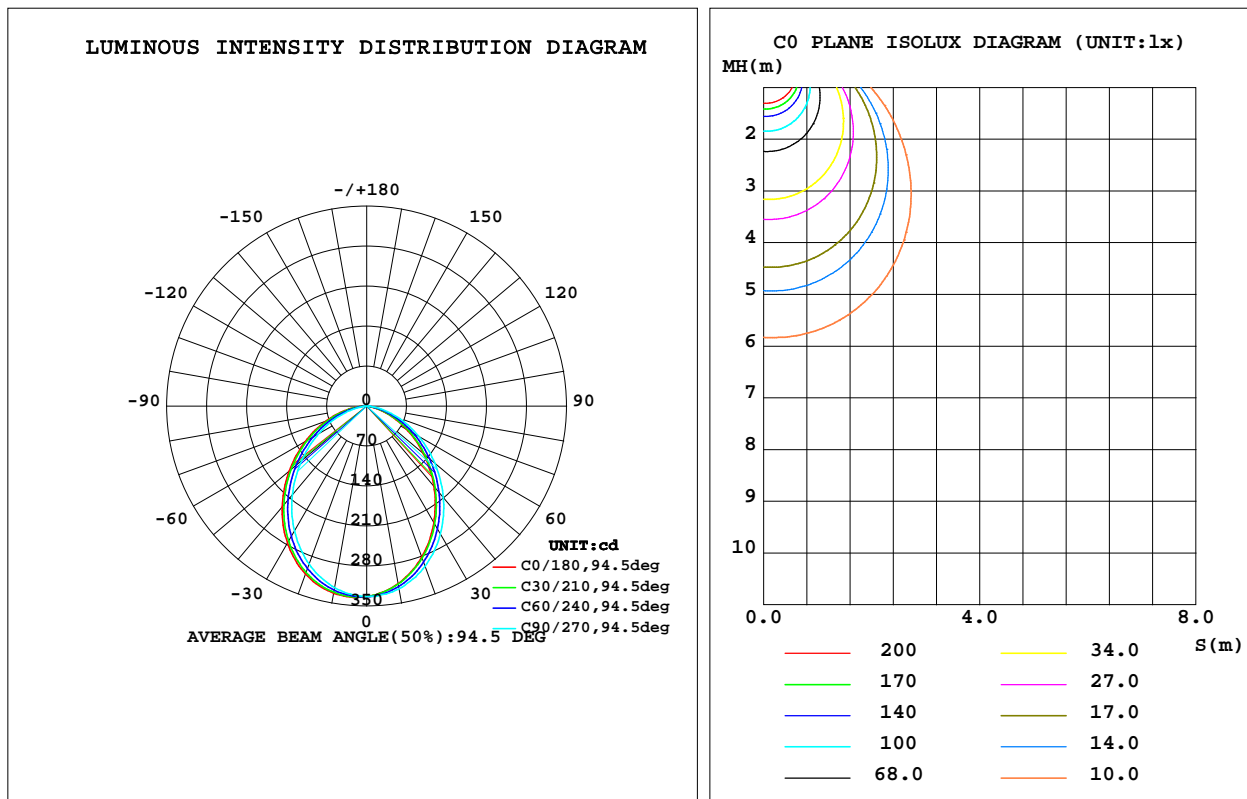


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 75.87 lm/W			
MODEL	ID10W-WW	I <sub>max</sub> (cd)	335.9	S/MH(C0/180)	1.24
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	1.14
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	766.25	η UP, DN(C0-180)	0.0, 50.5
NOMINAL FLUX(lm)	766.252	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.7	η down(%)	100.0	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	\$lum,lamp
10	332.7	329.1	322.6	316.8	316.0	318.8	324.9	331.2	0- 10	31.38	31.38	4.09,4.09
20	313.2	306.6	294.7	284.1	281.3	287.2	298.7	310.3	10- 20	87.97	119.4	15.6,15.6
30	277.4	268.6	252.9	239.0	235.5	243.2	258.7	273.6	20- 30	127.8	247.2	32.3,32.3
40	230.3	220.1	202.4	186.7	183.1	191.7	208.9	226.3	30- 40	144.9	392.1	51.2,51.2
50	177.3	166.9	148.7	133.4	130.0	138.8	155.9	173.1	40- 50	138.5	530.6	69.2,69.2
60	124.3	114.5	97.65	83.24	80.15	88.63	104.9	120.8	50- 60	113.6	644.2	84.1,84.1
70	74.91	65.99	50.94	38.68	36.44	43.90	57.96	72.04	60- 70	77.04	721.2	94.1,94.1
80	31.91	24.69	13.51	6.567	5.663	10.03	19.10	28.62	70- 80	37.10	758.3	99,99
90	3.678	1.850	0.2174	0.3039	0.3034	0.2582	0.8448	3.158	80- 90	7.943	766.3	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		

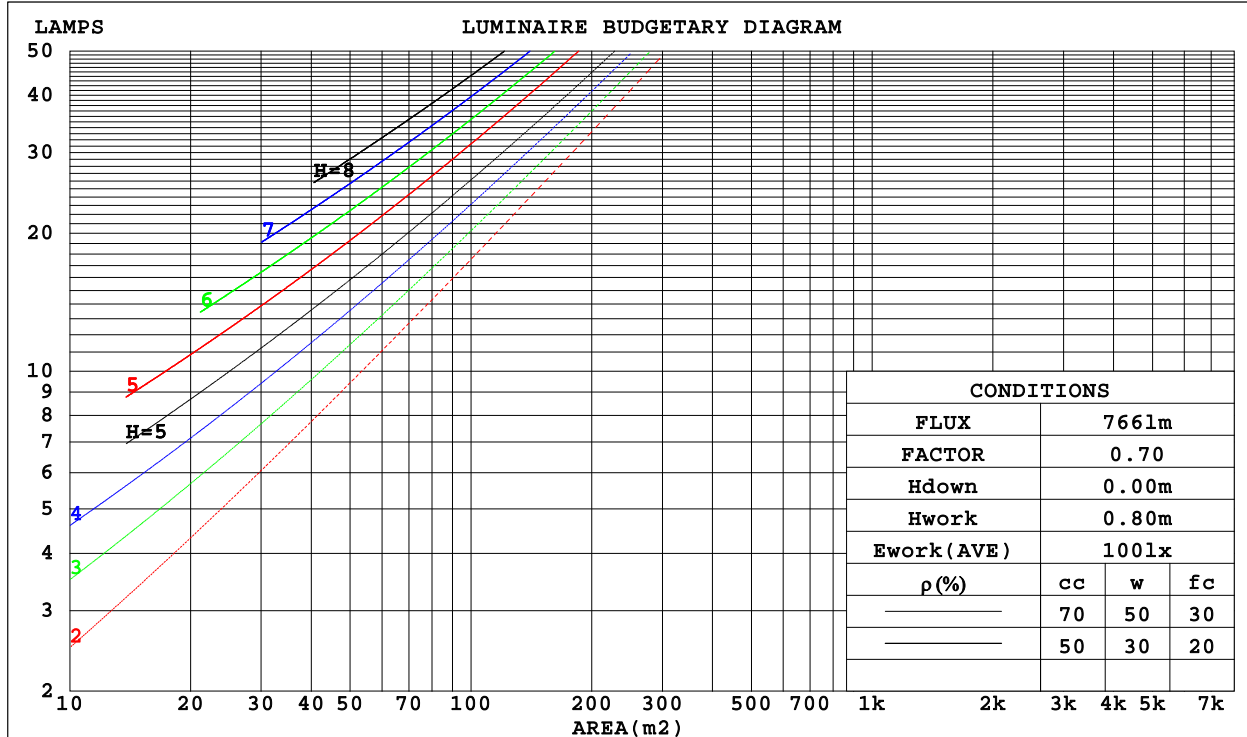
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	1.05	1.02	.98	1.03	.90	.96	.99	.96	.93	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.78	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.62
4.0	.74	.65	.59	.72	.64	.58	.70	.63	.58	.67	.62	.57	.65	.60	.56	.54
5.0	.66	.58	.51	.65	.57	.51	.63	.56	.50	.61	.55	.50	.59	.54	.49	.47
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42
7.0	.54	.46	.40	.54	.46	.40	.52	.45	.40	.51	.44	.39	.49	.44	.39	.37
8.0	.50	.42	.36	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.35	.33
9.0	.46	.38	.33	.45	.38	.33	.44	.37	.32	.43	.37	.32	.42	.36	.32	.30
10.0	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.39	.33	.29	.28



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	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	.280	.159	.050	.273	.156	.050	.260	.149	.048	.248	.143	.046	.237	.137	.044	
2.0	.268	.147	.045	.262	.144	.044	.250	.139	.043	.240	.135	.042	.230	.130	.041	
3.0	.251	.134	.040	.245	.131	.040	.235	.128	.039	.226	.124	.038	.217	.120	.037	
4.0	.234	.121	.036	.229	.120	.035	.220	.117	.035	.212	.114	.034	.204	.111	.034	
5.0	.218	.111	.032	.213	.110	.032	.205	.107	.031	.198	.104	.031	.191	.102	.031	
6.0	.203	.102	.029	.199	.101	.029	.192	.098	.029	.185	.096	.028	.179	.094	.028	
7.0	.190	.094	.027	.186	.093	.026	.180	.091	.026	.174	.089	.026	.169	.088	.026	
8.0	.178	.087	.024	.175	.086	.024	.169	.085	.024	.164	.083	.024	.159	.082	.024	
9.0	.167	.081	.023	.165	.080	.023	.160	.079	.022	.155	.078	.022	.150	.076	.022	
10.0	.158	.076	.021	.155	.075	.021	.151	.074	.021	.147	.073	.021	.142	.072	.021	

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	.178	.156	.137	.153	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.153	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007	
5.0	.146	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.041	.119	.071	.035	.082	.049	.025	.048	.029	.015	.015	.010	.005	
7.0	.132	.075	.034	.114	.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	.103	.055	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.114	.060	.023	.099	.052	.020	.068	.036	.014	.040	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm										
NAME: ID10W-WW					TYPE:10W			WEIGHT:		
DIM.:					SPEC.:3000K			SERIAL No.:1		
MFR.:					SUR.:0.04			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	26.9	28.3	27.2	28.5	28.7	25.9	27.4	26.2	27.6	27.8
3H	28.3	29.6	28.6	29.8	30.1	27.0	28.3	27.3	28.5	28.8
4H	28.8	30.1	29.2	30.3	30.6	27.3	28.6	27.6	28.8	29.1
6H	29.3	30.4	29.6	30.7	31.0	27.4	28.6	27.8	28.9	29.1
8H	29.4	30.5	29.7	30.8	31.1	27.4	28.6	27.8	28.8	29.1
12H	29.5	30.6	29.8	30.9	31.2	27.4	28.5	27.7	28.8	29.1
4H 2H	27.3	28.6	27.7	28.9	29.1	26.6	27.8	26.9	28.1	28.3
3H	28.9	30.0	29.3	30.3	30.6	27.8	28.9	28.2	29.2	29.5
4H	29.6	30.6	30.0	30.9	31.3	28.2	29.2	28.6	29.6	29.9
6H	30.1	31.0	30.5	31.4	31.7	28.5	29.3	28.9	29.7	30.1
8H	30.3	31.2	30.7	31.5	31.9	28.5	29.3	28.9	29.7	30.1
12H	30.5	31.2	30.9	31.6	32.0	28.5	29.2	28.9	29.6	30.0
8H 4H	29.8	30.6	30.2	30.9	31.3	28.5	29.4	28.9	29.7	30.1
6H	30.4	31.1	30.9	31.5	31.9	28.9	29.5	29.3	29.9	30.4
8H	30.7	31.3	31.2	31.7	32.2	28.9	29.5	29.4	30.0	30.4
12H	30.9	31.4	31.4	31.9	32.3	29.0	29.5	29.4	29.9	30.4
12H 4H	29.7	30.5	30.2	30.9	31.3	28.6	29.3	29.0	29.7	30.1
6H	30.4	31.0	30.9	31.5	31.9	28.9	29.5	29.4	30.0	30.4
8H	30.7	31.3	31.2	31.7	32.2	29.0	29.5	29.5	30.0	30.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.3 / - 0.3				
1.5H	+ 0.1 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.6				

CIE Pub.117 Corrected 766.3 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.9)

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

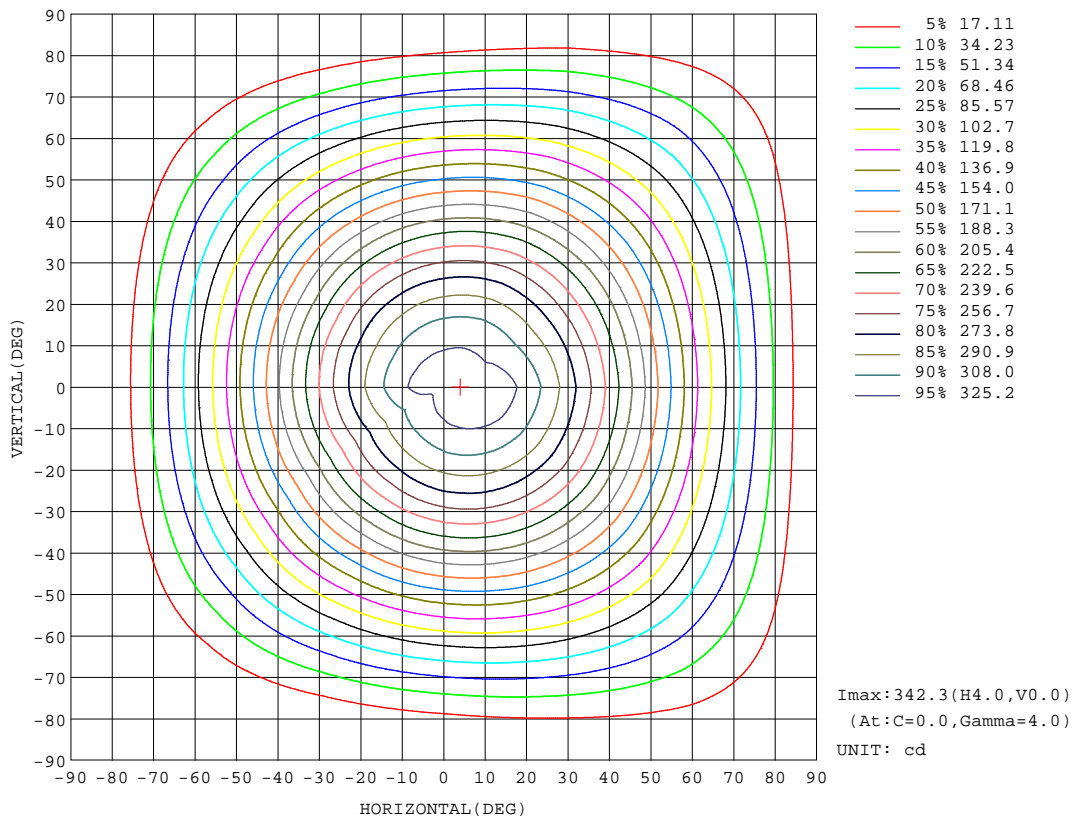
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	61	50	44	61	50	44	59	50	43	37
0.80	71	60	54	70	60	53	69	59	53	47
1.00	80	69	62	78	69	62	76	70	62	55
1.25	86	77	70	85	76	70	82	75	69	62
1.50	91	82	76	90	81	75	87	80	74	67
2.00	97	90	84	96	89	83	92	86	82	74
2.50	101	94	88	99	93	88	95	90	86	78
3.00	104	98	93	102	96	92	98	93	90	82
4.00	108	103	98	105	101	97	101	98	94	86
5.00	110	106	102	107	104	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: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



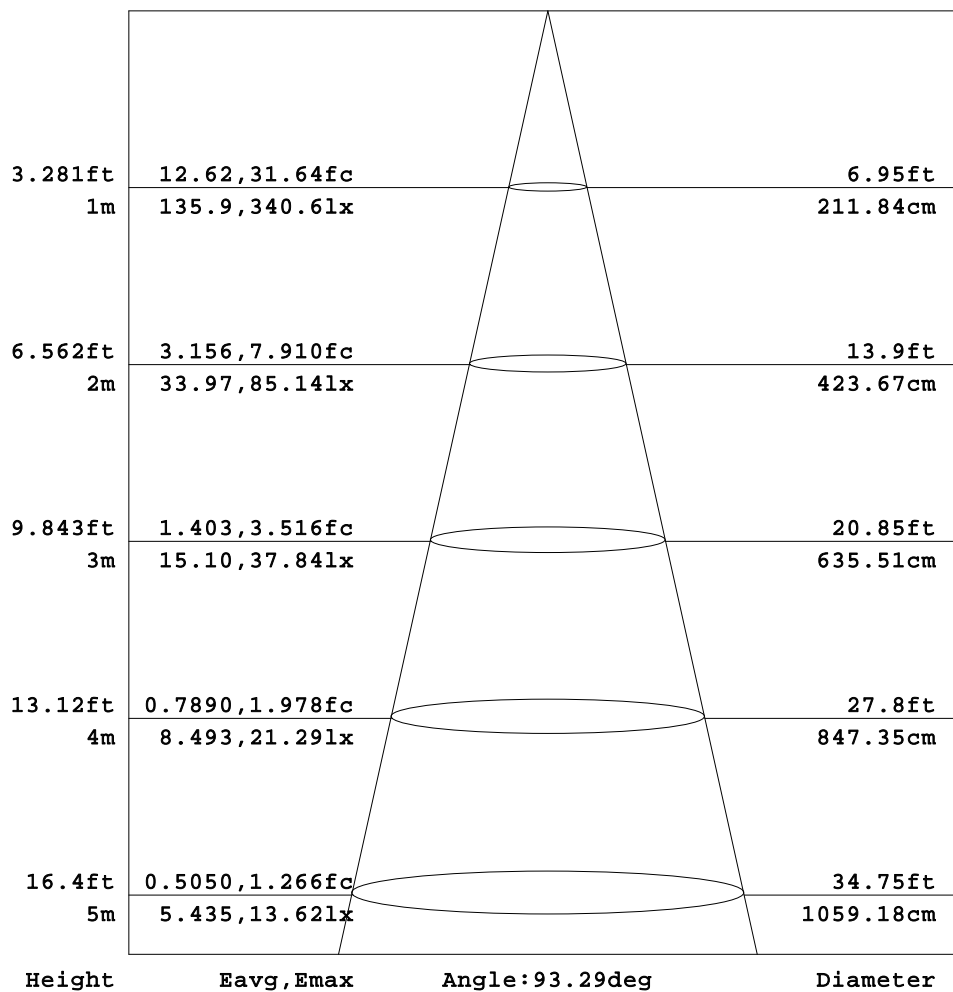
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

Flux out:490.9 lm



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

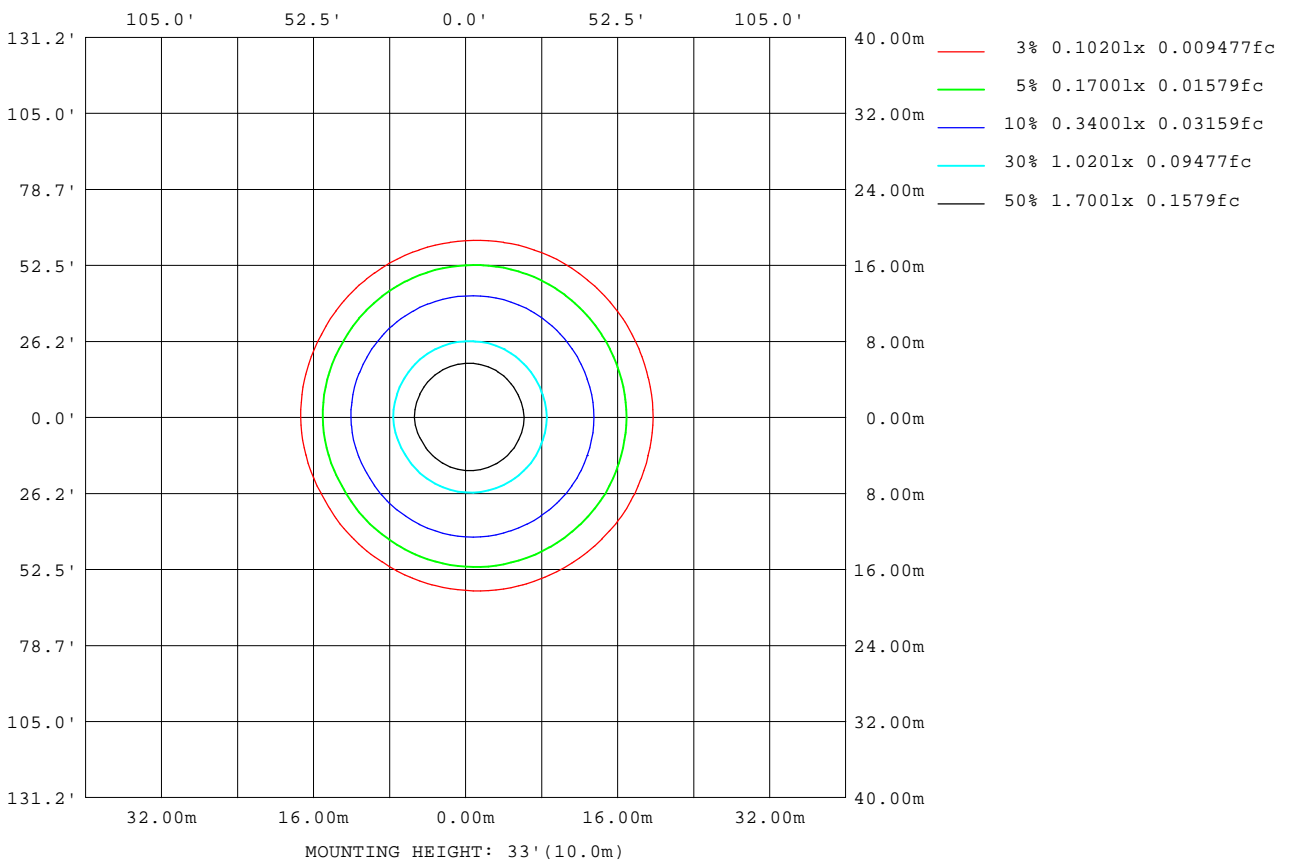
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

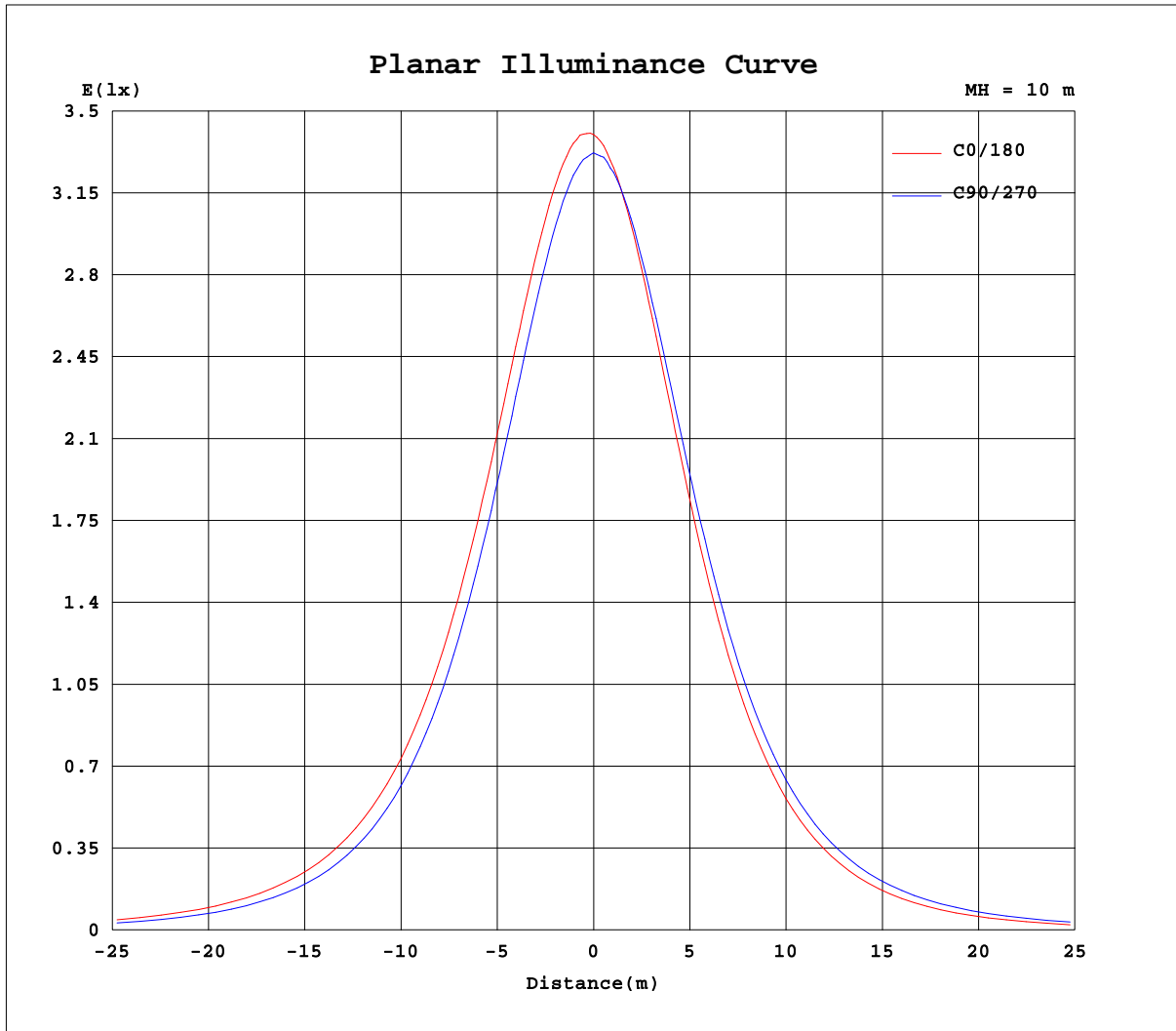
Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2017-10-13

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity: 65.0%  
 Test Distance: 9.600m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.7V I:0.0460A P:10.10W PF:0.9160 Lamp Flux:766.252x1 lm		
NAME: ID10W-WW	TYPE:10W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	334	334	334	334	334	334	334	334	334	334	334	334							
5	335	335	333	330	328	327	327	327	330	331	334	335							
10	333	331	327	323	318	315	316	316	321	325	330	333							
15	325	323	317	311	304	300	300	302	308	314	321	325							
20	313	310	303	295	287	281	281	284	291	299	308	313							
25	297	294	285	275	265	260	260	262	271	280	291	297							
30	277	273	264	253	242	236	235	238	248	259	270	277							
35	255	250	240	229	217	210	210	213	223	235	247	255							
40	230	226	215	202	190	183	183	186	197	209	222	230							
45	204	200	188	176	163	156	156	160	170	182	196	204							
50	177	173	161	149	137	130	130	133	144	156	169	177							
55	150	146	135	123	111	104	104	108	118	130	143	151							
60	124	120	109	97.6	86.5	80.0	80.2	83.7	93.6	105	117	124							
65	99.1	94.7	84.4	73.6	63.0	57.0	57.3	60.7	70.0	80.7	92.2	99.4							
70	74.9	70.8	61.2	50.9	41.3	36.0	36.4	39.7	48.2	58.0	68.7	75.4							
75	52.3	48.4	39.7	30.5	22.3	18.0	18.5	21.4	28.5	37.1	46.7	52.9							
80	31.9	28.4	20.9	13.5	7.84	5.29	5.66	7.61	12.5	19.1	27.0	30.3							
85	14.7	11.8	6.90	3.13	1.36	0.26	0.42	1.29	2.88	6.29	11.2	13.6							
90	3.68	2.70	0.99	0.22	0.28	0.33	0.30	0.29	0.22	0.84	2.60	3.72							

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2017-10-13

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.276  
 Humidity:65.0%  
 Test Distance:9.600m [K=1.0000]  
 Remarks: