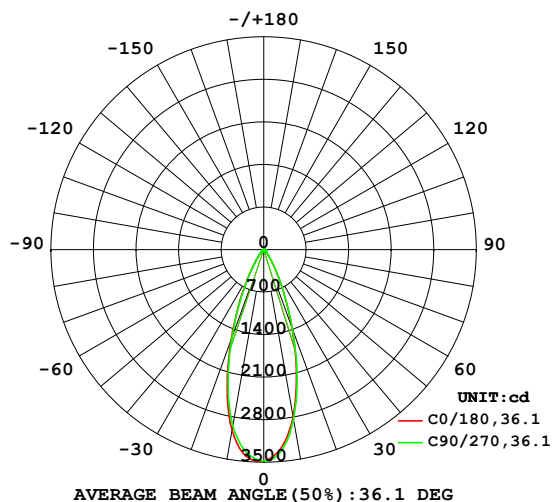


**LUMINAIRE PHOTOMETRIC TEST REPORT**

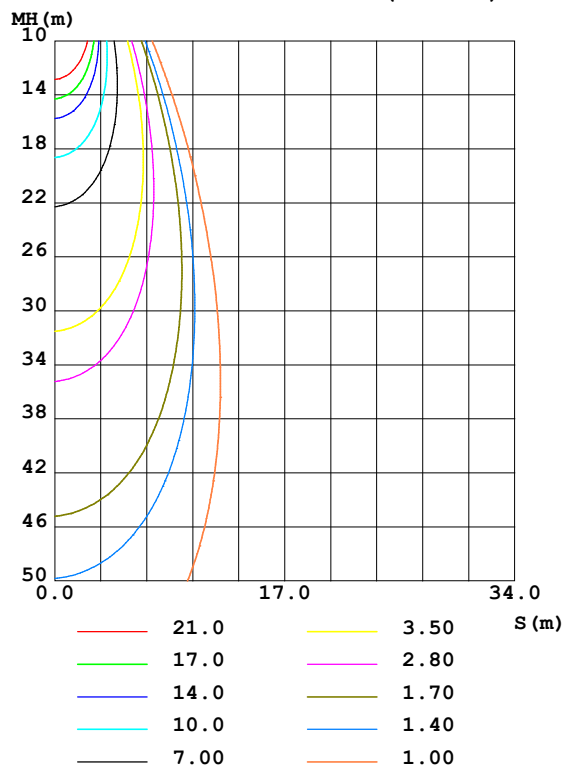
Test:U:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.76 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	3485	S/MH(C0/180)	0.61
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.61
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1570.5	$\eta$ UP,DN(C0-180)	0.0,48.6
NOMINAL FLUX(lm)	1570.5	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,51.4
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:06 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	2790	2784	2834	2924	3012	3005	2941	2870	0- 10	304.5	304.5	19.4,19.4
20	1360	1339	1383	1469	1568	1584	1535	1444	10- 20	600.0	904.6	57.6,57.6
30	405.8	399.2	416.6	446.8	487.3	496.2	478.3	439.6	20- 30	394.8	1299	82.7,82.7
40	108.4	109.1	113.3	117.6	123.8	125.7	121.5	112.7	30- 40	149.4	1449	92.2,92.2
50	41.95	43.21	43.74	42.85	42.83	43.14	42.46	41.59	40- 50	53.28	1502	95.6,95.6
60	27.43	28.32	28.22	26.64	26.20	26.28	26.43	26.77	50- 60	29.97	1532	97.5,97.5
70	17.45	17.88	17.56	16.66	16.42	16.42	16.63	16.96	60- 70	21.77	1554	98.9,98.9
80	7.993	8.008	7.646	7.242	7.130	7.217	7.401	7.702	70- 80	12.71	1567	99.7,99.7
90	0.0546	0.0364	0.0437	0.0291	0.0291	0.0291	0.0655	0.0946	80- 90	3.993	1571	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): 1481 lm

%lum = 94.3%

%lamp = 94.3%

Conical surface Flux(120deg): 1532 lm

%lum = 97.5%

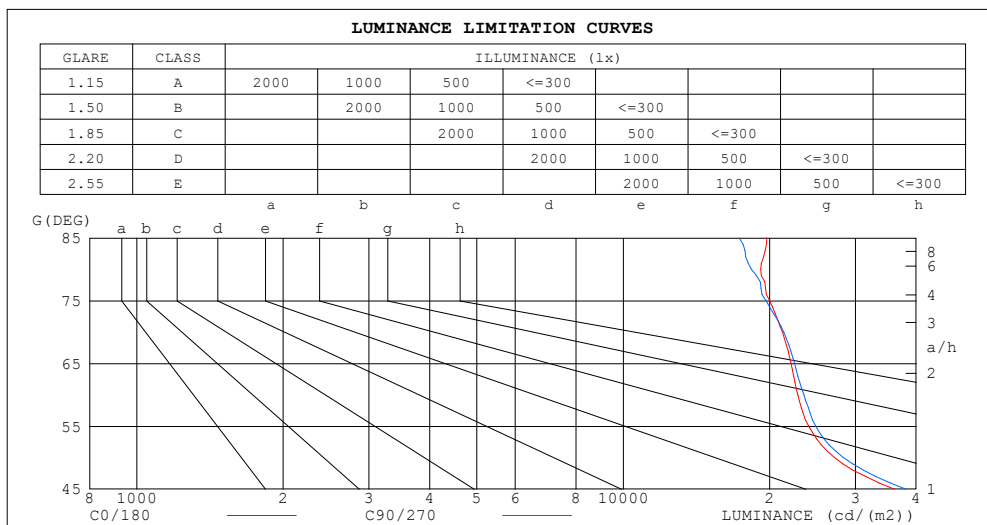
%lamp = 97.5%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 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	19725	17309
80	19177	18346
75	19995	19669
70	21259	21389
65	22125	22501
60	22856	23516
55	24058	24873
50	27190	28352
45	36132	38161

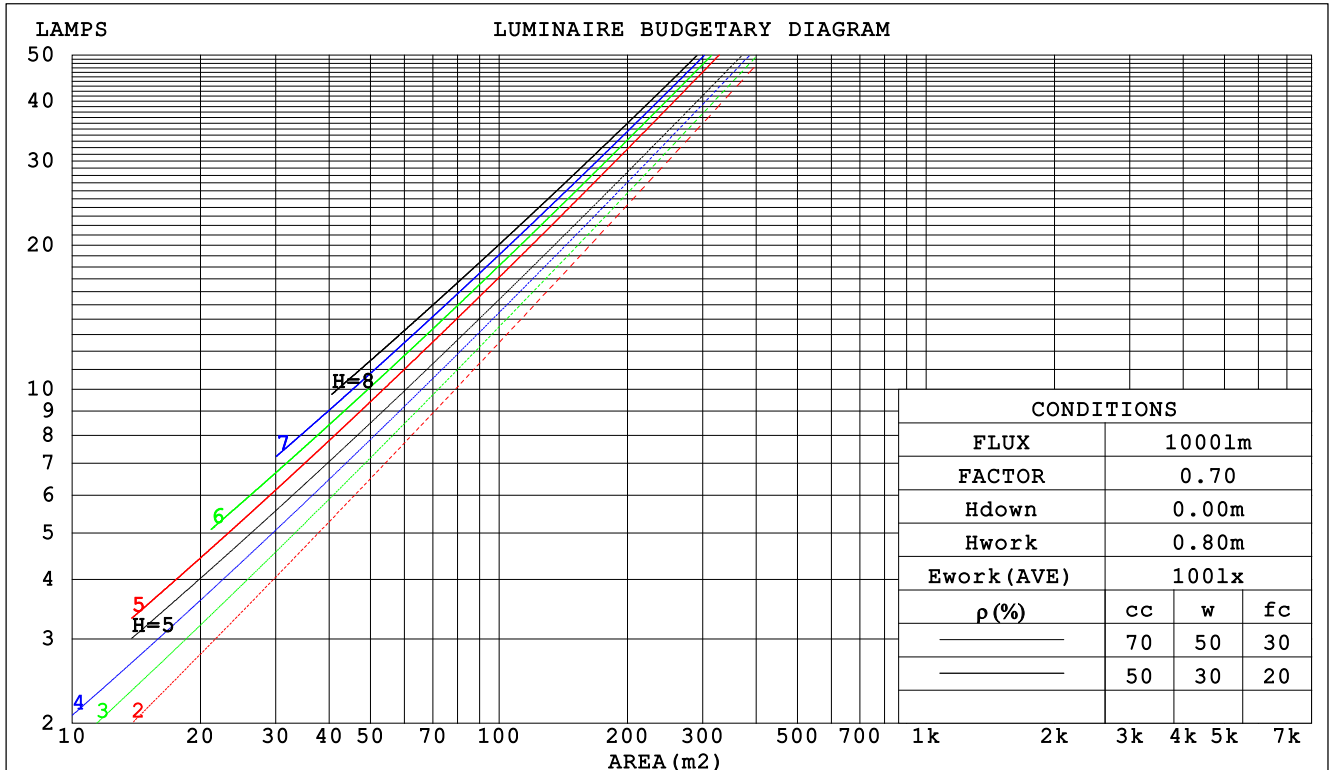
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 January 2023

$\gamma$  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:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 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	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	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.03	.99	.96	.99	.97	.94	.96	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.86	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.83	.90	.86	.82	.88	.84	.81	.86	.83	.81	.79
5.0	.88	.83	.79	.87	.82	.78	.85	.81	.78	.84	.80	.77	.82	.79	.76	.75
6.0	.84	.78	.74	.83	.78	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.71
7.0	.80	.74	.71	.79	.74	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.68
8.0	.76	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.65
9.0	.73	.68	.64	.72	.67	.64	.72	.67	.64	.71	.67	.64	.70	.66	.64	.62
10.0	.70	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.67	.64	.61	.60



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 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	.170	.097	.031	.163	.093	.030	.151	.086	.028	.139	.080	.026	.129	.074	.024		
2.0	.160	.087	.027	.154	.085	.026	.144	.080	.025	.134	.075	.024	.125	.071	.022		
3.0	.150	.080	.024	.145	.078	.023	.136	.074	.022	.128	.070	.022	.120	.067	.021		
4.0	.141	.073	.022	.137	.072	.021	.129	.069	.020	.122	.066	.020	.116	.063	.019		
5.0	.133	.068	.020	.130	.067	.019	.123	.064	.019	.117	.062	.018	.111	.059	.018		
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.018	.112	.058	.017	.107	.056	.017		
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.108	.055	.016	.103	.054	.016		
8.0	.114	.056	.016	.112	.055	.016	.108	.054	.015	.103	.052	.015	.099	.051	.015		
9.0	.109	.053	.015	.107	.052	.015	.103	.051	.014	.099	.050	.014	.096	.049	.014		
10.0	.105	.050	.014	.103	.050	.014	.099	.049	.014	.096	.048	.014	.093	.047	.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	.145	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.121	.087	.062	.104	.075	.054	.071	.052	.038	.041	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.059	.038	.023	.034	.023	.014	.011	.007	.005	
9.0	.094	.058	.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:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm										
NAME: BARREL_WHT_35 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	19.0	19.9	19.2	20.0	20.2	19.2	20.1	19.4	20.2	20.4
3H	19.8	20.6	20.1	20.8	21.0	20.0	20.8	20.3	21.0	21.2
4H	20.2	21.0	20.5	21.2	21.4	20.4	21.1	20.6	21.3	21.5
6H	20.5	21.2	20.8	21.5	21.7	20.6	21.3	20.9	21.6	21.8
8H	20.7	21.3	21.0	21.6	21.8	20.7	21.4	21.0	21.7	21.9
12H	20.8	21.4	21.1	21.7	21.9	20.8	21.5	21.1	21.7	22.0
4H 2H	19.3	20.0	19.6	20.2	20.5	19.5	20.2	19.7	20.4	20.6
3H	20.3	21.0	20.6	21.2	21.5	20.5	21.1	20.8	21.4	21.6
4H	20.8	21.4	21.2	21.7	22.0	20.9	21.5	21.3	21.8	22.1
6H	21.3	21.8	21.7	22.1	22.5	21.4	21.9	21.7	22.2	22.6
8H	21.5	22.0	21.9	22.3	22.7	21.5	22.0	21.9	22.4	22.7
12H	21.6	22.1	22.0	22.4	22.8	21.6	22.1	22.0	22.4	22.8
8H 4H	21.0	21.5	21.4	21.8	22.2	21.1	21.6	21.5	22.0	22.3
6H	21.6	22.0	22.0	22.4	22.8	21.7	22.1	22.1	22.5	22.9
8H	21.9	22.2	22.3	22.6	23.1	21.9	22.2	22.3	22.7	23.1
12H	22.1	22.4	22.6	22.9	23.3	22.1	22.4	22.5	22.8	23.3
12H 4H	21.0	21.5	21.4	21.8	22.2	21.1	21.6	21.5	21.9	22.3
6H	21.6	22.0	22.1	22.4	22.8	21.7	22.0	22.1	22.5	22.9
8H	21.9	22.3	22.4	22.7	23.2	22.0	22.3	22.4	22.7	23.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.7					+ 0.7 / - 0.7				
1.5H	+ 1.4 / - 0.6					+ 1.5 / - 0.7				
2.0H	+ 0.5 / - 0.4					+ 0.6 / - 0.4				

CIE Pub.117 Corrected 1571 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.6)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

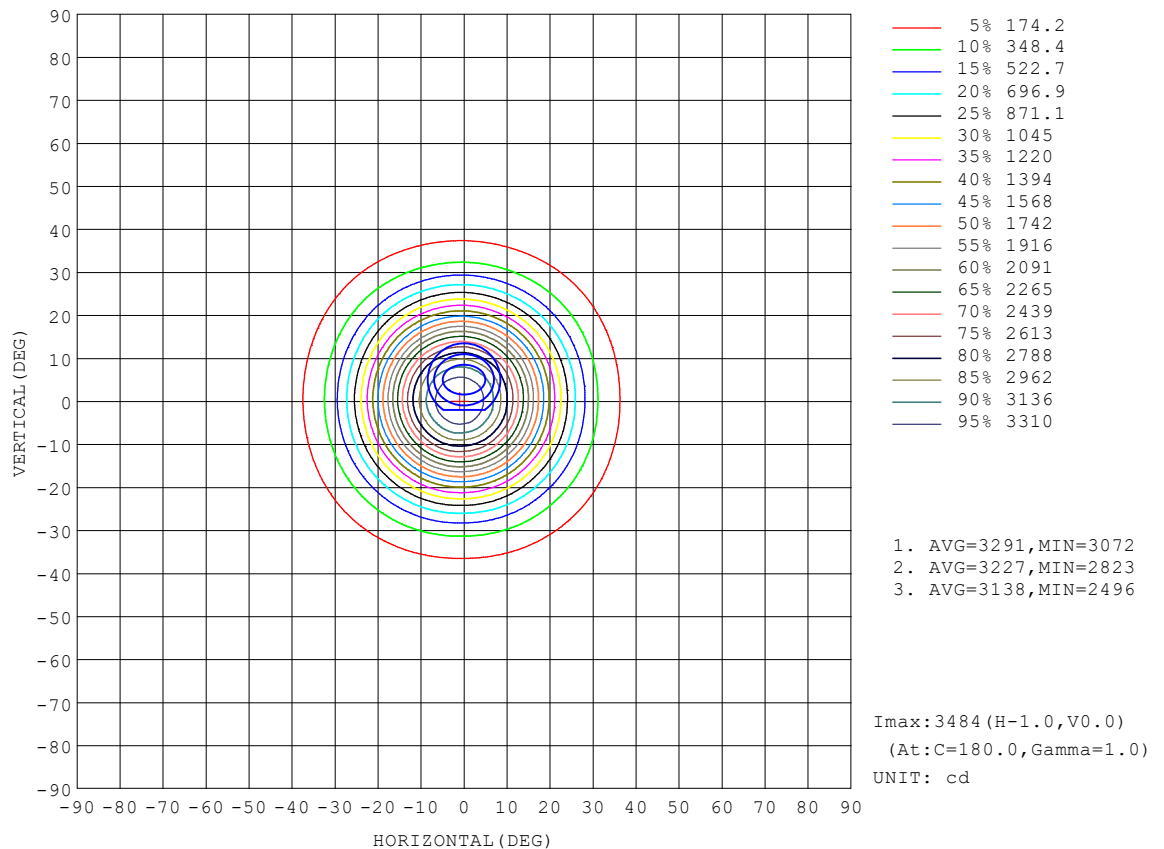
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	76	86	80	76	73
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	101	97	93	100	95	92	88
1.50	105	100	97	104	100	96	102	98	95	91
2.00	108	104	100	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	106	104	106	104	102	95
4.00	114	111	108	111	109	107	108	106	104	97
5.00	115	112	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:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



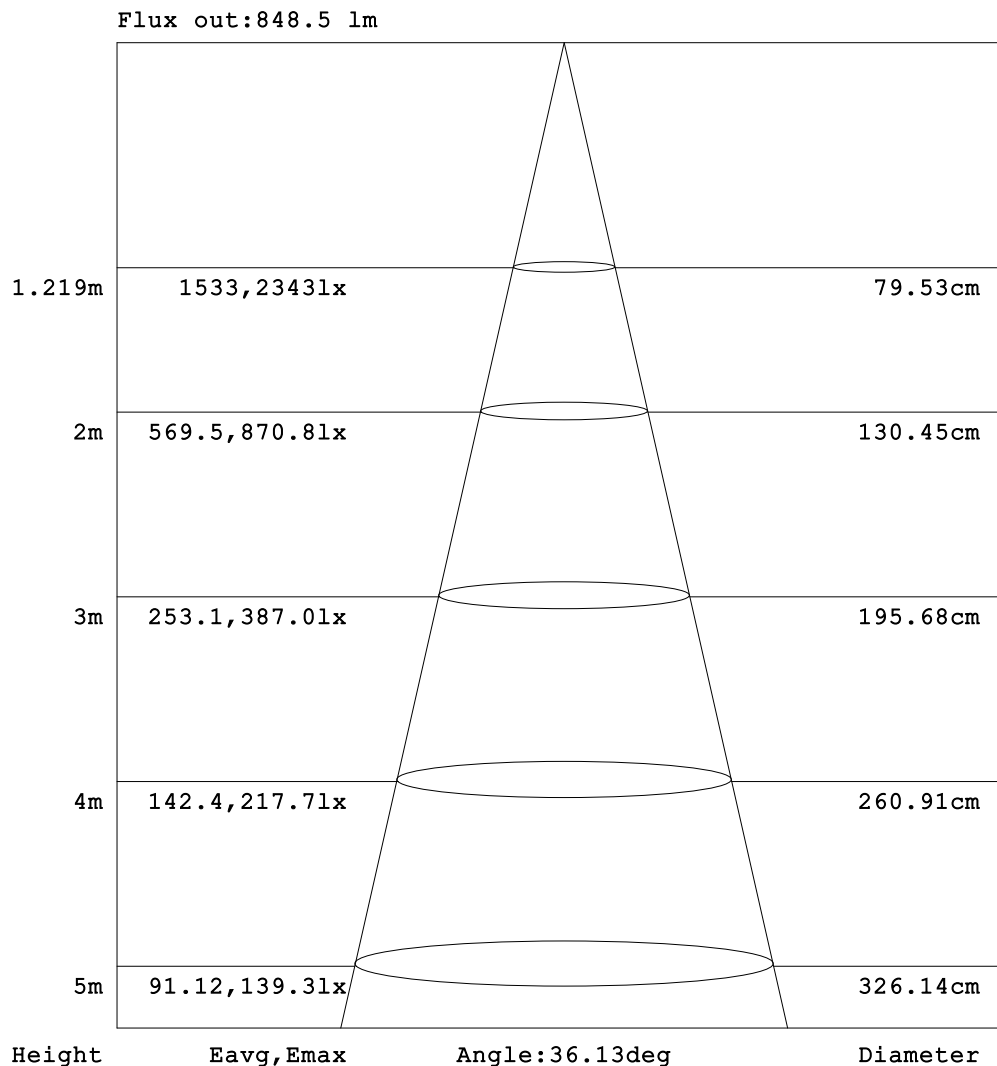
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 January 2023

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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



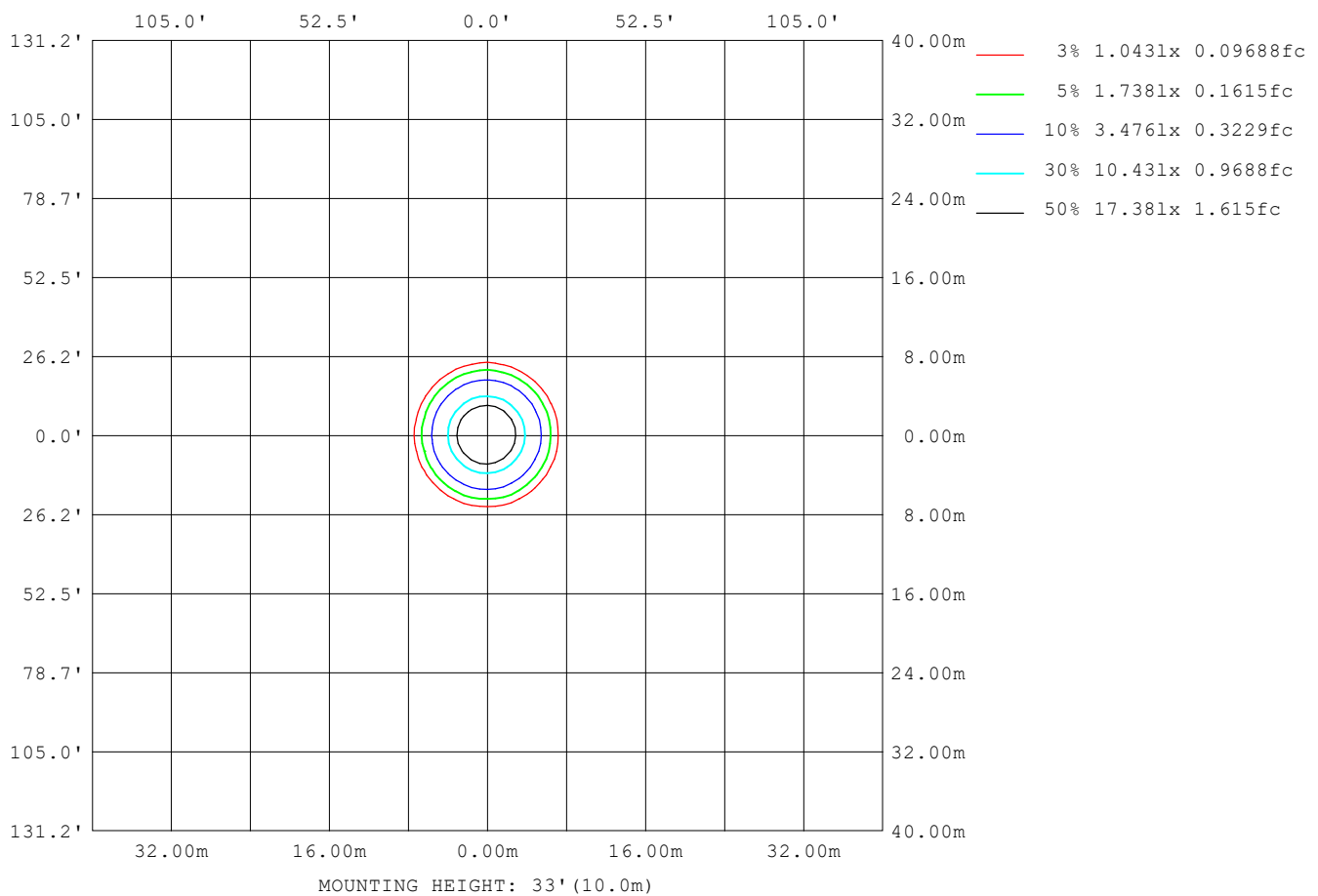
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 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:

**ISOLUX DIAGRAM**

Test:U:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 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:06 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:239.9V I:0.0687A P:15.43W PF:0.9358 Lamp Flux:1570.5x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

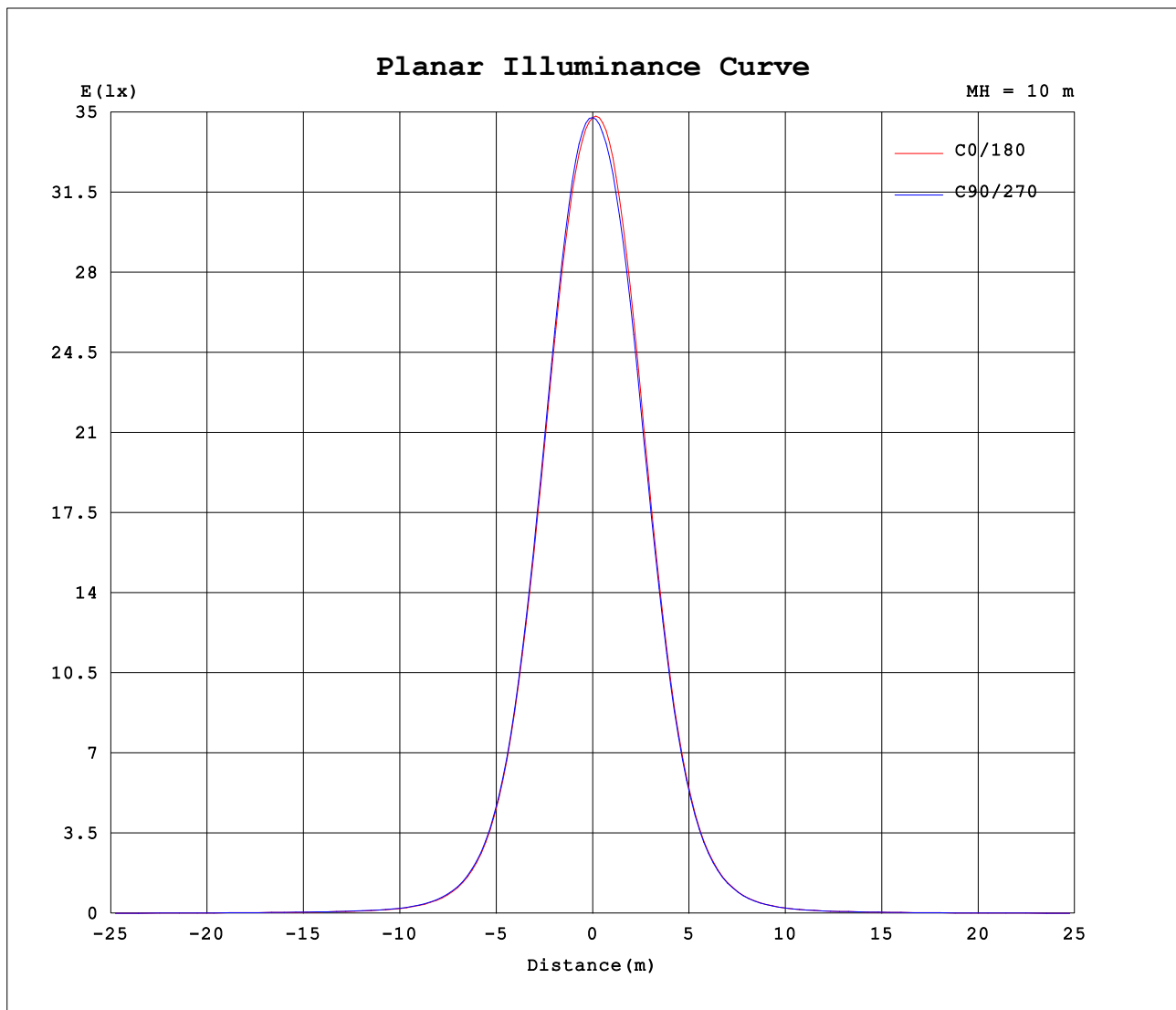
AvgL	cd/m2
L_0~180 (65) av	21551
L_0~180 (75) av	19171
L_0~180 (85) av	17745
L_90~270 (65) av	21862
L_90~270 (75) av	19218
L_90~270 (85) av	17672
L_45 (65) av	21668
L_45 (75) av	19196
L_45 (85) av	17689

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:06 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: 06 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:

