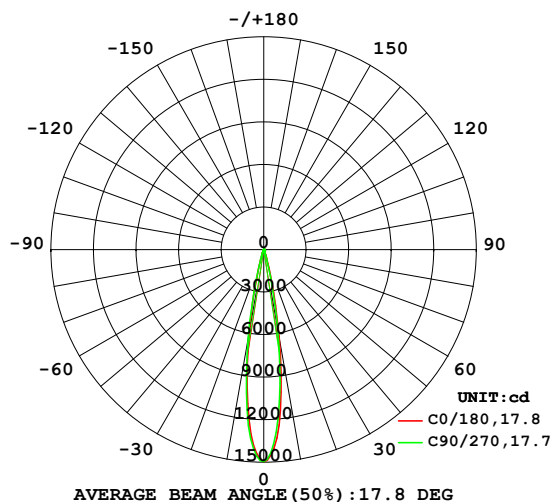


**LUMINAIRE PHOTOMETRIC TEST REPORT**

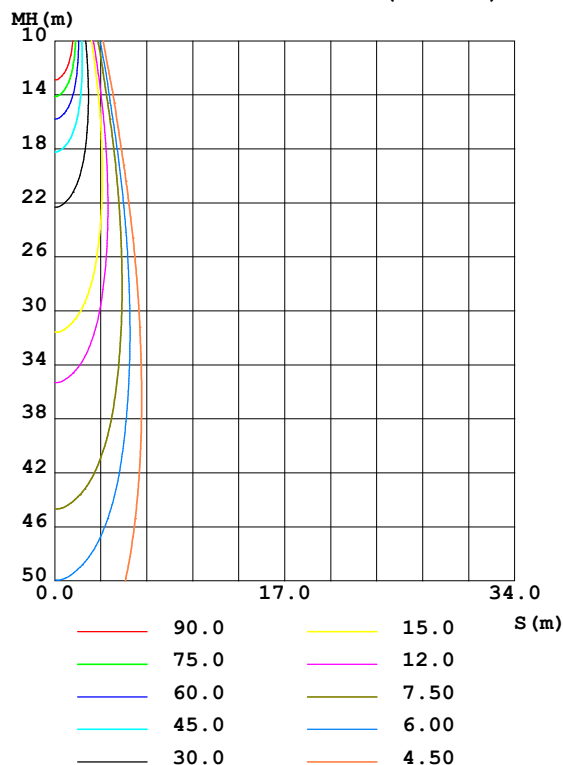
Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 108.77 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	14952	S/MH(C0/180)	0.30
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.31
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1723.0	$\eta$ UP,DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	1722.99	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [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	625.0	602.8	579.8	573.6	595.3	611.3	639.0	641.8	0- 10	958.4	958.4	55.6,55.6
20	49.95	47.88	42.86	41.51	44.15	45.95	48.12	49.02	10- 20	553.4	1512	87.7,87.7
30	11.06	10.93	10.90	10.85	10.91	11.25	10.70	10.76	20- 30	98.45	1610	93.5,93.5
40	5.161	5.007	4.917	4.825	5.048	5.433	5.067	5.102	30- 40	46.93	1657	96.2,96.2
50	2.517	2.463	2.386	2.359	2.483	2.602	2.462	2.466	40- 50	27.80	1685	97.8,97.8
60	1.564	1.572	1.479	1.435	1.475	1.538	1.497	1.530	50- 60	16.89	1702	98.8,98.8
70	1.001	0.9977	0.9304	0.8902	0.9208	0.9652	0.9582	0.9753	60- 70	12.12	1714	99.5,99.5
80	0.4050	0.3921	0.3720	0.3583	0.3596	0.3702	0.3956	0.4093	70- 80	7.067	1721	99.9,99.9
90	0.0076	0.0058	0.0055	0.0040	0.0058	0.0036	0.0044	0.0051	80- 90	1.973	1723	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: $\mu$ A10cd									UNIT:lm		

Conical surface Flux(90deg): 1673 lm

%lum = 97.1%

%lamp = 97.1%

Conical surface Flux(120deg): 1701.8 lm

%lum = 98.8%

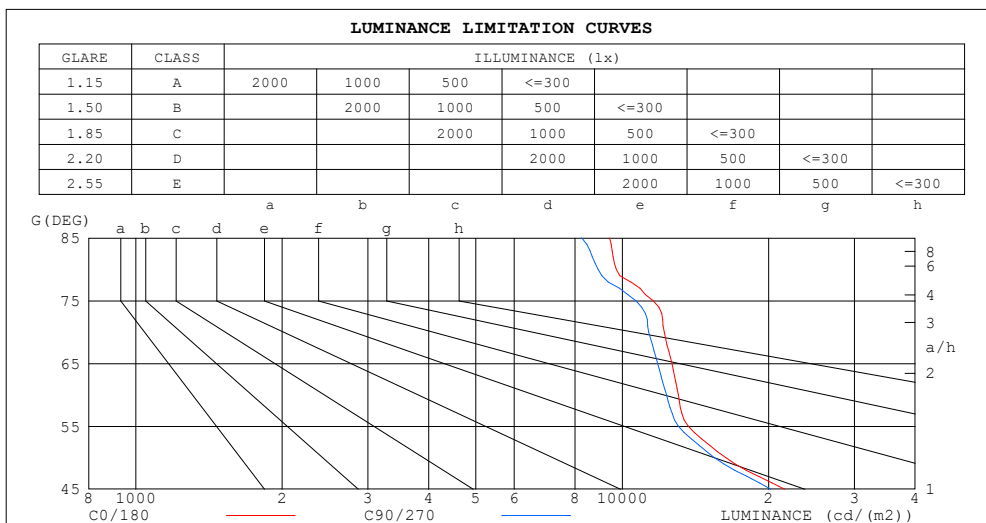
%lamp = 98.8%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9423	8251
80	9718	8925
75	11571	10662
70	12200	11335
65	12654	11829
60	13038	12326
55	13672	13040
50	16319	15465
45	21563	20226

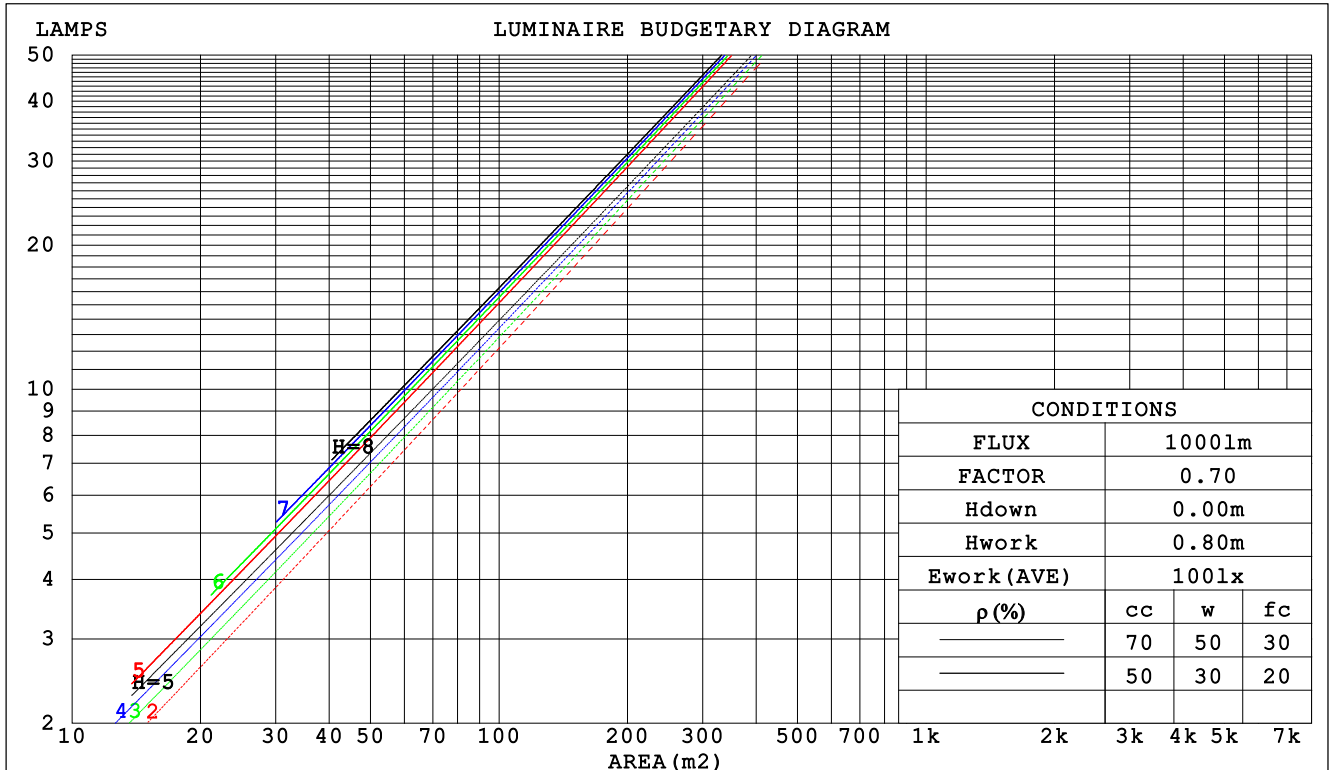
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	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	1.13	1.12	1.10	1.11	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.02	1.00	.00	.99	.97
2.0	1.09	1.06	1.03	1.07	1.04	1.02	1.04	1.02	1.00	1.01	.99	.98	.98	.97	.96	.95
3.0	1.05	1.01	.99	1.03	1.00	.98	1.01	.98	.96	.99	.97	.95	.97	.95	.94	.92
4.0	1.01	.98	.95	1.00	.97	.94	.98	.96	.93	.96	.94	.92	.95	.93	.91	.90
5.0	.98	.95	.92	.97	.94	.92	.96	.93	.91	.94	.92	.90	.93	.91	.89	.88
6.0	.96	.92	.89	.95	.92	.89	.94	.91	.89	.93	.90	.88	.92	.89	.88	.87
7.0	.93	.90	.87	.93	.90	.87	.92	.89	.87	.91	.88	.86	.90	.88	.86	.85
8.0	.91	.88	.85	.91	.88	.85	.90	.87	.85	.89	.87	.85	.89	.86	.84	.84
9.0	.90	.86	.84	.89	.86	.84	.89	.86	.83	.88	.85	.83	.87	.85	.83	.82
10.0	.88	.85	.82	.88	.84	.82	.87	.84	.82	.86	.84	.82	.86	.83	.82	.81



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**WEC AND CCEC**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
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	.129	.073	.023	.122	.070	.022	.110	.063	.020	.099	.057	.018	.088	.051	.016		
2.0	.118	.065	.020	.112	.062	.019	.102	.057	.018	.093	.052	.016	.084	.048	.015		
3.0	.108	.058	.017	.104	.056	.017	.095	.052	.016	.088	.048	.015	.081	.045	.014		
4.0	.100	.052	.015	.096	.050	.015	.089	.047	.014	.083	.045	.013	.077	.042	.013		
5.0	.093	.047	.014	.090	.046	.013	.084	.044	.013	.079	.041	.012	.073	.039	.012		
6.0	.087	.044	.013	.084	.043	.012	.079	.041	.012	.075	.039	.011	.070	.037	.011		
7.0	.082	.040	.011	.080	.040	.011	.075	.038	.011	.071	.036	.011	.067	.035	.010		
8.0	.077	.038	.011	.075	.037	.010	.071	.036	.010	.068	.034	.010	.065	.033	.010		
9.0	.073	.035	.010	.071	.035	.010	.068	.034	.010	.065	.033	.009	.062	.032	.009		
10.0	.070	.033	.009	.068	.033	.009	.065	.032	.009	.062	.031	.009	.060	.030	.009		

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	.168	.158	.149	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.149	.133	.119	.128	.114	.103	.087	.079	.072	.050	.046	.042	.016	.015	.014	
3.0	.133	.113	.097	.114	.098	.084	.078	.068	.059	.045	.040	.035	.015	.013	.011	
4.0	.120	.098	.081	.103	.084	.070	.071	.059	.049	.041	.034	.029	.013	.011	.010	
5.0	.109	.085	.068	.094	.074	.059	.064	.051	.042	.037	.030	.025	.012	.010	.008	
6.0	.099	.075	.057	.085	.065	.050	.059	.045	.035	.034	.027	.021	.011	.009	.007	
7.0	.091	.067	.049	.078	.058	.043	.054	.040	.030	.032	.024	.018	.010	.008	.006	
8.0	.084	.060	.043	.073	.052	.037	.050	.036	.026	.029	.021	.016	.009	.007	.005	
9.0	.078	.054	.037	.067	.047	.032	.047	.033	.023	.027	.019	.014	.009	.006	.005	
10.0	.073	.049	.033	.063	.042	.028	.044	.030	.020	.025	.018	.012	.008	.006	.004	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm										
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:1		
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	13.8	14.3	14.0	14.5	14.6	13.5	14.1	13.7	14.3	14.4
3H	14.9	15.4	15.1	15.6	15.8	14.6	15.2	14.9	15.4	15.5
4H	15.4	15.9	15.7	16.1	16.3	15.1	15.6	15.4	15.8	16.0
6H	15.7	16.2	16.0	16.5	16.7	15.4	15.9	15.7	16.1	16.4
8H	15.9	16.3	16.1	16.6	16.8	15.5	16.0	15.8	16.2	16.5
12H	15.9	16.4	16.2	16.7	16.9	15.6	16.1	15.9	16.3	16.6
4H 2H	14.2	14.7	14.4	14.9	15.1	14.0	14.5	14.3	14.7	14.9
3H	15.5	16.0	15.8	16.3	16.5	15.3	15.8	15.6	16.0	16.3
4H	16.2	16.6	16.5	16.9	17.2	15.9	16.4	16.3	16.6	16.9
6H	16.6	17.0	17.0	17.3	17.6	16.3	16.7	16.7	17.0	17.4
8H	16.8	17.1	17.1	17.5	17.8	16.5	16.8	16.8	17.2	17.5
12H	16.9	17.2	17.3	17.6	17.9	16.5	16.9	16.9	17.2	17.6
8H 4H	16.4	16.7	16.7	17.1	17.4	16.1	16.5	16.5	16.8	17.2
6H	16.9	17.2	17.3	17.6	18.0	16.6	16.9	17.0	17.3	17.7
8H	17.1	17.4	17.6	17.8	18.2	16.8	17.1	17.3	17.5	17.9
12H	17.3	17.5	17.8	18.0	18.4	17.0	17.2	17.5	17.7	18.1
12H 4H	16.3	16.7	16.7	17.0	17.4	16.1	16.4	16.5	16.8	17.2
6H	16.9	17.2	17.4	17.6	18.0	16.7	16.9	17.1	17.3	17.8
8H	17.2	17.4	17.6	17.8	18.3	16.9	17.1	17.4	17.6	18.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.5				
1.5H	+ 0.6 / - 0.4					+ 0.5 / - 0.5				
2.0H	+ 0.7 / - 0.4					+ 0.7 / - 0.5				

CIE Pub.117 Corrected 1723 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.9)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

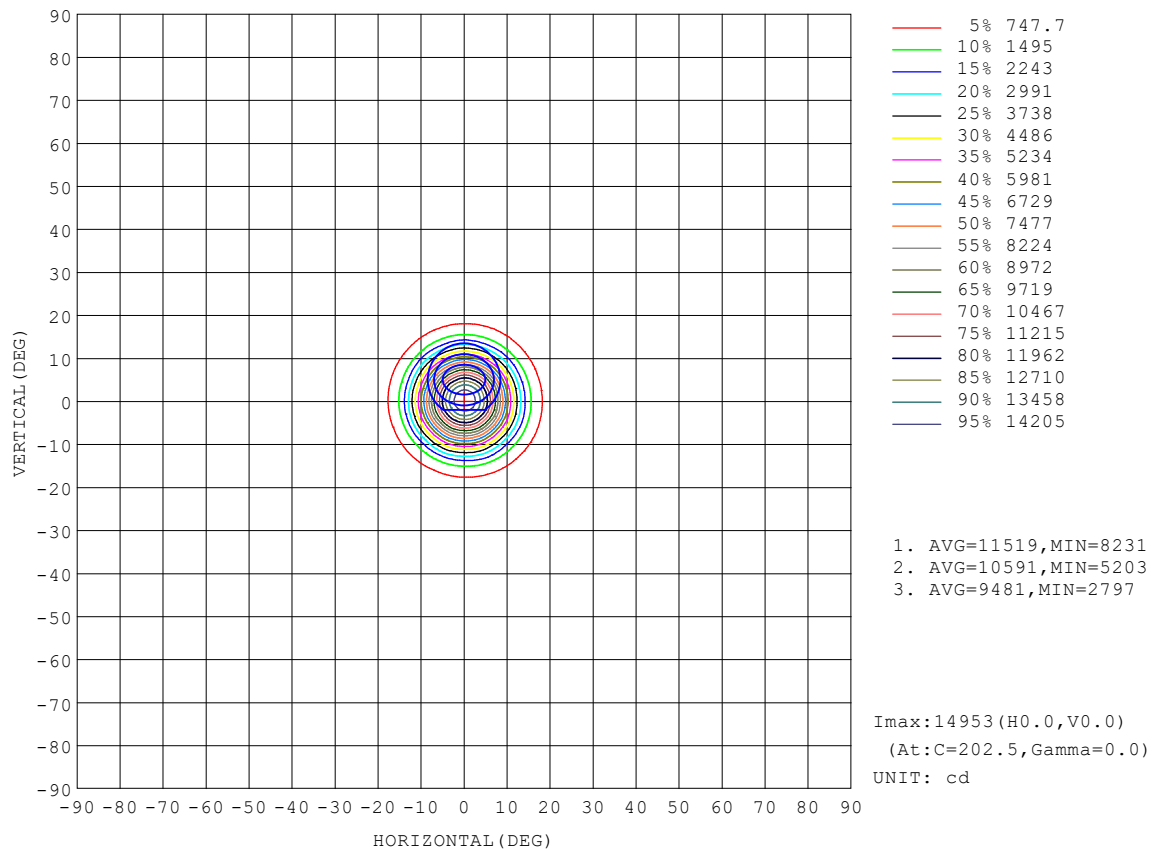
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	79	76
0.80	96	91	87	96	90	87	95	90	87	83
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	95	101	97	95	91
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



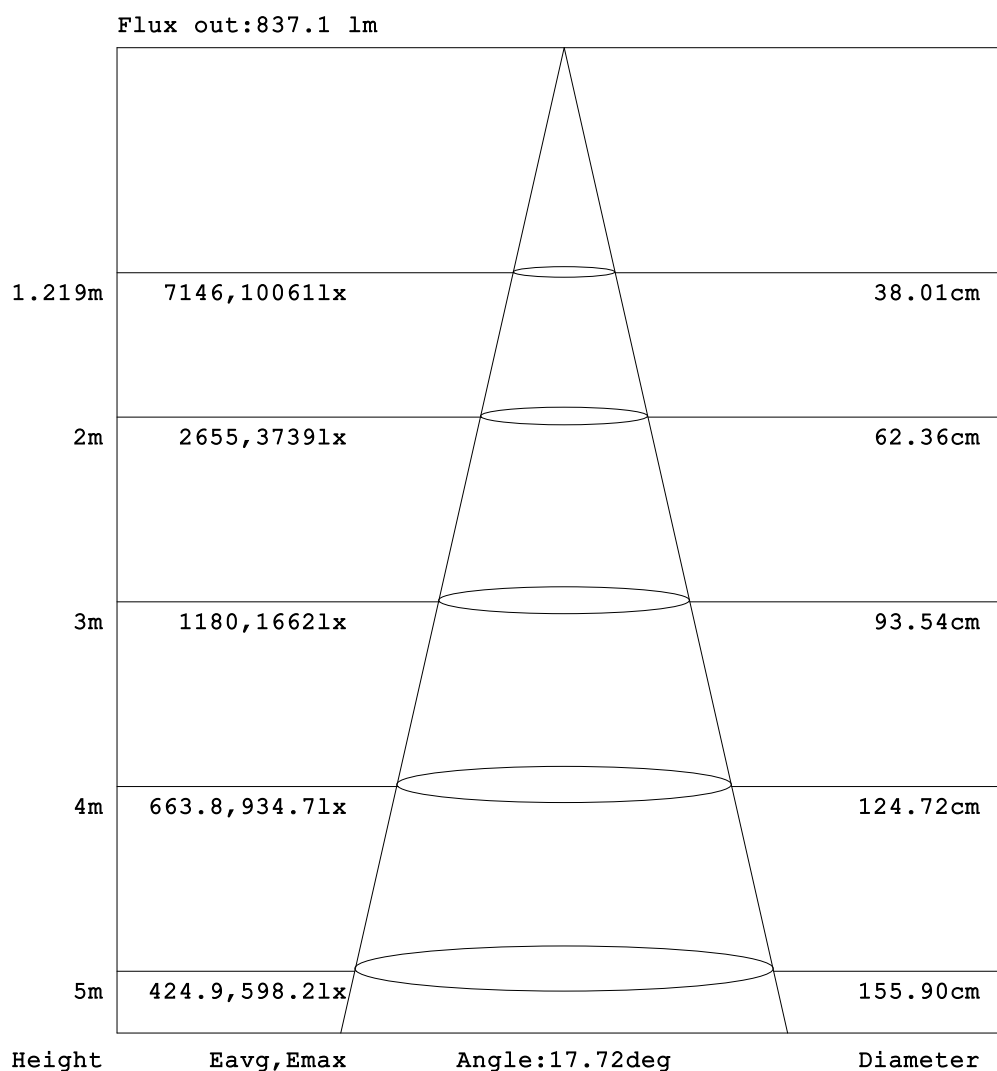
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



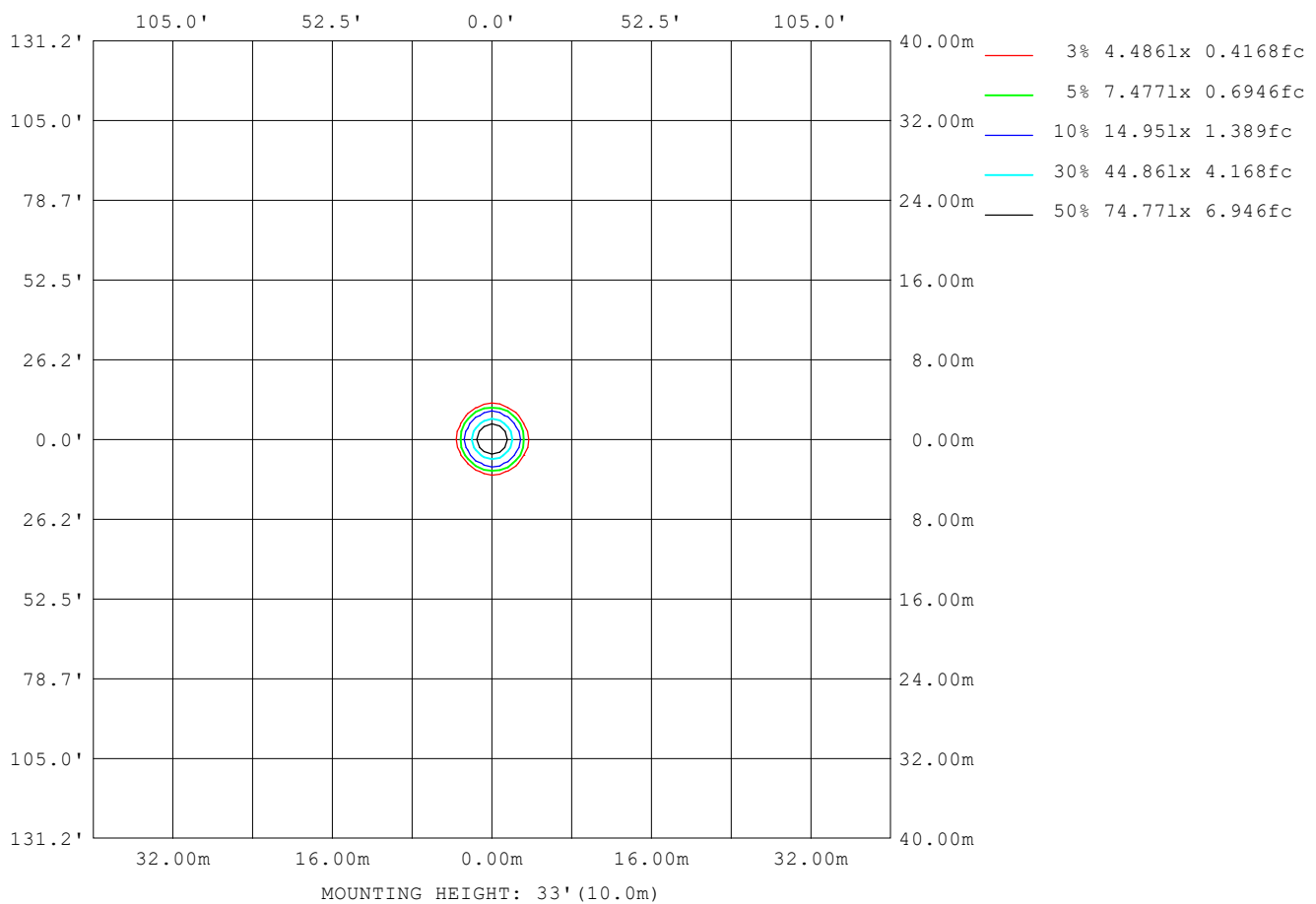
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:240.1V I:0.0703A P:15.84W PF:0.9380 Lamp Flux:1722.99x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

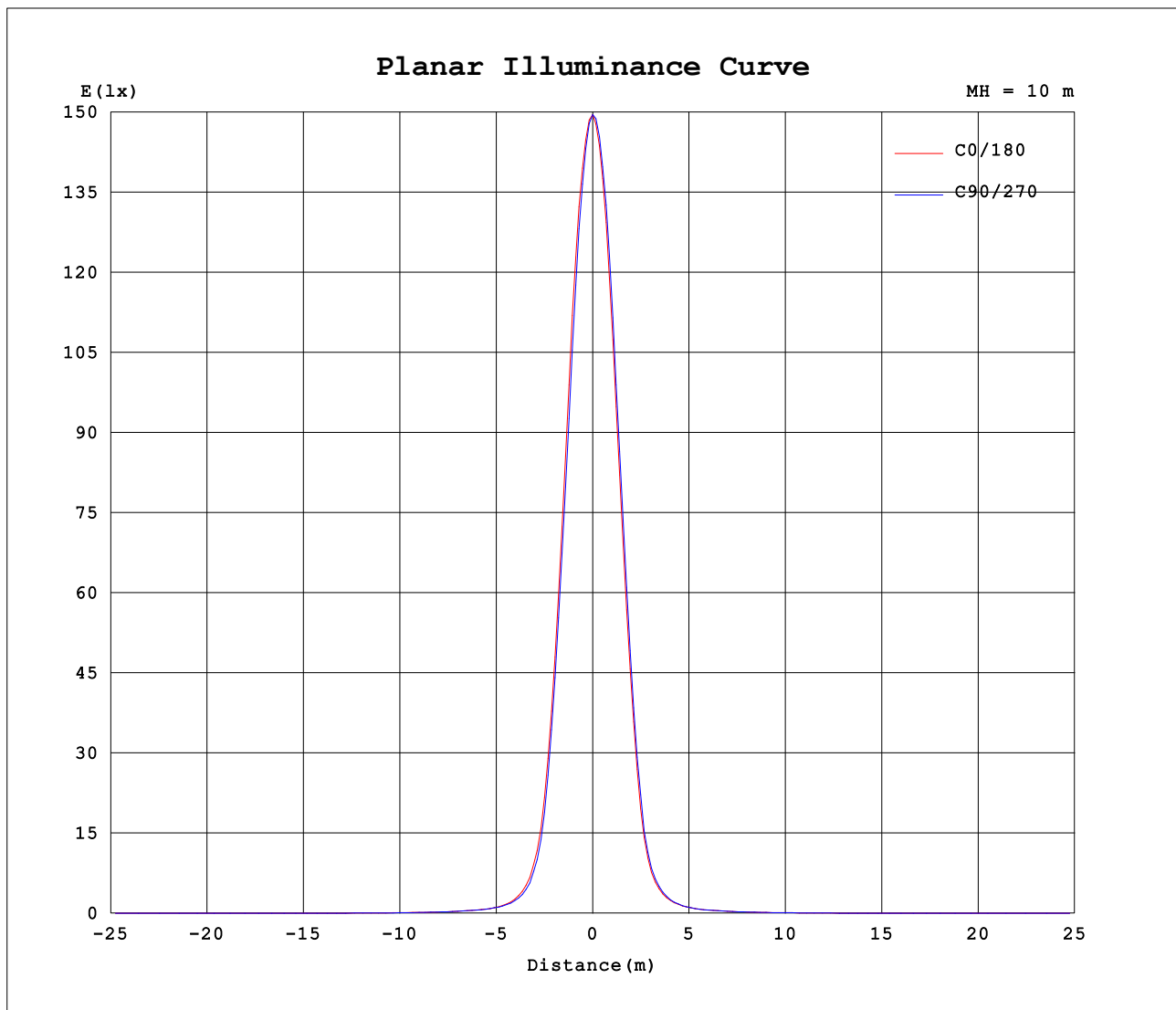
AvgL	cd/m2
L_0~180 (65) av	12186
L_0~180 (75) av	10956
L_0~180 (85) av	8565
L_90~270 (65) av	11938
L_90~270 (75) av	10891
L_90~270 (85) av	8569
L_45 (65) av	12141
L_45 (75) av	10853
L_45 (85) av	8551

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:16 January 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.995m [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: 16 January 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.995m [K=1.0000]  
Remarks:

