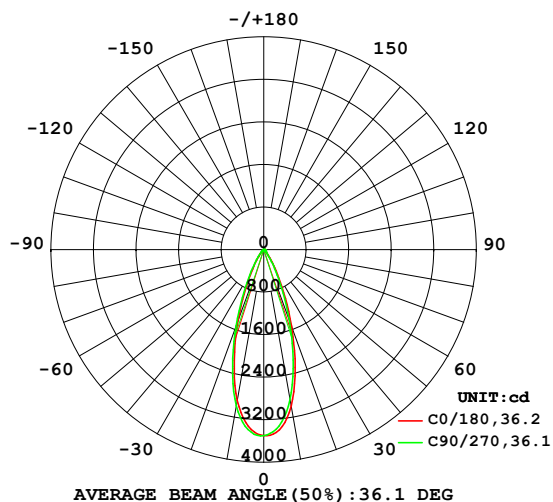


**LUMINAIRE PHOTOMETRIC TEST REPORT**

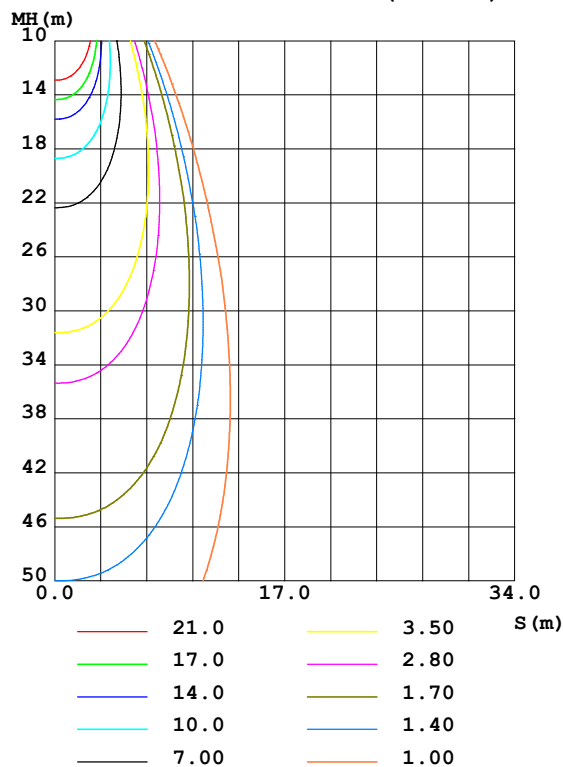
Test:U:239.9V I:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 101.70 lm/W			
MODEL	TRIDONIC SLE G7 09MM	I <sub>max</sub> (cd)	3503	S/MH(C0/180)	0.58
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.60
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1575.2	η UP,DN(C0-180)	0.0,49.1
NOMINAL FLUX(lm)	1575.23	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.9
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	230	η 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:13 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:

### ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2984	2900	2862	2868	2877	2940	2980	2995	0- 10	307.3	307.3	19.5,19.5
20	1530	1449	1408	1402	1411	1480	1522	1537	10- 20	604.7	912.1	57.9,57.9
30	471.4	439.0	417.8	410.3	418.9	450.3	470.7	478.5	20- 30	395.6	1308	83,83
40	119.7	113.1	107.5	103.6	107.5	116.4	121.4	123.1	30- 40	147.9	1456	92.4,92.4
50	42.19	40.88	39.37	39.01	40.65	43.01	43.15	43.52	40- 50	52.04	1508	95.7,95.7
60	27.32	26.67	25.62	25.12	26.21	27.79	27.80	28.11	50- 60	29.49	1537	97.6,97.6
70	17.74	17.07	15.99	15.30	16.04	17.31	17.98	18.51	60- 70	21.66	1559	99,99
80	7.861	7.521	6.851	6.369	6.788	7.267	8.019	8.399	70- 80	12.70	1571	99.8,99.8
90	0.1092	0.0655	0.0619	0.0583	0.0619	0.0619	0.0655	0.1238	80- 90	3.748	1575	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): 1487.1 lm

%lum = 94.4%

%lamp = 94.4%

Conical surface Flux(120deg): 1537.1 lm

%lum = 97.6%

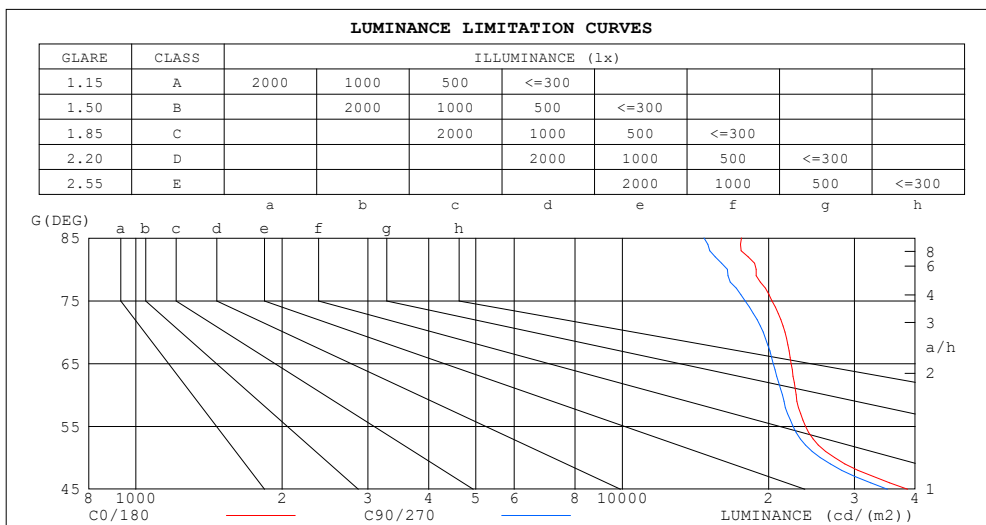
%lamp = 97.6%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17585	14729
80	18859	16442
75	20298	17881
70	21607	19484
65	22238	20431
60	22766	21349
55	23803	22449
50	27344	25524
45	38605	35074

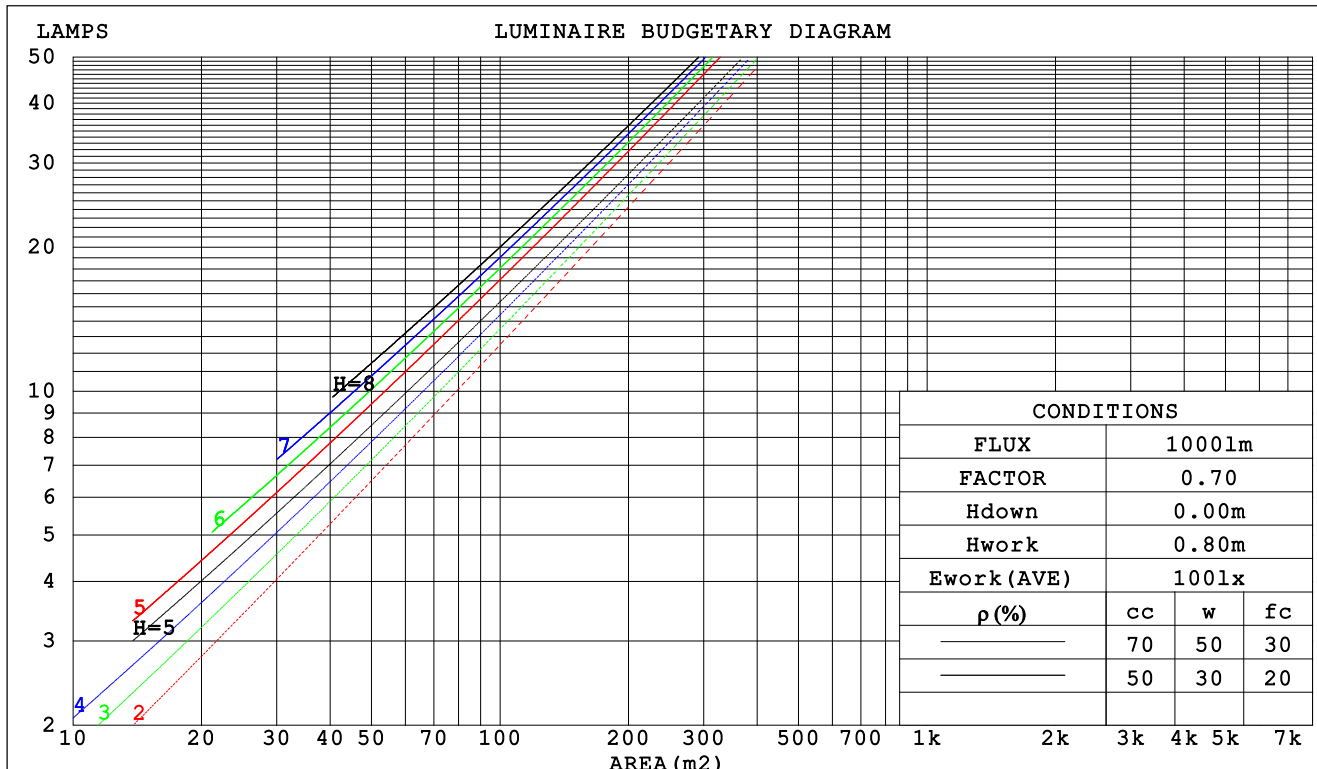
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:13 January 2023

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:239.9V I:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K 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	.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	1.01	.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	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.84	.82	.86	.83	.81	.79
5.0	.88	.83	.79	.87	.82	.79	.85	.81	.78	.84	.80	.77	.82	.79	.77	.75
6.0	.84	.78	.75	.83	.78	.74	.82	.77	.74	.80	.76	.73	.79	.76	.73	.72
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.70	.77	.73	.70	.76	.72	.70	.68
8.0	.76	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.66	.65
9.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.67	.64	.70	.66	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.64	.61	.68	.64	.61	.68	.64	.61	.60



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K 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	.169	.096	.031	.163	.093	.029	.150	.086	.028	.139	.080	.026	.128	.074	.024	
2.0	.159	.087	.027	.154	.085	.026	.143	.080	.025	.133	.075	.023	.124	.070	.022	
3.0	.149	.080	.024	.145	.077	.023	.136	.074	.022	.128	.070	.021	.120	.066	.021	
4.0	.141	.073	.021	.137	.071	.021	.129	.068	.020	.122	.065	.020	.115	.063	.019	
5.0	.133	.068	.020	.129	.066	.019	.123	.064	.019	.117	.062	.018	.111	.059	.018	
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.017	.112	.058	.017	.107	.056	.017	
7.0	.120	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.053	.016	
8.0	.114	.056	.016	.112	.055	.016	.107	.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	.104	.050	.014	.102	.049	.014	.099	.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	.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	.012	.009	.006		
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.036	.025	.016	.012	.008	.005		
8.0	.099	.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:13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm										
NAME: BARREL_WHT_35 DEG_350mA_3000K 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	19.4	20.2	19.6	20.4	20.5	19.0	19.8	19.2	20.0	20.1
3H	20.1	20.9	20.3	21.1	21.3	19.7	20.4	19.9	20.6	20.8
4H	20.4	21.2	20.7	21.4	21.6	20.0	20.7	20.3	20.9	21.2
6H	20.7	21.4	21.0	21.7	21.9	20.2	20.9	20.5	21.2	21.4
8H	20.8	21.5	21.1	21.7	22.0	20.3	21.0	20.6	21.2	21.5
12H	20.9	21.5	21.2	21.8	22.1	20.4	21.0	20.7	21.3	21.5
4H 2H	19.5	20.3	19.8	20.5	20.7	19.2	19.9	19.5	20.1	20.4
3H	20.5	21.1	20.8	21.4	21.7	20.1	20.7	20.4	21.0	21.3
4H	21.0	21.6	21.3	21.8	22.2	20.6	21.1	20.9	21.4	21.7
6H	21.4	21.9	21.7	22.2	22.6	20.9	21.4	21.3	21.8	22.1
8H	21.5	22.0	21.9	22.4	22.7	21.0	21.5	21.4	21.9	22.2
12H	21.6	22.1	22.0	22.4	22.8	21.1	21.6	21.5	21.9	22.3
8H 4H	21.1	21.6	21.5	21.9	22.3	20.7	21.2	21.1	21.6	21.9
6H	21.6	22.0	22.0	22.4	22.8	21.2	21.6	21.6	22.0	22.4
8H	21.8	22.2	22.3	22.6	23.1	21.4	21.8	21.8	22.2	22.6
12H	22.0	22.3	22.5	22.8	23.2	21.5	21.9	22.0	22.3	22.8
12H 4H	21.1	21.5	21.5	21.9	22.3	20.7	21.2	21.1	21.5	21.9
6H	21.6	22.0	22.1	22.4	22.9	21.2	21.6	21.7	22.0	22.4
8H	21.9	22.2	22.4	22.6	23.1	21.5	21.8	21.9	22.2	22.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.9 / - 0.8					+ 0.8 / - 0.8				
1.5H	+ 1.9 / - 0.8					+ 1.7 / - 0.8				
2.0H	+ 0.8 / - 0.3					+ 0.7 / - 0.4				

CIE Pub.117 Corrected 1575 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:13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

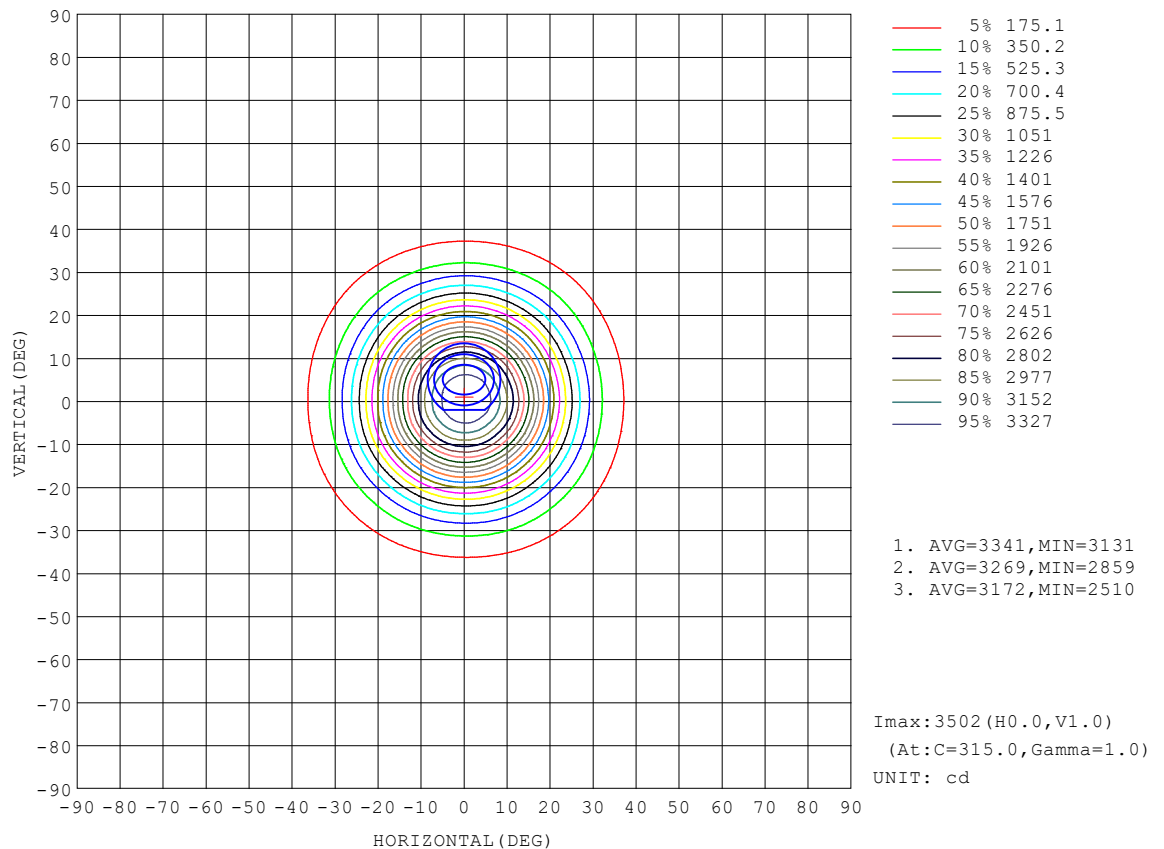
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	77	86	80	76	73
0.80	94	88	84	94	88	84	92	87	84	80
1.00	99	93	89	98	92	89	96	92	88	84
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	100	97	104	100	97	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	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: 13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



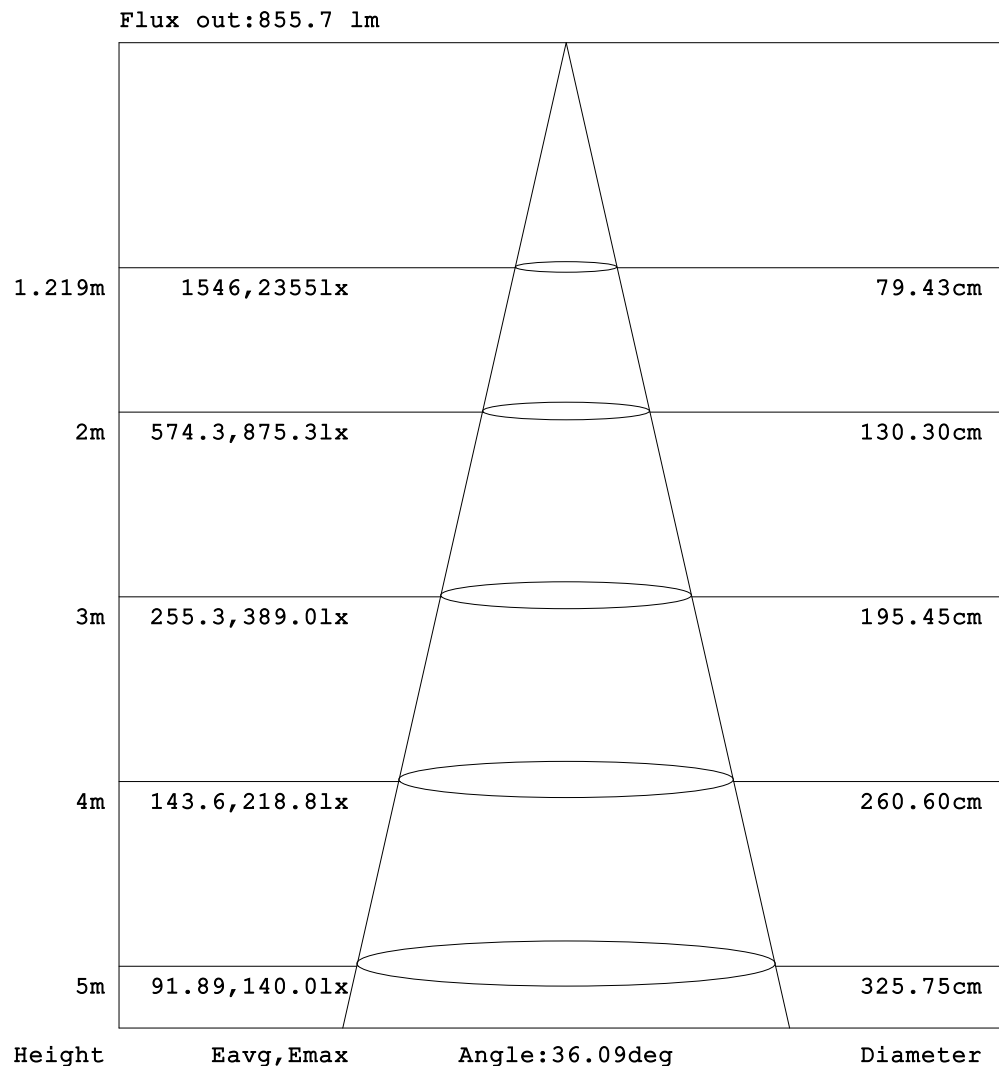
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:13 January 2023

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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



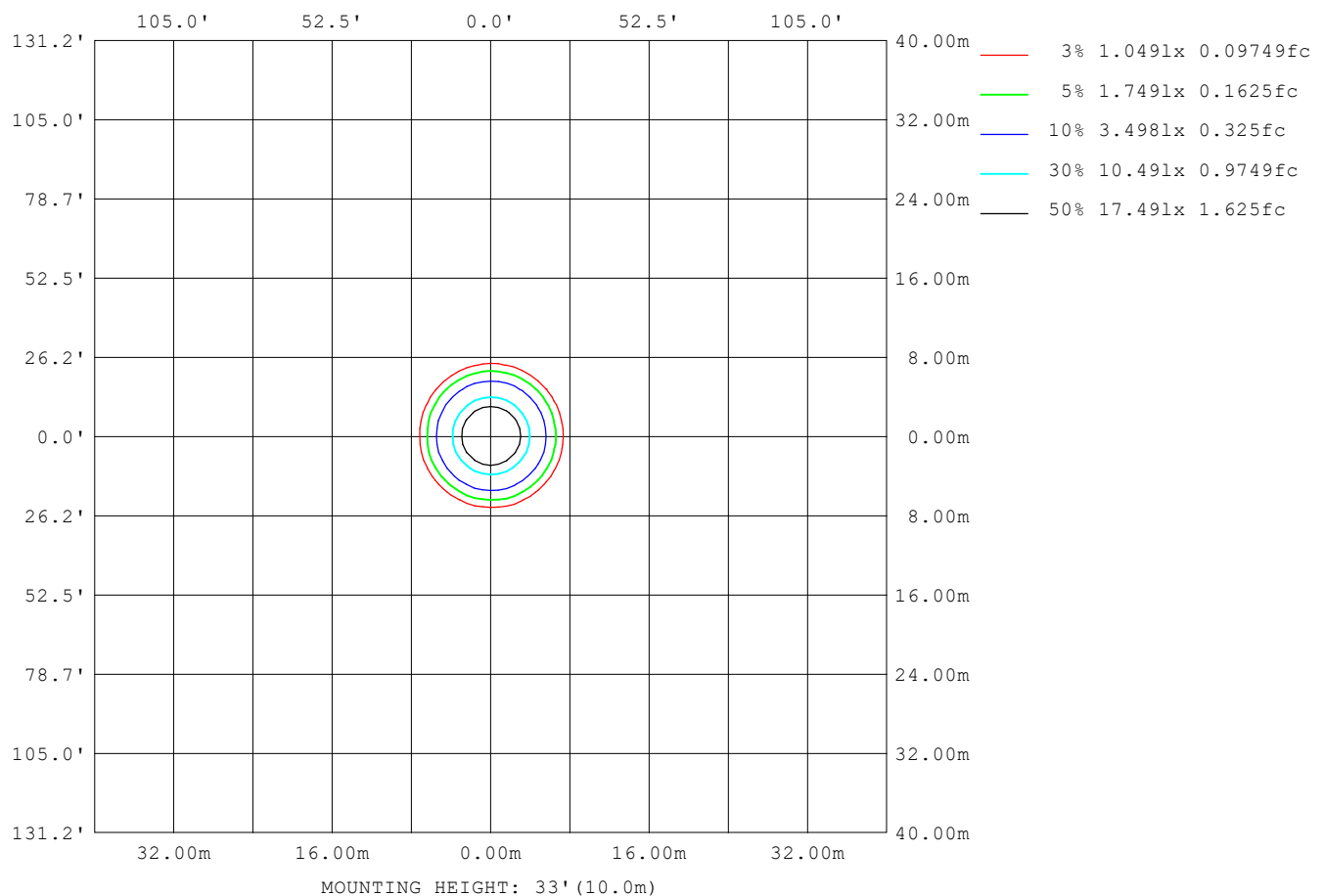
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 13 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:239.9V I:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K 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:13 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:0.0688A P:15.49W PF:0.9383 Lamp Flux:1575.23x1 lm		
NAME: BARREL_WHT_35 DEG_350mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

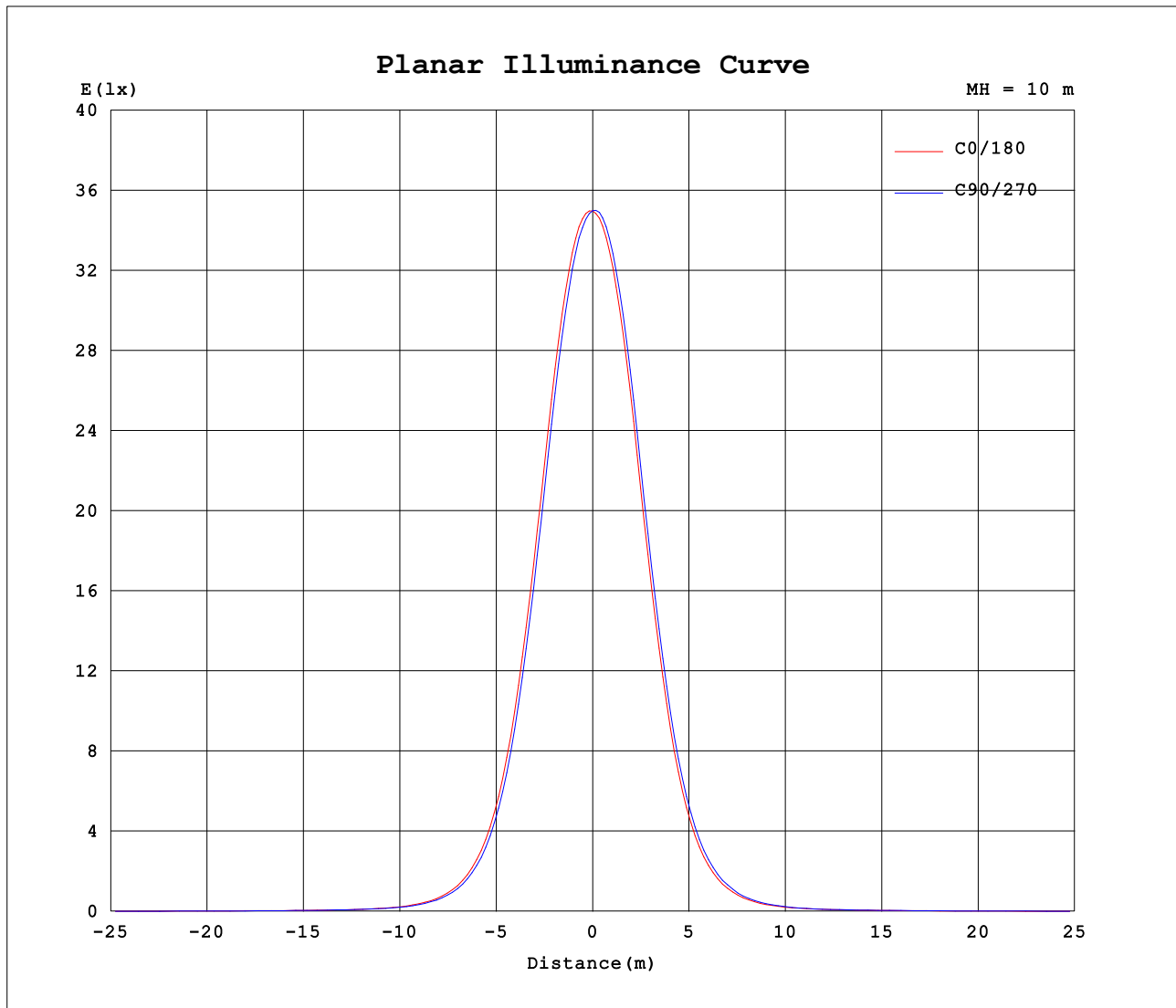
AvgL	cd/m2
L_0~180 (65) av	21432
L_0~180 (75) av	19090
L_0~180 (85) av	15911
L_90~270 (65) av	21466
L_90~270 (75) av	19243
L_90~270 (85) av	16183
L_45 (65) av	21582
L_45 (75) av	19304
L_45 (85) av	16110

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:13 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: 13 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:

