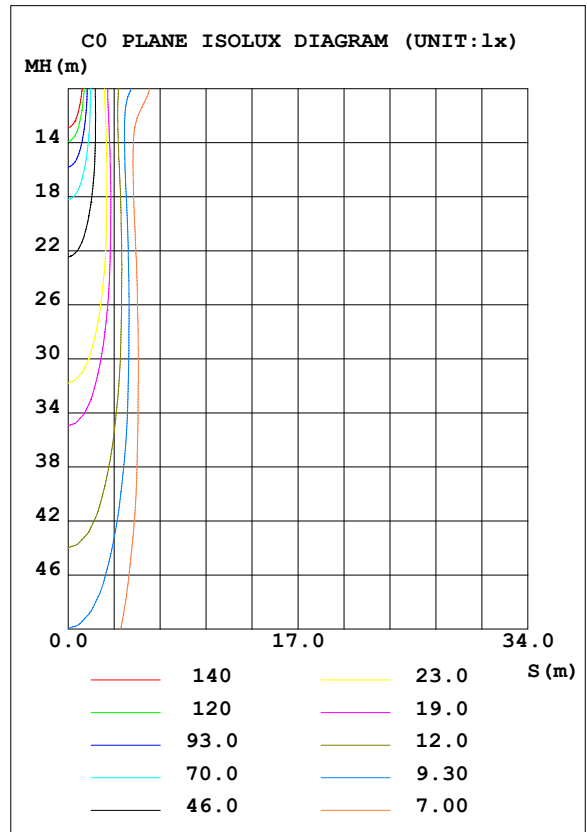
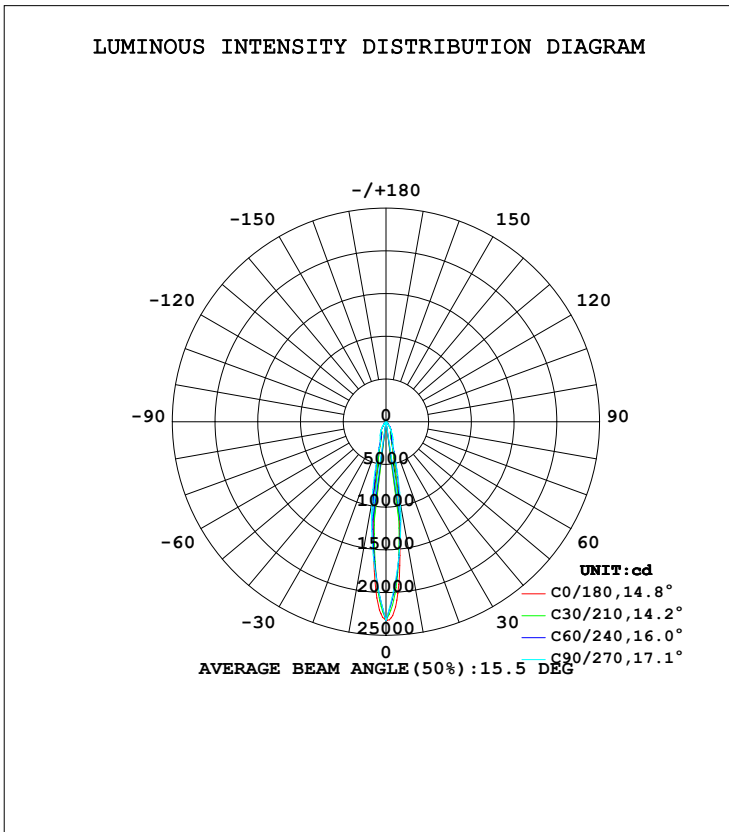


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.48 lm/W			
MODEL	Juvenis DC-40W-3000K-15D	I <sub>max</sub> (cd)	23245	S/MH (C0/180)	0.25
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.29
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	3452.0	η UP, DN (C0-180)	0.0, 48.9
NOMINAL FLUX (lm)	3451.99	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 51.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	229.8	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [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	1643	1552	1635	1652	1809	1662	1652	1563	0- 5	455.1	455.1	13.2,13.2
10	632.8	711.8	945.3	792.2	712.7	804.7	980.3	727.1	5- 10	814.8	1270	36.8,36.8
15	252.7	283.7	255.7	311.9	275.0	320.4	308.1	298.0	10- 15	584.7	1855	53.7,53.7
20	150.4	149.8	207.9	158.4	157.2	164.2	244.7	161.4	15- 20	351.9	2207	63.9,63.9
25	125.1	119.2	160.2	124.0	125.2	128.7	181.2	127.8	20- 25	320.1	2527	73.2,73.2
30	114.3	91.49	112.4	96.67	114.5	103.4	117.8	101.9	25- 30	313.0	2840	82.3,82.3
35	71.01	54.17	76.83	61.42	80.18	69.59	80.53	67.16	30- 35	279.0	3119	90.3,90.3
40	13.39	13.85	41.24	20.41	16.77	27.18	43.27	24.12	35- 40	175.6	3294	95.4,95.4
45	6.283	7.421	5.649	8.088	5.732	9.339	6.020	8.396	40- 45	74.26	3368	97.6,97.6
50	8.129	6.802	4.098	7.327	7.332	7.737	4.547	7.615	45- 50	31.44	3400	98.5,98.5
55	5.146	5.237	2.546	6.577	6.263	7.189	3.073	7.044	50- 55	25.58	3425	99.2,99.2
60	0.9199	2.408	0.9941	3.413	1.125	3.811	1.599	3.654	55- 60	14.59	3440	99.7,99.7
65	0.5830	0.9220	0.7838	1.262	0.5942	1.333	1.182	1.296	60- 65	5.612	3446	99.8,99.8
70	0.4460	0.4249	0.5736	0.4717	0.4459	0.4380	0.7646	0.4548	65- 70	3.013	3449	99.9,99.9
75	0.3214	0.2112	0.3634	0.3093	0.3332	0.3094	0.3475	0.3198	70- 75	2.155	3451	100,100
80	0.0120	0.0237	0	0.1264	0.0277	0.1537	0	0.1565	75- 80	1.100	3452	100,100
85	0.0046	0	0	0	0.0066	0	0	0	80- 85	0.0905	3452	100,100
90	0.0033	0	0	0	0.0032	0	0	0	85- 90	0.0040	3452	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:×10cd								UNIT:lm			

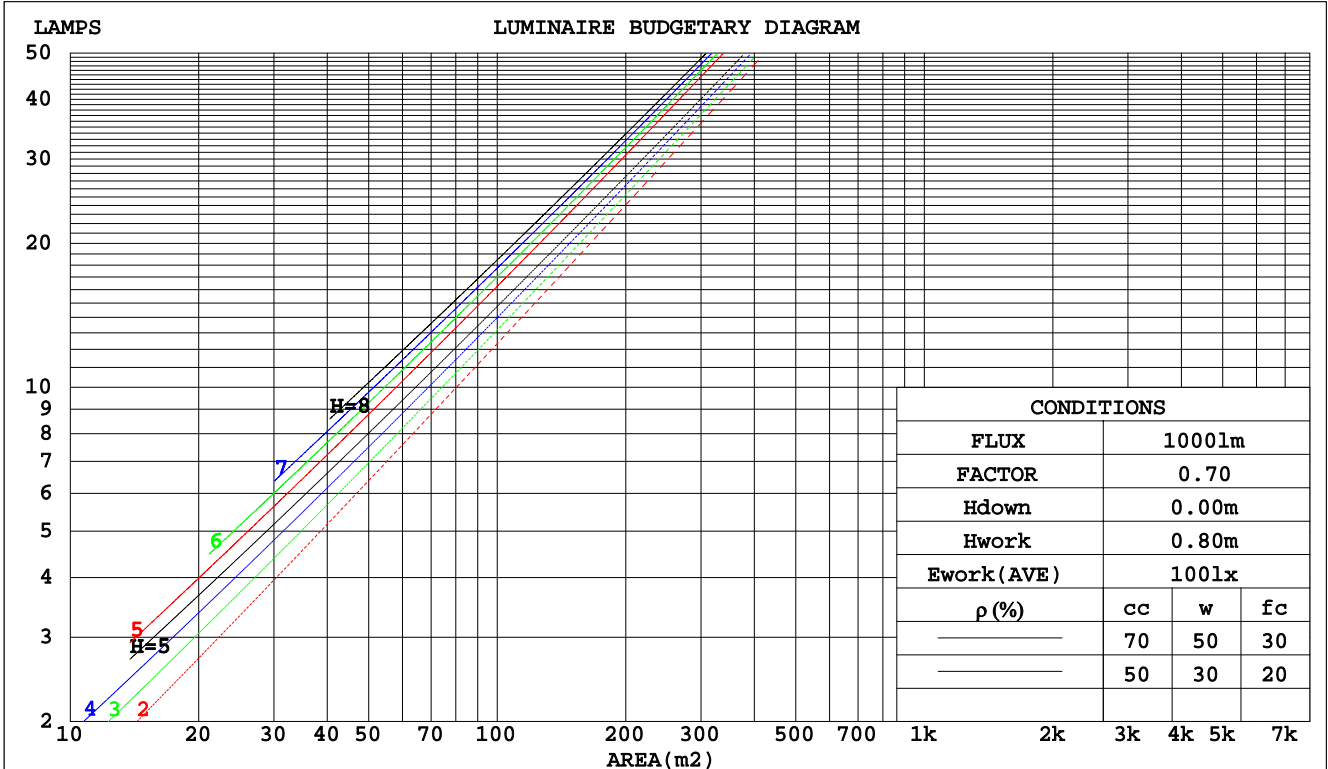
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	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	1.00
1.0	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.01	.99	.97	.99	.97	.95	.96	.94	.93	.91
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.92	.90	.93	.91	.89	.87
4.0	.96	.92	.88	.95	.91	.88	.93	.90	.87	.91	.88	.86	.89	.87	.85	.84
5.0	.92	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.82	.87	.84	.82	.80
6.0	.88	.84	.80	.88	.83	.80	.86	.82	.79	.85	.82	.79	.84	.81	.78	.77
7.0	.85	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.74
8.0	.82	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.79	.75	.73	.72
9.0	.79	.74	.71	.79	.74	.71	.78	.74	.71	.77	.73	.71	.76	.73	.71	.70
10.0	.76	.72	.69	.76	.72	.69	.75	.72	.69	.75	.71	.69	.74	.71	.68	.67



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.149	.085	.027	.142	.081	.026	.130	.074	.024	.118	.068	.022	.108	.062	.020	
2.0	.140	.077	.024	.135	.074	.023	.124	.069	.021	.115	.064	.020	.106	.060	.019	
3.0	.132	.070	.021	.127	.068	.020	.118	.064	.020	.110	.061	.019	.103	.057	.018	
4.0	.124	.065	.019	.120	.063	.019	.113	.060	.018	.106	.057	.017	.100	.054	.017	
5.0	.117	.060	.017	.114	.059	.017	.108	.056	.017	.102	.054	.016	.096	.051	.015	
6.0	.111	.056	.016	.108	.055	.016	.103	.053	.015	.098	.051	.015	.093	.049	.015	
7.0	.106	.052	.015	.103	.051	.015	.098	.050	.014	.094	.048	.014	.090	.047	.014	
8.0	.101	.049	.014	.098	.048	.014	.094	.047	.013	.090	.046	.013	.086	.044	.013	
9.0	.096	.046	.013	.094	.046	.013	.090	.045	.013	.087	.044	.012	.083	.042	.012	
10.0	.092	.044	.012	.090	.043	.012	.087	.042	.012	.084	.041	.012	.081	.041	.012	

$\rho_{cc}$	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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.116	.130	.114	.101	.089	.079	.070	.051	.046	.041	.017	.015	.013	
3.0	.138	.113	.094	.118	.098	.081	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.100	.074	.056	.069	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.108	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.060	.042	.028	.035	.024	.017	.011	.008	.006	
8.0	.094	.062	.040	.081	.053	.034	.056	.038	.024	.033	.022	.015	.011	.007	.005	
9.0	.088	.056	.034	.076	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.083	.051	.030	.072	.045	.026	.050	.031	.019	.029	.019	.011	.009	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DOBAC  
 Test Date:2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity:65.0%  
 Test Distance:6.960m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME: Juvenis DC-40W-3000K-15D						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: DOBAC						SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	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	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	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise									
x = 2H y = 2H	22.1	22.8	22.3	23.0	23.2	23.6	24.4	23.9	24.5	24.7	23.6	24.4	23.9	24.5	24.7
3H	22.0	22.7	22.2	22.8	23.0	23.5	24.2	23.8	24.4	24.6	23.5	24.2	23.8	24.4	24.6
4H	21.9	22.5	22.2	22.8	23.0	23.4	24.1	23.7	24.3	24.5	23.4	24.1	23.7	24.3	24.5
6H	21.8	22.4	22.1	22.7	22.9	23.3	24.0	23.6	24.2	24.4	23.3	24.0	23.6	24.2	24.4
8H	21.8	22.4	22.1	22.6	22.9	23.3	23.9	23.6	24.1	24.4	23.3	23.9	23.6	24.1	24.4
12H	21.7	22.3	22.0	22.6	22.8	23.3	23.8	23.6	24.1	24.4	23.3	23.8	23.6	24.1	24.4
4H 2H	21.9	22.6	22.2	22.8	23.0	23.4	24.1	23.7	24.3	24.5	23.4	24.1	23.7	24.3	24.5
3H	21.8	22.3	22.1	22.6	22.9	23.3	23.9	23.6	24.1	24.4	23.3	23.9	23.6	24.1	24.4
4H	21.7	22.2	22.0	22.5	22.8	23.2	23.7	23.5	24.0	24.3	23.2	23.7	23.5	24.0	24.3
6H	21.6	22.1	22.0	22.4	22.7	23.1	23.6	23.5	23.9	24.2	23.1	23.6	23.5	23.9	24.2
8H	21.5	22.0	21.9	22.3	22.7	23.1	23.5	23.4	23.8	24.2	23.1	23.5	23.4	23.8	24.2
12H	21.5	21.9	21.9	22.2	22.6	23.0	23.4	23.4	23.8	24.1	23.0	23.4	23.4	23.8	24.1
8H 4H	21.5	22.0	21.9	22.3	22.7	23.1	23.5	23.4	23.8	24.2	23.1	23.5	23.4	23.8	24.2
6H	21.4	21.8	21.9	22.2	22.6	22.9	23.3	23.4	23.7	24.1	22.9	23.3	23.4	23.7	24.1
8H	21.4	21.7	21.8	22.1	22.5	22.9	23.2	23.3	23.6	24.1	22.9	23.2	23.3	23.6	24.1
12H	21.3	21.6	21.8	22.0	22.5	22.8	23.1	23.3	23.5	24.0	22.8	23.1	23.3	23.5	24.0
12H 4H	21.5	21.9	21.9	22.3	22.6	23.0	23.4	23.4	23.8	24.1	23.0	23.4	23.4	23.8	24.1
6H	21.4	21.7	21.8	22.1	22.5	22.9	23.2	23.3	23.6	24.1	22.9	23.2	23.3	23.6	24.1
8H	21.3	21.6	21.8	22.0	22.5	22.8	23.1	23.3	23.5	24.0	22.8	23.1	23.3	23.5	24.0
Variations with the observer position at spacings:															
S = 1.0H	+ 4.9 / - 7.3					+ 2.9 / -11.1									
1.5H	+ 6.2 / - 4.1					+ 5.4 / - 9.5									
2.0H	+ 4.2 / - 8.5					+ 3.0 / - 7.3									

CIE Pub.117 Corrected 3452 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.3)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

UTILIZATION FACTORS TABLE

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

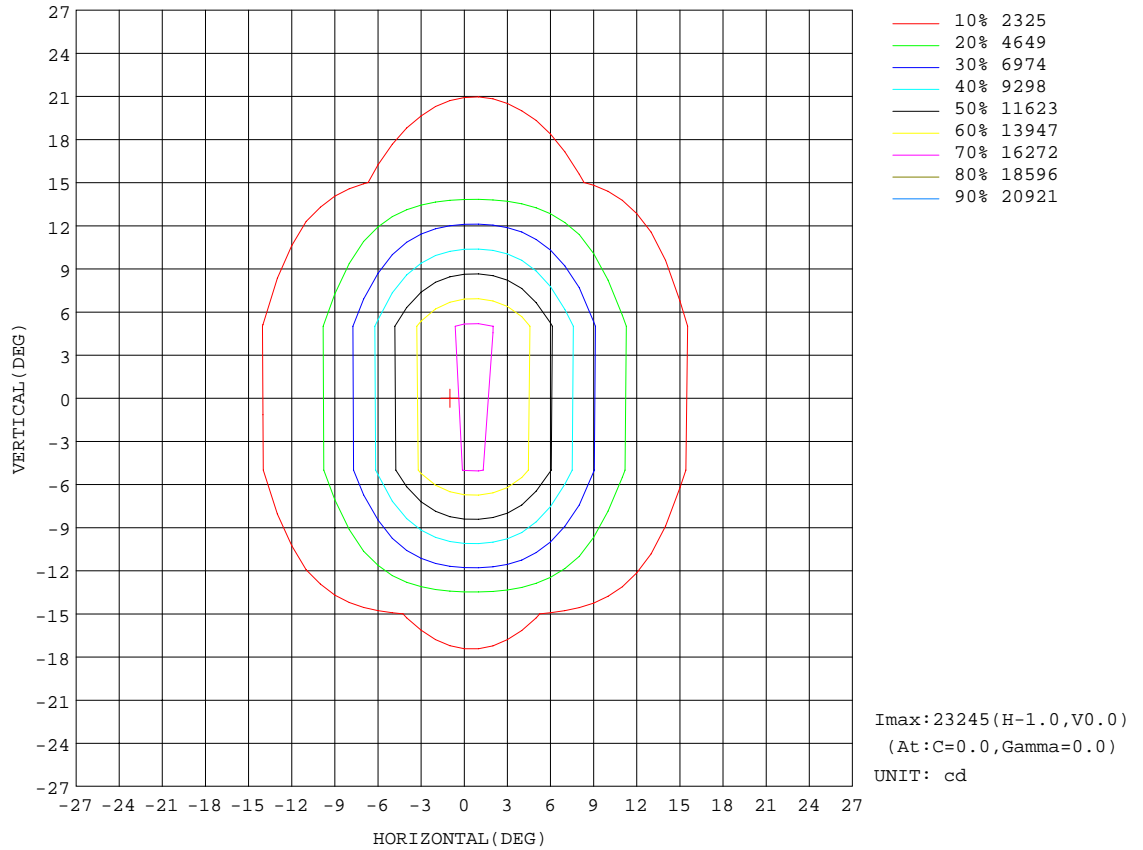
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	89	83	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	87	94	89	86	83
1.00	100	95	91	99	94	91	98	94	91	87
1.25	104	99	96	103	99	95	101	97	95	91
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

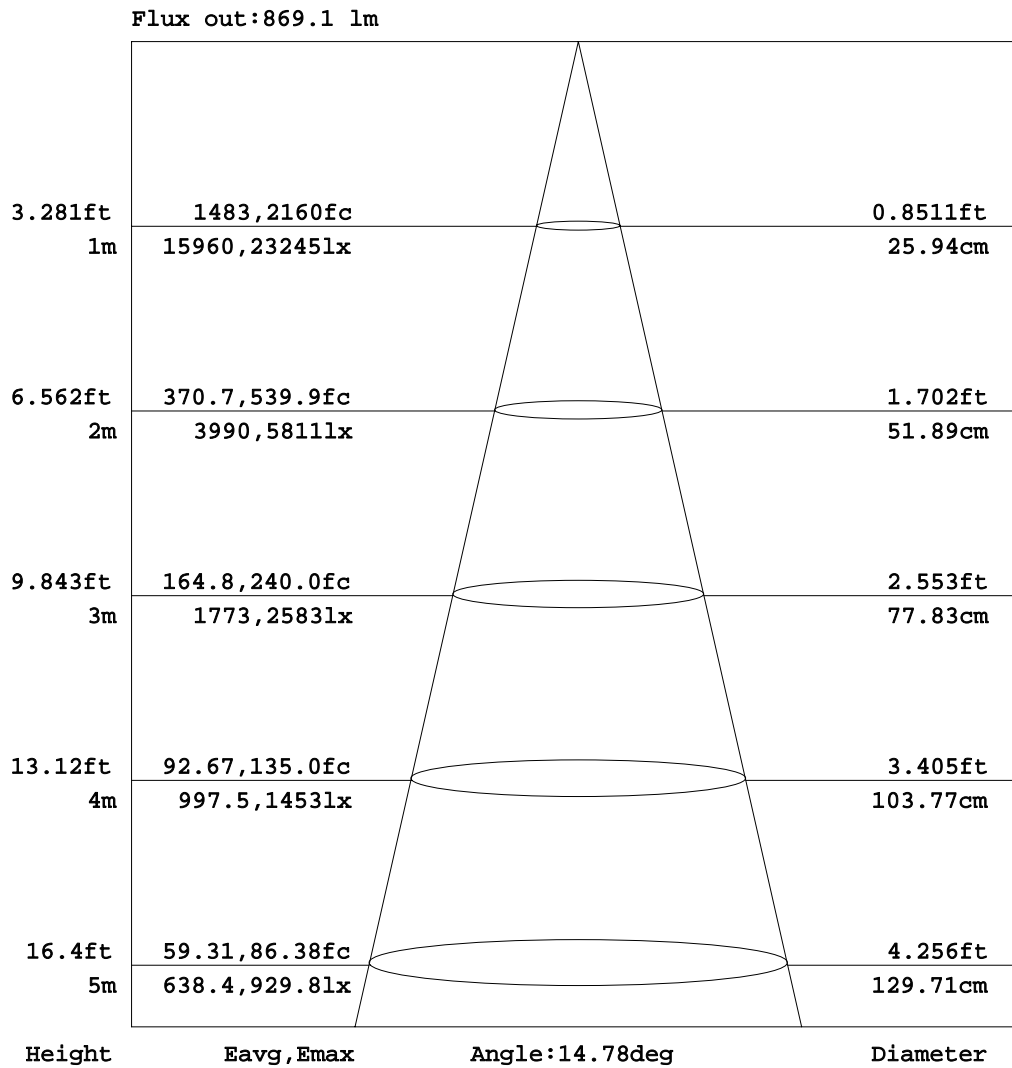


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**AAI Figure**

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



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

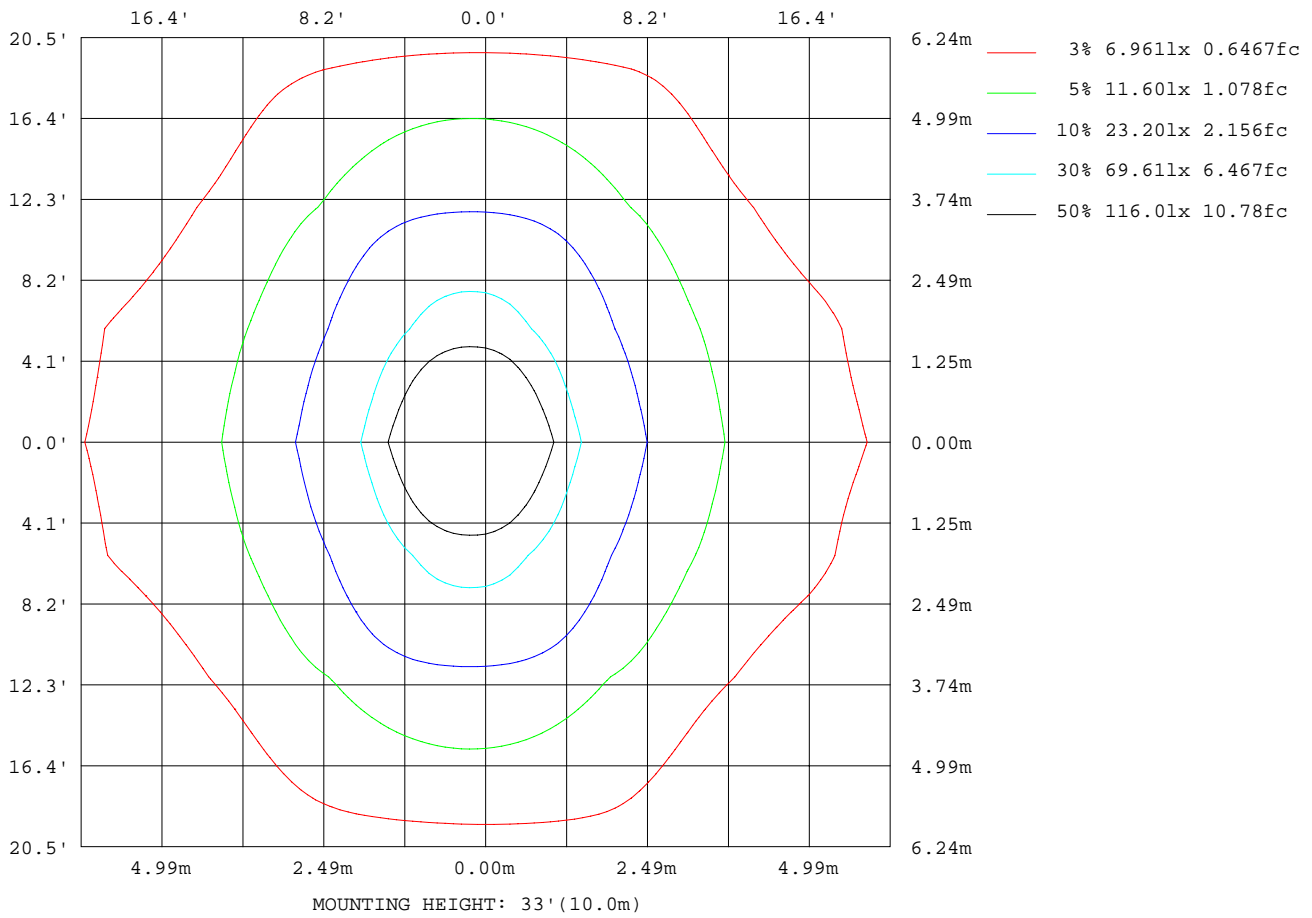
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:



ISOLUX DIAGRAM

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3451.99	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	42727	38401	36070	44624	28989	53130	42406	27557	22131	21136	22013	25694	37618	56264	38416	46228	44800	51836	51999
60	8761	8623	8721	17437	12799	31444	24455	12967	9583	9467	10122	12785	22259	36431	20272	21735	11914	11997	10717
65	6569	6481	6545	6547	7863	10960	6752	7169	7996	8832	8546	7638	7091	12762	9858	7073	7024	6779	6696
70	6210	6223	6227	6266	6287	6143	6390	6776	7384	7986	7830	7213	6811	6779	6428	6551	6437	6265	6208
75	5913	5735	5310	5726	4412	4918	5884	6280	6503	6685	6801	6717	6461	6202	4638	5900	6048	6109	6130
80	328	439	579	2935	853	2075	2185	1086	286	0	299	1164	2450	3795	1135	3101	4160	1219	760
85	254	357	591	0	0	0	0	0	0	0	0	0	0	0	0	0	484	299	361

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	56264	200	---	500
Category 2	65 to 90	12762	200	---	500
Category 3	75 to 90	6801	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3451.99	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	42727	38401	36070	44624	28989	53130	42406	27557	22131	21136	22013	25694	37618	56264	38416	46228	44800	51836	51999
60	8761	8623	8721	17437	12799	31444	24455	12967	9583	9467	10122	12785	22259	36431	20272	21735	11914	11997	10717
65	6569	6481	6545	6547	7863	10960	6752	7169	7996	8832	8546	7638	7091	12762	9858	7073	7024	6779	6696
70	6210	6223	6227	6266	6287	6143	6390	6776	7384	7986	7830	7213	6811	6779	6428	6551	6437	6265	6208
75	5913	5735	5310	5726	4412	4918	5884	6280	6503	6685	6801	6717	6461	6202	4638	5900	6048	6109	6130
80	328	439	579	2935	853	2075	2185	1086	286	0	299	1164	2450	3795	1135	3101	4160	1219	760
85	254	357	591	0	0	0	0	0	0	0	0	0	0	0	0	0	484	299	361

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	56264	1000	1500	200	500
65 to 90	12762	1000	1500	200	500

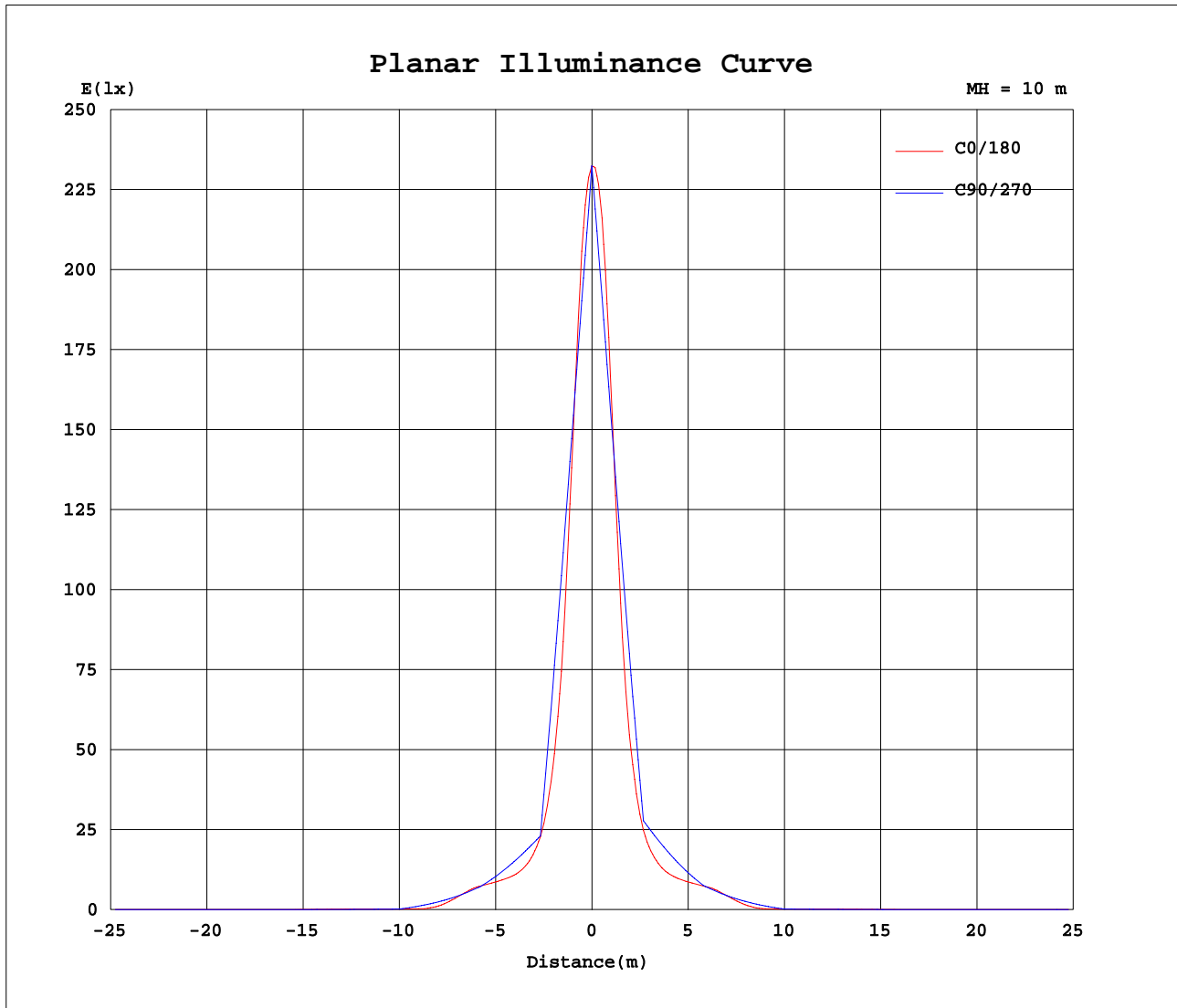
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C( DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325
5	1643	1606	1577	1555	1540	1533	1531	1535	1542	1552	1568	1582	1590	1604	1610	1617	1624	1627	1635
10	633	611	599	594	595	601	620	643	675	712	748	785	824	858	890	914	929	939	945
15	253	245	241	240	240	245	251	262	272	284	295	306	314	314	306	290	272	259	256
20	150	148	147	147	147	148	150	151	151	150	151	157	165	174	183	192	199	205	208
25	125	124	123	123	123	123	123	123	120	119	122	126	132	139	145	150	155	158	160
30	114	110	108	108	110	113	108	98.1	92.5	91.5	94.3	100	107	113	116	116	115	113	112
35	71.0	63.4	59.6	59.4	63.2	68.1	67.5	62.3	55.5	54.2	59.5	69.6	79.0	83.8	84.5	82.1	79.4	77.6	76.8
40	13.4	12.3	11.8	10.9	10.6	18.3	24.3	24.6	17.0	13.9	26.3	38.1	46.0	49.8	49.8	47.2	44.1	42.0	41.2
45	6.28	6.44	6.44	6.38	6.80	7.05	7.16	6.55	6.48	7.42	11.3	17.8	21.3	20.6	17.2	12.8	8.83	6.43	5.65
50	8.13	8.14	8.25	7.80	7.34	8.12	7.84	5.79	5.68	6.80	8.18	8.98	7.30	5.97	5.13	4.63	4.29	4.12	4.10
55	5.15	4.50	4.63	4.64	4.34	5.27	5.37	4.04	3.49	5.24	6.40	6.18	5.11	4.03	3.32	2.89	2.67	2.56	2.55
60	0.92	0.88	0.91	1.03	0.92	1.36	1.83	0.96	1.34	2.41	3.30	3.26	2.57	1.83	1.36	1.11	1.01	0.98	0.99
65	0.58	0.57	0.58	0.58	0.58	0.59	0.58	0.60	0.70	0.92	0.97	0.59	0.60	0.61	0.64	0.67	0.71	0.75	0.78
70	0.45	0.44	0.45	0.45	0.45	0.44	0.45	0.46	0.45	0.42	0.44	0.45	0.46	0.47	0.49	0.51	0.53	0.56	0.57
75	0.32	0.31	0.31	0.31	0.29	0.31	0.31	0.28	0.24	0.21	0.27	0.31	0.32	0.33	0.34	0.35	0.35	0.36	0.36
80	0.01	0.01	0.02	0.07	0.02	0.13	0.11	0.07	0.03	0.02	0.08	0.10	0.08	0.06	0.04	0.02	0.01	0.00	0.00
85	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325
5	1636	1642	1645	1648	1653	1652	1655	1654	1652	1654	1658	1661	1669	1684	1705	1732	1767	1809	1768
10	949	951	948	940	923	899	866	830	792	760	730	703	681	673	670	675	688	713	689
15	262	279	302	324	338	343	337	326	312	300	289	276	268	263	261	262	266	275	267
20	207	204	198	191	183	175	167	160	158	160	158	157	155	154	153	153	154	157	155
25	160	158	154	150	145	139	132	127	124	123	125	125	124	124	123	124	124	125	124
30	113	115	117	118	116	112	106	100	96.7	96.5	101	109	114	113	112	112	112	114	113
35	77.3	79.1	82.0	85.3	87.0	84.8	77.7	67.8	61.4	61.0	67.2	76.3	81.2	78.2	73.3	71.9	74.1	80.2	74.5
40	41.9	43.9	47.1	50.8	52.4	50.6	44.2	33.7	20.4	19.8	28.9	32.4	28.8	21.2	17.2	15.4	15.5	16.8	15.5
45	6.44	8.75	12.5	17.3	21.4	23.0	20.7	14.4	8.09	6.50	6.01	8.60	6.70	6.30	5.70	5.85	5.83	5.73	5.89
50	4.14	4.23	4.45	4.79	5.41	6.40	8.41	8.37	7.33	6.01	5.56	6.73	7.42	7.02	6.85	7.38	7.45	7.33	7.58
55	2.58	2.65	2.82	3.09	3.61	4.53	5.77	6.78	6.58	4.63	4.10	5.57	6.39	5.40	5.77	6.24	5.84	6.26	5.79
60	1.02	1.06	1.15	1.34	1.70	2.34	3.26	3.83	3.41	2.13	1.26	2.28	2.07	1.25	1.50	1.26	1.12	1.13	1.09
65	0.79	0.76	0.72	0.68	0.65	0.63	0.63	1.13	1.26	0.87	0.67	0.63	0.67	0.62	0.61	0.60	0.60	0.59	0.59
70	0.58	0.56	0.54	0.52	0.50	0.49	0.49	0.49	0.47	0.46	0.47	0.47	0.47	0.46	0.45	0.45	0.45	0.45	0.45
75	0.37	0.37	0.37	0.37	0.36	0.35	0.34	0.34	0.31	0.25	0.28	0.32	0.34	0.33	0.34	0.33	0.33	0.33	0.33
80	0.00	0.01	0.02	0.04	0.06	0.09	0.12	0.14	0.13	0.04	0.07	0.11	0.15	0.15	0.09	0.04	0.06	0.03	0.04
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: x10cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325
5	1734	1708	1688	1675	1667	1666	1663	1662	1665	1668	1665	1668	1664	1661	1659	1653	1652	1644	1641
10	676	673	677	686	710	738	770	805	845	884	921	948	967	979	984	983	980	973	963
15	263	263	265	271	280	295	306	320	337	353	364	366	358	343	326	313	308	311	320
20	154	154	155	157	159	161	164	164	168	177	188	200	213	226	236	243	245	241	233
25	124	124	125	126	127	127	127	129	133	139	146	153	161	169	176	180	181	179	174
30	112	113	114	115	111	105	102	103	108	114	120	123	123	123	121	119	118	119	121
35	72.8	74.9	80.5	83.8	78.6	70.6	66.9	69.6	78.1	89.3	94.6	93.8	89.5	85.7	82.9	81.2	80.5	81.1	82.8
40	15.6	17.7	22.2	29.8	33.7	30.1	22.7	27.2	41.7	52.2	57.5	57.7	53.7	49.2	46.0	44.0	43.3	43.9	45.9
45	5.98	5.90	6.54	6.91	8.97	6.42	6.98	9.34	17.9	24.4	26.2	23.5	18.3	13.0	9.14	6.81	6.02	6.76	9.05
50	7.61	7.14	7.29	7.67	6.93	5.91	6.47	7.74	8.88	8.66	6.23	5.39	4.86	4.57	4.53	4.54	4.55	4.51	4.47
55	6.22	5.82	5.55	6.65	5.76	4.35	5.13	7.19	7.03	5.74	4.43	3.64	3.21	3.02	3.01	3.05	3.07	3.04	2.98
60	1.18	1.41	1.19	2.06	2.33	1.29	2.40	3.81	4.04	3.25	2.30	1.73	1.48	1.42	1.49	1.56	1.60	1.57	1.49
65	0.58	0.58	0.59	0.63	0.59	0.65	0.90	1.33	1.13	0.58	0.61	0.67	0.77	0.90	1.04	1.14	1.18	1.15	1.04
70	0.44	0.44	0.44	0.44	0.45	0.45	0.44	0.44	0.45	0.46	0.47	0.51	0.55	0.63	0.69	0.74	0.76	0.75	0.70
75	0.33	0.34	0.32	0.33	0.31	0.27	0.26	0.31	0.33	0.34	0.35	0.35	0.36	0.36	0.36	0.35	0.35	0.35	0.36
80	0.03	0.08	0.14	0.14	0.11	0.07	0.04	0.15	0.14	0.12	0.09	0.06	0.04	0.02	0.01	0.00	0.00	0.00	0.01
85	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000K-15D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: x10cd

C( DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325				
5	1633	1626	1619	1605	1595	1580	1563	1552	1543	1538	1539	1545	1559	1579	1607				
10	945	919	885	848	806	766	727	688	654	629	608	600	598	601	612				
15	333	343	346	341	328	313	298	284	271	259	251	244	243	243	246				
20	222	209	196	185	174	166	161	160	157	154	151	150	148	148	148				
25	167	159	151	144	138	132	128	126	127	126	125	124	124	124	124				
30	122	123	122	119	113	107	102	100	103	110	115	113	111	110	112				
35	85.5	89.3	93.2	93.1	87.1	75.5	67.2	64.6	68.4	73.7	76.2	71.6	65.8	63.8	65.4				
40	49.1	53.5	57.0	56.1	50.2	39.2	24.1	20.9	27.3	28.8	23.5	15.0	11.9	11.8	12.3				
45	12.9	18.2	23.2	25.5	23.4	16.4	8.40	6.68	6.22	7.47	6.76	6.54	6.19	6.33	6.34				
50	4.54	4.83	5.37	6.35	8.64	8.71	7.62	6.41	6.02	7.19	7.92	7.51	7.59	8.11	8.14				
55	3.01	3.22	3.65	4.48	5.80	7.06	7.04	5.02	4.33	5.73	6.43	5.23	5.29	5.33	4.84				
60	1.43	1.49	1.75	2.34	3.28	4.01	3.65	2.21	1.22	2.21	1.85	1.10	1.17	1.00	0.91				
65	0.91	0.78	0.68	0.63	0.62	1.15	1.30	0.87	0.65	0.59	0.62	0.58	0.58	0.57	0.57				
70	0.63	0.56	0.51	0.49	0.48	0.46	0.45	0.45	0.47	0.47	0.45	0.45	0.45	0.45	0.44				
75	0.37	0.36	0.36	0.35	0.34	0.33	0.32	0.25	0.29	0.34	0.34	0.33	0.33	0.32	0.32				
80	0.02	0.04	0.06	0.09	0.12	0.15	0.16	0.04	0.07	0.11	0.15	0.10	0.08	0.02	0.01				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

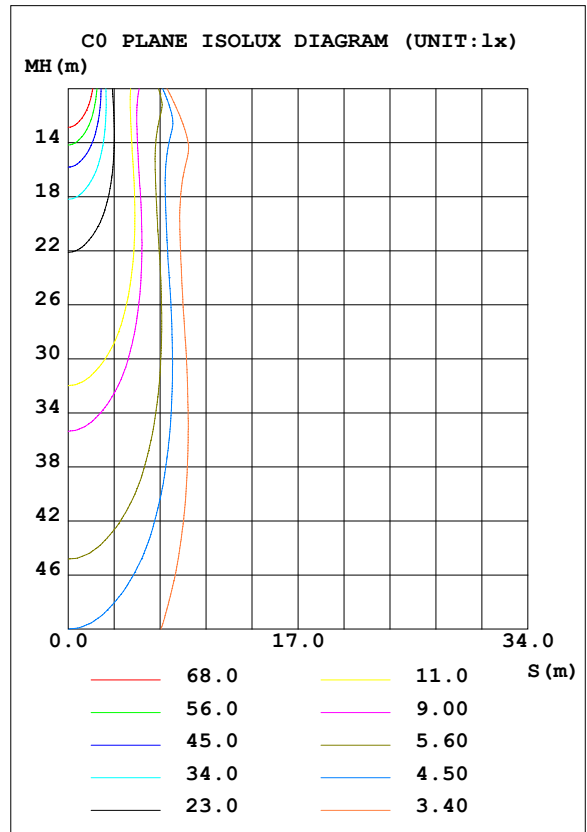
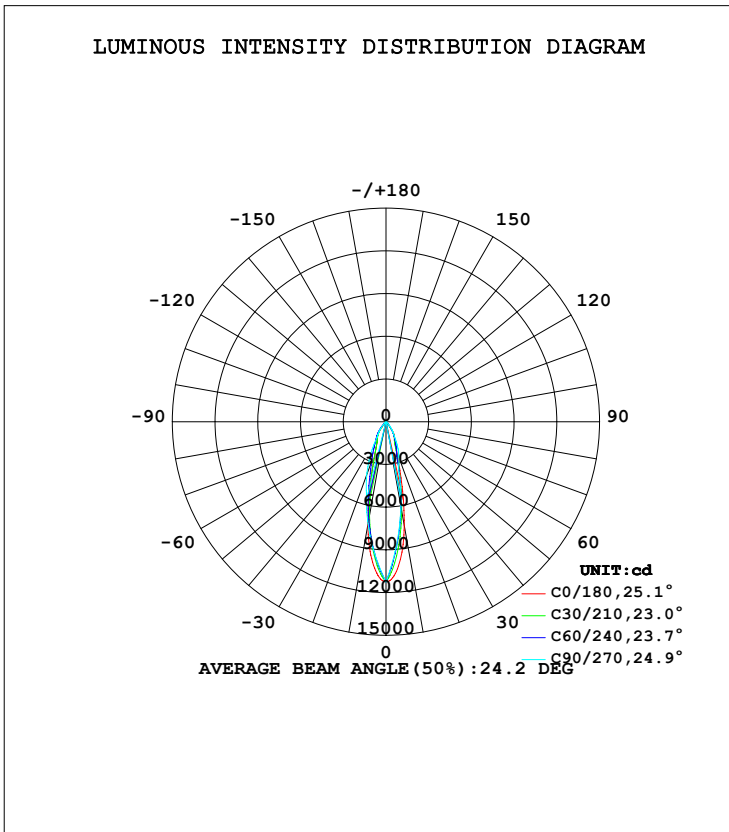
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:



LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.32 lm/W			
MODEL	Juvenis DC-40W-24D-3000K-90	I <sub>max</sub> (cd)	11253	S/MH (C0/180)	0.43
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.47
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	3364.9	η UP, DN (C0-180)	0.0, 53.9
NOMINAL FLUX (lm)	3364.87	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 46.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	229.8	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [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	1012	929.8	926.9	934.7	1016	892.3	864.1	889.4	0- 5	239.2	239.2	7.11,7.11
10	736.6	677.5	728.4	686.8	738.6	617.0	602.9	615.0	5- 10	561.4	800.6	23.8,23.8
15	411.4	422.9	530.0	434.7	408.9	364.6	341.8	364.3	10- 15	619.7	1420	42.2,42.2
20	215.2	241.0	395.5	251.4	213.7	198.2	267.1	198.7	15- 20	513.6	1934	57.5,57.5
25	145.5	163.7	261.0	169.1	143.4	138.1	192.4	139.6	20- 25	426.4	2360	70.1,70.1
30	121.3	119.1	126.5	120.8	119.4	94.38	117.7	97.90	25- 30	361.8	2722	80.9,80.9
35	81.20	78.76	87.08	79.56	75.37	49.79	80.83	54.72	30- 35	291.5	3014	89.6,89.6
40	16.21	33.30	47.64	35.46	13.99	10.38	43.99	13.77	35- 40	181.7	3195	95,95
45	7.179	11.57	8.199	12.14	7.569	7.165	7.150	7.171	40- 45	79.07	3274	97.3,97.3
50	5.755	6.112	6.509	6.398	6.041	5.496	5.482	5.382	45- 50	32.41	3307	98.3,98.3
55	4.056	4.566	4.819	4.728	4.206	3.959	3.814	3.859	50- 55	22.10	3329	98.9,98.9
60	2.375	2.955	3.128	3.096	2.497	2.550	2.147	2.450	55- 60	15.73	3345	99.4,99.4
65	1.075	1.577	2.275	1.680	1.152	1.334	1.565	1.282	60- 65	9.559	3354	99.7,99.7
70	0.6509	0.7548	1.422	0.8147	0.6834	0.6094	0.9831	0.5822	65- 70	5.667	3360	99.9,99.9
75	0.4533	0.4958	0.5682	0.5437	0.4535	0.2855	0.4013	0.2780	70- 75	3.451	3363	100,100
80	0.0189	0.2279	0	0.2635	0.0221	0.0146	0	0.0180	75- 80	1.476	3365	100,100
85	0.0043	0	0	0	0.0070	0	0	0	80- 85	0.1136	3365	100,100
90	0.0035	0	0	0	0.0034	0	0	0	85- 90	0.0041	3365	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:×10cd								UNIT:lm			

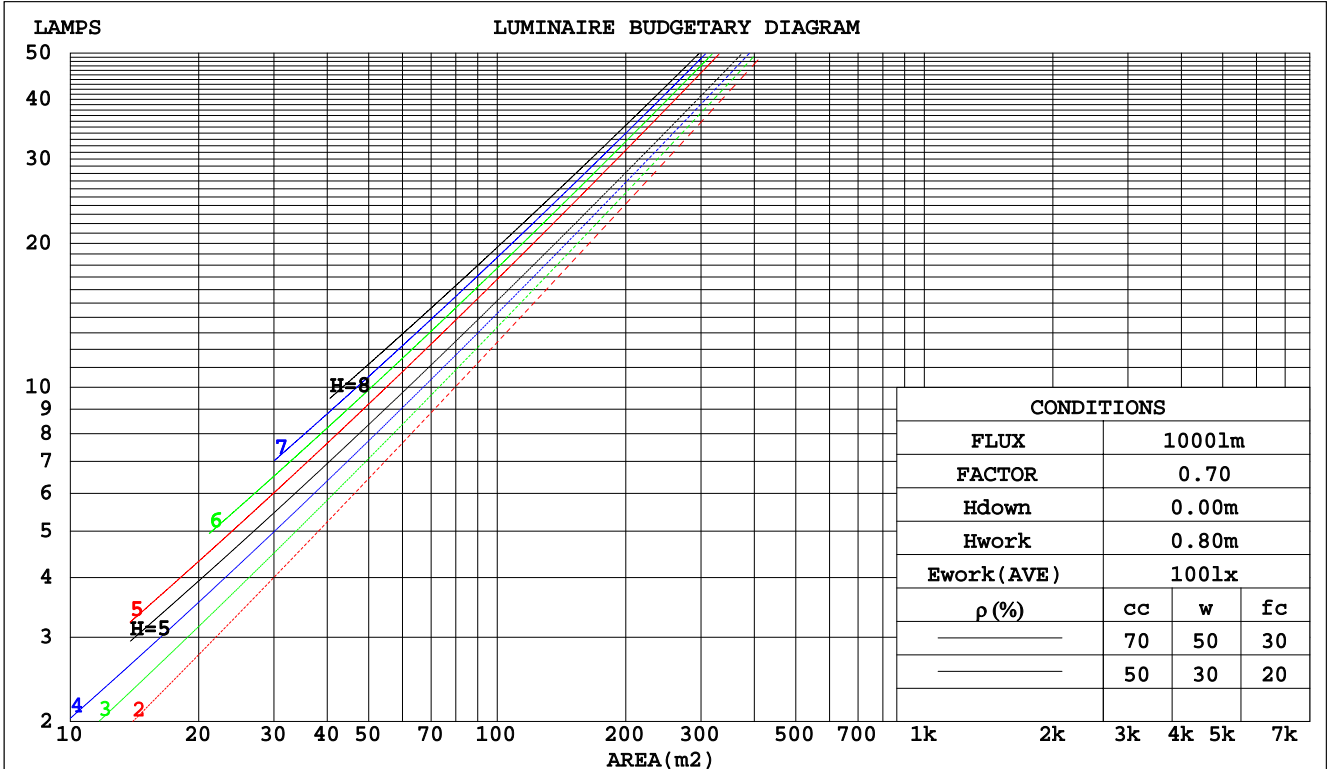
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.98	.98	.97	.95
2.0	1.05	1.02	.99	1.03	1.00	.97	1.00	.98	.95	.97	.95	.93	.95	.93	.91	.90
3.0	.99	.95	.91	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.89	.86	.93	.88	.85	.91	.87	.84	.89	.86	.83	.87	.84	.82	.81
5.0	.89	.84	.80	.88	.84	.80	.87	.83	.79	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.76	.84	.79	.76	.83	.79	.75	.81	.78	.75	.80	.77	.74	.73
7.0	.81	.76	.72	.80	.76	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.70
8.0	.78	.72	.69	.77	.72	.69	.76	.72	.69	.75	.71	.68	.74	.71	.68	.67
9.0	.74	.69	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.71	.68	.65	.64
10.0	.71	.66	.63	.71	.66	.63	.70	.66	.63	.70	.66	.63	.69	.65	.63	.62



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

WEC AND CCEC

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION 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	.159	.091	.029	.153	.087	.028	.140	.080	.026	.129	.074	.024	.118	.068	.022	
2.0	.151	.083	.025	.145	.080	.025	.135	.075	.023	.125	.070	.022	.116	.066	.021	
3.0	.143	.076	.023	.138	.074	.022	.129	.070	.021	.121	.066	.020	.113	.063	.019	
4.0	.135	.070	.021	.131	.069	.020	.124	.066	.020	.117	.063	.019	.110	.060	.018	
5.0	.128	.065	.019	.125	.064	.019	.118	.062	.018	.112	.059	.018	.106	.057	.017	
6.0	.122	.061	.017	.119	.060	.017	.113	.058	.017	.108	.056	.016	.103	.054	.016	
7.0	.116	.057	.016	.114	.057	.016	.109	.055	.016	.104	.053	.015	.099	.052	.015	
8.0	.111	.054	.015	.109	.053	.015	.104	.052	.015	.100	.051	.015	.096	.049	.014	
9.0	.106	.051	.014	.104	.051	.014	.100	.049	.014	.096	.048	.014	.093	.047	.014	
10.0	.102	.049	.014	.100	.048	.013	.096	.047	.013	.093	.046	.013	.090	.045	.013	

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.115	.131	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.082	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.110	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.119	.087	.062	.102	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.111	.077	.052	.096	.067	.046	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.104	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.098	.063	.038	.084	.054	.033	.058	.038	.024	.034	.022	.014	.011	.007	.005	
9.0	.093	.057	.033	.080	.050	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004	
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DOBAC  
 Test Date:2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity:65.0%  
 Test Distance:6.960m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME: Juvenis DC-40W-24D-3000K-90						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: DOBAC						SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	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	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	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise									
x = 2H y = 2H	23.3	24.1	23.5	24.3	24.4	25.1	25.9	25.3	26.1	26.2	25.1	25.9	25.3	26.1	26.2
3H	23.2	23.9	23.4	24.1	24.3	25.0	25.7	25.2	25.9	26.1	25.0	25.7	25.2	25.9	26.1
4H	23.1	23.8	23.4	24.0	24.2	24.9	25.6	25.2	25.9	26.1	24.9	25.6	25.2	25.9	26.1
6H	23.0	23.7	23.3	23.9	24.1	24.8	25.5	25.1	25.8	26.0	24.8	25.5	25.1	25.8	26.0
8H	23.0	23.6	23.3	23.9	24.1	24.8	25.4	25.1	25.7	26.0	24.8	25.4	25.1	25.7	26.0
12H	22.9	23.5	23.2	23.8	24.1	24.8	25.4	25.1	25.6	25.9	24.8	25.4	25.1	25.6	25.9
4H 2H	23.1	23.8	23.4	24.0	24.2	24.9	25.6	25.1	25.8	26.0	24.9	25.6	25.1	25.8	26.0
3H	23.0	23.6	23.3	23.9	24.1	24.8	25.4	25.1	25.7	25.9	24.8	25.4	25.1	25.7	25.9
4H	22.9	23.5	23.2	23.8	24.1	24.7	25.3	25.1	25.6	25.9	24.7	25.3	25.1	25.6	25.9
6H	22.8	23.3	23.2	23.6	24.0	24.6	25.1	25.0	25.5	25.8	24.6	25.1	25.0	25.5	25.8
8H	22.8	23.2	23.1	23.6	23.9	24.6	25.0	25.0	25.4	25.8	24.6	25.0	25.0	25.4	25.8
12H	22.7	23.1	23.1	23.5	23.9	24.5	24.9	24.9	25.3	25.7	24.5	24.9	24.9	25.3	25.7
8H 4H	22.8	23.2	23.2	23.6	23.9	24.6	25.0	25.0	25.4	25.8	24.6	25.0	25.0	25.4	25.8
6H	22.7	23.0	23.1	23.4	23.9	24.5	24.9	24.9	25.3	25.7	24.5	24.9	24.9	25.3	25.7
8H	22.6	22.9	23.1	23.4	23.8	24.4	24.8	24.9	25.2	25.6	24.4	24.8	24.9	25.2	25.6
12H	22.6	22.8	23.0	23.3	23.7	24.4	24.7	24.8	25.1	25.6	24.4	24.7	24.8	25.1	25.6
12H 4H	22.7	23.1	23.1	23.5	23.9	24.5	25.0	24.9	25.3	25.7	24.5	25.0	24.9	25.3	25.7
6H	22.6	22.9	23.1	23.4	23.8	24.4	24.8	24.9	25.2	25.6	24.4	24.8	24.9	25.2	25.6
8H	22.6	22.8	23.0	23.3	23.7	24.4	24.7	24.8	25.1	25.6	24.4	24.7	24.8	25.1	25.6
Variations with the observer position at spacings:															
S = 1.0H	+ 3.8 / - 6.5					+ 2.4 / - 8.3									
1.5H	+ 6.2 / - 4.6					+ 4.9 / - 6.8									
2.0H	+ 1.7 / - 3.1					+ 1.9 / - 2.8									

CIE Pub.117 Corrected 3365 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.2)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

UTILIZATION FACTORS TABLE

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

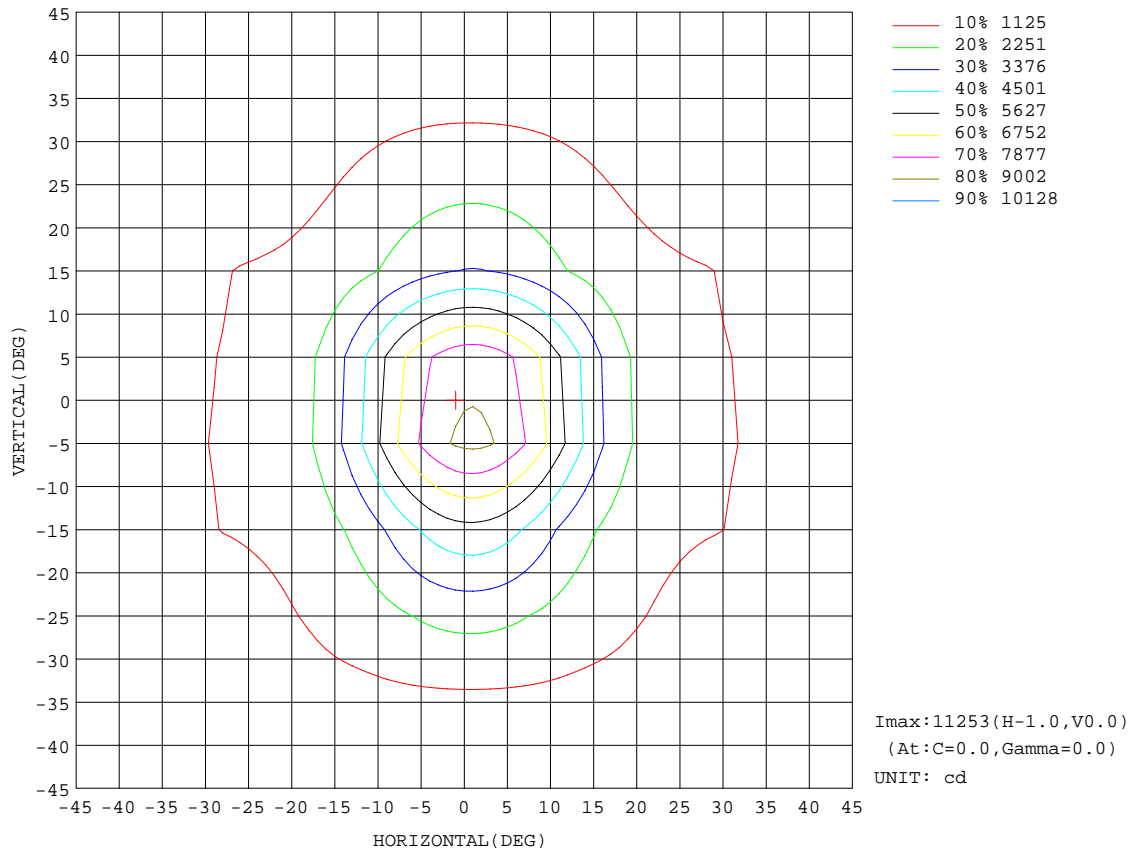
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	79	88	82	78	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	95	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

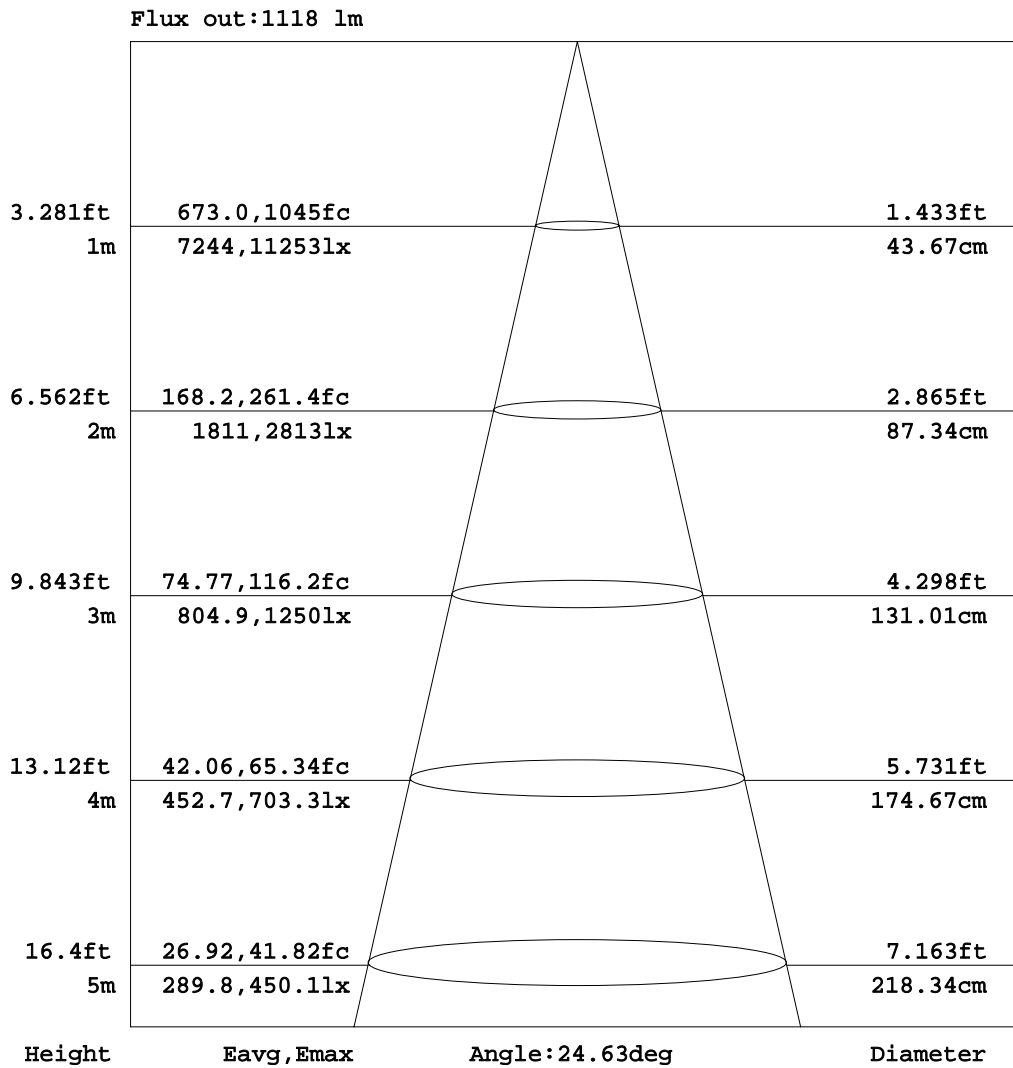


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

AAI Figure

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



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

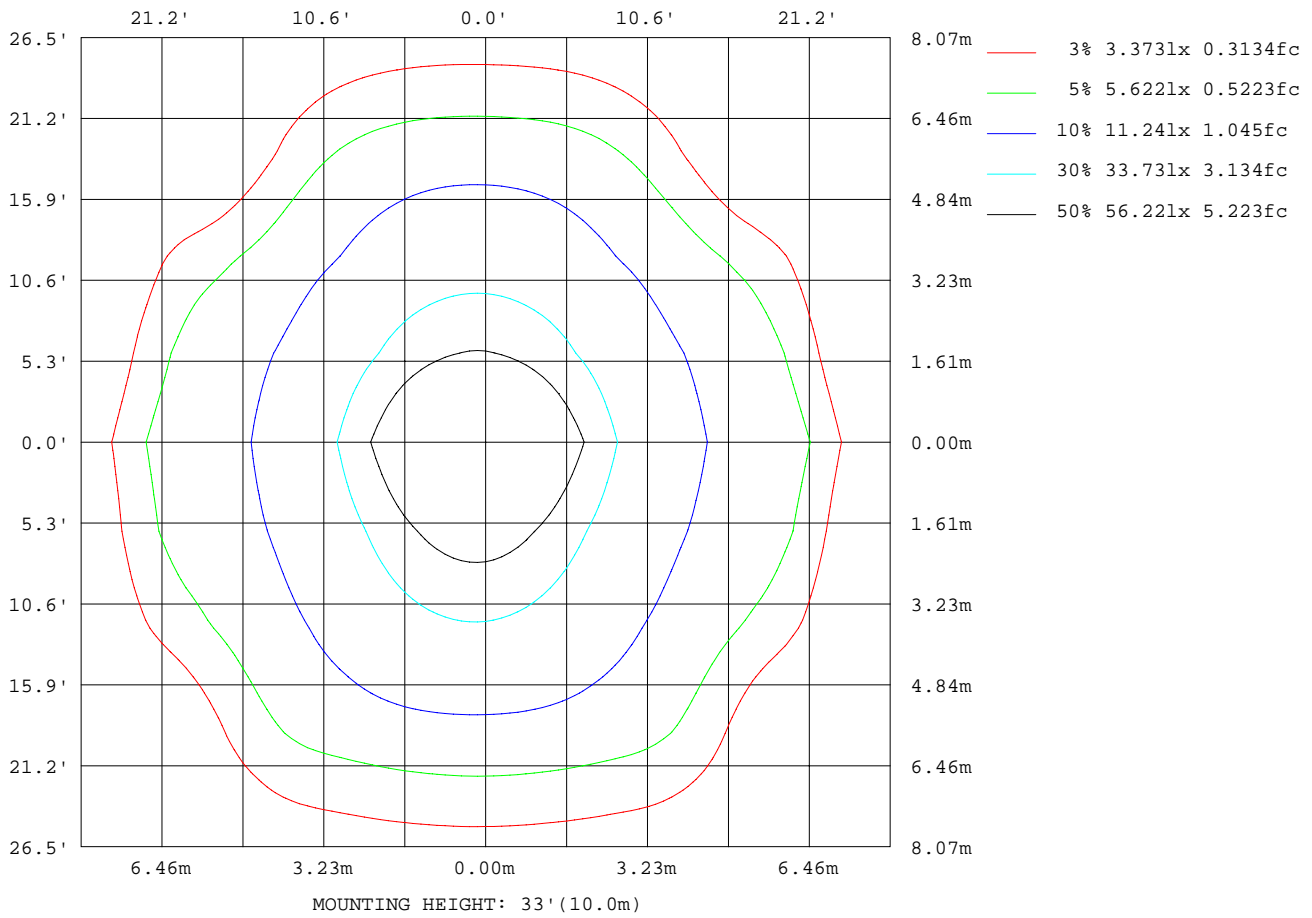
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:



ISOLUX DIAGRAM

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3364.87	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	33673	33637	34392	35466	36650	38648	39478	38909	39308	40004	39428	39242	40684	39819	38364	38019	36643	36026	34915
60	22620	22524	24342	24988	27341	28700	29337	29270	29507	29793	29657	30226	30315	29624	29145	27257	26629	25462	23781
65	12118	12207	14081	15137	18179	16918	19624	23274	24978	25633	25035	24287	20615	17759	19800	17272	15847	14117	12978
70	9063	9121	9458	10622	9857	12310	16231	18719	19574	19792	19504	19291	16867	12956	10640	11970	10520	9844	9515
75	8340	8275	8278	8375	8096	10216	11972	11908	11015	10455	10758	11838	12235	10948	9410	9108	8991	8592	8344
80	518	805	4456	4240	3525	5759	3832	1813	467	0	455	1774	3864	6239	6729	4505	6153	1405	606
85	233	382	556	0	0	0	0	0	0	0	0	0	0	0	0	0	360	306	382

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	40684	200	---	500
Category 2	65 to 90	25633	200	---	500
Category 3	75 to 90	12235	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3364.87	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	33673	33637	34392	35466	36650	38648	39478	38909	39308	40004	39428	39242	40684	39819	38364	38019	36643	36026	34915
60	22620	22524	24342	24988	27341	28700	29337	29270	29507	29793	29657	30226	30315	29624	29145	27257	26629	25462	23781
65	12118	12207	14081	15137	18179	16918	19624	23274	24978	25633	25035	24287	20615	17759	19800	17272	15847	14117	12978
70	9063	9121	9458	10622	9857	12310	16231	18719	19574	19792	19504	19291	16867	12956	10640	11970	10520	9844	9515
75	8340	8275	8278	8375	8096	10216	11972	11908	11015	10455	10758	11838	12235	10948	9410	9108	8991	8592	8344
80	518	805	4456	4240	3525	5759	3832	1813	467	0	455	1774	3864	6239	6729	4505	6153	1405	606
85	233	382	556	0	0	0	0	0	0	0	0	0	0	0	0	0	360	306	382

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	40684	1000	1500	200	500
65 to 90	25633	1000	1500	200	500

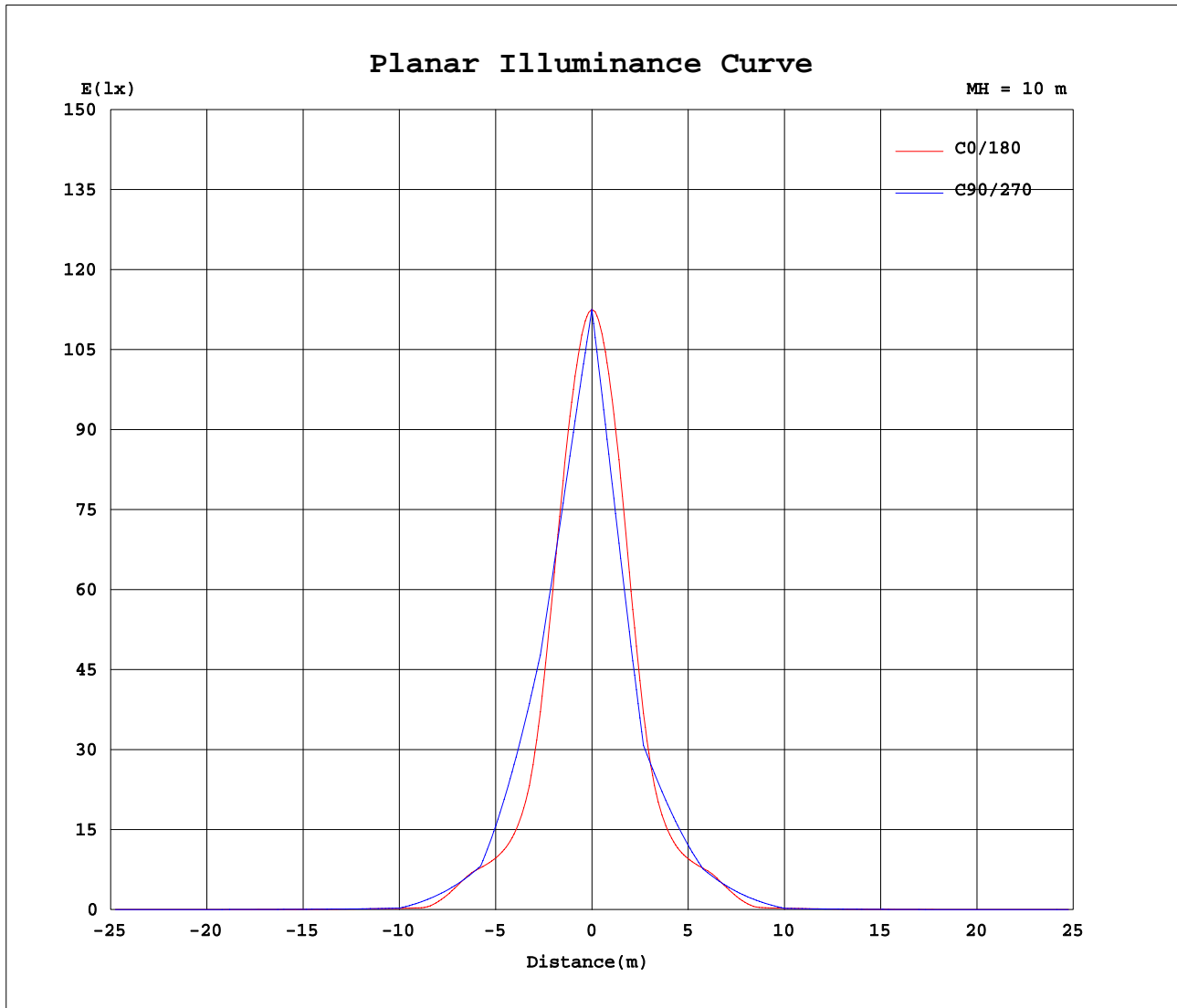
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C( DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125
5	1012	997	983	971	960	951	944	938	933	930	928	927	925	926	925	925	926	926	927
10	737	715	698	685	676	671	669	671	673	678	682	689	696	703	710	717	722	726	728
15	411	397	389	385	384	388	393	401	411	423	436	451	465	481	496	508	518	526	530
20	215	209	207	206	208	212	219	226	234	241	253	274	297	322	345	365	380	391	396
25	145	143	142	142	143	145	148	151	155	164	174	186	199	214	230	243	252	258	261
30	121	119	118	119	120	121	118	113	114	119	127	135	140	142	142	138	133	128	127
35	81.2	75.4	73.5	75.4	81.3	85.4	81.8	75.3	73.5	78.8	88.9	99.3	102	98.1	93.8	90.7	88.5	87.3	87.1
40	16.2	15.5	15.9	16.5	21.0	30.0	34.3	31.7	27.5	33.3	48.7	59.3	63.5	61.6	56.6	52.6	49.8	48.1	47.6
45	7.18	7.12	7.16	7.22	7.31	7.54	9.16	7.85	7.66	11.6	20.5	27.7	29.4	25.9	20.2	15.0	11.3	8.94	8.20
50	5.76	5.67	5.74	5.80	5.78	5.90	6.10	5.98	5.91	6.11	7.72	8.00	6.43	6.35	6.30	6.27	6.38	6.45	6.51
55	4.06	3.94	4.05	4.05	4.14	4.26	4.27	4.34	4.41	4.57	4.66	4.71	4.76	4.73	4.69	4.66	4.73	4.79	4.82
60	2.38	2.29	2.37	2.41	2.56	2.59	2.62	2.71	2.87	2.95	3.01	3.04	3.08	3.04	3.07	3.08	3.10	3.12	3.13
65	1.08	1.04	1.08	1.14	1.25	1.26	1.34	1.55	1.61	1.58	1.50	1.51	1.74	1.90	2.07	2.16	2.22	2.26	2.27
70	0.65	0.65	0.66	0.66	0.68	0.68	0.76	0.80	0.71	0.75	0.88	1.04	1.17	1.26	1.34	1.39	1.41	1.42	1.42
75	0.45	0.44	0.45	0.46	0.45	0.47	0.46	0.41	0.44	0.50	0.56	0.62	0.65	0.66	0.65	0.62	0.60	0.58	0.57
80	0.02	0.03	0.03	0.11	0.16	0.20	0.15	0.10	0.13	0.23	0.21	0.18	0.14	0.10	0.07	0.04	0.02	0.00	0.00
85	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125
5	926	927	927	928	929	929	930	932	935	939	944	949	957	965	976	988	1001	1016	996
10	728	726	722	717	711	705	698	692	687	683	680	678	679	683	691	702	718	739	712
15	529	525	518	508	494	480	465	450	435	421	409	399	392	387	386	389	396	409	392
20	394	386	374	356	334	311	287	266	251	242	233	223	216	211	207	207	209	214	207
25	260	256	248	237	222	206	192	180	169	160	155	150	147	144	142	141	142	143	141
30	129	134	140	144	144	142	137	129	121	116	115	120	122	120	119	118	118	119	115
35	87.5	88.8	90.9	93.9	98.3	102	98.3	88.6	79.6	75.3	77.0	83.6	88.1	84.3	76.5	72.3	71.9	75.4	67.4
40	48.2	49.9	52.7	56.7	61.7	63.0	58.8	49.2	35.5	28.9	33.2	36.6	33.1	25.7	19.6	16.2	14.0	14.0	13.6
45	8.98	11.3	15.0	20.2	26.0	29.2	27.9	21.7	12.1	8.14	8.26	10.6	8.27	7.81	7.69	7.57	7.52	7.57	7.46
50	6.48	6.40	6.29	6.28	6.50	6.60	8.20	8.04	6.40	6.20	6.30	6.40	6.23	6.15	6.24	6.07	5.98	6.04	5.87
55	4.80	4.75	4.69	4.73	4.85	4.90	4.85	4.80	4.73	4.62	4.61	4.58	4.54	4.41	4.36	4.34	4.17	4.21	4.07
60	3.13	3.11	3.12	3.17	3.17	3.18	3.12	3.11	3.10	3.06	2.95	2.86	2.82	2.80	2.67	2.67	2.53	2.50	2.40
65	2.26	2.22	2.18	2.16	1.99	1.83	1.57	1.58	1.68	1.76	1.73	1.53	1.43	1.41	1.27	1.25	1.18	1.15	1.11
70	1.42	1.40	1.39	1.39	1.31	1.21	1.08	0.93	0.81	0.76	0.89	0.86	0.76	0.76	0.72	0.71	0.70	0.68	0.68
75	0.57	0.58	0.61	0.64	0.66	0.67	0.65	0.60	0.54	0.51	0.46	0.50	0.50	0.49	0.48	0.47	0.46	0.45	0.44
80	0.00	0.02	0.04	0.06	0.10	0.14	0.19	0.23	0.26	0.25	0.11	0.16	0.21	0.22	0.11	0.05	0.05	0.02	0.03
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: x10cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125
5	978	961	946	932	920	910	901	892	886	880	875	872	869	867	865	864	864	863	865
10	689	671	657	645	636	629	622	617	613	609	607	605	604	603	603	603	603	603	602
15	380	373	368	366	365	366	365	365	363	360	356	352	349	345	344	342	342	342	343
20	202	200	200	200	202	203	203	198	199	208	219	230	242	252	260	265	267	265	260
25	140	139	139	140	140	139	137	138	143	150	159	168	176	183	188	192	192	191	188
30	112	113	115	118	113	102	95.9	94.4	97.6	104	112	118	122	123	121	119	118	118	121
35	63.3	63.0	66.5	70.9	70.6	64.6	54.5	49.8	52.5	60.7	71.9	79.3	82.7	83.3	82.5	81.5	80.8	81.1	82.0
40	14.0	13.2	14.7	20.7	26.7	26.4	18.4	10.4	19.5	31.0	40.5	46.3	48.4	47.8	46.2	44.7	44.0	44.4	45.9
45	7.49	7.58	7.36	7.39	7.96	7.58	7.11	7.17	7.99	13.2	17.8	19.1	17.1	13.6	10.3	7.94	7.15	7.92	10.1
50	5.91	5.91	5.81	5.75	5.84	5.76	5.60	5.50	5.59	5.90	5.68	5.75	5.69	5.64	5.58	5.50	5.48	5.50	5.48
55	4.13	4.05	4.03	4.05	3.99	3.98	3.97	3.96	3.99	3.97	4.01	3.98	3.95	3.91	3.87	3.84	3.81	3.82	3.82
60	2.44	2.36	2.39	2.38	2.32	2.30	2.50	2.55	2.49	2.44	2.34	2.28	2.22	2.19	2.17	2.16	2.15	2.14	2.14
65	1.12	1.09	1.18	1.14	1.13	1.32	1.40	1.33	1.16	1.04	1.13	1.26	1.37	1.45	1.53	1.56	1.56	1.55	1.51
70	0.66	0.65	0.66	0.65	0.68	0.71	0.64	0.61	0.60	0.69	0.76	0.84	0.89	0.93	0.97	0.98	0.98	0.98	0.96
75	0.42	0.42	0.38	0.41	0.40	0.37	0.33	0.29	0.26	0.36	0.42	0.44	0.44	0.43	0.41	0.40	0.40	0.41	0.42
80	0.02	0.09	0.02	0.16	0.13	0.08	0.03	0.01	0.02	0.08	0.09	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.01
85	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: x10cd

C( DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125	1125				
5	866	868	871	874	879	884	889	897	906	916	928	942	957	974	992				
10	602	602	603	605	607	610	615	620	626	633	642	654	669	687	710				
15	345	348	351	355	359	362	364	366	366	366	367	369	374	382	394				
20	251	241	230	219	208	199	199	203	204	203	201	201	201	204	208				
25	182	176	168	159	151	144	140	138	140	141	141	140	140	141	143				
30	122	122	119	113	106	101	97.9	98.9	104	113	118	116	114	114	117				
35	83.1	82.8	80.1	74.4	65.6	58.4	54.7	57.2	65.3	71.9	73.4	69.2	66.4	67.6	72.4				
40	47.7	48.5	47.3	43.1	35.4	24.5	13.8	18.7	27.2	27.7	22.0	14.1	14.0	15.4	15.4				
45	13.5	17.1	19.5	19.4	15.6	9.73	7.17	6.98	7.39	7.76	7.18	6.98	7.08	7.07	7.08				
50	5.53	5.56	5.61	5.57	6.02	5.53	5.38	5.44	5.57	5.62	5.52	5.57	5.60	5.66	5.61				
55	3.84	3.86	3.91	3.94	3.91	3.91	3.86	3.84	3.84	3.87	3.96	3.89	3.86	3.94	3.90				
60	2.14	2.18	2.26	2.32	2.38	2.43	2.45	2.41	2.21	2.25	2.31	2.31	2.23	2.28	2.25				
65	1.43	1.34	1.26	1.11	1.00	1.11	1.28	1.35	1.27	1.08	1.09	1.14	1.04	1.04	1.02				
70	0.92	0.89	0.84	0.75	0.67	0.59	0.58	0.62	0.69	0.66	0.63	0.63	0.63	0.64	0.64				
75	0.43	0.44	0.44	0.42	0.37	0.26	0.28	0.32	0.36	0.40	0.41	0.39	0.42	0.43	0.44				
80	0.03	0.05	0.07	0.09	0.09	0.03	0.02	0.03	0.08	0.13	0.17	0.03	0.09	0.02	0.02				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

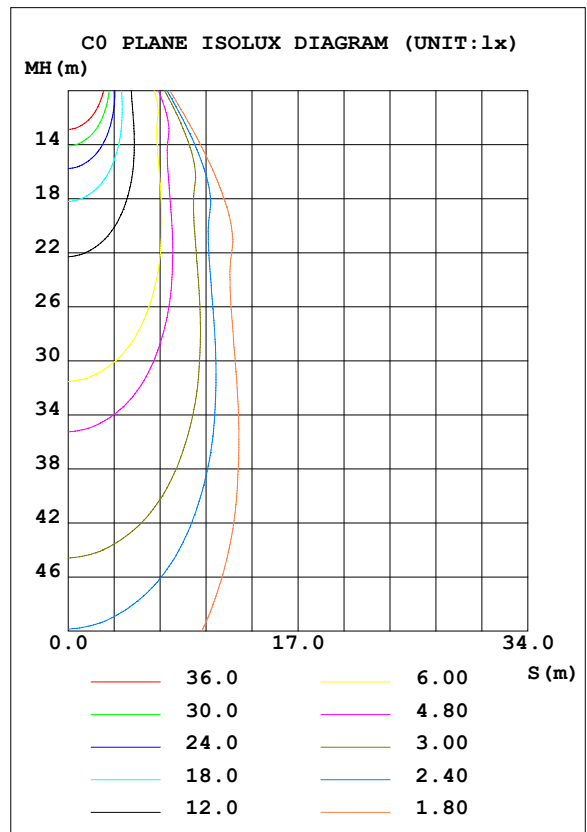
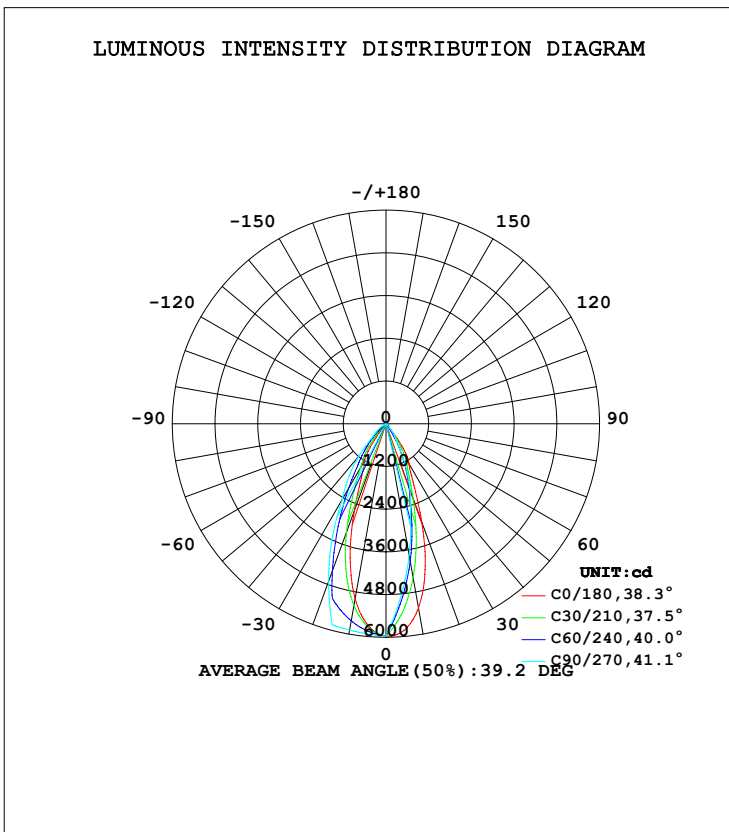
γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:



LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.20 lm/W			
MODEL	Juvenis DC-40W-3000D-40D	I <sub>max</sub> (cd)	5968	S/MH (C0/180)	0.60
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	0.85
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	3294.0	η UP, DN (C0-180)	0.0, 65.5
NOMINAL FLUX (lm)	3294.05	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 34.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	229.8	η down (%)	100.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [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	5695	5790	5926	5879	5829	5125	4859	5047	0- 5	135.6	135.6	4.12,4.12
10	4998	5399	5885	5592	5256	4110	3752	3969	5- 10	368.2	503.8	15.3,15.3
15	3900	4800	5844	5101	4248	2989	2645	2821	10- 15	522.4	1026	31.2,31.2
20	2605	4032	4716	4418	2931	1918	1966	1790	15- 20	575.0	1601	48.6,48.6
25	1609	2787	3587	3139	1808	1257	1286	1176	20- 25	524.6	2126	64.5,64.5
30	1233	1818	2458	2048	1287	760.9	606.7	721.2	25- 30	423.9	2550	77.4,77.4
35	633.7	1253	1819	1394	840.8	371.2	419.9	344.2	30- 35	315.1	2865	87,87
40	94.20	769.9	1179	957.1	171.1	76.71	233.1	71.38	35- 40	203.9	3069	93.2,93.2
45	62.83	331.4	539.2	467.8	72.02	56.26	46.32	53.94	40- 45	105.7	3174	96.4,96.4
50	47.21	98.75	373.0	154.0	51.57	38.66	35.57	37.87	45- 50	49.06	3224	97.9,97.9
55	33.02	46.23	206.8	50.86	34.82	24.84	24.81	24.92	50- 55	28.67	3252	98.7,98.7
60	22.09	33.94	40.61	37.65	23.47	17.36	14.06	17.39	55- 60	17.77	3270	99.3,99.3
65	14.12	23.15	30.95	25.63	15.18	10.84	9.420	10.96	60- 65	10.37	3280	99.6,99.6
70	8.363	15.34	21.29	16.52	9.696	5.992	4.783	6.091	65- 70	7.109	3287	99.8,99.8
75	4.947	9.958	11.62	10.73	6.014	2.725	0.1453	2.805	70- 75	4.419	3292	99.9,99.9
80	0.1485	4.580	0	5.091	0.4408	0.0636	0	0.0742	75- 80	1.954	3294	100,100
85	0.0502	0	0	0	0.0680	0	0	0	80- 85	0.2418	3294	100,100
90	0.0310	0	0	0	0.0311	0	0	0	85- 90	0.0043	3294	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			

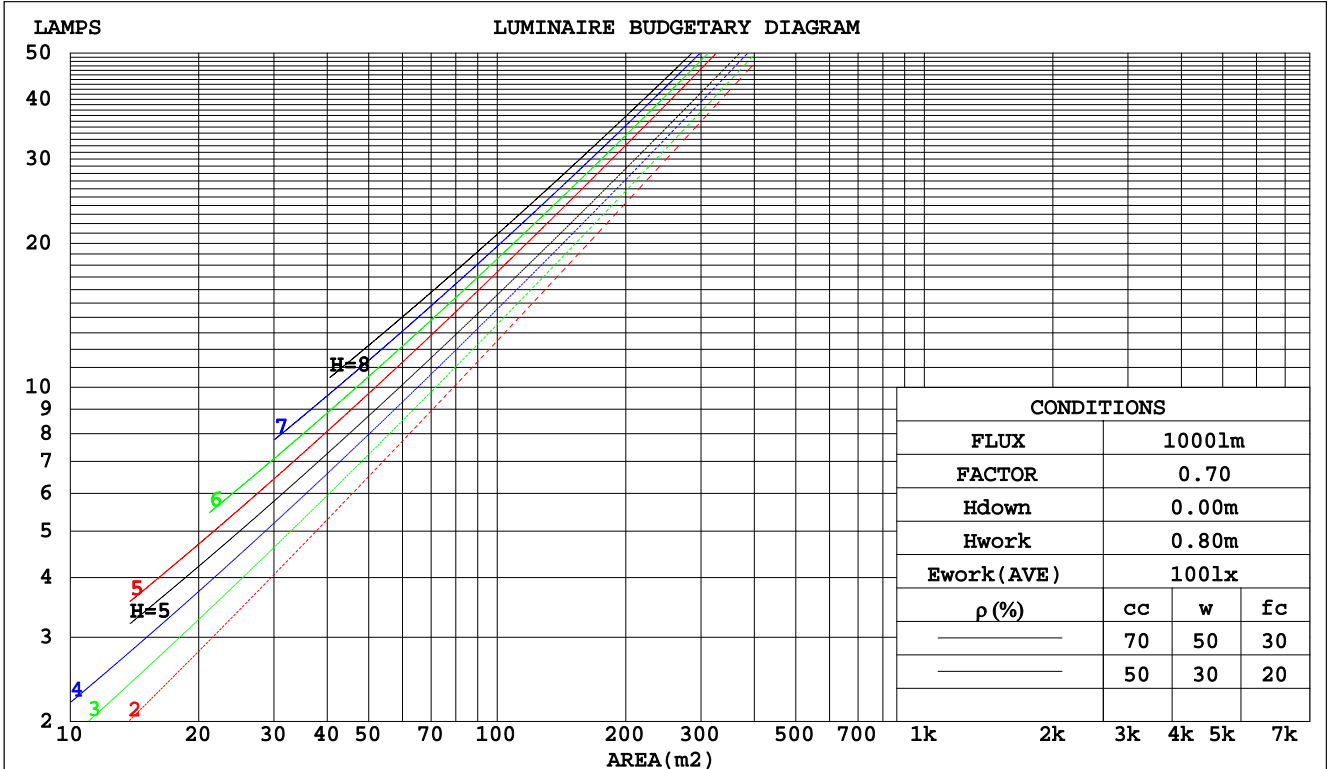
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.92	.90	.88
3.0	.98	.93	.89	.96	.92	.88	.94	.90	.87	.91	.88	.86	.89	.86	.84	.83
4.0	.92	.87	.83	.91	.86	.82	.88	.84	.81	.86	.83	.80	.85	.82	.79	.78
5.0	.86	.81	.77	.86	.80	.77	.84	.79	.76	.82	.78	.75	.81	.77	.75	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.77	.73	.70	.69
7.0	.77	.72	.68	.77	.71	.68	.76	.71	.67	.74	.70	.67	.73	.70	.67	.65
8.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.62
9.0	.70	.64	.61	.69	.64	.61	.68	.64	.60	.68	.63	.60	.67	.63	.60	.59
10.0	.67	.61	.58	.66	.61	.58	.65	.61	.57	.65	.60	.57	.64	.60	.57	.56



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.170	.097	.031	.163	.093	.030	.150	.086	.028	.139	.080	.026	.128	.074	.024	
2.0	.162	.089	.027	.156	.086	.027	.146	.081	.025	.136	.076	.024	.127	.072	.023	
3.0	.154	.082	.024	.149	.080	.024	.140	.076	.023	.132	.072	.022	.124	.069	.021	
4.0	.146	.076	.022	.142	.074	.022	.134	.071	.021	.127	.068	.021	.120	.065	.020	
5.0	.139	.071	.021	.135	.069	.020	.129	.067	.020	.122	.065	.019	.117	.062	.019	
6.0	.132	.066	.019	.129	.065	.019	.123	.063	.018	.118	.061	.018	.113	.059	.018	
7.0	.126	.062	.018	.124	.062	.018	.118	.060	.017	.114	.058	.017	.109	.057	.017	
8.0	.121	.059	.017	.118	.058	.016	.114	.057	.016	.110	.055	.016	.105	.054	.016	
9.0	.116	.056	.016	.114	.055	.016	.109	.054	.015	.106	.053	.015	.102	.052	.015	
10.0	.111	.053	.015	.109	.053	.015	.105	.052	.015	.102	.051	.014	.099	.050	.014	

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	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	.171	.157	.145	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.033	.016	.013	.011	
4.0	.131	.099	.074	.113	.085	.064	.078	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.039	.028	.019	.013	.009	.006	
7.0	.108	.070	.043	.093	.061	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.102	.064	.037	.088	.055	.032	.061	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.097	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.080	.047	.025	.055	.033	.017	.032	.019	.010	.010	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DOBAC  
 Test Date:2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity:65.0%  
 Test Distance:6.960m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME: Juvenis DC-40W-3000D-40D					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.: DOBAC					SUR.:					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	24.6	25.5	24.8	25.7	25.8	29.4	30.3	29.6	30.4	30.6				
3H	24.5	25.3	24.8	25.5	25.7	29.3	30.1	29.5	30.3	30.5				
4H	24.4	25.2	24.7	25.4	25.6	29.2	30.0	29.5	30.2	30.4				
6H	24.3	25.1	24.6	25.3	25.6	29.1	29.8	29.4	30.1	30.3				
8H	24.3	25.0	24.6	25.2	25.5	29.1	29.8	29.4	30.0	30.3				
12H	24.2	24.9	24.6	25.2	25.5	29.0	29.7	29.3	29.9	30.2				
4H 2H	24.4	25.2	24.7	25.4	25.7	29.1	29.9	29.4	30.1	30.3				
3H	24.3	25.0	24.6	25.3	25.5	29.0	29.7	29.3	30.0	30.2				
4H	24.3	24.9	24.6	25.2	25.5	28.9	29.6	29.3	29.9	30.2				
6H	24.2	24.7	24.5	25.0	25.4	28.9	29.4	29.2	29.7	30.1				
8H	24.1	24.6	24.5	25.0	25.3	28.8	29.3	29.2	29.7	30.0				
12H	24.1	24.5	24.5	24.9	25.3	28.8	29.2	29.2	29.6	30.0				
8H 4H	24.2	24.7	24.5	25.0	25.4	28.8	29.3	29.2	29.7	30.0				
6H	24.1	24.5	24.5	24.9	25.3	28.7	29.1	29.1	29.5	29.9				
8H	24.0	24.4	24.5	24.8	25.2	28.7	29.0	29.1	29.4	29.9				
12H	24.0	24.3	24.4	24.7	25.2	28.6	28.9	29.1	29.4	29.8				
12H 4H	24.1	24.6	24.5	24.9	25.3	28.8	29.2	29.2	29.6	30.0				
6H	24.0	24.4	24.5	24.8	25.2	28.7	29.0	29.1	29.4	29.9				
8H	24.0	24.3	24.4	24.7	25.2	28.6	28.9	29.1	29.4	29.8				
Variations with the observer position at spacings:														
S = 1.0H	+ 2.9 / - 6.2					+ 3.5 / - 8.5								
1.5H	+ 4.7 / - 5.2					+ 5.6 / - 9.7								
2.0H	+ 1.1 / - 1.7					+ 6.7 / - 6.9								

CIE Pub.117 Corrected 3294 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.1)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

UTILIZATION FACTORS TABLE

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

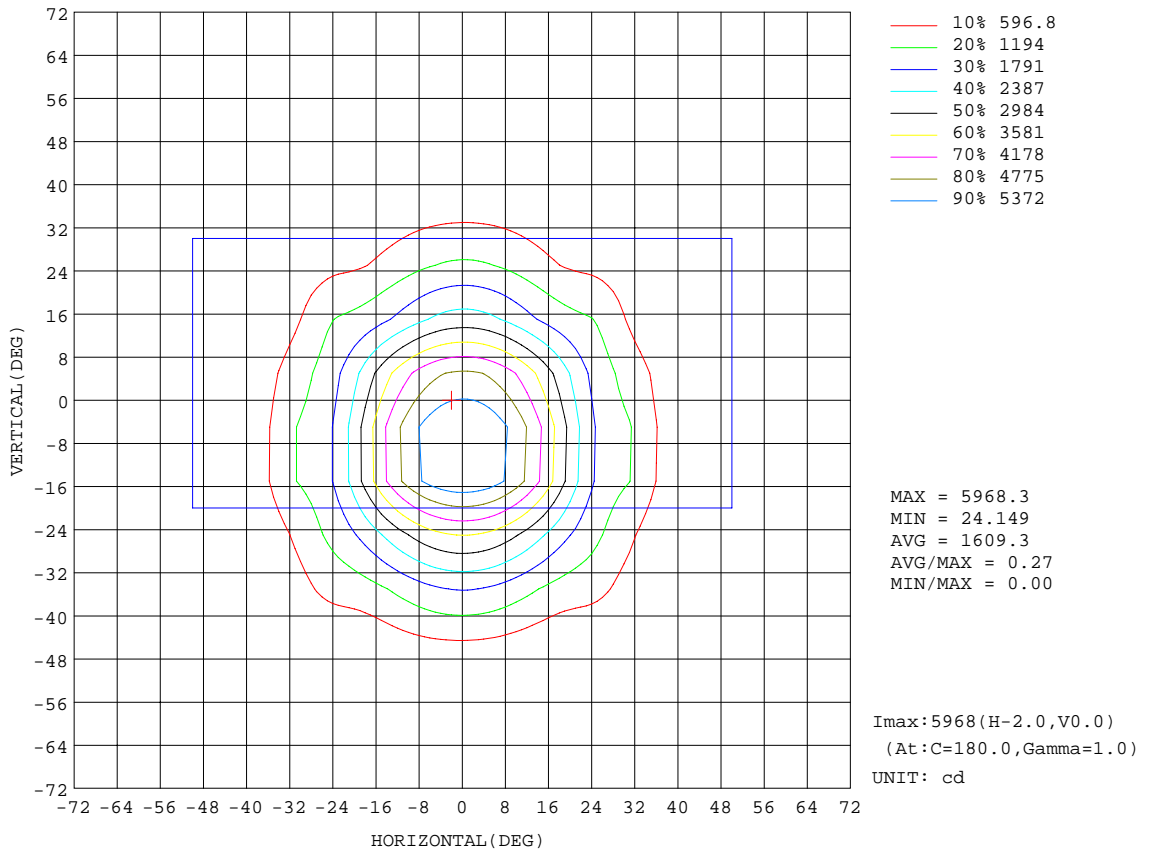
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	81	77	87	81	77	86	80	77	73
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	98	94	100	96	93	89
1.50	106	101	98	105	101	97	103	99	96	92
2.00	109	104	101	107	103	101	105	101	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
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:DOBAC  
Test Date:2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

ISOCANDELA DIAGRAM

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

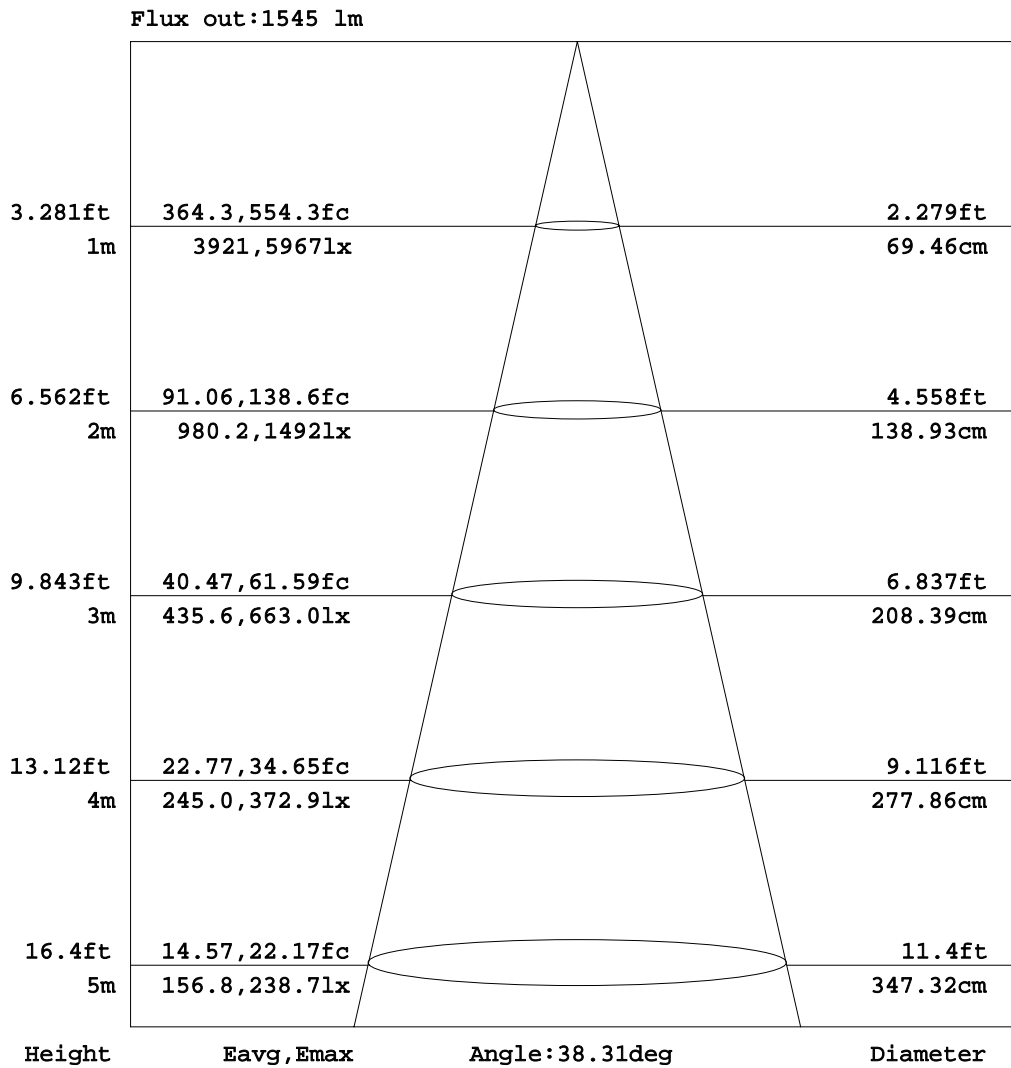


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

AAI Figure

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



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

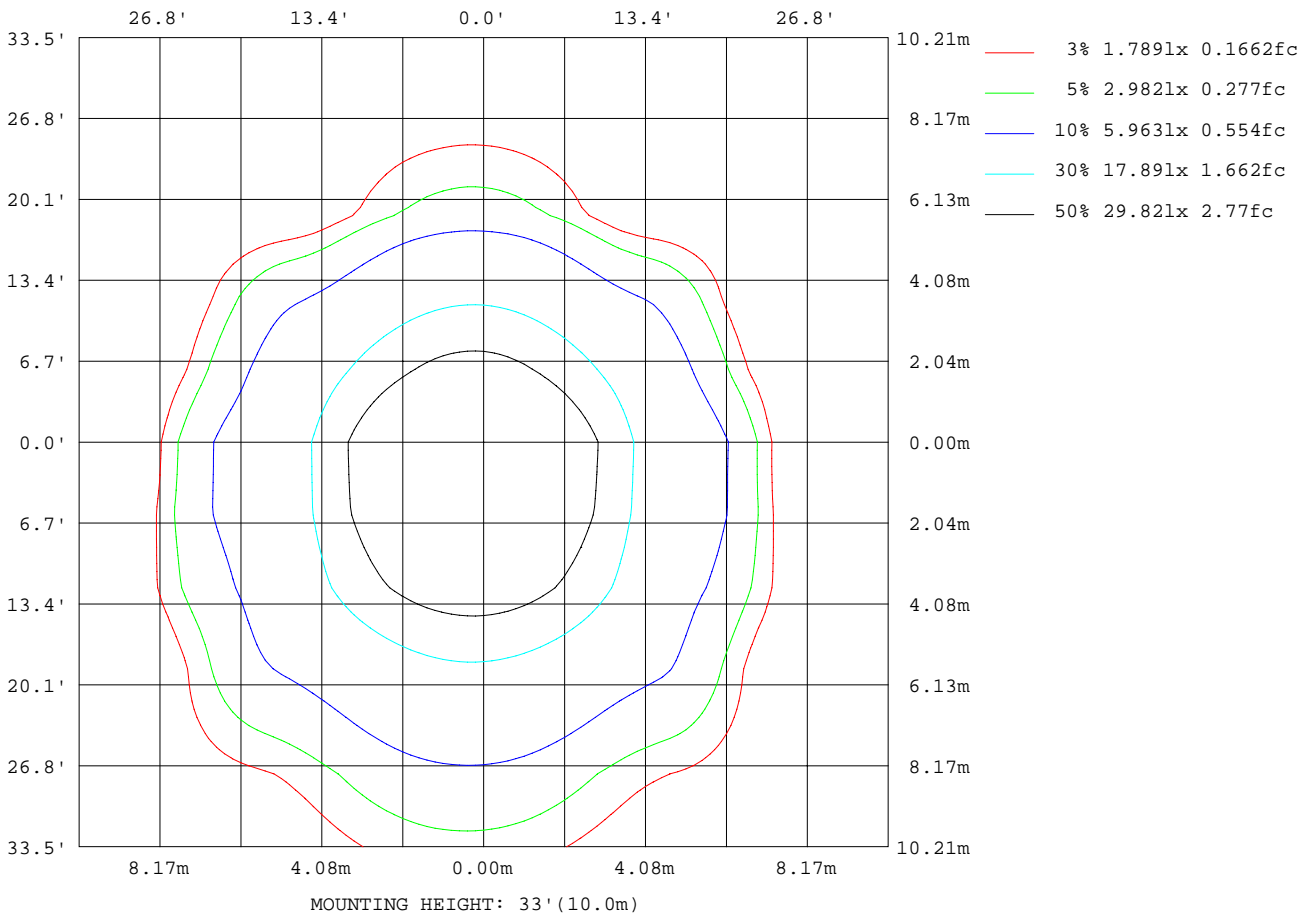
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:



ISOLUX DIAGRAM

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3294.05	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																				
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180		
55	27417	29336	31685	34594	36915	40122	44453	67622	13945	81717	02605	58956	13488	61432	38420	78390	46357	61321	85289	10	
60	21041	22616	25225	27835	30721	33929	36208	41203	45315	38677	47659	48404	39008	36375	35014	31470	28112	24978	22352	10	
65	15911	17164	19463	22014	25207	26848	29578	32185	34037	34872	34502	33180	30983	29217	27919	24884	21923	19227	17100	10	
70	11644	12872	14803	17572	19749	22785	25942	27729	29110	29637	29437	28556	27020	24652	21273	19724	17320	15154	13500	10	
75	9101	10059	11800	13627	17044	19169	20583	21010	21423	21388	21559	21728	21587	20665	18764	15828	14634	12796	11064	10	
80	407	1181	8409	8071	13956	10660	6878	3413	930	0	936	3534	7257	11614	15956	14265	11775	10181	1209	10	
85	274	322	530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	558	390	372	10

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	171702	200	---	500
Category 2	65 to 90	34872	200	---	500
Category 3	75 to 90	21728	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

**Average Luminance Table(CIBSE)**

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	3294.05	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0021	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	27417	29336	31685	34594	36915	40122	44453	67622	139458	71702	605589	561348861	432384	207839046	3576132185	28910			
60	21041	22616	25225	27835	30721	33929	36208	41203	45315	38677	47659	48404	39008	36375	35014	31470	28112	24978	22352
65	15911	17164	19463	22014	25207	26848	29578	32185	34037	34872	34502	33180	30983	29217	27919	24884	21923	19227	17100
70	11644	12872	14803	17572	19749	22785	25942	27729	29110	29637	29437	28556	27020	24652	21273	19724	17320	15154	13500
75	9101	10059	11800	13627	17044	19169	20583	21010	21423	21388	21559	21728	21587	20665	18764	15828	14634	12796	11064
80	407	1181	8409	8071	13956	10660	6878	3413	930	0	936	3534	7257	11614	15956	14265	11775	10181	1209
85	274	322	530	0	0	0	0	0	0	0	0	0	0	0	0	0	558	390	372

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	171702	1000	1500	200	500
65 to 90	34872	1000	1500	200	500

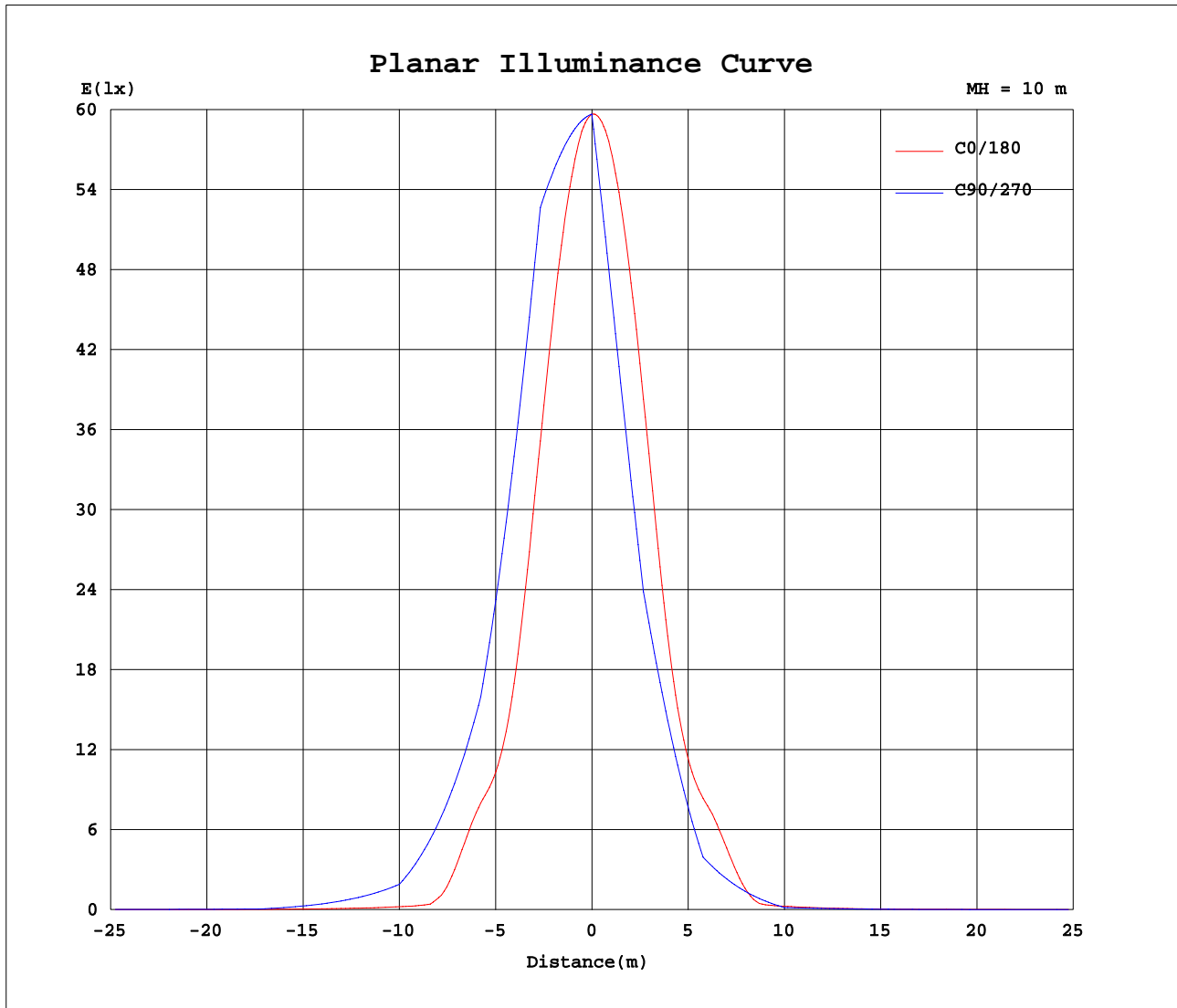
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DOBAC  
 Test Date: 2017-11-07

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
 Humidity: 65.0%  
 Test Distance: 6.960m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966
5	5695	5693	5694	5699	5708	5720	5735	5753	5771	5790	5812	5832	5849	5867	5881	5895	5908	5916	5926
10	4998	4997	5009	5035	5073	5125	5183	5252	5323	5399	5473	5549	5625	5691	5749	5798	5836	5866	5885
15	3900	3904	3936	3996	4082	4190	4321	4469	4631	4800	4972	5138	5294	5438	5569	5675	5753	5810	5844
20	2605	2613	2662	2749	2875	3042	3250	3486	3753	4032	4218	4314	4403	4480	4545	4607	4651	4686	4716
25	1609	1616	1653	1718	1825	1974	2174	2445	2618	2787	2939	3072	3180	3279	3365	3441	3506	3554	3587
30	1233	1234	1248	1275	1315	1381	1452	1546	1684	1818	1942	2038	2113	2177	2238	2304	2371	2423	2458
35	634	646	705	803	935	1012	1012	1028	1116	1253	1336	1332	1330	1387	1483	1592	1698	1776	1819
40	94.2	102	123	171	274	373	440	504	611	770	882	883	838	844	909	994	1079	1144	1179
45	62.8	62.6	63.6	66.7	70.9	76.6	105	91.1	170	331	435	461	404	353	376	428	479	517	539
50	47.2	47.4	48.9	51.0	51.9	54.3	56.6	58.1	63.8	98.7	140	102	72.2	83.1	141	226	298	349	373
55	33.0	33.4	35.3	36.5	38.2	40.3	41.7	43.0	44.5	46.2	48.3	50.7	53.5	58.4	81.5	129	168	195	207
60	22.1	22.4	23.7	24.7	26.5	27.9	29.2	30.6	32.3	33.9	35.6	36.9	38.0	40.0	43.3	49.3	47.6	42.9	40.6
65	14.1	14.5	15.2	16.4	17.3	18.3	19.5	21.0	22.4	23.2	23.8	24.6	26.3	27.6	28.6	29.7	30.2	30.7	30.9
70	8.36	8.73	9.25	10.0	10.6	11.6	12.6	13.5	14.2	15.3	16.4	17.5	18.6	19.3	19.9	20.6	20.9	21.1	21.3
75	4.95	5.12	5.47	5.88	6.41	6.99	7.41	8.38	9.26	9.96	10.4	10.8	11.2	11.4	11.4	11.6	11.6	11.6	11.6
80	0.15	0.23	0.43	1.38	3.07	2.88	2.94	4.62	5.09	4.58	3.89	3.20	2.51	1.87	1.24	0.74	0.34	0.09	0.00
85	0.05	0.05	0.06	0.10	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966
5	5927	5929	5927	5923	5917	5908	5900	5890	5879	5869	5859	5848	5839	5833	5828	5826	5826	5829	5734
10	5889	5882	5865	5838	5803	5760	5706	5649	5592	5532	5476	5419	5370	5325	5291	5269	5257	5256	5081
15	5847	5826	5779	5710	5617	5508	5383	5246	5101	4953	4810	4674	4548	4443	4355	4293	4257	4248	4037
20	4730	4734	4730	4716	4695	4666	4626	4576	4418	4154	3896	3655	3441	3260	3116	3012	2950	2931	2765
25	3599	3592	3569	3534	3485	3427	3351	3259	3139	3000	2845	2536	2288	2103	1966	1878	1825	1808	1727
30	2466	2451	2418	2374	2332	2288	2234	2157	2048	1913	1781	1659	1532	1422	1355	1317	1295	1287	1184
35	1818	1775	1695	1593	1495	1421	1401	1422	1394	1296	1184	1133	1149	1132	1027	931	866	841	705
40	1181	1150	1088	1010	934	897	920	977	957	806	680	622	578	512	369	253	193	171	158
45	548	541	514	465	419	430	502	536	468	303	147	167	129	93.6	80.0	74.2	72.1	72.0	68.0
50	372	344	290	206	117	79.7	117	180	154	81.3	65.8	61.6	60.9	60.0	58.8	56.0	52.8	51.6	48.3
55	207	193	164	115	68.7	58.9	53.7	52.1	50.9	50.7	48.4	47.0	46.1	43.1	40.6	38.8	35.9	34.8	32.7
60	43.6	50.0	55.0	50.8	42.7	41.0	39.3	38.2	37.6	36.8	34.7	33.0	31.2	29.5	27.3	26.2	24.3	23.5	21.9
65	31.0	30.6	30.2	29.4	28.6	27.5	26.4	25.9	25.6	24.8	23.4	22.1	20.6	19.5	18.3	17.1	16.1	15.2	14.3
70	21.4	21.1	20.9	20.5	20.0	19.4	18.6	17.7	16.5	15.3	14.8	14.2	13.4	12.4	11.7	10.9	10.3	9.70	9.09
75	11.7	11.7	11.7	11.8	11.7	11.7	11.5	11.2	10.7	10.2	9.39	8.60	8.37	7.95	7.55	6.96	6.55	6.01	5.40
80	0.09	0.34	0.75	1.29	1.91	2.65	3.40	4.24	5.09	5.82	5.65	5.20	4.04	4.29	3.98	3.71	1.99	0.44	0.39
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.10	0.14	0.07	0.04	0.07	0.04
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966
5	5642	5554	5469	5390	5316	5248	5184	5125	5073	5026	4983	4949	4918	4895	4877	4864	4859	4855	4860
10	4918	4767	4629	4505	4389	4287	4193	4110	4036	3974	3923	3873	3834	3802	3777	3761	3752	3746	3747
15	3850	3686	3540	3406	3286	3176	3077	2989	2914	2850	2795	2752	2720	2691	2671	2654	2645	2635	2630
20	2631	2518	2419	2324	2227	2127	2023	1918	1870	1880	1899	1921	1941	1959	1967	1969	1966	1949	1927
25	1670	1628	1594	1547	1480	1385	1307	1257	1234	1227	1235	1252	1269	1282	1288	1290	1286	1273	1256
30	1105	1059	1050	1069	1057	974	861	761	690	655	642	639	638	631	622	612	607	602	601
35	602	528	485	508	542	533	476	371	248	156	209	277	333	376	403	417	420	409	387
40	153	133	90.1	122	169	191	148	76.7	79.9	83.0	109	153	190	215	227	233	233	228	218
45	65.6	64.9	61.9	59.3	58.1	56.2	55.5	56.3	55.9	56.9	58.3	70.2	75.7	70.4	59.9	50.3	46.3	49.6	58.2
50	46.6	45.2	43.7	41.9	40.1	39.6	39.3	38.7	37.6	36.0	35.0	35.4	35.5	35.6	35.8	35.8	35.6	35.3	35.1
55	31.7	30.5	29.3	28.5	28.1	27.2	26.1	24.8	25.3	25.4	25.7	25.6	25.5	25.2	25.1	25.0	24.8	24.7	24.7
60	21.2	20.2	19.3	18.9	18.4	17.3	17.3	17.4	17.2	17.0	16.6	16.2	15.6	15.0	14.5	14.2	14.1	14.1	14.3
65	13.5	12.8	12.3	11.7	11.5	11.5	11.2	10.8	10.1	9.47	9.43	9.53	9.58	9.52	9.44	9.45	9.42	9.39	9.37
70	8.38	7.93	7.47	7.15	7.11	6.77	6.18	5.99	5.80	5.64	5.46	5.32	5.20	5.03	4.88	4.82	4.78	4.79	4.85
75	4.72	4.50	3.18	3.39	3.65	3.48	3.11	2.73	2.36	1.97	1.59	1.21	0.88	0.57	0.34	0.20	0.15	0.20	0.34
80	0.20	0.78	0.13	0.33	1.15	0.75	0.21	0.06	0.05	0.04	0.03	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00
85	0.06	0.07	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DOBAC  
Test Date:2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity:65.0%  
Test Distance:6.960m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Juvenis DC-40W-3000D-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C( DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966	5966				
5	4869	4885	4907	4933	4967	5005	5047	5096	5152	5211	5278	5351	5430	5514	5602				
10	3756	3771	3792	3822	3860	3909	3969	4034	4112	4200	4301	4413	4539	4678	4832				
15	2633	2638	2657	2681	2716	2763	2821	2890	2970	3060	3160	3273	3400	3544	3710				
20	1898	1865	1825	1790	1761	1748	1790	1880	1968	2051	2124	2198	2275	2362	2469				
25	1233	1202	1172	1147	1135	1142	1176	1238	1321	1395	1436	1453	1466	1493	1539				
30	598	592	583	577	590	639	721	824	901	937	921	900	925	996	1102				
35	351	302	236	163	126	231	344	418	439	402	328	308	371	447	528				
40	199	169	126	87.3	74.3	73.2	71.4	124	133	98.5	79.3	77.8	95.6	101	95.1				
45	67.1	69.2	60.5	53.1	53.4	53.0	53.9	53.7	54.7	55.0	55.1	56.6	58.2	58.4	60.0				
50	34.9	34.8	34.8	34.8	35.4	37.0	37.9	38.9	39.5	39.5	40.1	41.1	42.4	43.2	44.5				
55	24.7	25.0	25.2	25.4	25.5	25.2	24.9	26.3	27.0	27.5	28.0	28.5	29.3	30.3	31.0				
60	14.7	15.4	16.0	16.5	17.1	17.3	17.4	17.4	17.3	18.1	18.7	19.1	19.5	20.3	20.7				
65	9.39	9.45	9.42	9.46	9.57	10.2	11.0	11.4	11.5	11.4	11.7	12.2	12.5	12.7	13.2				
70	4.97	5.13	5.26	5.49	5.69	5.90	6.09	6.29	6.83	6.93	6.87	7.22	7.46	7.65	7.90				
75	0.57	0.87	1.20	1.60	1.99	2.41	2.80	3.15	3.50	3.43	1.92	2.99	4.00	3.95	4.50				
80	0.01	0.02	0.02	0.03	0.05	0.06	0.07	0.22	0.73	0.99	0.17	0.11	0.16	0.12	0.12				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.07	0.05	0.04				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DOBAC  
Test Date: 2017-11-07

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V1.0.260  
Humidity: 65.0%  
Test Distance: 6.960m [K=1.0000]  
Remarks: