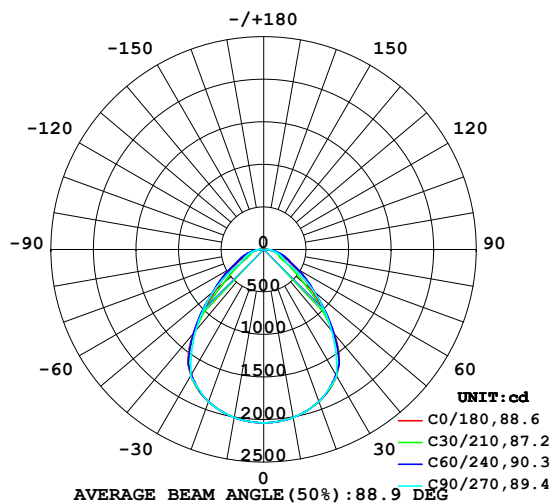


LUMINAIRE PHOTOMETRIC TEST REPORT

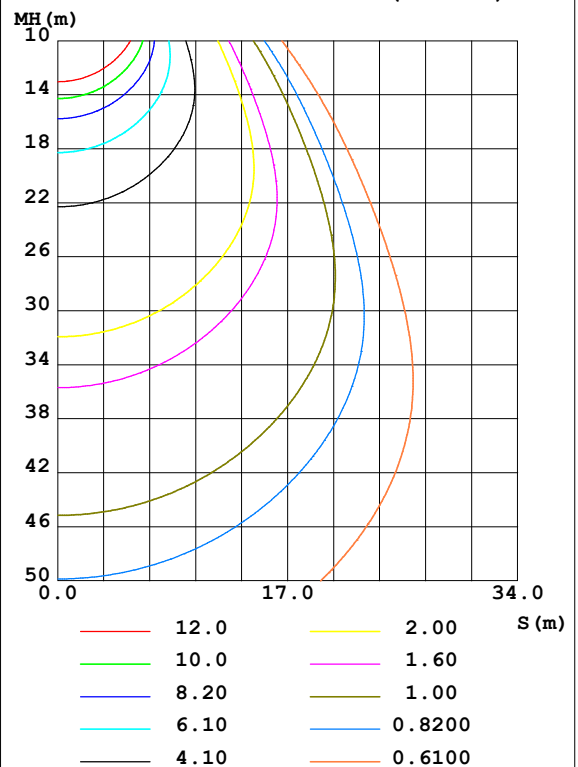
Test:U:230.3V I:0.1598A P:36.02W PF:0.9786 Freq:49.99Hz Lamp Flux:4307.74x1 lm		
NAME: P30AC-UC-36-0606B-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.58 lm/W			
MODEL		I _{max} (cd)	2039	S/MH (C0/180)	1.24
NOMINAL POWER (W)	36	LOR (%)	100.0	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	4307.7	η UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	4307.74	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.530m [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	2006	2005	2007	2005	2006	2005	2007	2005	0- 10	193.0	193.0	4.48,4.48
20	1902	1902	1904	1902	1902	1902	1904	1902	10- 20	553.8	746.7	17.3,17.3
30	1713	1699	1718	1699	1713	1699	1718	1699	20- 30	836.5	1583	36.8,36.8
40	1285	1291	1243	1291	1285	1291	1243	1291	30- 40	945.1	2528	58.7,58.7
50	735.9	712.7	772.9	712.7	735.9	712.7	772.9	712.7	40- 50	759.8	3288	76.3,76.3
60	417.5	364.3	307.2	364.3	417.5	364.3	307.2	364.3	50- 60	471.6	3760	87.3,87.3
70	240.2	217.0	214.1	217.0	240.2	217.0	214.1	217.0	60- 70	288.4	4048	94,94
80	111.1	106.3	121.0	106.3	111.1	106.3	121.0	106.3	70- 80	188.3	4237	98.3,98.3
90	1.537	9.587	27.88	9.587	1.537	9.587	27.88	9.587	80- 90	71.18	4308	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		

Conical surface Flux(90deg): 2945.4 lm

%lum = 68.4%

%lamp = 68.4%

Conical surface Flux(120deg): 3759.9 lm

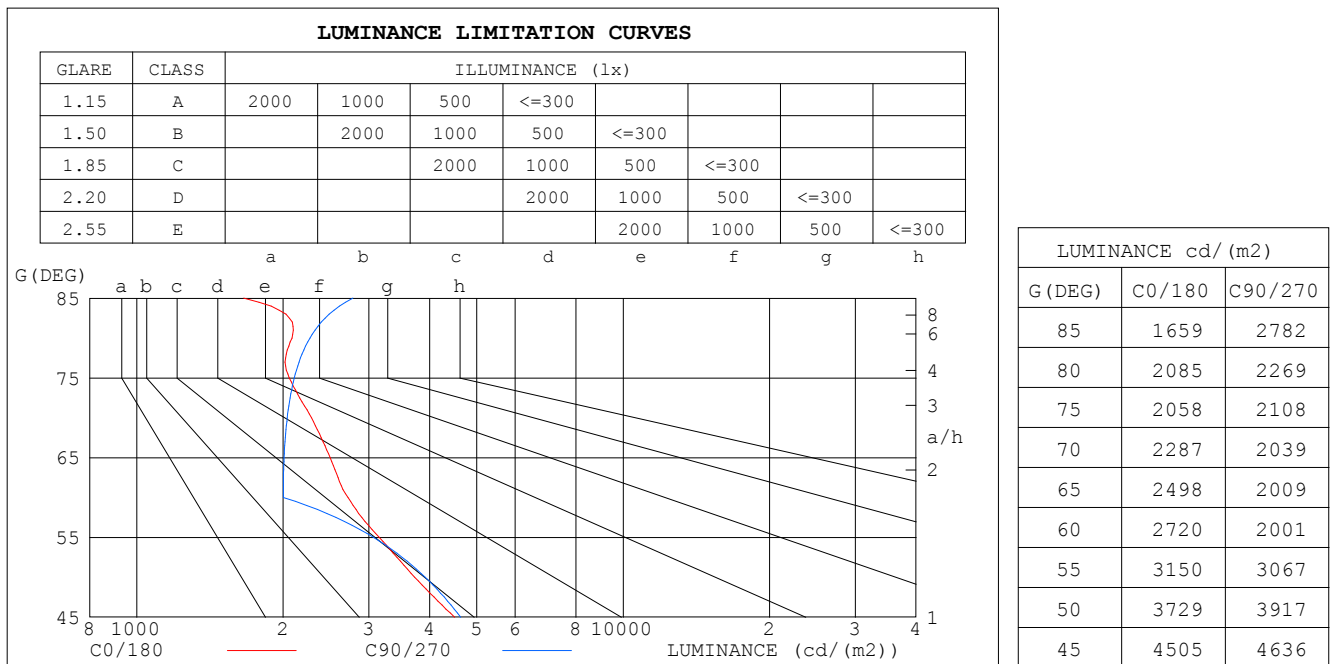
%lum = 87.3%

%lamp = 87.3%

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-12-09

γ Range:-90 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.530m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

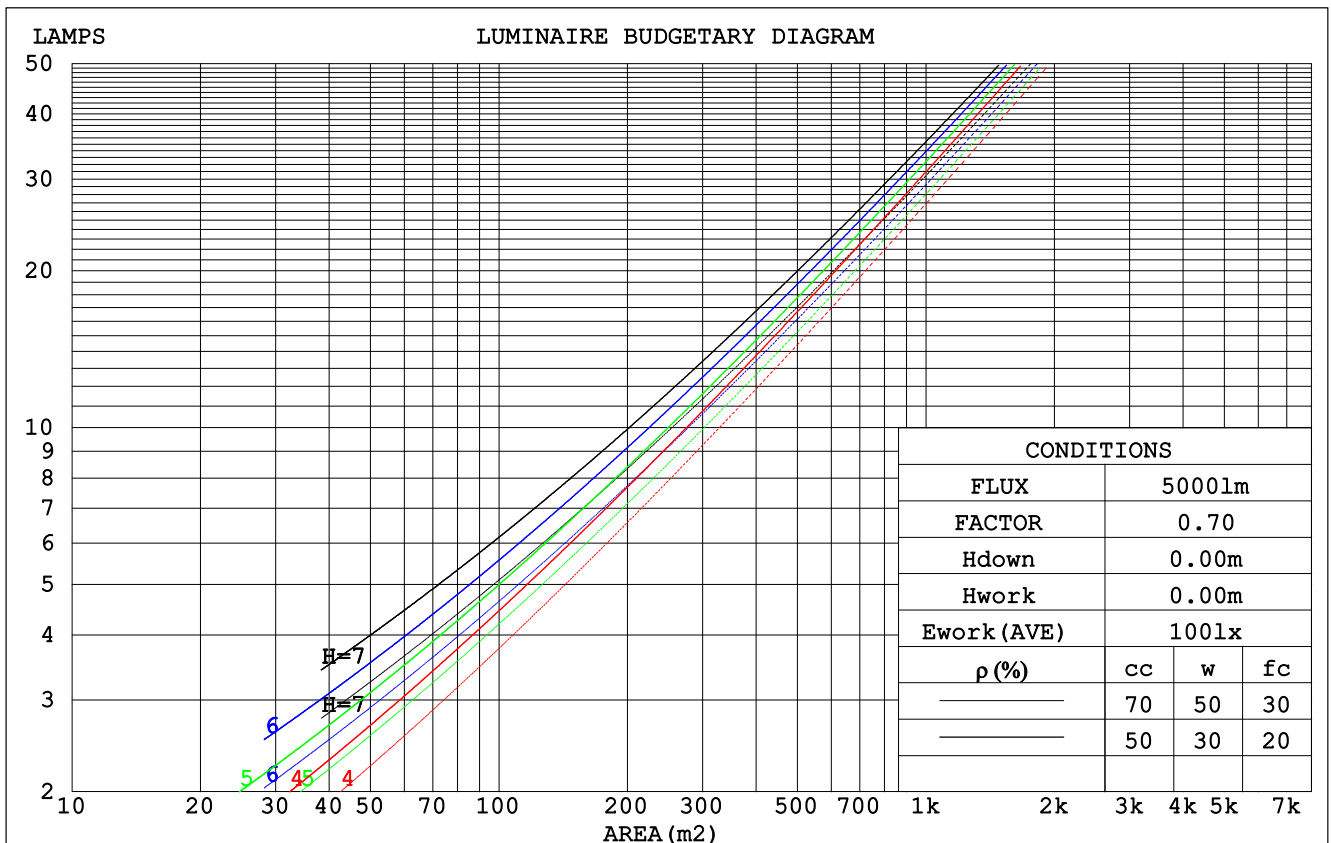


C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.530m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

pcc	80%			70%			50%			30%			10%			0
p _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p _{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	1.06	1.02	.99	1.04	1.00	.97	.00	.97	.94	.96	.93	.91	.92	.90	.89	.87
2.0	.94	.88	.83	.93	.87	.82	.89	.84	.80	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.71	.80	.74	.70	.77	.73	.68	.75	.71	.67	.65
4.0	.76	.68	.62	.75	.67	.62	.72	.66	.61	.70	.65	.60	.68	.63	.59	.57
5.0	.69	.61	.55	.68	.60	.55	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.57	.52	.47	.45
7.0	.57	.49	.44	.57	.49	.44	.55	.48	.43	.54	.48	.43	.52	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.36	.45	.39	.35	.34
10.0	.45	.38	.33	.45	.38	.33	.44	.37	.33	.43	.37	.33	.42	.36	.32	.31



C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.530m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.270	.153	.049	.263	.150	.048	.250	.143	.046	.238	.137	.044	.227	.131	.042	
2.0	.254	.139	.043	.248	.137	.042	.237	.132	.041	.226	.127	.040	.217	.123	.039	
3.0	.237	.126	.038	.232	.124	.037	.222	.120	.037	.213	.117	.036	.204	.113	.035	
4.0	.221	.115	.034	.217	.113	.033	.208	.110	.033	.200	.107	.032	.192	.104	.032	
5.0	.207	.105	.030	.202	.104	.030	.195	.101	.030	.187	.099	.029	.181	.097	.029	
6.0	.193	.097	.028	.190	.096	.028	.183	.094	.027	.176	.092	.027	.170	.090	.027	
7.0	.182	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.084	.025	
8.0	.171	.084	.023	.168	.083	.023	.163	.081	.023	.157	.080	.023	.152	.078	.023	
9.0	.161	.078	.022	.159	.077	.022	.154	.076	.022	.149	.075	.021	.145	.073	.021	
10.0	.153	.073	.020	.150	.073	.020	.146	.071	.020	.142	.070	.020	.138	.069	.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	.178	.156	.138	.152	.134	.118	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-12-09

γ Range:-90 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.530m [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	10.5	11.9	10.8	12.1	12.3	11.3	12.6	11.5	12.8	13.0
3H	11.5	12.8	11.8	13.0	13.2	12.1	13.4	12.4	13.6	13.8
4H	12.0	13.2	12.3	13.5	13.7	12.6	13.7	12.9	14.0	14.2
6H	12.4	13.6	12.8	13.8	14.1	13.0	14.1	13.3	14.4	14.6
8H	12.6	13.7	12.9	13.9	14.2	13.2	14.3	13.5	14.5	14.8
12H	12.6	13.7	13.0	14.0	14.3	13.4	14.4	13.7	14.7	15.0
4H 2H	10.8	12.0	11.1	12.2	12.5	11.5	12.7	11.8	12.9	13.1
3H	12.0	13.0	12.3	13.3	13.6	12.7	13.7	13.0	14.0	14.3
4H	12.6	13.6	13.0	13.9	14.2	13.4	14.3	13.8	14.6	15.0
6H	13.2	14.1	13.6	14.4	14.8	14.0	14.9	14.4	15.2	15.6
8H	13.4	14.2	13.8	14.6	15.0	14.3	15.1	14.7	15.5	15.9
12H	13.5	14.3	14.0	14.6	15.0	14.6	15.3	15.0	15.7	16.1
8H 4H	12.9	13.7	13.3	14.0	14.4	13.6	14.3	14.0	14.7	15.1
6H	13.6	14.3	14.1	14.7	15.1	14.5	15.1	14.9	15.5	15.9
8H	13.9	14.5	14.4	14.9	15.4	14.9	15.5	15.4	15.9	16.4
12H	14.1	14.6	14.6	15.1	15.6	15.3	15.8	15.8	16.3	16.8
12H 4H	12.9	13.7	13.4	14.0	14.4	13.6	14.3	14.0	14.7	15.1
6H	13.7	14.3	14.2	14.7	15.2	14.5	15.1	15.0	15.5	16.0
8H	14.1	14.6	14.5	15.0	15.5	15.0	15.5	15.5	16.0	16.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.5					+ 0.3 / - 0.3				
1.5H	+ 0.4 / - 0.5					+ 0.1 / - 0.2				
2.0H	+ 1.0 / - 1.0					+ 0.6 / - 1.1				

CIE Pub.117, 4308 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 5.1$)

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.530m [K=1.0000]
 Remarks:

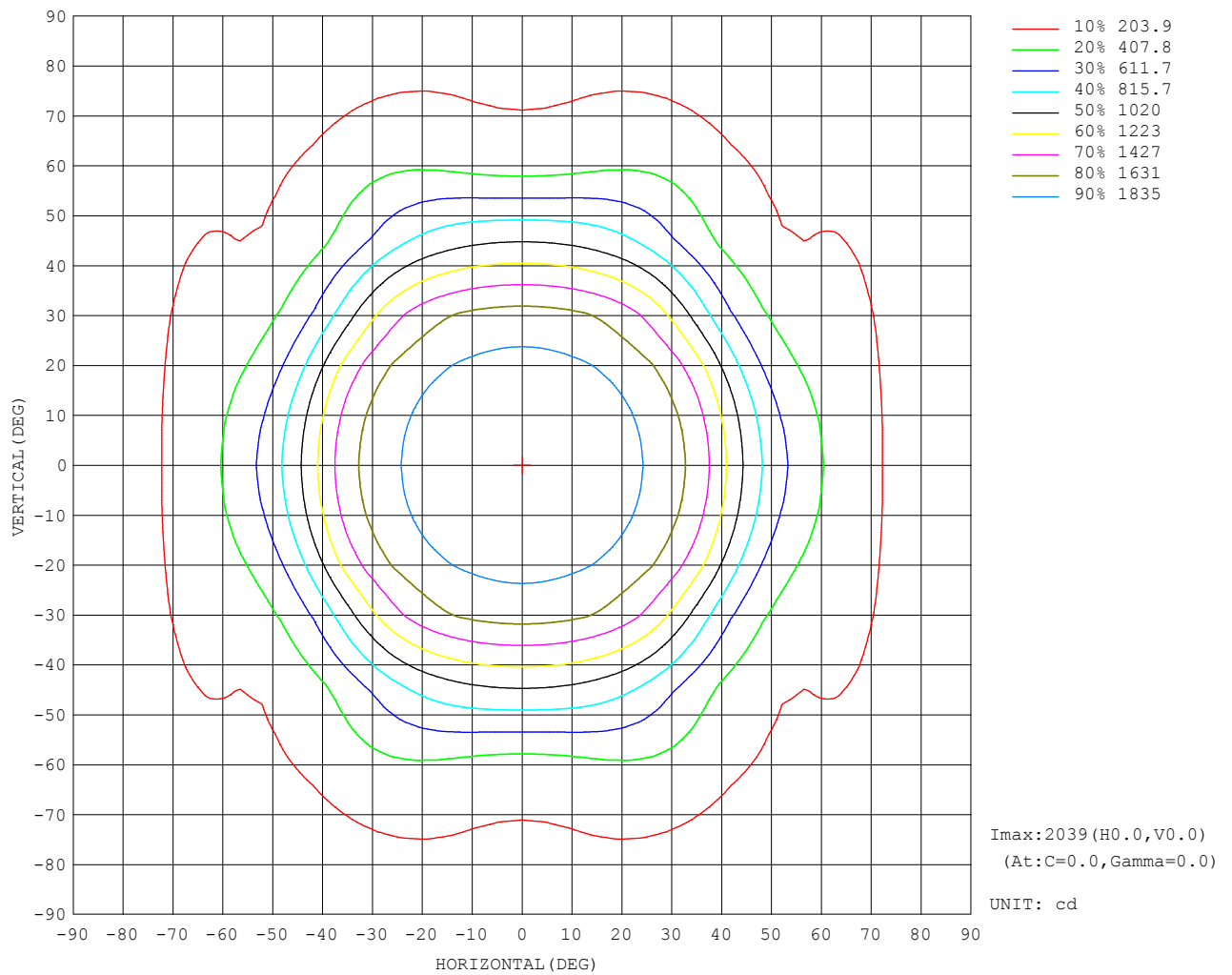
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	56	50	64	55	49	44
0.80	76	66	59	75	65	59	73	64	59	53
1.00	83	74	68	82	73	67	80	74	67	61
1.25	90	81	75	88	80	74	86	79	74	67
1.50	94	86	80	92	85	79	90	83	78	72
2.00	99	92	87	98	91	86	94	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	105	99	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	90
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.530m [K=1.0000]
 Remarks:

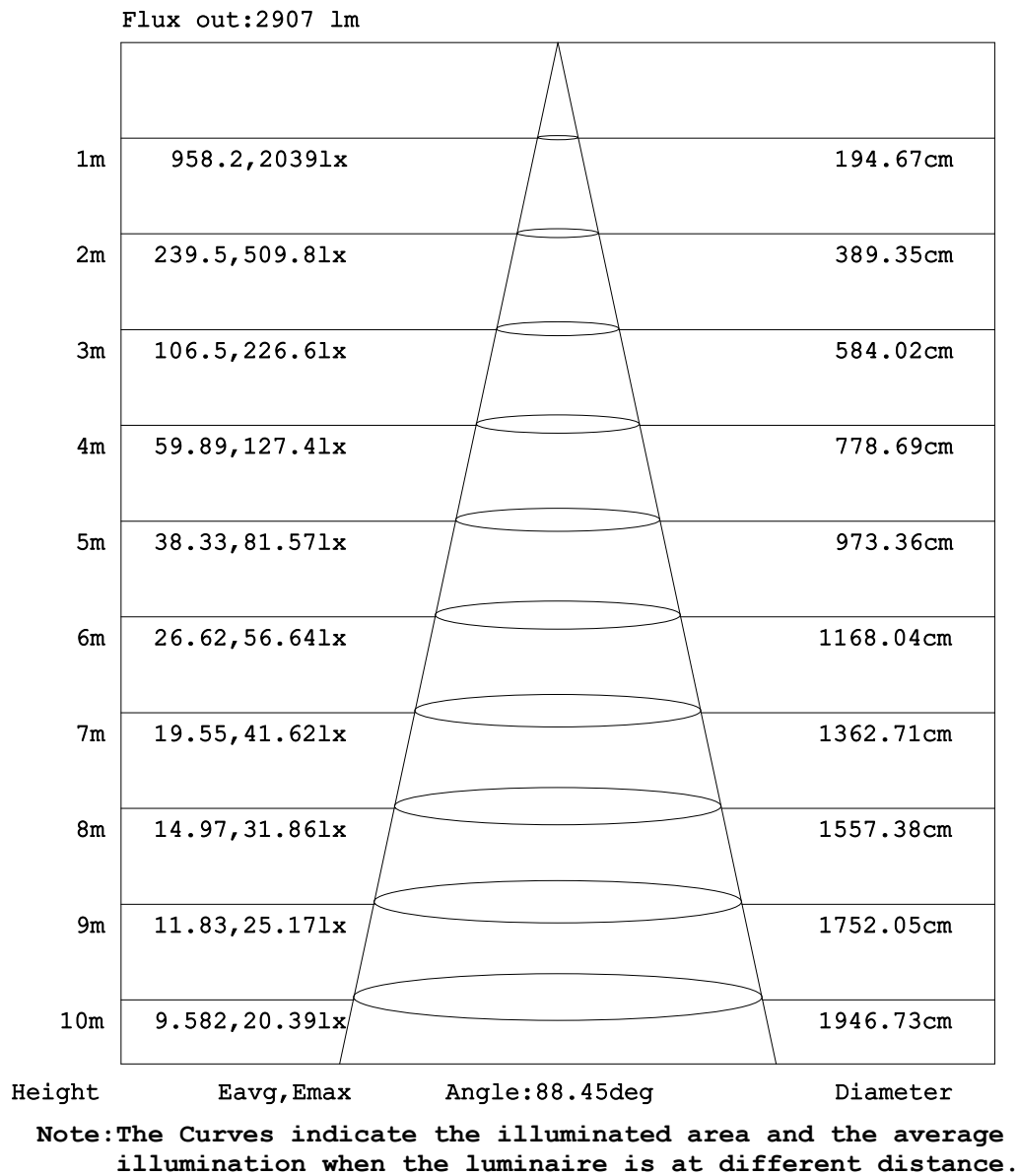
ISOCANDELA DIAGRAM



C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-12-09

γ Range:-90 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

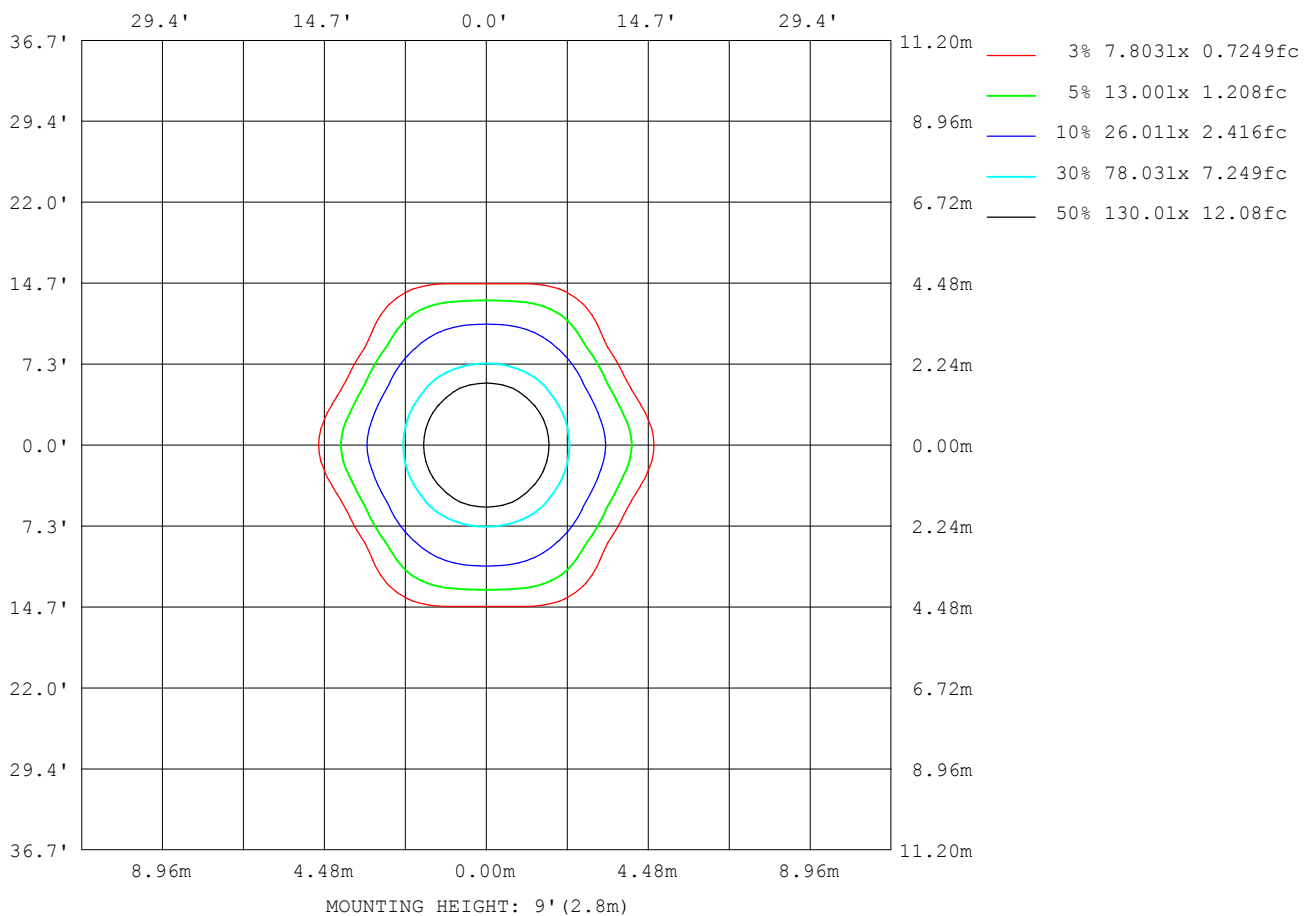
AAI Figure



C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QC
 Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity: 53.0%
 Test Distance: 10.530m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM



C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-12-09

γ Range: -90 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.530m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:230.3V I:0.1598A P:36.02W PF:0.9786 Freq:49.99Hz Lamp Flux:4307.74x1 lm		
NAME: P30AC-UC-36-0606B-40H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ERVAN	SUR.:	Shielding Angle:

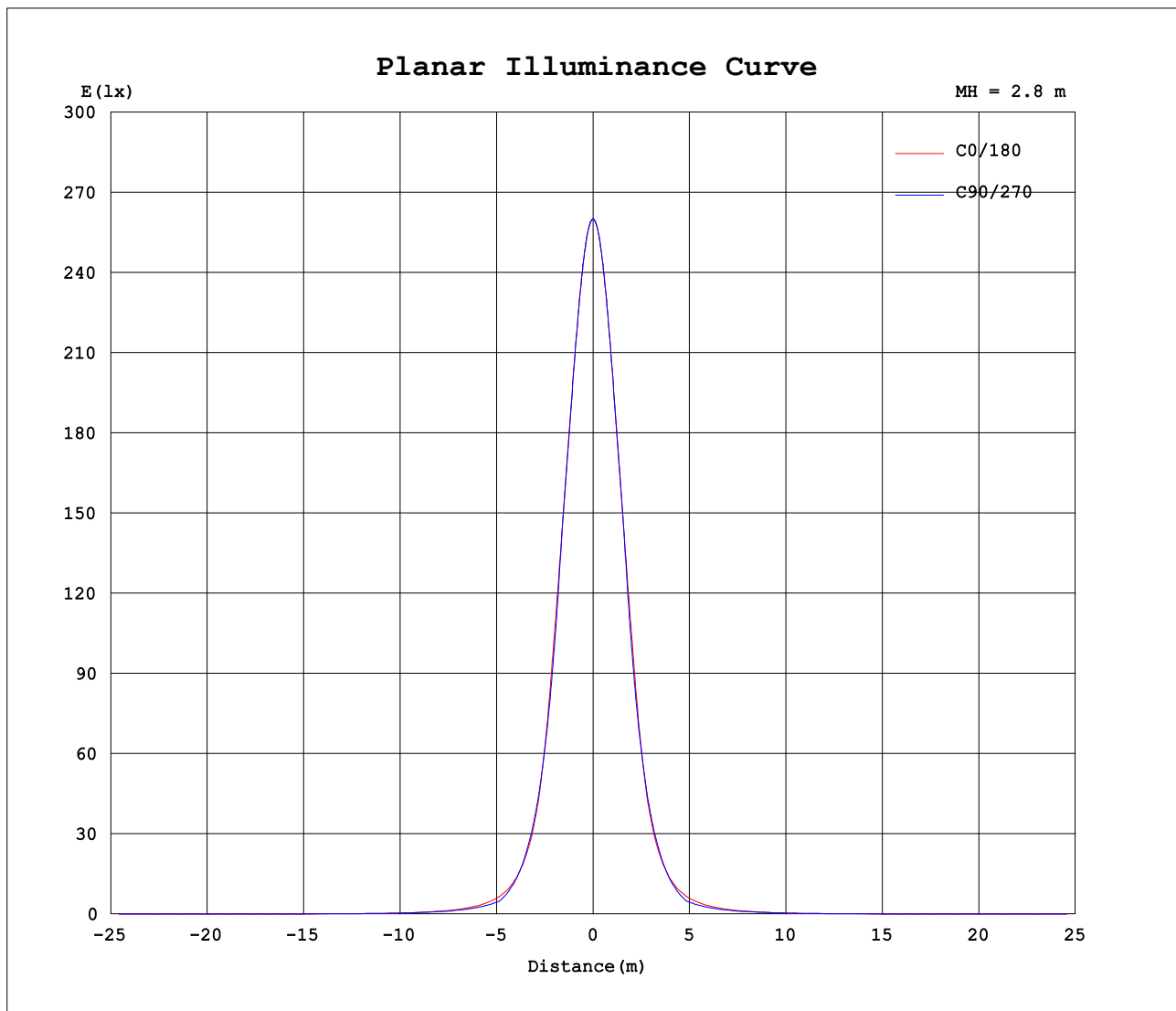
AvgL	cd/m2
L_0~180 (65) av	2498
L_0~180 (75) av	2058
L_0~180 (85) av	1659
L_90~270 (65) av	2009
L_90~270 (75) av	2108
L_90~270 (85) av	2782
L_45 (65) av	2173
L_45 (75) av	1999
L_45 (85) av	2135

Standard: GB/T 29293-2012

C Range: 0 - 90DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:QC
 Test Date:2020-12-09

γ Range:-90 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:53.0%
 Test Distance:10.530m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QC
Test Date: 2020-12-09

γ Range: -90 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 53.0%
Test Distance: 10.530m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

[illegible]

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-12-09

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

Table--2

UNIT: cd

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-12-09

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

Table--3

UNIT: cd

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-12-09

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

Table--4

UNIT: cd

C Range: 0 - 90DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QC
Test Date:2020-12-09

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```


[illegible]

```

√ Range:-90 - 90DEG
√ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

[illegible]

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

[illegible]

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```

[illegible]

```

γ Range:-90 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:53.0%
Test Distance:10.530m [K=1.0000]
Remarks:

```