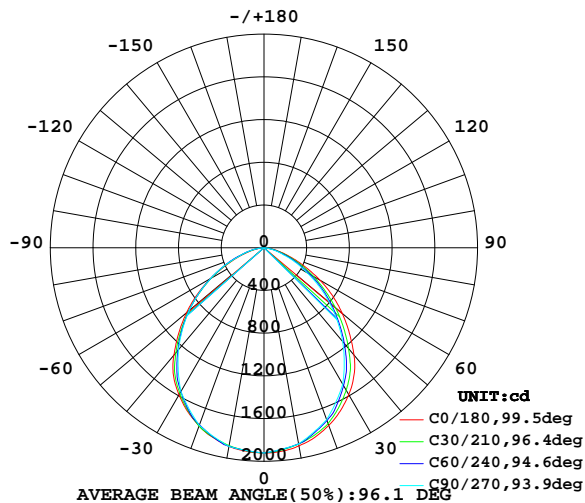


## LUMINAIRE PHOTOMETRIC TEST REPORT

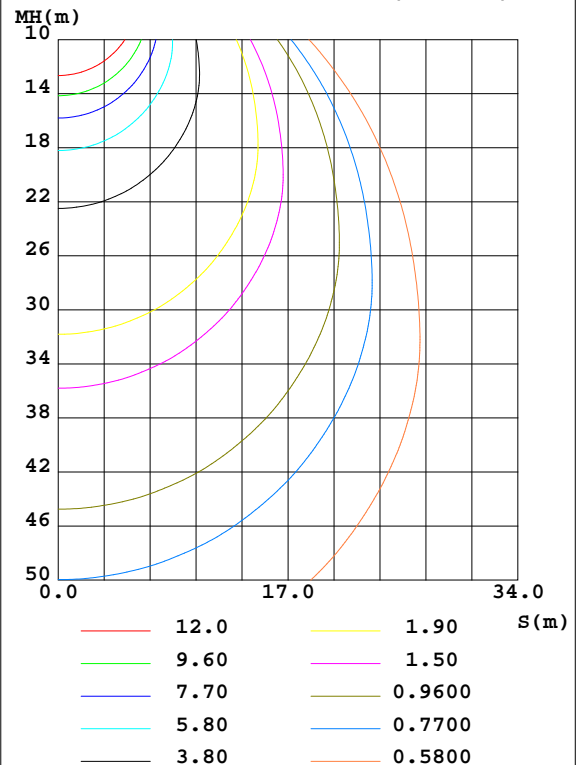
Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.24 lm/W			
MODEL	PUREE-COB 2 3000K	I <sub>max</sub> (cd)	1922	S/MH(C0/180)	1.24
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	100-240	TOTAL FLUX(lm)	4380.8	η UP,DN(C0-180)	0.0,48.3
NOMINAL FLUX(lm)	4380.76	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		η down(%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
5	1913	1898	1894	1897	1913	1907	1906	1907	0- 5	45.68	45.68	1.04,1.04
10	1884	1863	1866	1865	1888	1884	1889	1882	5- 10	135.2	180.9	4.13,4.13
15	1838	1815	1790	1815	1841	1840	1830	1840	10- 15	219.4	400.3	9.14,9.14
20	1771	1730	1714	1729	1776	1767	1770	1764	15- 20	294.5	694.7	15.9,15.9
25	1688	1638	1595	1634	1693	1682	1663	1677	20- 25	357.5	1052	24,24
30	1588	1517	1475	1507	1591	1567	1556	1563	25- 30	404.9	1457	33.3,33.3
35	1468	1363	1311	1350	1475	1422	1401	1421	30- 35	434.1	1891	43.2,43.2
40	1312	1196	1147	1182	1312	1262	1245	1265	35- 40	440.4	2332	53.2,53.2
45	1131	1016	973.8	1004	1128	1089	1080	1094	40- 45	425.6	2757	62.9,62.9
50	957.1	841.7	800.9	830.8	947.9	917.6	914.0	926.2	45- 50	394.0	3151	71.9,71.9
55	783.4	674.7	631.1	661.0	762.9	742.3	745.7	751.3	50- 55	348.4	3500	79.9,79.9
60	603.5	517.2	461.2	501.8	577.3	573.8	577.5	585.6	55- 60	291.4	3791	86.5,86.5
65	427.9	370.6	327.7	357.7	400.9	420.4	423.5	432.9	60- 65	227.8	4019	91.7,91.7
70	282.7	246.6	194.1	235.6	257.8	288.9	269.5	301.6	65- 70	164.4	4183	95.5,95.5
75	168.9	145.6	119.4	136.5	151.9	177.4	179.5	191.6	70- 75	107.7	4291	98,98
80	85.09	75.25	44.74	64.16	72.44	101.1	89.47	112.8	75- 80	63.05	4354	99.4,99.4
85	21.24	15.25	0	10.25	16.74	24.75	0	28.71	80- 85	24.94	4379	100,100
90	1.206	0	0	0	1.374	0	0	0	85- 90	1.807	4381	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

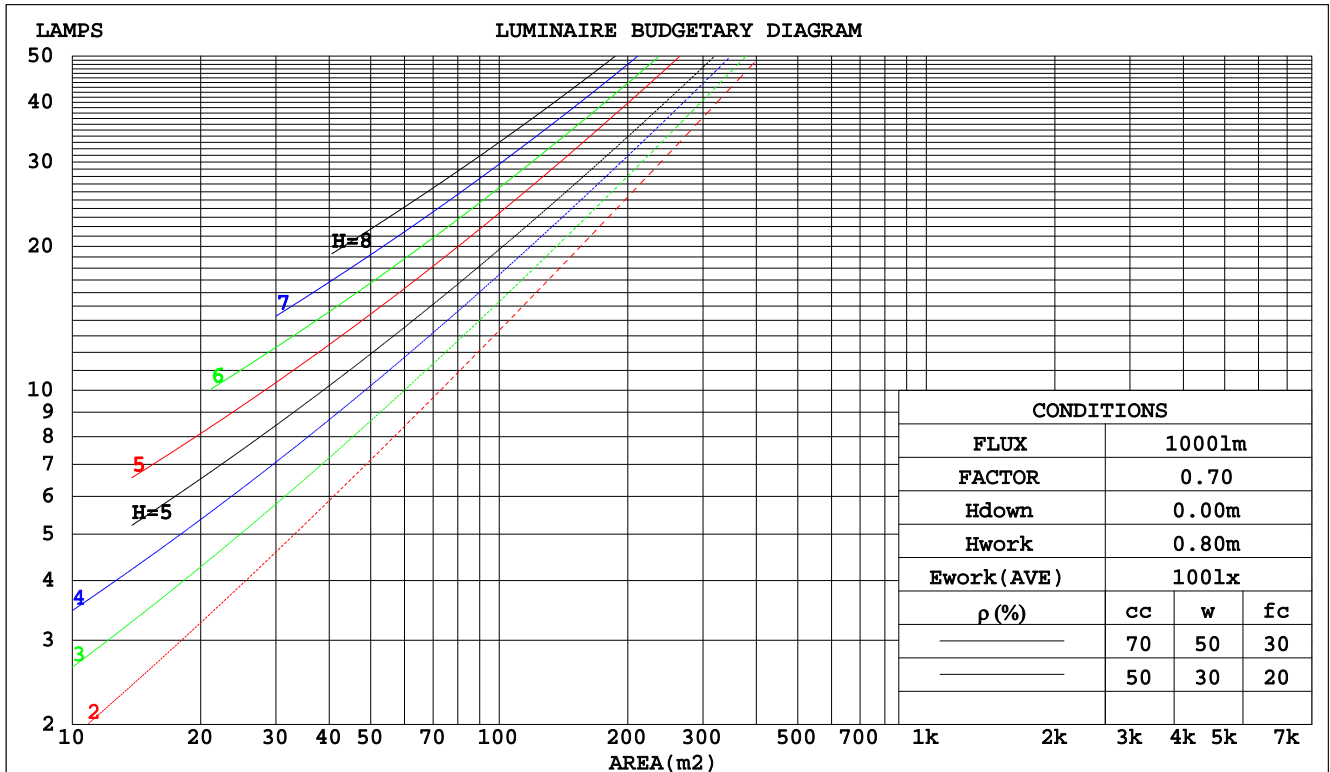
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25DEG  
 Operators:  
 Test Date:2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:7.900m [K=1.0000]  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.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	.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	.53	.66	.58	.52	.64	.57	.52	.62	.56	.51	.60	.55	.51	.49
6.0	.61	.52	.46	.60	.52	.46	.58	.51	.46	.57	.50	.45	.55	.49	.45	.43
7.0	.55	.47	.41	.55	.47	.41	.53	.46	.41	.52	.45	.41	.50	.45	.40	.38
8.0	.51	.43	.37	.50	.42	.37	.49	.42	.37	.48	.41	.37	.46	.41	.36	.35
9.0	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.43	.37	.33	.31
10.0	.43	.36	.31	.43	.35	.31	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25DEG  
 Operators:  
 Test Date: 2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
 Humidity: 65.0%  
 Test Distance: 7.900m [K=1.0000]  
 Remarks:

## WEC AND CCEC

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm					
NAME: LED RECTANGULAR COB 3000K / 05000723			TYPE:		WEIGHT:
SPEC.:60W			DIM.:		SERIAL No.:
MFR.: Mobilux GmbH			SUR.:72		PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	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	.259	.142	.044	.253	.139	.043	.241	.134	.042	.231	.129	.041	.221	.125	.039		
3.0	.244	.130	.039	.238	.128	.038	.228	.124	.038	.219	.120	.037	.211	.117	.036		
4.0	.228	.119	.035	.223	.117	.035	.215	.114	.034	.206	.111	.033	.199	.108	.033		
5.0	.213	.109	.031	.209	.107	.031	.201	.105	.031	.194	.102	.030	.187	.100	.030		
6.0	.200	.100	.029	.196	.099	.028	.189	.097	.028	.182	.095	.028	.176	.093	.028		
7.0	.187	.092	.026	.184	.092	.026	.178	.090	.026	.172	.088	.026	.166	.086	.025		
8.0	.176	.086	.024	.173	.085	.024	.167	.084	.024	.162	.082	.024	.157	.081	.023		
9.0	.166	.080	.022	.163	.079	.022	.158	.078	.022	.153	.077	.022	.149	.076	.022		
10.0	.156	.075	.021	.154	.074	.021	.149	.073	.021	.145	.072	.020	.141	.071	.020		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.137	.098	.068	.094	.068	.047	.054	.040	.028	.017	.013	.009	
4.0	.152	.101	.061	.130	.087	.053	.090	.061	.038	.052	.035	.022	.017	.012	.007	
5.0	.144	.090	.050	.124	.078	.043	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.137	.081	.041	.118	.070	.036	.082	.049	.025	.047	.029	.015	.015	.009	.005	
7.0	.131	.074	.035	.113	.065	.030	.078	.045	.021	.045	.027	.013	.015	.009	.004	
8.0	.125	.069	.030	.107	.060	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.119	.064	.026	.103	.055	.023	.071	.039	.016	.041	.023	.010	.013	.008	.003	
10.0	.114	.059	.023	.098	.052	.020	.068	.036	.014	.040	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm										
NAME: LED RECTANGULAR COB 3000K / 05000723					TYPE:			WEIGHT:		
SPEC.:60W					DIM.:			SERIAL No.:		
MFR.: Mobilux GmbH					SUR.:72			PROTECTION 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	32.6	34.0	32.9	34.2	34.4	31.8	33.2	32.0	33.4	33.6
3H	33.5	34.8	33.8	35.0	35.2	32.4	33.7	32.7	34.0	34.2
4H	33.7	35.0	34.0	35.2	35.5	32.6	33.8	32.9	34.1	34.3
6H	33.9	35.0	34.2	35.3	35.6	32.6	33.8	33.0	34.1	34.3
8H	33.9	35.0	34.2	35.3	35.5	32.6	33.7	32.9	34.0	34.3
12H	33.8	34.9	34.2	35.2	35.5	32.6	33.6	32.9	33.9	34.2
4H 2H	32.9	34.1	33.2	34.4	34.6	32.2	33.4	32.5	33.7	33.9
3H	33.9	35.0	34.3	35.3	35.6	33.0	34.1	33.4	34.4	34.7
4H	34.3	35.2	34.6	35.5	35.9	33.3	34.2	33.6	34.5	34.9
6H	34.5	35.3	34.9	35.7	36.0	33.4	34.2	33.8	34.6	34.9
8H	34.5	35.3	34.9	35.7	36.0	33.3	34.1	33.8	34.5	34.9
12H	34.5	35.2	34.9	35.6	36.0	33.3	34.0	33.7	34.4	34.8
8H 4H	34.3	35.1	34.7	35.5	35.8	33.4	34.2	33.8	34.5	34.9
6H	34.6	35.2	35.0	35.6	36.1	33.5	34.2	34.0	34.6	35.0
8H	34.7	35.2	35.1	35.6	36.1	33.5	34.1	34.0	34.5	35.0
12H	34.7	35.2	35.1	35.6	36.1	33.5	34.0	34.0	34.5	34.9
12H 4H	34.3	35.0	34.7	35.4	35.8	33.4	34.1	33.8	34.5	34.9
6H	34.6	35.1	35.0	35.6	36.0	33.5	34.1	34.0	34.5	35.0
8H	34.7	35.1	35.1	35.6	36.1	33.6	34.1	34.0	34.5	35.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.4 / - 0.5				
1.5H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				
2.0H	+ 0.7 / - 0.8					+ 0.7 / - 0.8				

CIE Pub.117 Corrected 4381 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.1)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:

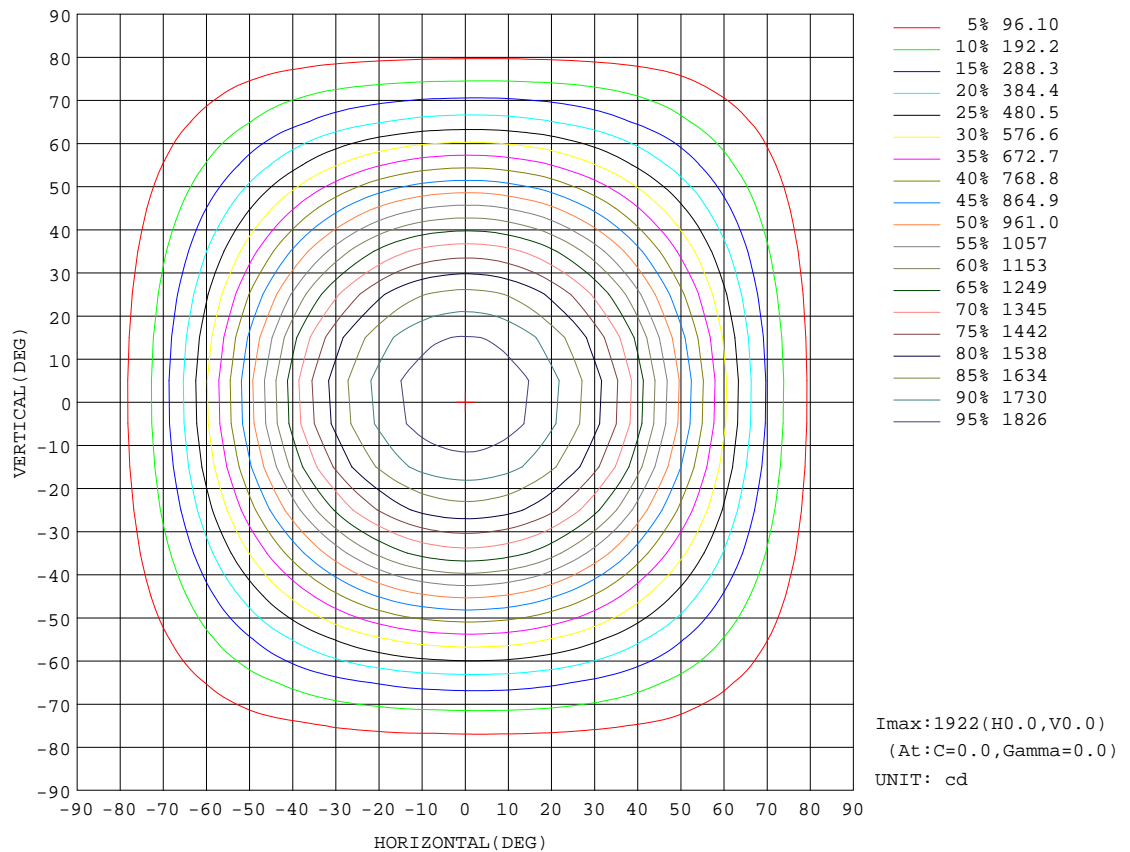
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT)    k(RI) x RCR = 5									
k = 0.60	62	52	45	62	51	45	60	51	45	39
0.80	72	62	55	71	61	55	70	61	55	48
1.00	81	71	64	80	70	64	78	71	63	57
1.25	88	78	72	86	78	72	84	76	71	64
1.50	92	84	77	91	83	77	88	81	76	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	95	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										
SHRNM = 1.25										

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:



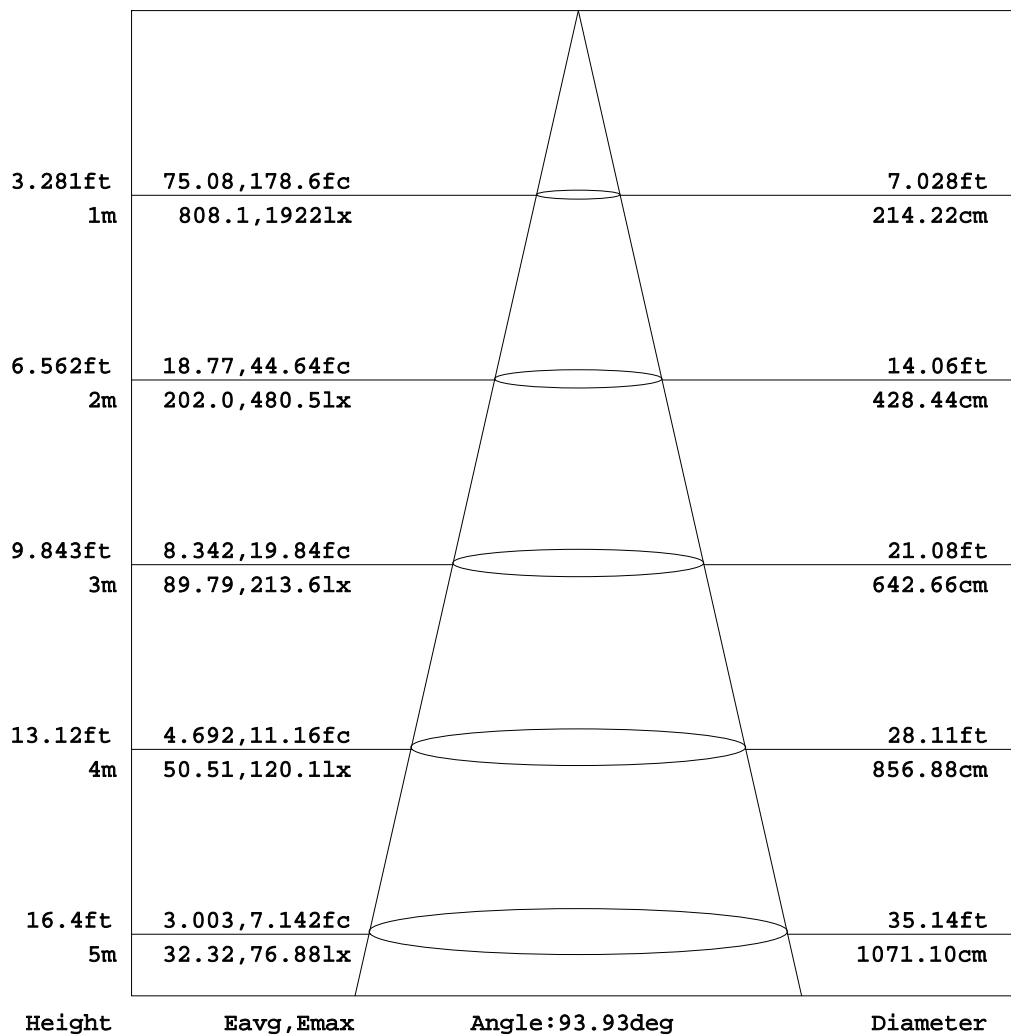
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

### AAI Figure

Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:

Flux out:2920 lm



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

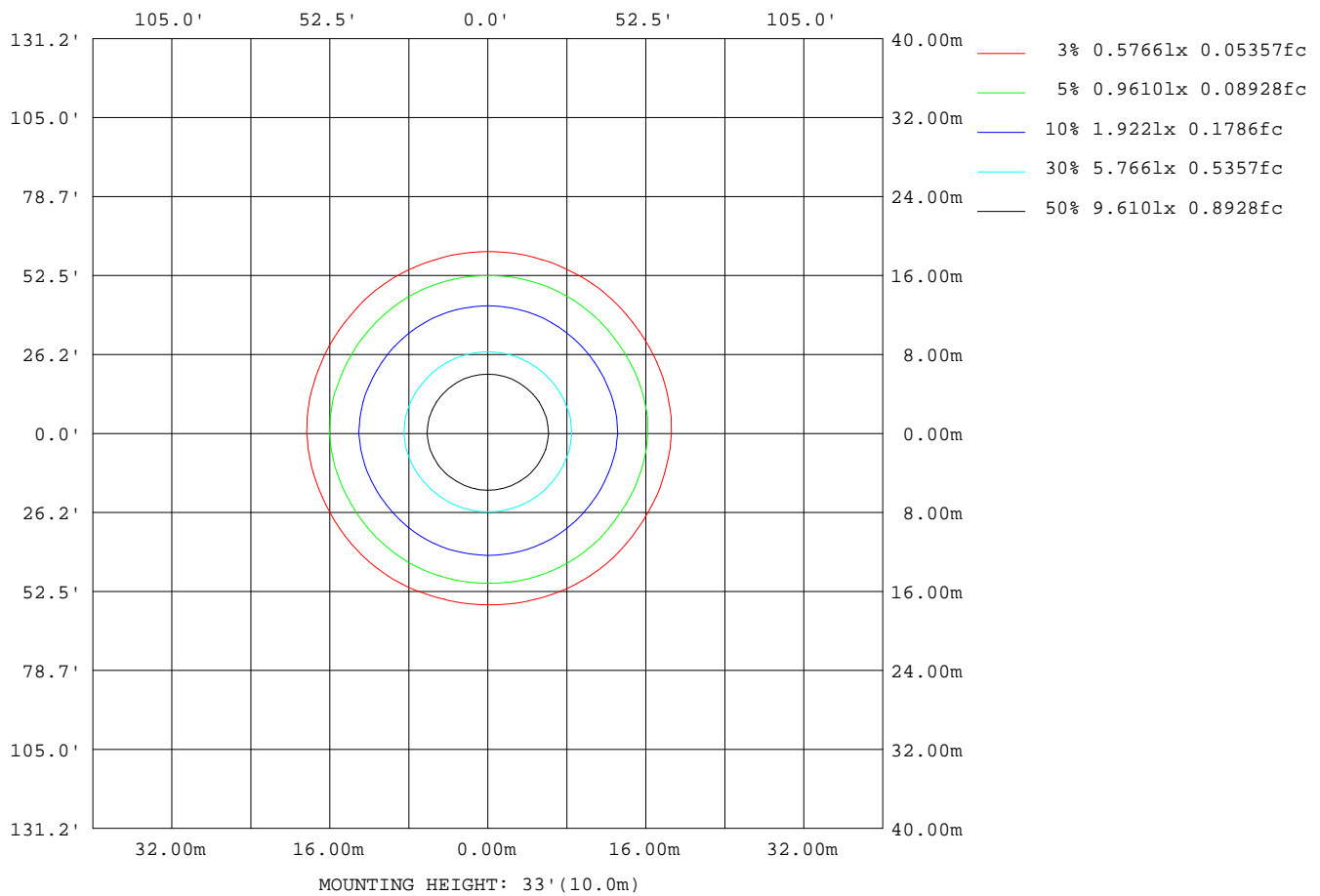
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2016-05-23

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 7.900m [K=1.0000]  
Remarks:



### ISOLUX DIAGRAM

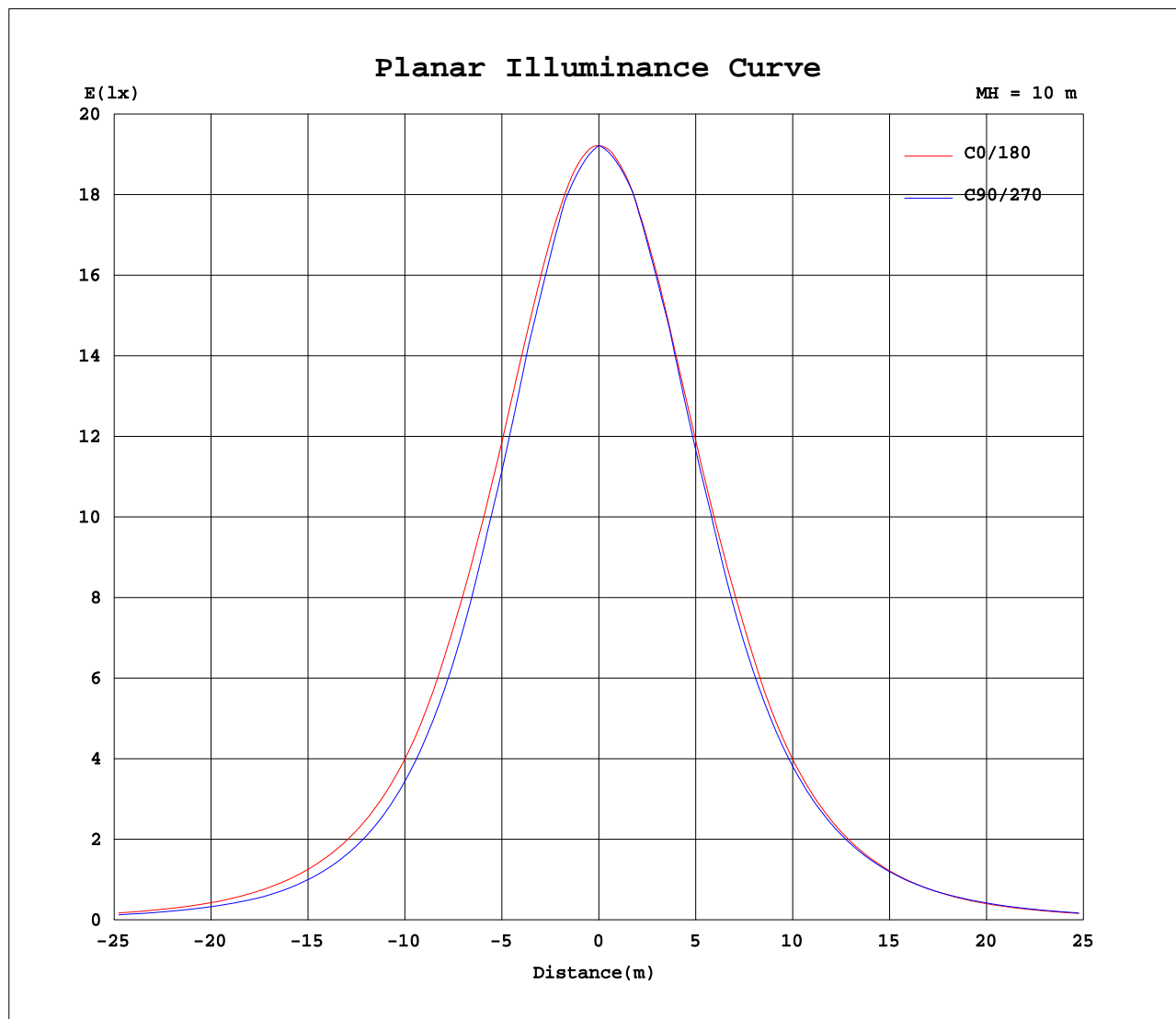
Test:U:220.0V I:0.2731A P:58.23W PF:0.9690 Lamp Flux:4380.76x1 lm		
NAME: LED RECTANGULAR COB 3000K / 05000723	TYPE:	WEIGHT:
SPEC.:60W	DIM.:	SERIAL No.:
MFR.: Mobilux GmbH	SUR.:72	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25DEG  
Operators:  
Test Date:2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:7.900m [K=1.0000]  
Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25DEG  
Operators:  
Test Date: 2016-05-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 7.900m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:7.900m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:7.900m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:7.900m [K=1.0000]
Remarks:

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