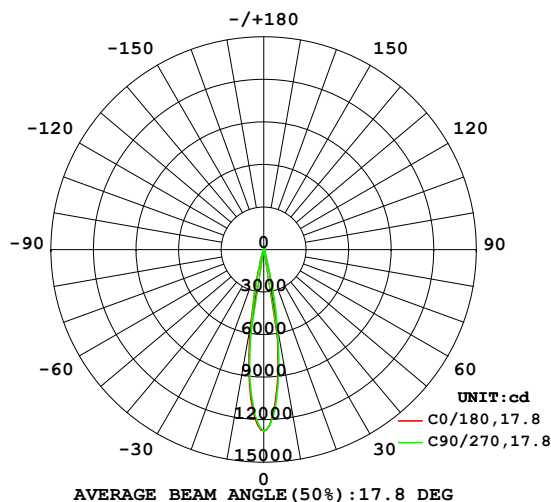


**LUMINAIRE PHOTOMETRIC TEST REPORT**

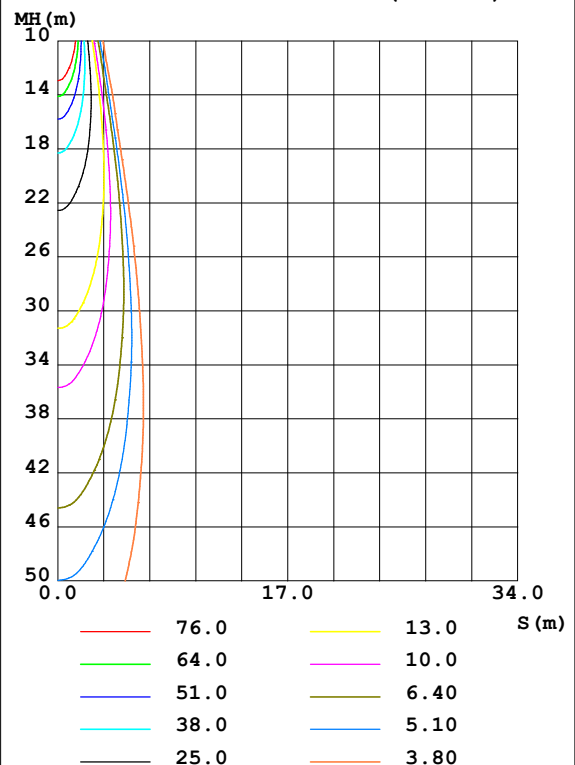
Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.29 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	12783	S/MH(C0/180)	0.30
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.29
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1417.5	$\eta$ UP,DN(C0-180)	0.0,51.3
NOMINAL FLUX(lm)	1417.47	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,48.7
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:14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [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	514.0	548.1	553.2	532.3	521.6	490.7	478.6	494.1	0- 10	819.1	819.1	57.8,57.8
20	33.12	34.42	34.57	34.17	36.32	36.52	36.66	35.89	10- 20	434.4	1254	88.4,88.4
30	8.631	8.706	8.810	8.918	8.771	8.565	8.576	8.631	20- 30	78.24	1332	94,94
40	3.798	3.844	3.824	3.882	3.823	3.851	3.879	3.839	30- 40	36.84	1369	96.6,96.6
50	1.813	1.789	1.744	1.799	1.799	1.860	1.836	1.814	40- 50	20.64	1389	98,98
60	1.139	1.130	1.111	1.088	1.093	1.110	1.121	1.129	50- 60	12.35	1402	98.9,98.9
70	0.7300	0.7196	0.7130	0.6954	0.7030	0.7046	0.7240	0.7268	60- 70	9.112	1411	99.5,99.5
80	0.3001	0.2972	0.2910	0.2823	0.2726	0.2639	0.2744	0.2949	70- 80	5.313	1416	99.9,99.9
90	0.0026	0.0033	0.0033	0.0022	0.0022	0.0015	0.0018	0.0015	80- 90	1.438	1417	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): 1380.4 lm

%lum = 97.4%

%lamp = 97.4%

Conical surface Flux(120deg): 1401.6 lm

%lum = 98.9%

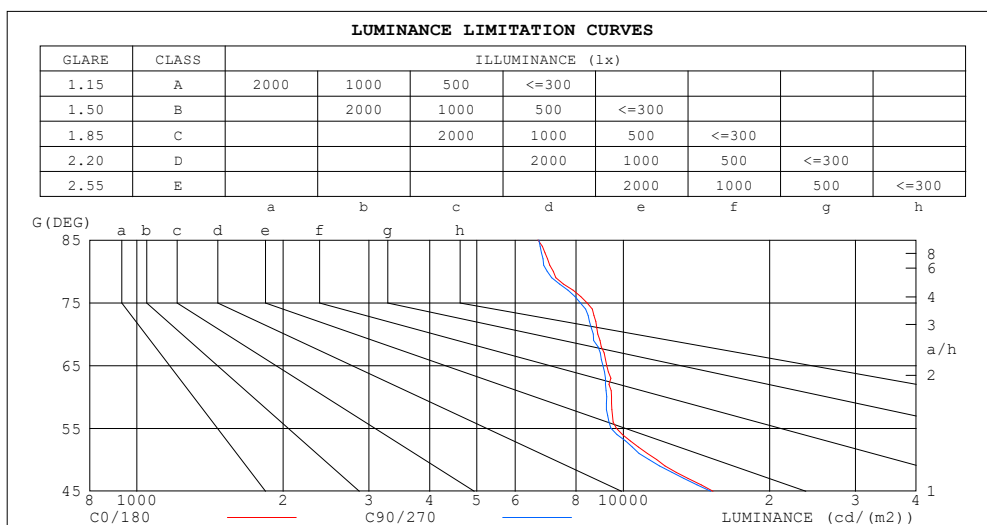
%lamp = 98.9%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.892m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



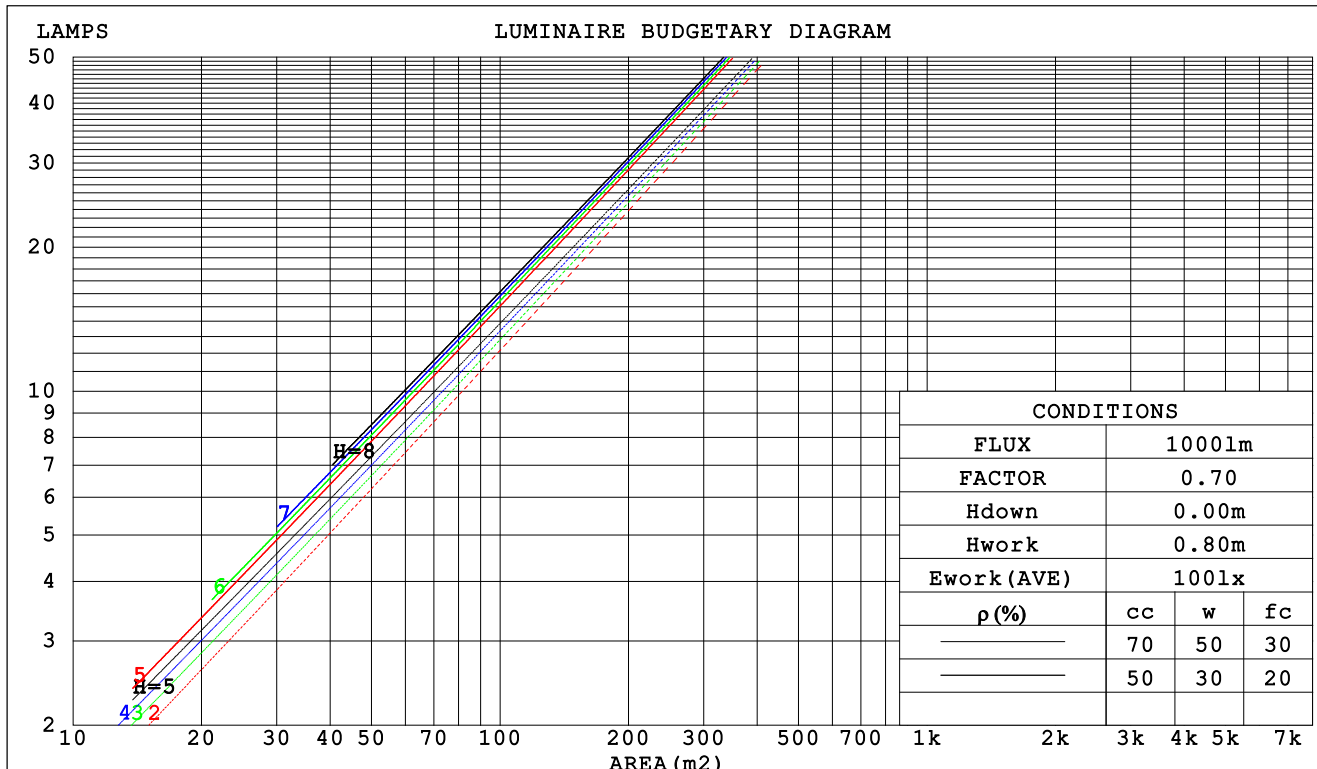
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	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	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	1.12	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	1.04	1.07	1.05	1.03	1.04	1.02	1.00	1.01	.00	.98	.99	.97	.96	.95
3.0	1.05	1.02	.99	1.04	1.01	.98	1.01	.99	.97	.99	.97	.95	.97	.95	.94	.93
4.0	1.02	.98	.95	1.01	.97	.95	.99	.96	.94	.97	.95	.93	.95	.93	.92	.91
5.0	.99	.95	.93	.98	.95	.92	.96	.94	.91	.95	.93	.91	.94	.92	.90	.89
6.0	.96	.93	.90	.96	.92	.90	.94	.92	.89	.93	.91	.89	.92	.90	.88	.87
7.0	.94	.91	.88	.94	.90	.88	.93	.90	.88	.92	.89	.87	.91	.88	.87	.86
8.0	.92	.89	.86	.92	.88	.86	.91	.88	.86	.90	.87	.86	.89	.87	.85	.84
9.0	.90	.87	.85	.90	.87	.85	.89	.86	.84	.89	.86	.84	.88	.86	.84	.83
10.0	.89	.86	.83	.89	.85	.83	.88	.85	.83	.87	.85	.83	.87	.84	.83	.82



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

**WEC AND CCEC**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	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	.127	.072	.023	.120	.068	.022	.108	.062	.020	.096	.056	.018	.086	.050	.016		
2.0	.116	.063	.019	.110	.061	.019	.100	.056	.017	.091	.051	.016	.082	.047	.015		
3.0	.106	.057	.017	.102	.054	.016	.093	.051	.015	.086	.047	.014	.078	.043	.013		
4.0	.098	.051	.015	.094	.049	.015	.087	.046	.014	.081	.043	.013	.075	.041	.012		
5.0	.091	.046	.013	.088	.045	.013	.082	.043	.013	.077	.040	.012	.071	.038	.011		
6.0	.085	.043	.012	.083	.042	.012	.078	.040	.012	.073	.038	.011	.068	.036	.011		
7.0	.080	.040	.011	.078	.039	.011	.073	.037	.011	.069	.036	.010	.066	.034	.010		
8.0	.075	.037	.010	.073	.036	.010	.070	.035	.010	.066	.034	.010	.063	.032	.009		
9.0	.071	.035	.010	.070	.034	.010	.066	.033	.009	.063	.032	.009	.060	.031	.009		
10.0	.068	.033	.009	.066	.032	.009	.063	.031	.009	.061	.030	.009	.058	.029	.008		

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	.143	.135	.128	.098	.093	.089	.056	.054	.052	.018	.017	.017		
2.0	.149	.133	.119	.127	.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	.108	.085	.068	.093	.074	.059	.064	.051	.042	.037	.030	.025	.012	.010	.008		
6.0	.099	.075	.058	.085	.065	.050	.059	.045	.036	.034	.027	.021	.011	.009	.007		
7.0	.091	.066	.049	.078	.058	.043	.054	.040	.031	.031	.024	.018	.010	.008	.006		
8.0	.083	.059	.043	.072	.051	.037	.050	.036	.026	.029	.021	.016	.009	.007	.005		
9.0	.077	.053	.037	.067	.046	.033	.046	.033	.023	.027	.019	.014	.009	.006	.005		
10.0	.072	.048	.033	.062	.042	.029	.043	.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:14 August 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm										
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90					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	12.3	12.9	12.5	13.0	13.1	12.2	12.8	12.4	12.9	13.1
3H	13.4	13.9	13.6	14.1	14.3	13.3	13.9	13.6	14.0	14.2
4H	13.9	14.4	14.2	14.6	14.8	13.8	14.3	14.1	14.5	14.7
6H	14.3	14.7	14.5	15.0	15.2	14.2	14.6	14.4	14.9	15.1
8H	14.4	14.8	14.7	15.1	15.3	14.3	14.7	14.5	15.0	15.2
12H	14.4	14.9	14.7	15.1	15.4	14.3	14.8	14.6	15.0	15.3
4H 2H	12.7	13.2	13.0	13.4	13.6	12.7	13.2	12.9	13.4	13.6
3H	14.0	14.5	14.3	14.7	15.0	14.0	14.4	14.3	14.7	14.9
4H	14.7	15.1	15.0	15.4	15.7	14.6	15.0	14.9	15.3	15.6
6H	15.1	15.5	15.5	15.8	16.1	15.0	15.4	15.4	15.7	16.0
8H	15.3	15.6	15.6	16.0	16.3	15.2	15.5	15.5	15.8	16.2
12H	15.4	15.7	15.8	16.1	16.4	15.3	15.6	15.7	16.0	16.3
8H 4H	14.9	15.2	15.2	15.5	15.9	14.8	15.1	15.2	15.5	15.8
6H	15.4	15.7	15.8	16.1	16.5	15.3	15.6	15.7	16.0	16.4
8H	15.6	15.9	16.1	16.3	16.7	15.5	15.8	16.0	16.2	16.6
12H	15.8	16.0	16.3	16.5	16.9	15.7	15.9	16.2	16.4	16.8
12H 4H	14.8	15.2	15.2	15.5	15.9	14.8	15.1	15.2	15.4	15.8
6H	15.4	15.7	15.9	16.1	16.5	15.3	15.6	15.8	16.0	16.4
8H	15.7	15.9	16.1	16.3	16.8	15.6	15.8	16.1	16.3	16.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.6					+ 0.5 / - 0.6				
1.5H	+ 0.7 / - 0.5					+ 0.7 / - 0.5				
2.0H	+ 0.7 / - 0.4					+ 0.7 / - 0.4				

CIE Pub.117 Corrected 1417 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.2)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

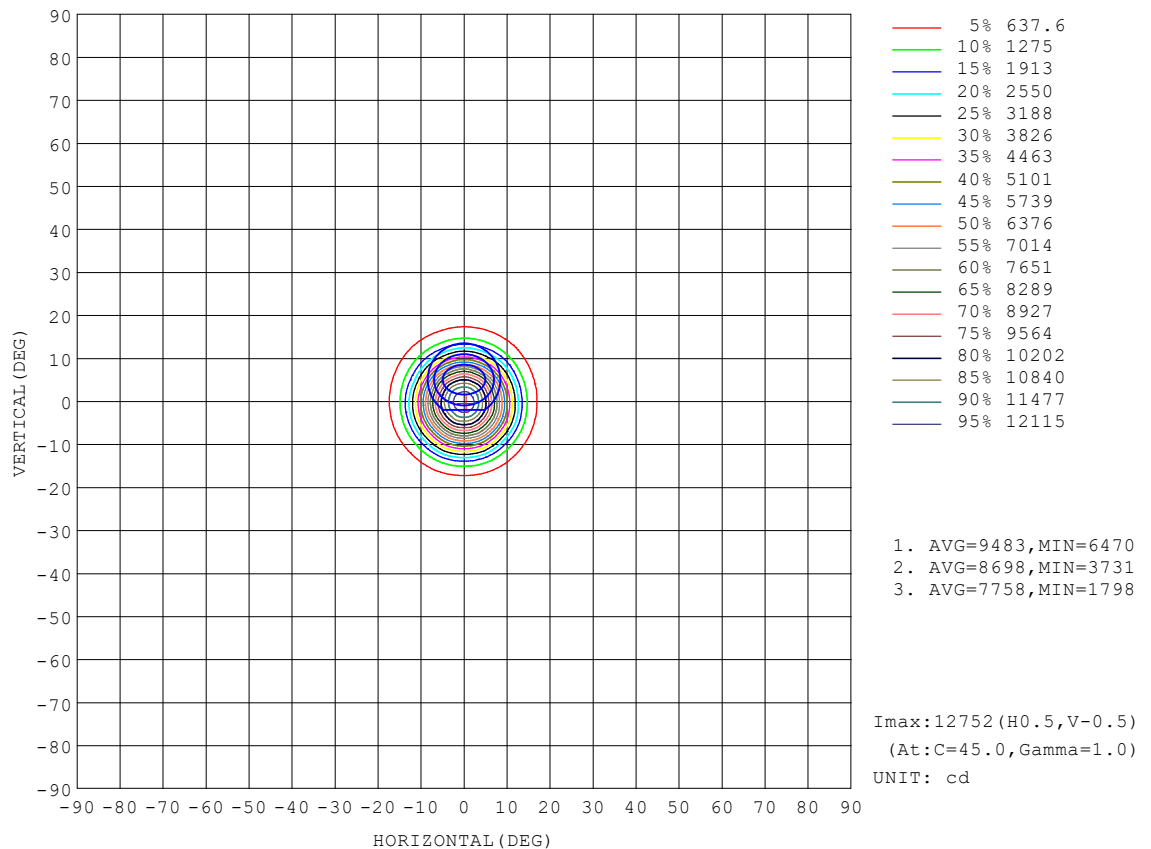
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	87	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	112	109	112	110	108	109	107	105	98
5.00	115	113	112	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: 14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity: 65.0%  
 Test Distance: 7.892m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



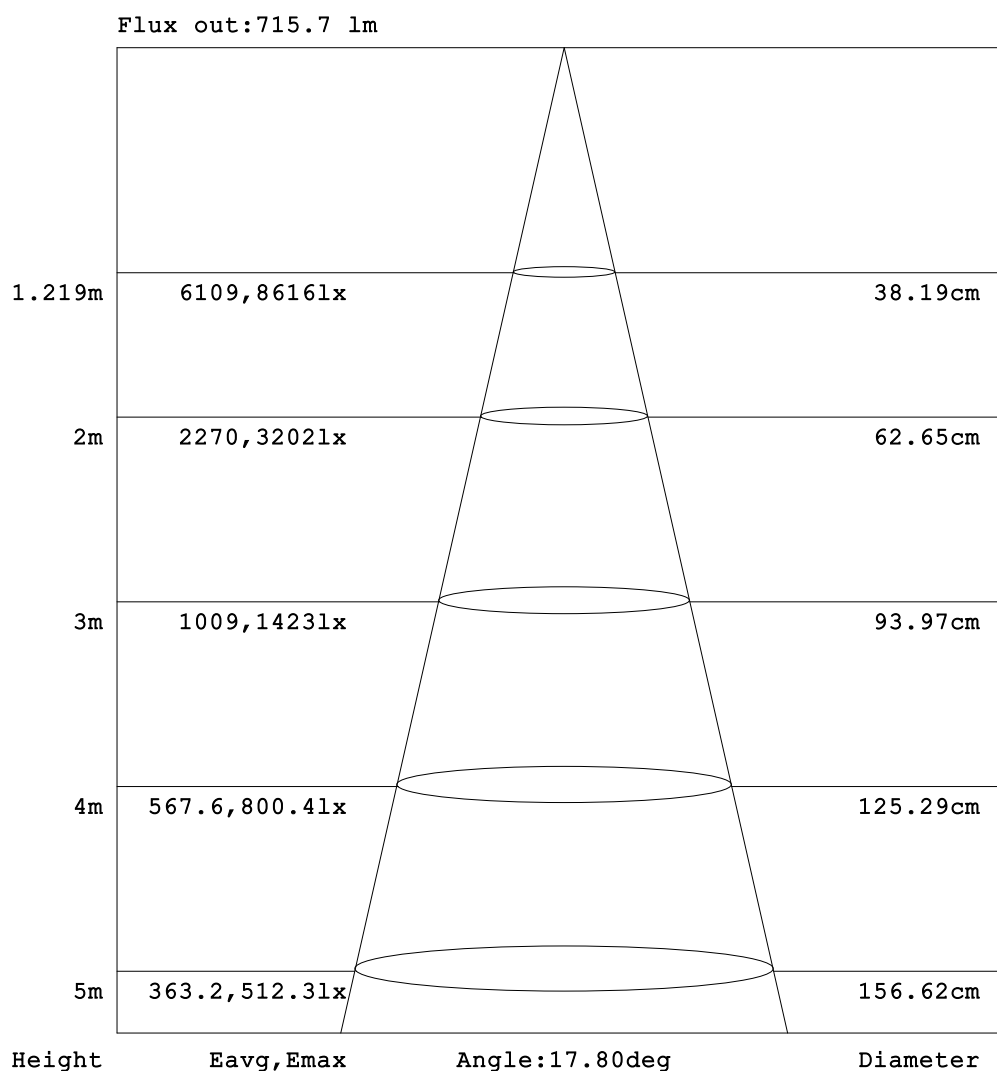
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



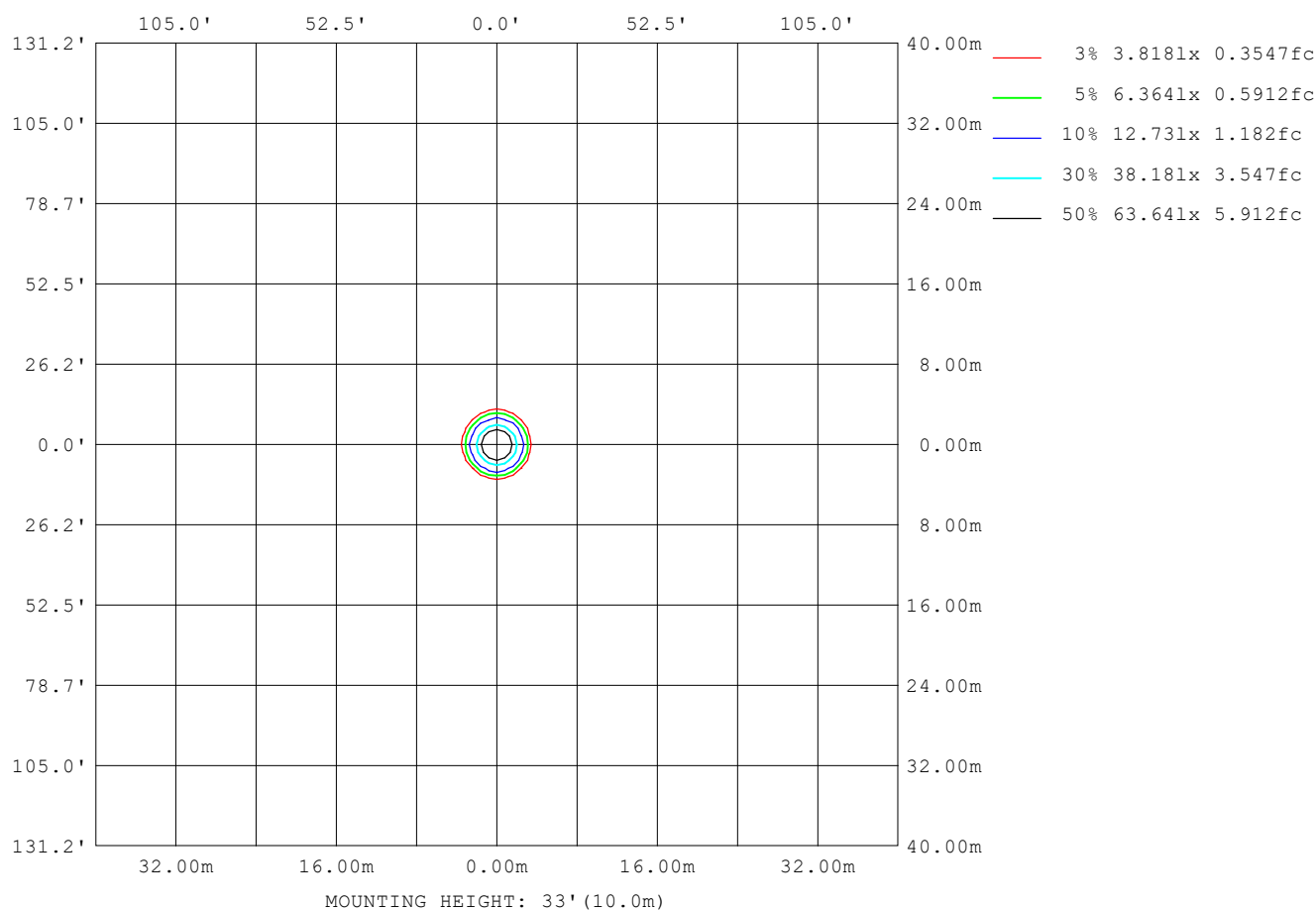
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

### ISOLUX DIAGRAM

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	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:14 August 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:240.1V I:0.0698A P:15.70W PF:0.9375 Lamp Flux:1417.47x1 lm		
NAME: BARREL_WHT_10 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

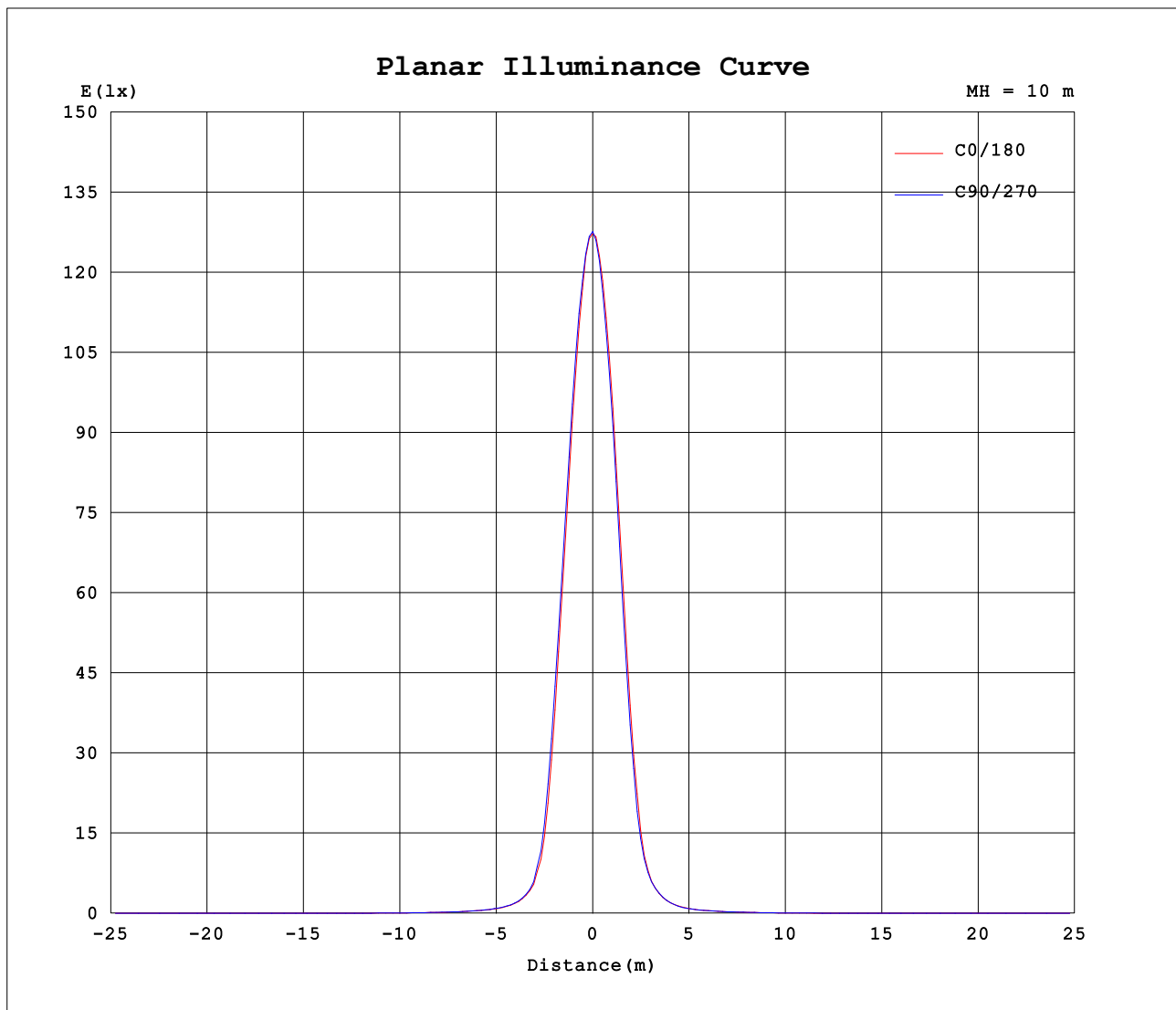
AvgL	cd/m2
L_0~180 (65) av	9100
L_0~180 (75) av	8314
L_0~180 (85) av	6260
L_90~270 (65) av	9091
L_90~270 (75) av	8192
L_90~270 (85) av	6206
L_45 (65) av	9082
L_45 (75) av	8184
L_45 (85) av	6225

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.892m [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: 14 August 2023

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.892m [K=1.0000]  
Remarks:

