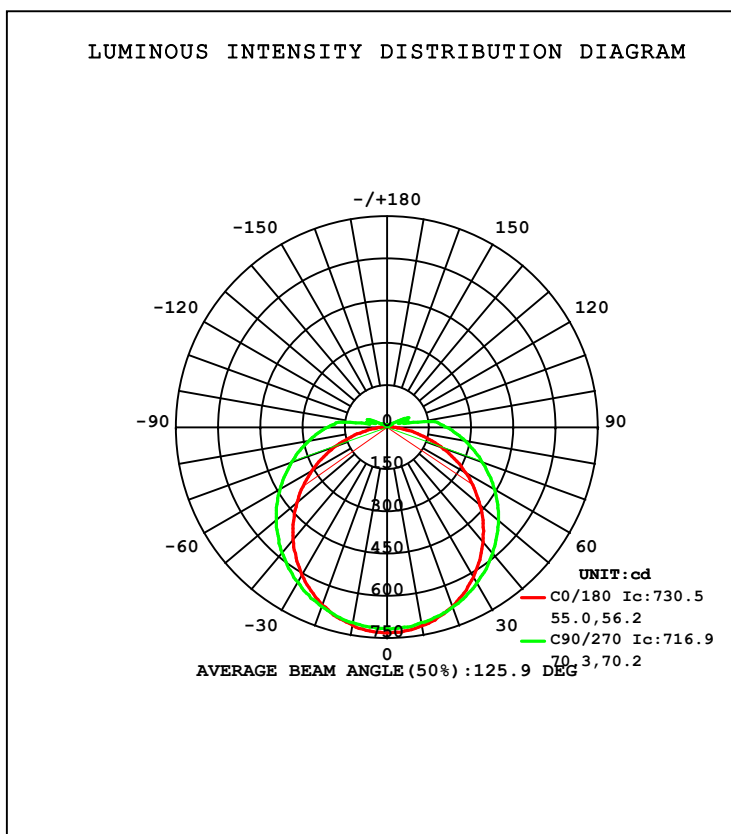
2022

OUR BEAUTIFUL WORLD WITH
LIGHTS.

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.19V I:0.1191A P:26.496W PF:0.9662 Freq:49.99Hz Lamp Flux:2667.45x1 lm		
NAME: Tri-Proof 25W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ATC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Tri-Proof 25W	I _{max} (cd)	730.5	S/MH (C0/180)	1.25
NOMINAL POWER (W)	25	LOR (%)	100.0	S/MH (C90/270)	1.34
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2667.5	η UP, DN (C0-180)	4.1, 45.5
NOMINAL FLUX (lm)	2667.45	CIE CLASS	DIRECT	η UP, DN (C180-360)	4.3, 46.1
LAMPS INSIDE	1	η up (%)	8.4	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	230	η down (%)	91.6	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ATC

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity: 60%
 Test Distance: 7.630m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

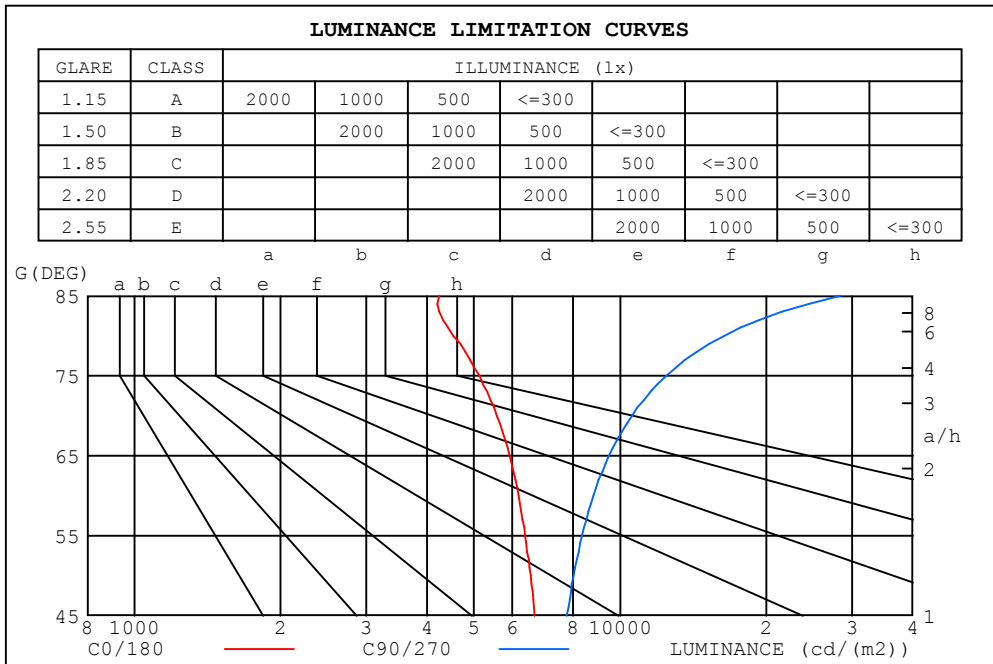
ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	715.1	705.2	717.2	706.1					0- 10	68.45	68.45	2.57,2.57
20	673.0	678.8	679.1	681.2					10- 20	196.9	265.3	9.95,9.95
30	606.2	636.3	614.7	639.6					20- 30	301.3	566.6	21.2,21.2
40	520.0	582.1	531.1	584.6					30- 40	370.2	936.8	35.1,35.1
50	420.2	515.0	432.7	516.8					40- 50	397.0	1334	50,50
60	308.6	440.5	322.6	441.6					50- 60	380.9	1715	64.3,64.3
70	190.6	361.2	203.7	359.9					60- 70	325.9	2041	76.5,76.5
80	78.79	283.8	90.62	282.2					70- 80	243.5	2284	85.6,85.6
90	19.64	213.2	20.47	213.3					80- 90	159.4	2444	91.6,91.6
100	16.09	93.73	16.00	112.9					90-100	104.9	2548	95.5,95.5
110	13.71	56.85	13.48	45.30					100-110	44.59	2593	97.2,97.2
120	11.59	29.74	11.22	53.52					110-120	37.65	2631	98.6,98.6
130	9.571	18.07	9.303	18.37					120-130	16.46	2647	99.2,99.2
140	7.698	12.57	7.331	12.44					130-140	9.221	2656	99.6,99.6
150	6.892	8.637	6.583	8.542					140-150	5.484	2662	99.8,99.8
160	6.796	6.609	6.404	6.311					150-160	3.176	2665	99.9,99.9
170	6.615	6.992	6.488	6.537					160-170	1.834	2667	100,100
180	6.938	6.657	7.034	6.580					170-180	0.6475	2667	100,100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 20.6 %									UNIT:lm		

C Range: 0 - 360DEG
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 Temperature:25.3DEG
 Operators:ATC

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:7.630m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



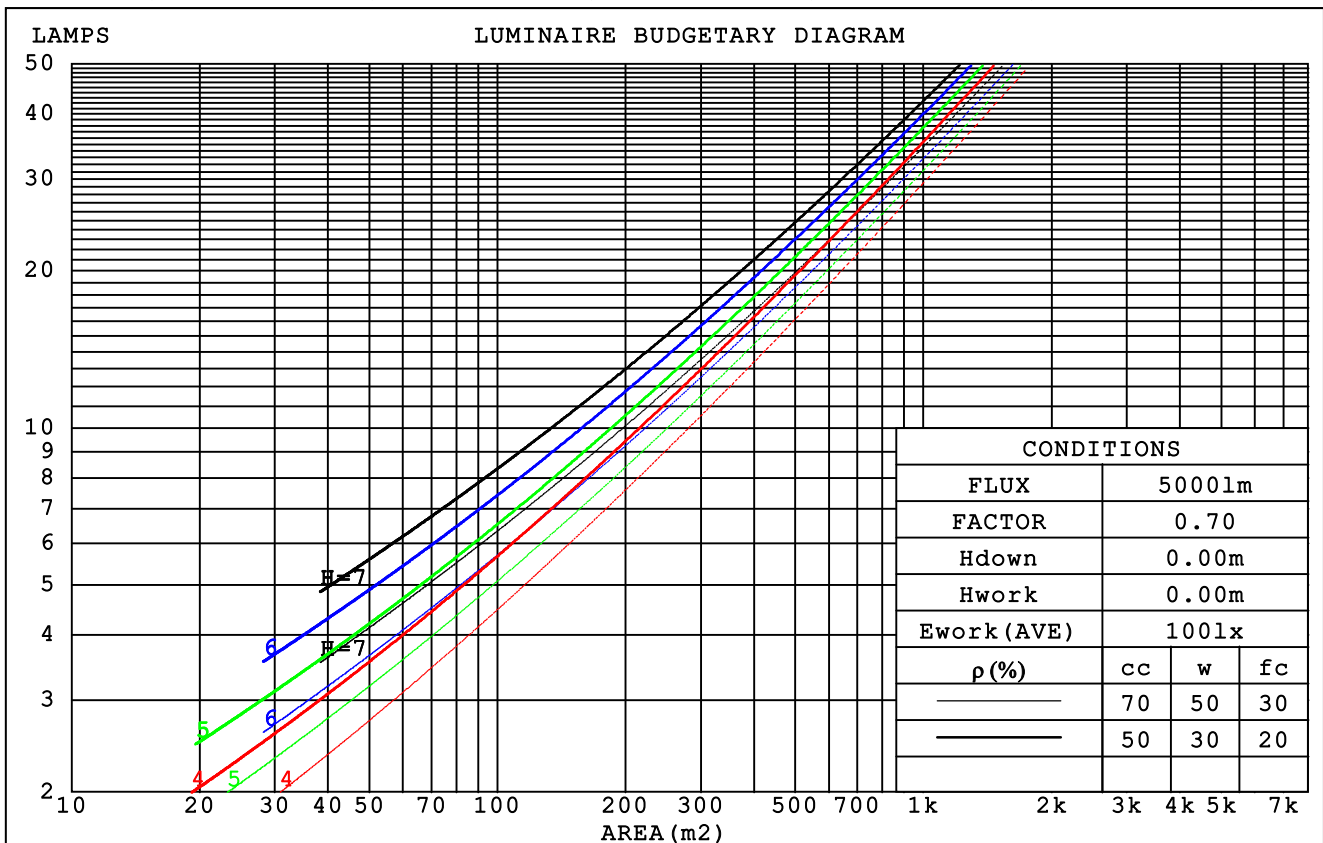
LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	4240	28432
80	4537	16345
75	5128	12439
70	5574	10560
65	5918	9478
60	6172	8809
55	6367	8334
50	6537	8012
45	6669	7766

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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	1.00	1.00	1.00	.94	.94	.94	.92
1.0	.99	.94	.89	.96	.91	.87	.90	.86	.83	.84	.81	.79	.80	.77	.75	.72
2.0	.85	.77	.71	.82	.75	.69	.77	.72	.67	.73	.68	.64	.68	.65	.61	.58
3.0	.74	.65	.58	.72	.64	.57	.67	.61	.55	.64	.58	.53	.60	.55	.51	.48
4.0	.65	.56	.49	.63	.55	.48	.60	.52	.46	.56	.50	.45	.53	.48	.43	.41
5.0	.58	.48	.41	.56	.47	.41	.53	.45	.40	.50	.44	.38	.48	.42	.37	.35
6.0	.52	.43	.36	.51	.42	.35	.48	.40	.34	.45	.39	.33	.43	.37	.33	.30
7.0	.47	.38	.32	.46	.37	.31	.43	.36	.30	.41	.35	.30	.39	.33	.29	.27
8.0	.43	.34	.28	.42	.33	.28	.40	.32	.27	.38	.31	.26	.36	.30	.26	.24
9.0	.39	.31	.25	.38	.30	.25	.36	.29	.24	.35	.28	.24	.33	.27	.23	.21
10.0	.36	.28	.23	.35	.28	.22	.34	.27	.22	.32	.26	.21	.31	.25	.21	.19



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 Remarks:

WEC AND CCEC

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	.366	.208	.066	.357	.203	.065	.338	.194	.062	.322	.185	.060	.306	.177	.057	
2.0	.324	.178	.055	.316	.174	.054	.299	.166	.052	.284	.159	.050	.270	.153	.048	
3.0	.291	.155	.046	.283	.152	.046	.269	.146	.044	.255	.140	.043	.242	.134	.042	
4.0	.264	.137	.040	.257	.134	.040	.244	.129	.039	.231	.124	.037	.220	.120	.036	
5.0	.241	.123	.036	.235	.120	.035	.223	.116	.034	.212	.112	.033	.201	.108	.032	
6.0	.221	.111	.032	.216	.109	.031	.205	.105	.031	.195	.101	.030	.186	.098	.029	
7.0	.205	.101	.029	.200	.099	.028	.190	.096	.028	.181	.093	.027	.172	.089	.026	
8.0	.190	.093	.026	.186	.091	.026	.177	.088	.025	.168	.085	.025	.161	.082	.024	
9.0	.178	.086	.024	.173	.084	.024	.165	.082	.023	.158	.079	.023	.150	.076	.022	
10.0	.166	.080	.022	.162	.078	.022	.155	.076	.021	.148	.074	.021	.141	.071	.020	

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	.254	.254	.254	.217	.217	.217	.148	.148	.148	.085	.085	.085	.027	.027	.027	
1.0	.249	.220	.194	.213	.189	.167	.146	.130	.116	.084	.075	.067	.027	.024	.022	
2.0	.242	.197	.159	.207	.169	.137	.142	.117	.096	.082	.068	.056	.026	.022	.018	
3.0	.234	.180	.137	.200	.155	.118	.138	.108	.083	.079	.063	.049	.026	.020	.016	
4.0	.226	.167	.122	.194	.144	.106	.133	.100	.074	.077	.059	.044	.025	.019	.014	
5.0	.218	.157	.111	.188	.136	.097	.129	.095	.068	.075	.056	.041	.024	.018	.013	
6.0	.211	.149	.104	.181	.129	.091	.125	.090	.064	.073	.053	.038	.023	.017	.013	
7.0	.204	.142	.099	.175	.123	.086	.121	.086	.061	.070	.051	.036	.023	.017	.012	
8.0	.197	.136	.094	.170	.118	.082	.117	.083	.058	.068	.049	.035	.022	.016	.012	
9.0	.191	.131	.091	.164	.114	.080	.114	.080	.056	.066	.047	.034	.021	.016	.011	
10.0	.185	.127	.089	.159	.110	.077	.111	.078	.055	.065	.046	.033	.021	.015	.011	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: ATC

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
 Humidity: 60%
 Test Distance: 7.630m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

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	18.6	20.1	19.0	20.5	20.8	19.9	21.3	20.2	21.7	22.1
3H	20.2	21.5	20.6	21.9	22.3	22.2	23.6	22.6	24.0	24.4
4H	20.8	22.1	21.2	22.5	22.9	23.5	24.8	23.9	25.2	25.7
6H	21.2	22.4	21.7	22.9	23.3	24.9	26.1	25.4	26.6	27.0
8H	21.4	22.5	21.8	23.0	23.5	25.7	26.9	26.2	27.3	27.8
12H	21.4	22.6	21.9	23.0	23.5	26.6	27.7	27.1	28.2	28.7
4H 2H	19.5	20.8	19.9	21.2	21.7	20.4	21.7	20.9	22.1	22.6
3H	21.3	22.4	21.8	22.9	23.4	23.0	24.1	23.5	24.6	25.1
4H	22.1	23.1	22.6	23.6	24.1	24.4	25.5	24.9	25.9	26.5
6H	22.7	23.6	23.2	24.1	24.7	26.0	27.0	26.5	27.5	28.0
8H	22.9	23.8	23.4	24.3	24.9	26.9	27.8	27.5	28.3	28.9
12H	23.1	23.9	23.6	24.4	25.0	28.0	28.8	28.5	29.3	29.9
8H 4H	22.7	23.6	23.3	24.1	24.7	24.7	25.6	25.3	26.1	26.7
6H	23.7	24.4	24.2	24.9	25.6	26.6	27.3	27.1	27.9	28.5
8H	24.0	24.7	24.6	25.3	25.9	27.6	28.3	28.2	28.9	29.5
12H	24.4	25.0	25.0	25.5	26.2	28.9	29.5	29.5	30.1	30.8
12H 4H	22.9	23.7	23.5	24.3	24.9	24.7	25.5	25.3	26.1	26.7
6H	24.0	24.7	24.6	25.2	25.9	26.6	27.3	27.2	27.9	28.5
8H	24.5	25.1	25.1	25.7	26.3	27.8	28.4	28.4	29.0	29.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 2667 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.4$)

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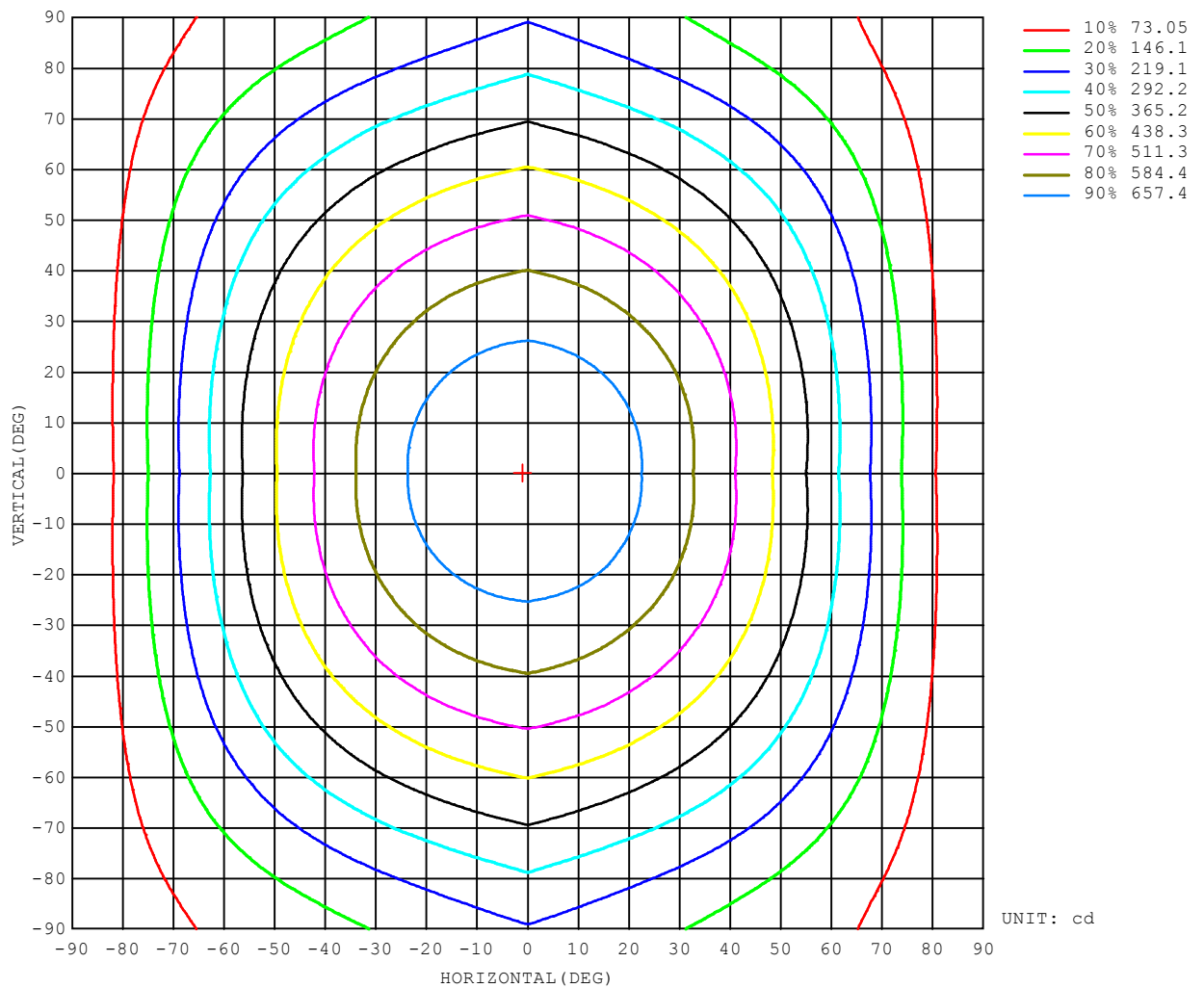
UTILIZATION FACTORS TABLE

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	52	40	32	51	39	32	49	39	32	25
0.80	61	49	41	60	48	41	58	47	40	33
1.00	69	57	49	68	56	48	65	57	48	40
1.25	76	64	56	74	63	56	71	61	55	46
1.50	81	70	62	79	69	61	75	66	60	51
2.00	88	78	70	86	77	69	82	74	67	58
2.50	93	83	76	90	81	75	85	78	72	62
3.00	96	88	81	94	86	80	88	82	77	66
4.00	101	94	88	98	91	86	92	87	82	71
5.00	104	97	92	100	95	90	94	90	86	74
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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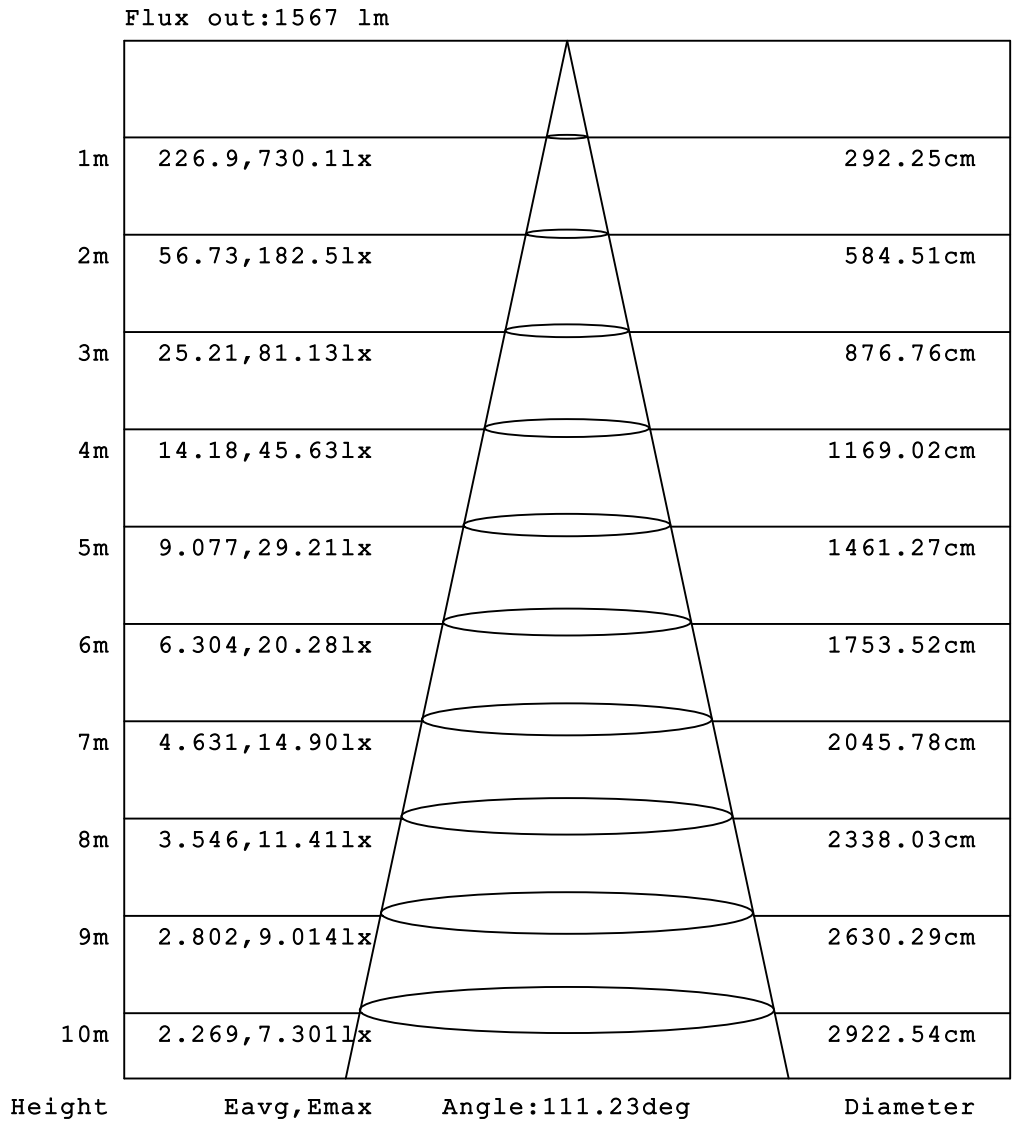
ISOCANDELA DIAGRAM



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AAI Figure

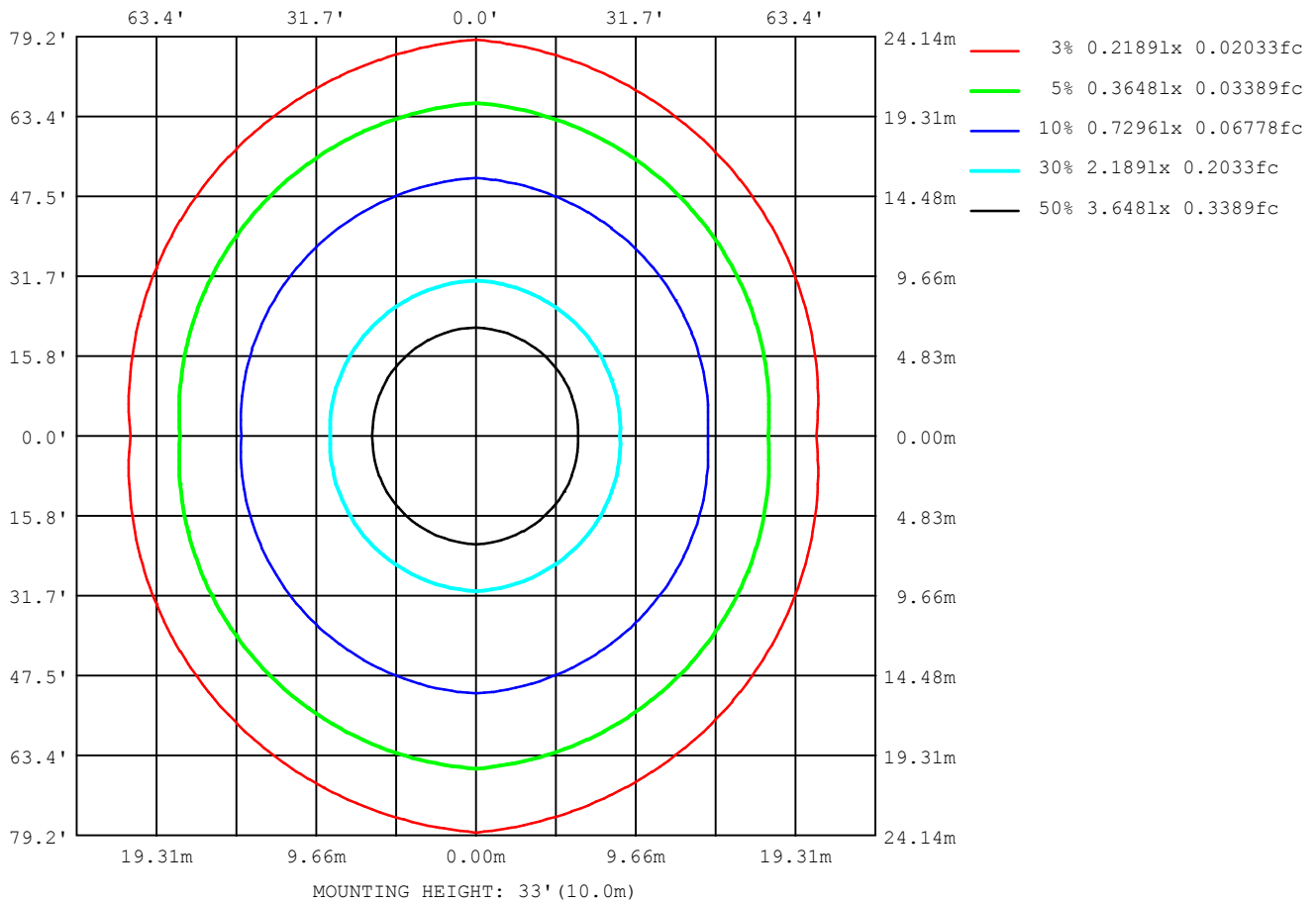


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM



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 Remarks:

LED Avg.L Report

Test:U:230.19V I:0.1191A P:26.496W PF:0.9662 Freq:49.99Hz Lamp Flux:2667.45x1 lm		
NAME: 一字灯 25W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ATC	SUR.:	Shielding Angle:

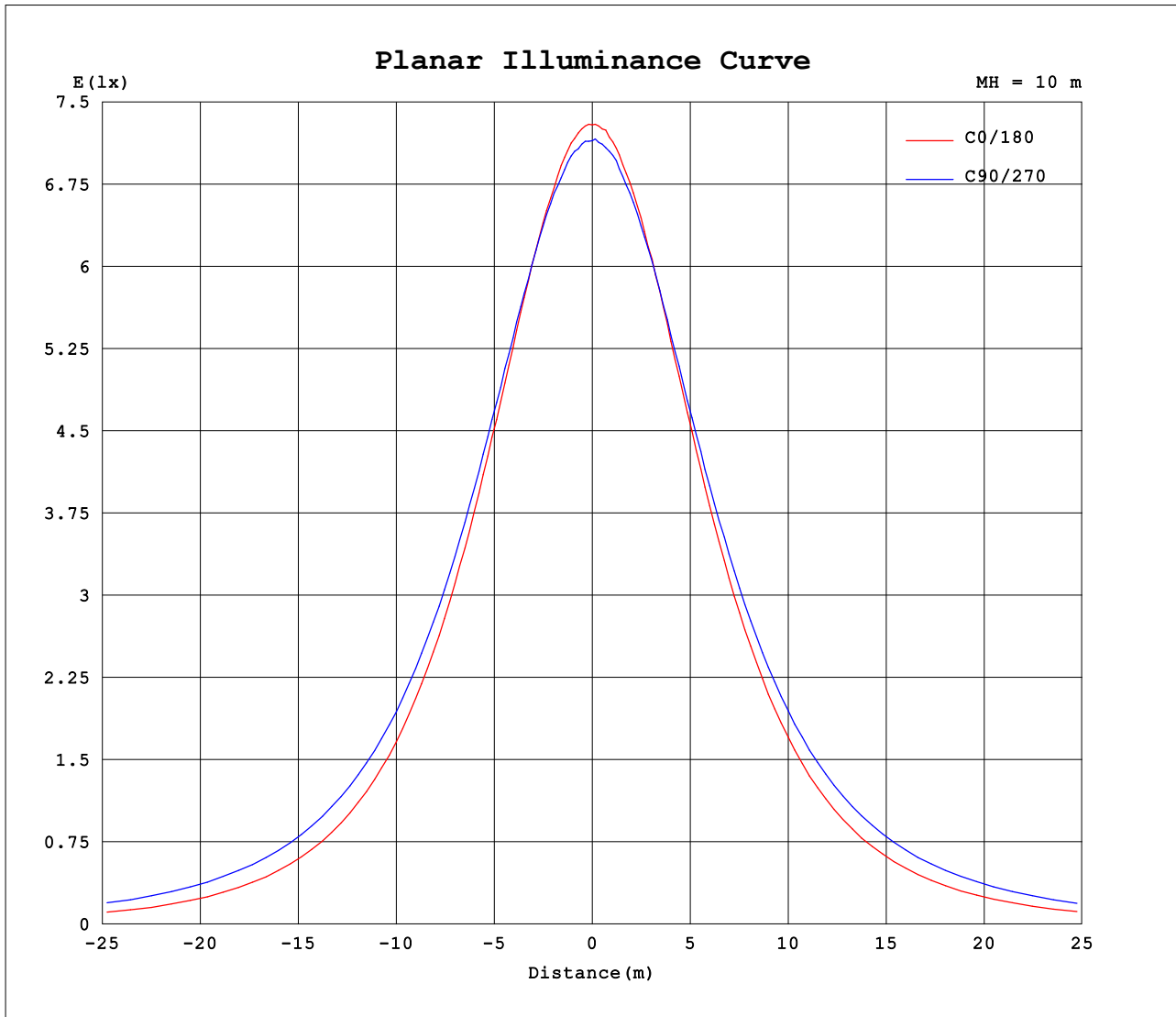
AvgL	cd/m2
L_0~180 (65) av	6087
L_0~180 (75) av	5373
L_0~180 (85) av	4708
L_90~270 (65) av	9471
L_90~270 (75) av	12407
L_90~270 (85) av	28335
L_45 (65) av	8213
L_45 (75) av	9785
L_45 (85) av	19504

Standard: GB/T 29293-2012

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Planar Illuminance Curve



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ATC MIDDLE EAST FZCO

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