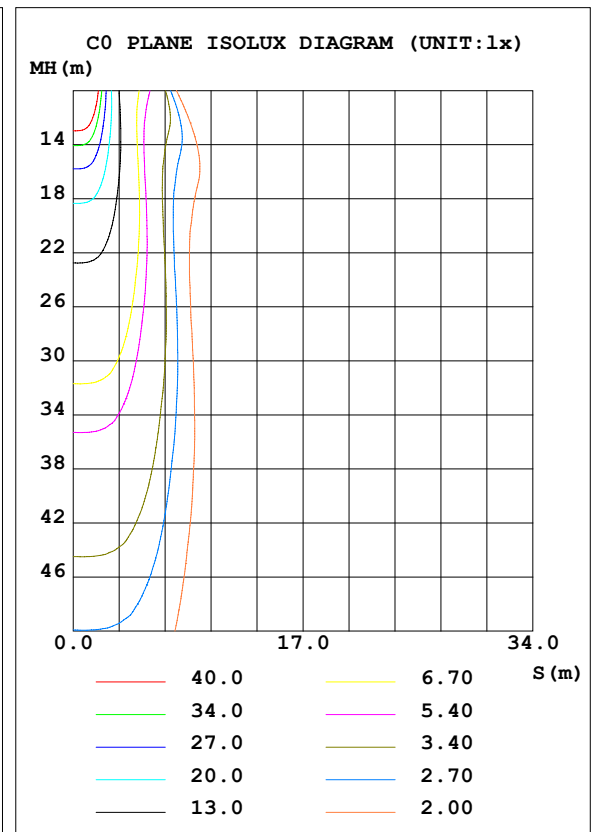
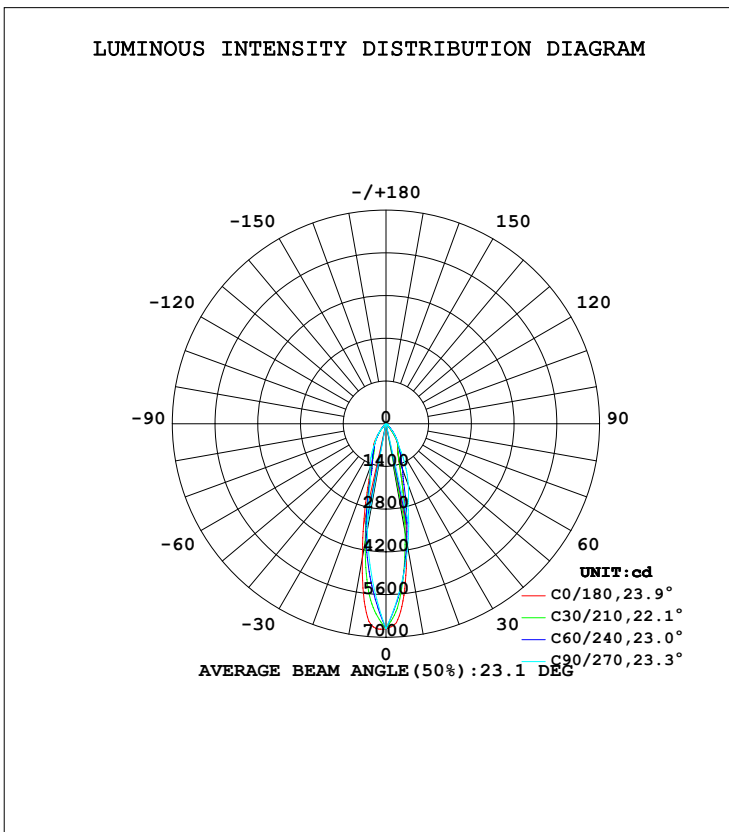


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Juvenis Recessed-30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 74.67 lm/W			
MODEL	Juvenis Recessed-30W-24D-3000K-90	I _{max} (cd)	6736	S/MH (C0/180)	0.43
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	0.36
RATED VOLTAGE (V)	216	TOTAL FLUX (lm)	2045.9	η UP, DN (C0-180)	0.0, 46.8
NOMINAL FLUX (lm)	2045.9	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 53.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	216.1	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: 2017-11-13

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	6497	5538	5133	5332	6014	5505	5413	5730	0- 5	143.9	143.9	7.03,7.03
10	4486	3858	3539	3489	3896	3741	4099	4167	5- 10	333.4	477.3	23.3,23.3
15	2488	2208	1945	1998	2093	2226	2785	2510	10- 15	351.8	829.1	40.5,40.5
20	1345	1239	1539	1171	1206	1333	2136	1464	15- 20	289.6	1119	54.7,54.7
25	962.8	904.4	1133	871.2	901.7	972.6	1486	1036	20- 25	252.6	1371	67,67
30	808.9	669.4	727.9	642.9	761.6	737.9	836.1	781.1	25- 30	225.9	1597	78.1,78.1
35	556.2	441.4	512.7	410.4	499.0	518.1	592.3	562.9	30- 35	189.0	1786	87.3,87.3
40	239.4	209.4	297.5	178.2	192.5	282.9	348.5	326.0	35- 40	131.5	1918	93.7,93.7
45	91.80	94.08	82.24	77.23	88.85	130.4	104.7	157.2	40- 45	69.22	1987	97.1,97.1
50	55.91	37.36	56.19	34.95	39.10	47.05	71.63	59.16	45- 50	31.84	2019	98.7,98.7
55	10.38	7.676	30.15	6.467	7.420	10.77	38.53	13.58	50- 55	15.01	2034	99.4,99.4
60	4.993	5.033	4.106	4.570	4.442	6.171	5.437	7.348	55- 60	6.173	2040	99.7,99.7
65	3.796	3.554	3.305	3.379	3.475	4.048	4.484	4.622	60- 65	2.339	2042	99.8,99.8
70	2.956	2.425	2.505	2.335	2.802	2.762	3.532	3.256	65- 70	1.658	2044	99.9,99.9
75	2.140	1.237	1.704	1.133	1.972	1.498	2.580	2.046	70- 75	1.245	2045	100,100
80	0.2276	0.1753	0	0.0784	0.1560	0.3213	0	0.6908	75- 80	0.5867	2046	100,100
85	0.0135	0	0	0	0.0350	0	0	0	80- 85	0.0454	2046	100,100
90	0.0039	0	0	0	0.0084	0	0	0	85- 90	0.0018	2046	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			

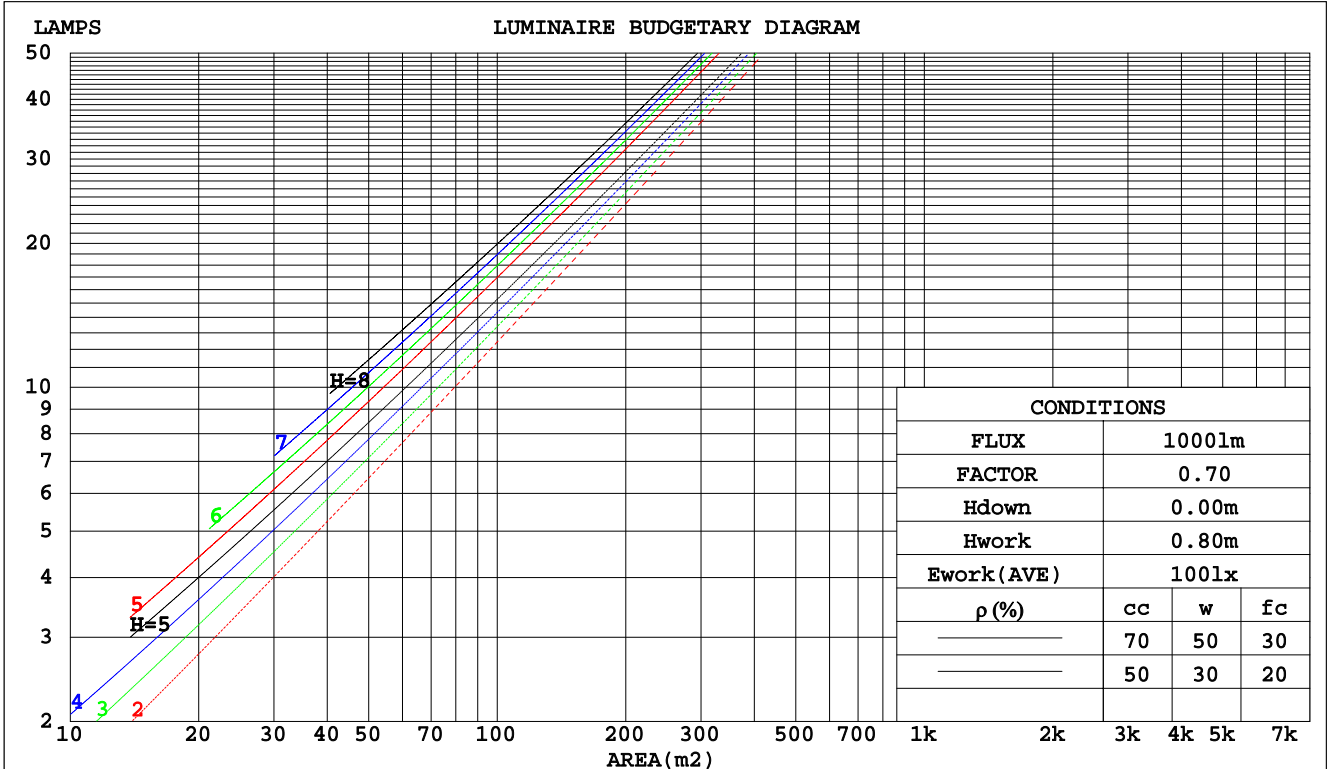
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-13

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 Recessed-30W-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																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	1.09	1.07	1.09	1.07	1.06	1.05	1.04	1.02	1.02	1.01	.99	.98	.97	.97	.95
2.0	1.05	1.01	.98	1.03	.90	.97	.90	.97	.95	.97	.95	.93	.94	.93	.91	.90
3.0	.99	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.87	.90	.88	.86	.85
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.89	.83	.80	.88	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.80	.75	.71	.78	.74	.71	.77	.73	.70	.76	.73	.70	.69
8.0	.77	.71	.68	.76	.71	.68	.75	.70	.67	.74	.70	.67	.73	.69	.67	.66
9.0	.73	.68	.65	.73	.68	.64	.72	.67	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.68	.64	.61	.60



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-13

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 Recessed-30W-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	.161	.092	.029	.155	.088	.028	.142	.082	.026	.131	.075	.024	.120	.070	.022	
2.0	.153	.084	.026	.148	.081	.025	.137	.076	.024	.128	.072	.022	.119	.067	.021	
3.0	.145	.077	.023	.141	.075	.023	.132	.071	.022	.124	.068	.021	.116	.064	.020	
4.0	.138	.072	.021	.134	.070	.021	.126	.067	.020	.119	.064	.019	.113	.061	.019	
5.0	.131	.067	.019	.127	.065	.019	.121	.063	.019	.115	.061	.018	.109	.058	.018	
6.0	.125	.062	.018	.122	.061	.018	.116	.059	.017	.110	.057	.017	.105	.056	.016	
7.0	.119	.059	.017	.116	.058	.016	.111	.056	.016	.106	.055	.016	.102	.053	.016	
8.0	.113	.055	.016	.111	.055	.015	.107	.053	.015	.102	.052	.015	.099	.051	.015	
9.0	.109	.053	.015	.106	.052	.015	.102	.051	.014	.099	.049	.014	.095	.048	.014	
10.0	.104	.050	.014	.102	.049	.014	.099	.048	.014	.095	.047	.013	.092	.046	.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	.100	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.140	.113	.092	.120	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.099	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.112	.077	.052	.096	.067	.045	.066	.047	.032	.039	.027	.019	.012	.009	.006	
7.0	.105	.069	.044	.090	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.099	.063	.038	.085	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005	
9.0	.094	.057	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.089	.053	.029	.077	.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: 2017-11-13

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 Recessed-30W-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				
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	9.7	10.5	9.9	10.7	10.8	10.4	11.3	10.7	11.4	11.6				
3H	9.5	10.3	9.8	10.5	10.7	10.3	11.1	10.5	11.2	11.4				
4H	9.4	10.2	9.7	10.4	10.6	10.2	10.9	10.5	11.1	11.4				
6H	9.3	10.0	9.6	10.3	10.5	10.1	10.8	10.4	11.0	11.3				
8H	9.3	10.0	9.6	10.2	10.5	10.1	10.7	10.4	11.0	11.2				
12H	9.3	9.9	9.6	10.1	10.4	10.0	10.7	10.3	10.9	11.2				
4H 2H	9.4	10.2	9.7	10.4	10.6	10.2	10.9	10.5	11.1	11.4				
3H	9.3	9.9	9.6	10.2	10.4	10.0	10.7	10.3	10.9	11.2				
4H	9.2	9.8	9.5	10.0	10.4	9.9	10.5	10.3	10.8	11.1				
6H	9.1	9.6	9.5	9.9	10.3	9.8	10.4	10.2	10.7	11.0				
8H	9.0	9.5	9.4	9.8	10.2	9.8	10.3	10.2	10.6	11.0				
12H	9.0	9.4	9.4	9.8	10.2	9.7	10.2	10.1	10.5	10.9				
8H 4H	9.0	9.5	9.4	9.8	10.2	9.8	10.3	10.2	10.6	11.0				
6H	8.9	9.3	9.4	9.7	10.1	9.7	10.1	10.1	10.5	10.9				
8H	8.9	9.2	9.3	9.6	10.1	9.6	10.0	10.1	10.4	10.8				
12H	8.8	9.1	9.3	9.5	10.0	9.6	9.9	10.0	10.3	10.8				
12H 4H	9.0	9.4	9.4	9.8	10.2	9.7	10.2	10.1	10.5	10.9				
6H	8.9	9.2	9.3	9.6	10.1	9.6	10.0	10.1	10.4	10.8				
8H	8.8	9.1	9.3	9.5	10.0	9.6	9.9	10.0	10.3	10.8				
Variations with the observer position at spacings:														
S = 1.0H	+ 4.1 / -14.0					+ 2.8 / -10.8								
1.5H	+ 6.2 / -10.3					+ 5.2 / - 8.5								
2.0H	+ 6.0 / - 8.9					+ 4.5 / -10.5								

CIE Pub.117 Corrected 2046 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.5)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-13

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 Recessed-30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

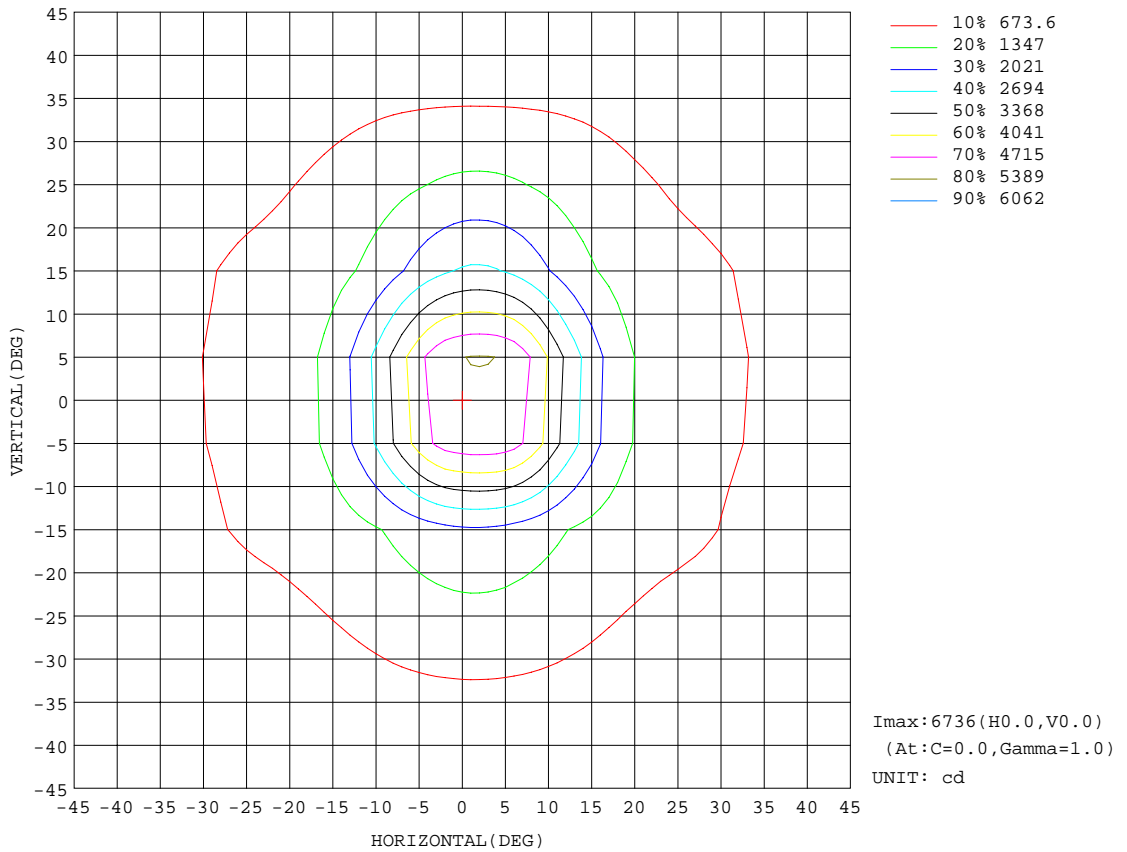
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	88	81	78	87	81	77	86	81	77	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	100	94	90	99	94	90	97	93	90	86
1.25	104	98	95	102	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	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: 2017-11-13

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 Recessed-30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

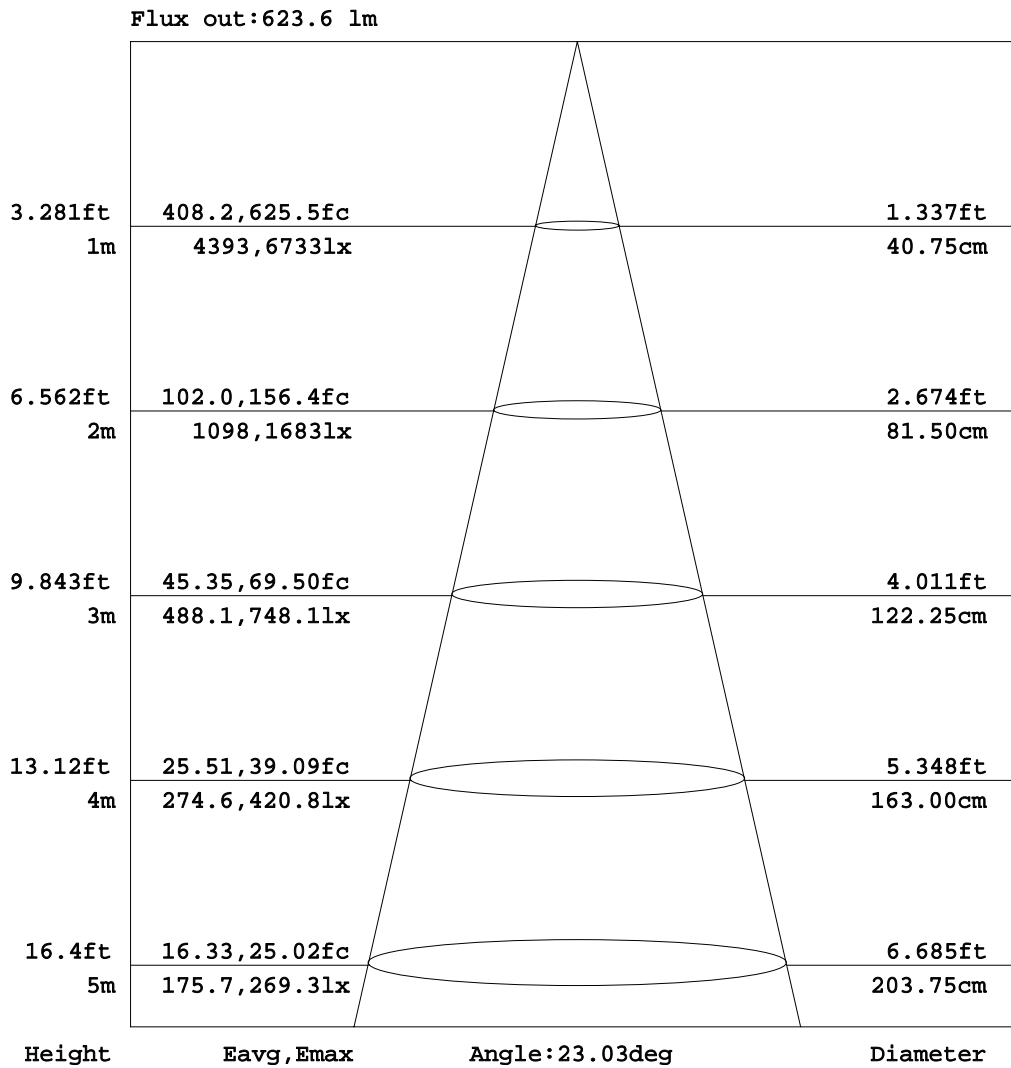


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-13

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 Recessed-30W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



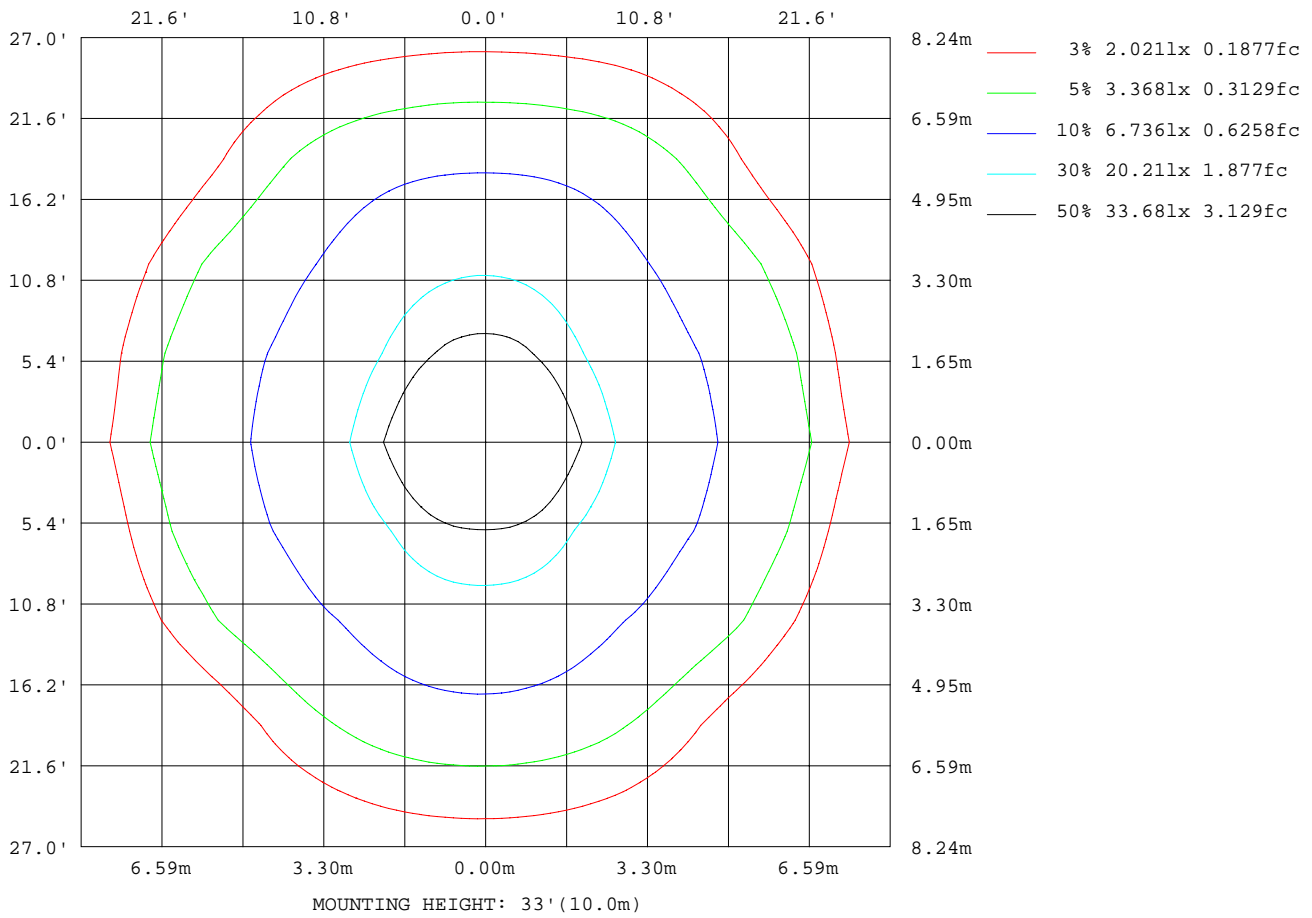
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-13

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 Recessed-30W-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: 2017-11-13

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 Recessed-30W-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	2045.9	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.072	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	251	230	299	372	400	277	607	755	747	730	715	673	466	207	327	242	218	175	180
60	139	135	131	144	128	170	306	278	165	114	161	252	241	146	119	126	118	122	123
65	125	120	118	114	115	117	106	108	109	109	107	105	102	111	111	108	110	112	114
70	120	116	113	110	108	92	89	99	102	102	100	96	81	87	105	106	109	111	114
75	115	103	82	100	77	58	59	86	92	91	90	82	48	52	73	96	77	94	106
80	18	15	19	52	18	13	15	15	4	0	4	14	10	7	11	48	14	11	12
85	2	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	6

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

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum calculated	specified maximum	maximum measured	specified maximum
Category 1	55 to 90	755	200	---	500
Category 2	65 to 90	125	200	---	500
Category 3	75 to 90	115	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:2017-11-13

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 Recessed-30W-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	2045.9	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.072	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	251	230	299	372	400	277	607	755	747	730	715	673	466	207	327	242	218	175	180
60	139	135	131	144	128	170	306	278	165	114	161	252	241	146	119	126	118	122	123
65	125	120	118	114	115	117	106	108	109	109	107	105	102	111	111	108	110	112	114
70	120	116	113	110	108	92	89	99	102	102	100	96	81	87	105	106	109	111	114
75	115	103	82	100	77	58	59	86	92	91	90	82	48	52	73	96	77	94	106
80	18	15	19	52	18	13	15	15	4	0	4	14	10	7	11	48	14	11	12
85	2	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	6

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	755	1000	1500	200	500
65 to 90	125	1000	1500	200	500

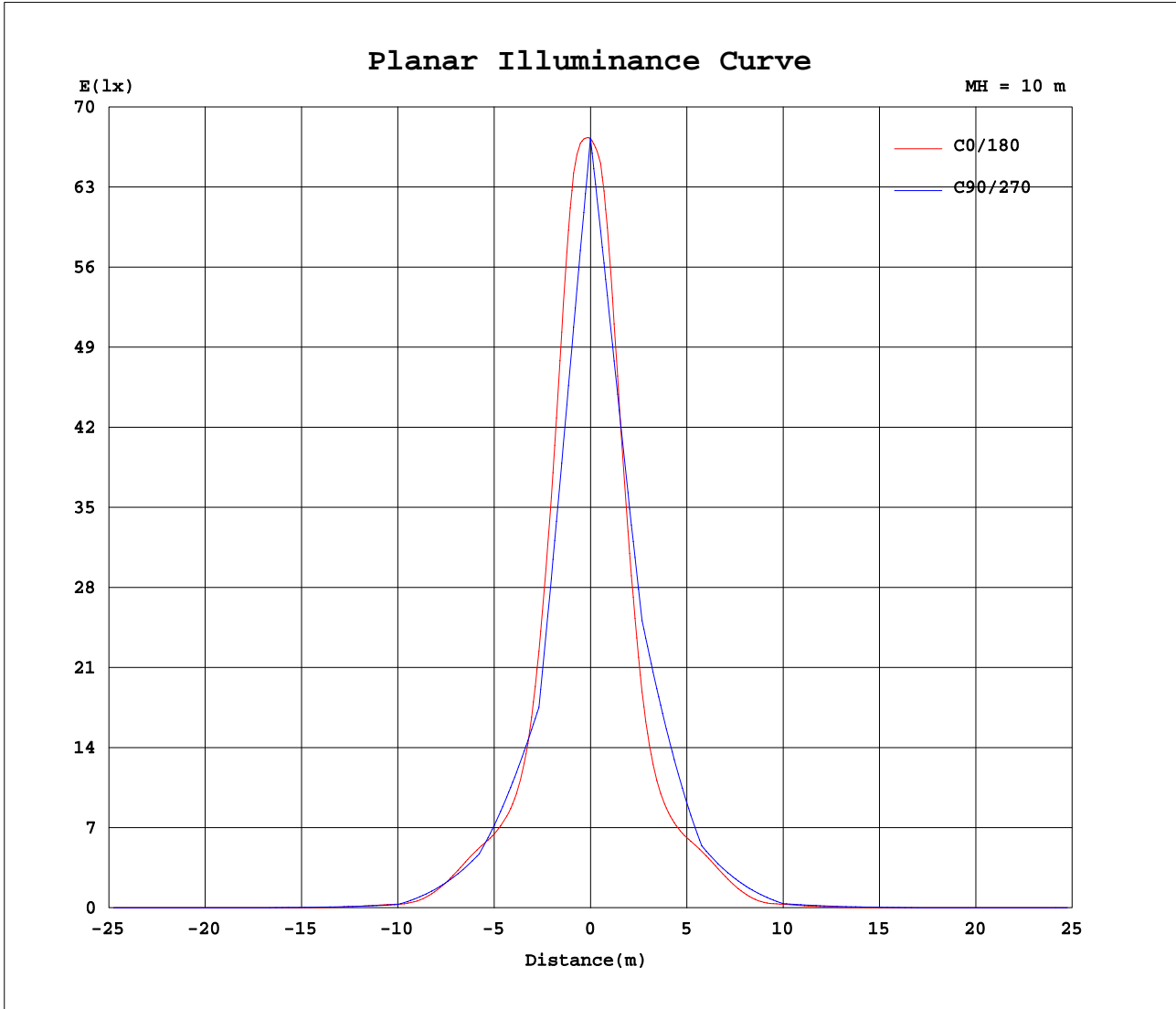
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

The luminaire satisfies the specified luminance criteria for
Negative Software with Type I & II Screen(Good to Moderate treatment).

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-13

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: 2017-11-13

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 Recessed-30W-24D-3000K-90	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	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727
5	6497	6363	6234	6113	5998	5893	5795	5708	5621	5538	5466	5398	5333	5278	5229	5190	5162	5141	5133
10	4486	4325	4196	4096	4020	3965	3926	3900	3876	3858	3831	3805	3775	3722	3669	3620	3580	3552	3539
15	2488	2385	2315	2270	2241	2224	2211	2212	2209	2208	2204	2188	2154	2109	2057	2017	1980	1956	1945
20	1345	1305	1282	1271	1267	1268	1280	1284	1272	1239	1228	1269	1324	1378	1428	1473	1515	1536	1539
25	963	944	933	928	925	925	925	920	905	904	918	944	977	1019	1058	1090	1116	1131	1133
30	809	774	749	739	745	764	754	714	683	669	672	688	710	731	744	746	739	732	728
35	556	515	492	484	491	495	480	468	453	441	444	462	488	507	515	516	515	514	513
40	239	214	203	203	216	239	240	220	201	209	251	284	305	315	317	311	305	300	297
45	91.8	88.6	87.6	89.3	81.5	90.7	105	89.0	77.3	94.1	124	144	151	146	131	112	97.3	86.3	82.2
50	55.9	49.0	47.9	49.4	45.3	42.4	48.8	52.5	46.4	37.4	41.9	42.1	43.3	50.6	53.6	54.0	56.0	56.2	56.2
55	10.4	9.73	9.51	11.0	12.4	9.14	15.4	20.5	16.5	7.68	11.4	18.5	25.1	29.6	31.2	30.6	30.8	30.4	30.1
60	4.99	4.85	4.85	4.81	4.72	4.85	5.18	4.60	4.60	5.03	6.14	8.69	11.0	11.4	10.0	7.84	5.93	4.59	4.11
65	3.80	3.70	3.65	3.63	3.58	3.53	3.46	3.48	3.51	3.55	3.57	3.28	3.23	3.25	3.28	3.30	3.32	3.31	3.31
70	2.96	2.90	2.86	2.82	2.78	2.71	2.70	2.72	2.65	2.43	2.26	2.14	2.19	2.35	2.44	2.49	2.51	2.51	2.50
75	2.14	2.03	1.93	1.95	1.52	1.86	1.87	1.66	1.44	1.24	1.09	0.99	1.10	1.41	1.60	1.68	1.71	1.71	1.70
80	0.23	0.20	0.19	0.39	0.23	0.69	0.65	0.43	0.22	0.18	0.17	0.16	0.19	0.22	0.18	0.11	0.05	0.01	0.00
85	0.01	0.02	0.03	0.06	0.06	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
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:2017-11-13

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 Recessed-30W-24D-3000K-90	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	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727
5	5123	5125	5136	5158	5188	5220	5264	5299	5332	5375	5424	5474	5535	5607	5692	5787	5895	6014	5914
10	3528	3532	3545	3552	3549	3543	3528	3509	3489	3480	3475	3473	3486	3525	3581	3660	3763	3896	3784
15	1938	1943	1958	1980	2000	2013	2016	2009	1998	1985	1970	1951	1941	1936	1947	1972	2018	2093	2031
20	1519	1482	1435	1379	1321	1261	1211	1171	1171	1184	1183	1173	1162	1155	1153	1161	1177	1206	1184
25	1120	1096	1062	1023	978	937	903	881	871	875	894	891	885	880	878	880	888	902	894
30	728	734	734	725	705	681	660	645	643	656	687	729	736	717	712	716	733	762	744
35	511	511	508	501	487	466	436	416	410	423	441	461	475	463	445	445	463	499	478
40	298	301	304	305	300	287	260	222	178	177	207	225	214	191	175	172	178	193	184
45	85.5	94.9	107	123	134	136	126	103	77.2	75.0	82.0	88.9	79.0	77.2	86.6	82.5	83.6	88.8	86.3
50	55.7	53.9	51.2	48.3	42.5	34.1	32.0	32.5	35.0	41.7	41.3	33.0	31.7	36.2	36.7	33.6	34.3	39.1	36.9
55	30.1	29.5	29.0	27.8	24.5	19.3	13.1	8.53	6.47	13.5	14.2	10.00	7.04	8.98	8.07	7.23	7.14	7.42	7.36
60	4.55	5.78	7.46	9.05	9.65	8.67	6.66	5.24	4.57	4.30	4.24	4.54	4.36	4.26	4.34	4.38	4.37	4.44	4.44
65	3.29	3.27	3.23	3.18	3.12	3.10	3.18	3.37	3.38	3.37	3.33	3.30	3.32	3.35	3.38	3.41	3.44	3.47	3.48
70	2.49	2.47	2.43	2.36	2.18	2.00	2.04	2.15	2.34	2.59	2.65	2.61	2.59	2.70	2.68	2.73	2.79	2.80	2.81
75	1.70	1.68	1.64	1.53	1.20	0.89	0.88	0.96	1.13	1.37	1.61	1.79	1.68	1.43	1.88	1.75	1.90	1.97	1.94
80	0.01	0.05	0.11	0.17	0.18	0.13	0.11	0.09	0.08	0.14	0.39	0.60	0.42	0.17	0.22	0.14	0.14	0.16	0.15
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	0.02	0.04	0.04	0.03	0.01	0.04	0.01
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	0.01	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-13

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 Recessed-30W-24D-3000K-90	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	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727
5	5826	5749	5685	5631	5590	5560	5530	5505	5490	5473	5445	5427	5410	5399	5396	5400	5413	5421	5439
10	3701	3645	3612	3600	3616	3651	3691	3741	3802	3865	3926	3974	4016	4044	4060	4076	4099	4113	4134
15	1999	1988	1994	2021	2056	2107	2163	2226	2295	2373	2454	2528	2598	2654	2706	2750	2785	2797	2801
20	1176	1178	1189	1208	1235	1269	1304	1333	1384	1475	1579	1698	1819	1933	2025	2095	2136	2137	2110
25	893	896	905	917	932	950	955	973	1011	1063	1129	1205	1284	1357	1419	1462	1486	1489	1473
30	738	743	760	785	779	747	732	738	761	794	831	862	879	878	862	844	836	846	874
35	476	490	520	534	524	517	514	518	543	579	605	616	614	607	598	594	592	596	605
40	188	208	242	262	261	250	254	283	332	366	386	392	386	372	358	351	349	352	362
45	87.7	91.2	84.3	99.4	115	95.2	91.2	130	171	193	197	188	167	143	120	108	105	108	121
50	40.0	45.6	44.3	43.8	50.7	54.7	50.9	47.0	61.9	63.4	63.0	69.5	72.4	72.4	70.9	70.7	71.6	70.9	70.8
55	7.92	9.47	11.0	9.40	16.0	21.5	17.9	10.8	18.7	29.4	37.5	39.9	42.3	41.1	39.2	38.2	38.5	38.4	39.2
60	4.54	4.59	4.61	4.85	5.40	4.97	5.14	6.17	8.82	13.3	16.1	15.5	13.3	10.2	7.60	5.96	5.44	6.08	7.78
65	3.50	3.53	3.55	3.61	3.65	3.74	3.87	4.05	4.24	3.85	3.93	4.02	4.13	4.24	4.34	4.42	4.48	4.53	4.53
70	2.80	2.79	2.83	2.81	2.88	2.95	2.91	2.76	2.84	2.96	3.07	3.17	3.27	3.35	3.42	3.48	3.53	3.57	3.59
75	1.86	2.00	1.62	1.99	2.01	1.80	1.61	1.50	1.71	2.08	2.23	2.33	2.41	2.46	2.50	2.54	2.58	2.62	2.65
80	0.16	0.32	0.25	0.76	0.68	0.46	0.29	0.32	0.49	0.68	0.57	0.42	0.28	0.16	0.07	0.02	0.00	0.02	0.08
85	0.02	0.03	0.02	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
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:2017-11-13

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 Recessed-30W-24D-3000K-90	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	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727	6727				
5	5462	5493	5532	5574	5625	5676	5730	5794	5861	5927	6003	6088	6180	6279	6385				
10	4157	4181	4203	4221	4206	4187	4167	4141	4123	4110	4113	4135	4180	4251	4351				
15	2796	2780	2747	2701	2646	2580	2510	2450	2400	2357	2334	2322	2327	2351	2403				
20	2051	1959	1852	1736	1621	1521	1464	1437	1404	1367	1331	1312	1301	1301	1314				
25	1434	1374	1300	1221	1147	1085	1036	1004	990	974	960	949	945	945	950				
30	900	916	908	883	845	808	781	769	776	803	813	795	784	782	791				
35	618	633	644	641	625	592	563	552	555	568	583	568	537	525	531				
40	379	399	413	415	404	375	326	294	290	291	284	263	235	222	223				
45	144	173	199	215	216	196	157	115	99.6	125	112	94.2	93.3	91.5	90.7				
50	72.6	74.8	74.3	67.5	70.8	73.4	59.2	53.9	62.9	62.7	54.3	52.8	56.5	53.6	52.0				
55	41.4	44.1	44.3	40.7	33.4	23.0	13.6	20.8	27.0	22.9	14.2	15.5	13.7	11.0	10.2				
60	10.5	14.0	16.7	17.8	15.4	10.8	7.35	5.92	5.70	6.82	5.70	5.23	5.17	5.05	4.94				
65	4.50	4.46	4.39	4.33	4.26	4.85	4.62	4.37	4.22	4.12	4.09	3.99	3.95	3.85	3.79				
70	3.59	3.56	3.51	3.46	3.38	3.32	3.26	3.31	3.35	3.29	3.22	3.18	3.09	3.03	2.98				
75	2.68	2.67	2.64	2.61	2.51	2.38	2.05	1.88	2.10	2.36	2.39	2.24	2.29	2.20	2.14				
80	0.18	0.32	0.48	0.68	0.87	1.01	0.69	0.43	0.58	0.83	1.05	0.50	0.59	0.28	0.24				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.05	0.03	0.02				
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				

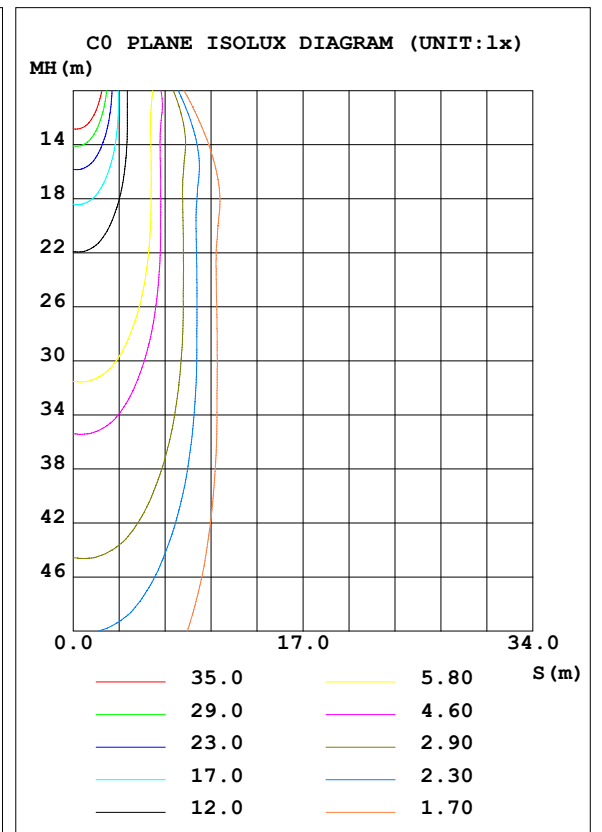
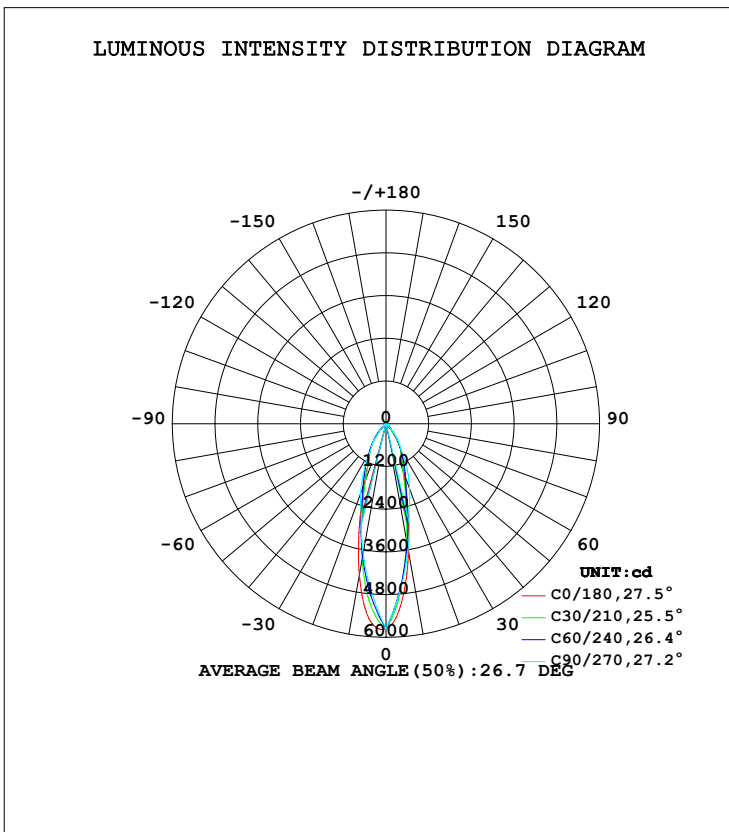
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-13

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 Recessed 30W-30D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.79 lm/W			
MODEL	Juvenis Recessed 30W-30D-3000K-90	I _{max} (cd)	5780	S/MH (C0/180)	0.50
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	0.46
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2250.6	η UP, DN (C0-180)	0.0, 50.9
NOMINAL FLUX (lm)	2250.61	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	229.6	η down (%)	100.0	CIBSE SHR MAX	0.50



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

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	5502	4950	4730	4682	5041	4644	4672	4908	0- 5	124.2	124.2	5.52,5.52
10	4318	3809	3700	3398	3643	3337	3583	3739	5- 10	300.3	424.6	18.9,18.9
15	2863	2639	2670	2299	2284	2223	2494	2564	10- 15	356.6	781.2	34.7,34.7
20	1753	1737	2078	1534	1451	1465	1950	1668	15- 20	334.1	1115	49.6,49.6
25	1172	1227	1486	1095	1032	1047	1407	1183	20- 25	298.3	1414	62.8,62.8
30	922.5	876.7	893.3	787.6	821.2	753.8	862.9	848.1	25- 30	259.3	1673	74.3,74.3
35	660.2	606.0	629.1	523.2	510.4	483.0	607.0	579.3	30- 35	211.5	1884	83.7,83.7
40	324.9	351.9	364.9	269.2	201.6	223.1	351.0	323.1	35- 40	148.2	2033	90.3,90.3
45	111.2	187.7	100.6	136.5	86.79	111.2	95.08	170.6	40- 45	79.51	2112	93.8,93.8
50	75.11	93.94	79.78	73.69	66.99	69.92	75.48	86.79	45- 50	38.76	2151	95.6,95.6
55	57.60	57.16	58.94	51.91	48.26	49.92	55.88	56.78	50- 55	27.67	2179	96.8,96.8
60	40.00	43.84	38.10	40.26	33.90	38.77	36.28	43.65	55- 60	21.35	2200	97.7,97.7
65	30.15	32.86	32.76	31.24	28.27	30.04	30.84	32.79	60- 65	16.41	2216	98.5,98.5
70	26.46	25.29	27.43	24.27	25.16	23.07	25.41	25.11	65- 70	14.00	2230	99.1,99.1
75	22.03	19.10	22.09	16.99	18.70	14.96	19.97	18.39	70- 75	11.82	2242	99.6,99.6
80	10.70	10.68	0	8.212	5.822	6.021	0	9.826	75- 80	7.185	2249	99.9,99.9
85	1.609	0	0	0	0.6347	0	0	0	80- 85	1.249	2251	100,100
90	0.0484	0	0	0	0.0349	0	0	0	85- 90	0.0466	2251	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			

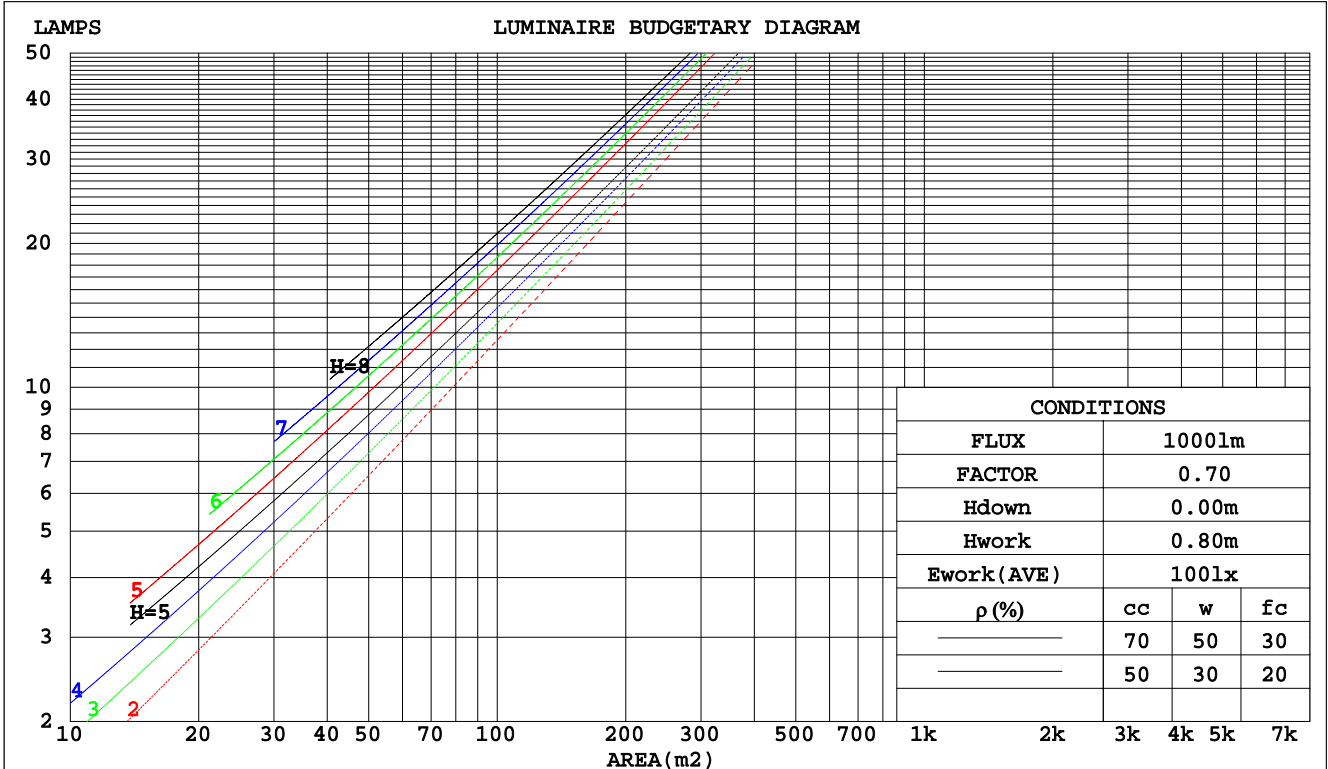
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-30D-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	1.11	1.08	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.96	.95	.94
2.0	1.03	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.96	.91	.88	.93	.89	.86	.91	.87	.85	.88	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.79	.75	.82	.78	.75	.80	.77	.74	.73
6.0	.81	.76	.72	.80	.75	.71	.79	.74	.71	.78	.74	.70	.76	.73	.70	.69
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.65
8.0	.73	.68	.64	.73	.67	.64	.72	.67	.63	.71	.66	.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	.66	.61	.58	.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: 2017-11-09

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 Recessed 30W-30D-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	.175	.100	.032	.169	.096	.031	.156	.090	.029	.144	.083	.027	.134	.078	.025	
2.0	.167	.091	.028	.161	.089	.027	.151	.084	.026	.141	.079	.025	.132	.075	.024	
3.0	.158	.084	.025	.153	.082	.025	.144	.078	.024	.136	.074	.023	.128	.071	.022	
4.0	.149	.077	.023	.145	.076	.022	.137	.073	.022	.130	.070	.021	.123	.067	.020	
5.0	.141	.072	.021	.137	.071	.021	.131	.068	.020	.125	.066	.020	.119	.063	.019	
6.0	.134	.067	.019	.131	.066	.019	.125	.064	.019	.119	.062	.018	.114	.060	.018	
7.0	.127	.063	.018	.125	.062	.018	.119	.060	.017	.115	.059	.017	.110	.057	.017	
8.0	.121	.059	.017	.119	.059	.017	.114	.057	.016	.110	.056	.016	.106	.054	.016	
9.0	.116	.056	.016	.114	.055	.016	.110	.054	.015	.106	.053	.015	.102	.052	.015	
10.0	.111	.053	.015	.109	.053	.015	.105	.052	.015	.102	.050	.014	.098	.049	.014	

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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.027	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.019	.013	.009	.006	
7.0	.108	.070	.043	.093	.061	.037	.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:2017-11-09

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 Recessed 30W-30D-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				
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	24.0	24.9	24.3	25.1	25.3	24.7	25.6	25.0	25.8	26.0				
3H	24.3	25.1	24.5	25.3	25.5	24.9	25.8	25.2	26.0	26.2				
4H	24.5	25.3	24.8	25.5	25.7	25.1	25.9	25.4	26.1	26.3				
6H	24.6	25.4	24.9	25.6	25.9	25.1	25.8	25.4	26.1	26.3				
8H	24.6	25.3	24.9	25.6	25.9	25.0	25.8	25.3	26.0	26.3				
12H	24.6	25.3	24.9	25.5	25.8	25.0	25.7	25.3	25.9	26.2				
4H 2H	24.0	24.8	24.3	25.0	25.2	24.6	25.4	24.9	25.7	25.9				
3H	24.4	25.1	24.7	25.3	25.6	25.0	25.7	25.3	25.9	26.2				
4H	24.7	25.4	25.1	25.7	26.0	25.3	25.9	25.6	26.2	26.5				
6H	25.0	25.5	25.4	25.9	26.2	25.3	25.8	25.6	26.2	26.5				
8H	25.0	25.5	25.4	25.9	26.2	25.2	25.7	25.6	26.1	26.4				
12H	25.0	25.4	25.4	25.8	26.2	25.2	25.6	25.6	26.0	26.4				
8H 4H	24.8	25.3	25.2	25.6	26.0	25.3	25.8	25.7	26.2	26.5				
6H	25.1	25.5	25.5	25.9	26.3	25.3	25.8	25.8	26.1	26.6				
8H	25.1	25.5	25.6	25.9	26.4	25.3	25.6	25.7	26.1	26.5				
12H	25.1	25.4	25.6	25.9	26.3	25.2	25.5	25.7	26.0	26.4				
12H 4H	24.7	25.2	25.2	25.6	26.0	25.3	25.7	25.7	26.1	26.5				
6H	25.1	25.4	25.5	25.9	26.3	25.3	25.7	25.7	26.1	26.5				
8H	25.1	25.4	25.6	25.9	26.3	25.2	25.6	25.7	26.0	26.5				
Variations with the observer position at spacings:														
S = 1.0H	+ 2.0 / - 2.3					+ 1.8 / - 3.1								
1.5H	+ 3.9 / - 1.9					+ 3.6 / - 2.7								
2.0H	+ 1.0 / - 0.8					+ 0.7 / - 0.7								

CIE Pub.117 Corrected 2251 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.8)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-30D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

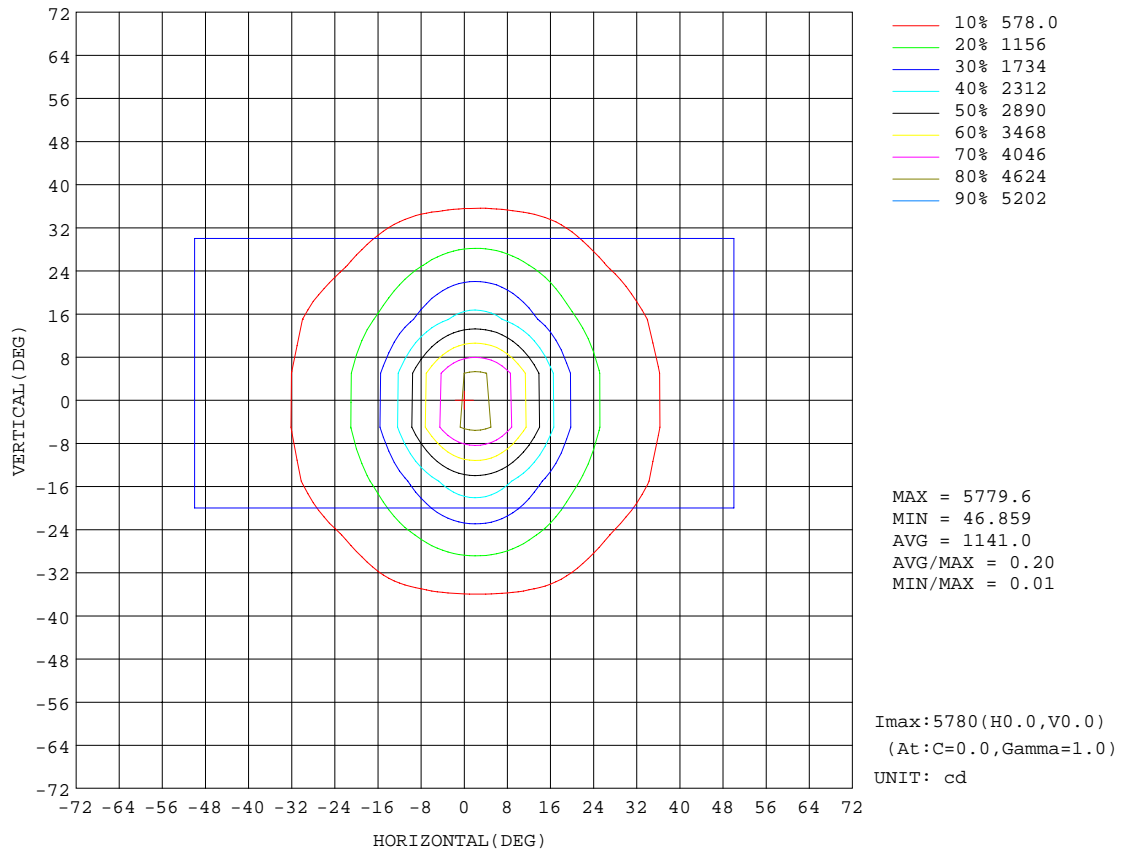
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	86	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	87	83	91	86	82	79
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	96	93	101	96	92	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	101	105	102	100	94
3.00	111	108	105	109	106	104	106	104	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	109	109	107	106	98
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: 2017-11-09

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 Recessed 30W-30D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

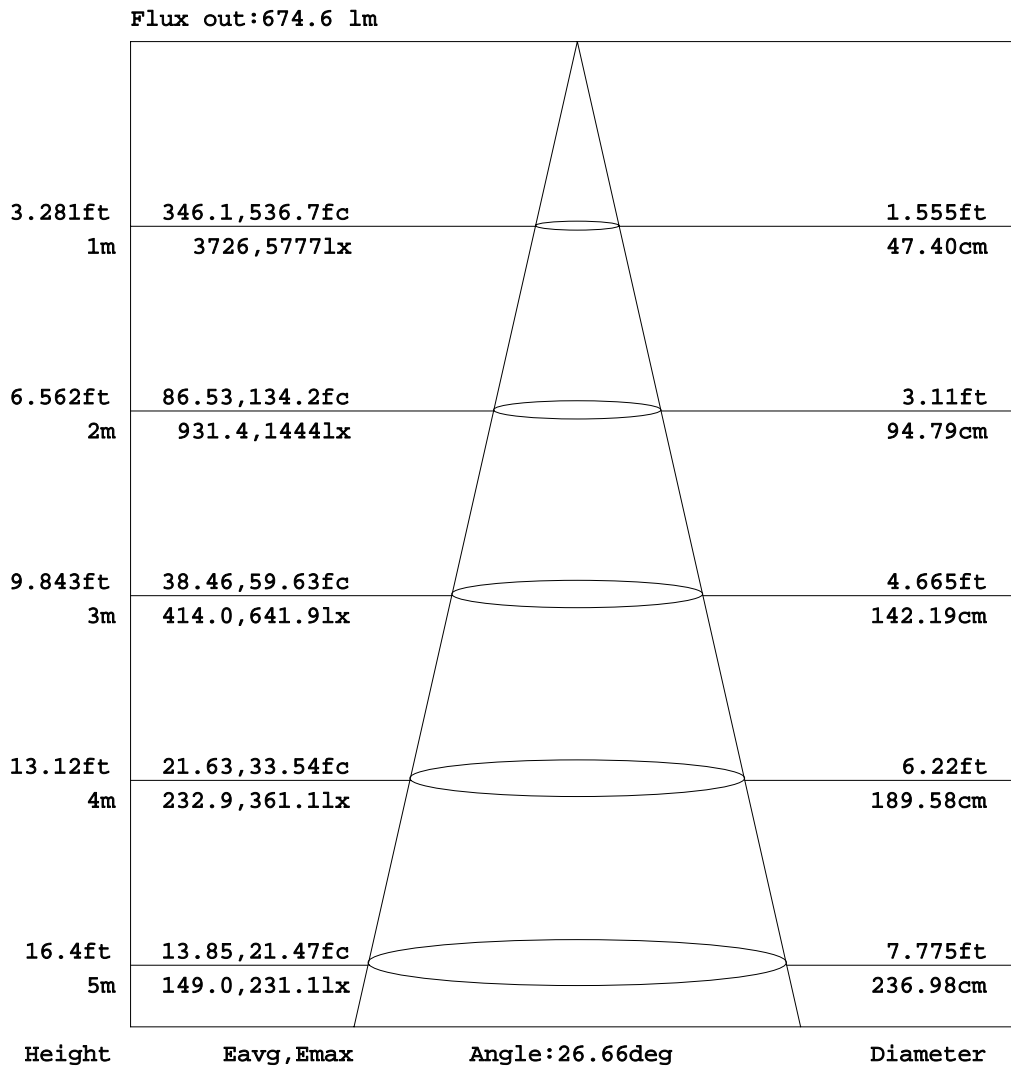


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

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 Recessed 30W-30D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



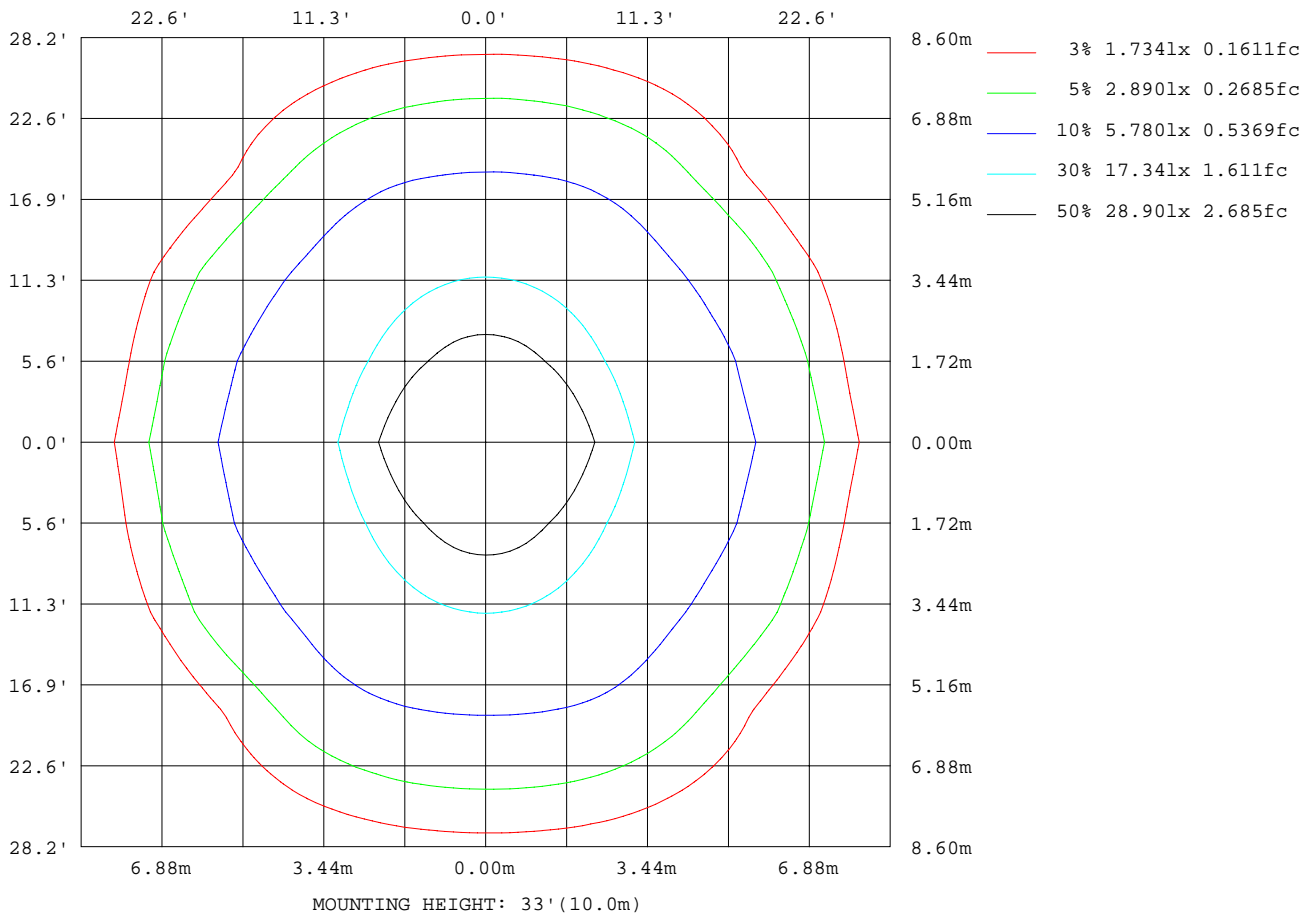
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-30D-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: 2017-11-09

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 Recessed 30W-30D-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	2250.61	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	47820	46768	46592	46910	47062	48231	47550	47971	49260	48931	47825	45503	45642	44892	42180	42069	40827	40809	40065
60	38093	37535	37908	38376	40236	41908	39866	38083	37164	36285	36245	36554	38340	39194	36164	34707	33090	32682	32290
65	33974	33608	34193	34059	36880	35603	33915	35311	36781	36916	35876	34098	32789	34314	34547	32384	32285	31905	31856
70	36842	36411	36538	36609	36511	34930	35528	36951	38141	38186	37264	35539	33726	33087	35630	34909	35376	35032	35030
75	40531	39634	38557	39157	34791	36342	38626	40246	40812	40644	39983	38387	35598	32267	31284	35668	33723	34715	34410
80	29351	28658	31924	28917	29858	25798	15847	7239	1819	0	1781	6883	14340	21138	20881	22704	21396	17520	15964
85	8792	10159	9305	0	0	0	0	0	0	0	0	0	0	0	0	0	4563	4287	3468

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	49260	200	---	500
Category 2	65 to 90	40812	200	---	500
Category 3	75 to 90	40812	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:2017-11-09

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 Recessed 30W-30D-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	2250.61	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	47820	46768	46592	46910	47062	48231	47550	47971	49260	48931	47825	45503	45642	44892	42180	42069	40827	40809	40065
60	38093	37535	37908	38376	40236	41908	39866	38083	37164	36285	36245	36554	38340	39194	36164	34707	33090	32682	32290
65	33974	33608	34193	34059	36880	35603	33915	35311	36781	36916	35876	34098	32789	34314	34547	32384	32285	31905	31856
70	36842	36411	36538	36609	36511	34930	35528	36951	38141	38186	37264	35539	33726	33087	35630	34909	35376	35032	35030
75	40531	39634	38557	39157	34791	36342	38626	40246	40812	40644	39983	38387	35598	32267	31284	35668	33723	34715	34410
80	29351	28658	31924	28917	29858	25798	15847	7239	1819	0	1781	6883	14340	21138	20881	22704	21396	17520	15964
85	8792	10159	9305	0	0	0	0	0	0	0	0	0	0	0	0	0	4563	4287	3468

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	49260	1000	1500	200	500
65 to 90	40812	1000	1500	200	500

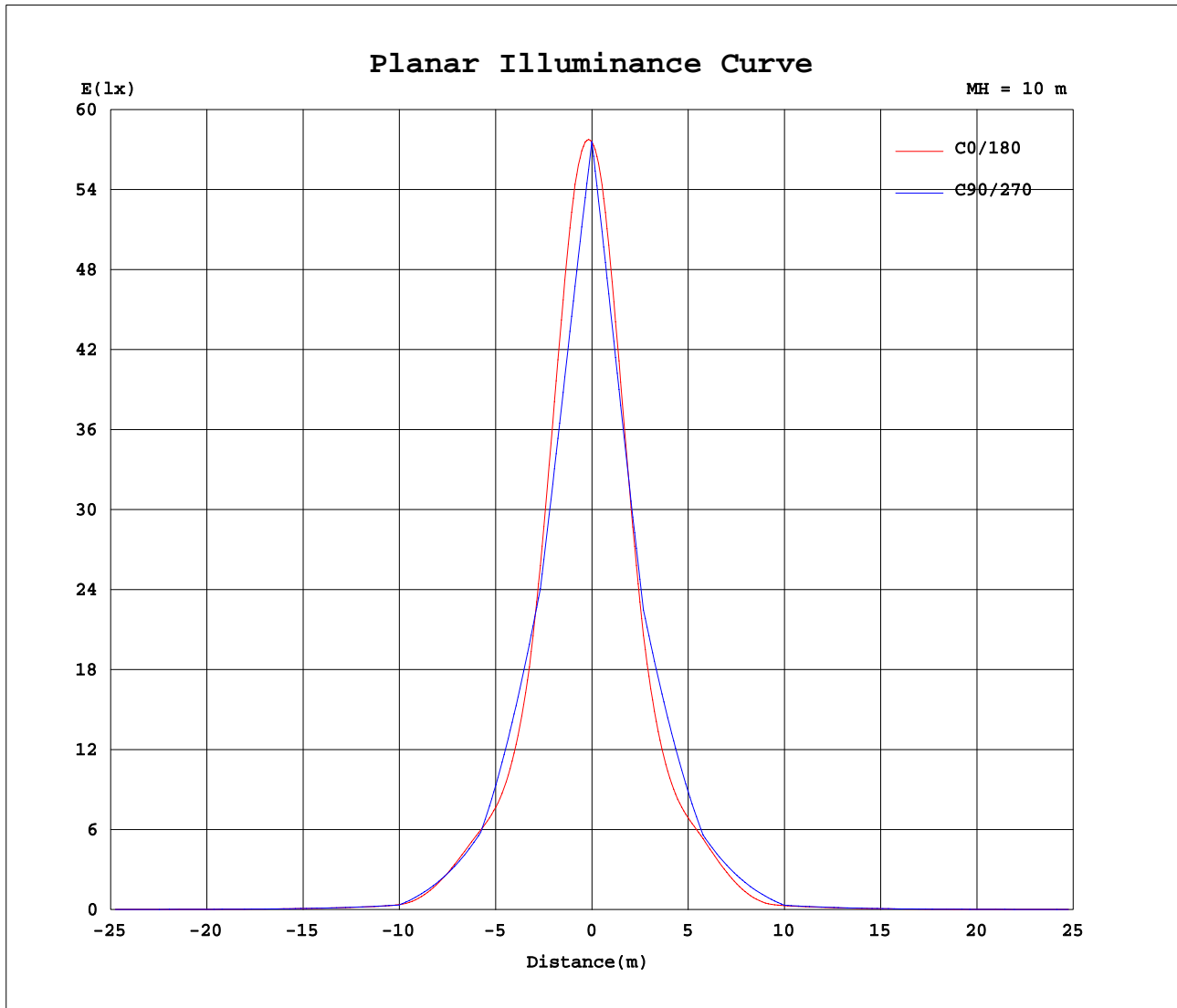
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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: 2017-11-09

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 Recessed 30W-30D-3000K-90	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	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760
5	5502	5418	5339	5266	5199	5139	5084	5037	4992	4950	4915	4883	4852	4828	4802	4779	4760	4741	4730
10	4318	4197	4096	4013	3947	3897	3860	3836	3818	3809	3799	3795	3793	3780	3767	3754	3738	3719	3700
15	2863	2765	2694	2647	2618	2605	2603	2612	2623	2639	2656	2673	2689	2703	2711	2711	2703	2689	2670
20	1753	1697	1662	1643	1639	1647	1671	1696	1720	1737	1772	1832	1898	1959	2016	2059	2084	2089	2078
25	1172	1146	1132	1127	1132	1142	1154	1168	1189	1227	1273	1325	1373	1419	1456	1483	1496	1496	1486
30	923	897	882	879	889	904	894	868	863	877	906	940	968	981	978	957	929	905	893
35	660	626	611	614	638	647	627	611	602	606	625	648	663	669	665	656	644	635	629
40	325	298	290	299	322	335	331	327	328	352	394	416	425	423	413	398	382	371	365
45	111	106	105	105	117	135	140	114	142	188	219	229	219	199	172	144	122	106	101
50	75.1	73.6	73.6	73.6	73.5	75.7	74.1	75.4	79.6	93.9	103	87.2	73.6	74.2	76.5	78.4	80.0	79.9	79.8
55	57.6	56.0	56.3	55.8	56.1	57.1	56.5	56.0	56.7	57.2	58.1	58.2	57.3	56.8	57.8	58.9	59.3	59.2	58.9
60	40.0	39.0	39.4	39.3	39.8	40.9	40.3	39.5	42.2	43.8	44.0	43.3	41.9	40.7	40.0	39.6	39.0	38.5	38.1
65	30.2	29.8	29.8	29.9	30.3	30.6	30.2	31.4	32.7	32.9	31.6	29.9	30.1	30.7	31.3	32.1	32.6	32.8	32.8
70	26.5	26.2	26.2	26.1	26.2	26.0	26.3	26.7	26.2	25.3	25.1	25.1	25.5	26.1	26.5	27.1	27.4	27.5	27.4
75	22.0	21.6	21.5	21.7	21.0	21.6	21.3	19.6	18.9	19.1	19.8	20.4	21.0	21.5	21.9	22.1	22.2	22.2	22.1
80	10.7	10.4	10.5	10.6	11.6	11.5	10.5	10.2	10.9	10.7	9.41	7.62	5.78	4.08	2.64	1.49	0.66	0.17	0.00
85	1.61	1.57	1.86	2.19	1.70	1.11	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	0.05	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:2017-11-09

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 Recessed 30W-30D-3000K-90	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	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760
5	4714	4705	4694	4688	4684	4677	4678	4678	4682	4694	4711	4732	4762	4800	4847	4903	4967	5041	4963
10	3676	3649	3617	3580	3541	3504	3464	3428	3398	3380	3369	3363	3369	3390	3426	3479	3551	3643	3544
15	2642	2609	2568	2527	2479	2432	2386	2342	2299	2257	2219	2187	2165	2152	2158	2179	2219	2284	2213
20	2046	1997	1935	1863	1786	1715	1646	1580	1534	1498	1461	1430	1406	1392	1388	1395	1415	1451	1412
25	1465	1434	1395	1346	1295	1242	1188	1138	1095	1069	1065	1050	1033	1020	1011	1010	1017	1032	1013
30	895	906	917	915	904	879	844	807	788	785	804	834	829	802	785	782	795	821	792
35	627	628	628	625	618	600	566	538	523	524	527	528	530	517	491	480	486	510	480
40	366	372	378	385	387	376	353	319	269	247	247	258	257	239	210	193	191	202	188
45	105	118	138	160	181	193	192	174	136	98.7	93.1	112	103	90.2	88.1	85.4	85.1	86.8	84.8
50	79.1	77.4	75.3	72.5	70.5	70.2	80.0	85.6	73.7	69.5	67.2	68.2	67.3	66.3	67.3	66.6	65.9	67.0	65.7
55	58.6	57.6	56.3	54.8	54.5	55.0	55.0	54.1	51.9	50.8	50.5	50.7	50.3	49.2	49.1	49.2	47.8	48.3	47.4
60	38.0	38.1	38.1	38.4	39.1	40.3	41.1	41.2	40.3	38.0	35.3	36.4	36.4	34.7	34.6	34.3	33.7	33.9	33.4
65	32.5	31.8	31.0	30.3	29.5	29.1	29.0	30.5	31.2	30.7	29.5	28.7	29.0	28.7	28.5	28.3	28.2	28.3	28.1
70	27.2	26.8	26.2	25.5	24.8	24.2	23.8	23.8	24.3	25.6	25.7	25.1	24.9	25.4	25.0	25.2	25.2	25.2	25.0
75	21.9	21.7	21.4	20.9	20.1	19.3	18.5	17.5	17.0	17.0	17.9	19.4	19.0	18.3	19.3	18.9	18.9	18.7	18.4
80	0.16	0.65	1.44	2.51	3.79	5.23	6.64	7.71	8.21	7.61	7.55	8.28	8.90	7.80	7.05	6.39	6.08	5.82	5.64
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	0.59	0.84	1.07	0.78	0.69	0.63	0.58
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: 2017-11-09

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 Recessed 30W-30D-3000K-90	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	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760
5	4894	4834	4782	4740	4706	4681	4659	4644	4636	4632	4628	4632	4633	4638	4647	4655	4672	4682	4701
10	3466	3407	3364	3337	3323	3322	3325	3337	3358	3385	3416	3446	3477	3508	3535	3559	3583	3600	3618
15	2167	2140	2127	2131	2144	2166	2193	2223	2254	2287	2321	2353	2385	2413	2442	2468	2494	2509	2525
20	1389	1378	1376	1383	1397	1417	1442	1465	1495	1553	1615	1682	1754	1818	1874	1920	1950	1958	1954
25	1004	1002	1009	1020	1032	1042	1034	1047	1079	1123	1170	1222	1271	1317	1355	1386	1407	1416	1415
30	775	774	784	806	805	777	758	754	764	789	820	847	867	873	867	863	863	876	893
35	469	477	501	514	505	492	483	483	496	518	549	572	586	597	600	604	607	614	620
40	184	191	213	235	246	229	209	223	280	322	347	357	359	358	354	351	351	357	366
45	84.4	87.0	88.8	97.5	104	88.8	91.9	111	148	174	180	170	150	129	111	98.8	95.1	101	116
50	66.0	66.3	64.9	65.6	66.8	65.8	66.6	69.9	77.0	76.0	69.5	69.4	69.4	70.7	73.1	74.4	75.5	76.4	76.1
55	48.3	48.0	47.9	48.2	48.8	48.7	48.5	49.9	52.4	53.2	54.0	53.6	53.2	53.4	54.5	55.2	55.9	56.5	56.6
60	33.8	34.0	33.7	35.2	35.2	33.8	36.2	38.8	39.9	39.9	39.2	38.2	37.2	36.6	36.3	36.1	36.3	36.6	37.3
65	28.0	28.1	28.1	28.2	27.9	28.4	29.4	30.0	29.6	28.3	28.0	28.3	28.7	29.4	30.0	30.5	30.8	31.0	30.9
70	24.8	24.5	24.7	23.9	23.9	24.5	24.6	23.1	22.4	22.2	22.5	23.1	23.5	24.1	24.7	25.1	25.4	25.5	25.6
75	18.0	18.1	17.0	17.5	17.9	16.6	15.4	15.0	15.3	16.0	16.9	17.8	18.4	18.9	19.4	19.7	20.0	20.2	20.3
80	5.58	6.13	6.34	7.63	7.11	6.23	5.80	6.02	6.03	5.39	4.39	3.28	2.19	1.27	0.58	0.15	0.00	0.15	0.60
85	0.62	0.82	0.57	0.41	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:2017-11-09

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 Recessed 30W-30D-3000K-90	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	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760	5760				
5	4720	4745	4773	4800	4834	4869	4908	4954	5004	5056	5115	5180	5252	5330	5413				
10	3637	3657	3677	3699	3708	3721	3739	3759	3786	3818	3862	3920	3993	4083	4190				
15	2543	2559	2562	2566	2567	2566	2564	2562	2561	2562	2572	2593	2629	2683	2759				
20	1935	1896	1849	1797	1743	1691	1668	1666	1653	1638	1623	1622	1631	1655	1693				
25	1403	1379	1347	1308	1265	1222	1183	1154	1142	1138	1133	1128	1126	1132	1146				
30	915	931	933	921	898	870	848	843	858	889	901	883	871	875	893				
35	628	633	634	629	611	591	579	580	594	604	620	618	603	605	623				
40	380	392	402	403	391	367	323	303	303	317	327	321	297	288	296				
45	138	164	189	209	216	204	171	124	106	139	132	111	104	105	106				
50	75.0	73.3	72.9	73.2	85.8	98.2	86.8	78.1	74.8	74.8	76.5	74.0	74.0	74.0	73.8				
55	56.3	55.6	56.1	57.2	58.0	58.0	56.8	56.3	56.2	57.1	57.9	56.7	56.4	56.7	56.2				
60	38.0	38.8	40.0	41.6	43.0	43.8	43.6	42.1	39.5	40.6	41.3	40.3	39.7	39.7	39.1				
65	30.6	30.3	29.9	29.7	29.7	31.5	32.8	32.8	31.6	30.4	30.9	30.7	30.3	30.1	29.9				
70	25.4	25.2	24.8	24.6	24.4	24.6	25.1	26.4	26.9	26.4	26.2	26.6	26.4	26.4	26.4				
75	20.2	20.1	19.8	19.5	19.1	18.6	18.4	18.6	19.5	21.2	21.6	21.1	22.0	21.8	21.7				
80	1.36	2.41	3.72	5.26	6.95	8.51	9.83	10.0	9.53	10.1	11.3	11.6	10.7	10.7	10.6				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.60	2.15	1.89	1.63				
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				

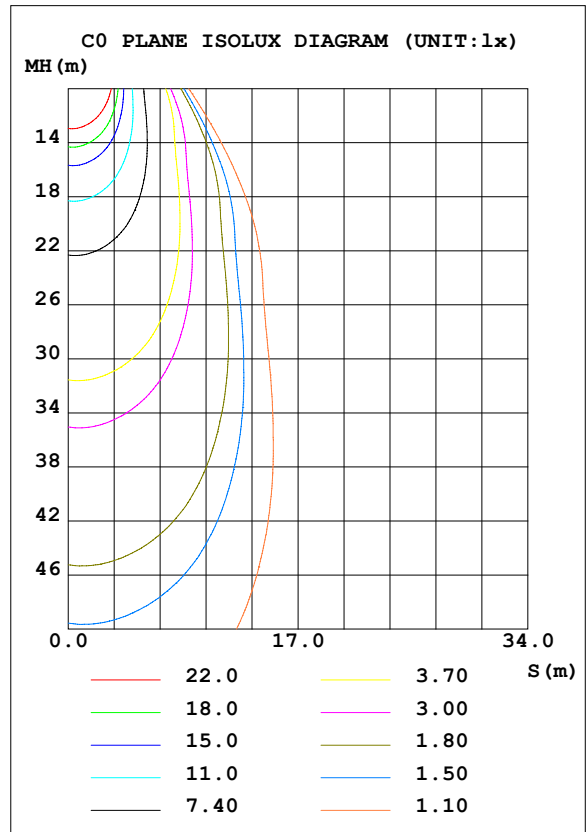
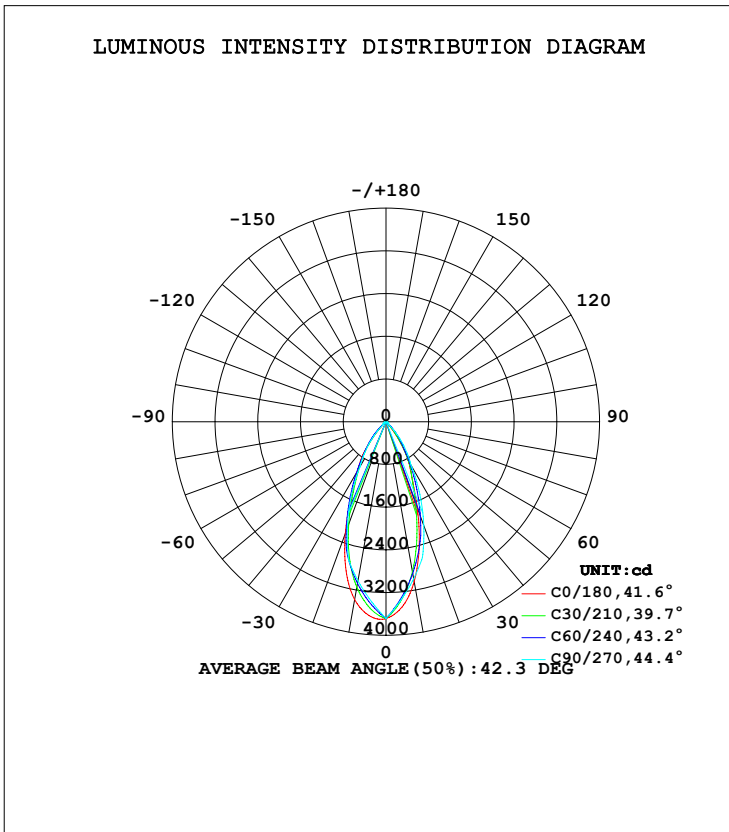
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

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 Recessed 30W-3000K-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Juvenis Recessed 30W-3000K-40D	Imax (cd)	3701	S/MH (C0/180)	0.72
NOMINAL POWER (W)	30	LOR (%)	100.0	S/MH (C90/270)	0.70
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2259.1	η UP, DN (C0-180)	0.0, 50.7
NOMINAL FLUX (lm)	2259.06	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	229.8	η down (%)	100.0	CIBSE SHR MAX	0.70



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

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	3645	3448	3354	3333	3480	3317	3335	3437	0- 5	83.92	83.92	3.72,3.72
10	3382	3098	3025	2888	3040	2850	2986	3079	5- 10	229.1	313.0	13.9,13.9
15	2893	2651	2695	2364	2402	2304	2636	2628	10- 15	329.1	642.2	28.4,28.4
20	2227	2131	2121	1823	1707	1740	2070	2104	15- 20	369.9	1012	44.8,44.8
25	1536	1548	1548	1282	1154	1208	1504	1527	20- 25	349.0	1361	60.2,60.2
30	1056	1056	974.0	858.4	828.4	806.9	937.3	1039	25- 30	294.4	1655	73.3,73.3
35	753.2	679.9	678.9	529.0	466.2	473.0	652.1	664.4	30- 35	227.8	1883	83.4,83.4
40	381.3	381.3	383.8	243.5	151.6	184.7	366.8	364.4	35- 40	154.1	2037	90.2,90.2
45	118.1	199.5	88.63	112.3	69.12	88.20	81.59	189.5	40- 45	79.68	2117	93.7,93.7
50	66.59	93.63	73.42	64.08	56.94	62.16	68.69	89.09	45- 50	35.51	2153	95.3,95.3
55	55.61	54.28	58.20	49.21	46.76	48.78	55.80	54.79	50- 55	25.57	2178	96.4,96.4
60	46.08	45.78	42.99	41.12	38.39	41.02	42.90	46.51	55- 60	22.08	2200	97.4,97.4
65	38.66	38.24	37.23	34.16	31.78	34.05	36.13	38.83	60- 65	19.09	2219	98.2,98.2
70	32.76	31.14	31.47	26.70	26.78	26.29	29.36	31.17	65- 70	16.57	2236	99,99
75	26.87	23.70	25.71	17.38	18.27	16.08	22.59	22.16	70- 75	13.62	2250	99.6,99.6
80	13.16	13.59	0	7.274	5.319	5.630	0	11.22	75- 80	8.042	2258	99.9,99.9
85	2.053	0	0	0	0.5567	0	0	0	80- 85	1.408	2259	100,100
90	0.0930	0	0	0	0.0391	0	0	0	85- 90	0.0704	2259	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			

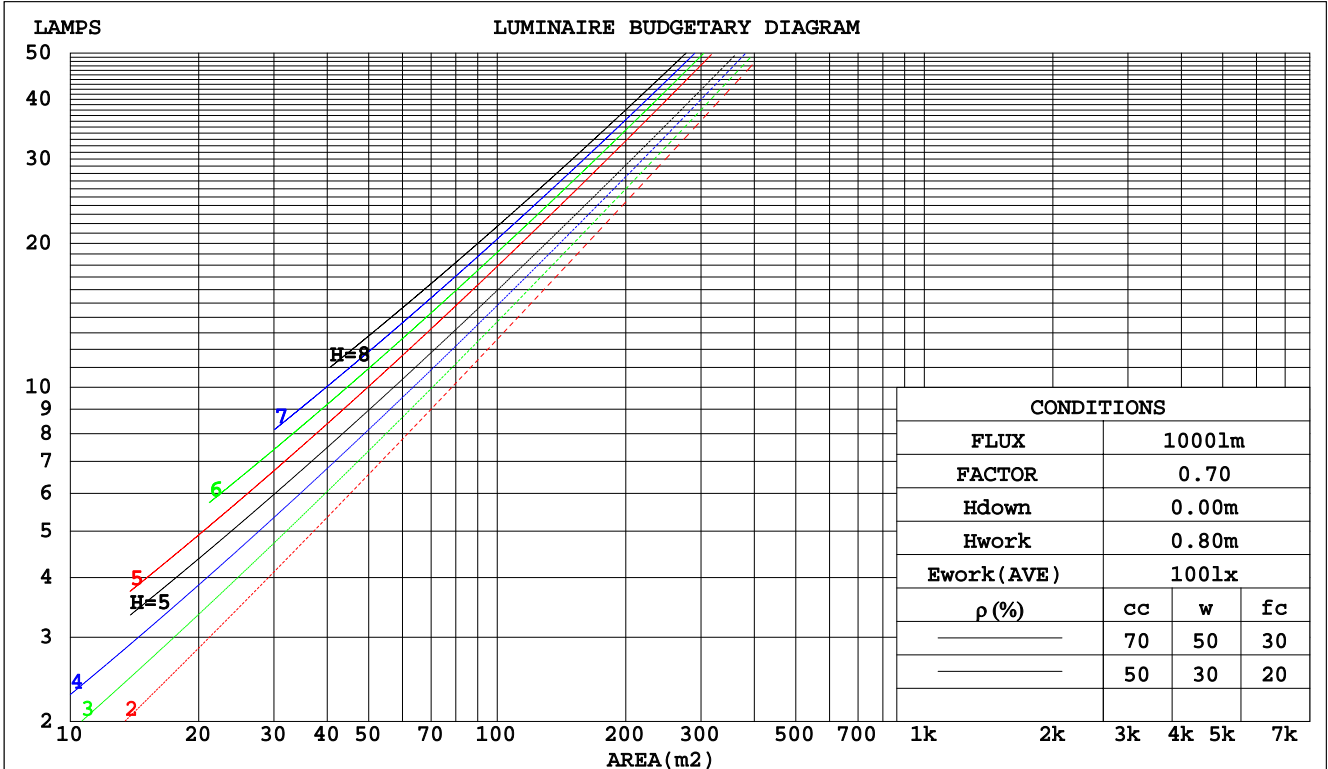
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-3000K-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																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	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.95	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3.0	.96	.91	.87	.95	.90	.86	.92	.88	.85	.90	.86	.84	.87	.85	.82	.81
4.0	.90	.84	.80	.89	.84	.80	.87	.82	.79	.85	.81	.78	.83	.80	.77	.75
5.0	.84	.79	.74	.84	.78	.74	.82	.77	.73	.80	.76	.73	.79	.75	.72	.71
6.0	.80	.74	.70	.79	.73	.69	.77	.72	.69	.76	.72	.68	.75	.71	.68	.66
7.0	.75	.69	.65	.75	.69	.65	.73	.68	.65	.72	.68	.64	.71	.67	.64	.63
8.0	.71	.65	.61	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.63	.60	.59
9.0	.68	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.57	.64	.60	.57	.56
10.0	.64	.59	.55	.64	.58	.55	.63	.58	.55	.62	.58	.54	.61	.57	.54	.53



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

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 Recessed 30W-3000K-40D	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	.181	.103	.033	.174	.100	.032	.162	.093	.030	.150	.087	.028	.140	.081	.026	
2.0	.173	.095	.029	.167	.092	.028	.156	.087	.027	.147	.082	.026	.138	.078	.025	
3.0	.163	.087	.026	.159	.085	.026	.150	.081	.025	.141	.077	.024	.133	.074	.023	
4.0	.155	.080	.024	.150	.079	.023	.143	.076	.023	.135	.073	.022	.129	.070	.021	
5.0	.147	.075	.022	.143	.073	.021	.136	.071	.021	.130	.068	.020	.124	.066	.020	
6.0	.139	.070	.020	.136	.069	.020	.130	.067	.019	.125	.065	.019	.119	.063	.019	
7.0	.133	.066	.019	.130	.065	.018	.124	.063	.018	.120	.061	.018	.115	.060	.018	
8.0	.126	.062	.017	.124	.061	.017	.119	.060	.017	.115	.058	.017	.111	.057	.017	
9.0	.121	.058	.016	.119	.058	.016	.114	.057	.016	.110	.055	.016	.107	.054	.016	
10.0	.116	.055	.015	.114	.055	.015	.110	.054	.015	.106	.053	.015	.103	.052	.015	

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	.171	.157	.145	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.123	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.101	.067	.043	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.105	.064	.036	.090	.056	.032	.062	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.031	.086	.051	.027	.059	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.095	.054	.028	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DOBAC
 Test Date:2017-11-09

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 Recessed 30W-3000K-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	25.6	24.9	25.8	25.9	25.1	26.1	25.3	26.2	26.4				
3H	25.0	25.8	25.2	26.0	26.2	25.4	26.2	25.6	26.4	26.7				
4H	25.2	26.1	25.5	26.3	26.5	25.6	26.4	25.9	26.6	26.9				
6H	25.4	26.2	25.7	26.4	26.7	25.6	26.4	25.9	26.6	26.9				
8H	25.4	26.1	25.7	26.4	26.7	25.6	26.3	25.9	26.6	26.8				
12H	25.4	26.1	25.7	26.4	26.6	25.5	26.2	25.8	26.5	26.8				
4H 2H	24.6	25.4	24.9	25.6	25.9	25.0	25.9	25.3	26.1	26.3				
3H	25.1	25.9	25.5	26.1	26.4	25.5	26.2	25.8	26.5	26.8				
4H	25.6	26.2	25.9	26.5	26.8	25.9	26.5	26.2	26.8	27.1				
6H	25.8	26.4	26.2	26.7	27.1	25.9	26.5	26.3	26.8	27.1				
8H	25.8	26.4	26.2	26.7	27.1	25.8	26.4	26.2	26.7	27.1				
12H	25.8	26.3	26.2	26.7	27.0	25.8	26.3	26.2	26.6	27.0				
8H 4H	25.6	26.2	26.0	26.5	26.9	25.9	26.5	26.3	26.8	27.2				
6H	26.0	26.4	26.4	26.8	27.3	26.0	26.4	26.4	26.8	27.2				
8H	26.1	26.4	26.5	26.9	27.3	26.0	26.3	26.4	26.8	27.2				
12H	26.0	26.4	26.5	26.8	27.3	25.9	26.2	26.4	26.7	27.1				
12H 4H	25.6	26.1	26.0	26.5	26.9	25.9	26.4	26.3	26.8	27.2				
6H	26.0	26.4	26.4	26.8	27.2	26.0	26.4	26.4	26.8	27.2				
8H	26.0	26.4	26.5	26.8	27.3	25.9	26.3	26.4	26.7	27.2				
Variations with the observer position at spacings:														
S = 1.0H	+ 2.1 / - 2.1					+ 1.7 / - 2.8								
1.5H	+ 4.1 / - 2.0					+ 3.6 / - 2.7								
2.0H	+ 1.0 / - 0.3					+ 0.3 / - 0.5								

CIE Pub.117 Corrected 2259 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.8)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-3000K-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

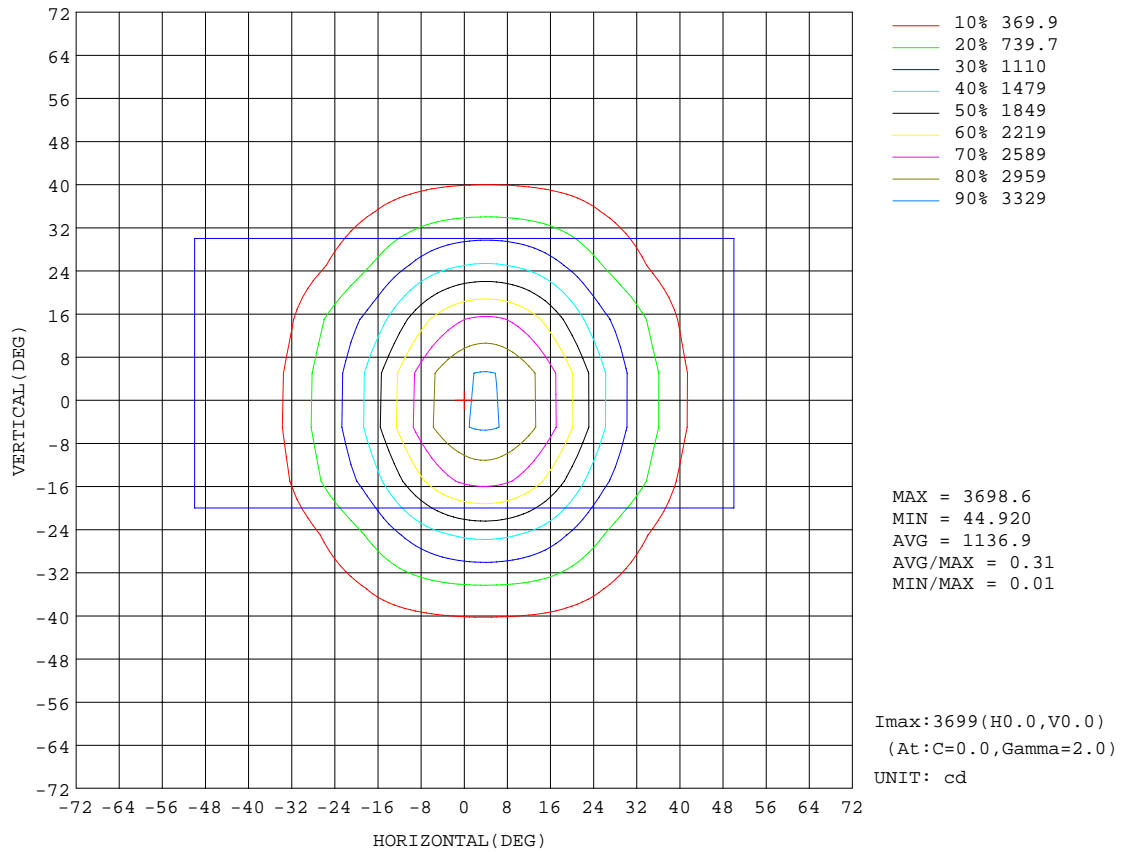
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	86	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	87	83	91	86	82	79
1.00	98	92	88	97	91	88	95	91	87	83
1.25	102	96	93	101	96	92	99	95	91	87
1.50	105	100	96	103	99	96	101	97	95	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	109	109	107	106	98
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:2017-11-09

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 Recessed 30W-3000K-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

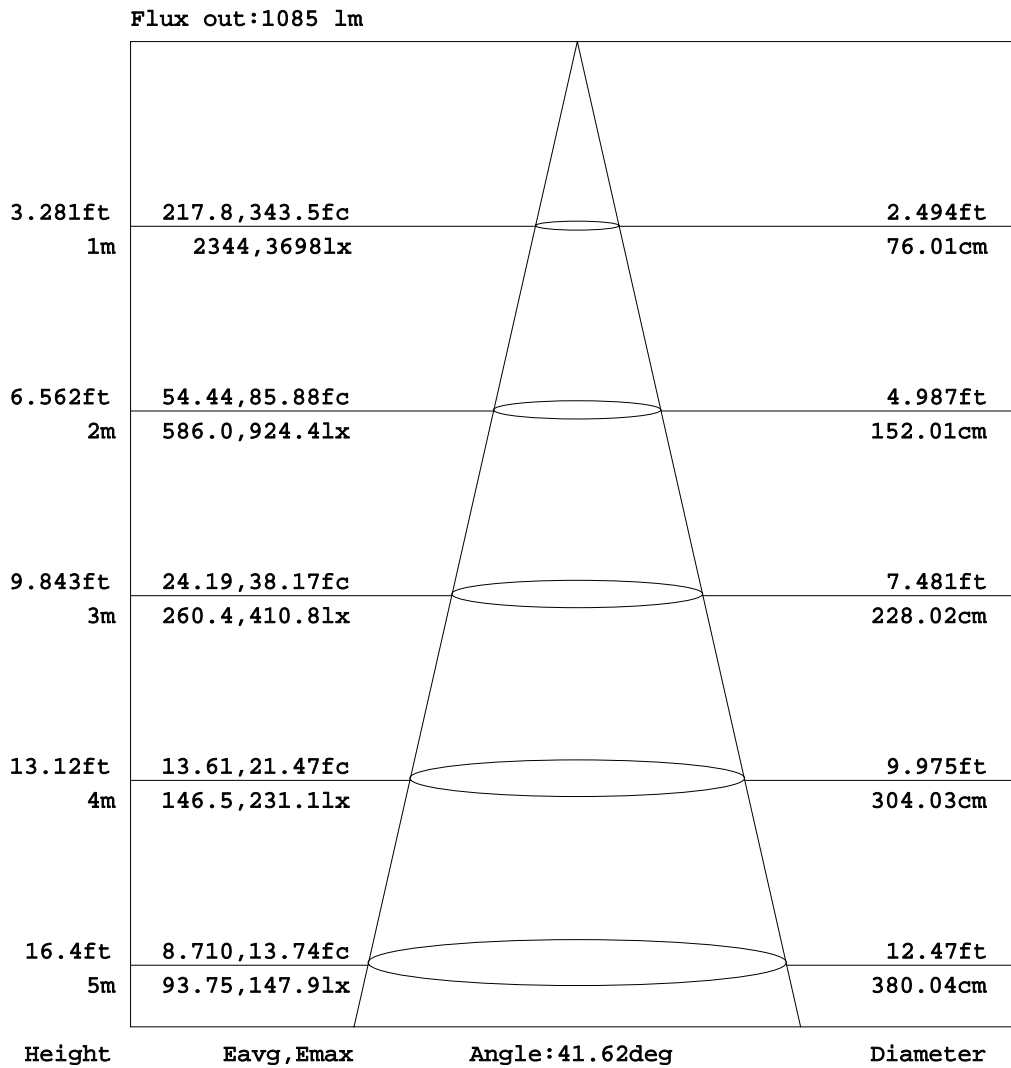


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-09

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 Recessed 30W-3000K-40D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



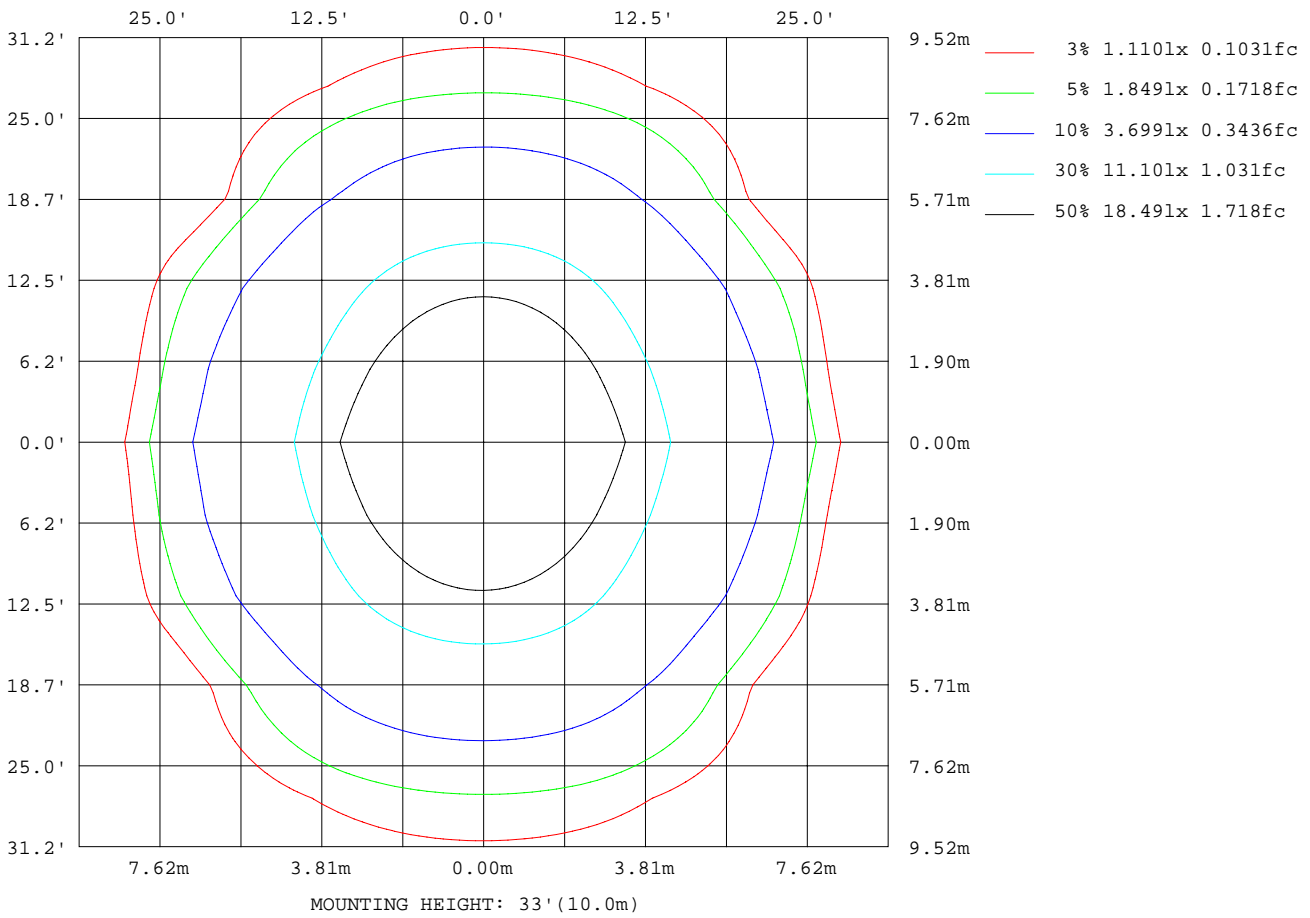
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-09

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 Recessed 30W-3000K-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: 2017-11-09

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 Recessed 30W-3000K-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	2259.06	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	46164	45060	45074	45420	45995	45443	45491	46891	48628	48320	46403	43269	42525	41450	40560	39936	39472	39207	38824
60	43887	43114	43158	43049	43279	43805	43396	42793	41980	40941	40751	40360	40227	39663	38557	37735	37313	36916	36562
65	43565	42452	42580	42557	43105	42600	42249	42437	42485	41947	41018	39669	38624	38474	38231	37108	36629	36164	35809
70	45617	44537	44457	44798	44482	43301	43915	44652	44564	43811	42543	40445	38530	36721	39021	37895	38035	37569	37284
75	49443	47280	45709	47170	42975	45174	47240	48732	48406	47296	45498	42152	38732	33415	32542	36632	34037	34445	33614
80	36097	32730	38157	37462	38823	32213	19299	8768	2159	0	2026	7490	15157	19851	19043	22124	20368	17488	14587
85	11217	15096	21165	0	0	0	0	0	0	0	0	0	0	0	0	0	5256	4364	3042

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	49443	200	---	500
Category 2	65 to 90	49443	200	---	500
Category 3	75 to 90	49443	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:2017-11-09

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 Recessed 30W-3000K-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	2259.06	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	46164	45060	45074	45420	45995	45443	45491	46891	48628	48320	46403	43269	42525	41450	40560	39936	39472	39207	38824
60	43887	43114	43158	43049	43279	43805	43396	42793	41980	40941	40751	40360	40227	39663	38557	37735	37313	36916	36562
65	43565	42452	42580	42557	43105	42600	42249	42437	42485	41947	41018	39669	38624	38474	38231	37108	36629	36164	35809
70	45617	44537	44457	44798	44482	43301	43915	44652	44564	43811	42543	40445	38530	36721	39021	37895	38035	37569	37284
75	49443	47280	45709	47170	42975	45174	47240	48732	48406	47296	45498	42152	38732	33415	32542	36632	34037	34445	33614
80	36097	32730	38157	37462	38823	32213	19299	8768	2159	0	2026	7490	15157	19851	19043	22124	20368	17488	14587
85	11217	15096	21165	0	0	0	0	0	0	0	0	0	0	0	0	0	5256	4364	3042

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	49443	1000	1500	200	500
65 to 90	49443	1000	1500	200	500

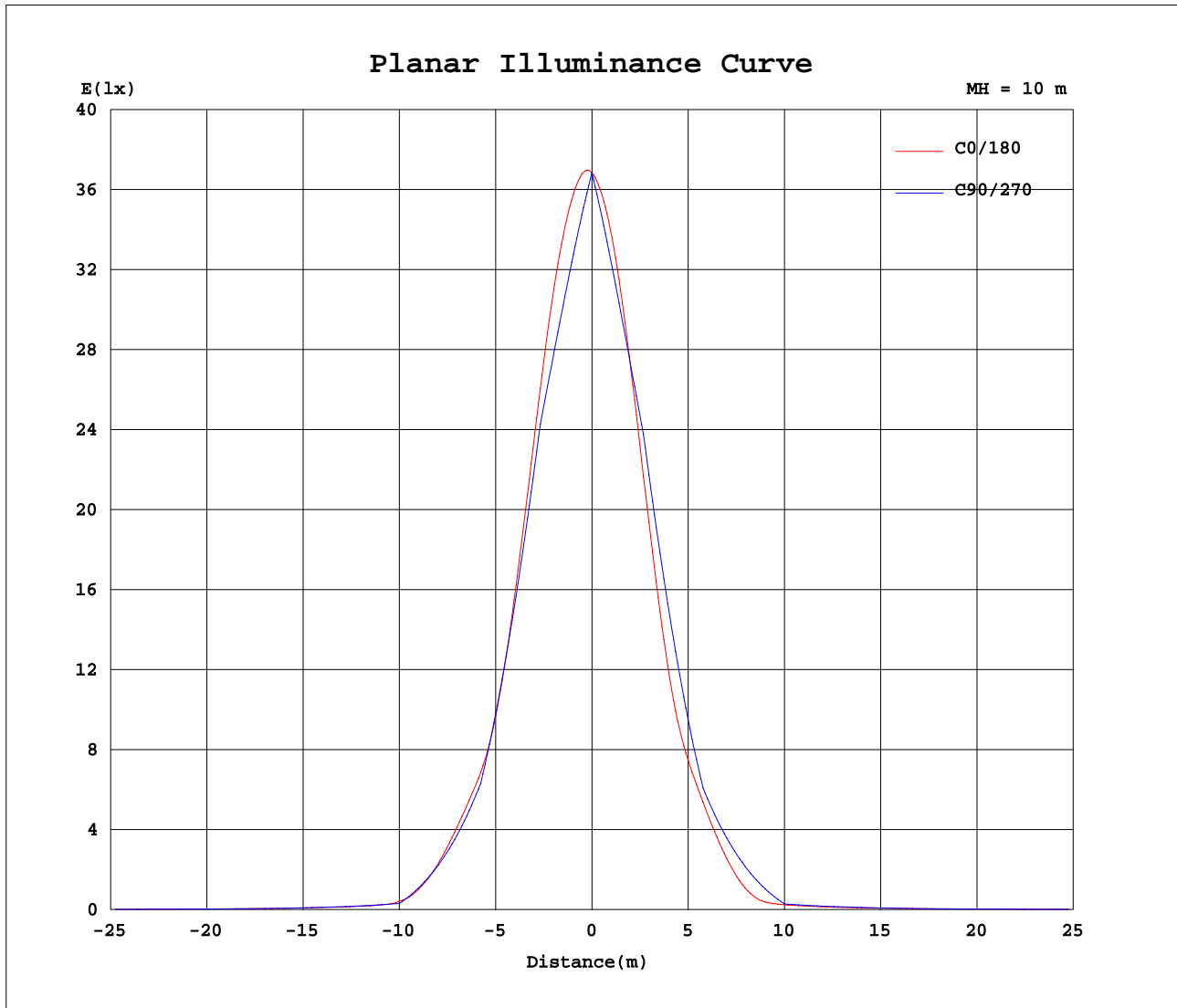
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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: 2017-11-09

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 Recessed 30W-3000K-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	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684
5	3645	3617	3590	3565	3541	3519	3499	3481	3464	3448	3435	3422	3410	3399	3389	3379	3371	3361	3354
10	3382	3328	3280	3237	3201	3171	3145	3126	3110	3098	3087	3079	3075	3069	3062	3055	3047	3037	3025
15	2893	2820	2761	2715	2682	2658	2646	2641	2643	2651	2663	2676	2690	2702	2713	2718	2716	2708	2695
20	2227	2151	2096	2060	2039	2034	2042	2061	2093	2131	2158	2168	2176	2177	2172	2165	2152	2137	2121
25	1536	1481	1447	1428	1425	1434	1453	1487	1517	1548	1577	1601	1613	1615	1608	1594	1579	1563	1548
30	1056	1024	1007	1003	1012	1025	1020	1013	1030	1056	1086	1106	1112	1100	1074	1042	1012	987	974
35	753	710	688	687	708	714	692	675	670	680	696	700	715	722	717	707	696	687	679
40	381	346	333	339	361	367	363	359	359	381	422	444	451	449	437	420	403	391	384
45	118	110	107	103	122	141	142	111	149	199	231	237	224	200	169	138	112	95.2	88.6
50	66.6	65.3	65.0	65.1	66.7	68.5	65.8	69.5	75.2	93.6	101	80.4	64.6	65.9	69.1	71.5	73.3	73.8	73.4
55	55.6	54.4	54.3	54.1	54.3	54.7	54.7	54.5	55.4	54.3	54.7	54.9	54.8	54.9	56.5	57.8	58.6	58.6	58.2
60	46.1	45.3	45.3	45.0	45.3	45.2	45.2	45.0	45.4	45.8	46.0	45.9	45.6	45.2	44.9	44.7	44.1	43.5	43.0
65	38.7	37.9	37.7	37.9	37.8	37.7	37.8	38.1	38.3	38.2	37.8	37.5	37.5	37.7	37.7	37.8	37.7	37.5	37.2
70	32.8	32.1	32.0	31.9	31.9	31.8	32.2	32.4	31.9	31.1	31.1	31.4	31.5	31.9	32.1	32.1	32.0	31.8	31.5
75	26.9	25.9	25.7	26.0	24.8	25.9	25.6	24.0	23.4	23.7	24.6	25.2	25.7	26.2	26.5	26.5	26.3	26.1	25.7
80	13.2	11.7	11.9	12.1	13.9	14.4	13.7	13.2	14.2	13.6	11.7	9.40	7.04	4.95	3.20	1.79	0.79	0.19	0.00
85	2.05	1.84	2.76	4.20	3.87	1.98	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	0.09	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:2017-11-09

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 Recessed 30W-3000K-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	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684
5	3347	3341	3336	3331	3329	3327	3327	3329	3333	3340	3349	3359	3372	3388	3407	3429	3454	3480	3451
10	3010	2994	2977	2960	2943	2928	2911	2898	2888	2880	2877	2879	2888	2902	2924	2954	2993	3040	2988
15	2673	2645	2610	2574	2533	2490	2445	2403	2364	2329	2301	2281	2271	2272	2284	2308	2347	2402	2340
20	2102	2080	2057	2030	1996	1960	1919	1875	1823	1765	1713	1671	1642	1626	1622	1634	1661	1707	1655
25	1533	1520	1505	1484	1457	1421	1379	1332	1282	1243	1222	1185	1157	1137	1122	1120	1130	1154	1125
30	971	976	982	986	982	962	929	890	858	845	852	869	856	820	798	791	801	828	794
35	673	668	662	652	636	607	567	543	529	522	518	514	516	494	461	444	445	466	434
40	382	385	389	392	387	373	344	303	243	217	224	236	225	198	169	151	144	152	142
45	92.9	106	127	151	172	183	180	156	112	82.3	76.1	92.0	80.3	75.2	71.8	69.7	68.9	69.1	68.7
50	72.0	69.5	65.9	62.6	61.6	60.7	69.7	73.7	64.1	60.0	58.6	58.3	57.9	57.4	57.8	57.2	56.6	56.9	56.4
55	57.4	55.9	53.8	52.1	51.7	51.2	50.6	49.9	49.2	48.9	48.5	48.1	47.8	47.5	47.3	47.2	46.5	46.8	46.3
60	42.9	42.8	42.5	42.4	42.3	42.2	42.0	41.6	41.1	40.5	39.7	39.6	39.4	39.2	38.7	38.8	38.2	38.4	38.0
65	36.9	36.4	35.8	35.2	34.6	34.3	33.9	34.1	34.2	33.9	33.5	32.9	32.7	32.5	32.3	32.1	31.9	31.8	31.7
70	31.1	30.6	29.9	29.0	28.3	27.7	26.9	26.4	26.7	28.0	28.1	27.2	26.7	27.3	26.9	27.0	27.1	26.8	26.8
75	25.3	24.7	23.9	22.9	22.0	21.1	19.7	18.2	17.4	17.7	18.8	19.9	19.2	18.5	19.3	18.7	18.8	18.3	17.8
80	0.19	0.74	1.61	2.73	4.08	5.53	6.70	7.24	7.27	6.94	7.24	8.07	8.53	7.43	6.83	6.38	6.02	5.32	5.10
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	0.58	0.96	1.24	0.80	0.71	0.56	0.52
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	0.04	0.00

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-09

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 Recessed 30W-3000K-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	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684
5	3425	3401	3380	3362	3347	3335	3325	3317	3312	3309	3308	3310	3312	3316	3321	3327	3335	3343	3353
10	2944	2909	2883	2864	2852	2847	2846	2850	2858	2870	2885	2900	2917	2936	2954	2970	2986	3000	3012
15	2293	2261	2242	2234	2237	2252	2274	2304	2339	2379	2421	2463	2505	2543	2581	2612	2636	2654	2665
20	1621	1603	1597	1602	1618	1648	1689	1740	1791	1837	1881	1922	1959	1993	2021	2048	2070	2090	2107
25	1110	1108	1118	1133	1153	1175	1183	1208	1252	1299	1345	1385	1420	1446	1467	1486	1504	1521	1540
30	777	777	793	821	831	814	802	807	827	858	889	912	925	931	931	930	937	951	976
35	422	431	456	477	476	472	469	473	486	504	545	577	602	621	635	643	652	660	670
40	143	148	163	194	212	204	175	185	250	302	334	352	360	363	363	363	367	374	386
45	69.5	69.8	73.0	77.0	84.3	73.3	77.4	88.2	125	156	167	160	142	119	98.8	85.5	81.6	88.2	105
50	56.9	57.3	57.1	57.4	58.2	58.5	59.1	62.2	66.0	66.7	61.0	61.5	62.3	63.2	65.2	67.3	68.7	69.2	69.0
55	46.9	46.8	46.9	47.4	47.7	48.2	48.4	48.8	49.8	50.6	51.2	51.7	52.0	52.8	53.8	55.0	55.8	56.3	56.3
60	38.4	38.4	38.8	39.1	39.5	39.6	40.4	41.0	41.4	41.8	42.1	42.3	42.2	42.5	42.6	42.7	42.9	43.3	43.8
65	31.9	32.0	32.3	32.6	32.8	33.3	33.9	34.1	34.1	33.9	33.6	34.0	34.3	34.9	35.4	35.8	36.1	36.5	36.7
70	26.6	26.5	27.1	26.2	26.4	27.4	27.8	26.3	25.5	25.3	25.7	26.5	27.2	27.9	28.4	28.9	29.4	29.7	30.0
75	17.6	18.0	17.1	17.1	18.2	17.8	16.8	16.1	16.1	16.6	17.6	18.8	20.1	20.9	21.5	22.1	22.6	23.0	23.3
80	5.14	5.55	5.77	6.98	6.96	6.14	5.48	5.63	5.56	5.10	4.29	3.36	2.35	1.39	0.64	0.16	0.00	0.17	0.70
85	0.54	0.71	0.50	0.36	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:2017-11-09

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 Recessed 30W-3000K-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	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684	3684				
5	3362	3372	3384	3395	3408	3422	3437	3453	3472	3491	3512	3536	3561	3587	3616				
10	3022	3031	3040	3049	3056	3066	3079	3092	3111	3133	3161	3193	3231	3276	3326				
15	2671	2671	2666	2655	2646	2637	2628	2623	2623	2631	2646	2672	2707	2756	2818				
20	2123	2133	2139	2141	2137	2127	2104	2069	2043	2028	2023	2032	2055	2093	2150				
25	1557	1571	1580	1579	1570	1551	1527	1500	1475	1446	1431	1425	1431	1449	1482				
30	1006	1037	1064	1078	1078	1064	1039	1019	1013	1026	1034	1019	1009	1010	1025				
35	678	687	691	687	675	673	664	661	673	691	712	708	689	691	712				
40	401	418	430	435	427	405	364	345	346	359	372	377	350	339	349				
45	131	161	192	218	229	222	189	136	102	145	145	123	102	107	111				
50	67.9	66.2	65.4	65.3	80.1	98.7	89.1	73.8	69.1	66.5	69.1	67.6	66.1	65.8	65.6				
55	55.9	55.2	55.4	55.3	55.5	55.2	54.8	55.8	55.4	55.6	55.7	55.4	55.0	55.1	54.9				
60	44.5	45.0	45.5	45.8	46.3	46.4	46.5	46.3	46.0	46.3	46.3	46.4	46.0	46.1	45.8				
65	37.0	37.2	37.3	37.5	37.9	38.3	38.8	39.1	39.1	38.9	38.9	38.9	39.0	38.5	38.4				
70	30.2	30.4	30.4	30.4	30.5	30.6	31.2	32.7	33.5	33.3	32.9	33.1	33.0	32.9	32.7				
75	23.5	23.6	23.5	23.4	23.0	22.5	22.2	22.5	23.8	26.2	26.7	25.8	27.1	26.7	26.7				
80	1.58	2.81	4.37	6.18	8.12	9.87	11.2	11.5	11.3	12.4	13.7	14.0	12.8	13.0	12.9				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	2.02	2.64	2.36	2.07			
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: 2017-11-09

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: