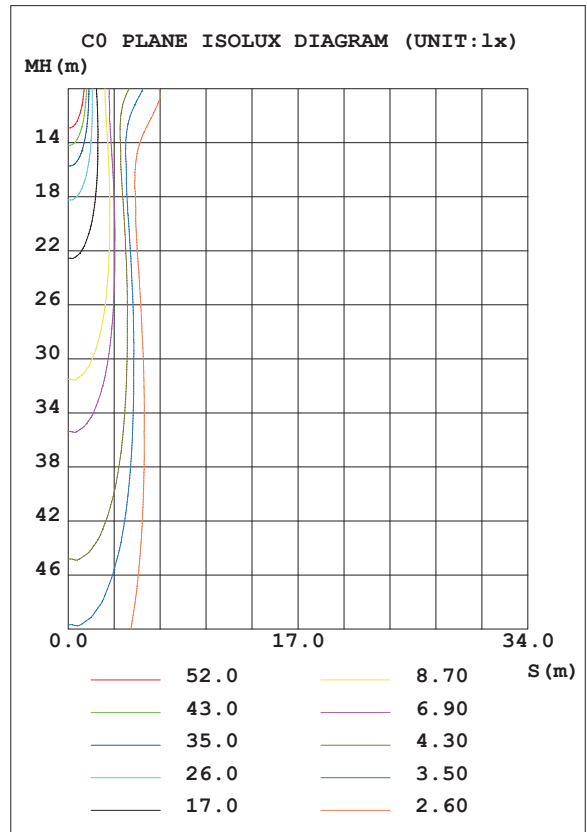
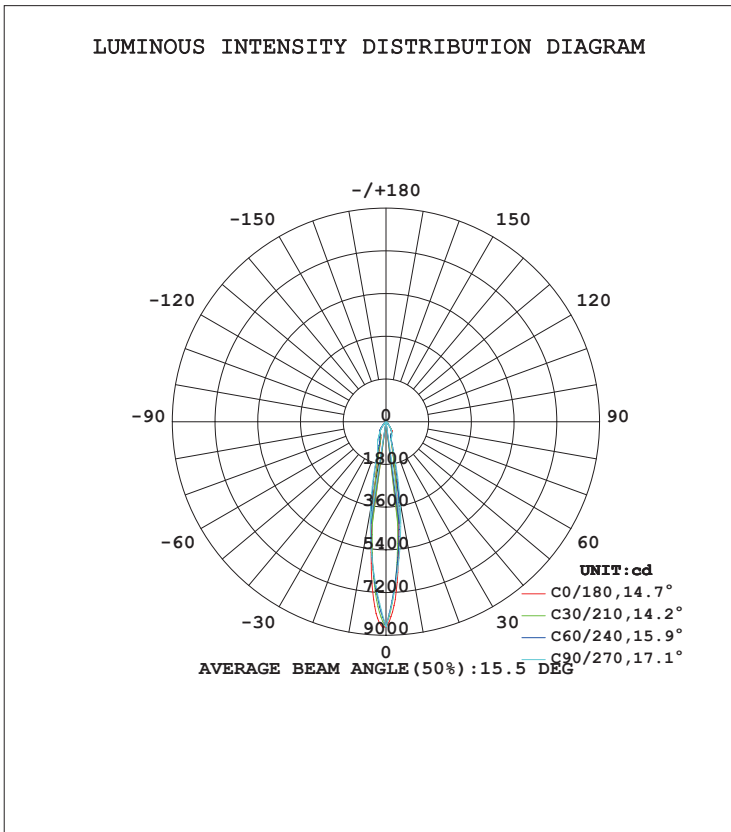


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Juvenis Recessed-20W-3000K-15°	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	Juvenis Recessed-20W-3000K-15°	Imax (cd)	8655	S/MH (C0/180)	0.27
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.30
RATED VOLTAGE (V)	228	TOTAL FLUX (lm)	1388.6	η UP, DN (C0-180)	0.0, 52.7
NOMINAL FLUX (lm)	1388.6	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	227.6	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: 2017-11-06

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	6828	6236	6208	5723	5948	5617	6030	6130	0- 5	168.1	168.1	12.1,12.1
10	2749	3127	3771	2647	2232	2511	3416	2994	5- 10	302.1	470.2	33.9,33.9
15	1001	1260	1335	1137	911.7	1027	801.7	1156	10- 15	216.6	686.8	49.5,49.5
20	641.9	685.6	1063	678.5	626.3	616.1	699.0	618.7	15- 20	135.6	822.4	59.2,59.2
25	558.4	576.3	791.2	569.8	547.6	518.8	596.3	522.3	20- 25	132.7	955.1	68.8,68.8
30	513.9	500.1	519.2	494.9	501.3	407.2	493.7	413.2	25- 30	135.8	1091	78.6,78.6
35	407.9	386.0	362.0	380.4	388.1	255.0	345.5	258.0	30- 35	128.3	1219	87.8,87.8
40	132.9	220.5	204.8	210.4	117.5	82.50	197.4	82.22	35- 40	90.00	1309	94.3,94.3
45	49.05	91.26	47.63	80.84	50.20	37.53	49.28	35.55	40- 45	42.89	1352	97.4,97.4
50	33.96	29.82	33.12	27.23	27.25	20.12	34.00	19.12	45- 50	18.96	1371	98.7,98.7
55	5.654	9.231	18.62	8.449	5.050	4.643	18.72	4.873	50- 55	9.010	1380	99.4,99.4
60	3.558	4.988	4.108	4.809	3.515	3.615	3.438	3.668	55- 60	3.974	1384	99.7,99.7
65	2.778	3.280	3.364	3.255	2.787	2.811	2.703	2.823	60- 65	1.783	1386	99.8,99.8
70	2.154	2.349	2.621	2.357	2.176	1.966	1.968	1.973	65- 70	1.291	1387	99.9,99.9
75	1.526	1.655	1.877	1.646	1.520	0.9553	1.234	0.9732	70- 75	0.9547	1388	100,100
80	0.1810	0.8128	0	0.7648	0.1248	0.0793	0	0.0957	75- 80	0.4586	1389	100,100
85	0	0	0	0	0.0214	0	0	0	80- 85	0.0376	1389	100,100
90	0	0	0	0	0	0	0	0	85- 90	0.0008	1389	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			

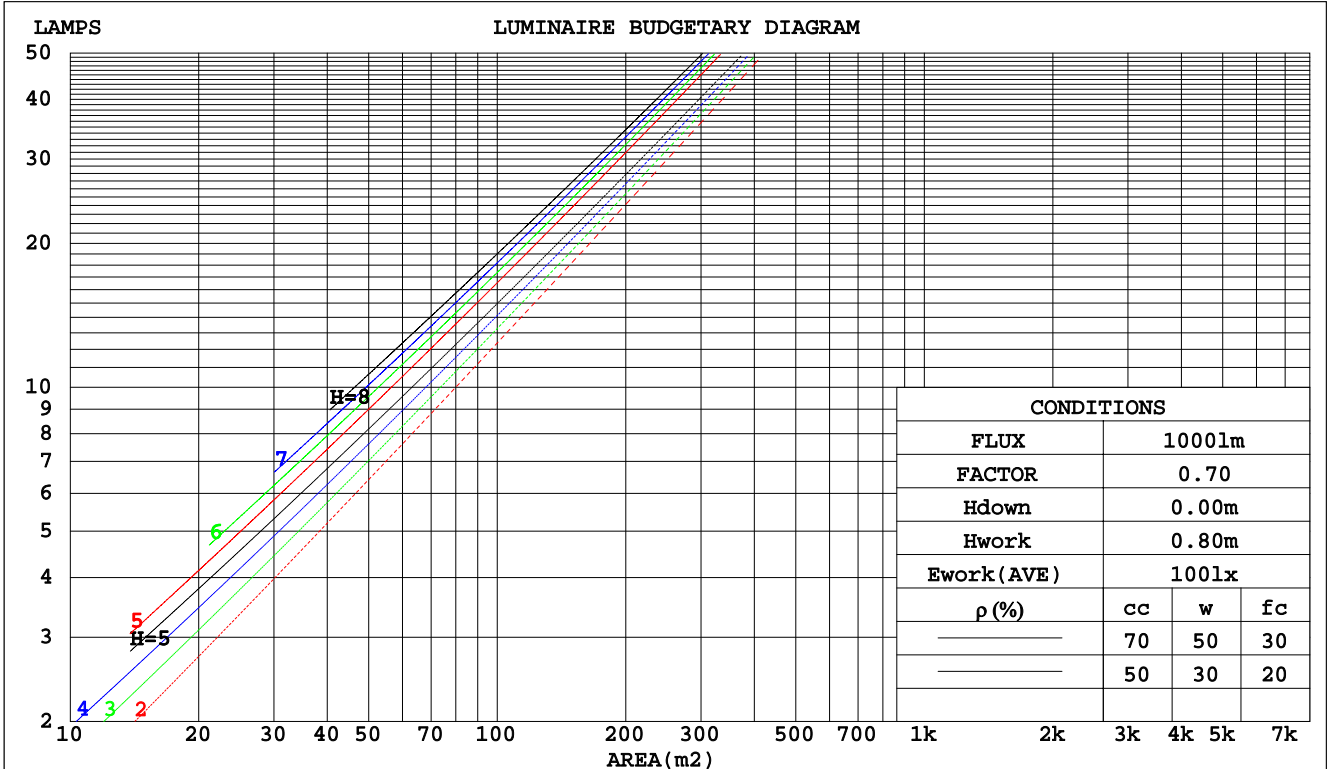
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-3000K-15°	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	.99	.98	.97	.95
2.0	1.06	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.94	.92	.91
3.0	1.00	.96	.93	.99	.95	.92	.96	.93	.90	.94	.91	.89	.92	.90	.88	.86
4.0	.95	.90	.87	.94	.90	.86	.92	.88	.85	.90	.87	.84	.88	.86	.84	.82
5.0	.91	.86	.82	.90	.85	.82	.88	.84	.81	.86	.83	.80	.85	.82	.80	.79
6.0	.87	.82	.78	.86	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.76	.75
7.0	.83	.78	.75	.82	.78	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.72
8.0	.80	.75	.72	.79	.75	.71	.78	.74	.71	.77	.74	.71	.76	.73	.71	.69
9.0	.77	.72	.69	.76	.72	.69	.76	.71	.68	.75	.71	.68	.74	.71	.68	.67
10.0	.74	.69	.66	.74	.69	.66	.73	.69	.66	.72	.69	.66	.72	.68	.66	.65



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-06

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-20W-3000K-15°	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	.154	.087	.028	.147	.084	.027	.135	.077	.025	.123	.071	.023	.113	.065	.021	
2.0	.145	.080	.024	.140	.077	.024	.130	.072	.022	.120	.067	.021	.111	.063	.020	
3.0	.137	.073	.022	.133	.071	.021	.124	.067	.020	.116	.063	.019	.108	.060	.019	
4.0	.130	.067	.020	.126	.066	.019	.118	.063	.019	.111	.060	.018	.105	.057	.017	
5.0	.123	.063	.018	.119	.061	.018	.113	.059	.017	.107	.056	.017	.101	.054	.016	
6.0	.117	.058	.017	.114	.057	.017	.108	.055	.016	.103	.053	.016	.098	.052	.015	
7.0	.111	.055	.016	.108	.054	.015	.103	.052	.015	.099	.051	.015	.094	.049	.014	
8.0	.106	.052	.015	.103	.051	.014	.099	.049	.014	.095	.048	.014	.091	.047	.014	
9.0	.101	.049	.014	.099	.048	.014	.095	.047	.013	.091	.046	.013	.088	.045	.013	
10.0	.096	.046	.013	.095	.046	.013	.091	.045	.013	.088	.044	.012	.085	.043	.012	

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	.158	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.116	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013	
3.0	.139	.113	.093	.119	.098	.081	.082	.068	.057	.047	.040	.033	.015	.013	.011	
4.0	.127	.098	.076	.109	.085	.066	.075	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.109	.077	.053	.094	.066	.046	.065	.046	.033	.038	.027	.019	.012	.009	.006	
7.0	.102	.069	.045	.088	.060	.039	.061	.042	.028	.035	.025	.017	.011	.008	.005	
8.0	.096	.062	.039	.083	.054	.034	.057	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.090	.057	.034	.078	.049	.030	.054	.035	.021	.031	.020	.012	.010	.007	.004	
10.0	.086	.052	.030	.074	.045	.026	.051	.032	.018	.030	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DOBAC
 Test Date:2017-11-06

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-20W-3000K-15°					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	19.8	20.6	20.0	20.8	20.9	21.1	21.9	21.3	22.0	22.2				
3H	19.7	20.4	19.9	20.6	20.8	20.9	21.6	21.2	21.8	22.0				
4H	19.6	20.3	19.9	20.5	20.7	20.9	21.5	21.1	21.7	22.0				
6H	19.5	20.2	19.8	20.4	20.6	20.8	21.4	21.1	21.6	21.9				
8H	19.5	20.1	19.8	20.3	20.6	20.7	21.3	21.0	21.6	21.8				
12H	19.4	20.0	19.7	20.3	20.6	20.7	21.3	21.0	21.5	21.8				
4H 2H	19.6	20.3	19.9	20.5	20.7	20.8	21.5	21.1	21.7	22.0				
3H	19.5	20.0	19.8	20.3	20.6	20.7	21.3	21.0	21.5	21.8				
4H	19.4	19.9	19.7	20.2	20.5	20.6	21.1	20.9	21.4	21.7				
6H	19.3	19.8	19.6	20.1	20.4	20.5	21.0	20.9	21.3	21.7				
8H	19.2	19.7	19.6	20.0	20.4	20.5	20.9	20.8	21.2	21.6				
12H	19.2	19.6	19.6	19.9	20.3	20.4	20.8	20.8	21.2	21.6				
8H 4H	19.2	19.7	19.6	20.0	20.4	20.5	20.9	20.8	21.2	21.6				
6H	19.1	19.5	19.5	19.9	20.3	20.4	20.7	20.8	21.1	21.5				
8H	19.1	19.4	19.5	19.8	20.2	20.3	20.6	20.7	21.0	21.5				
12H	19.0	19.3	19.5	19.7	20.2	20.2	20.5	20.7	21.0	21.4				
12H 4H	19.2	19.6	19.6	19.9	20.3	20.4	20.8	20.8	21.2	21.6				
6H	19.1	19.4	19.5	19.8	20.2	20.3	20.6	20.7	21.0	21.5				
8H	19.0	19.3	19.5	19.7	20.2	20.2	20.5	20.7	21.0	21.4				
Variations with the observer position at spacings:														
S = 1.0H	+ 3.7 / -13.6					+ 2.9 / -10.9								
1.5H	+ 5.9 / - 9.1					+ 4.6 / - 7.3								
2.0H	+ 5.1 / - 7.3					+ 4.0 / - 7.9								

CIE Pub.117 Corrected 1389 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.1)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-3000K-15°	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

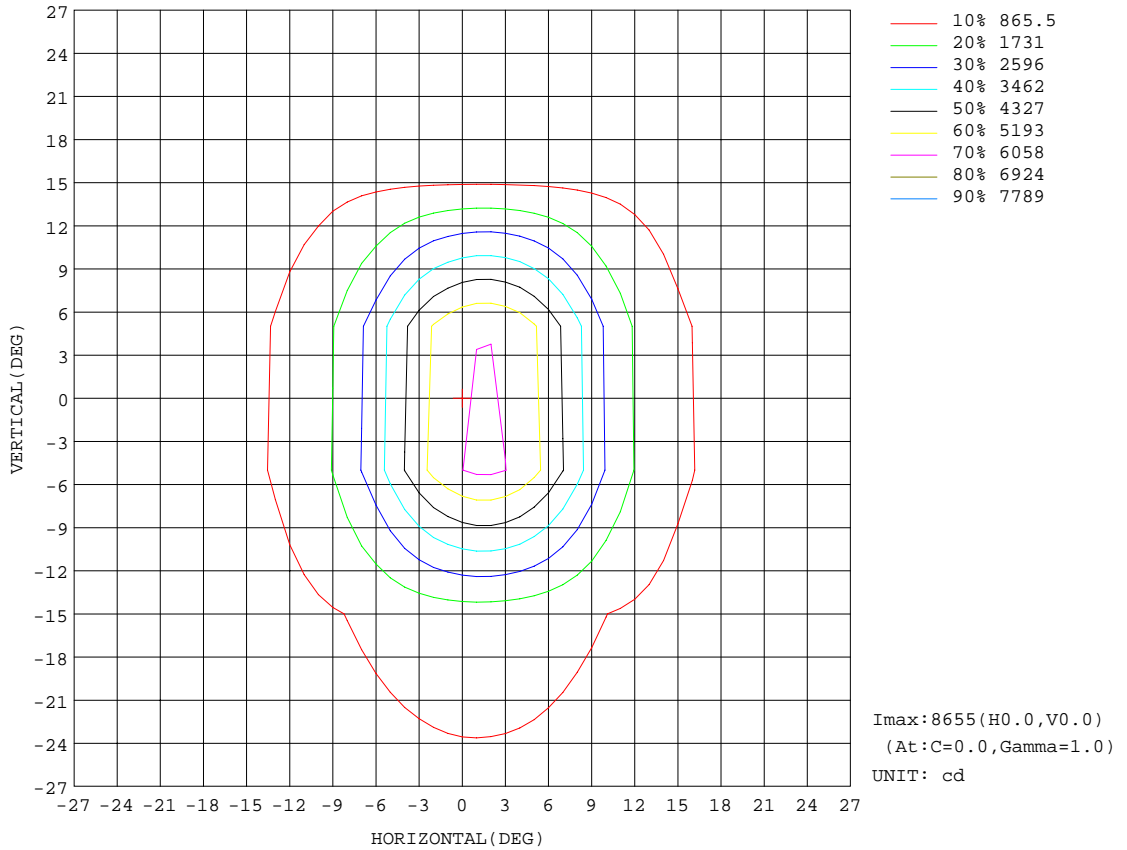
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	88	82	78	87	82	78	87	81	78	74
0.80	95	90	86	95	89	86	94	89	85	82
1.00	100	94	91	99	94	90	97	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	96
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: 2017-11-06

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-20W-3000K-15°	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

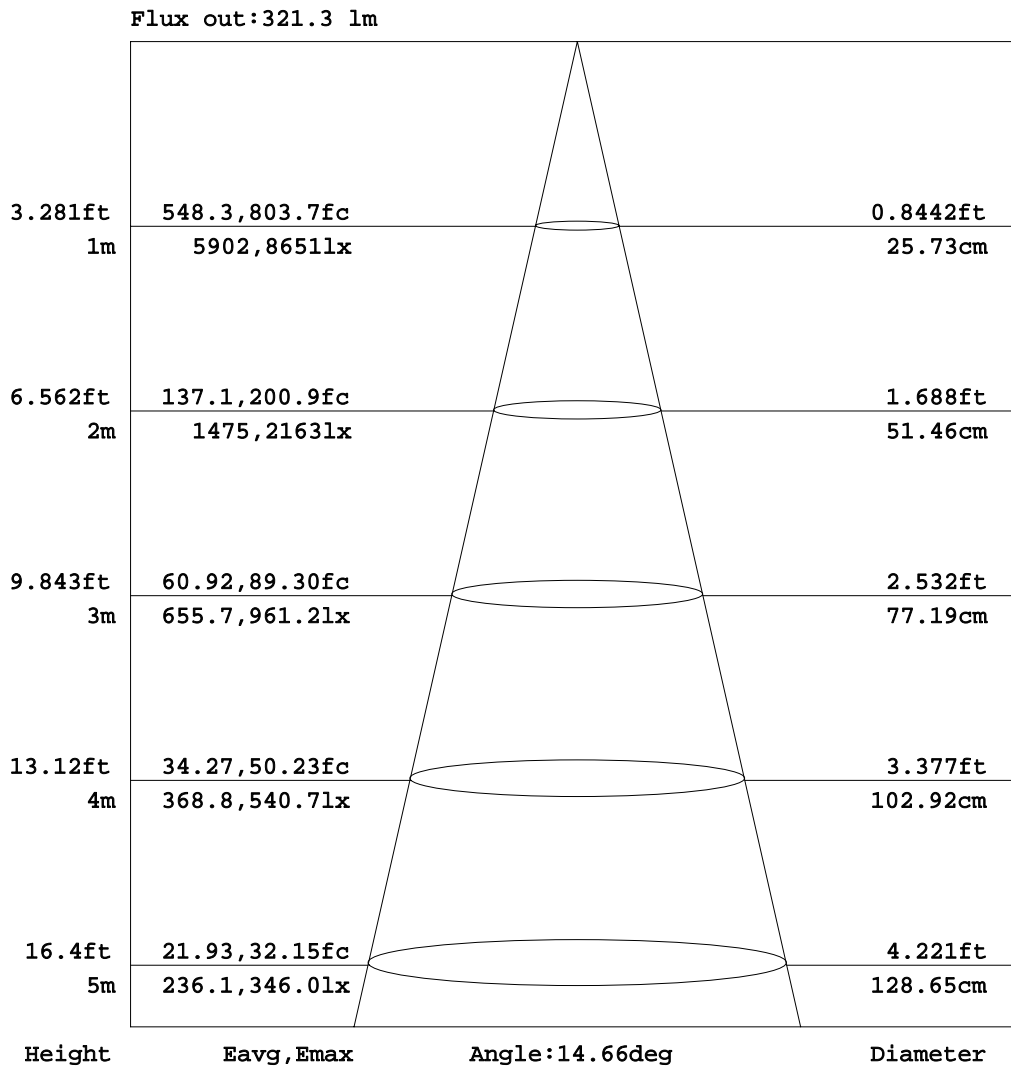


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-06

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-20W-3000K-15°	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



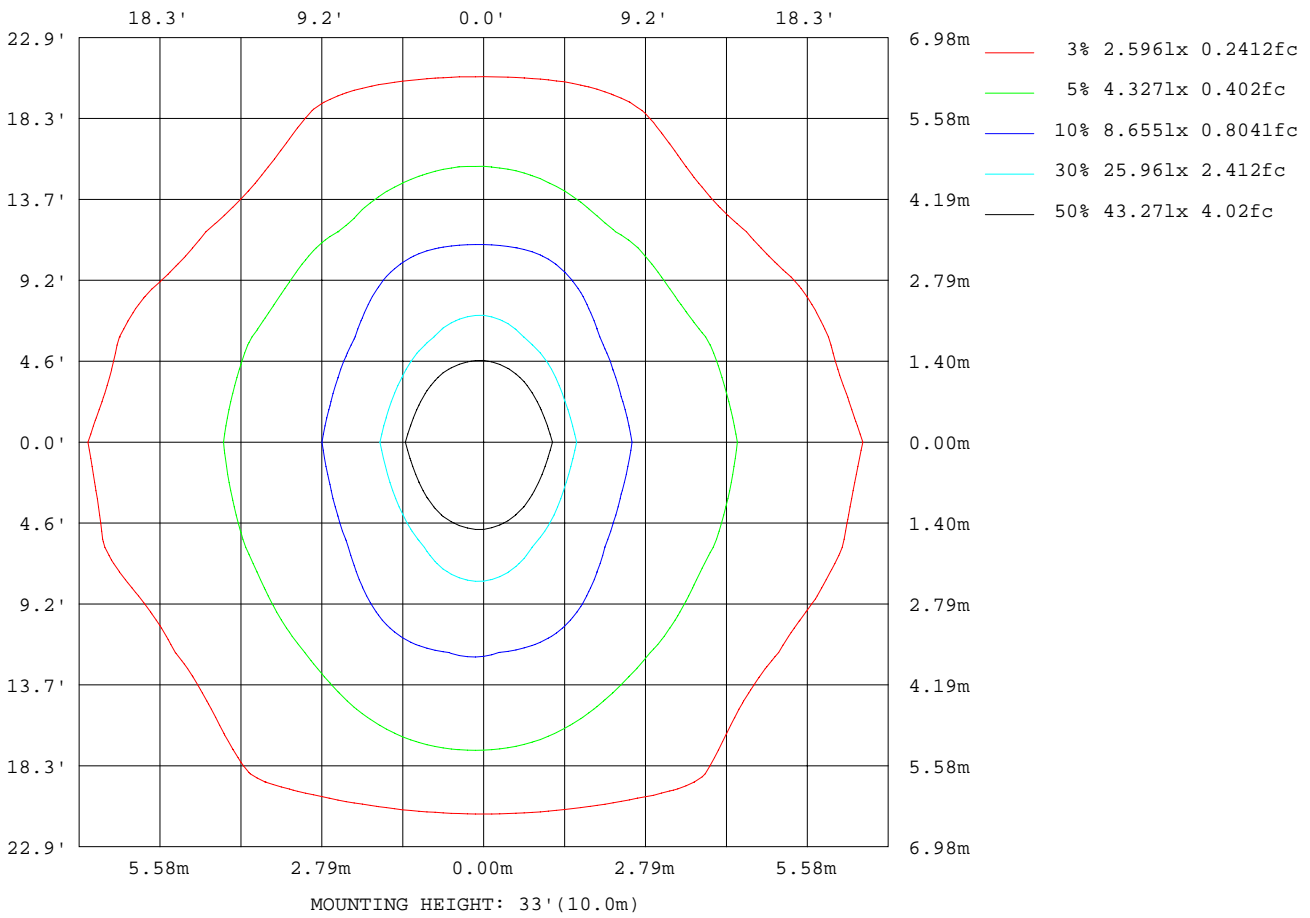
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-3000K-15°	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: 2017-11-06

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-20W-3000K-15°	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	1388.6	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0033	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	2987	3470	5087	7851	6858	8904	14782	11885	10027	9835	10019	11622	14209	8040	6593	6543	4483	3163	2668
60	2156	2316	2338	2742	2545	4609	7581	4926	3051	2490	3030	4850	7261	4321	2540	2610	2312	2294	2130
65	1992	2084	2112	2123	2231	2465	2219	2297	2378	2412	2366	2289	2203	2410	2249	2151	2092	2057	1998
70	1909	1987	2015	2052	2065	2117	2188	2253	2306	2322	2307	2266	2187	2110	2096	2085	2008	1955	1928
75	1787	1875	1862	1907	1670	2047	2174	2216	2215	2197	2240	2264	2190	2042	1628	1943	1832	1822	1780
80	316	374	794	1031	662	1348	849	389	98	0	99	399	859	1340	630	1036	565	297	218
85	0	53	157	0	0	0	0	0	0	0	0	0	0	0	0	0	123	58	74

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	14782	200	---	500
Category 2	65 to 90	2465	200	---	500
Category 3	75 to 90	2264	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:2017-11-06

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-20W-3000K-15°	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	1388.6	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0033	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	2987	3470	5087	7851	6858	8904	14782	11885	10027	9835	10019	11622	14209	8040	6593	6543	4483	3163	2668
60	2156	2316	2338	2742	2545	4609	7581	4926	3051	2490	3030	4850	7261	4321	2540	2610	2312	2294	2130
65	1992	2084	2112	2123	2231	2465	2219	2297	2378	2412	2366	2289	2203	2410	2249	2151	2092	2057	1998
70	1909	1987	2015	2052	2065	2117	2188	2253	2306	2322	2307	2266	2187	2110	2096	2085	2008	1955	1928
75	1787	1875	1862	1907	1670	2047	2174	2216	2215	2197	2240	2264	2190	2042	1628	1943	1832	1822	1780
80	316	374	794	1031	662	1348	849	389	98	0	99	399	859	1340	630	1036	565	297	218
85	0	53	157	0	0	0	0	0	0	0	0	0	0	0	0	0	123	58	74

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	14782	1000	1500	200	500
65 to 90	2465	1000	1500	200	500

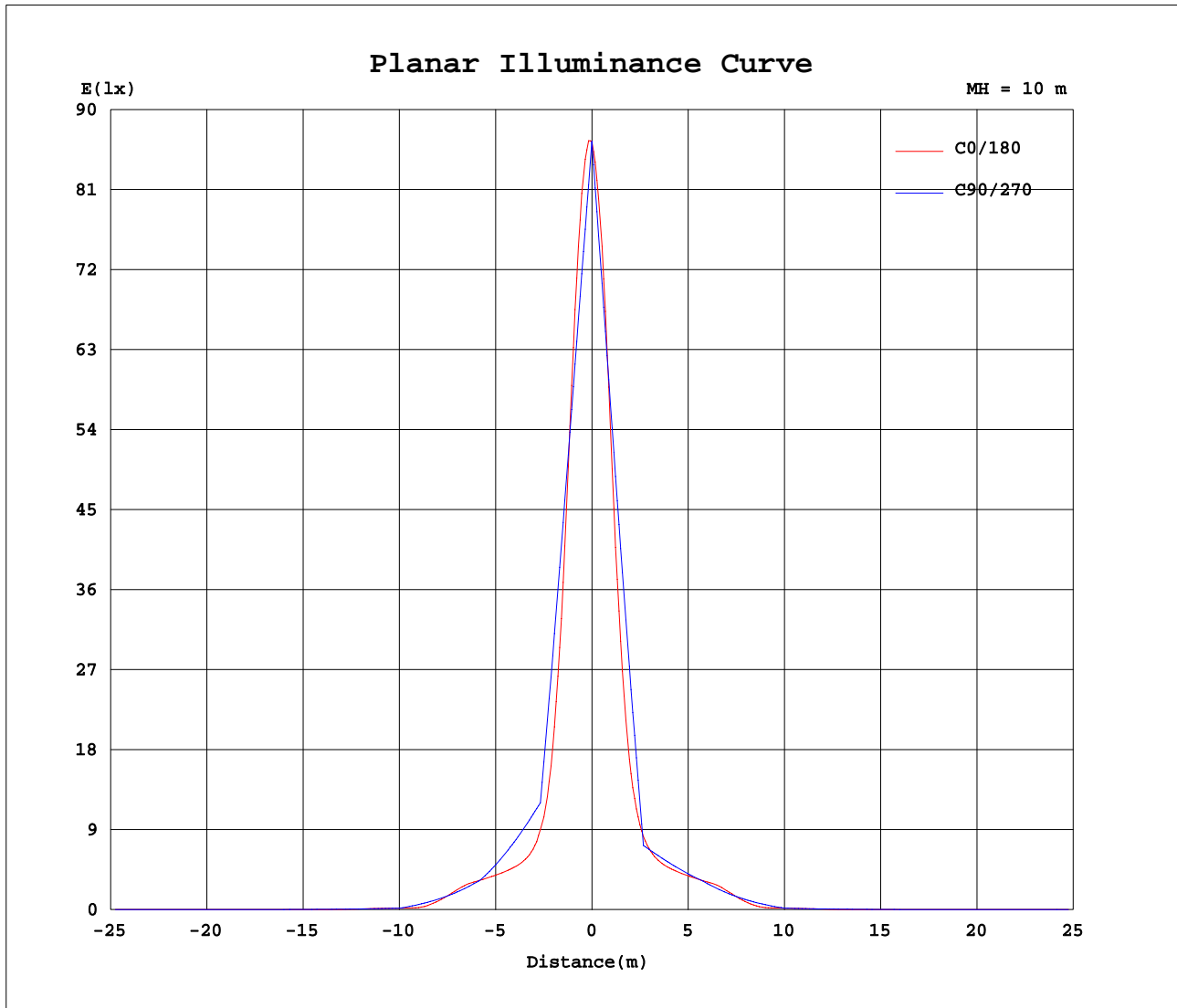
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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: 2017-11-06

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-20W-3000K-15°	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	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644
5	6828	6675	6547	6444	6364	6306	6269	6253	6240	6236	6250	6260	6253	6263	6256	6252	6248	6218	6208
10	2749	2659	2612	2600	2617	2655	2746	2855	2986	3127	3274	3412	3539	3628	3703	3753	3779	3786	3771
15	1001	977	966	964	968	1001	1040	1106	1180	1260	1335	1401	1451	1469	1455	1418	1375	1343	1335
20	642	636	633	634	637	643	654	666	681	686	699	731	773	826	886	951	1009	1047	1063
25	558	554	553	552	554	557	561	568	570	576	586	600	621	648	681	719	756	781	791
30	514	510	508	509	510	514	503	488	487	500	518	528	534	538	541	539	532	523	519
35	408	386	380	388	410	415	387	361	362	386	425	466	453	426	403	385	372	365	362
40	133	121	121	132	158	189	194	178	182	220	271	300	302	277	250	230	216	208	205
45	49.1	49.7	49.8	48.7	49.1	57.2	69.4	51.3	50.6	91.3	134	156	153	129	99.0	75.4	59.7	50.5	47.6
50	34.0	31.9	34.1	36.1	34.0	33.8	41.5	37.3	28.4	29.8	48.2	49.8	44.5	41.1	36.6	33.7	33.1	33.0	33.1
55	5.65	5.87	6.57	7.92	9.63	8.34	14.9	18.1	13.0	9.23	16.9	24.6	28.0	26.4	22.5	20.1	19.0	18.6	18.6
60	3.56	3.65	3.82	3.85	3.86	4.04	4.52	4.08	4.20	4.99	7.61	11.5	12.5	10.9	8.13	6.22	5.03	4.35	4.11
65	2.78	2.84	2.91	2.95	2.95	2.96	2.96	3.02	3.11	3.28	3.44	3.06	3.10	3.14	3.20	3.26	3.32	3.35	3.36
70	2.15	2.22	2.24	2.26	2.27	2.28	2.32	2.34	2.33	2.35	2.39	2.43	2.47	2.50	2.54	2.57	2.60	2.62	2.62
75	1.53	1.57	1.60	1.63	1.59	1.67	1.63	1.46	1.43	1.66	1.75	1.82	1.86	1.87	1.89	1.90	1.89	1.88	1.88
80	0.18	0.20	0.21	0.43	0.45	0.74	0.59	0.45	0.38	0.81	0.77	0.64	0.49	0.34	0.22	0.13	0.06	0.01	0.00
85	0.00	0.01	0.02	0.04	0.05	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
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:2017-11-06

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-20W-3000K-15°	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	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644
5	6148	6107	6049	5993	5943	5884	5841	5783	5723	5680	5646	5616	5608	5623	5662	5728	5823	5948	5812
10	3718	3646	3564	3458	3324	3169	2991	2816	2647	2526	2411	2308	2220	2174	2147	2143	2170	2232	2160
15	1344	1366	1391	1404	1386	1346	1288	1214	1137	1067	1009	963	931	904	894	890	895	912	890
20	1048	1006	950	889	829	778	734	698	678	667	652	641	631	625	621	620	621	626	619
25	781	753	718	681	648	619	596	580	570	563	561	555	550	546	544	543	545	548	543
30	522	530	536	538	534	528	521	511	495	482	482	498	508	504	501	500	499	501	492
35	363	371	382	399	421	446	459	422	380	355	354	383	423	419	390	374	373	388	354
40	207	215	228	248	273	297	297	265	210	169	175	196	194	169	138	117	110	117	107
45	50.8	59.8	75.2	97.9	127	151	153	127	80.8	46.2	49.8	71.3	56.4	47.1	48.3	49.4	49.9	50.2	49.9
50	33.2	33.1	33.8	35.8	40.0	42.9	47.5	43.9	27.2	27.4	35.7	37.3	30.0	31.0	32.8	29.4	26.4	27.2	23.2
55	18.8	19.0	20.0	22.0	25.5	26.9	22.8	15.2	8.45	12.5	16.3	12.4	7.15	8.49	7.06	5.99	5.30	5.05	4.91
60	4.33	5.00	6.17	8.00	10.6	12.0	10.7	7.13	4.81	4.19	4.06	4.31	3.98	3.82	3.79	3.78	3.61	3.52	3.47
65	3.34	3.30	3.25	3.19	3.13	3.07	3.03	3.36	3.25	3.14	3.06	3.00	2.96	2.92	2.89	2.87	2.82	2.79	2.77
70	2.61	2.60	2.59	2.56	2.51	2.47	2.43	2.38	2.36	2.37	2.38	2.35	2.29	2.27	2.22	2.21	2.20	2.18	2.17
75	1.89	1.91	1.93	1.93	1.91	1.87	1.82	1.74	1.65	1.39	1.50	1.66	1.67	1.56	1.62	1.56	1.55	1.52	1.47
80	0.01	0.06	0.13	0.23	0.35	0.49	0.64	0.77	0.76	0.36	0.45	0.59	0.73	0.32	0.39	0.17	0.14	0.12	0.11
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	0.03	0.02	0.00	0.02	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: 2017-11-06

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-20W-3000K-15°	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	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644
5	5706	5628	5577	5551	5547	5565	5587	5617	5665	5711	5743	5792	5833	5882	5934	5972	6030	6043	6075
10	2123	2116	2131	2163	2236	2321	2415	2511	2654	2799	2947	3070	3173	3251	3311	3368	3416	3438	3444
15	880	879	882	900	919	949	984	1027	1072	1106	1113	1094	1046	969	888	826	802	827	895
20	615	613	614	616	620	624	624	616	608	611	628	644	659	674	687	697	699	696	688
25	540	538	539	540	542	543	526	519	521	530	542	555	569	580	588	595	596	595	590
30	489	492	498	500	477	437	414	407	413	431	456	478	492	497	497	495	494	496	498
35	338	337	352	363	340	296	261	255	273	306	340	362	368	363	354	348	346	349	356
40	101	99.2	113	141	159	145	100	82.5	131	174	202	219	224	217	207	200	197	201	209
45	50.9	51.9	44.0	44.0	56.4	53.2	42.3	37.5	48.5	75.7	91.7	94.1	86.7	74.3	61.0	52.5	49.3	52.5	61.8
50	22.1	25.0	24.7	19.5	21.5	28.9	28.2	20.1	15.7	17.2	20.5	27.4	31.6	34.1	34.5	34.3	34.0	34.3	35.0
55	4.92	5.19	5.98	4.81	6.03	9.45	9.84	4.64	5.31	7.29	11.6	15.9	18.5	19.5	19.5	19.0	18.7	19.0	19.7
60	3.50	3.49	3.50	3.51	3.59	3.53	3.53	3.61	3.82	4.31	5.62	6.70	6.62	5.66	4.54	3.73	3.44	3.69	4.50
65	2.76	2.77	2.76	2.76	2.78	2.79	2.80	2.81	2.81	2.74	2.66	2.66	2.70	2.71	2.72	2.72	2.70	2.69	2.68
70	2.14	2.12	2.14	2.09	2.10	2.13	2.12	1.97	1.83	1.73	1.67	1.76	1.88	1.94	1.96	1.97	1.97	1.96	1.96
75	1.35	1.42	1.07	1.28	1.36	1.25	1.10	0.96	0.83	0.72	0.66	0.85	1.06	1.17	1.21	1.23	1.23	1.24	1.23
80	0.09	0.19	0.11	0.31	0.43	0.28	0.11	0.08	0.08	0.08	0.08	0.11	0.11	0.08	0.04	0.01	0.00	0.01	0.04
85	0.01	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	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: 2017-11-06

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-20W-3000K-15°	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	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644	8644					
5	6086	6096	6112	6112	6129	6131	6130	6146	6171	6200	6249	6318	6410	6525	6664					
10	3439	3417	3374	3317	3222	3114	2994	2877	2767	2676	2600	2575	2570	2593	2650					
15	995	1099	1180	1222	1224	1199	1156	1101	1047	996	968	944	947	955	972					
20	675	659	644	628	615	608	619	633	631	628	624	623	624	627	632					
25	581	570	557	544	533	525	522	527	543	544	544	543	544	547	552					
30	499	494	482	464	444	423	413	417	438	478	502	501	497	496	502					
35	365	371	370	357	323	281	258	263	296	337	357	345	337	345	369					
40	219	228	229	214	181	135	82.2	97.5	139	155	141	102	94.0	105	117					
45	75.8	90.0	100	97.8	79.6	49.7	35.6	39.2	51.2	57.0	45.0	43.4	49.6	50.6	49.7					
50	35.3	33.6	30.4	24.5	20.1	16.4	19.1	27.8	33.2	28.3	23.2	27.9	29.8	28.1	29.0					
55	20.3	19.7	17.7	13.7	8.78	5.80	4.87	10.9	12.2	7.68	5.31	7.04	5.79	5.36	5.43					
60	5.73	6.92	7.39	6.40	4.81	3.98	3.67	3.56	3.57	3.70	3.56	3.52	3.51	3.50	3.48					
65	2.68	2.70	2.70	2.70	2.75	2.84	2.82	2.80	2.78	2.75	2.75	2.75	2.75	2.73	2.73					
70	1.94	1.92	1.84	1.74	1.76	1.85	1.97	2.12	2.14	2.12	2.10	2.13	2.12	2.12	2.12					
75	1.20	1.14	0.96	0.75	0.78	0.86	0.97	1.11	1.28	1.43	1.40	1.17	1.46	1.43	1.47					
80	0.08	0.12	0.14	0.11	0.11	0.11	0.10	0.12	0.29	0.47	0.50	0.18	0.29	0.14	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	0.01	0.02	0.02	0.01	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					

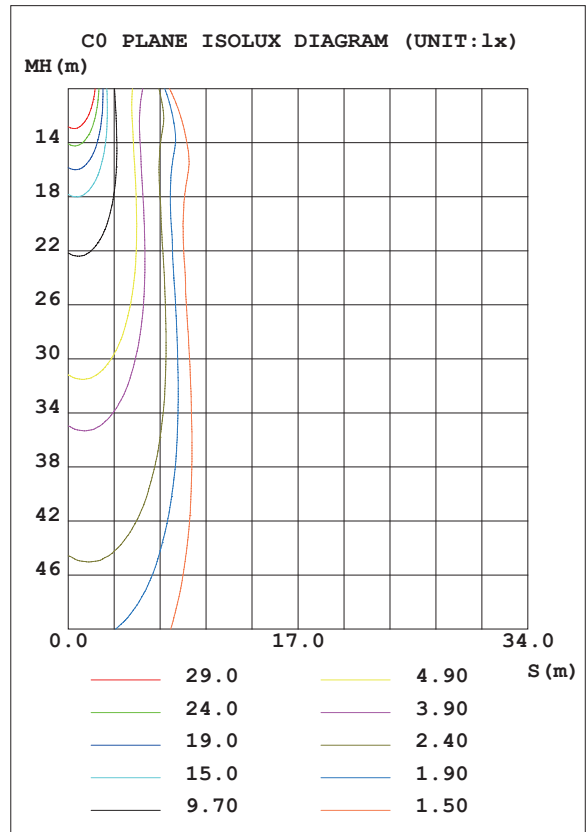
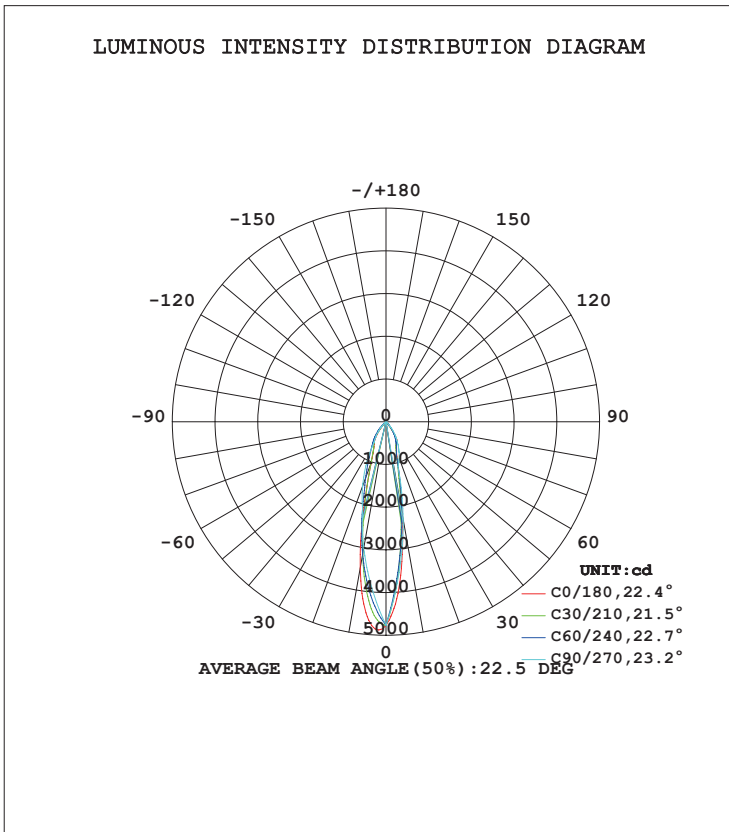
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-06

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-20W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.20 lm/W			
MODEL	Juvenis Recessed-20W-24D-3000K-90	I _{max} (cd)	4877	S/MH (C0/180)	0.45
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.45
RATED VOLTAGE (V)	228	TOTAL FLUX (lm)	1397.9	η UP, DN (C0-180)	0.0, 55.1
NOMINAL FLUX (lm)	1397.86	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 44.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	227.6	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: 2017-11-06

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	4663	4186	3885	3603	3766	3403	3542	3944	0- 5	100.1	100.1	7.16,7.16
10	3484	3143	3004	2328	2191	2056	2317	2742	5- 10	227.0	327.1	23.4,23.4
15	1926	2006	2122	1357	1115	1122	1093	1590	10- 15	238.4	565.5	40.5,40.5
20	1022	1156	1605	844.9	708.4	690.9	902.7	836.4	15- 20	195.9	761.4	54.5,54.5
25	679.6	777.3	1087	641.7	576.4	537.4	712.5	628.0	20- 25	171.8	933.2	66.8,66.8
30	554.5	600.4	569.5	510.0	520.6	386.4	522.4	484.4	25- 30	155.8	1089	77.9,77.9
35	375.7	477.5	398.7	360.7	306.7	203.2	359.8	326.7	30- 35	133.3	1222	87.4,87.4
40	148.0	314.6	227.9	175.3	61.14	53.50	197.3	146.0	35- 40	88.99	1311	93.8,93.8
45	43.39	151.5	57.14	61.55	37.14	33.45	34.69	56.16	40- 45	42.84	1354	96.9,96.9
50	30.92	55.78	42.32	33.49	26.23	21.80	24.56	30.01	45- 50	17.92	1372	98.2,98.2
55	19.90	24.58	27.50	21.05	15.13	11.64	14.42	17.19	50- 55	10.70	1383	98.9,98.9
60	9.284	14.90	12.68	13.13	6.887	7.355	4.289	10.56	55- 60	6.487	1389	99.4,99.4
65	4.174	7.222	9.342	7.078	5.064	4.629	3.332	5.595	60- 65	3.396	1393	99.6,99.6
70	2.789	3.369	6.005	4.214	4.322	3.279	2.376	2.912	65- 70	2.220	1395	99.8,99.8
75	1.519	2.477	2.669	3.333	3.614	2.420	1.420	1.712	70- 75	1.599	1396	99.9,99.9
80	0.5084	1.371	0	1.960	2.446	1.356	0	0.5567	75- 80	0.9365	1397	100,100
85	0.2728	0	0	0	2.444	0	0	0	80- 85	0.3449	1398	100,100
90	0.0465	0	0	0	0.0000	0	0	0	85- 90	0.0920	1398	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			

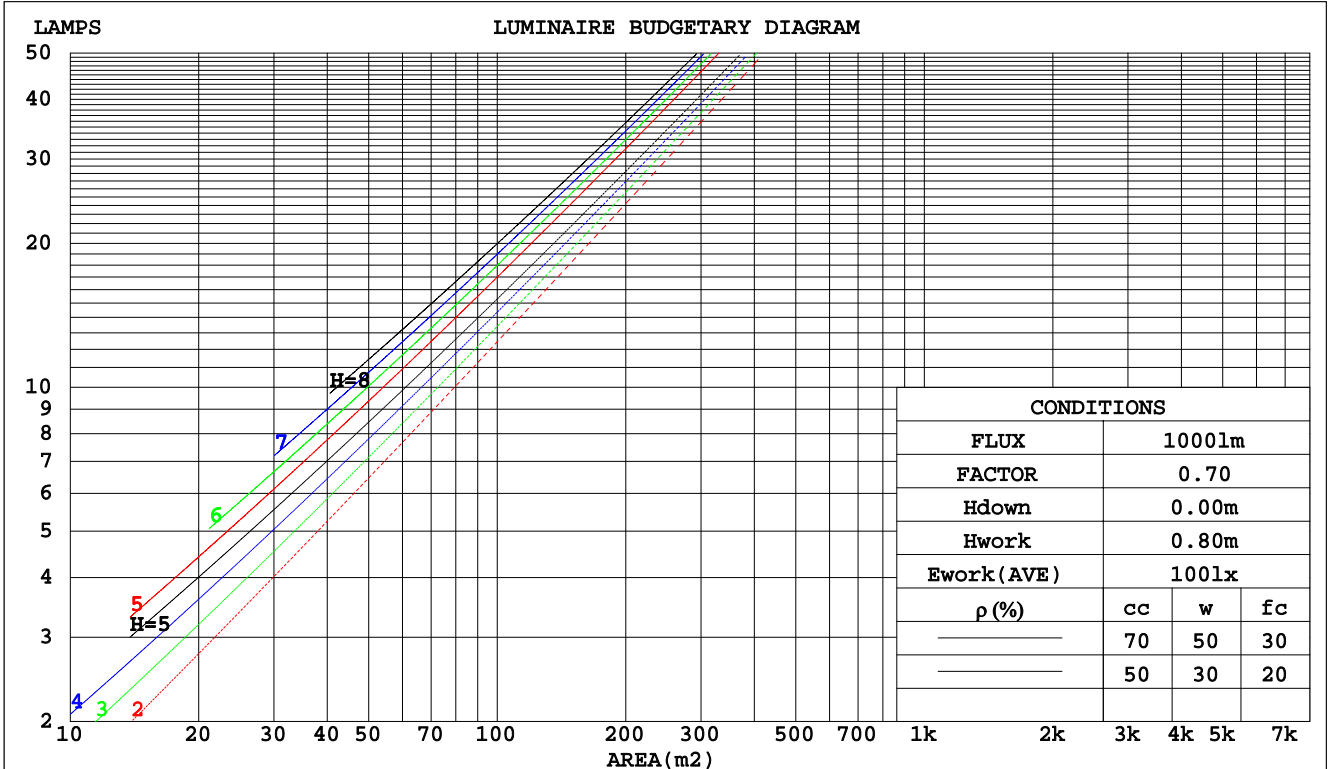
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-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	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.90	.97	.90	.97	.95	.97	.95	.93	.94	.92	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.89	.92	.90	.87	.90	.88	.86	.84
4.0	.93	.88	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
5.0	.88	.83	.79	.87	.83	.79	.86	.82	.78	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.70	.69
8.0	.76	.71	.68	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.65
9.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.64	.70	.66	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.61	.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: 2017-11-06

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-20W-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	.163	.092	.029	.156	.089	.028	.143	.082	.026	.132	.076	.024	.121	.070	.023	
2.0	.154	.085	.026	.149	.082	.025	.138	.077	.024	.129	.072	.023	.120	.068	.021	
3.0	.146	.078	.023	.141	.076	.023	.133	.072	.022	.124	.068	.021	.117	.065	.020	
4.0	.138	.072	.021	.134	.070	.021	.127	.067	.020	.120	.064	.019	.113	.062	.019	
5.0	.131	.067	.019	.128	.066	.019	.121	.063	.019	.115	.061	.018	.110	.059	.018	
6.0	.125	.063	.018	.122	.062	.018	.116	.060	.017	.111	.058	.017	.106	.056	.017	
7.0	.119	.059	.017	.116	.058	.017	.111	.056	.016	.107	.055	.016	.102	.053	.016	
8.0	.114	.056	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015	.099	.051	.015	
9.0	.109	.053	.015	.107	.052	.015	.103	.051	.014	.099	.050	.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	.146	.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	.141	.113	.092	.121	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.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	.067	.047	.032	.039	.027	.019	.012	.009	.006	
7.0	.105	.069	.044	.091	.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	.058	.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:2017-11-06

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-20W-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		18.4	19.3	18.7	19.4	19.6	20.1	21.0	20.4	21.1	21.3
	3H	18.3	19.1	18.6	19.3	19.5	20.0	20.8	20.3	21.0	21.2
	4H	18.2	19.0	18.5	19.2	19.4	20.0	20.7	20.2	20.9	21.1
	6H	18.1	18.8	18.4	19.1	19.3	19.9	20.6	20.2	20.8	21.0
	8H	18.1	18.8	18.4	19.0	19.3	19.8	20.5	20.1	20.7	21.0
	12H	18.1	18.7	18.4	19.0	19.2	19.8	20.4	20.1	20.7	21.0
	4H 2H	18.3	19.0	18.5	19.2	19.4	19.9	20.7	20.2	20.9	21.1
	3H	18.1	18.7	18.4	19.0	19.3	19.8	20.4	20.1	20.7	21.0
	4H	18.0	18.6	18.4	18.9	19.2	19.7	20.3	20.1	20.6	20.9
	6H	17.9	18.4	18.3	18.8	19.1	19.6	20.2	20.0	20.5	20.8
	8H	17.9	18.3	18.3	18.7	19.1	19.6	20.1	20.0	20.4	20.8
	12H	17.8	18.3	18.2	18.6	19.0	19.5	20.0	19.9	20.3	20.7
	8H 4H	17.9	18.4	18.3	18.7	19.1	19.6	20.1	20.0	20.4	20.8
	6H	17.8	18.2	18.2	18.6	19.0	19.5	19.9	19.9	20.3	20.7
	8H	17.7	18.1	18.2	18.5	18.9	19.4	19.8	19.9	20.2	20.6
	12H	17.7	18.0	18.1	18.4	18.9	19.4	19.7	19.8	20.1	20.6
	12H 4H	17.8	18.3	18.2	18.6	19.0	19.5	20.0	19.9	20.3	20.7
	6H	17.7	18.1	18.2	18.5	18.9	19.4	19.8	19.9	20.2	20.6
	8H	17.7	18.0	18.1	18.4	18.9	19.4	19.7	19.8	20.1	20.6
Variations with the observer position at spacings:											
S = 1.0H		+ 4.2 / - 7.4					+ 3.1 / - 8.7				
1.5H		+ 6.4 / - 4.8					+ 4.3 / - 6.8				
2.0H		+ 2.5 / - 5.1					+ 2.7 / - 5.3				

CIE Pub.117 Corrected 1398 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.2)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

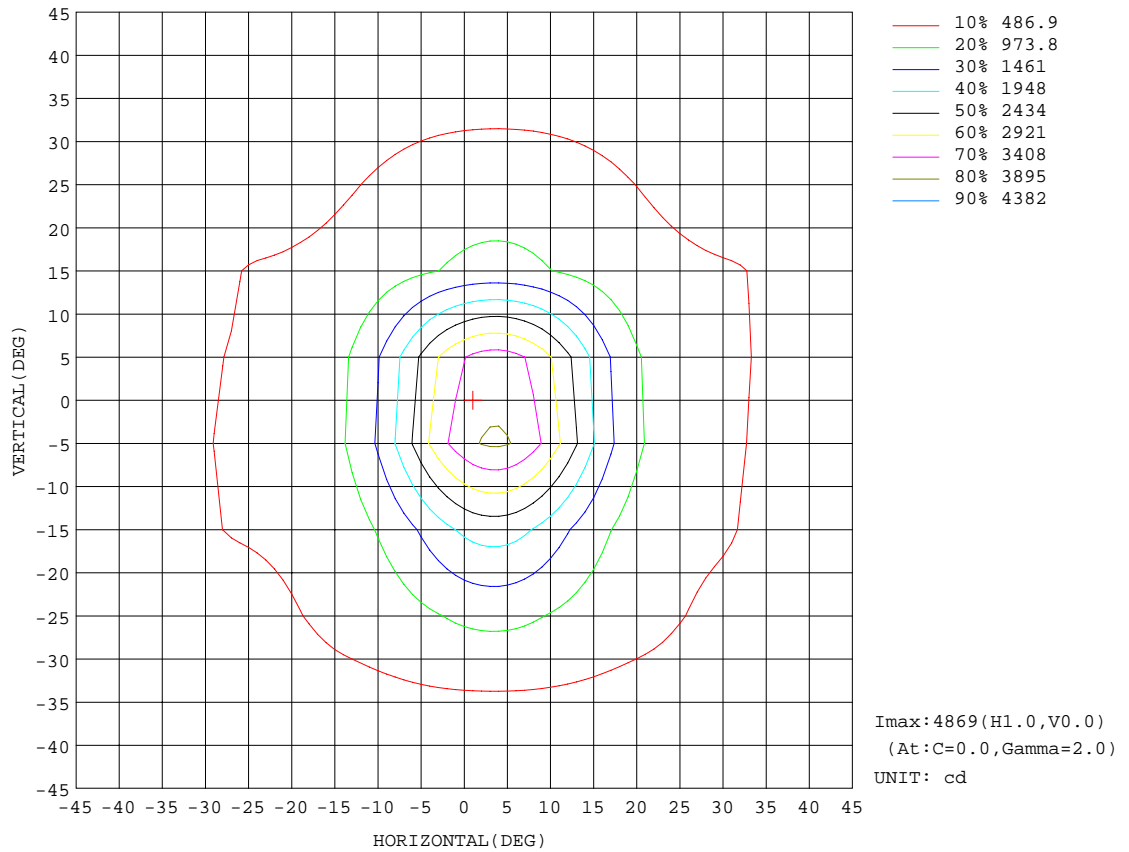
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	88	81	78	87	81	77	86	81	77	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	100	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	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	104	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: 2017-11-06

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-20W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

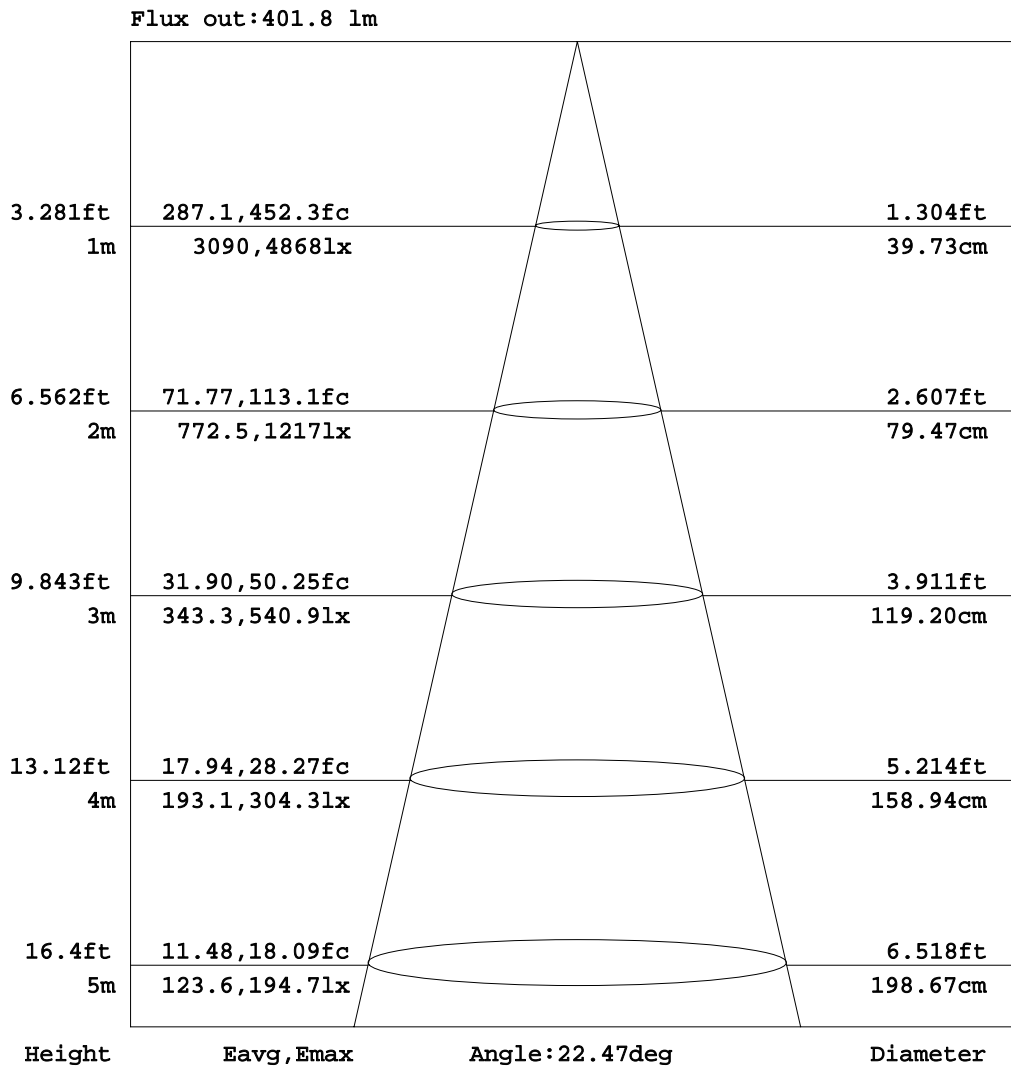


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-06

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-20W-24D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



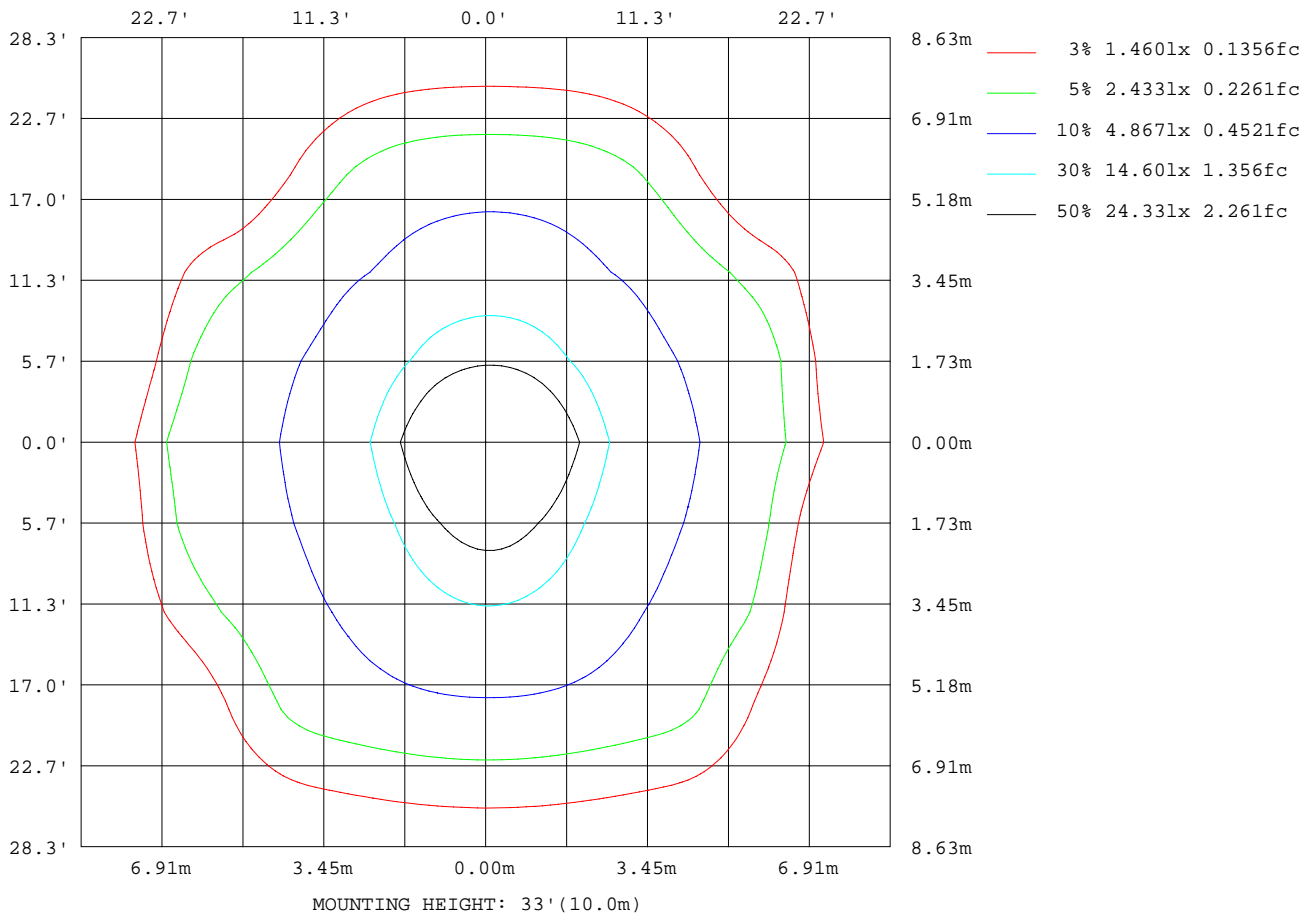
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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-20W-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: 2017-11-06

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-20W-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	1397.86	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0055	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	6308	6418	6543	6909	7383	8086	8024	8088	8782	8717	8045	7101	7212	7024	6348	6014	5557	5230	4796
60	3376	3512	3833	4096	4955	5535	5241	4949	4891	4610	4440	4316	4546	4920	4227	3569	3105	2807	2504
65	1796	1867	2106	2119	3109	2685	2713	3513	4003	4019	3672	3072	2364	2668	2949	2285	2318	2252	2179
70	1483	1485	1567	1726	1751	1886	2371	2910	3187	3193	3024	2713	2310	2211	2312	2411	2428	2391	2298
75	1067	1037	1178	1426	1649	1816	2024	2053	1909	1875	2036	2273	2360	2413	2346	2732	2641	2678	2539
80	532	619	832	1076	1434	1218	731	327	81	0	88	385	948	1820	2435	3048	2867	2763	2561
85	569	934	982	0	0	0	0	0	0	0	0	0	0	0	0	0	4896	5741	5099

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	8782	200	---	500
Category 2	65 to 90	5741	200	---	500
Category 3	75 to 90	5741	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:2017-11-06

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-20W-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	1397.86	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0055	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	6308	6418	6543	6909	7383	8086	8024	8088	8782	8717	8045	7101	7212	7024	6348	6014	5557	5230	4796
60	3376	3512	3833	4096	4955	5535	5241	4949	4891	4610	4440	4316	4546	4920	4227	3569	3105	2807	2504
65	1796	1867	2106	2119	3109	2685	2713	3513	4003	4019	3672	3072	2364	2668	2949	2285	2318	2252	2179
70	1483	1485	1567	1726	1751	1886	2371	2910	3187	3193	3024	2713	2310	2211	2312	2411	2428	2391	2298
75	1067	1037	1178	1426	1649	1816	2024	2053	1909	1875	2036	2273	2360	2413	2346	2732	2641	2678	2539
80	532	619	832	1076	1434	1218	731	327	81	0	88	385	948	1820	2435	3048	2867	2763	2561
85	569	934	982	0	0	0	0	0	0	0	0	0	0	0	0	0	4896	5741	5099

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	8782	1000	1500	200	500
65 to 90	5741	1000	1500	200	500

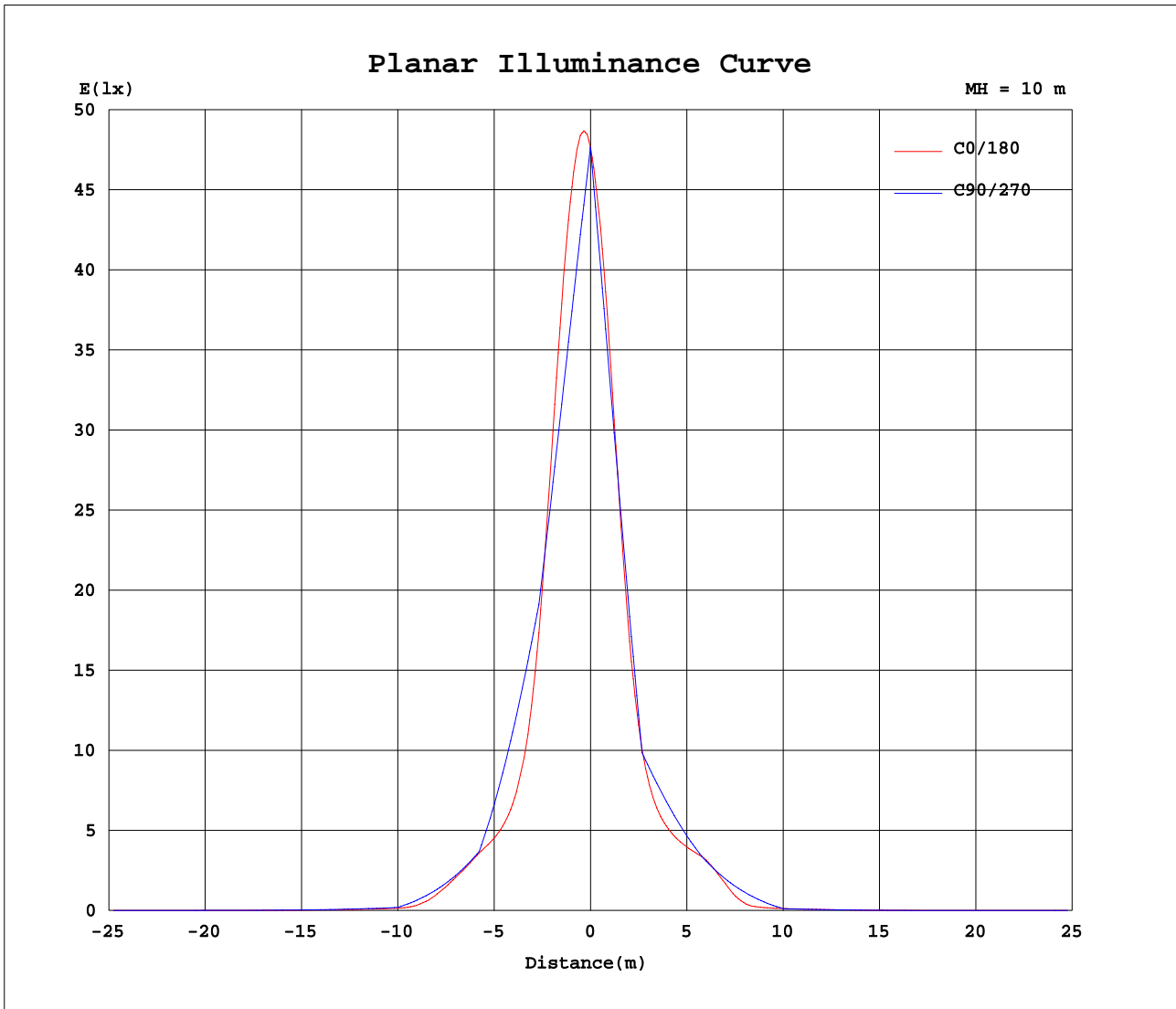
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-06

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: 2017-11-06

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-20W-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	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767
5	4663	4589	4521	4458	4400	4349	4303	4264	4224	4186	4154	4122	4085	4055	4020	3987	3955	3917	3885
10	3484	3381	3299	3236	3191	3162	3145	3141	3139	3143	3144	3149	3155	3151	3140	3120	3091	3052	3004
15	1926	1861	1825	1811	1814	1835	1867	1912	1957	2006	2053	2098	2139	2173	2199	2206	2195	2167	2122
20	1022	993	977	972	980	1000	1033	1070	1113	1156	1219	1307	1399	1485	1559	1617	1643	1638	1605
25	680	670	666	667	672	680	690	704	735	777	827	887	949	1009	1059	1096	1114	1110	1087
30	554	547	547	555	563	570	567	566	579	600	624	644	661	667	658	636	606	581	569
35	376	338	318	322	353	399	426	432	445	478	512	522	491	462	439	423	411	403	399
40	148	125	107	84.2	73.7	121	168	218	267	315	350	356	330	298	273	254	241	232	228
45	43.4	42.2	41.6	39.7	38.5	40.4	48.3	59.2	97.2	152	182	188	167	133	106	85.4	71.1	60.7	57.1
50	30.9	30.3	30.9	31.2	31.2	32.0	34.1	34.4	39.5	55.8	67.6	51.1	36.4	36.0	38.1	40.8	42.4	42.4	42.3
55	19.9	19.5	20.2	20.1	20.6	21.7	21.8	22.3	23.3	24.6	25.5	25.7	25.3	24.8	25.5	27.0	27.7	27.7	27.5
60	9.28	8.99	9.66	9.88	10.5	11.4	11.3	11.5	13.6	14.9	15.2	14.9	14.4	13.8	13.6	13.7	13.5	13.0	12.7
65	4.17	4.20	4.34	4.50	4.90	5.19	4.93	6.12	7.23	7.22	6.24	5.32	6.31	7.30	8.17	8.86	9.30	9.38	9.34
70	2.79	2.82	2.79	2.91	2.95	3.10	3.25	3.44	3.29	3.37	3.55	3.93	4.46	5.04	5.47	5.79	5.99	6.02	6.01
75	1.52	1.46	1.48	1.50	1.68	1.83	2.03	2.12	2.35	2.48	2.59	2.75	2.88	2.97	2.92	2.81	2.72	2.66	2.67
80	0.51	0.58	0.59	0.69	0.79	0.97	1.03	0.98	1.37	1.37	1.16	0.93	0.70	0.49	0.31	0.17	0.08	0.02	0.00
85	0.27	0.35	0.45	0.51	0.47	0.20	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: 2017-11-06

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-20W-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	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767
5	3844	3809	3770	3733	3701	3672	3650	3625	3603	3588	3580	3579	3586	3603	3629	3665	3710	3766	3689
10	2942	2873	2802	2725	2644	2568	2483	2403	2328	2264	2208	2158	2119	2102	2098	2110	2140	2191	2119
15	2057	1980	1890	1801	1706	1613	1521	1434	1357	1286	1222	1170	1134	1106	1092	1087	1093	1115	1082
20	1541	1454	1354	1248	1143	1047	969	896	845	808	775	747	727	712	703	700	701	708	695
25	1048	994	933	868	808	753	707	672	642	621	612	599	588	581	575	573	573	576	570
30	574	588	599	602	597	585	567	538	510	494	496	518	530	525	516	511	513	521	495
35	398	402	411	425	446	465	454	404	361	341	348	366	377	355	320	297	293	307	271
40	229	234	245	262	284	294	276	235	175	138	152	159	135	104	75.3	65.8	61.7	61.1	58.9
45	59.4	66.3	79.1	98.8	124	139	134	107	61.5	46.9	42.6	48.2	42.0	38.8	38.4	37.3	36.9	37.1	35.6
50	41.4	38.9	36.0	33.3	33.7	33.7	40.3	39.9	33.5	30.2	30.4	30.0	29.1	28.2	28.1	27.1	26.2	26.2	24.9
55	26.9	25.4	23.7	22.4	22.7	22.8	22.7	22.2	21.0	20.0	19.3	19.0	18.7	17.5	16.9	16.5	15.2	15.1	13.9
60	12.5	12.2	12.0	11.9	12.1	12.5	13.2	13.5	13.1	11.6	9.40	9.81	9.74	8.54	8.13	7.72	7.09	6.89	6.61
65	9.06	8.54	7.88	7.14	6.19	5.49	5.07	6.20	7.08	6.86	5.92	5.31	5.52	5.39	5.25	5.23	5.14	5.06	4.94
70	5.90	5.69	5.42	5.10	4.67	4.35	4.17	4.16	4.21	4.35	4.54	4.54	4.54	4.57	4.54	4.50	4.43	4.32	4.21
75	2.75	2.90	3.08	3.24	3.32	3.36	3.38	3.44	3.33	3.34	3.60	3.89	3.98	3.76	3.98	3.81	3.74	3.61	3.35
80	0.02	0.08	0.20	0.37	0.60	0.91	1.28	1.74	1.96	2.33	2.59	2.91	3.13	2.74	2.81	2.64	2.55	2.45	2.35
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	0.88	2.35	2.75	2.75	2.64	2.44	2.32
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:2017-11-06

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-20W-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	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767
5	3622	3564	3516	3477	3447	3426	3411	3403	3403	3406	3407	3417	3432	3454	3481	3507	3542	3572	3612
10	2066	2031	2010	2000	2006	2021	2037	2056	2083	2111	2141	2163	2189	2215	2243	2279	2317	2358	2400
15	1063	1054	1051	1058	1068	1086	1105	1122	1135	1141	1139	1128	1113	1095	1081	1080	1093	1121	1164
20	688	685	685	688	693	698	699	691	688	704	727	756	789	823	853	881	903	917	922
25	567	565	566	568	570	571	547	537	540	553	576	602	630	657	680	698	713	723	727
30	478	474	484	503	488	436	400	386	389	406	433	466	495	513	521	522	522	527	537
35	251	244	254	279	290	275	237	203	210	241	287	322	347	359	361	360	360	364	373
40	59.7	60.7	57.0	76.4	100	107	83.8	53.5	74.1	122	161	186	200	205	202	199	197	201	211
45	35.0	35.6	34.3	33.9	35.7	34.8	33.0	33.5	37.7	50.5	71.2	76.9	71.1	59.2	46.5	37.9	34.7	38.5	48.9
50	24.7	24.4	23.4	23.2	23.4	22.9	22.2	21.8	22.4	22.9	22.7	23.5	23.6	23.7	24.0	24.5	24.6	24.9	25.5
55	13.9	13.5	12.8	13.0	13.5	12.9	12.0	11.6	13.4	14.6	15.1	15.0	14.8	14.5	14.3	14.4	14.4	14.8	15.3
60	6.54	6.64	6.10	6.72	6.96	5.60	6.15	7.35	8.28	8.52	8.12	7.27	6.30	5.38	4.67	4.30	4.29	4.60	5.23
65	4.87	4.71	4.70	4.54	4.39	4.39	4.46	4.63	4.44	3.73	3.51	3.30	3.13	3.04	3.08	3.19	3.33	3.46	3.56
70	4.10	3.99	3.93	3.71	3.68	3.65	3.51	3.28	3.05	2.82	2.60	2.39	2.20	2.08	2.14	2.25	2.38	2.49	2.59
75	3.25	3.03	2.96	2.55	2.97	2.88	2.67	2.42	2.16	1.91	1.69	1.48	1.28	1.12	1.20	1.30	1.42	1.52	1.61
80	2.28	2.26	2.18	2.18	2.25	2.11	1.85	1.36	0.93	0.62	0.41	0.25	0.14	0.07	0.03	0.01	0.00	0.01	0.05
85	2.30	2.26	1.92	0.73	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:2017-11-06

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-20W-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	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767	4767				
5	3649	3691	3737	3783	3837	3889	3944	4006	4071	4136	4209	4288	4373	4464	4561				
10	2446	2494	2542	2591	2638	2688	2742	2792	2847	2900	2963	3036	3123	3225	3344				
15	1221	1287	1356	1425	1490	1545	1590	1624	1648	1662	1680	1699	1730	1774	1837				
20	918	904	884	861	836	813	836	883	908	918	920	925	936	955	983				
25	724	715	701	681	661	642	628	622	626	640	645	647	651	656	665				
30	547	554	551	538	518	498	484	483	497	528	550	550	550	549	550				
35	385	398	405	401	381	349	327	324	345	392	444	439	399	375	368				
40	225	239	248	245	229	195	146	133	175	205	210	191	156	138	136				
45	65.5	85.5	104	115	111	88.9	56.2	45.0	43.5	68.0	57.1	47.5	44.7	42.0	42.2				
50	25.9	26.2	26.7	27.2	33.2	33.9	30.0	28.2	29.8	30.6	30.4	30.1	30.4	30.2	30.0				
55	16.0	16.6	17.4	18.1	18.4	18.2	17.2	17.4	18.0	18.9	19.4	18.7	18.7	19.1	18.9				
60	6.12	7.21	8.44	9.62	10.6	11.0	10.6	9.30	7.72	9.13	9.74	8.75	8.69	8.73	8.58				
65	3.63	3.70	3.75	3.81	3.88	4.94	5.59	5.35	4.59	4.05	4.44	4.27	4.13	4.12	4.10				
70	2.65	2.70	2.70	2.68	2.69	2.79	2.91	3.05	3.13	3.05	2.96	2.90	2.85	2.77	2.75				
75	1.68	1.70	1.64	1.53	1.49	1.59	1.71	1.85	2.01	2.18	2.20	2.07	1.98	1.80	1.62				
80	0.11	0.19	0.27	0.32	0.37	0.46	0.56	0.66	0.83	1.02	1.18	0.82	0.79	0.58	0.57				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.33	0.34	0.29	0.25				
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				

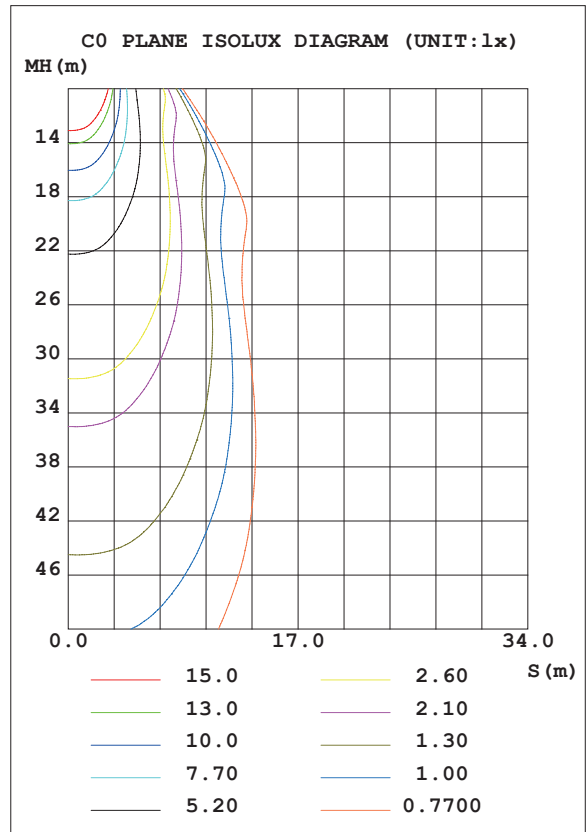
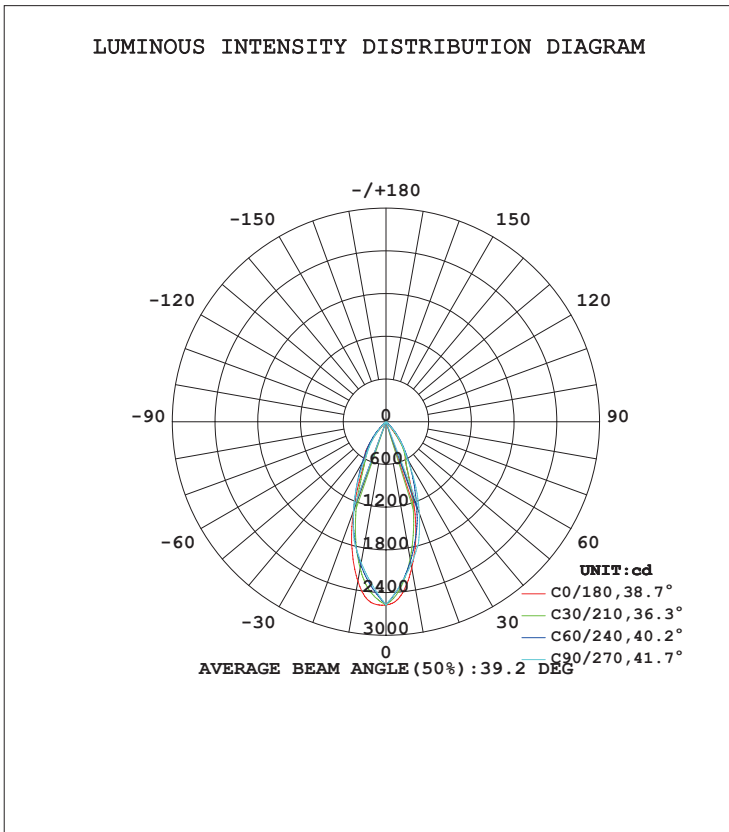
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-06

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-20W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 71.93 lm/W			
MODEL	Juvenis Recessed-20W-40D-3000K-90	I _{max} (cd)	2576	S/MH (C0/180)	0.65
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	0.65
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1381.0	η UP, DN (C0-180)	0.0, 49.7
NOMINAL FLUX (lm)	1380.98	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.3
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	219.9	η down (%)	100.0	CIBSE SHR MAX	0.60



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-04

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	2541	2362	2292	2310	2447	2318	2304	2372	0- 5	58.30	58.30	4.22,4.22
10	2277	2060	2010	1944	2086	1958	2034	2084	5- 10	156.7	215.0	15.6,15.6
15	1847	1668	1729	1533	1622	1554	1765	1708	10- 15	218.2	433.2	31.4,31.4
20	1341	1252	1338	1115	1086	1139	1370	1314	15- 20	236.3	669.6	48.5,48.5
25	838.5	874.9	947.8	763.2	672.9	774.3	975.7	926.1	20- 25	213.9	883.5	64,64
30	593.3	593.2	557.3	519.9	540.7	516.7	581.1	624.3	25- 30	177.7	1061	76.8,76.8
35	483.1	389.3	381.4	320.0	359.7	309.2	398.1	405.1	30- 35	144.1	1205	87.3,87.3
40	185.3	187.1	205.4	117.7	73.45	108.2	215.0	195.2	35- 40	96.31	1302	94.3,94.3
45	36.12	71.58	29.49	40.26	27.64	38.96	31.90	75.81	40- 45	42.09	1344	97.3,97.3
50	23.20	27.36	22.81	21.97	20.05	22.44	24.75	29.00	45- 50	14.16	1358	98.3,98.3
55	16.48	15.50	16.14	14.15	13.77	14.62	17.60	16.66	50- 55	8.246	1366	98.9,98.9
60	10.97	10.88	9.456	9.719	8.926	10.03	10.45	11.70	55- 60	5.943	1372	99.4,99.4
65	6.752	6.687	7.032	6.043	5.429	6.129	7.788	7.299	60- 65	3.980	1376	99.6,99.6
70	3.881	3.775	4.609	3.349	3.249	3.358	5.121	4.167	65- 70	2.629	1379	99.8,99.8
75	2.514	1.875	2.185	1.588	1.823	1.566	2.454	2.208	70- 75	1.606	1380	100,100
80	0.2505	0.2546	0	0.1506	0.0765	0.1371	0	0.4485	75- 80	0.6291	1381	100,100
85	0.0077	0	0	0	0.0194	0	0	0	80- 85	0.0402	1381	100,100
90	0	0	0	0	0.0000	0	0	0	85- 90	0.0010	1381	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			

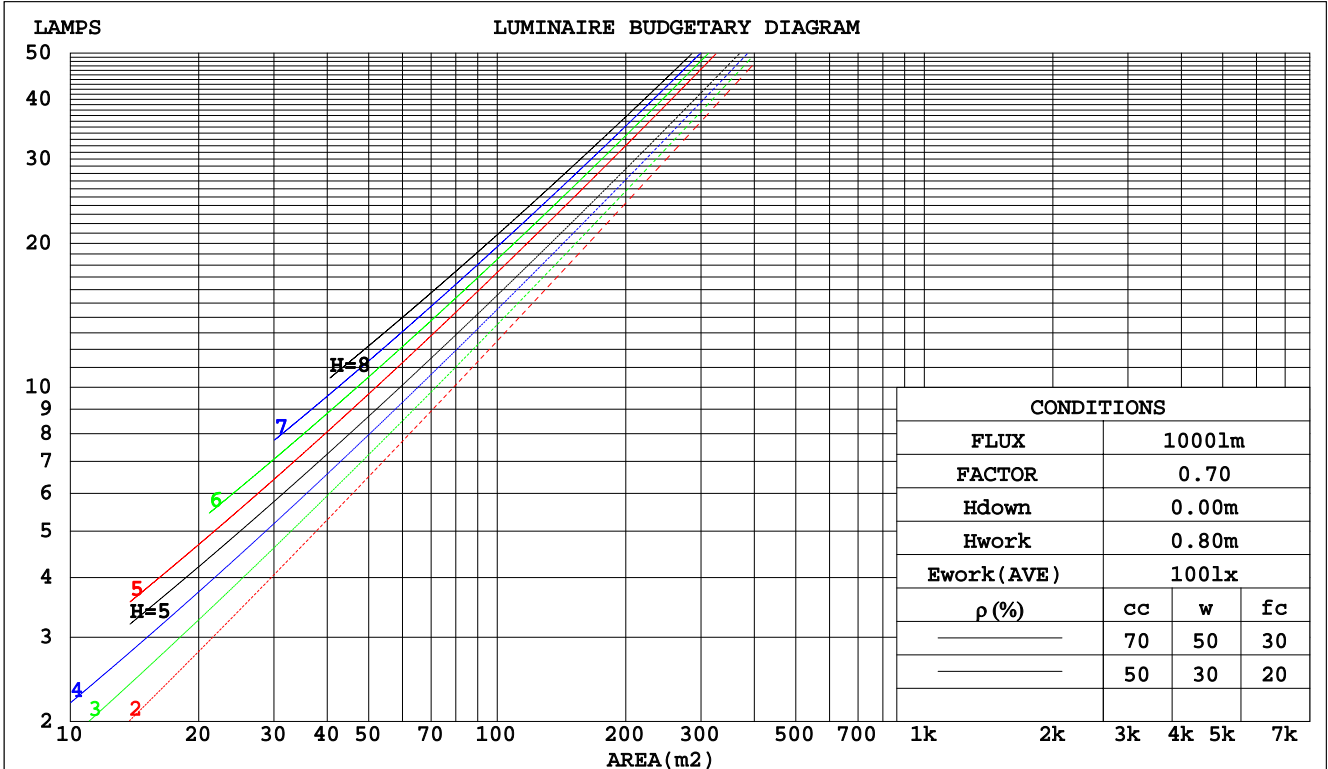
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-04

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-20W-40D-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																
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	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.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	.89	.94	.90	.87	.91	.88	.86	.89	.87	.84	.83
4.0	.92	.87	.83	.91	.86	.82	.89	.85	.81	.87	.83	.80	.85	.82	.79	.78
5.0	.87	.81	.77	.86	.81	.77	.84	.80	.76	.82	.78	.75	.81	.77	.75	.73
6.0	.82	.76	.72	.81	.76	.72	.80	.75	.72	.78	.74	.71	.77	.73	.71	.69
7.0	.78	.72	.68	.77	.72	.68	.76	.71	.68	.75	.70	.67	.73	.70	.67	.66
8.0	.74	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.64	.70	.66	.63	.62
9.0	.70	.65	.61	.70	.64	.61	.69	.64	.61	.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: 2017-11-04

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-20W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.169	.096	.030	.162	.093	.029	.150	.086	.027	.138	.080	.026	.127	.074	.024	
2.0	.161	.088	.027	.155	.086	.026	.145	.081	.025	.135	.076	.024	.126	.071	.023	
3.0	.153	.081	.024	.148	.079	.024	.139	.075	.023	.131	.072	.022	.123	.068	.021	
4.0	.145	.076	.022	.141	.074	.022	.134	.071	.021	.126	.068	.020	.120	.065	.020	
5.0	.138	.070	.020	.135	.069	.020	.128	.067	.020	.122	.064	.019	.116	.062	.019	
6.0	.132	.066	.019	.129	.065	.019	.123	.063	.018	.117	.061	.018	.112	.059	.018	
7.0	.126	.062	.018	.123	.061	.017	.118	.060	.017	.113	.058	.017	.109	.056	.017	
8.0	.120	.059	.017	.118	.058	.016	.113	.057	.016	.109	.055	.016	.105	.054	.016	
9.0	.115	.056	.016	.113	.055	.015	.109	.054	.015	.105	.053	.015	.102	.052	.015	
10.0	.111	.053	.015	.109	.053	.015	.105	.052	.015	.102	.050	.014	.098	.049	.014	

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.146	.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	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.105	.075	.053	.072	.053	.037	.042	.031	.022	.013	.010	.007	
6.0	.115	.077	.051	.098	.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	.083	.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:2017-11-04

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-20W-40D-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	18.4	19.3	18.6	19.5	19.6	19.2	20.1	19.4	20.2	20.4				
3H	18.3	19.1	18.5	19.3	19.5	19.0	19.9	19.3	20.1	20.3				
4H	18.2	19.0	18.5	19.2	19.4	19.0	19.7	19.2	20.0	20.2				
6H	18.1	18.9	18.4	19.1	19.3	18.9	19.6	19.2	19.8	20.1				
8H	18.1	18.8	18.4	19.0	19.3	18.8	19.5	19.1	19.8	20.0				
12H	18.0	18.7	18.4	19.0	19.3	18.8	19.5	19.1	19.7	20.0				
4H 2H	18.2	19.0	18.5	19.2	19.4	18.9	19.7	19.2	19.9	20.2				
3H	18.1	18.7	18.4	19.0	19.3	18.8	19.5	19.1	19.8	20.0				
4H	18.0	18.6	18.4	18.9	19.2	18.7	19.3	19.1	19.6	20.0				
6H	17.9	18.4	18.3	18.8	19.1	18.7	19.2	19.0	19.5	19.9				
8H	17.9	18.4	18.3	18.7	19.1	18.6	19.1	19.0	19.4	19.8				
12H	17.8	18.3	18.2	18.6	19.0	18.5	19.0	19.0	19.4	19.8				
8H 4H	17.9	18.4	18.3	18.7	19.1	18.6	19.1	19.0	19.4	19.8				
6H	17.8	18.2	18.2	18.6	19.0	18.5	18.9	18.9	19.3	19.7				
8H	17.7	18.1	18.2	18.5	18.9	18.4	18.8	18.9	19.2	19.7				
12H	17.7	18.0	18.1	18.4	18.9	18.4	18.7	18.9	19.1	19.6				
12H 4H	17.8	18.3	18.2	18.6	19.0	18.6	19.0	19.0	19.4	19.8				
6H	17.7	18.1	18.2	18.5	18.9	18.4	18.8	18.9	19.2	19.7				
8H	17.7	18.0	18.1	18.4	18.9	18.4	18.7	18.9	19.1	19.6				
Variations with the observer position at spacings:														
S = 1.0H	+ 4.1 / - 9.4					+ 2.4 / -10.0								
1.5H	+ 6.7 / - 7.9					+ 5.0 / - 8.4								
2.0H	+ 2.6 / - 2.3					+ 2.2 / - 2.6								

CIE Pub.117 Corrected 1381 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.1)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-04

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-20W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

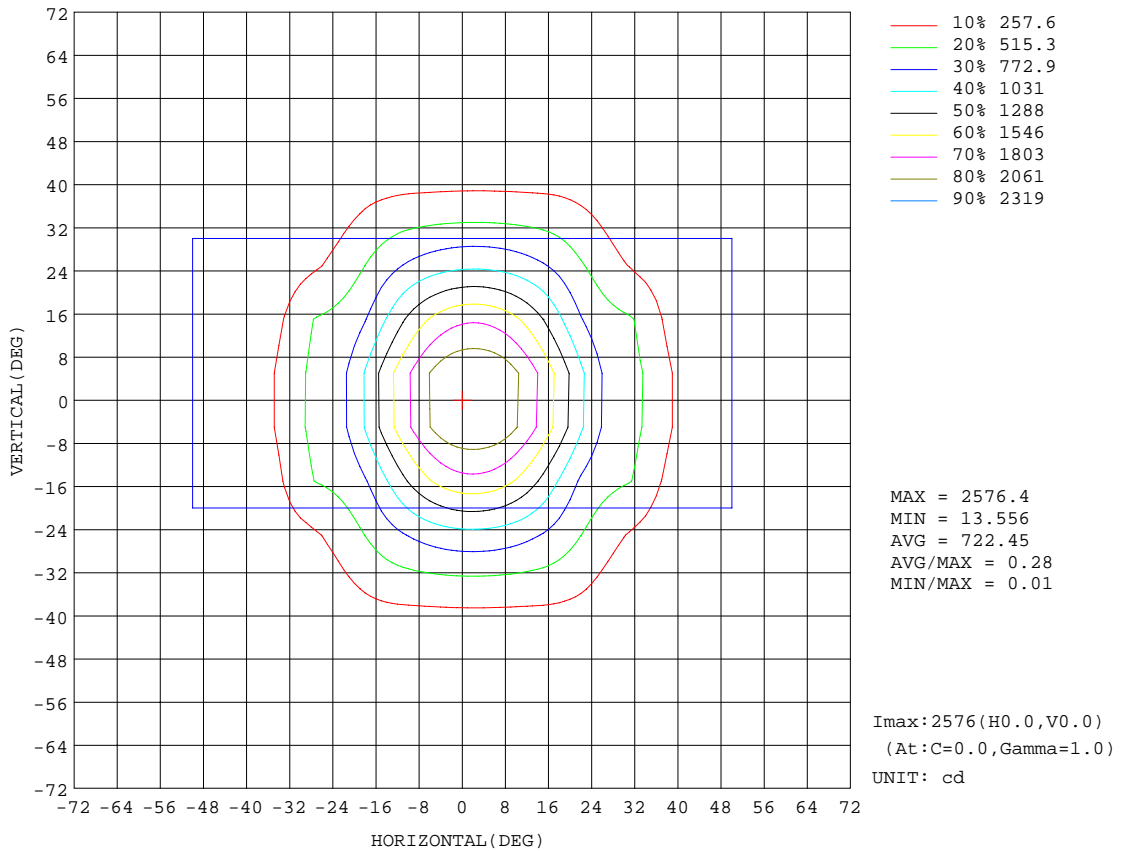
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	88	82	78	87	82	78	87	81	78	74
0.80	95	90	86	95	89	86	94	89	85	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	104	99	95	103	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	106	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	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				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DOBAC
 Test Date: 2017-11-04

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-20W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:

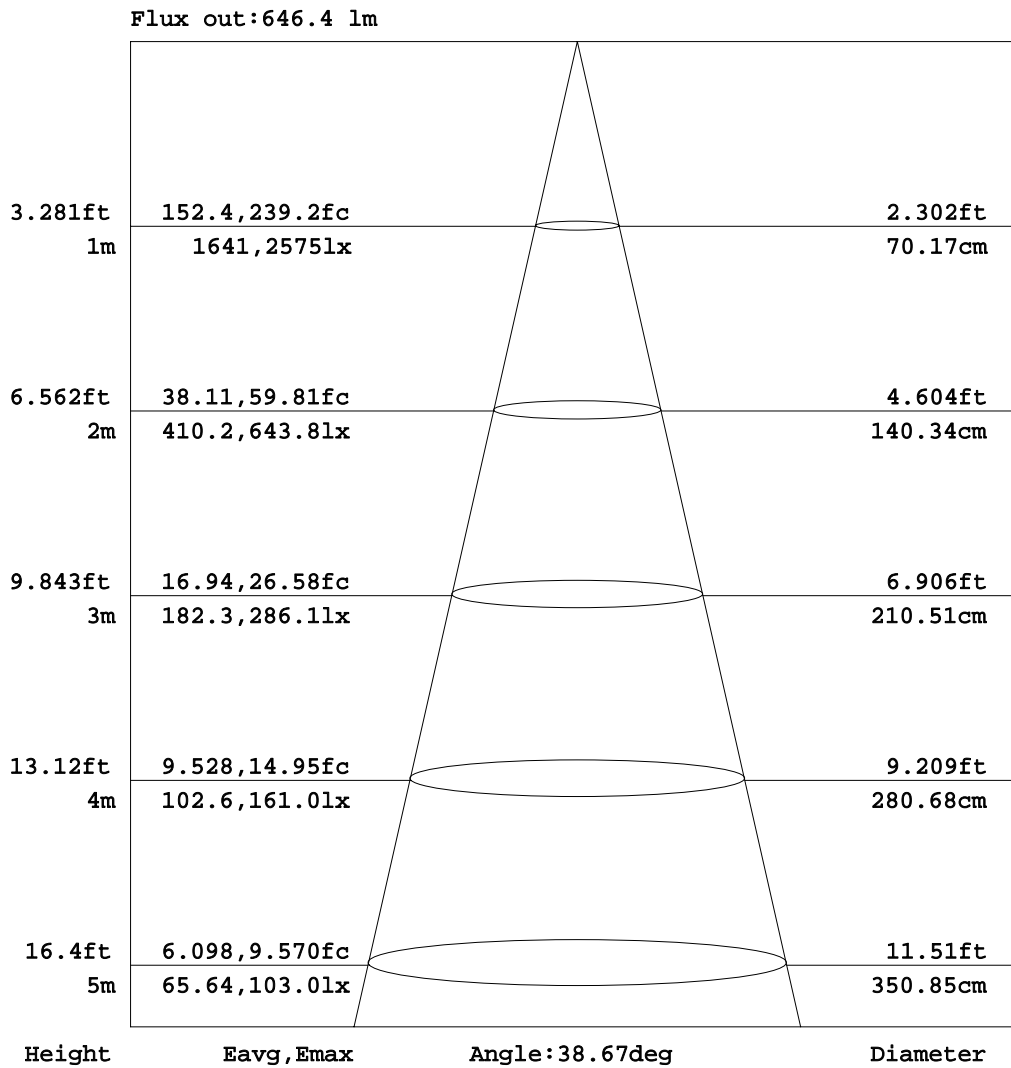


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-04

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-20W-40D-3000K-90	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: DOBAC	SUR.:	PROTECTION ANGLE:



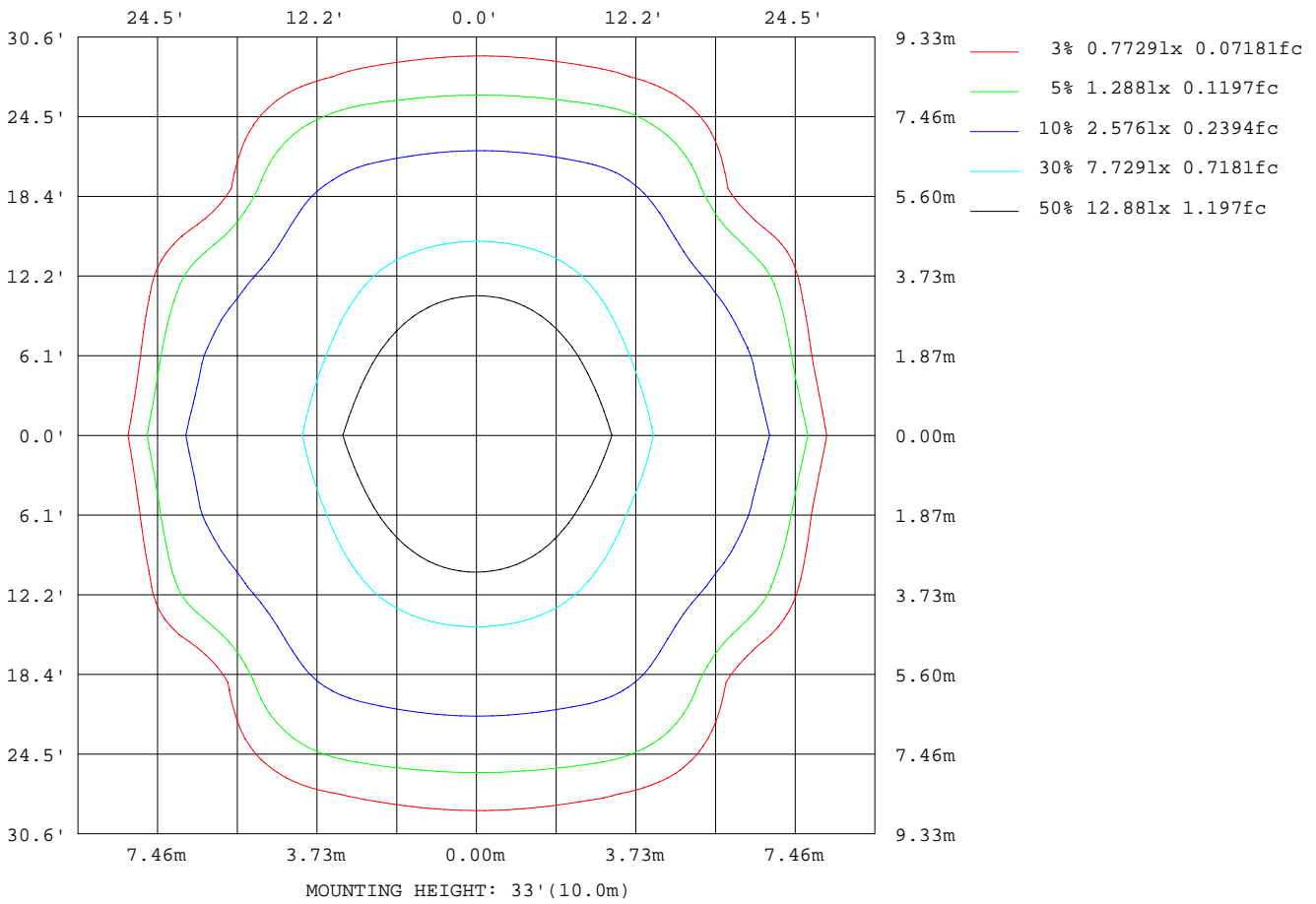
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DOBAC
Test Date: 2017-11-04

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-20W-40D-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: 2017-11-04

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-20W-40D-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	1380.98	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0055	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	5223	5101	5020	5033	5013	5012	5068	5195	5142	5115	4912	4936	4752	4587	4500	4447	4383	4381	4365
60	3988	3853	3841	3820	3882	3958	3858	3750	3554	3439	3385	3538	3595	3607	3445	3358	3315	3280	3246
65	2905	2762	2799	2778	2937	2773	2761	2954	3036	3025	2877	2768	2540	2502	2614	2469	2424	2343	2336
70	2063	1998	1992	2157	1960	2117	2321	2419	2483	2450	2334	2253	2103	1799	1750	1925	1803	1772	1727
75	1766	1648	1534	1633	1356	1425	1658	1594	1605	1535	1476	1468	1423	1076	1180	1468	1135	1319	1281
80	262	242	385	837	279	433	501	246	69	0	63	225	400	190	172	659	166	85	80
85	16	50	79	0	0	0	0	0	0	0	0	0	0	0	0	0	50	29	40

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	5223	200	---	500
Category 2	65 to 90	3036	200	---	500
Category 3	75 to 90	1766	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:2017-11-04

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-20W-40D-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	1380.98	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.0055	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	5223	5101	5020	5033	5013	5012	5068	5195	5142	5115	4912	4936	4752	4587	4500	4447	4383	4381	4365
60	3988	3853	3841	3820	3882	3958	3858	3750	3554	3439	3385	3538	3595	3607	3445	3358	3315	3280	3246
65	2905	2762	2799	2778	2937	2773	2761	2954	3036	3025	2877	2768	2540	2502	2614	2469	2424	2343	2336
70	2063	1998	1992	2157	1960	2117	2321	2419	2483	2450	2334	2253	2103	1799	1750	1925	1803	1772	1727
75	1766	1648	1534	1633	1356	1425	1658	1594	1605	1535	1476	1468	1423	1076	1180	1468	1135	1319	1281
80	262	242	385	837	279	433	501	246	69	0	63	225	400	190	172	659	166	85	80
85	16	50	79	0	0	0	0	0	0	0	0	0	0	0	0	0	50	29	40

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	5223	1000	1500	200	500
65 to 90	3036	1000	1500	200	500

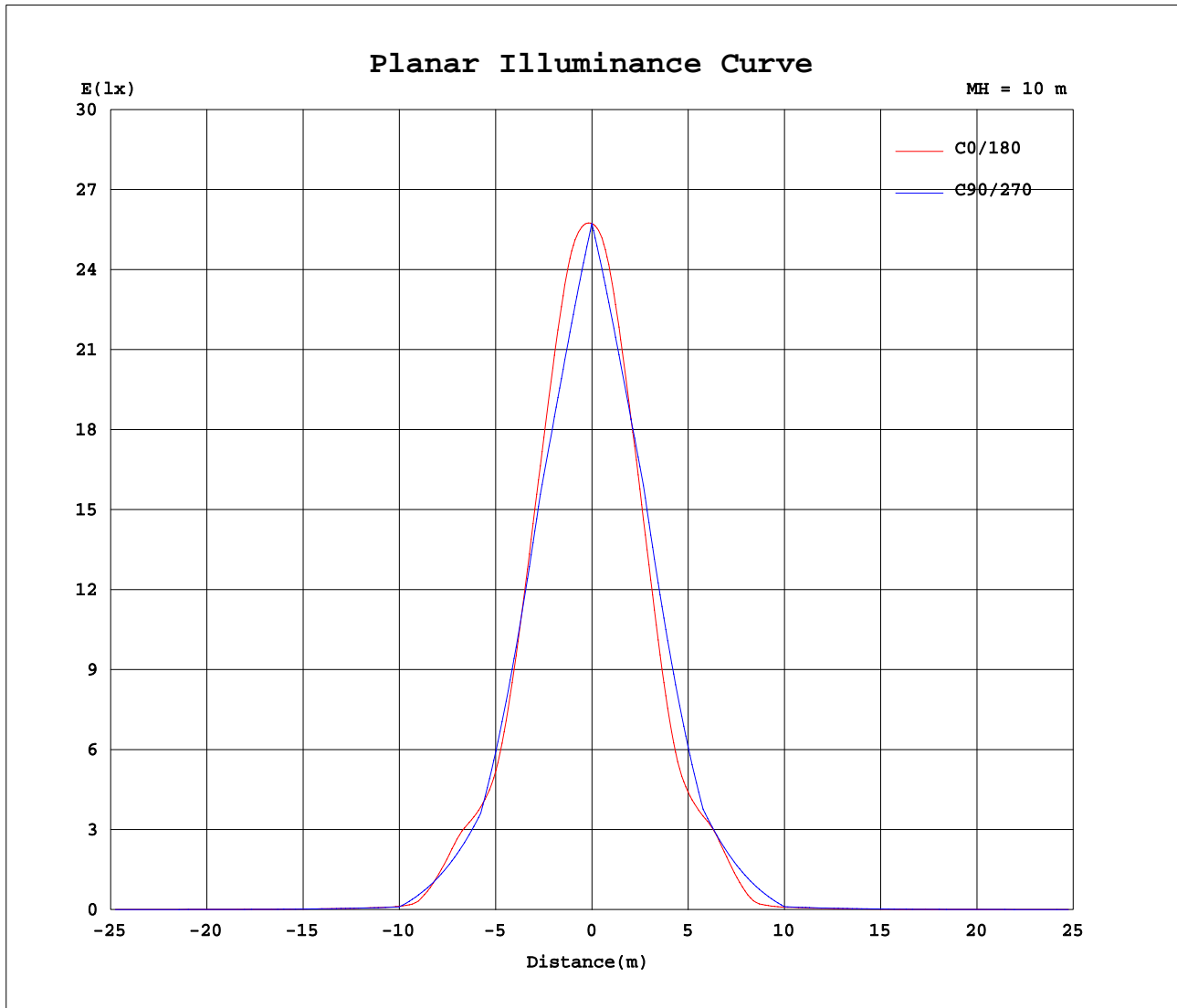
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-04

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: 2017-11-04

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-20W-40D-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	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573
5	2541	2516	2492	2469	2448	2428	2409	2393	2377	2362	2349	2338	2327	2319	2310	2304	2298	2294	2292
10	2277	2232	2193	2160	2132	2110	2092	2078	2067	2060	2052	2046	2041	2034	2028	2023	2019	2014	2010
15	1847	1791	1745	1709	1683	1666	1658	1656	1660	1668	1680	1692	1704	1715	1724	1730	1732	1732	1729
20	1341	1283	1241	1212	1195	1188	1193	1204	1224	1252	1282	1306	1325	1337	1344	1348	1346	1343	1338
25	839	810	795	786	783	779	777	785	829	875	916	948	965	973	973	968	960	953	948
30	593	583	578	576	577	579	566	553	563	593	635	666	675	660	636	608	582	564	557
35	483	448	429	427	447	449	407	372	367	389	427	457	460	445	422	405	392	385	381
40	185	161	152	156	179	201	201	177	161	187	244	279	287	276	253	232	218	209	205
45	36.1	34.6	34.0	34.5	38.2	45.5	57.6	36.5	42.6	71.6	108	131	131	112	86.0	61.4	44.0	33.5	29.5
50	23.2	22.7	22.6	22.7	22.6	22.6	22.4	22.9	23.5	27.4	35.6	30.5	21.7	22.6	22.6	22.5	22.7	23.0	22.8
55	16.5	16.0	16.1	15.9	15.8	15.9	15.9	15.8	15.8	15.5	15.8	16.1	16.0	16.4	16.4	16.2	16.2	16.3	16.1
60	11.0	10.5	10.6	10.5	10.6	10.6	10.5	10.4	10.7	10.9	10.9	10.8	10.6	10.5	10.3	9.99	9.77	9.60	9.46
65	6.75	6.45	6.42	6.49	6.51	6.44	6.46	6.70	6.83	6.69	6.45	6.21	6.42	6.71	6.87	6.97	7.06	7.09	7.03
70	3.88	3.76	3.76	3.85	3.75	3.93	4.06	3.95	3.69	3.77	3.98	4.19	4.37	4.47	4.55	4.63	4.67	4.66	4.61
75	2.51	2.40	2.35	2.46	2.18	2.38	2.33	2.08	1.93	1.87	2.03	2.29	2.36	2.32	2.27	2.31	2.28	2.23	2.18
80	0.25	0.24	0.23	0.52	0.37	0.91	0.80	0.50	0.27	0.25	0.41	0.55	0.48	0.35	0.23	0.14	0.07	0.02	0.00
85	0.01	0.02	0.02	0.04	0.04	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
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:2017-11-04

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-20W-40D-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	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573
5	2289	2289	2289	2290	2293	2295	2300	2305	2310	2318	2327	2338	2351	2366	2383	2403	2424	2447	2425
10	2004	1999	1992	1984	1975	1968	1957	1949	1944	1940	1941	1944	1953	1967	1988	2014	2047	2086	2049
15	1718	1703	1684	1663	1637	1610	1582	1556	1533	1513	1499	1491	1490	1497	1512	1538	1574	1622	1576
20	1329	1318	1304	1285	1262	1234	1200	1159	1115	1080	1050	1027	1013	1008	1011	1024	1048	1086	1049
25	943	939	935	927	914	892	857	815	763	719	694	684	675	667	659	658	661	673	662
30	561	575	594	614	628	624	598	557	520	500	502	527	543	537	530	527	530	541	530
35	382	387	397	411	425	424	401	359	320	307	327	359	383	368	340	327	334	360	333
40	207	214	227	245	259	255	231	180	118	109	143	154	131	102	80.4	73.8	70.8	73.4	70.6
45	32.4	42.3	59.5	82.1	103	112	101	71.0	40.3	31.5	29.2	38.2	31.7	28.4	27.7	27.2	27.1	27.6	27.2
50	22.2	21.7	21.5	21.6	21.0	20.3	25.8	25.2	22.0	20.4	20.2	19.9	19.9	19.6	19.9	19.6	19.5	20.0	19.6
55	15.8	15.5	15.5	15.6	15.1	15.0	14.8	14.5	14.1	14.2	14.1	14.0	14.0	13.8	13.8	13.8	13.5	13.8	13.6
60	9.37	9.31	9.47	9.73	9.70	9.89	9.90	9.92	9.72	9.47	9.13	9.23	9.18	9.12	8.97	9.02	8.82	8.93	8.78
65	6.90	6.69	6.55	6.43	6.10	5.90	5.57	5.82	6.04	6.07	5.99	5.74	5.67	5.63	5.56	5.45	5.40	5.43	5.32
70	4.52	4.39	4.29	4.24	4.07	3.96	3.63	3.38	3.35	3.29	3.54	3.62	3.46	3.39	3.38	3.33	3.31	3.25	3.25
75	2.15	2.10	2.06	2.09	2.10	2.02	1.72	1.53	1.59	1.68	1.86	2.09	1.91	1.62	1.95	1.88	1.87	1.82	1.75
80	0.02	0.06	0.13	0.22	0.32	0.38	0.29	0.18	0.15	0.16	0.42	0.63	0.55	0.16	0.23	0.08	0.09	0.08	0.08
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	0.01	0.02	0.03	0.01	0.00	0.02	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:2017-11-04

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-20W-40D-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	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573
5	2404	2386	2369	2355	2343	2334	2325	2318	2313	2309	2305	2303	2301	2300	2300	2301	2304	2306	2311
10	2018	1993	1975	1962	1955	1953	1954	1958	1965	1974	1986	1995	2005	2014	2021	2028	2034	2040	2045
15	1542	1519	1506	1501	1504	1515	1532	1554	1580	1608	1637	1665	1691	1716	1736	1752	1765	1772	1774
20	1026	1014	1013	1021	1038	1065	1099	1139	1185	1228	1262	1290	1313	1331	1348	1360	1370	1378	1384
25	659	661	670	680	690	702	727	774	828	874	913	938	951	959	965	970	976	983	992
30	526	531	540	547	531	503	498	517	555	600	631	644	633	614	596	584	581	589	607
35	324	333	354	370	356	324	301	309	346	391	420	429	424	411	402	398	398	402	410
40	73.1	76.5	98.5	131	150	138	104	108	168	220	250	258	251	236	223	216	215	219	228
45	27.4	28.0	28.6	31.7	37.5	30.2	31.7	39.0	66.4	95.9	109	103	84.2	62.7	45.2	35.0	31.9	35.8	46.6
50	19.8	20.1	19.9	20.3	20.5	20.7	21.2	22.4	25.0	26.1	21.4	22.2	23.1	23.3	23.6	24.2	24.8	24.8	24.4
55	13.9	13.8	13.9	14.2	14.3	14.5	14.6	14.6	15.1	15.4	15.7	16.0	16.7	16.7	16.9	17.3	17.6	17.7	17.5
60	8.95	8.88	9.01	9.19	9.27	9.27	9.68	10.0	10.3	10.3	10.4	10.3	10.5	10.3	10.3	10.4	10.5	10.6	10.7
65	5.34	5.40	5.50	5.55	5.71	5.98	6.10	6.13	5.93	5.76	6.19	6.51	6.92	7.17	7.44	7.69	7.79	7.81	7.80
70	3.24	3.28	3.29	3.30	3.61	3.58	3.30	3.36	3.41	3.70	4.08	4.30	4.53	4.70	4.93	5.08	5.12	5.14	5.15
75	1.63	1.80	1.57	1.75	2.04	1.88	1.67	1.57	1.53	1.68	2.04	2.17	2.19	2.24	2.44	2.48	2.45	2.48	2.52
80	0.06	0.14	0.12	0.38	0.57	0.40	0.15	0.14	0.17	0.25	0.37	0.32	0.22	0.14	0.07	0.02	0.00	0.02	0.07
85	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	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: 2017-11-04

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-20W-40D-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	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573	2573				
5	2316	2323	2331	2339	2349	2360	2372	2386	2401	2417	2434	2453	2473	2495	2517				
10	2050	2056	2061	2067	2072	2077	2084	2089	2098	2109	2125	2144	2169	2200	2235				
15	1772	1767	1759	1748	1735	1721	1708	1698	1691	1689	1693	1705	1726	1756	1797				
20	1387	1387	1383	1374	1360	1341	1314	1281	1254	1235	1223	1222	1232	1254	1290				
25	1001	1008	1011	1007	994	965	926	881	838	818	808	801	798	802	814				
30	633	662	688	704	697	667	624	591	575	584	593	587	583	582	585				
35	422	439	461	476	469	441	405	380	382	417	458	459	438	437	452				
40	243	263	286	296	286	254	195	167	184	210	210	181	158	155	163				
45	64.6	89.8	117	135	137	113	75.8	44.9	39.0	58.8	48.8	39.8	35.8	34.6	34.9				
50	24.1	24.2	24.2	23.5	32.4	37.8	29.0	25.2	24.0	23.9	23.6	23.5	23.4	23.2	22.9				
55	17.5	17.6	17.7	17.3	17.2	17.0	16.7	17.0	16.9	16.8	16.8	16.6	16.4	16.4	16.2				
60	10.9	11.2	11.5	11.6	11.8	11.8	11.7	11.5	11.1	11.2	11.2	11.2	10.9	10.9	10.7				
65	7.67	7.54	7.38	7.09	6.85	7.02	7.30	7.35	7.26	6.99	6.89	6.95	6.87	6.67	6.56				
70	5.11	5.07	4.96	4.75	4.67	4.42	4.17	4.05	4.21	4.29	4.17	3.98	4.02	3.91	3.86				
75	2.58	2.66	2.57	2.55	2.59	2.50	2.21	2.08	2.18	2.40	2.58	2.32	2.51	2.43	2.46				
80	0.16	0.28	0.38	0.51	0.65	0.71	0.45	0.30	0.54	0.81	0.97	0.71	0.58	0.29	0.29				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.04	0.01	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				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DOBAC
Test Date:2017-11-04

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: