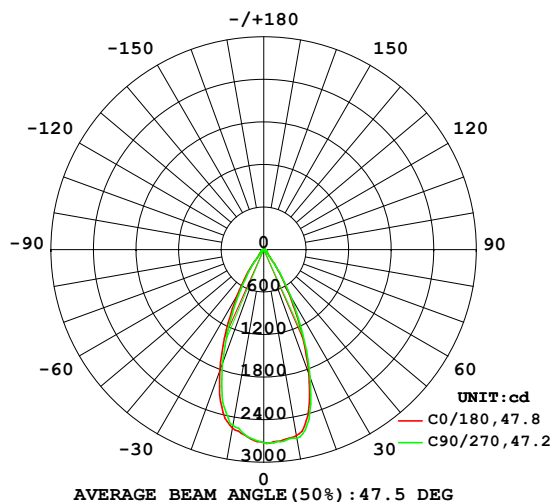


**LUMINAIRE PHOTOMETRIC TEST REPORT**

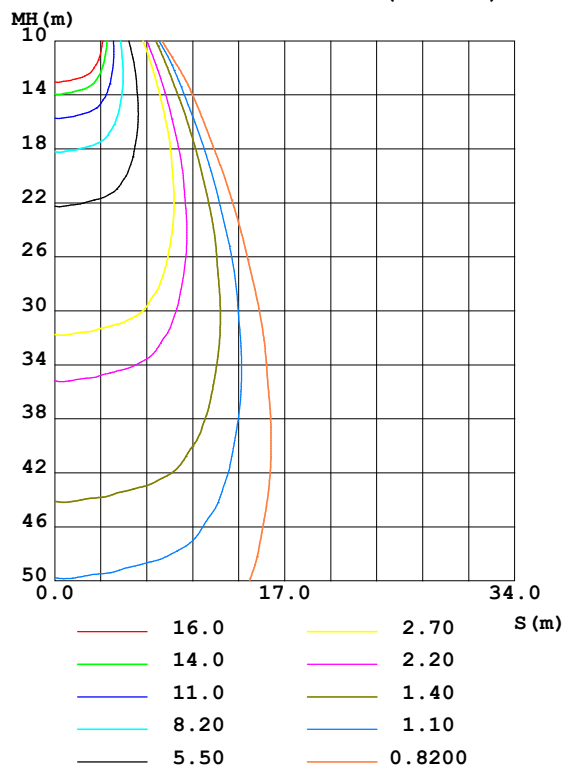
Test:U:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.76 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	2755	S/MH(C0/180)	0.74
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.71
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1838.1	$\eta$ UP,DN(C0-180)	0.0,51.6
NOMINAL FLUX(lm)	1838.13	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,48.4
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	$\eta$ down(%)	100.0	CIBSE SHR MAX	0.75

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	2664	2697	2702	2609	2552	2509	2518	2575	0- 10	253.1	253.1	13.8,13.8
20	1861	1899	1925	1881	1815	1697	1702	1786	10- 20	639.9	893.0	48.6,48.6
30	703.9	733.9	758.9	758.7	759.8	689.0	654.9	686.7	20- 30	559.5	1453	79,79
40	116.2	119.1	118.0	127.9	130.9	118.0	107.0	112.4	30- 40	230.3	1683	91.6,91.6
50	55.00	54.68	53.45	54.36	56.83	55.13	54.15	54.31	40- 50	60.04	1743	94.8,94.8
60	38.31	37.90	38.17	39.30	40.78	38.72	38.09	38.02	50- 60	40.54	1783	97,97
70	25.36	25.17	25.17	25.65	25.58	24.55	24.11	24.53	60- 70	31.68	1815	98.7,98.7
80	10.11	9.853	9.536	9.466	9.319	9.230	9.574	10.01	70- 80	17.94	1833	99.7,99.7
90	0.1174	0.1429	0.1175	0.0952	0.1064	0.0879	0.0918	0.0915	80- 90	5.111	1838	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): 1717.4 lm

%lum = 93.4%

%lamp = 93.4%

Conical surface Flux(120deg): 1783.4 lm

%lum = 97.0%

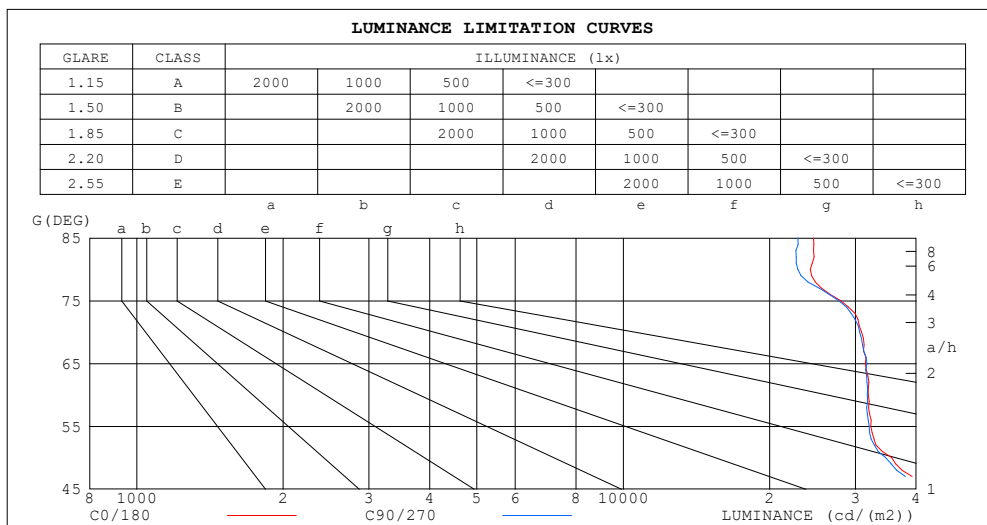
%lamp = 97.0%

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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_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	24630	22848
80	24260	22855
75	27992	27738
70	30885	30625
65	31446	31677
60	31914	31769
55	32293	32022
50	35638	34609
45	44998	44313

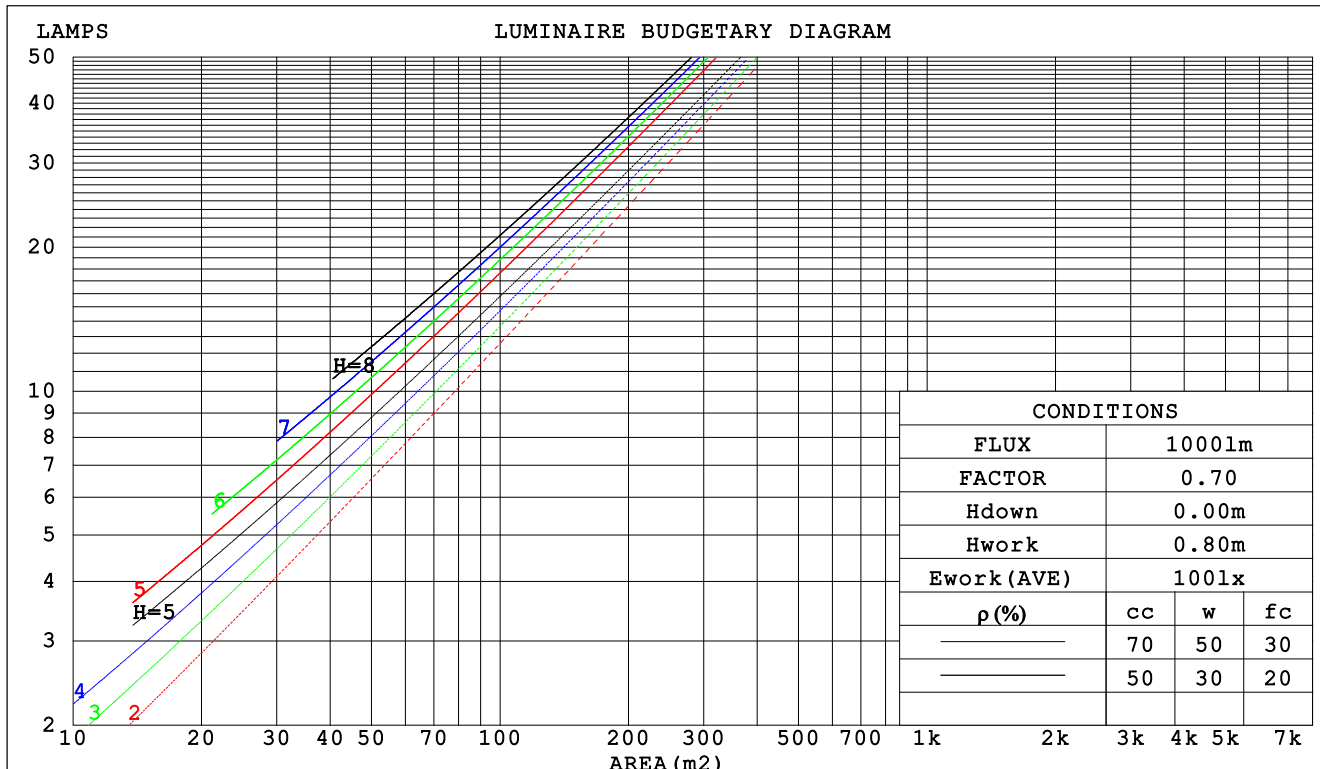
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

$\gamma$  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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_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	1.00
1.0	1.11	1.08	1.06	1.08	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.92	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.85	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.66	.73	.69	.66	.72	.69	.66	.64
8.0	.73	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.62	.69	.65	.62	.61
9.0	.69	.64	.60	.69	.63	.60	.68	.63	.60	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.60	.57	.66	.60	.57	.65	.60	.57	.64	.60	.56	.63	.59	.56	.55



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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_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	.180	.102	.032	.173	.099	.031	.160	.092	.029	.149	.086	.028	.138	.080	.026		
2.0	.170	.093	.029	.164	.090	.028	.153	.085	.026	.144	.081	.025	.135	.076	.024		
3.0	.160	.085	.025	.155	.083	.025	.146	.079	.024	.138	.075	.023	.130	.072	.022		
4.0	.151	.078	.023	.147	.077	.023	.139	.074	.022	.132	.071	.021	.125	.068	.021		
5.0	.143	.073	.021	.139	.071	.021	.132	.069	.020	.126	.066	.020	.120	.064	.019		
6.0	.135	.068	.019	.132	.067	.019	.126	.065	.019	.121	.063	.018	.116	.061	.018		
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.059	.017	.111	.058	.017		
8.0	.123	.060	.017	.120	.059	.017	.116	.058	.017	.111	.056	.016	.107	.055	.016		
9.0	.117	.057	.016	.115	.056	.016	.111	.055	.016	.107	.054	.015	.103	.053	.015		
10.0	.112	.054	.015	.110	.053	.015	.107	.052	.015	.103	.051	.015	.100	.050	.014		

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	.147	.135	.124	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.099	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.061	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.032	.019	.010	.011	.006	.003	

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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm										
NAME: BARREL_WHT_55 DEG_500mA_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	21.3	22.3	21.6	22.4	22.6	21.5	22.4	21.7	22.5	22.7
3H	22.1	22.9	22.3	23.1	23.3	22.1	23.0	22.4	23.2	23.4
4H	22.4	23.2	22.7	23.4	23.6	22.5	23.3	22.7	23.5	23.7
6H	22.6	23.4	22.9	23.6	23.9	22.7	23.4	23.0	23.6	23.9
8H	22.7	23.4	23.0	23.7	23.9	22.7	23.4	23.0	23.7	24.0
12H	22.8	23.5	23.1	23.7	24.0	22.8	23.5	23.1	23.7	24.0
4H 2H	21.5	22.3	21.8	22.5	22.7	21.6	22.4	21.9	22.6	22.9
3H	22.5	23.2	22.8	23.4	23.7	22.5	23.2	22.8	23.5	23.8
4H	22.9	23.6	23.3	23.9	24.2	23.0	23.6	23.3	23.9	24.2
6H	23.2	23.8	23.6	24.1	24.5	23.3	23.8	23.6	24.1	24.5
8H	23.4	23.9	23.8	24.2	24.6	23.4	23.9	23.8	24.2	24.6
12H	23.5	24.0	23.9	24.3	24.7	23.4	23.9	23.9	24.3	24.7
8H 4H	23.1	23.6	23.4	23.9	24.3	23.1	23.6	23.5	24.0	24.3
6H	23.5	23.9	23.9	24.3	24.7	23.5	23.9	23.9	24.3	24.7
8H	23.7	24.1	24.1	24.5	24.9	23.7	24.0	24.1	24.4	24.9
12H	23.9	24.2	24.3	24.6	25.1	23.8	24.1	24.3	24.6	25.0
12H 4H	23.0	23.5	23.4	23.9	24.3	23.1	23.5	23.5	23.9	24.3
6H	23.5	23.9	23.9	24.3	24.7	23.5	23.9	23.9	24.3	24.7
8H	23.7	24.1	24.2	24.5	25.0	23.7	24.0	24.2	24.5	24.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.2 / - 0.7					+ 1.3 / - 0.7				
1.5H	+ 2.4 / - 0.7					+ 2.5 / - 0.7				
2.0H	+ 0.4 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 1838 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.1)

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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

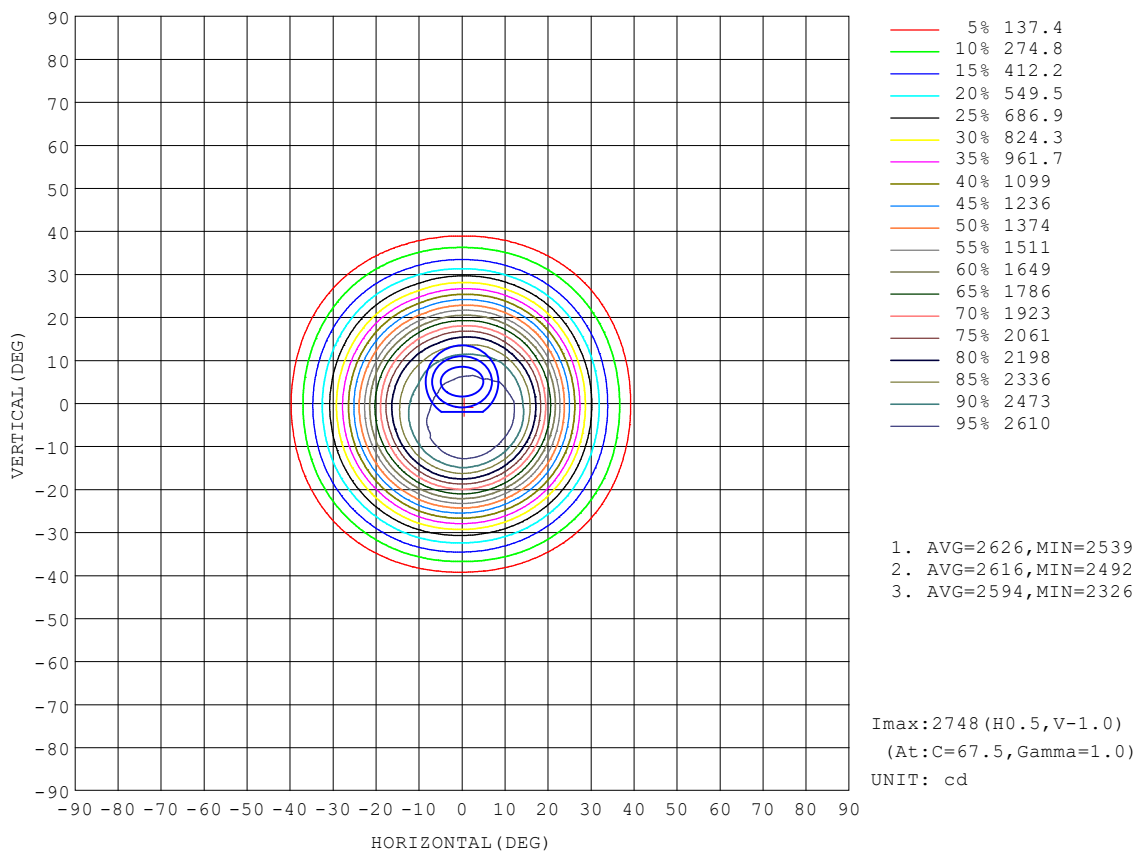
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	80	76	85	79	76	72
0.80	94	88	84	93	87	84	92	87	83	80
1.00	98	92	89	97	92	88	96	92	88	84
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	104	100	98	92
2.50	110	106	102	108	104	102	105	102	100	94
3.00	111	108	105	109	106	104	106	104	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	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: 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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



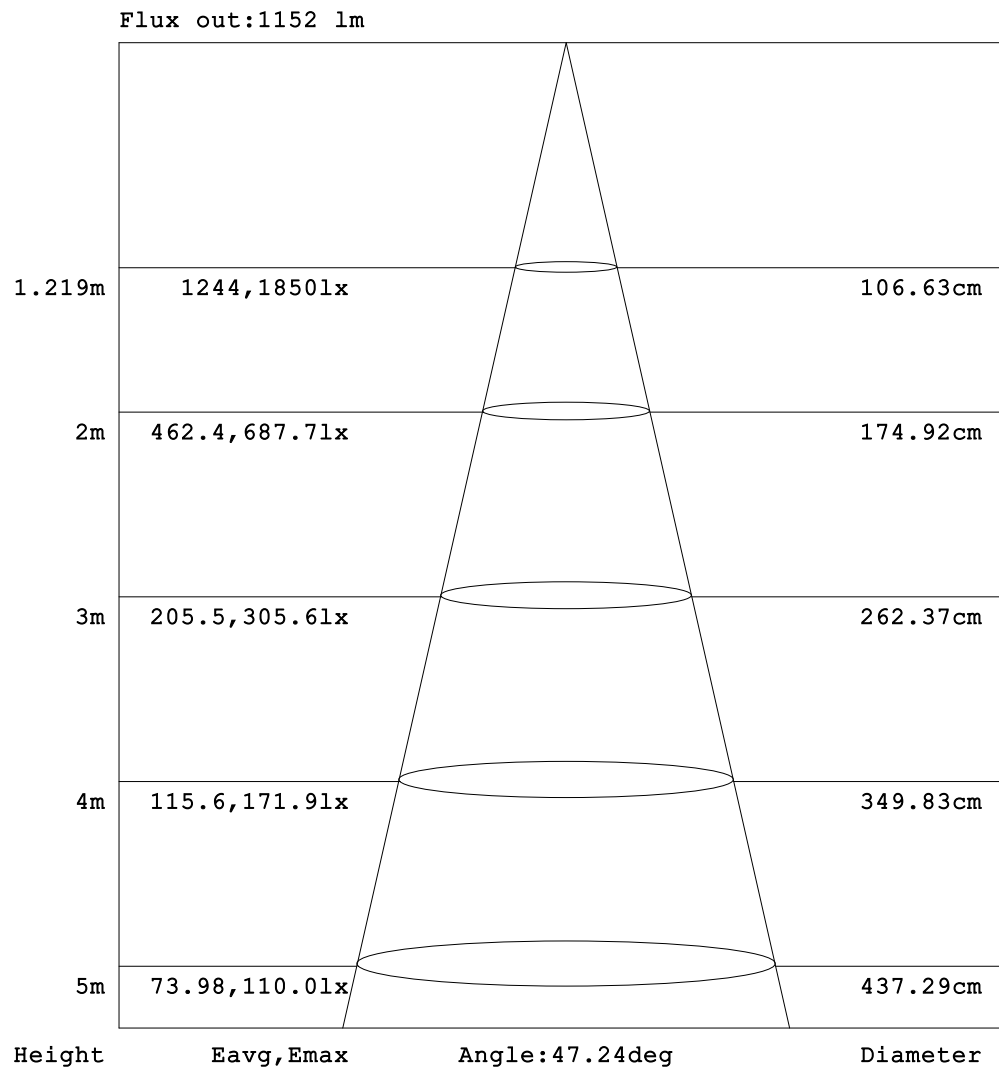
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:14 August 2023

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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



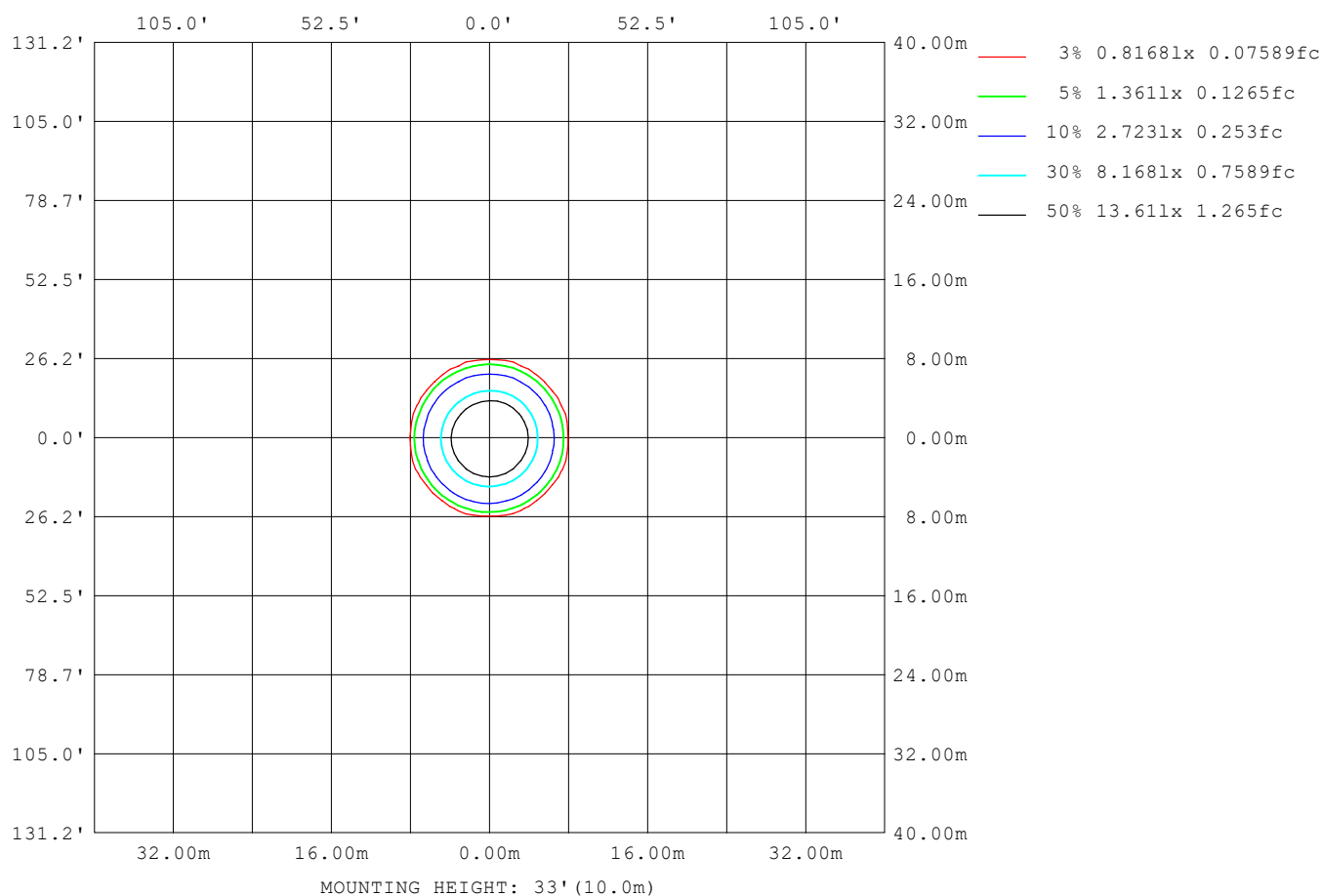
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_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:

### LED Avg.L Report

Test:U:240.2V I:0.0958A P:22.21W PF:0.9655 Lamp Flux:1838.13x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

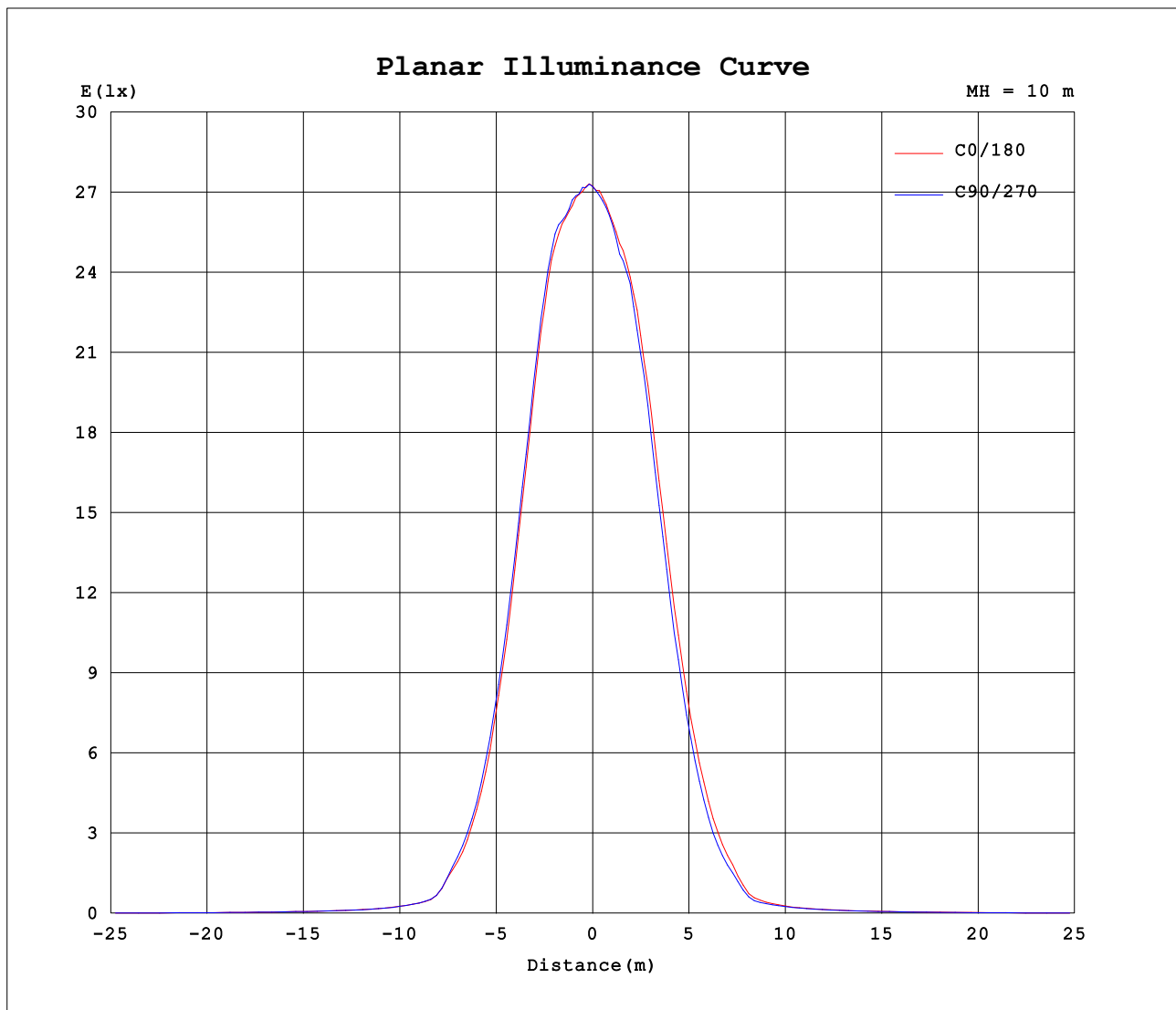
AvgL	cd/m2
L_0~180 (65) av	32169
L_0~180 (75) av	27840
L_0~180 (85) av	23061
L_90~270 (65) av	31237
L_90~270 (75) av	26810
L_90~270 (85) av	22299
L_45 (65) av	31466
L_45 (75) av	27301
L_45 (85) av	22574

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:

