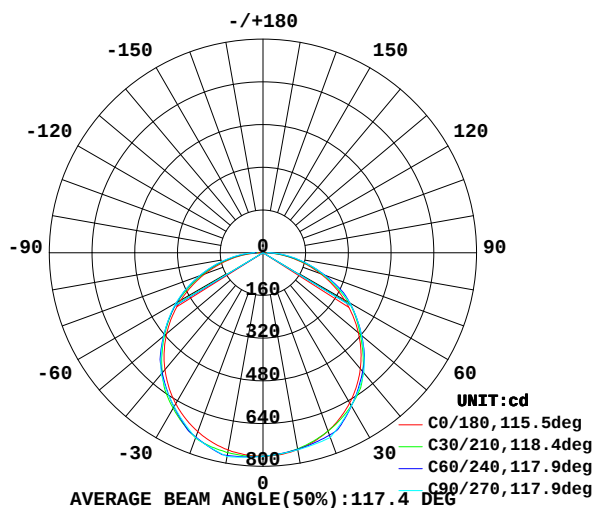


LUMINAIRE PHOTOMETRIC TEST REPORT

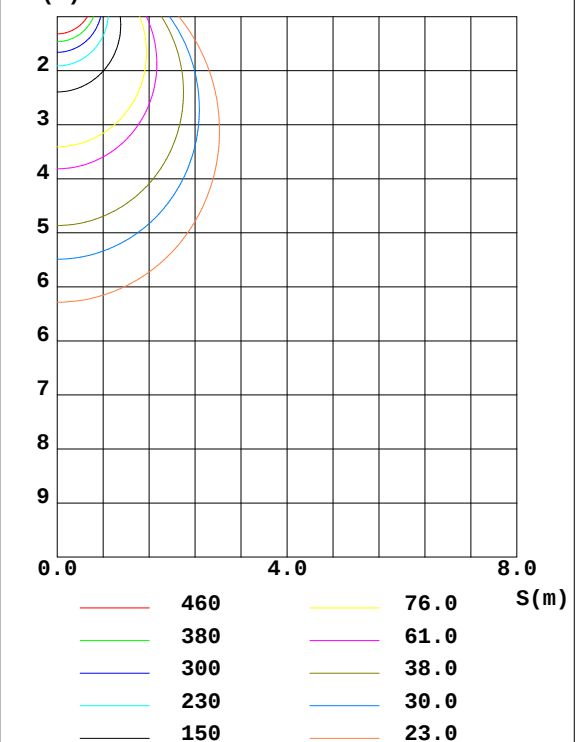
Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE: 25W	WEIGHT:
DIM.:	SPEC.: 5700K	SERIAL No.: 1
MFR.:	SUR.: 0.4	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.27 lm/W			
MODEL	OY25W-CW	I _{max} (cd)	775.1	S/MH(C0/180)	1.27
NOMINAL POWER(W)	25	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2352.7	η UP, DN(C0-180)	0.0, 49.6
NOMINAL FLUX(lm)	2352.73	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	229.8	η down(%)	100.0	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.480m [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
5	758.8	755.6	755.8	756.2	759.5	765.5	768.6	764.8	0- 5	18.20	18.20	0.77,0.77
10	748.6	746.2	749.3	746.6	749.8	765.5	775.1	763.9	5- 10	54.24	72.44	3.08,3.08
15	732.8	733.7	742.9	734.9	734.8	759.0	756.2	756.9	10- 15	88.95	161.4	6.86,6.86
20	711.0	718.3	736.4	719.7	713.2	734.9	737.3	732.6	15- 20	121.1	282.5	12.12
25	682.8	700.8	699.3	702.2	686.0	708.2	701.3	705.1	20- 25	149.5	431.9	18.4,18.4
30	649.5	668.4	662.1	669.5	653.3	672.0	665.3	669.1	25- 30	172.3	604.2	25.7,25.7
35	610.8	624.1	625.0	625.2	615.2	628.0	629.3	625.5	30- 35	189.7	793.9	33.7,33.7
40	567.1	578.1	587.8	579.4	571.2	583.8	593.3	579.7	35- 40	201.4	995.4	42.3,42.3
45	518.9	530.4	534.7	532.1	523.5	537.3	539.2	533.7	40- 45	206.9	1202	51.1,51.1
50	466.4	483.5	481.6	484.6	471.3	490.9	485.1	486.1	45- 50	205.1	1407	59.8,59.8
55	410.4	424.4	428.5	421.7	415.0	429.8	431.1	425.0	50- 55	197.0	1604	68.2,68.2
60	351.9	364.1	375.4	359.6	355.8	369.0	377.0	364.6	55- 60	183.1	1787	76.76
65	291.1	303.8	309.1	298.4	293.8	309.6	315.2	305.2	60- 65	163.7	1951	82.9,82.9
70	229.4	241.0	242.7	236.5	231.3	248.4	253.5	244.3	65- 70	138.7	2090	88.8,88.8
75	166.2	177.6	183.5	173.7	169.4	185.7	193.6	181.6	70- 75	110.2	2200	93.5,93.5
80	106.2	116.4	124.2	115.0	110.4	126.5	133.8	122.8	75- 80	80.16	2280	96.9,96.9
85	50.10	61.07	70.60	61.83	51.79	71.40	82.95	68.75	80- 85	50.10	2330	99.99
90	11.40	14.13	16.98	14.82	11.61	21.03	32.10	20.10	85- 90	22.48	2353	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		

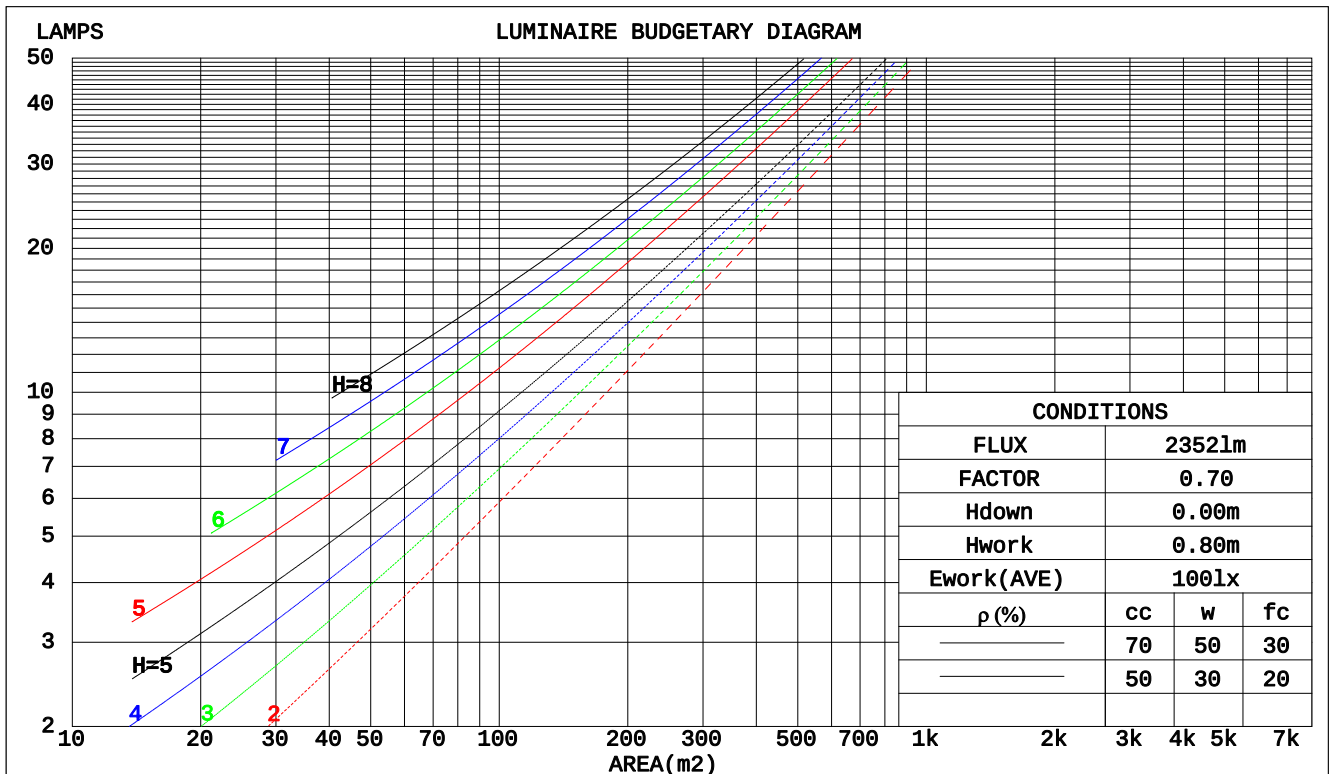
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE:25W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.4	PROTECTION 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	1.03	.98	.94	1.01	.96	.93	.96	.93	.90	.92	.89	.87	.89	.86	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.73	.80	.76	.71	.77	.73	.70	.68
3.0	.78	.69	.63	.76	.68	.62	.73	.67	.61	.70	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.67	.59	.52	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.51	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.45	.39	.51	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.34	.46	.39	.34	.45	.38	.34	.32
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.32	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.480m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm									
NAME: OY25W-CWK					TYPE: 25W			WEIGHT:	
DIM.:					SPEC.: 5700K			SERIAL No.: 1	
MFR.:					SUR.: 0.4			PROTECTION 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	.330	.188	.059	.323	.184	.058	.309	.177	.057	.297	.171	.055	.286	.166	.053	
2.0	.305	.167	.051	.298	.164	.051	.287	.159	.049	.276	.155	.048	.266	.150	.047	
3.0	.279	.149	.045	.274	.147	.044	.263	.143	.043	.254	.139	.043	.245	.135	.042	
4.0	.256	.133	.039	.251	.131	.039	.242	.128	.038	.233	.125	.038	.225	.122	.037	
5.0	.236	.120	.035	.231	.119	.035	.223	.116	.034	.216	.114	.034	.208	.111	.033	
6.0	.218	.109	.031	.214	.108	.031	.207	.106	.031	.200	.104	.031	.194	.102	.030	
7.0	.202	.100	.028	.199	.099	.028	.192	.097	.028	.186	.095	.028	.180	.094	.028	
8.0	.189	.092	.026	.186	.091	.026	.180	.090	.026	.174	.088	.025	.169	.087	.025	
9.0	.176	.085	.024	.174	.085	.024	.168	.083	.024	.164	.082	.023	.159	.081	.023	
10.0	.166	.079	.022	.163	.079	.022	.158	.078	.022	.154	.076	.022	.150	.075	.022	

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	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.174	.132	.096	.149	.113	.083	.102	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.166	.114	.073	.143	.099	.063	.098	.069	.044	.057	.040	.026	.018	.013	.009	
4.0	.159	.101	.057	.136	.087	.050	.094	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.082	.039	.124	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.018	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm											
NAME: OY25W-CWK						TYPE:25W			WEIGHT:		
DIM.:						SPEC.:5700K			SERIAL No.:1		
MFR.:						SUR.:0.4			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	2H	19.0	20.5	19.2	20.7	20.9	19.2	20.7	19.4	20.9	21.1
	3H	20.6	22.1	20.9	22.3	22.5	20.9	22.3	21.2	22.5	22.8
	4H	21.3	22.7	21.6	22.9	23.2	21.6	23.0	21.9	23.2	23.5
	6H	21.8	23.1	22.2	23.4	23.7	22.2	23.5	22.5	23.8	24.1
	8H	22.0	23.3	22.4	23.6	23.9	22.5	23.7	22.8	24.0	24.3
	12H	22.2	23.4	22.5	23.7	24.0	22.7	23.9	23.0	24.2	24.5
4H	2H	19.7	21.0	20.0	21.3	21.5	19.8	21.2	20.1	21.4	21.7
	3H	21.5	22.7	21.8	23.0	23.3	21.7	22.9	22.1	23.2	23.5
	4H	22.3	23.4	22.7	23.7	24.1	22.6	23.7	22.9	24.0	24.3
	6H	23.0	24.0	23.4	24.3	24.7	23.3	24.3	23.7	24.7	25.1
	8H	23.2	24.2	23.7	24.5	24.9	23.7	24.6	24.1	25.0	25.4
	12H	23.4	24.3	23.9	24.7	25.1	24.0	24.8	24.4	25.2	25.6
8H	4H	22.7	23.6	23.1	23.9	24.3	22.9	23.8	23.3	24.2	24.6
	6H	23.5	24.3	23.9	24.7	25.1	23.8	24.6	24.3	25.0	25.4
	8H	23.9	24.5	24.3	25.0	25.4	24.3	25.0	24.7	25.4	25.9
	12H	24.1	24.7	24.6	25.2	25.7	24.7	25.3	25.2	25.8	26.2
12H	4H	22.7	23.5	23.1	23.9	24.3	22.9	23.8	23.3	24.1	24.5
	6H	23.6	24.3	24.1	24.7	25.2	23.9	24.6	24.4	25.0	25.5
	8H	24.0	24.6	24.5	25.0	25.5	24.4	25.0	24.9	25.5	25.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.4					+ 0.2 / - 0.4					

CIE Pub.117 Corrected 2353 lm Total Lamp Luminous Flux.(8log(F/F0) = 3.0)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-01-19

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE: 25W	WEIGHT:
DIM.:	SPEC.: 5700K	SERIAL No.: 1
MFR.:	SUR.: 0.4	PROTECTION ANGLE:

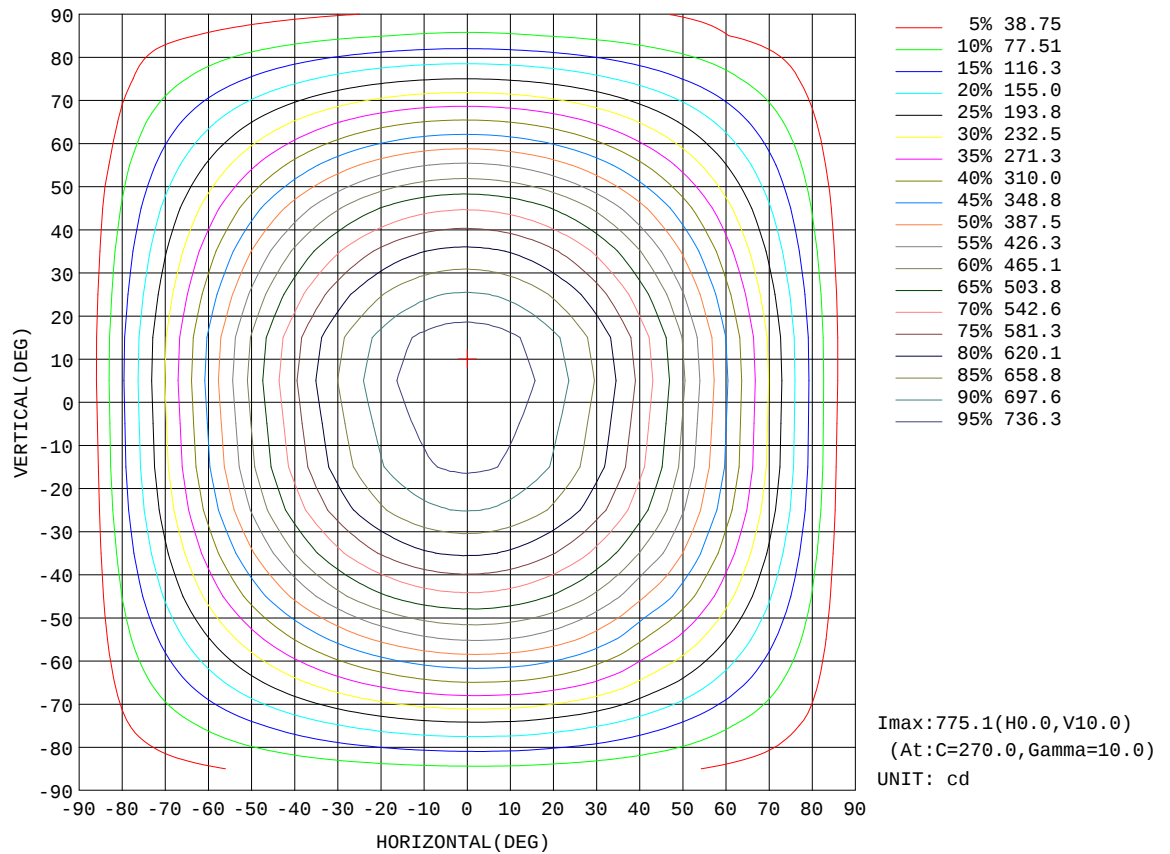
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	56	44	37	54	44	37	30
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	73	63	55	71	64	55	47
1.25	82	71	63	80	70	63	77	69	62	55
1.50	87	76	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	83	96	88	82	92	85	80	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	98	93	99	94	90	81
5.00	108	103	98	105	101	97	101	97	94	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-01-19

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE: 25W	WEIGHT:
DIM.:	SPEC.: 5700K	SERIAL No.: 1
MFR.:	SUR.: 0.4	PROTECTION ANGLE:

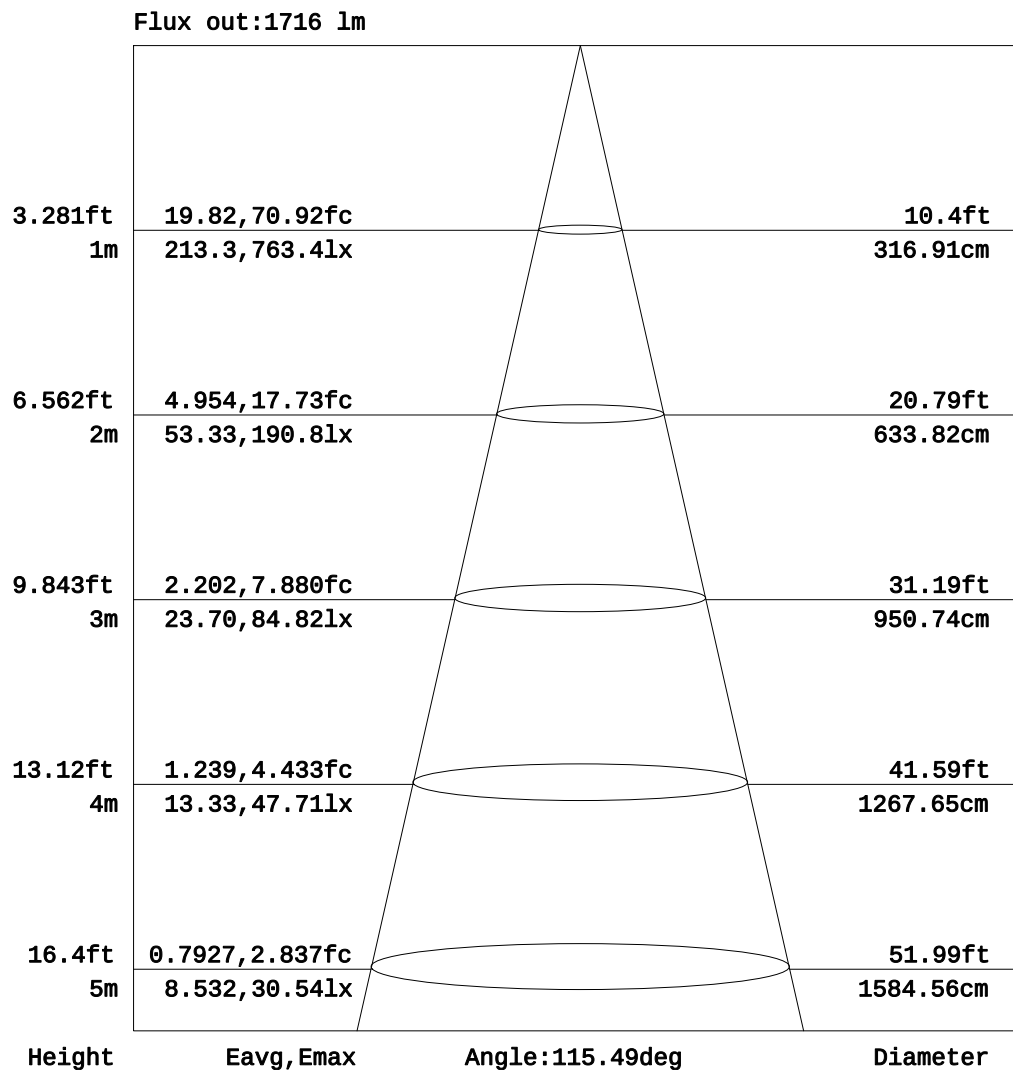


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

AAI Figure

Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE: 25W	WEIGHT:
DIM.:	SPEC.: 5700K	SERIAL No.: 1
MFR.:	SUR.: 0.4	PROTECTION ANGLE:



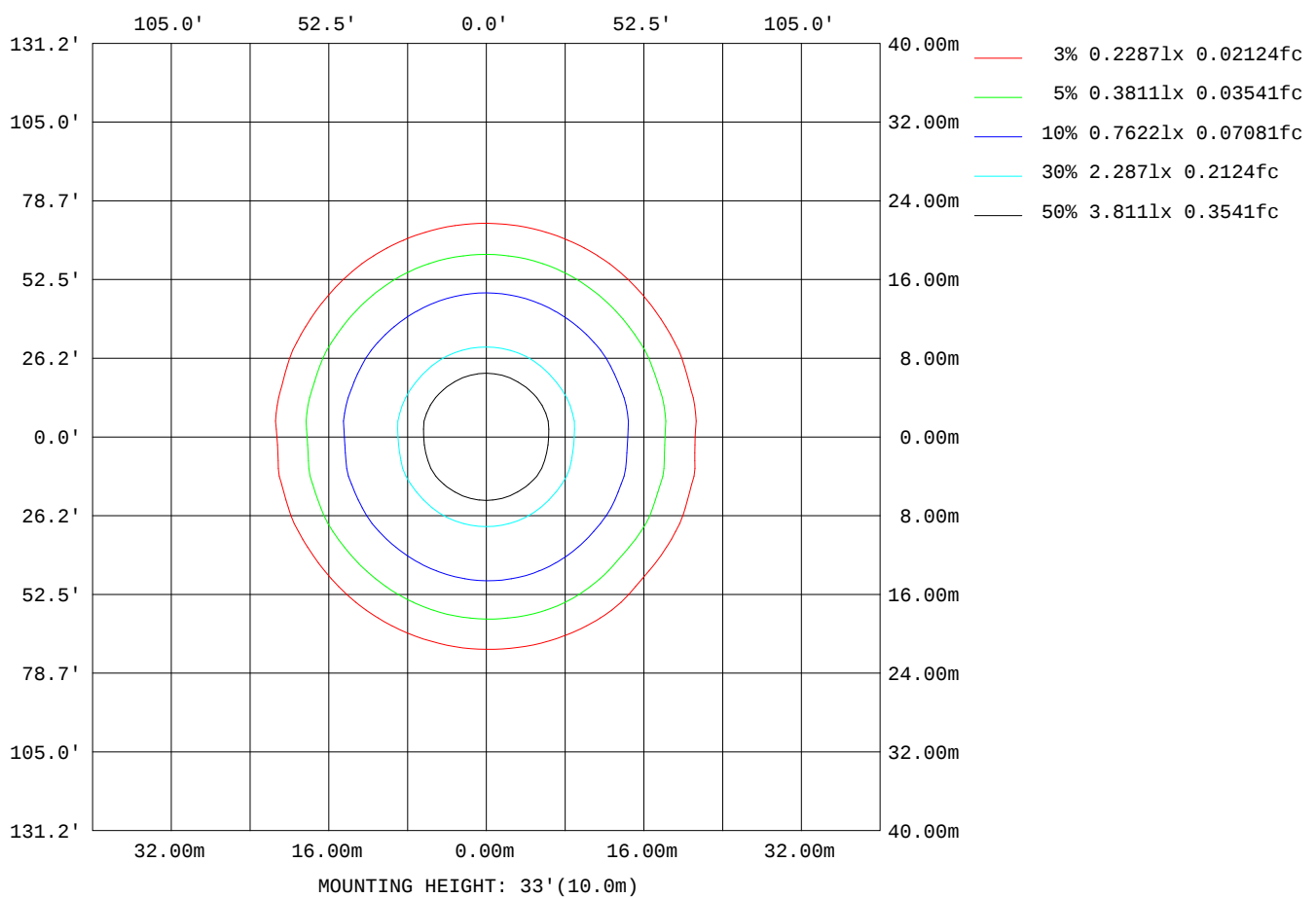
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-01-19

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

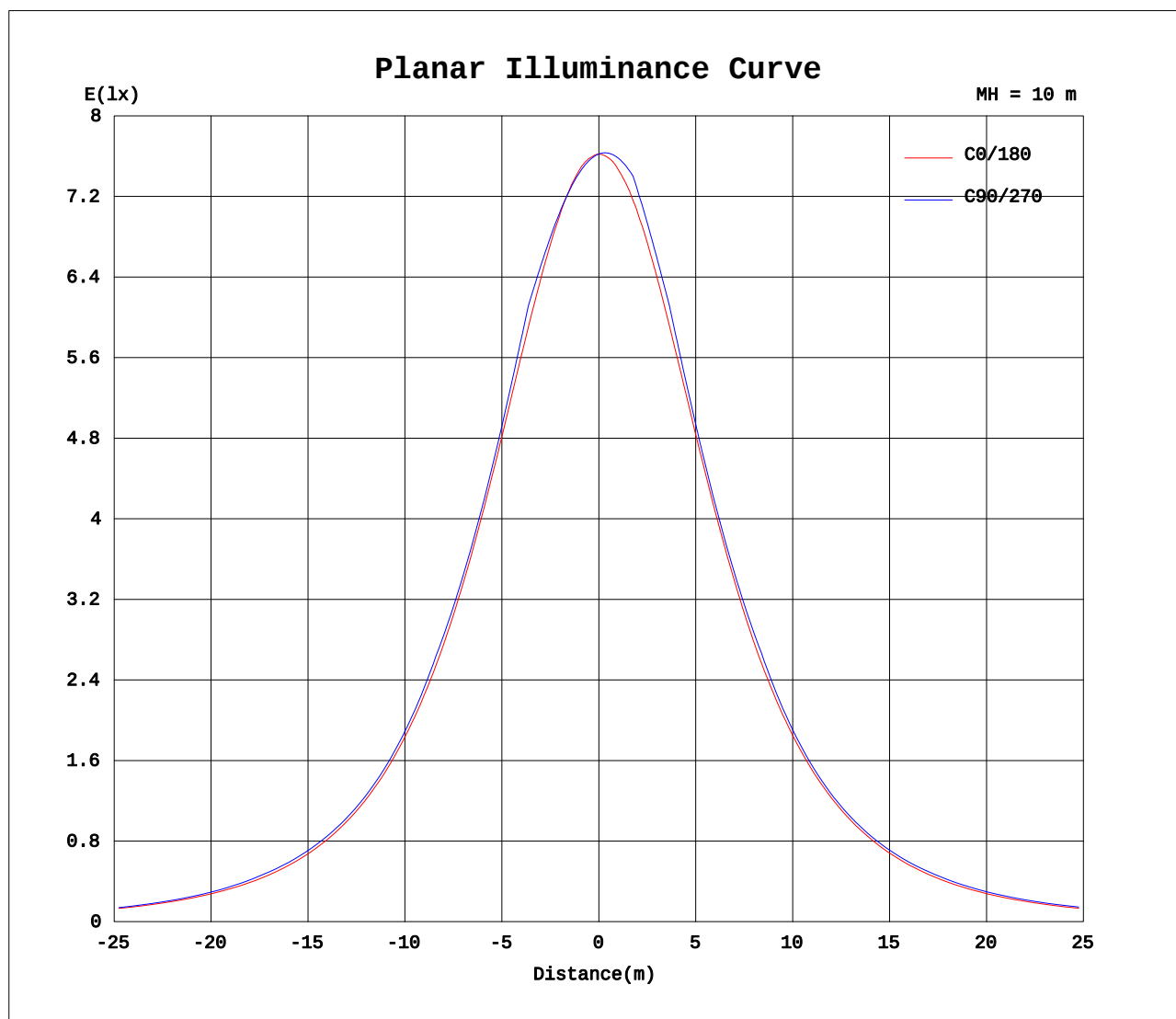
Test:U:229.8V I:0.1100A P:23.70W PF:0.9380 Lamp Flux:2352.73x1 lm		
NAME: OY25W-CWK	TYPE:25W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.4	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2016-01-19

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2016-01-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 9.480m [K=1.0000]
Remarks:

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.480m [K=1.0000]
Remarks:

```

```

Range: 0 - 90DEG
Interval: 0.5DEG
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Humidity:65.0%
Test Distance:9.480m [K=1.0000]
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