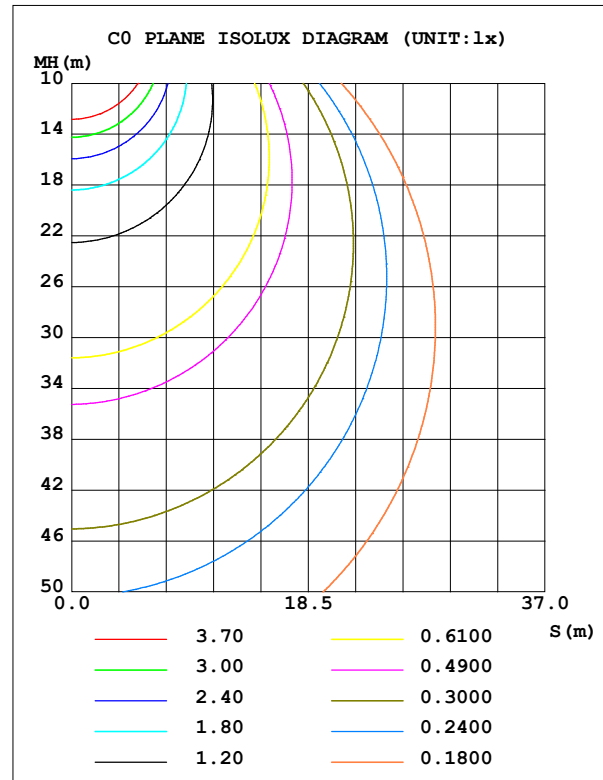
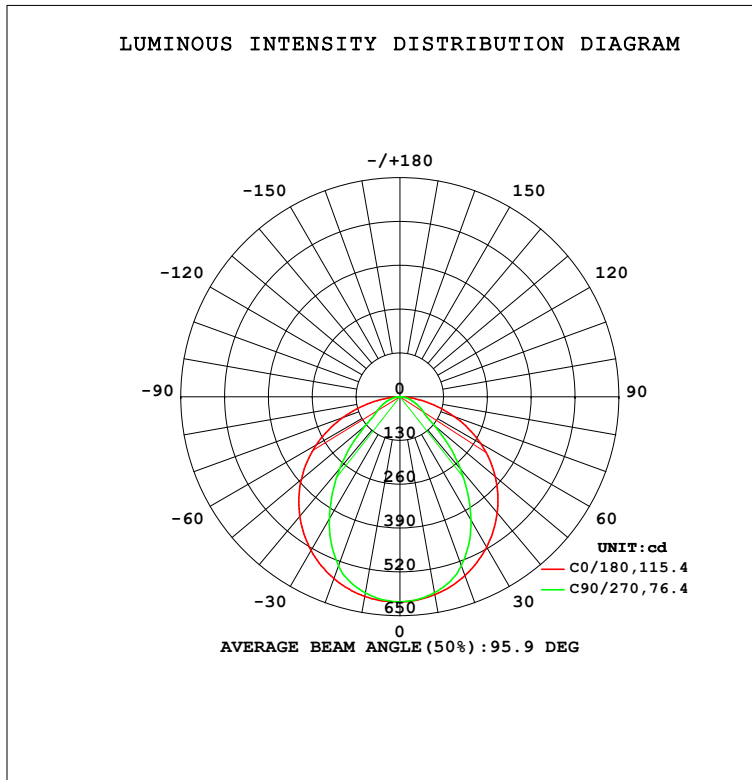


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 54.33 lm/W
MODEL CONT	V LM20MB 4000K 1.0M	I <sub>max</sub> (cd)	609.1	S/MH (C0/180)	1.29	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.07	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1292.5	η UP,DN (C0-180)	0.0,50.0	
NOMINAL FLUX (lm)	1292.52	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.30	



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity: 65.0%  
Test Distance: 7.250m [K=1.0000]  
Remarks:

### ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	596.4	592.5	590.6	596.4	601.6	597.0	591.0	592.3	0- 10	57.42	57.42	4.44,4.44
20	564.5	549.3	532.8	557.1	574.0	557.6	533.1	549.5	10- 20	162.7	220.1	17,17
30	515.0	470.4	422.0	481.5	527.2	480.5	419.4	470.4	20- 30	237.6	457.7	35.4,35.4
40	449.5	357.8	279.1	370.2	462.8	366.6	278.3	356.9	30- 40	263.4	721.1	55.8,55.8
50	369.8	225.2	135.7	236.5	382.5	233.8	135.2	226.2	40- 50	235.6	956.8	74,74
60	276.4	97.32	73.66	104.7	287.3	102.7	74.28	98.23	50- 60	169.1	1126	87.1,87.1
70	170.5	47.56	42.80	50.16	179.5	50.43	43.21	48.08	60- 70	104.5	1230	95.2,95.2
80	64.65	19.07	18.28	20.46	69.17	20.70	18.48	19.34	70- 80	49.48	1280	99,99
90	0.8400	0.4043	0.2382	0.3761	0.7898	0.3886	0.2476	0.4317	80- 90	12.61	1293	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): 845.59 lm

%lum = 65.4%

%lamp = 65.4%

Conical surface Flux(120deg): 1125.9 lm

%lum = 87.1%

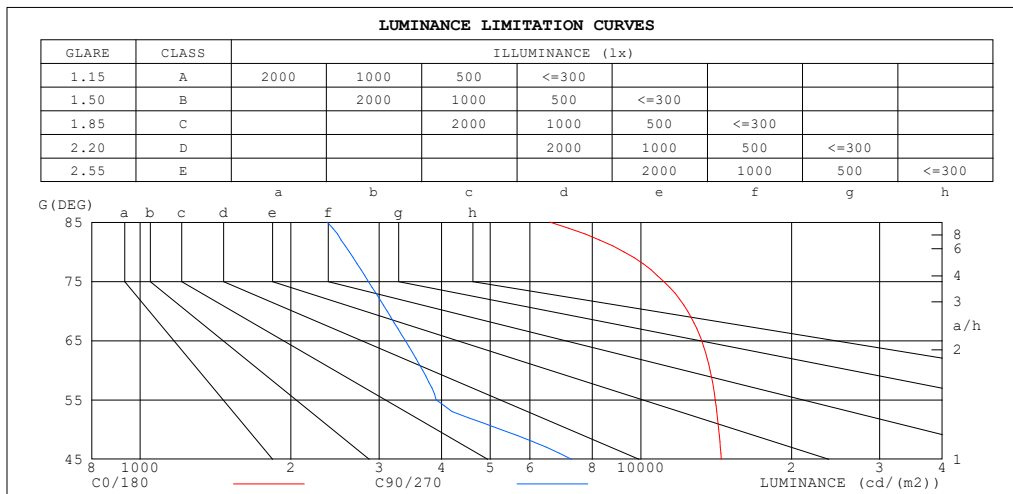
%lamp = 87.1%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6590	2364
80	9261	2619
75	11114	2856
70	12404	3113
65	13229	3386
60	13752	3665
55	14085	3902
50	14313	5252
45	14473	7275

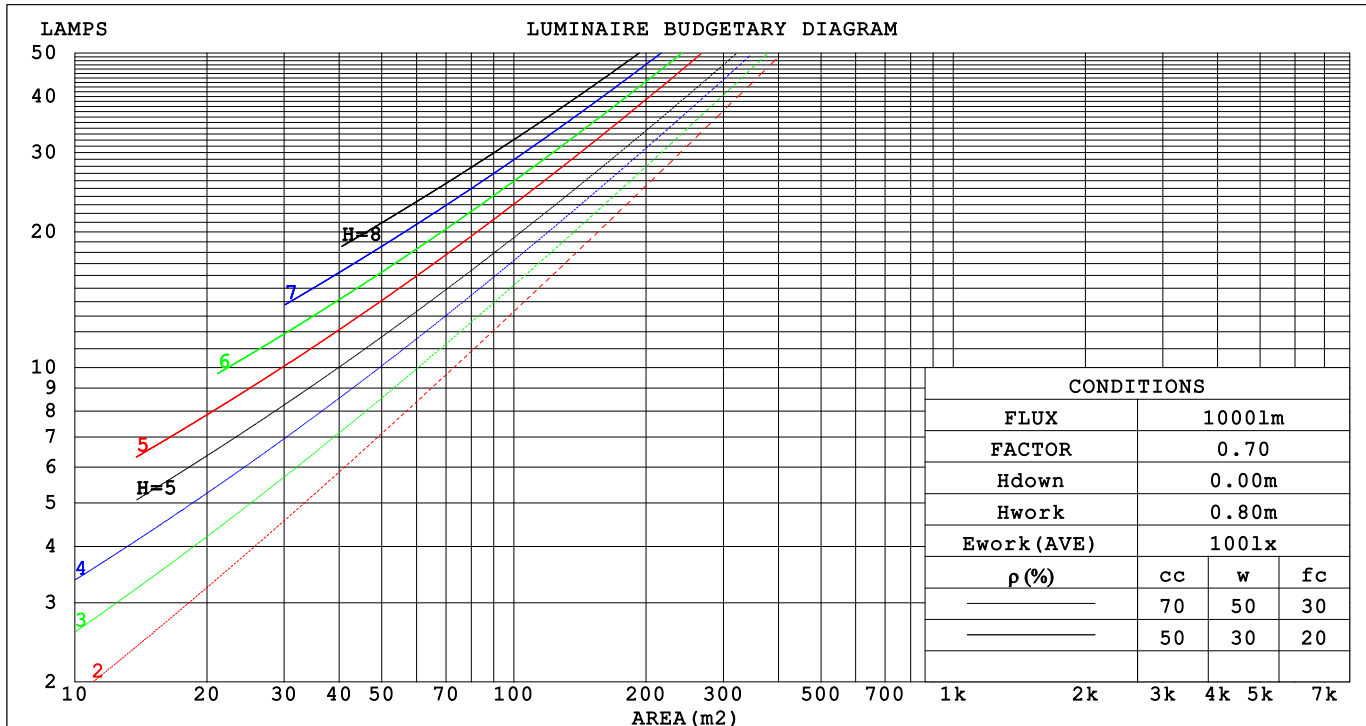
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	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															



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	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	.266	.151	.048	.259	.148	.047	.246	.141	.045	.234	.135	.043	.223	.129	.042	
2.0	.255	.140	.043	.249	.137	.042	.238	.132	.041	.227	.127	.040	.217	.123	.039	
3.0	.240	.128	.038	.234	.125	.038	.224	.122	.037	.215	.118	.036	.206	.114	.035	
4.0	.224	.116	.034	.219	.115	.034	.211	.112	.033	.202	.109	.033	.195	.106	.032	
5.0	.209	.107	.031	.205	.105	.031	.197	.103	.030	.190	.100	.030	.183	.098	.029	
6.0	.196	.098	.028	.192	.097	.028	.185	.095	.028	.179	.093	.027	.173	.091	.027	
7.0	.184	.091	.026	.181	.090	.026	.174	.088	.025	.169	.086	.025	.163	.085	.025	
8.0	.173	.085	.024	.170	.084	.024	.165	.082	.023	.159	.081	.023	.154	.079	.023	
9.0	.163	.079	.022	.161	.078	.022	.155	.077	.022	.151	.076	.022	.146	.074	.021	
10.0	.154	.074	.021	.152	.073	.020	.147	.072	.020	.143	.071	.020	.139	.070	.020	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.102	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.022	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.026	.102	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.113	.059	.023	.097	.051	.020	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm											
NAME: SLIM C IP67_1031_WHT_WHT_4K					TYPE:LED			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: DARKON					SUR.:			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	2H	21.1	22.5	21.3	22.7	22.9	16.0	17.4	16.2	17.6	17.7
	3H	22.5	23.7	22.8	24.0	24.2	16.6	17.8	16.9	18.1	18.3
	4H	23.0	24.2	23.3	24.4	24.7	16.9	18.1	17.2	18.3	18.5
	6H	23.4	24.5	23.7	24.8	25.1	17.1	18.2	17.4	18.5	18.7
	8H	23.5	24.6	23.8	24.9	25.2	17.1	18.2	17.5	18.5	18.8
	12H	23.6	24.6	23.9	24.9	25.2	17.2	18.2	17.5	18.5	18.8
4H	2H	21.0	22.2	21.3	22.4	22.7	16.6	17.8	16.9	18.1	18.3
	3H	22.5	23.5	22.8	23.8	24.1	17.3	18.4	17.7	18.7	19.0
	4H	23.0	24.0	23.4	24.3	24.6	17.7	18.6	18.0	18.9	19.3
	6H	23.5	24.4	23.9	24.7	25.1	18.0	18.8	18.4	19.2	19.5
	8H	23.7	24.5	24.1	24.8	25.2	18.1	18.9	18.5	19.2	19.6
	12H	23.8	24.5	24.2	24.9	25.3	18.2	18.9	18.6	19.3	19.7
8H	4H	23.0	23.7	23.4	24.1	24.5	17.9	18.7	18.3	19.0	19.4
	6H	23.5	24.1	23.9	24.5	24.9	18.3	18.9	18.7	19.3	19.8
	8H	23.7	24.2	24.1	24.7	25.1	18.5	19.0	18.9	19.5	19.9
	12H	23.8	24.3	24.3	24.7	25.2	18.6	19.1	19.1	19.5	20.0
12H	4H	22.9	23.6	23.3	24.0	24.4	17.9	18.6	18.3	19.0	19.4
	6H	23.4	24.0	23.9	24.4	24.9	18.3	18.9	18.8	19.3	19.8
	8H	23.7	24.1	24.1	24.6	25.1	18.5	19.0	19.0	19.5	20.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.8 / - 1.0					
1.5H	+ 0.5 / - 0.7					+ 0.5 / - 1.0					
2.0H	+ 1.2 / - 2.1					+ 1.3 / - 1.0					

CIE Pub.117, 1293 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.9)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

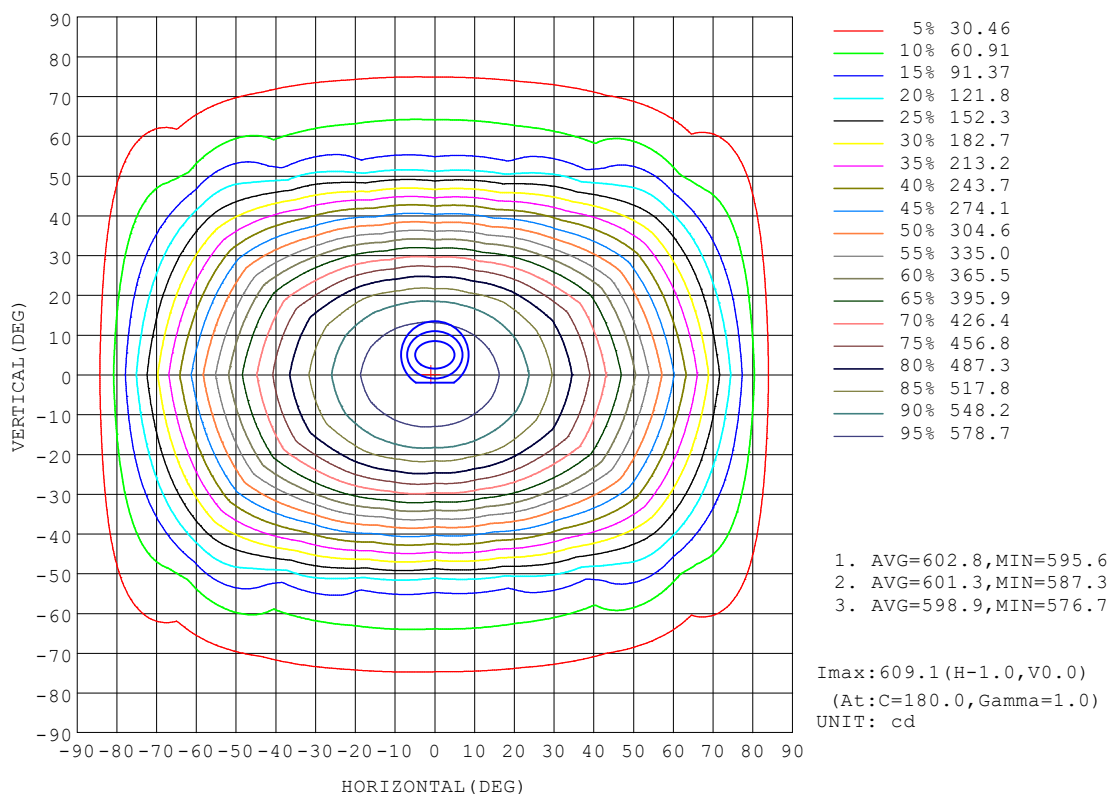
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	64	53	47	63	53	47	62	53	47	41
0.80	74	64	57	73	63	57	71	62	57	50
1.00	82	72	66	81	72	66	79	73	65	59
1.25	89	79	73	87	79	73	85	77	72	66
1.50	93	85	79	92	84	78	89	82	77	70
2.00	99	92	86	97	91	86	94	88	84	77
2.50	102	96	91	100	94	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	84
4.00	108	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



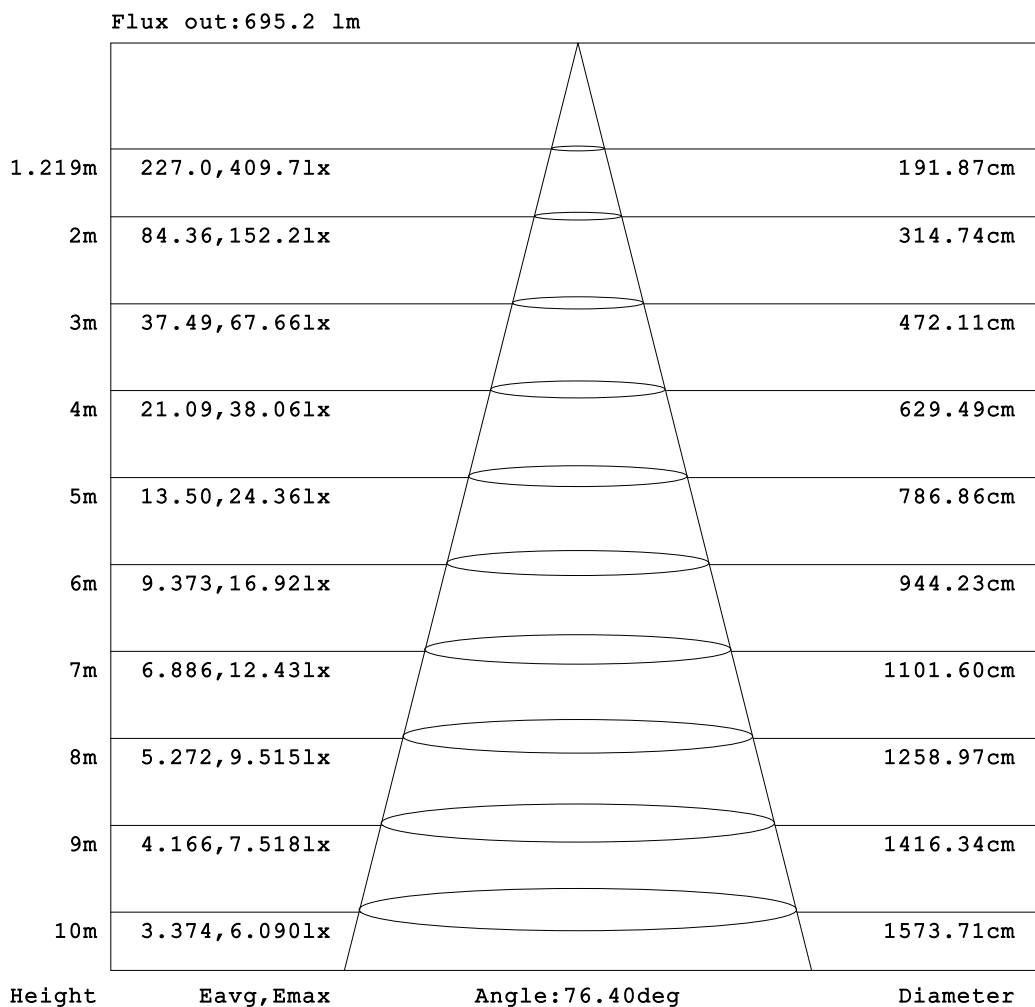
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



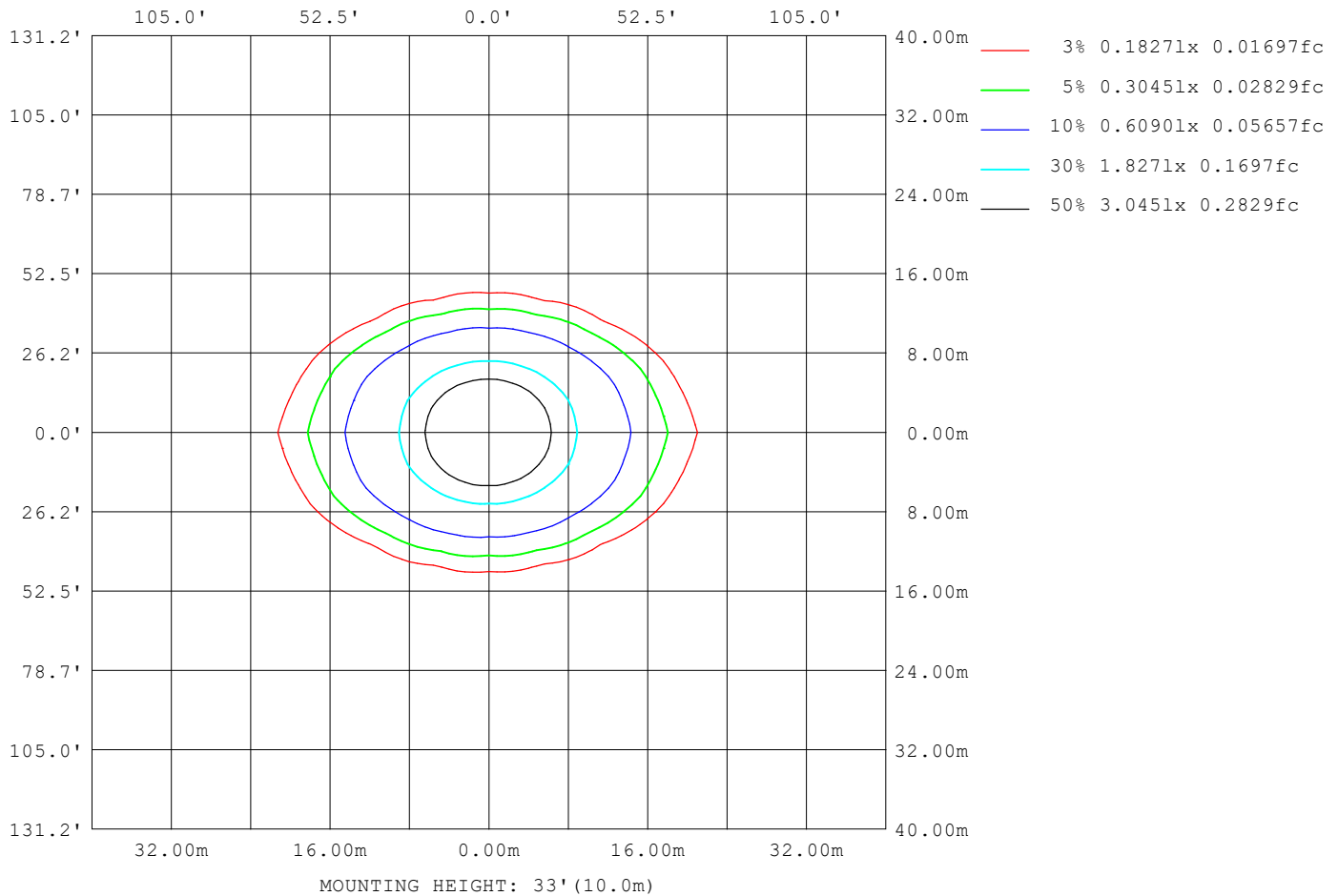
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

**LED Avg.L Report**

Test:U:240.01V I:0.2211A P:23.791W PF:0.4484 Freq:50.09Hz Lamp Flux:1292.52x1 lm		
NAME: SLIM C IP67_1031_WHT_WHT_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

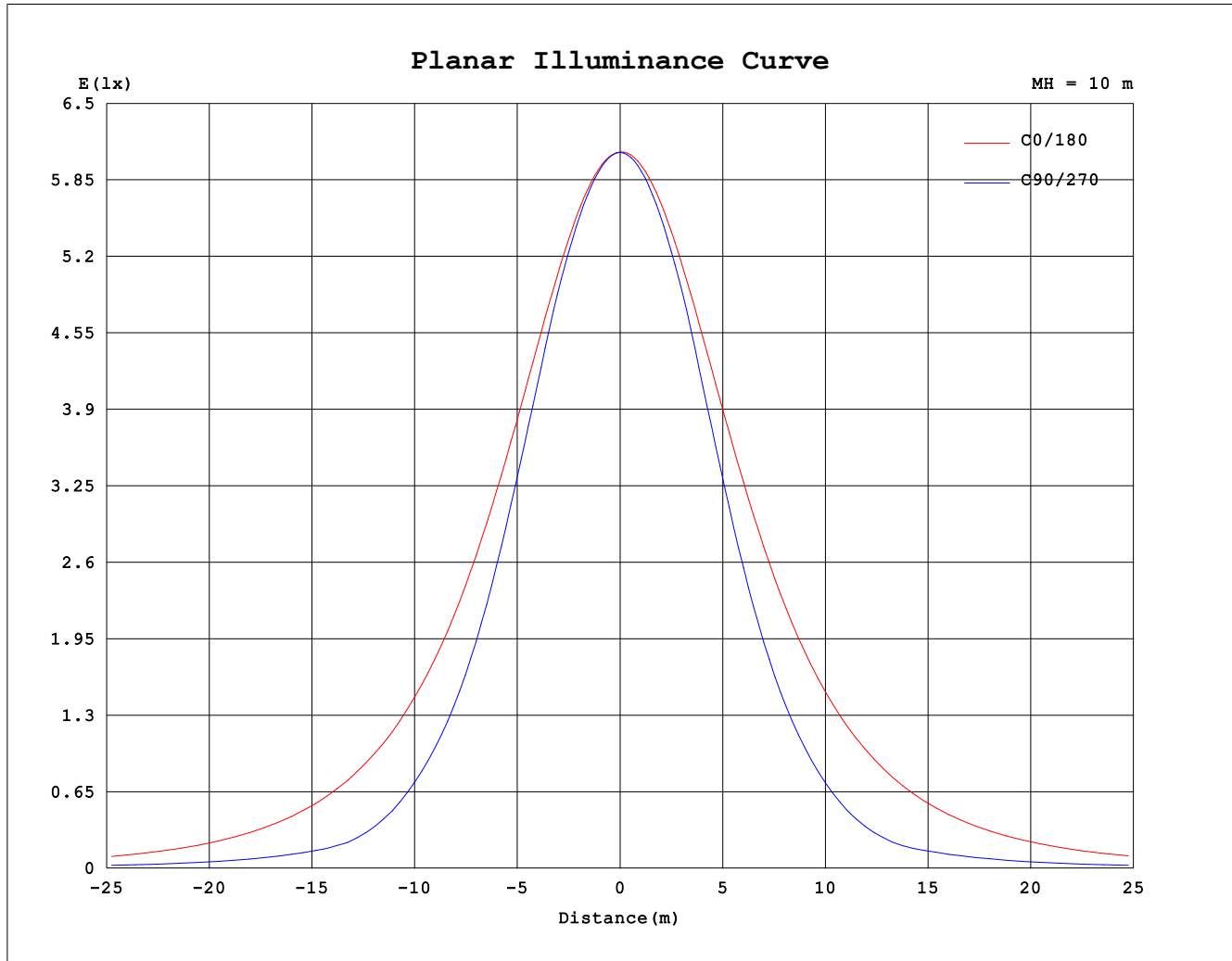
AvgL	cd/m2
L_0~180 (65) av	13513
L_0~180 (75) av	11461
L_0~180 (85) av	6868
L_90~270 (65) av	3400
L_90~270 (75) av	2872
L_90~270 (85) av	2370
L_45 (65) av	3911
L_45 (75) av	3197
L_45 (85) av	2532

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:27 February 2020

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity:65.0%  
Test Distance:7.250m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 27 February 2020

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
Humidity: 65.0%  
Test Distance: 7.250m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

```