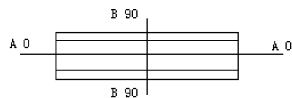
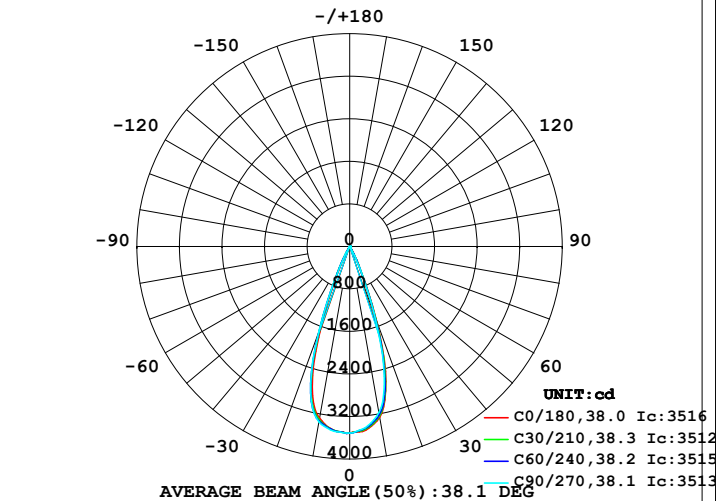


LUMINAIRE PHOTOMETRIC TEST REPORT

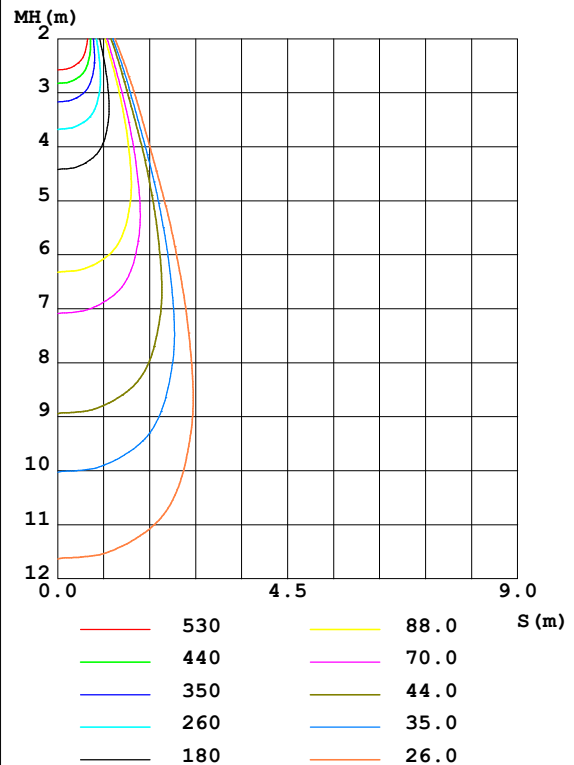
Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm					
NAME: REG2095RF-20G30-F			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:85		Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 67.30 lm/W
MODEL	3000K CRI90	I _{max} (cd)	3518	S/MH(C0/180)	0.57	
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	0.58	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	1325.9	η UP,DN(C0-180)	0.0,48.1	
NOMINAL FLUX(lm)	1325.88	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.9	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	225.2	η down(%)	100.0	CIBSE SHR MAX	0.55	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3260	3239	3170	3204	3280	3312	3349	3337	0- 10	324.1	324.1	24.4, 24.4
20	1449	1455	1337	1415	1539	1622	1690	1594	10- 20	706.1	1030	77.7, 77.7
30	120.5	129.8	105.9	106.4	112.8	133.1	134.3	144.1	20- 30	265.7	1296	97.7, 97.7
40	13.11	13.85	12.83	12.81	13.81	13.62	13.50	13.78	30- 40	23.55	1319	99.5, 99.5
50	1.377	1.440	1.458	1.222	1.694	1.588	1.539	1.520	40- 50	4.837	1324	99.9, 99.9
60	0.2268	0.2489	0.3451	0.1056	0.4657	0.4536	0.3127	0.3377	50- 60	0.7021	1325	99.9, 99.9
70	0.1673	0.1916	0.1841	0.1884	0.2926	0.2695	0.3015	0.3003	60- 70	0.2027	1325	99.9, 99.9
80	0.4245	0.4340	0.4307	0.4434	0.2860	0.2941	0.3015	0.3015	70- 80	0.3132	1325	100, 100
90	0.7371	0.7462	0.7479	0.7491	0.2925	0.3047	0.2976	0.2981	80- 90	0.4825	1326	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1322.8 lm

%lum = 99.8%

%lamp = 99.8%

Conical surface Flux(120deg): 1324.9 lm

%lum = 99.9%

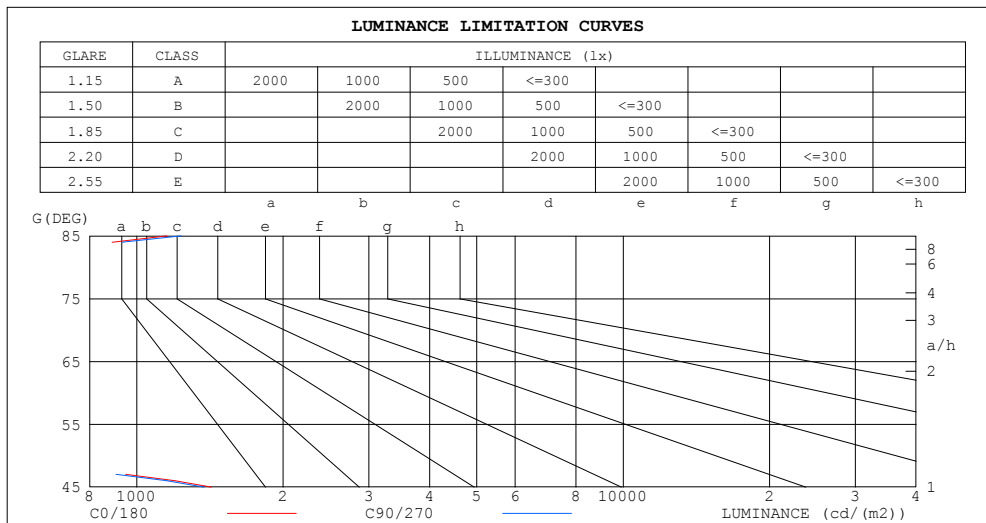
%lamp = 99.9%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity: 65.0%
 Test Distance: 7.240m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1154	1233
80	432	437
75	178	213
70	87	95
65	50	60
60	80	122
55	198	234
50	379	400
45	1424	1375

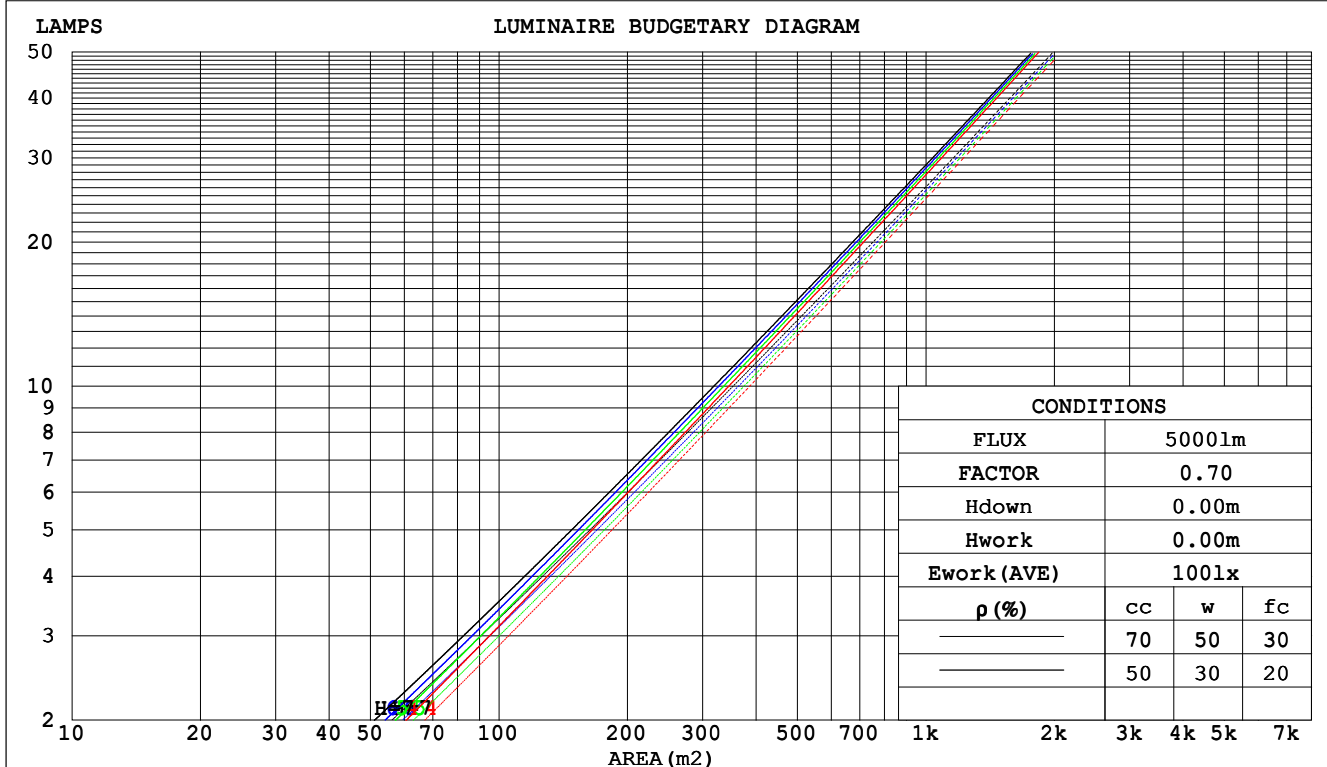
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.99	.99	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	1.00	.98	.99	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.98	.96	.93	.96	.94	.92	.94	.92	.91	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.86	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.88	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.83	.80	.86	.82	.79	.84	.81	.79	.83	.81	.78	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.75
9.0	.81	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.74	.79	.76	.73	.72
10.0	.79	.74	.72	.78	.74	.72	.78	.74	.71	.77	.74	.71	.76	.73	.71	.70



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm					
NAME: REG2095RF-20G30-F			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:85		Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.142	.081	.026	.135	.077	.024	.123	.070	.022	.111	.064	.021	.101	.058	.019	
2.0	.132	.072	.022	.126	.069	.021	.116	.064	.020	.106	.060	.019	.098	.055	.017	
3.0	.123	.065	.020	.118	.063	.019	.110	.060	.018	.102	.056	.017	.095	.052	.016	
4.0	.116	.060	.018	.112	.059	.017	.105	.056	.017	.098	.053	.016	.092	.050	.015	
5.0	.109	.056	.016	.106	.055	.016	.100	.052	.015	.094	.050	.015	.089	.047	.014	
6.0	.104	.052	.015	.101	.051	.015	.096	.049	.014	.091	.047	.014	.086	.045	.013	
7.0	.099	.049	.014	.097	.048	.014	.092	.047	.013	.088	.045	.013	.084	.043	.013	
8.0	.095	.046	.013	.093	.046	.013	.089	.044	.013	.085	.043	.012	.081	.042	.012	
9.0	.091	.044	.012	.089	.043	.012	.085	.042	.012	.082	.041	.012	.079	.040	.012	
10.0	.087	.042	.012	.086	.041	.012	.083	.040	.011	.079	.039	.011	.077	.038	.011	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.098	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.040	.079	.053	.035	.054	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.086	.056	.035	.074	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.081	.051	.031	.070	.044	.027	.049	.031	.019	.028	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm										
NAME: REG2095RF-20G30-F					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:85			Shielding 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	0.5	1.2	0.7	1.3	1.5	-0.5	0.2	-0.3	0.4	0.5
3H	0.4	1.0	0.6	1.2	1.4	-0.6	0.0	-0.4	0.2	0.4
4H	0.3	0.9	0.6	1.1	1.3	-0.7	-0.1	-0.4	0.1	0.4
6H	0.3	0.9	0.6	1.1	1.3	-0.6	-0.1	-0.4	0.2	0.4
8H	0.4	0.9	0.7	1.2	1.4	-0.5	0.0	-0.2	0.3	0.5
12H	0.6	1.1	0.9	1.4	1.6	-0.2	0.3	0.1	0.6	0.8
4H 2H	0.3	0.9	0.5	1.1	1.3	-0.7	-0.1	-0.5	0.1	0.3
3H	0.1	0.6	0.4	0.9	1.2	-0.9	-0.3	-0.6	-0.1	0.2
4H	0.1	0.5	0.4	0.8	1.1	-0.9	-0.4	-0.6	-0.1	0.2
6H	0.1	0.5	0.5	0.9	1.2	-0.8	-0.3	-0.4	-0.0	0.3
8H	0.3	0.7	0.7	1.0	1.4	-0.5	-0.1	-0.2	0.2	0.6
12H	0.7	1.0	1.1	1.4	1.8	-0.0	0.4	0.4	0.7	1.1
8H 4H	-0.1	0.3	0.3	0.7	1.0	-1.0	-0.6	-0.6	-0.3	0.1
6H	0.1	0.4	0.5	0.8	1.2	-0.8	-0.4	-0.3	-0.0	0.4
8H	0.4	0.7	0.8	1.1	1.5	-0.4	-0.1	0.1	0.3	0.8
12H	1.0	1.3	1.5	1.7	2.2	0.5	0.7	0.9	1.2	1.6
12H 4H	-0.1	0.3	0.3	0.6	1.0	-1.0	-0.7	-0.6	-0.3	0.1
6H	0.1	0.4	0.5	0.8	1.2	-0.7	-0.4	-0.3	-0.0	0.4
8H	0.5	0.7	0.9	1.2	1.6	-0.2	0.0	0.2	0.5	0.9
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 3.9					+ 2.2 / - 3.7				
1.5H	+ 4.5 / - 3.9					+ 4.3 / - 3.8				
2.0H	+ 3.6 / - 1.1					+ 3.4 / - 1.1				

CIE Pub.117, 1326 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.0$)

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:

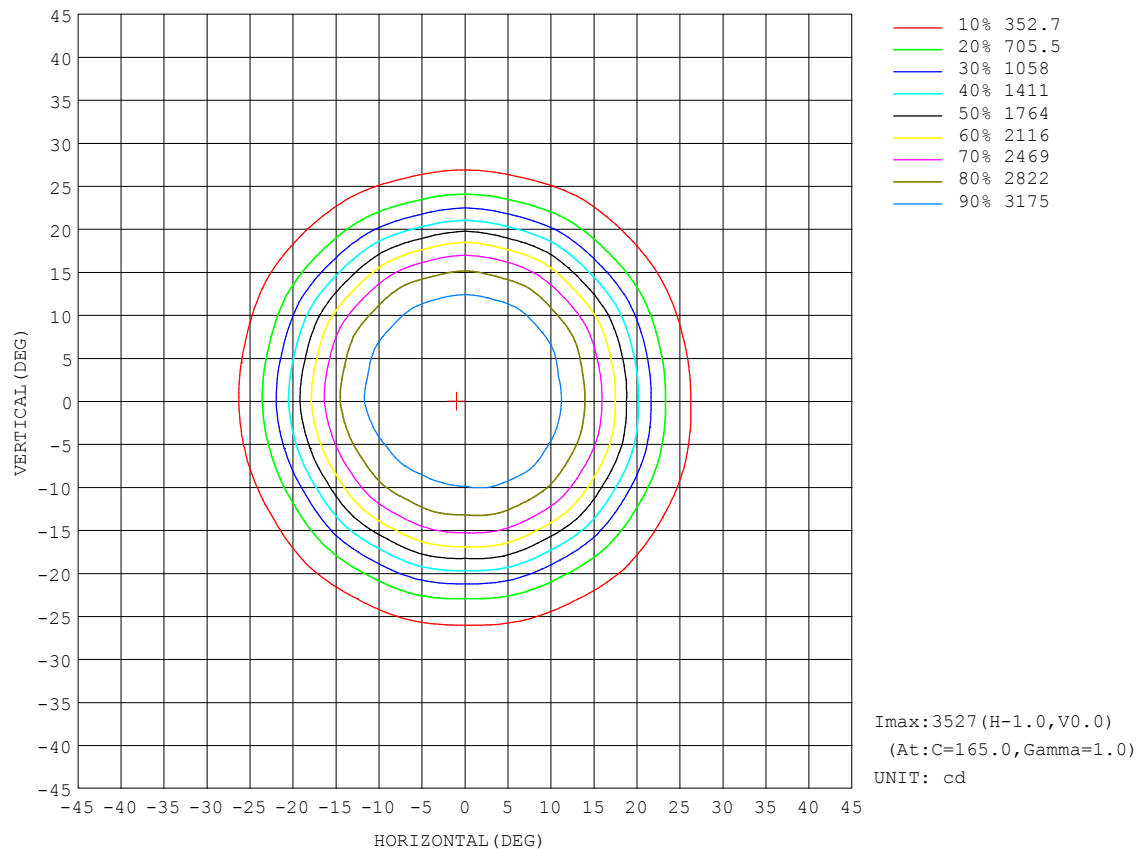
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	98	93	90	96	92	89	86
1.00	102	97	94	101	96	93	100	96	93	89
1.25	105	101	98	104	100	97	103	99	97	93
1.50	108	104	101	107	103	100	104	101	99	95
2.00	110	106	103	109	105	103	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	113	110	109	109	107	106	99
5.00	116	114	112	114	112	111	110	109	107	100
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:

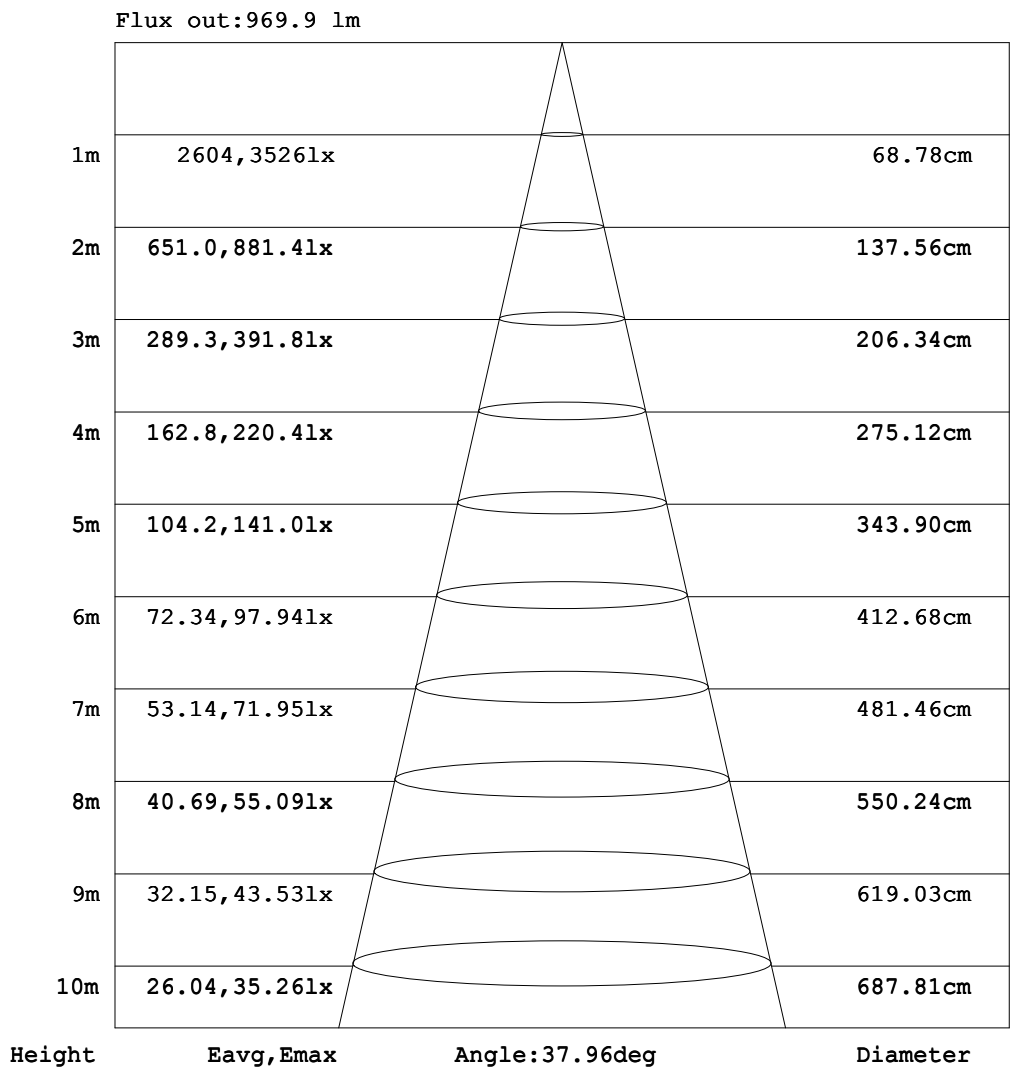


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

AAI Figure

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:



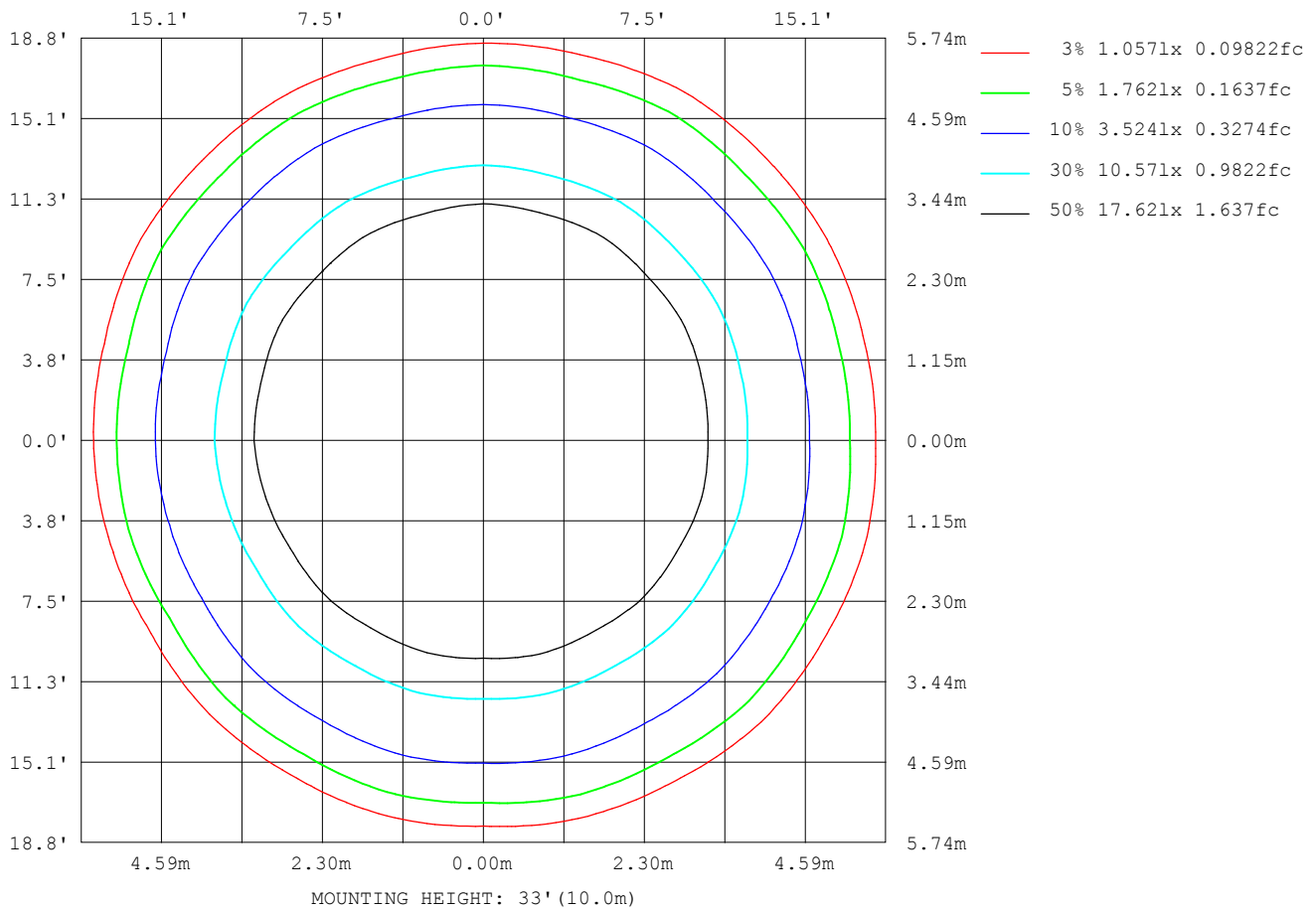
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2019-11-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:225.2V I:0.0910A P:19.70W PF:0.9530 Freq:50.00Hz Lamp Flux:1325.88x1 lm		
NAME: REG2095RF-20G30-F	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:85	Shielding Angle:

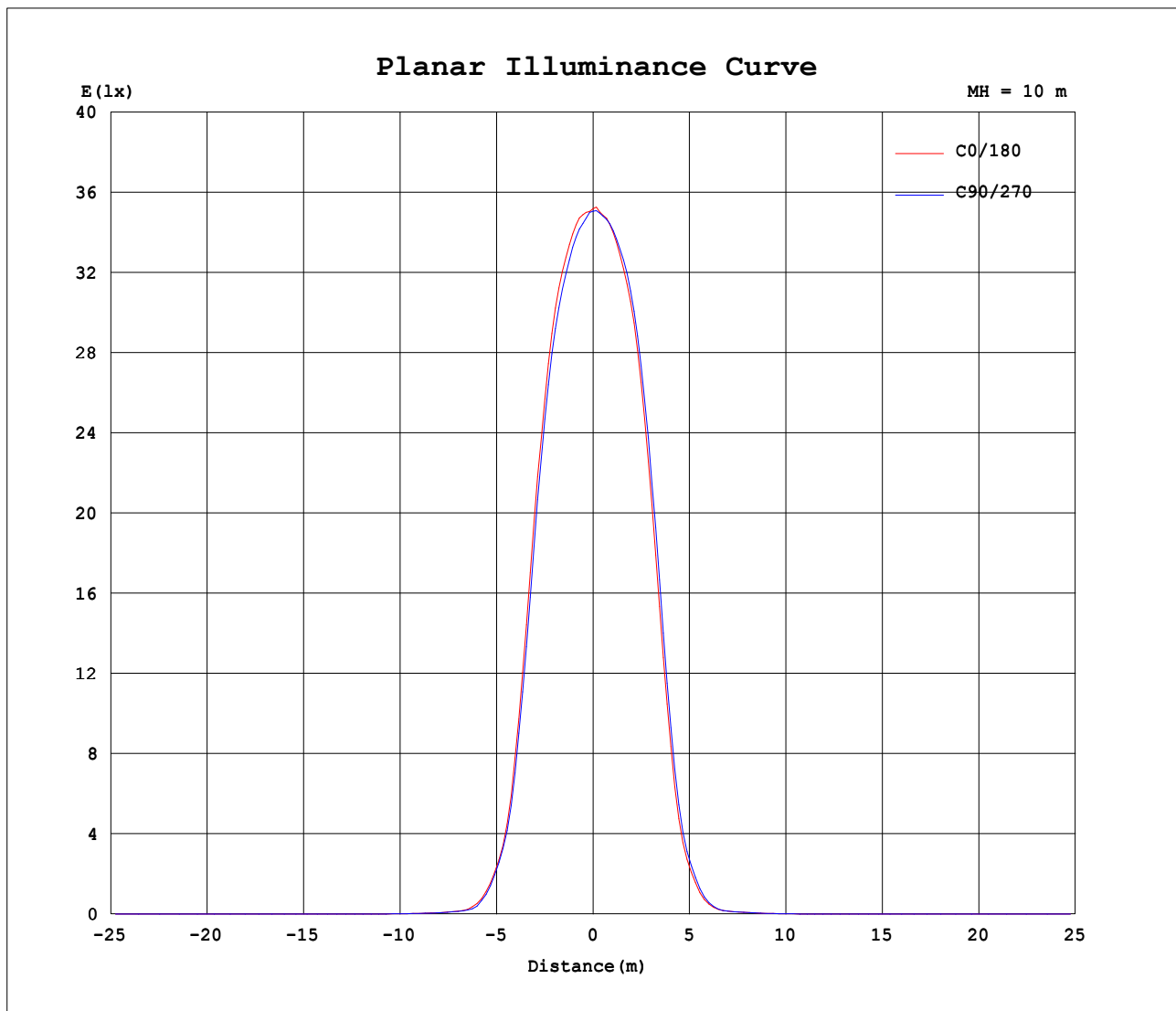
AvgL	cd/m2
L_0~180 (65) av	80
L_0~180 (75) av	187
L_0~180 (85) av	863
L_90~270 (65) av	86
L_90~270 (75) av	209
L_90~270 (85) av	922
L_45 (65) av	81
L_45 (75) av	205
L_45 (85) av	899

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2019-11-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```