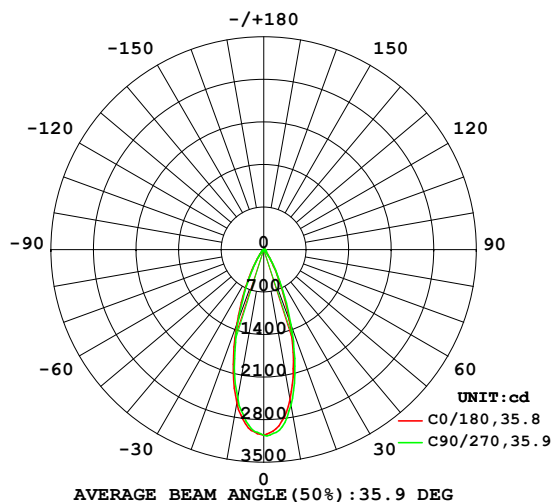


**LUMINAIRE PHOTOMETRIC TEST REPORT**

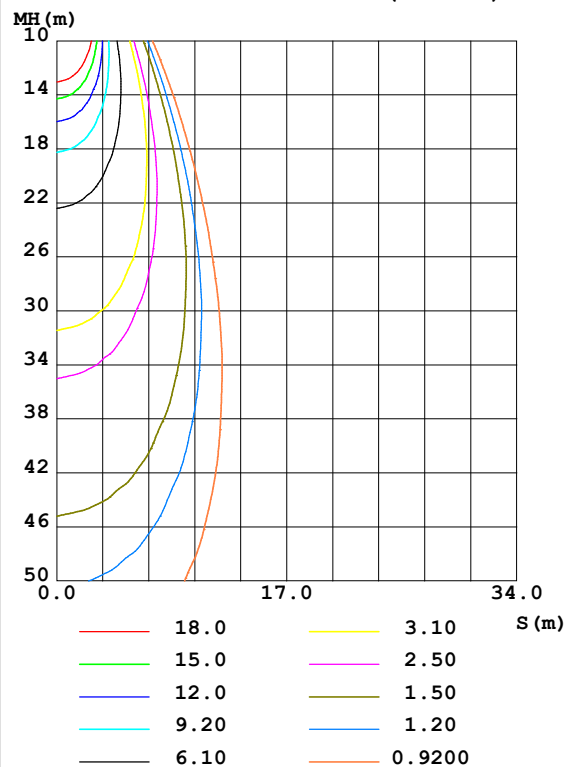
Test:U:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.08 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	3076	S/MH(C0/180)	0.59
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.58
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1352.2	$\eta$ UP,DN(C0-180)	0.0,50.9
NOMINAL FLUX(lm)	1352.23	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,49.1
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230	$\eta$ down(%)	100.0	CIBSE SHR MAX	0.60

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	2504	2557	2604	2586	2559	2504	2476	2494	0- 10	267.5	267.5	19.8,19.8
20	1246	1275	1315	1315	1287	1238	1228	1229	10- 20	524.2	791.7	58.5,58.5
30	361.6	376.2	393.9	395.0	392.8	371.5	365.6	360.4	20- 30	339.7	1131	83.7,83.7
40	87.32	91.82	96.93	96.96	95.77	92.87	90.87	88.65	30- 40	124.0	1255	92.8,92.8
50	32.33	32.96	33.50	33.12	32.73	32.96	33.10	32.47	40- 50	41.55	1297	95.9,95.9
60	22.36	22.66	22.52	22.01	21.62	21.55	21.55	21.76	50- 60	23.72	1321	97.7,97.7
70	14.16	14.46	14.54	14.24	13.72	13.38	13.32	13.75	60- 70	17.85	1339	99,99
80	6.258	6.398	6.485	6.376	6.003	5.721	5.823	6.102	70- 80	10.44	1349	99.8,99.8
90	0.0584	0.0732	0.0661	0.0513	0.0438	0.0513	0.0477	0.0513	80- 90	3.247	1352	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): 1280.7 lm

%lum = 94.7%

%lamp = 94.7%

Conical surface Flux(120deg): 1320.7 lm

%lum = 97.7%

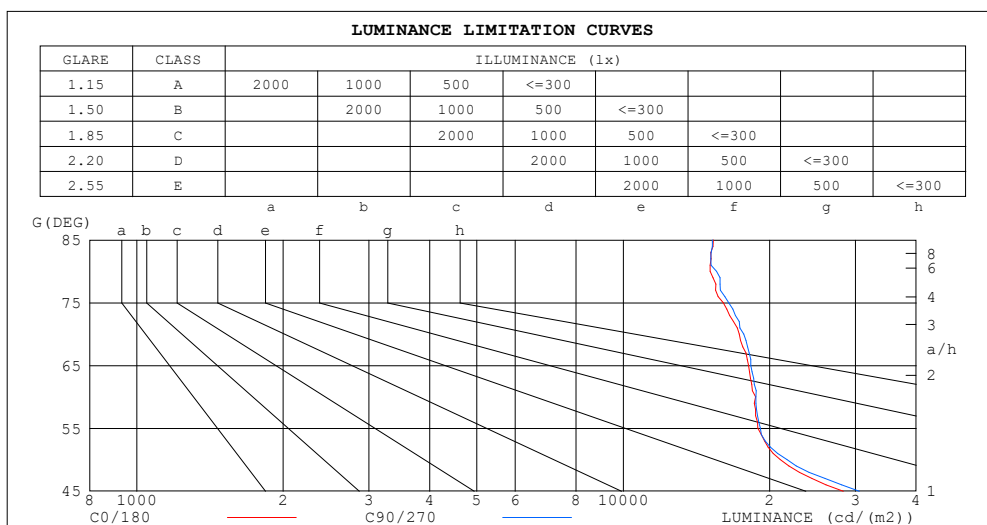
%lamp = 97.7%

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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15329	15258
80	15077	15546
75	16048	16467
70	17317	17702
65	18095	18286
60	18705	18748
55	18898	19136
50	21040	21699
45	28327	30587

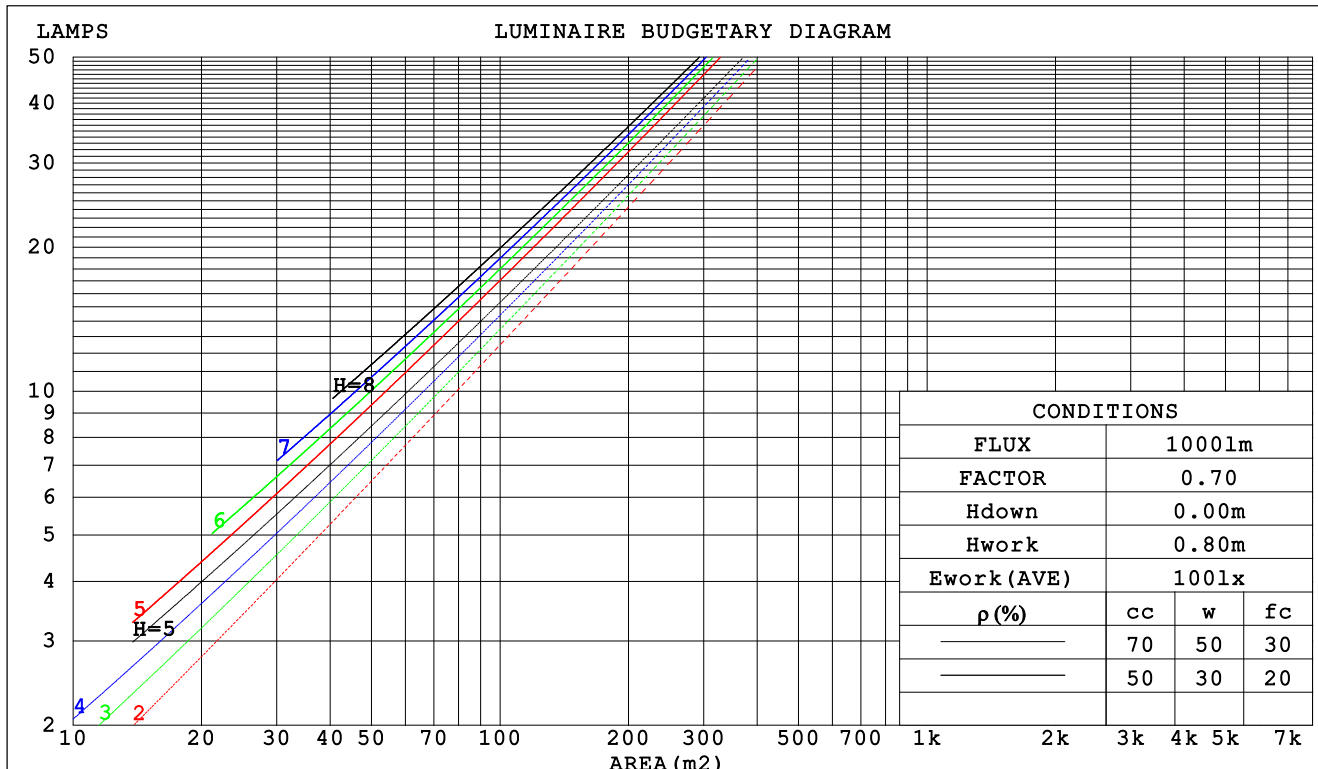
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

$\gamma$  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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 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	1.11	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	1.01	.98	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.90	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.85	.82	.86	.83	.81	.80
5.0	.88	.83	.79	.87	.83	.79	.86	.81	.78	.84	.80	.78	.83	.79	.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	.80	.75	.71	.78	.74	.71	.77	.73	.70	.76	.73	.70	.69
8.0	.77	.71	.68	.76	.71	.68	.75	.71	.67	.74	.70	.67	.73	.70	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.69	.65	.62	.68	.64	.62	.60



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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 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	.168 .096 .030	.162 .092 .029	.149 .085 .027	.137 .079 .025	.127 .074 .024	
2.0	.158 .087 .027	.152 .084 .026	.142 .079 .025	.132 .074 .023	.123 .070 .022	
3.0	.148 .079 .024	.144 .077 .023	.135 .073 .022	.126 .069 .021	.119 .066 .020	
4.0	.140 .073 .021	.136 .071 .021	.128 .068 .020	.121 .065 .020	.114 .062 .019	
5.0	.132 .067 .019	.128 .066 .019	.122 .063 .019	.116 .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 .016	.111 .056 .016	.106 .055 .016	.102 .053 .016	
8.0	.113 .055 .016	.111 .055 .015	.106 .053 .015	.102 .052 .015	.098 .050 .015	
9.0	.108 .052 .015	.106 .052 .015	.102 .050 .014	.098 .049 .014	.095 .048 .014	
10.0	.104 .050 .014	.102 .049 .014	.098 .048 .014	.095 .047 .013	.092 .046 .013	

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	.171 .157 .146	.146 .135 .125	.100 .093 .087	.057 .054 .050	.018 .017 .016	
2.0	.154 .133 .114	.132 .114 .099	.091 .079 .069	.052 .046 .040	.017 .015 .013	
3.0	.141 .113 .092	.121 .098 .079	.083 .068 .056	.048 .040 .033	.015 .013 .011	
4.0	.130 .099 .075	.111 .085 .065	.077 .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	.090 .060 .038	.063 .042 .027	.036 .025 .016	.012 .008 .005	
8.0	.099 .063 .038	.085 .054 .033	.059 .038 .023	.034 .023 .014	.011 .007 .005	
9.0	.094 .057 .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: 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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm										
NAME: BARREL_WHT_35 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	18.3	19.1	18.5	19.3	19.4	18.5	19.4	18.7	19.5	19.7
3H	19.1	19.8	19.3	20.0	20.2	19.3	20.0	19.5	20.2	20.4
4H	19.4	20.1	19.7	20.4	20.6	19.6	20.4	19.9	20.6	20.8
6H	19.7	20.4	20.0	20.6	20.9	19.9	20.6	20.2	20.8	21.1
8H	19.8	20.5	20.1	20.7	21.0	20.0	20.7	20.3	20.9	21.2
12H	19.9	20.5	20.2	20.8	21.1	20.1	20.7	20.4	21.0	21.3
4H 2H	18.5	19.3	18.8	19.5	19.7	18.7	19.5	19.0	19.7	19.9
3H	19.5	20.1	19.8	20.4	20.7	19.7	20.3	20.0	20.6	20.9
4H	20.0	20.6	20.3	20.9	21.2	20.2	20.8	20.5	21.0	21.4
6H	20.4	20.9	20.8	21.3	21.6	20.6	21.1	20.9	21.4	21.8
8H	20.6	21.1	21.0	21.4	21.8	20.7	21.2	21.1	21.6	21.9
12H	20.7	21.1	21.1	21.5	21.9	20.9	21.3	21.3	21.7	22.1
8H 4H	20.2	20.6	20.5	21.0	21.4	20.3	20.8	20.7	21.1	21.5
6H	20.7	21.1	21.1	21.5	21.9	20.8	21.2	21.3	21.6	22.1
8H	20.9	21.3	21.4	21.7	22.2	21.1	21.4	21.5	21.9	22.3
12H	21.2	21.5	21.6	21.9	22.4	21.3	21.6	21.8	22.0	22.5
12H 4H	20.2	20.6	20.6	21.0	21.4	20.3	20.7	20.7	21.1	21.5
6H	20.7	21.1	21.2	21.5	21.9	20.9	21.2	21.3	21.6	22.1
8H	21.0	21.3	21.5	21.8	22.2	21.1	21.5	21.6	21.9	22.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.8					+ 0.9 / - 0.8				
1.5H	+ 1.6 / - 0.7					+ 1.9 / - 0.8				
2.0H	+ 0.5 / - 0.3					+ 0.7 / - 0.3				

CIE Pub.117 Corrected 1352 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.0)

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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

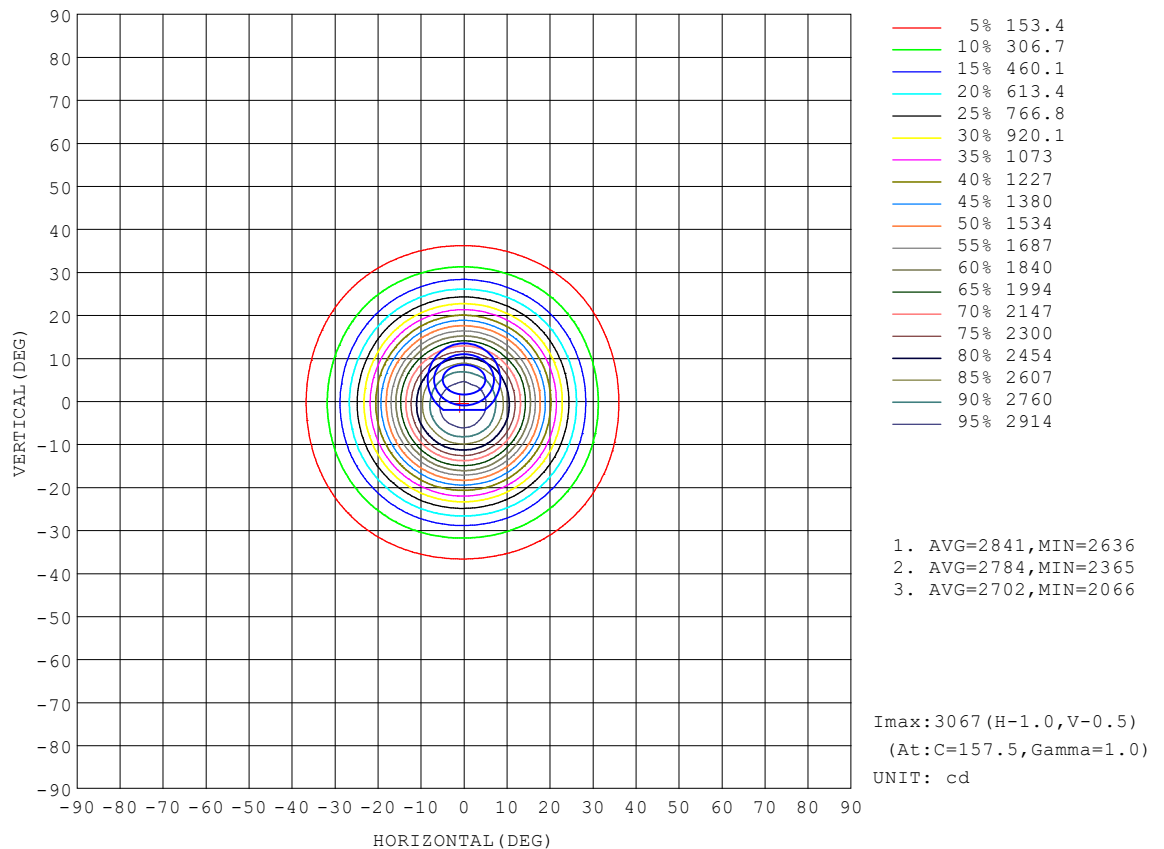
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	94	89	85	94	88	85	93	88	84	81
1.00	99	93	89	98	93	89	96	93	89	85
1.25	103	97	94	102	97	94	100	96	93	89
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	107	104	106	104	102	95
4.00	114	111	108	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



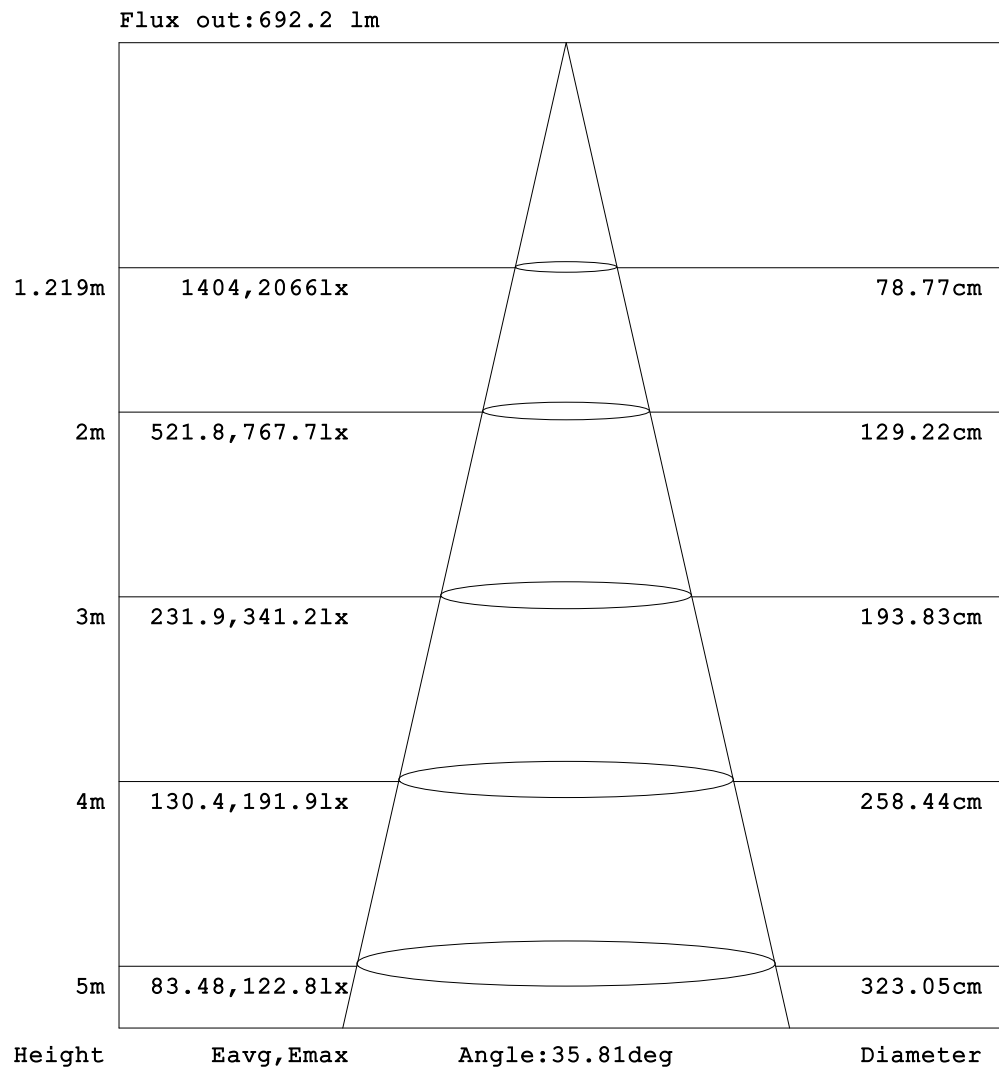
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



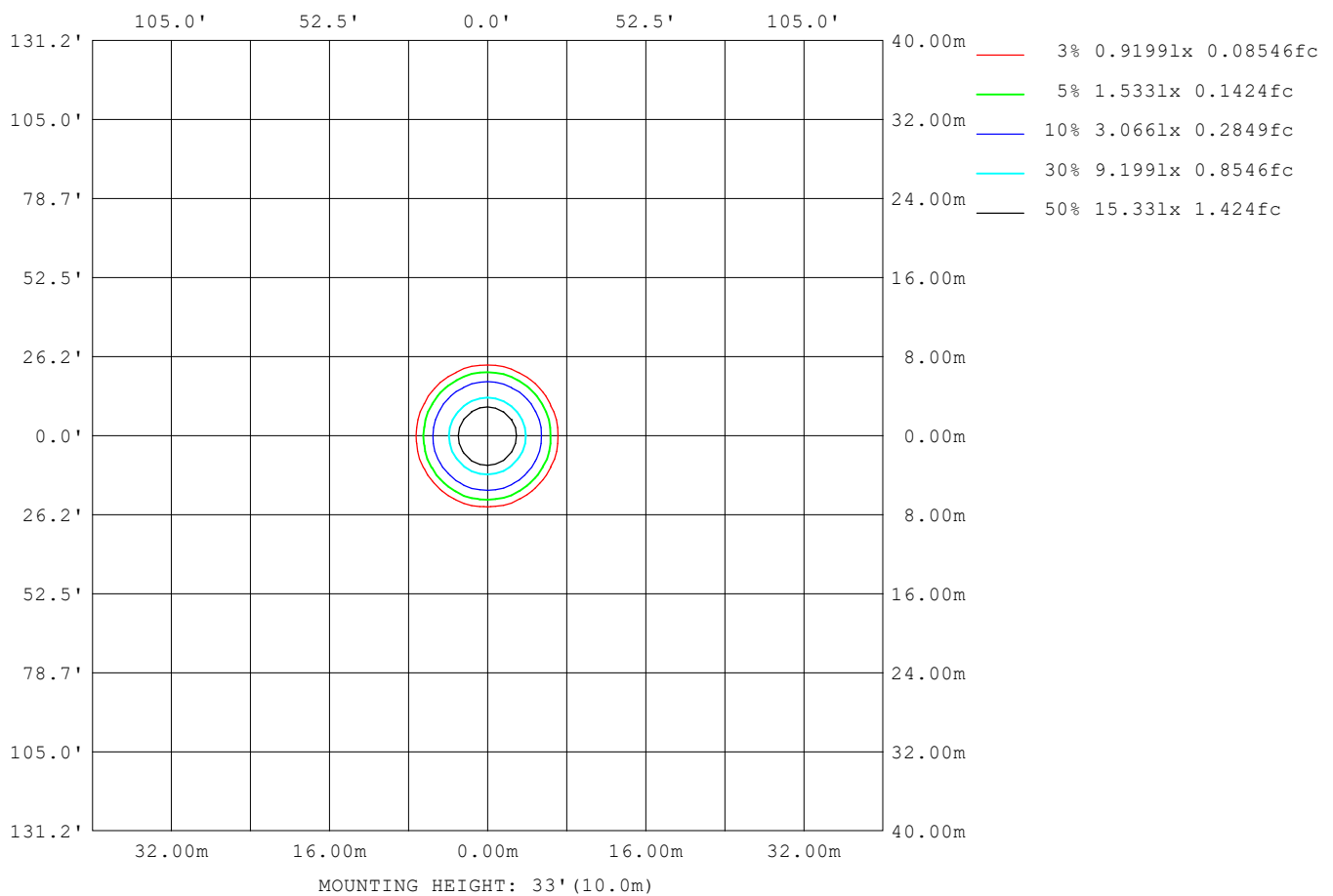
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 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:240.0V I:0.0698A P:15.71W PF:0.9376 Lamp Flux:1352.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

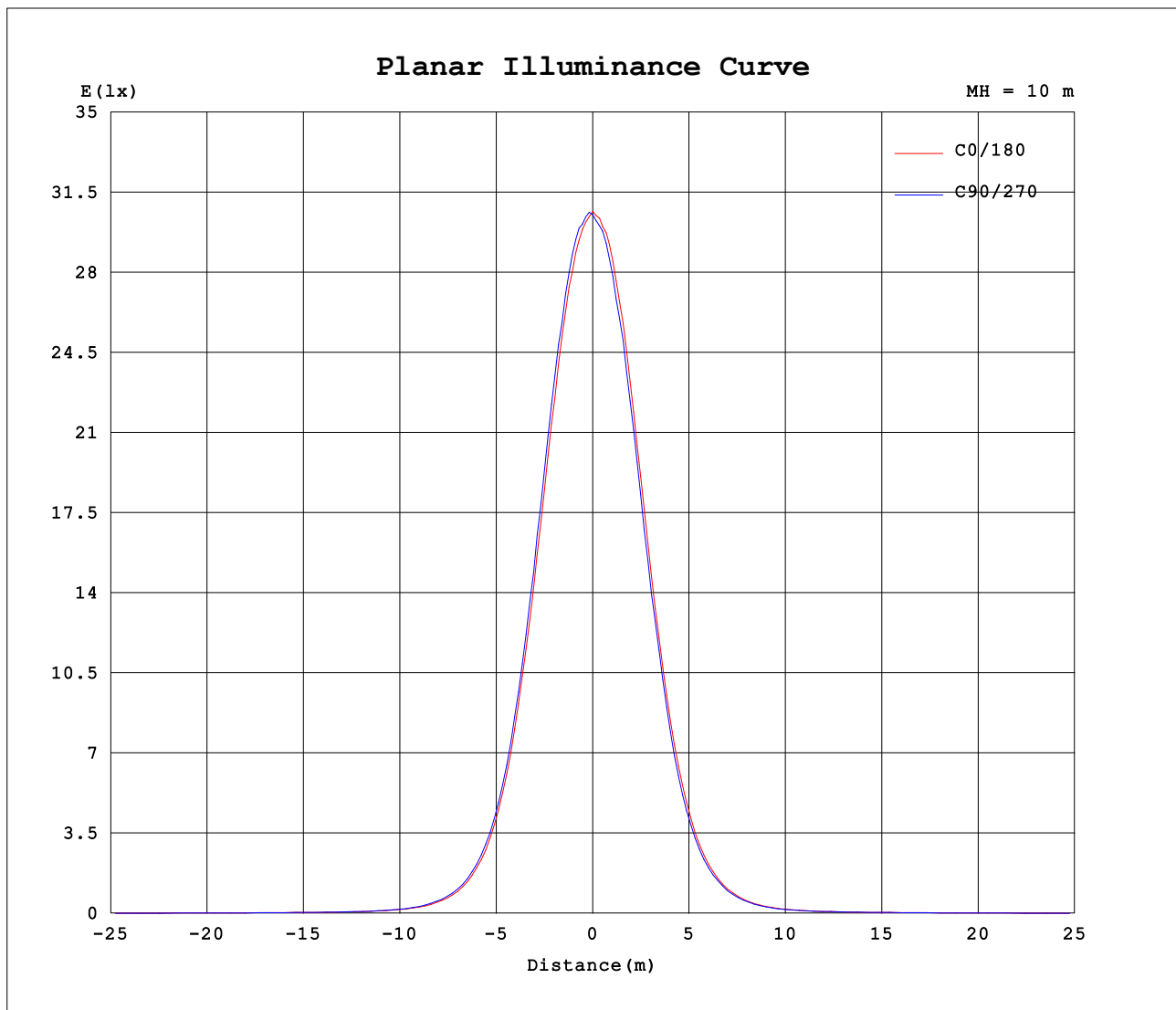
AvgL	cd/m2
L_0~180 (65) av	17763
L_0~180 (75) av	15754
L_0~180 (85) av	14486
L_90~270 (65) av	17780
L_90~270 (75) av	15709
L_90~270 (85) av	14315
L_45 (65) av	17780
L_45 (75) av	15719
L_45 (85) av	14411

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:

