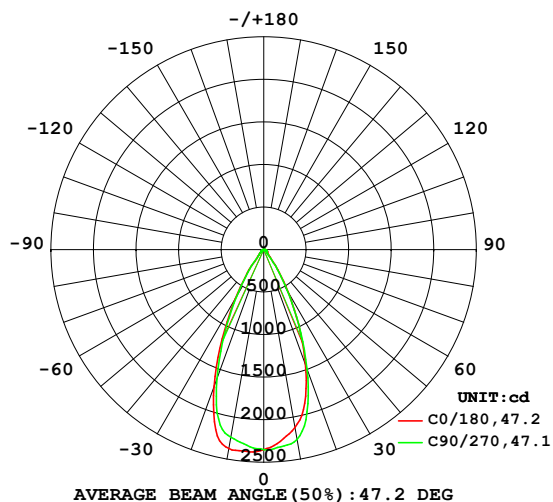


LUMINAIRE PHOTOMETRIC TEST REPORT

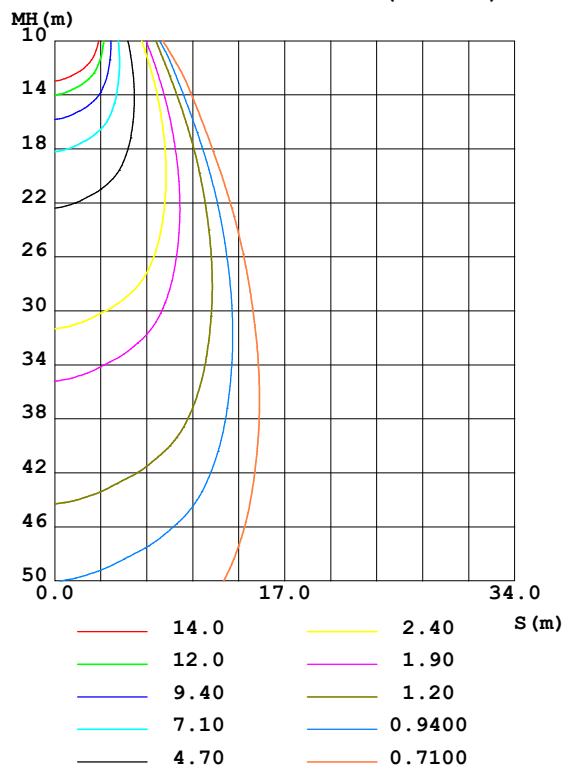
Test:U:239.9V I:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.84 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	2385	S/MH(C0/180)	0.76
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.74
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1586.7	η UP,DN(C0-180)	0.0,48.7
NOMINAL FLUX(lm)	1586.65	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	230	η 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: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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2122	2162	2265	2353	2372	2336	2239	2172	0- 10	219.3	219.3	13.8,13.8
20	1431	1423	1491	1630	1707	1689	1612	1508	10- 20	551.5	770.8	48.6,48.6
30	573.5	558.5	554.6	620.5	672.7	681.9	640.8	612.8	20- 30	479.4	1250	78.8,78.8
40	112.7	104.8	92.69	100.1	111.2	114.5	109.4	111.7	30- 40	198.1	1448	91.3,91.3
50	50.00	49.77	48.51	48.91	49.58	49.21	47.78	48.92	40- 50	53.54	1502	94.7,94.7
60	36.17	35.38	34.27	34.23	34.50	33.77	33.48	34.70	50- 60	36.26	1538	96.9,96.9
70	23.09	22.71	21.79	21.43	21.79	21.77	21.91	22.64	60- 70	28.21	1566	98.7,98.7
80	8.873	8.470	7.986	7.853	8.092	8.365	8.580	8.907	70- 80	15.81	1582	99.7,99.7
90	0.0690	0.0474	0.0547	0.0510	0.0581	0.0583	0.0802	0.1202	80- 90	4.482	1587	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): 1479 lm

%lum = 93.2%

%lamp = 93.2%

Conical surface Flux(120deg): 1538.2 lm

%lum = 96.9%

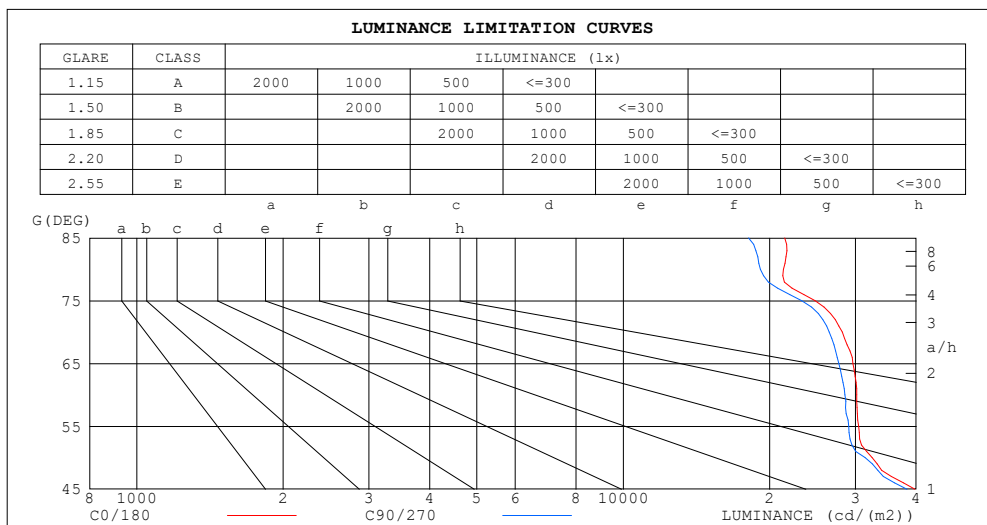
%lamp = 96.9%

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:

LUMINANCE LIMITATION CURVES

Test:U:239.9V I:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 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	21481	18106
80	21343	19146
75	24809	23289
70	28204	26527
65	29671	27758
60	30219	28533
55	30459	29066
50	32492	31417
45	39778	38336

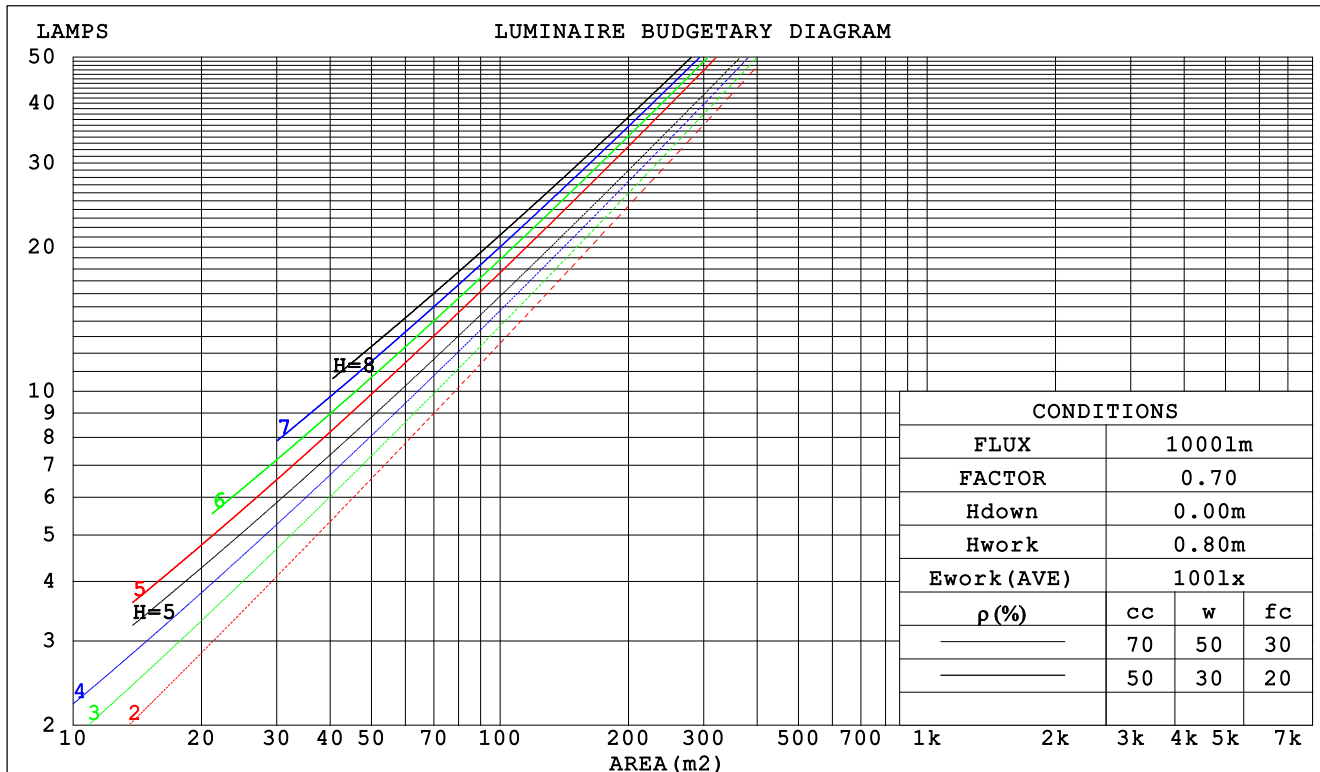
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:06 January 2023

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.9V I:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_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	1.08	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	.90	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.81
4.0	.91	.85	.81	.90	.85	.81	.87	.83	.80	.85	.82	.79	.84	.80	.78	.76
5.0	.85	.80	.76	.84	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.72
6.0	.81	.75	.71	.80	.75	.71	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.71	.67	.76	.70	.67	.75	.70	.66	.73	.69	.66	.72	.68	.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	.59	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.60	.57	.65	.60	.57	.65	.60	.57	.64	.59	.56	.63	.59	.56	.55



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:

WEC AND CCEC

Test:U:239.9V I:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 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	.180 .102 .032	.173 .099 .031	.161 .092 .029	.149 .086 .028	.139 .080 .026	
2.0	.170 .093 .029	.164 .091 .028	.154 .086 .027	.144 .081 .025	.135 .076 .024	
3.0	.160 .085 .026	.155 .083 .025	.146 .079 .024	.138 .076 .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 .072 .021	.133 .069 .020	.126 .067 .020	.120 .064 .019	
6.0	.136 .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 .060 .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	.104 .053 .015	
10.0	.112 .054 .015	.111 .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 .132 .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	.100 .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 .020 .010	.011 .006 .003	

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:0.9357 Lamp Flux:1586.65x1 lm										
NAME: BARREL_WHT_55 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	20.8	21.7	21.0	21.9	22.0	20.5	21.4	20.7	21.6	21.8
3H	21.6	22.5	21.9	22.7	22.9	21.3	22.2	21.6	22.4	22.6
4H	22.0	22.8	22.2	23.0	23.2	21.7	22.5	21.9	22.7	22.9
6H	22.2	22.9	22.5	23.2	23.4	21.9	22.6	22.2	22.9	23.1
8H	22.3	23.0	22.6	23.2	23.5	21.9	22.7	22.2	22.9	23.2
12H	22.3	23.0	22.6	23.3	23.6	22.0	22.7	22.3	22.9	23.2
4H 2H	21.0	21.8	21.3	22.0	22.3	20.8	21.6	21.1	21.8	22.0
3H	22.1	22.8	22.4	23.0	23.3	21.8	22.5	22.1	22.8	23.1
4H	22.5	23.2	22.9	23.5	23.8	22.3	22.9	22.6	23.2	23.5
6H	22.8	23.4	23.2	23.7	24.1	22.6	23.1	22.9	23.5	23.8
8H	23.0	23.5	23.4	23.8	24.2	22.7	23.2	23.1	23.5	23.9
12H	23.1	23.6	23.5	23.9	24.3	22.7	23.2	23.2	23.6	24.0
8H 4H	22.7	23.2	23.0	23.5	23.9	22.4	22.9	22.8	23.3	23.7
6H	23.1	23.5	23.5	23.9	24.3	22.8	23.2	23.2	23.6	24.0
8H	23.3	23.7	23.7	24.1	24.5	23.0	23.4	23.4	23.8	24.2
12H	23.4	23.8	23.9	24.2	24.7	23.1	23.4	23.6	23.9	24.4
12H 4H	22.6	23.1	23.0	23.5	23.9	22.4	22.9	22.8	23.3	23.6
6H	23.1	23.5	23.5	23.9	24.3	22.8	23.2	23.3	23.6	24.1
8H	23.3	23.6	23.8	24.1	24.6	23.0	23.4	23.5	23.8	24.3
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 0.7					+ 0.9 / - 0.6				
1.5H	+ 2.2 / - 0.6					+ 1.9 / - 0.6				
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 1587 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:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

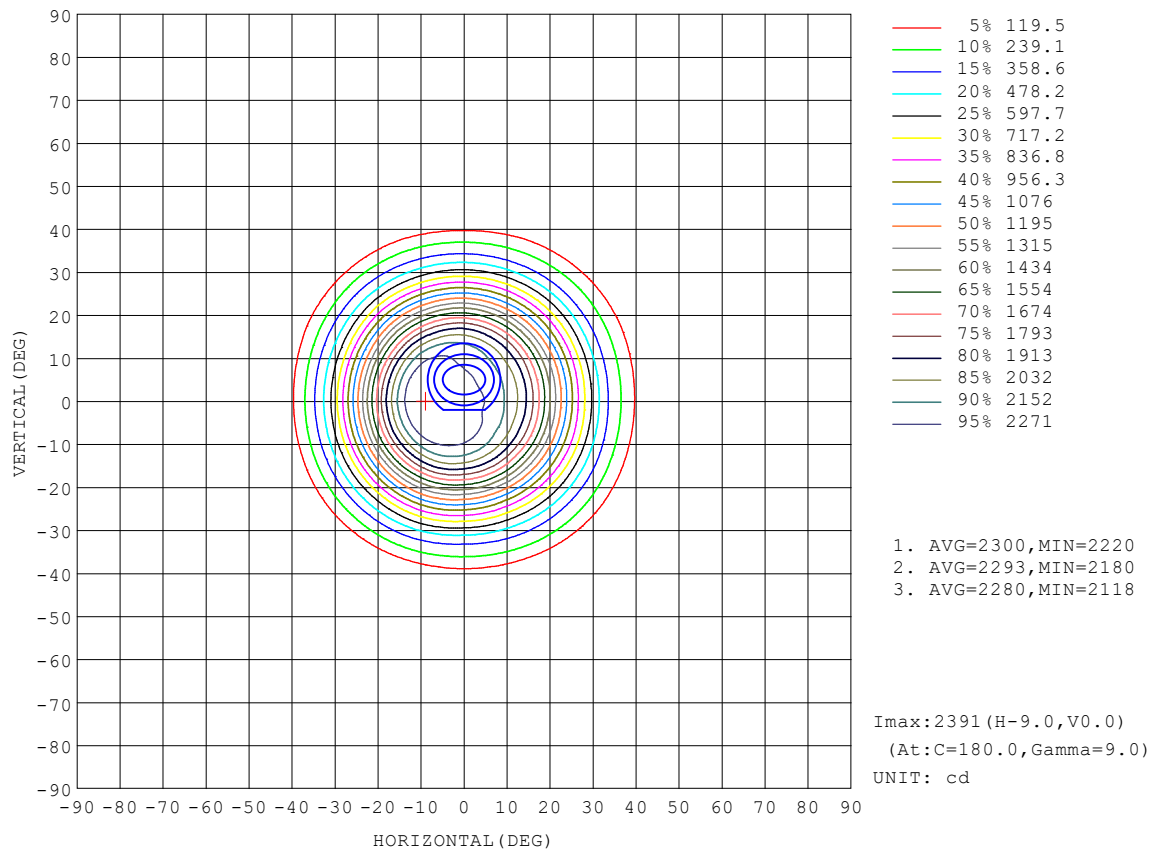
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	80	76	85	79	76	72
0.80	94	88	84	93	87	84	92	87	83	79
1.00	98	92	88	97	92	88	96	92	88	83
1.25	102	97	93	101	96	93	99	95	92	87
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	105	102	108	104	101	105	102	100	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	113	110	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: 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:

ISOCANDELA DIAGRAM

Test:U:239.9V I:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

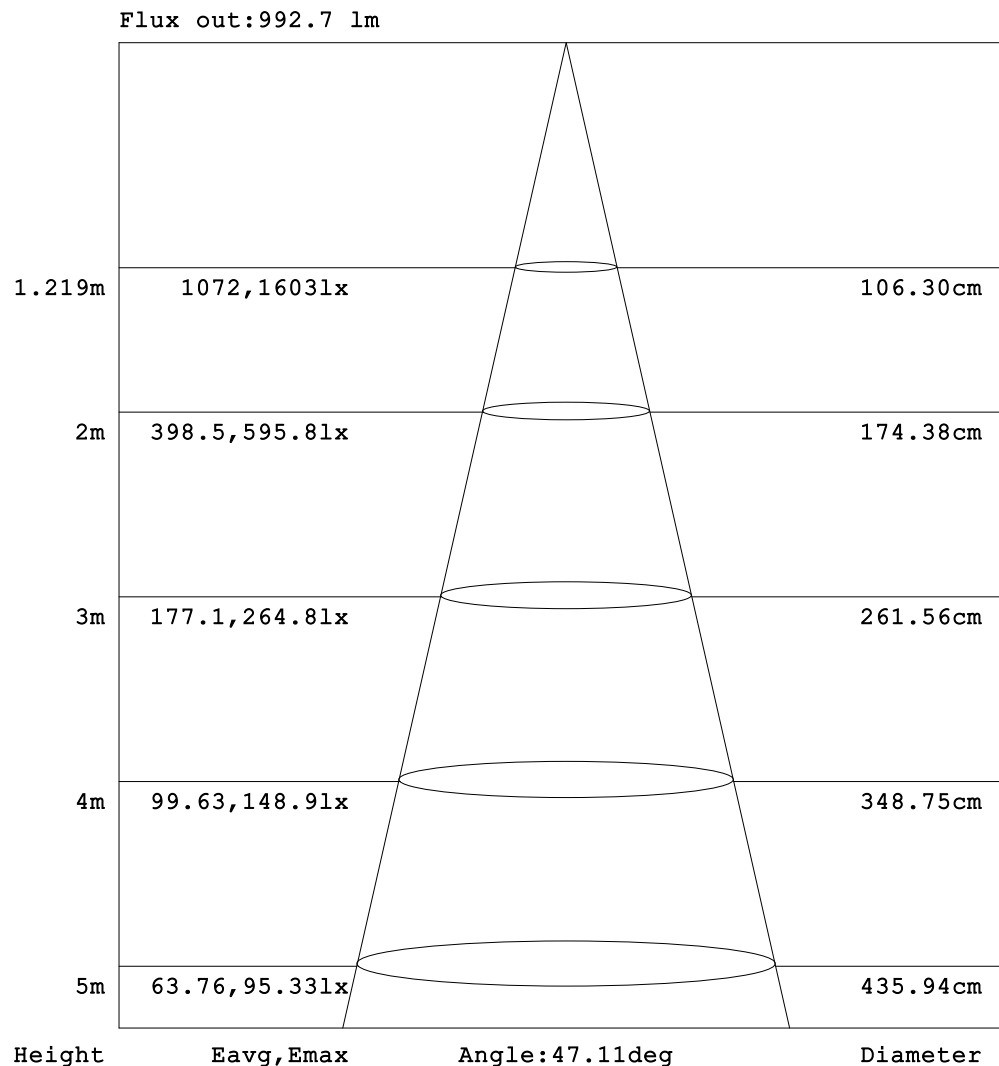


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:06 January 2023

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:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



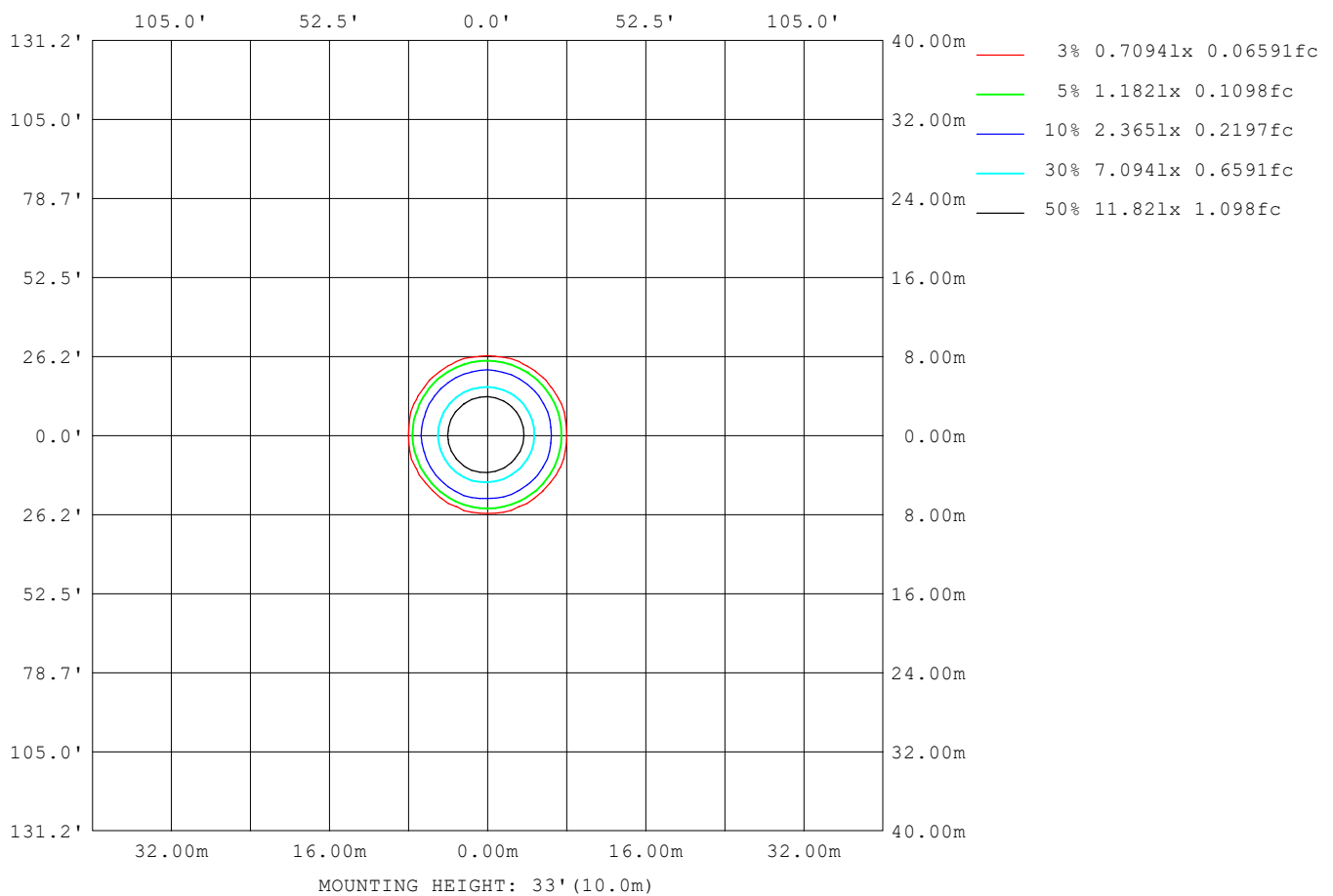
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:0.0687A P:15.43W PF:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 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:0.9357 Lamp Flux:1586.65x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

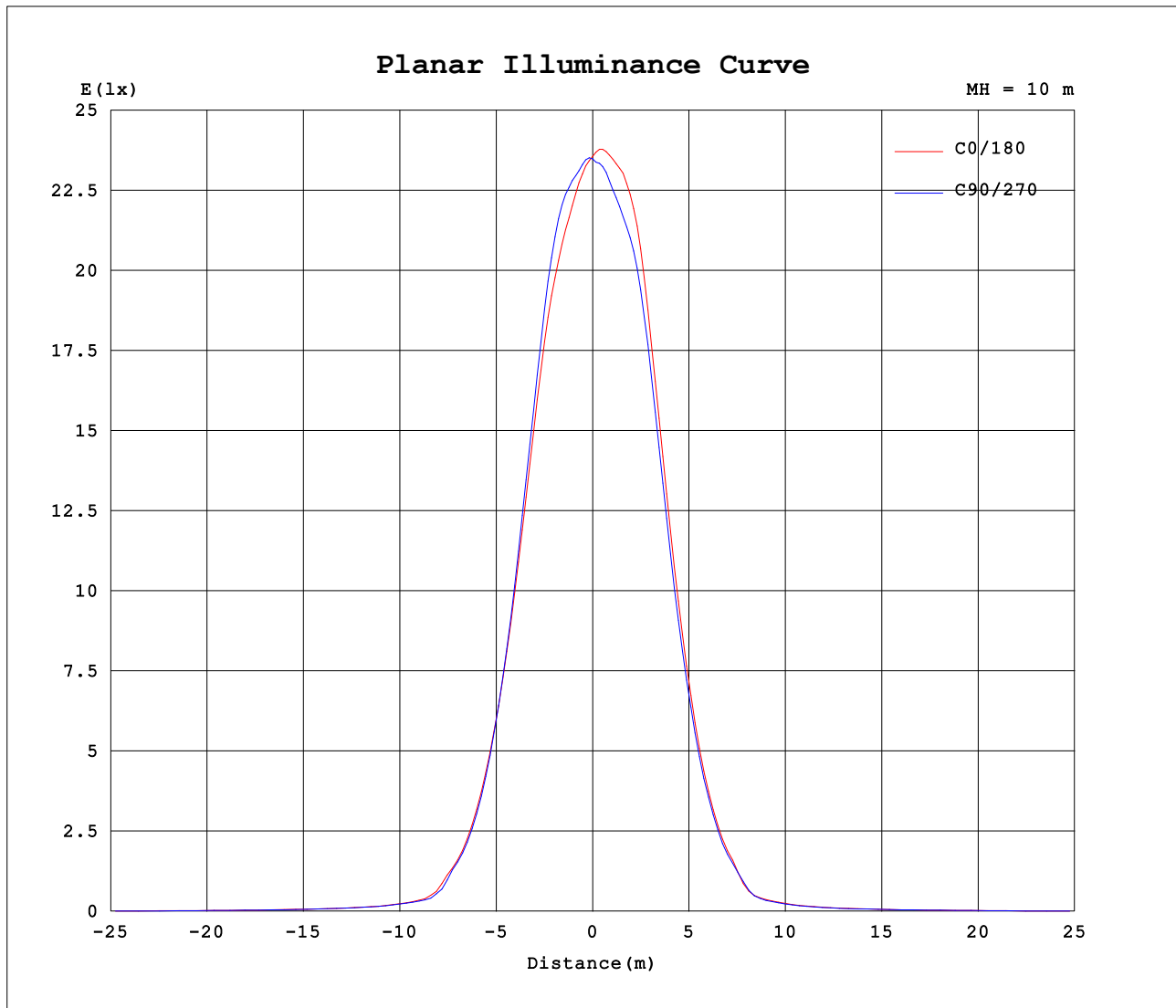
AvgL	cd/m2
L_0~180 (65) av	28753
L_0~180 (75) av	24334
L_0~180 (85) av	20096
L_90~270 (65) av	27708
L_90~270 (75) av	23815
L_90~270 (85) av	19725
L_45 (65) av	28078
L_45 (75) av	24162
L_45 (85) av	19932

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

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:

