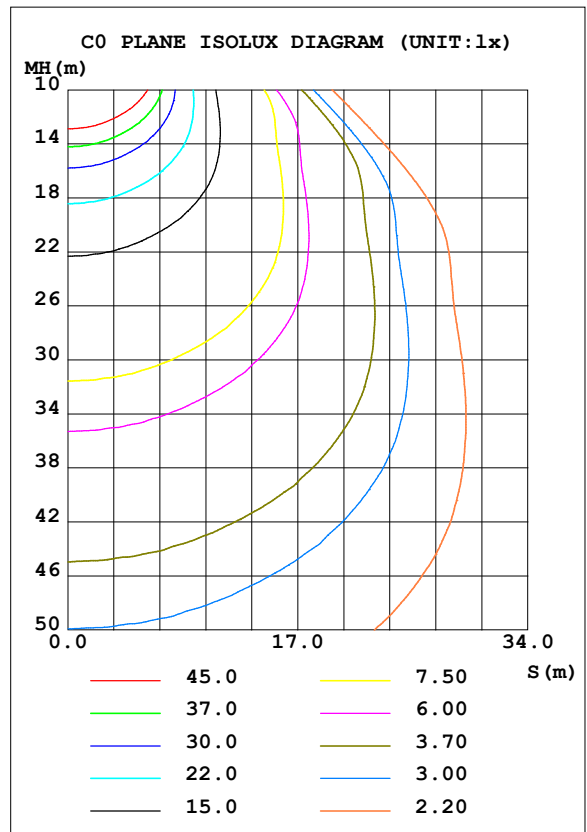
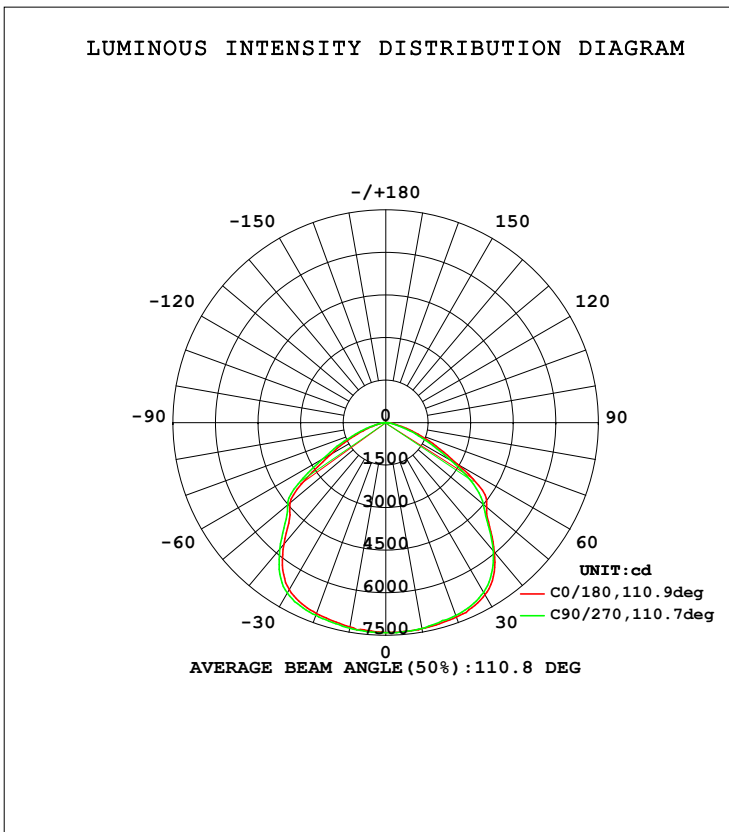


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 133.47 lm/W			
MODEL	150W	I _{max} (cd)	7428	S/MH (C0/180)	1.34
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	1.37
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	19701	η UP, DN (C0-180)	0.0, 50.4
NOMINAL FLUX (lm)	19700.7	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	7371	7381	7364	7339	7316	7335	7355	7373	0- 10	704.9	704.9	3.58,3.58
20	7293	7281	7233	7193	7158	7194	7223	7281	10- 20	2067	2772	14.1,14.1
30	7005	7003	6906	6864	6807	6909	6942	7028	20- 30	3292	6064	30.8,30.8
40	5962	5991	5901	5772	5596	5706	5809	5990	30- 40	4056	10120	51.4,51.4
50	4641	4475	4497	4331	4412	4304	4511	4523	40- 50	3906	14026	71.2,71.2
60	2911	2873	2619	2337	2227	2305	2584	2873	50- 60	3258	17284	87.7,87.7
70	1214	1103	1021	890.3	862.4	872.6	1036	1143	60- 70	1712	18996	96.4,96.4
80	317.5	311.2	233.5	194.7	177.6	202.1	231.6	302.2	70- 80	601.3	19597	99.5,99.5
90	20.84	17.16	11.62	9.793	12.33	11.78	12.37	16.36	80- 90	103.4	19701	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		

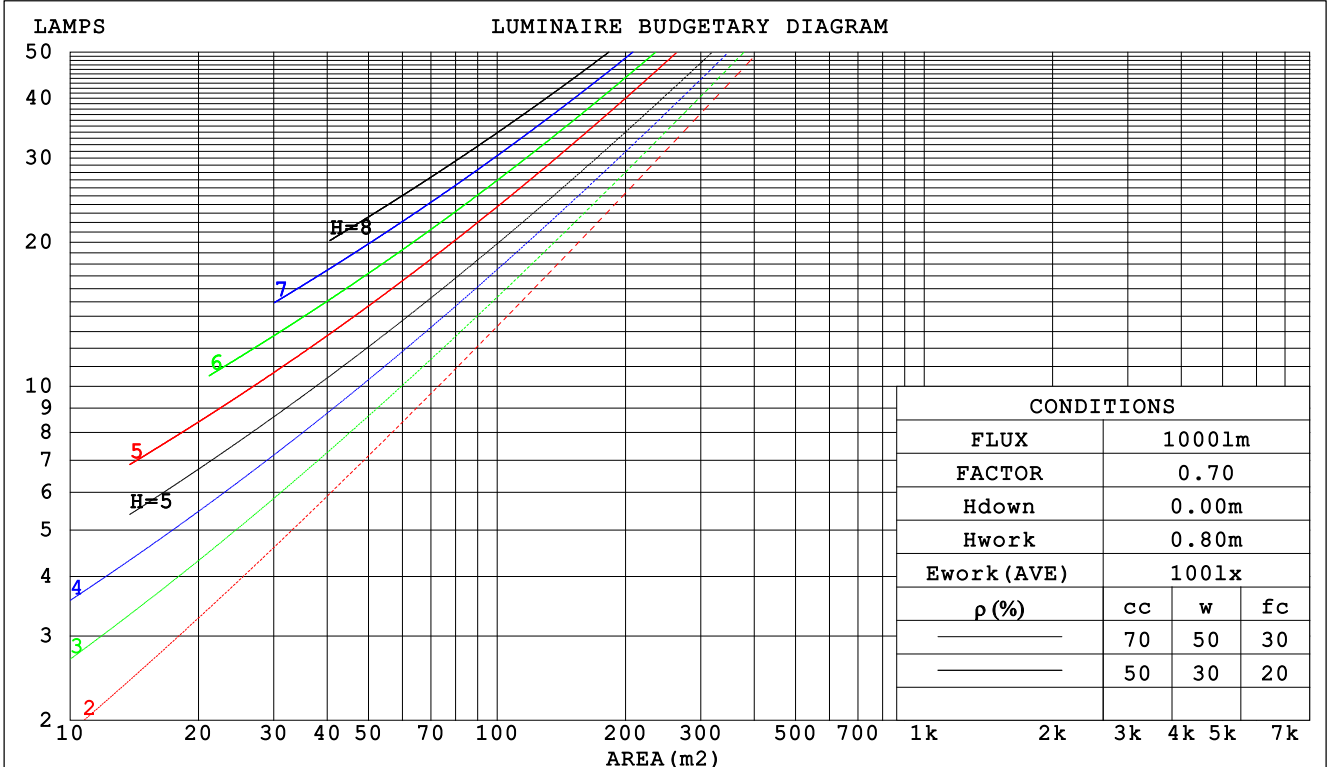
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	1.00
1.0	1.06	1.02	.99	1.04	1.01	.97	.90	.97	.94	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.83	.92	.86	.82	.89	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.83	.76	.70	.82	.75	.69	.79	.73	.68	.76	.71	.67	.74	.69	.66	.64
4.0	.74	.66	.60	.73	.65	.59	.70	.64	.59	.68	.62	.58	.66	.61	.57	.55
5.0	.67	.58	.52	.65	.57	.52	.63	.56	.51	.61	.55	.50	.60	.54	.50	.48
6.0	.60	.52	.45	.59	.51	.45	.57	.50	.45	.56	.49	.44	.54	.49	.44	.42
7.0	.55	.46	.40	.54	.46	.40	.52	.45	.40	.51	.44	.40	.49	.44	.39	.37
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	.37	.32	.42	.36	.32	.30
10.0	.42	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.267	.152	.048	.260	.148	.047	.247	.141	.045	.235	.135	.043	.224	.130	.042	
2.0	.259	.142	.044	.253	.139	.043	.242	.134	.042	.231	.130	.041	.221	.125	.039	
3.0	.245	.131	.039	.240	.128	.039	.230	.125	.038	.221	.121	.037	.212	.117	.036	
4.0	.230	.120	.035	.226	.118	.035	.217	.115	.034	.208	.112	.034	.201	.109	.033	
5.0	.216	.110	.032	.211	.109	.032	.204	.106	.031	.196	.104	.031	.189	.101	.030	
6.0	.202	.101	.029	.198	.100	.029	.191	.098	.029	.185	.096	.028	.179	.094	.028	
7.0	.190	.094	.027	.186	.093	.026	.180	.091	.026	.174	.089	.026	.168	.088	.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	.155	.078	.022	.151	.077	.022	
10.0	.159	.076	.021	.156	.075	.021	.152	.074	.021	.147	.073	.021	.143	.072	.021	

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						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	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.160	.114	.078	.137	.098	.067	.094	.068	.047	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007	
5.0	.145	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.138	.082	.041	.119	.071	.036	.082	.049	.025	.048	.029	.015	.015	.010	.005	
7.0	.132	.075	.034	.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: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					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	35.6	37.0	35.9	37.2	37.4	35.2	36.7	35.5	36.9	37.1
3H	36.3	37.6	36.6	37.8	38.1	35.8	37.1	36.1	37.3	37.6
4H	36.4	37.7	36.7	37.9	38.2	35.9	37.1	36.2	37.4	37.6
6H	36.5	37.6	36.8	37.9	38.2	35.9	37.1	36.2	37.3	37.6
8H	36.5	37.6	36.8	37.9	38.1	35.9	37.0	36.2	37.3	37.5
12H	36.4	37.5	36.8	37.8	38.1	35.8	36.9	36.2	37.2	37.5
4H 2H	35.9	37.1	36.2	37.4	37.6	35.6	36.8	35.9	37.1	37.3
3H	36.7	37.8	37.0	38.1	38.4	36.3	37.3	36.6	37.6	37.9
4H	36.9	37.9	37.3	38.2	38.5	36.4	37.4	36.8	37.7	38.0
6H	37.0	37.9	37.4	38.2	38.6	36.5	37.3	36.9	37.7	38.0
8H	37.0	37.8	37.4	38.2	38.6	36.5	37.3	36.9	37.6	38.0
12H	37.0	37.7	37.4	38.1	38.5	36.4	37.2	36.9	37.6	38.0
8H 4H	36.9	37.7	37.3	38.1	38.5	36.5	37.3	36.9	37.6	38.0
6H	37.1	37.7	37.5	38.1	38.6	36.6	37.2	37.0	37.6	38.0
8H	37.1	37.7	37.6	38.1	38.6	36.6	37.2	37.0	37.6	38.0
12H	37.1	37.6	37.6	38.1	38.6	36.6	37.1	37.1	37.5	38.0
12H 4H	36.9	37.6	37.3	38.0	38.4	36.4	37.2	36.9	37.5	37.9
6H	37.1	37.6	37.5	38.1	38.5	36.6	37.1	37.0	37.6	38.0
8H	37.1	37.6	37.6	38.1	38.5	36.6	37.1	37.1	37.5	38.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.5 / - 0.6					+ 0.5 / - 0.7				
2.0H	+ 0.7 / - 1.1					+ 0.8 / - 1.0				

CIE Pub.117 Corrected 19701 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.4)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	61	50	43	60	50	43	59	49	43	37
0.80	71	61	54	70	60	54	69	59	53	47
1.00	80	70	63	79	69	63	77	71	63	56
1.25	87	78	71	86	77	71	83	76	70	64
1.50	92	83	77	90	82	77	88	81	75	69
2.00	98	91	85	97	90	85	93	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	102	98	102	98	95	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

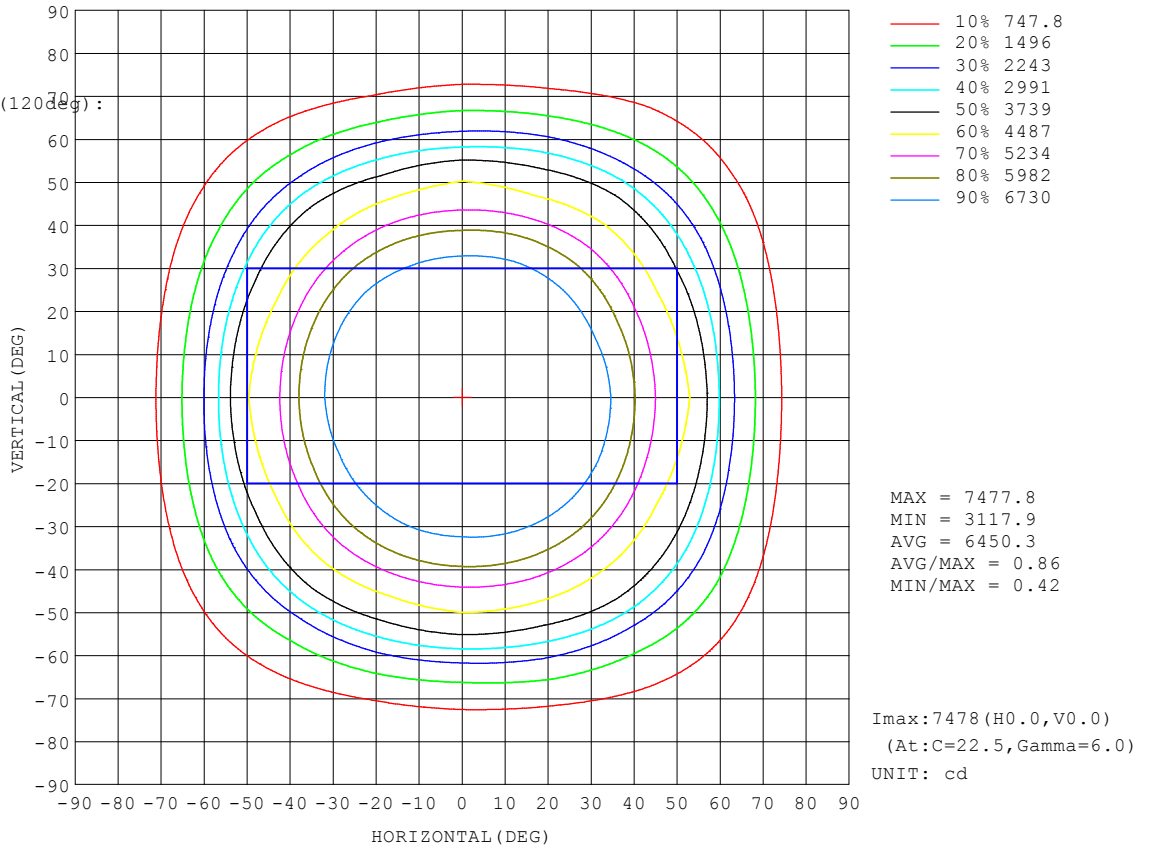
Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Conical surface Flux(90deg):

12129 lm
 %lum = 61.6%
 %lamp = 61.6%

Conical surface Flux(120deg):

17284 lm
 %lum = 87.7%
 %lamp = 87.7%

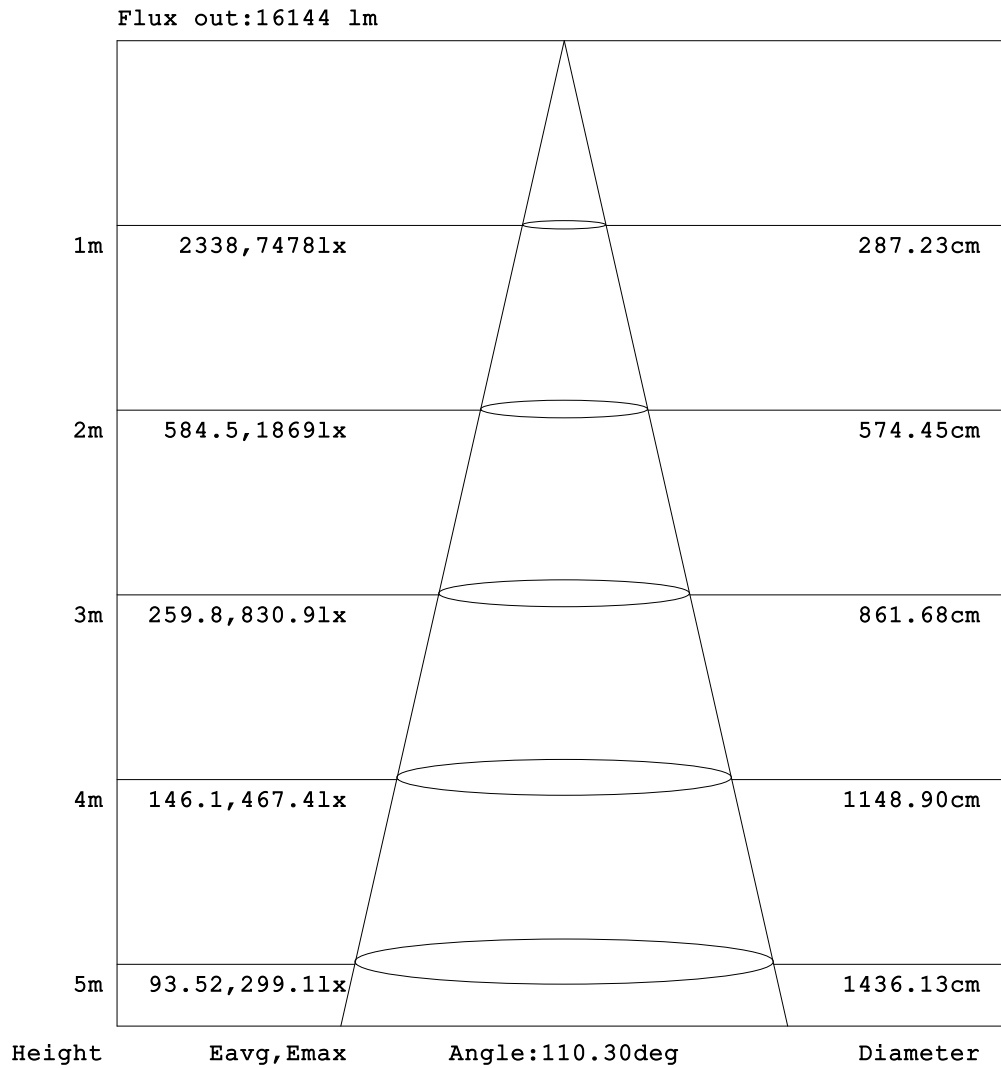


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



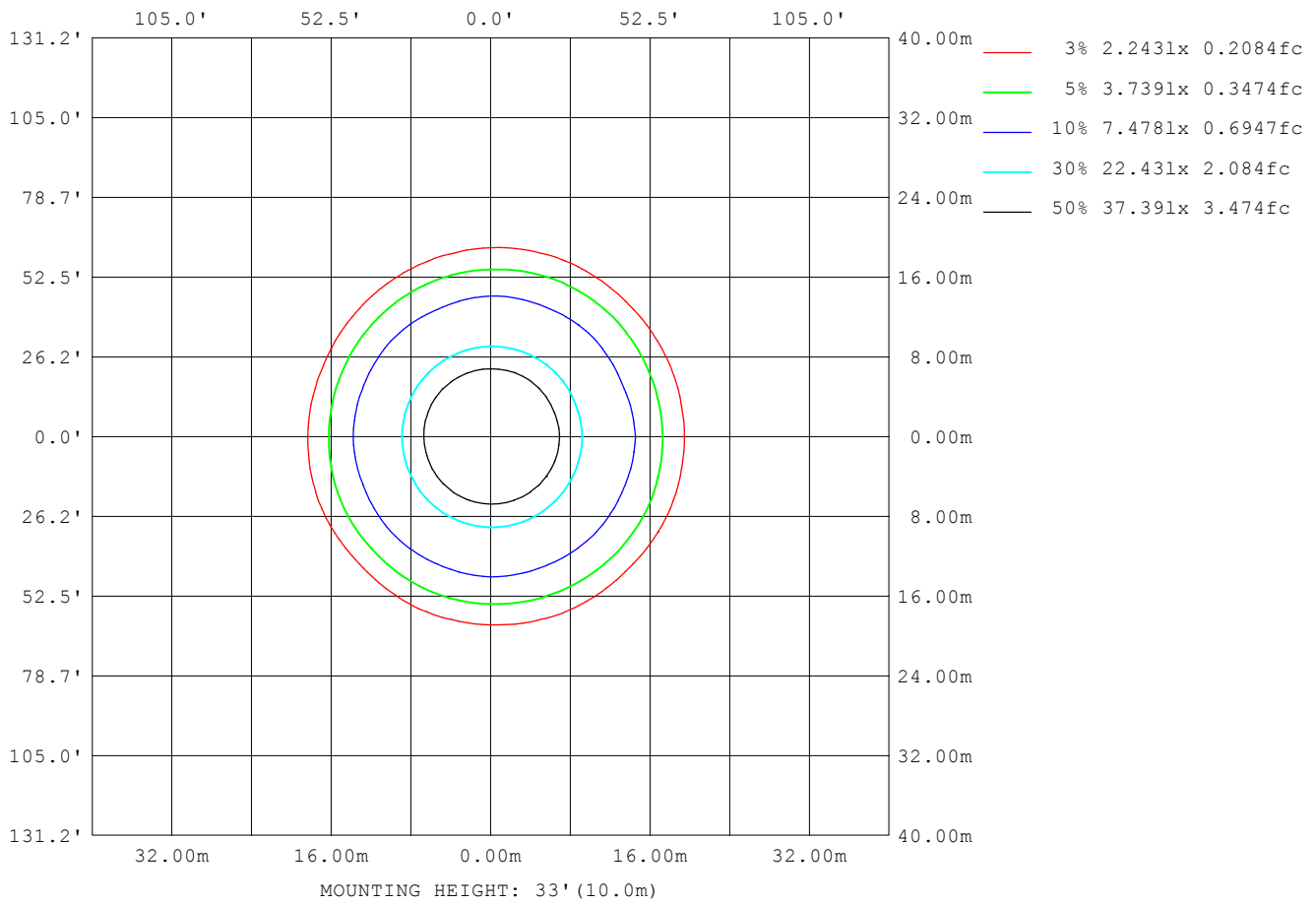
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:120.3V I:1.234A P:147.6W PF:0.9940 Lamp Flux:19700.7x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

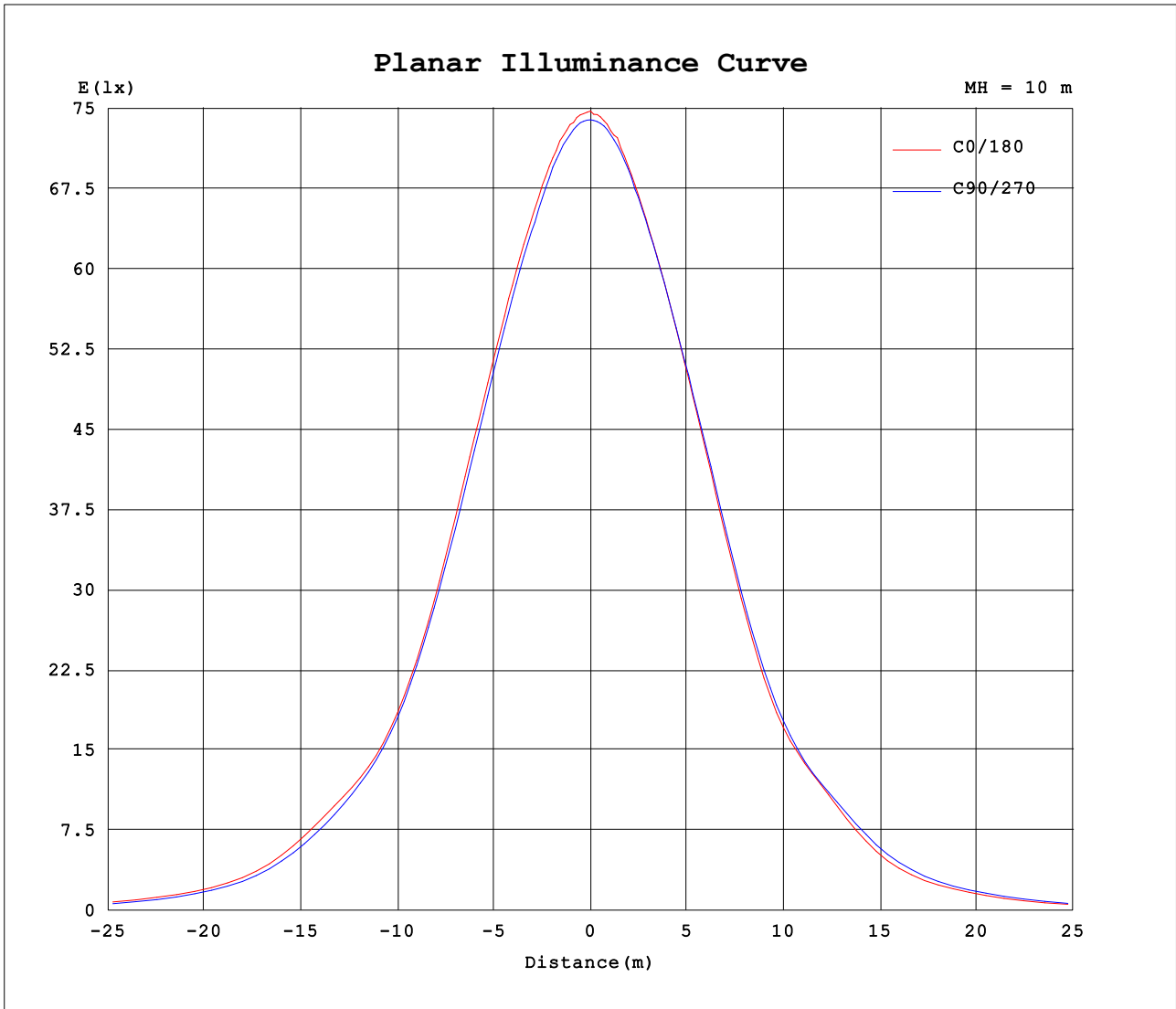
AvgL	cd/m2
L_0~180 (65) av	410296
L_0~180 (75) av	212845
L_0~180 (85) av	92715
L_90~270 (65) av	409867
L_90~270 (75) av	208325
L_90~270 (85) av	90245
L_45 (65) av	392035
L_45 (75) av	213267
L_45 (85) av	90817

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.250m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.250m [K=1.0000]
 Remarks:

