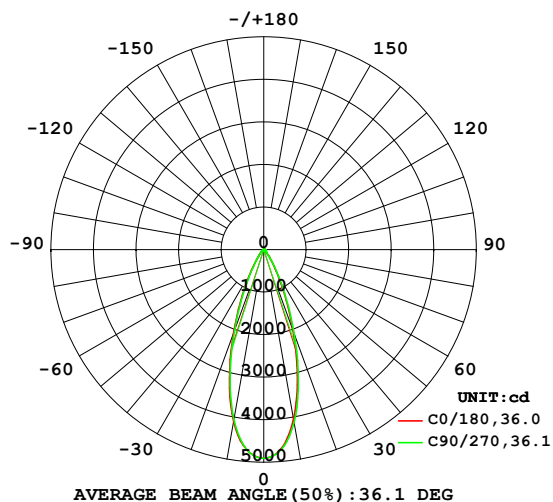


LUMINAIRE PHOTOMETRIC TEST REPORT

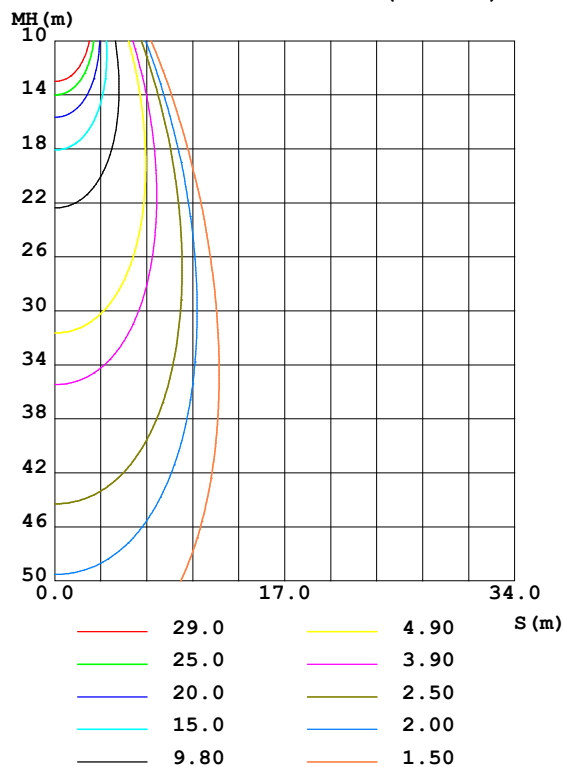
Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 97.91 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	4905	S/MH(C0/180)	0.59
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.59
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2195.7	η UP,DN(C0-180)	0.0,50.6
NOMINAL FLUX(lm)	2195.69	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.4
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:07 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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	4045	4092	4122	4117	4102	4077	4057	4039	0- 10	429.6	429.6	19.6,19.6
20	2011	2054	2102	2103	2072	2040	2000	1979	10- 20	844.2	1274	58,58
30	598.1	618.8	641.2	647.8	642.6	620.5	598.1	590.9	20- 30	551.8	1826	83.1,83.1
40	149.9	154.0	161.2	164.2	163.9	158.1	150.1	148.5	30- 40	205.3	2031	92.5,92.5
50	55.28	55.41	56.65	57.92	58.46	56.78	55.62	55.67	40- 50	70.59	2102	95.7,95.7
60	37.32	37.37	37.54	38.11	38.12	37.39	37.40	37.74	50- 60	40.60	2142	97.6,97.6
70	23.66	23.84	23.96	23.91	23.63	23.42	23.53	23.63	60- 70	30.41	2173	98.9,98.9
80	10.36	10.60	10.62	10.40	10.16	10.05	10.09	10.18	70- 80	17.62	2190	99.8,99.8
90	0.1210	0.1504	0.1687	0.1467	0.1210	0.1210	0.1210	0.1203	80- 90	5.479	2196	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): 2073.8 lm

%lum = 94.5%

%lamp = 94.5%

Conical surface Flux(120deg): 2142.2 lm

%lum = 97.6%

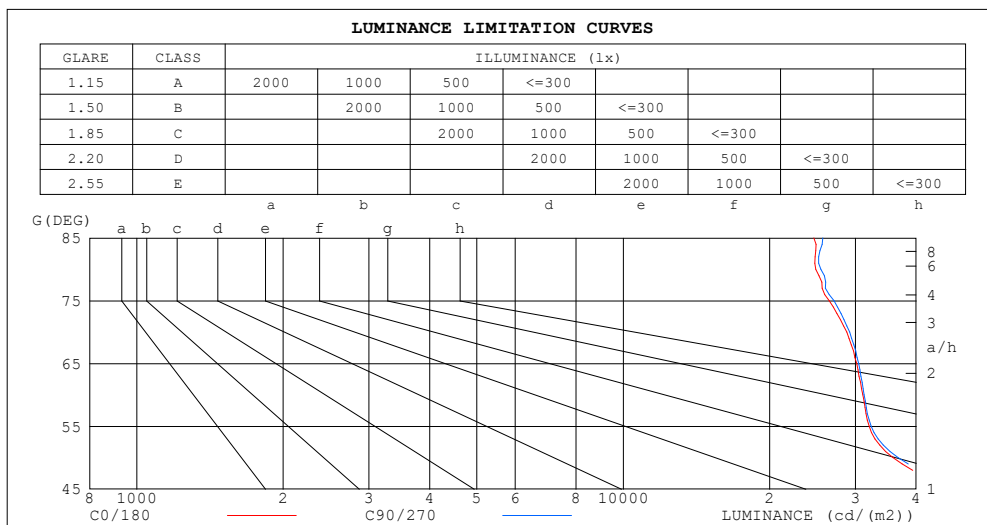
%lamp = 97.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 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:

LUMINANCE LIMITATION CURVES

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_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	24650	25708
80	24867	25473
75	26515	27117
70	28824	29195
65	30177	30466
60	31101	31287
55	32054	32346
50	35832	36724
45	48733	51368

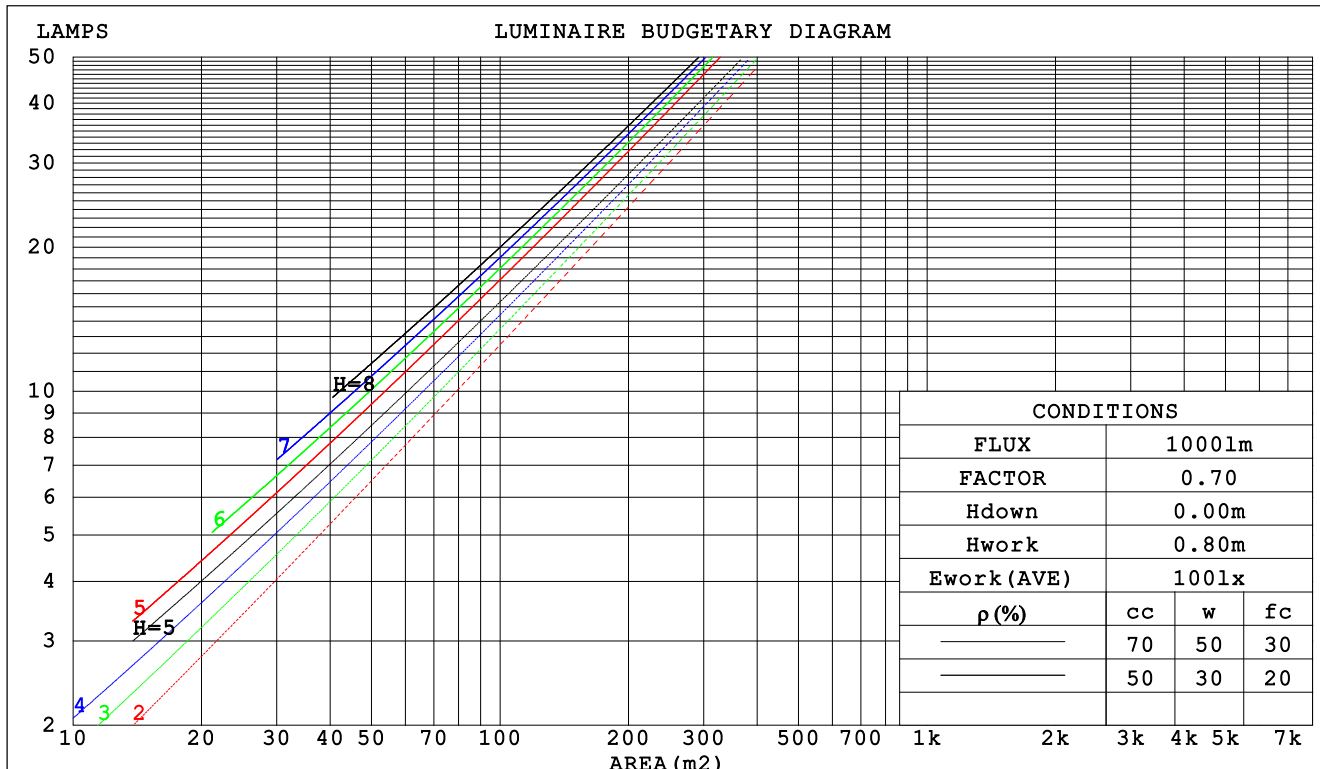
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 August 2023

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	1.01	.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	.68	.76	.71	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.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	.65	.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:07 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:

WEC AND CCEC

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_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	.169	.096	.031	.163	.093	.029	.150	.086	.027	.139	.080	.026	.128	.074	.024		
2.0	.159	.087	.027	.153	.084	.026	.143	.079	.025	.133	.075	.023	.124	.070	.022		
3.0	.149	.079	.024	.145	.077	.023	.136	.073	.022	.127	.070	.021	.120	.066	.021		
4.0	.140	.073	.021	.136	.071	.021	.129	.068	.020	.122	.065	.020	.115	.063	.019		
5.0	.133	.068	.020	.129	.066	.019	.123	.064	.019	.116	.061	.018	.111	.059	.018		
6.0	.126	.063	.018	.123	.062	.018	.117	.060	.017	.112	.058	.017	.107	.056	.017		
7.0	.119	.059	.017	.117	.058	.017	.112	.057	.016	.107	.055	.016	.103	.053	.016		
8.0	.114	.056	.016	.112	.055	.016	.107	.053	.015	.103	.052	.015	.099	.051	.015		
9.0	.109	.053	.015	.107	.052	.015	.103	.051	.014	.099	.050	.014	.095	.048	.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	.075	.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	.112	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.012	.009	.006		
7.0	.105	.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:07 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:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm										
NAME: BARREL_WHT_35 DEG_500mA_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	20.2	21.0	20.4	21.2	21.4	20.4	21.2	20.6	21.4	21.5
3H	20.9	21.7	21.2	21.9	22.1	21.1	21.9	21.4	22.1	22.3
4H	21.3	22.0	21.6	22.2	22.5	21.4	22.2	21.7	22.4	22.6
6H	21.6	22.3	21.9	22.5	22.8	21.7	22.4	22.0	22.7	22.9
8H	21.7	22.3	22.0	22.6	22.9	21.8	22.5	22.1	22.8	23.0
12H	21.8	22.4	22.1	22.7	22.9	21.9	22.6	22.2	22.8	23.1
4H 2H	20.4	21.1	20.7	21.4	21.6	20.6	21.3	20.8	21.5	21.7
3H	21.4	22.0	21.7	22.3	22.6	21.5	22.2	21.8	22.4	22.7
4H	21.9	22.4	22.2	22.7	23.0	22.0	22.6	22.3	22.9	23.2
6H	22.3	22.8	22.6	23.1	23.5	22.4	22.9	22.8	23.2	23.6
8H	22.4	22.9	22.8	23.3	23.6	22.5	23.0	22.9	23.4	23.7
12H	22.5	23.0	23.0	23.4	23.7	22.7	23.1	23.1	23.5	23.9
8H 4H	22.0	22.5	22.4	22.8	23.2	22.1	22.6	22.5	23.0	23.3
6H	22.5	22.9	23.0	23.3	23.8	22.7	23.1	23.1	23.5	23.9
8H	22.8	23.1	23.2	23.6	24.0	22.9	23.3	23.3	23.7	24.1
12H	23.0	23.3	23.5	23.7	24.2	23.1	23.4	23.6	23.9	24.3
12H 4H	22.0	22.4	22.4	22.8	23.2	22.1	22.6	22.5	22.9	23.3
6H	22.6	22.9	23.0	23.3	23.8	22.7	23.0	23.1	23.5	23.9
8H	22.9	23.2	23.3	23.6	24.1	23.0	23.3	23.4	23.7	24.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.8					+ 0.9 / - 0.8				
1.5H	+ 1.7 / - 0.7					+ 1.9 / - 0.8				
2.0H	+ 0.6 / - 0.3					+ 0.7 / - 0.3				

CIE Pub.117 Corrected 2196 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.7)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 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:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

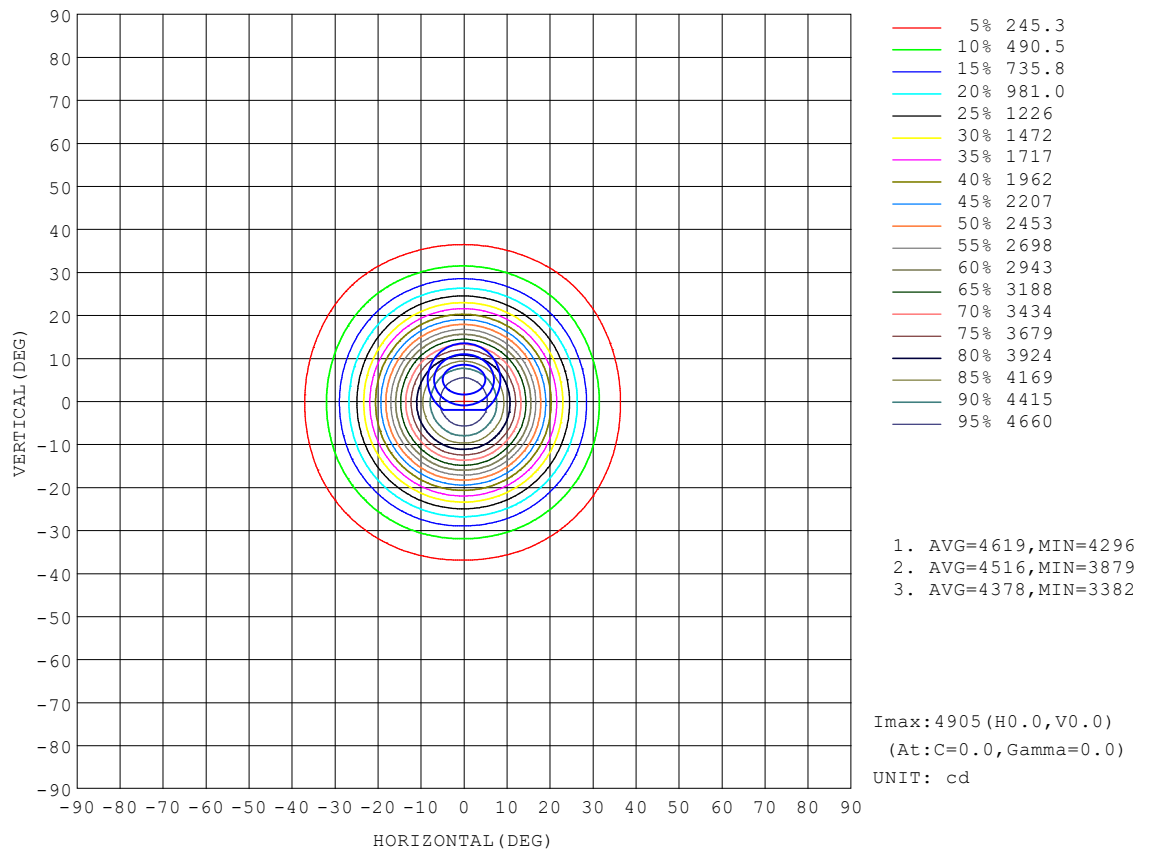
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	86	80	77	86	80	76	73
0.80	94	88	85	94	88	84	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					SHR NOM = 1.25		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 07 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:

ISOCANDELA DIAGRAM

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

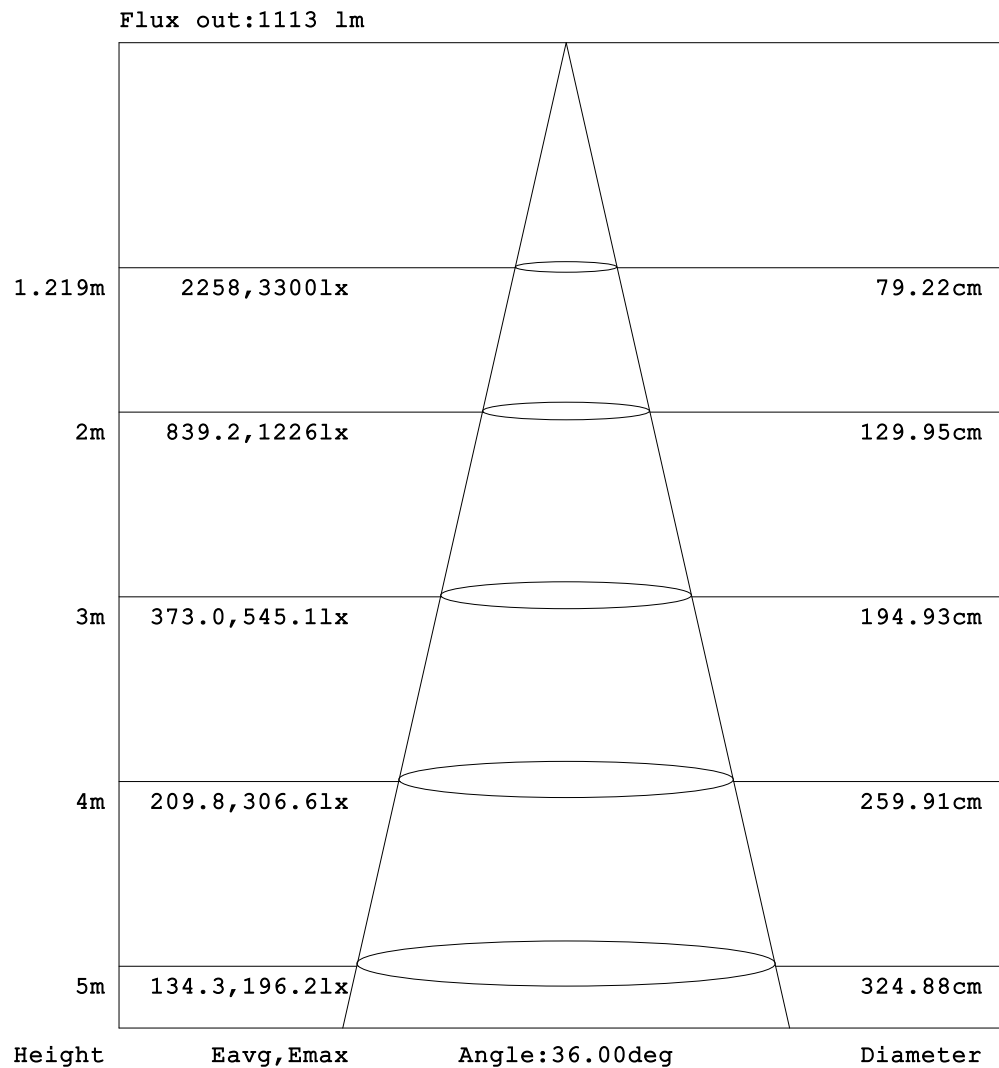


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 August 2023

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:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



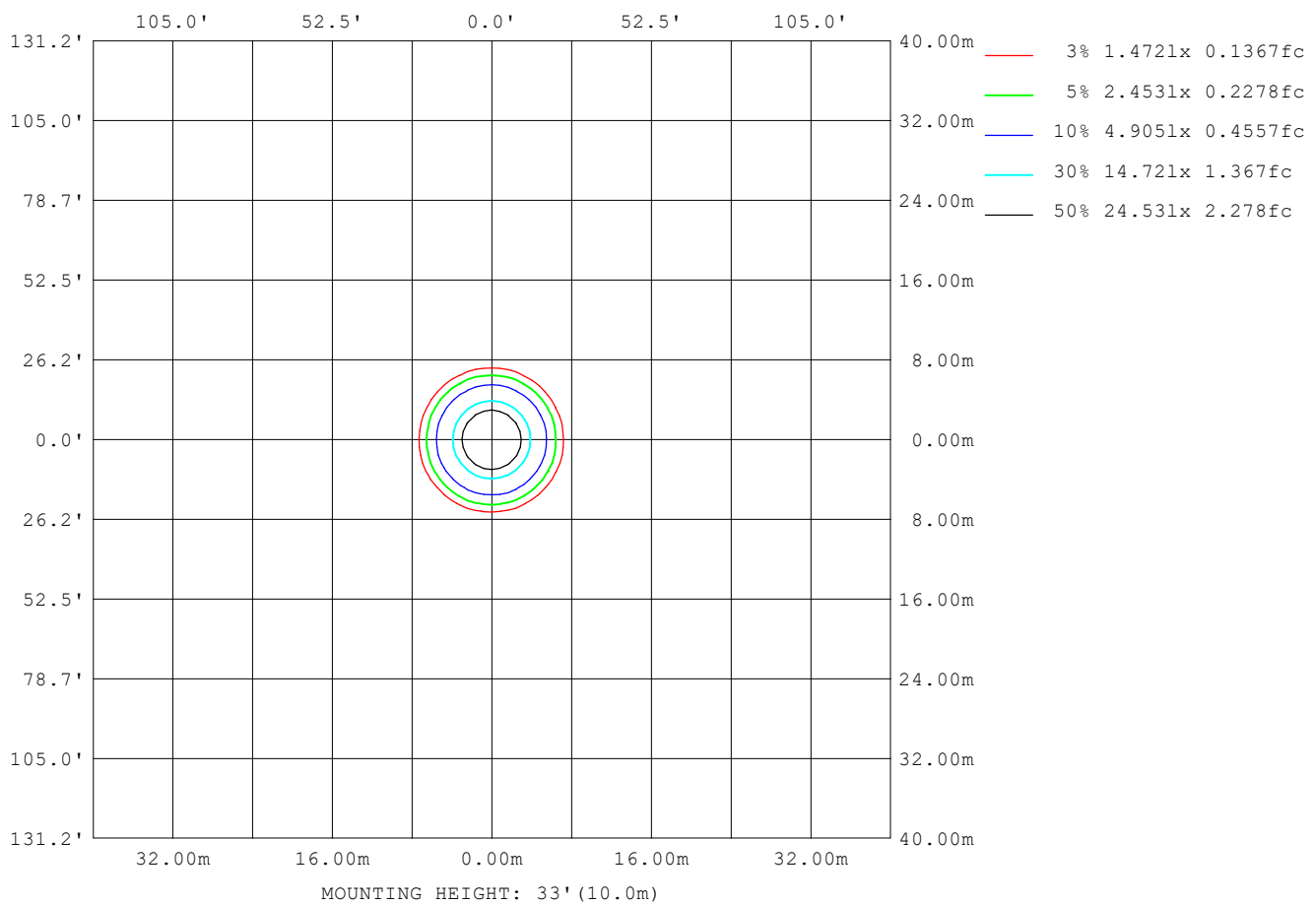
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 07 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:

ISOLUX DIAGRAM

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_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:07 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:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

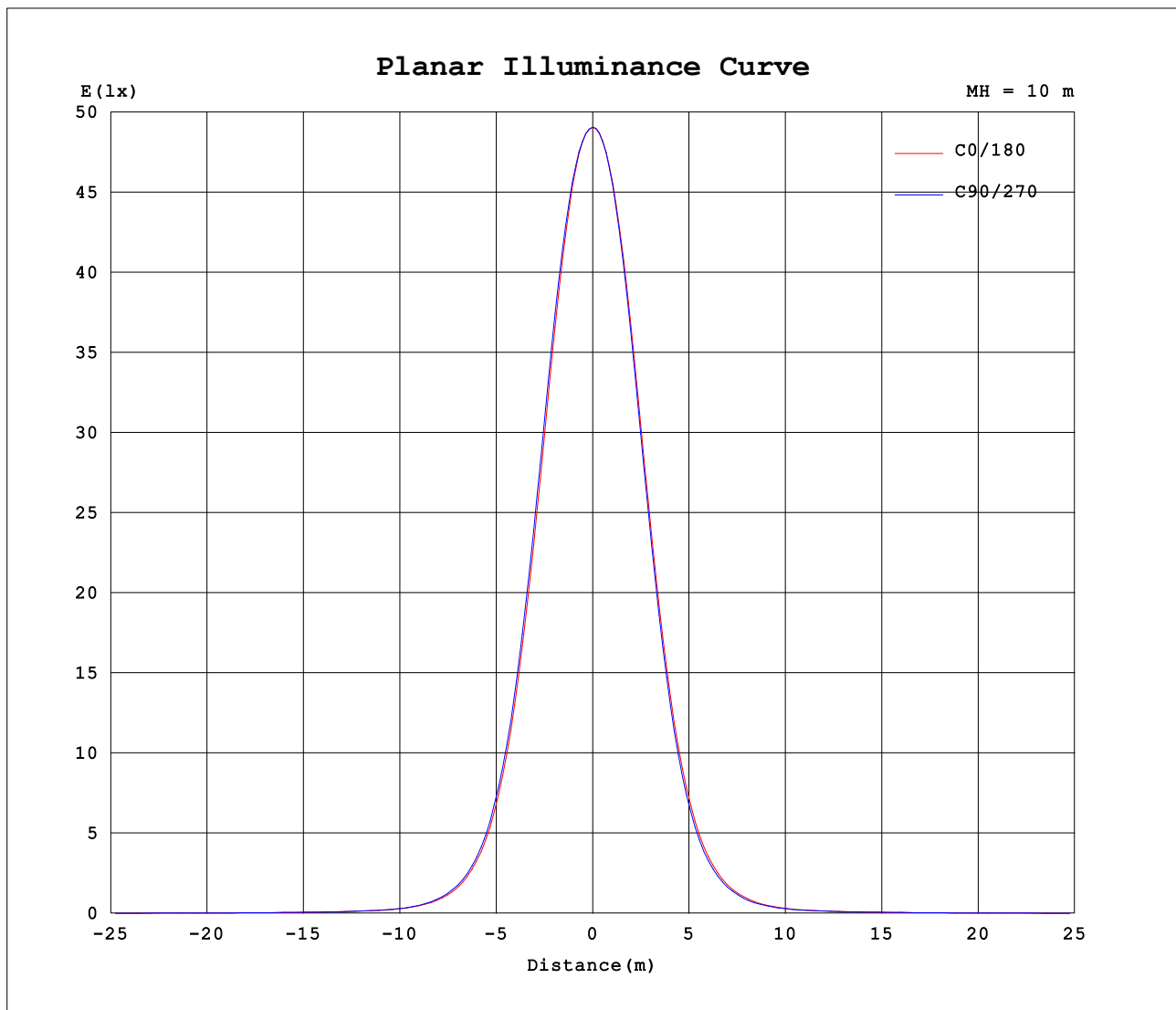
AvgL	cd/m2
L_0~180 (65) av	30355
L_0~180 (75) av	26409
L_0~180 (85) av	24271
L_90~270 (65) av	30286
L_90~270 (75) av	26749
L_90~270 (85) av	24369
L_45 (65) av	30346
L_45 (75) av	26555
L_45 (85) av	24311

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 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: 07 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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.1V I:0.0967A P:22.43W PF:0.9661 Lamp Flux:2195.69x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

Table--1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:07 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:

```