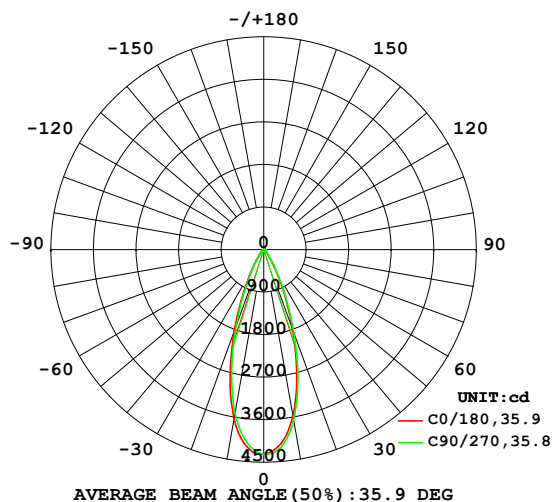


LUMINAIRE PHOTOMETRIC TEST REPORT

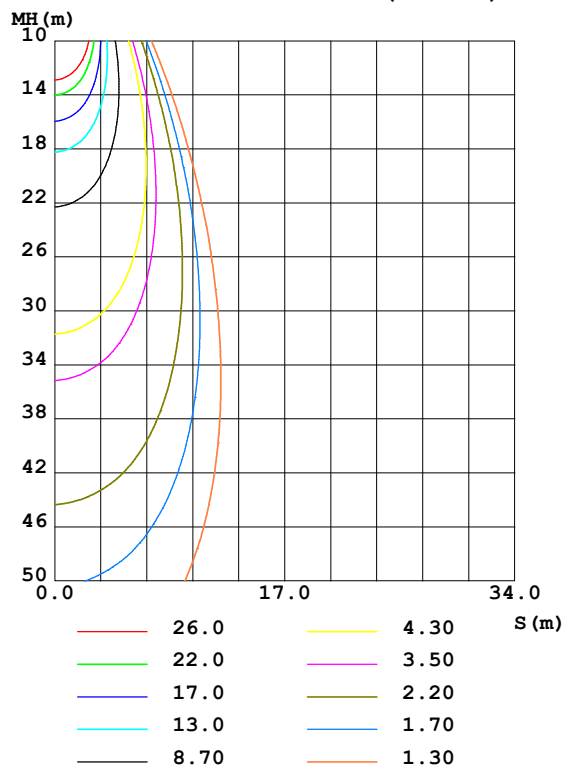
Test:U:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.32 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	4335	S/MH(C0/180)	0.59
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.58
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1921.0	η UP,DN(C0-180)	0.0,51.3
NOMINAL FLUX(lm)	1921	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.7
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:10 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	3570	3630	3661	3662	3629	3566	3507	3522	0- 10	378.6	378.6	19.7,19.7
20	1779	1835	1870	1860	1821	1749	1713	1727	10- 20	741.5	1120	58.3,58.3
30	529.8	561.6	580.7	573.7	549.4	515.9	502.8	506.2	20- 30	482.5	1603	83.4,83.4
40	130.1	141.2	148.4	145.0	135.9	126.4	122.0	123.2	30- 40	178.0	1781	92.7,92.7
50	46.71	48.79	51.87	49.35	47.95	46.45	45.78	45.69	40- 50	60.25	1841	95.8,95.8
60	31.37	32.04	33.31	32.43	32.21	31.87	31.51	31.36	50- 60	34.43	1875	97.6,97.6
70	19.99	20.44	20.99	20.74	20.51	20.00	19.74	19.81	60- 70	25.95	1901	99,99
80	8.860	9.138	9.296	9.205	8.859	8.457	8.449	8.642	70- 80	15.12	1916	99.8,99.8
90	0.0697	0.0807	0.0990	0.0770	0.0807	0.0697	0.0697	0.0660	80- 90	4.659	1921	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): 1817.3 lm

%lum = 94.6%

%lamp = 94.6%

Conical surface Flux(120deg): 1875.3 lm

%lum = 97.6%

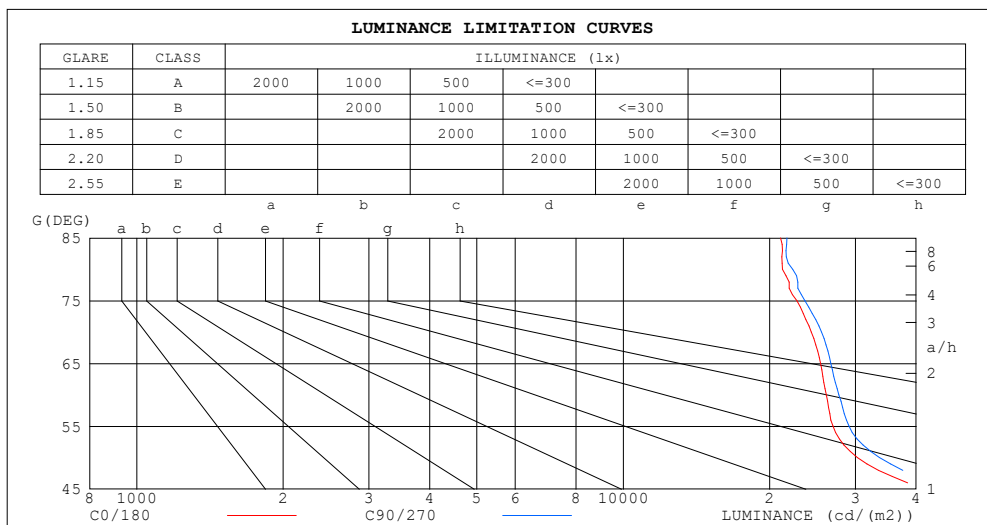
%lamp = 97.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	21065	21695
80	21257	22307
75	22736	23644
70	24354	25573
65	25434	26725
60	26142	27757
55	27001	29127
50	30277	33626
45	41697	47507

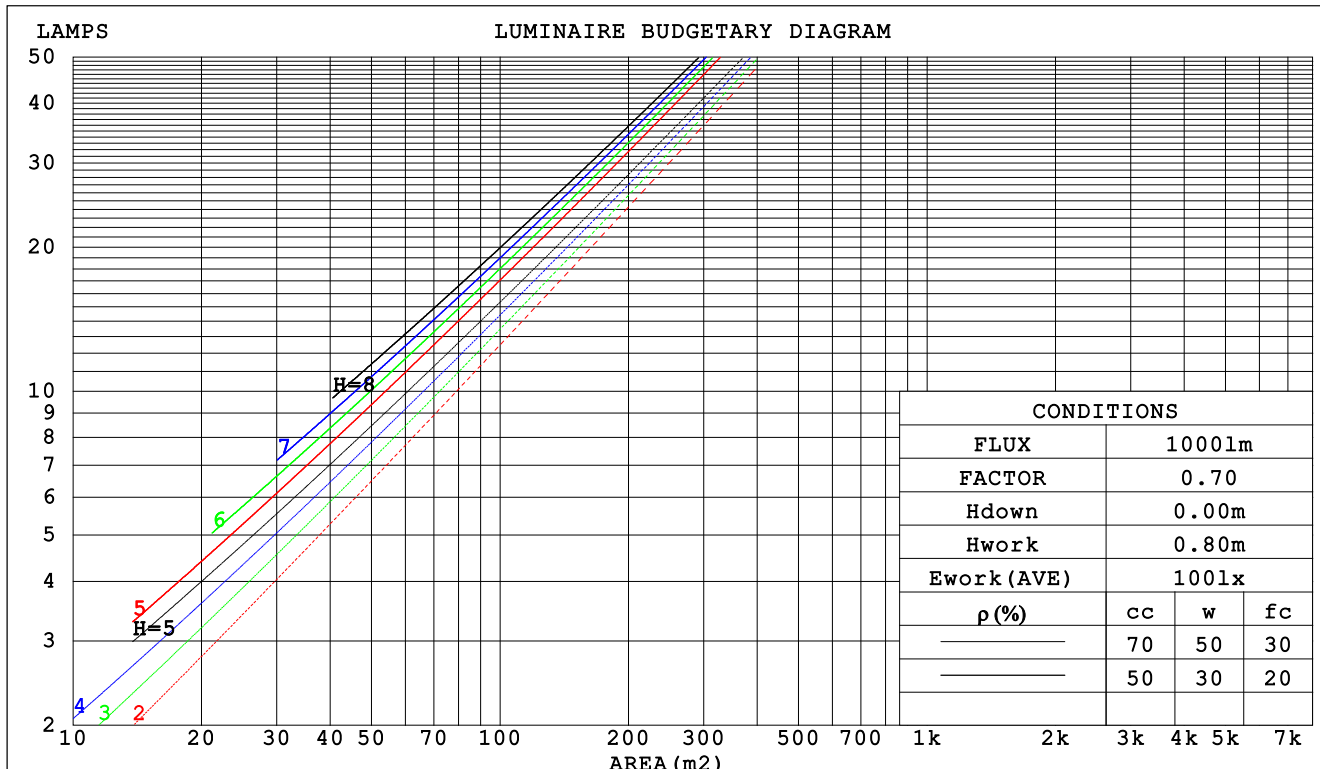
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	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	1.00	.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	.86	.81	.78	.84	.80	.77	.82	.79	.77	.75
6.0	.84	.79	.75	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.79	.74	.71	.78	.74	.71	.77	.73	.70	.76	.72	.70	.69
8.0	.77	.71	.68	.76	.71	.68	.75	.70	.67	.74	.70	.67	.73	.69	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.67	.64	.71	.67	.64	.70	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.68	.64	.62	.68	.64	.61	.60



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K 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	.169 .096 .030	.162 .092 .029	.149 .086 .027	.138 .080 .026	.127 .074 .024	
2.0	.158 .087 .027	.153 .084 .026	.142 .079 .025	.133 .074 .023	.124 .070 .022	
3.0	.149 .079 .024	.144 .077 .023	.135 .073 .022	.127 .070 .021	.119 .066 .020	
4.0	.140 .073 .021	.136 .071 .021	.128 .068 .020	.121 .065 .020	.115 .062 .019	
5.0	.132 .067 .020	.129 .066 .019	.122 .064 .019	.116 .061 .018	.110 .059 .018	
6.0	.125 .063 .018	.122 .062 .018	.116 .060 .017	.111 .058 .017	.106 .056 .017	
7.0	.119 .059 .017	.116 .058 .017	.111 .056 .016	.107 .055 .016	.102 .053 .016	
8.0	.113 .055 .016	.111 .055 .015	.107 .053 .015	.102 .052 .015	.099 .051 .015	
9.0	.108 .052 .015	.106 .052 .015	.102 .051 .014	.099 .049 .014	.095 .048 .014	
10.0	.104 .050 .014	.102 .049 .014	.098 .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 .146	.146 .135 .125	.100 .093 .087	.057 .054 .050	.018 .017 .016	
2.0	.154 .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	.111 .085 .065	.077 .059 .046	.044 .035 .027	.014 .011 .009	
5.0	.120 .087 .062	.103 .075 .054	.071 .052 .038	.041 .031 .023	.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	.085 .055 .033	.059 .038 .023	.034 .023 .014	.011 .007 .005	
9.0	.094 .057 .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:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm										
NAME: BARREL_WHT_35 DEG_500mA_4000K 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	19.7	20.6	20.0	20.7	20.9	20.2	21.0	20.4	21.2	21.3
3H	20.4	21.2	20.7	21.4	21.6	20.8	21.6	21.1	21.8	22.0
4H	20.8	21.5	21.0	21.7	21.9	21.1	21.9	21.4	22.1	22.3
6H	21.0	21.7	21.3	22.0	22.2	21.4	22.1	21.7	22.3	22.6
8H	21.1	21.8	21.4	22.1	22.3	21.5	22.2	21.8	22.4	22.7
12H	21.2	21.9	21.5	22.1	22.4	21.6	22.2	21.9	22.5	22.7
4H 2H	19.9	20.7	20.2	20.9	21.1	20.3	21.0	20.6	21.3	21.5
3H	20.9	21.5	21.2	21.8	22.0	21.2	21.8	21.5	22.1	22.4
4H	21.3	21.9	21.7	22.2	22.5	21.6	22.2	22.0	22.5	22.8
6H	21.7	22.2	22.1	22.6	22.9	22.0	22.5	22.4	22.9	23.2
8H	21.9	22.4	22.3	22.7	23.1	22.2	22.6	22.6	23.0	23.4
12H	22.0	22.4	22.4	22.8	23.2	22.3	22.7	22.7	23.1	23.5
8H 4H	21.5	22.0	21.9	22.3	22.7	21.8	22.2	22.2	22.6	23.0
6H	22.0	22.4	22.4	22.8	23.2	22.3	22.7	22.7	23.1	23.5
8H	22.2	22.6	22.7	23.0	23.4	22.5	22.8	22.9	23.3	23.7
12H	22.4	22.7	22.9	23.2	23.6	22.7	23.0	23.1	23.4	23.9
12H 4H	21.5	21.9	21.9	22.3	22.7	21.7	22.2	22.2	22.6	23.0
6H	22.0	22.4	22.5	22.8	23.2	22.3	22.6	22.7	23.1	23.5
8H	22.3	22.6	22.8	23.0	23.5	22.5	22.9	23.0	23.3	23.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.8					+ 1.0 / - 0.9				
1.5H	+ 1.7 / - 0.8					+ 2.0 / - 0.8				
2.0H	+ 0.6 / - 0.4					+ 0.8 / - 0.4				

CIE Pub.117 Corrected 1921 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.3)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

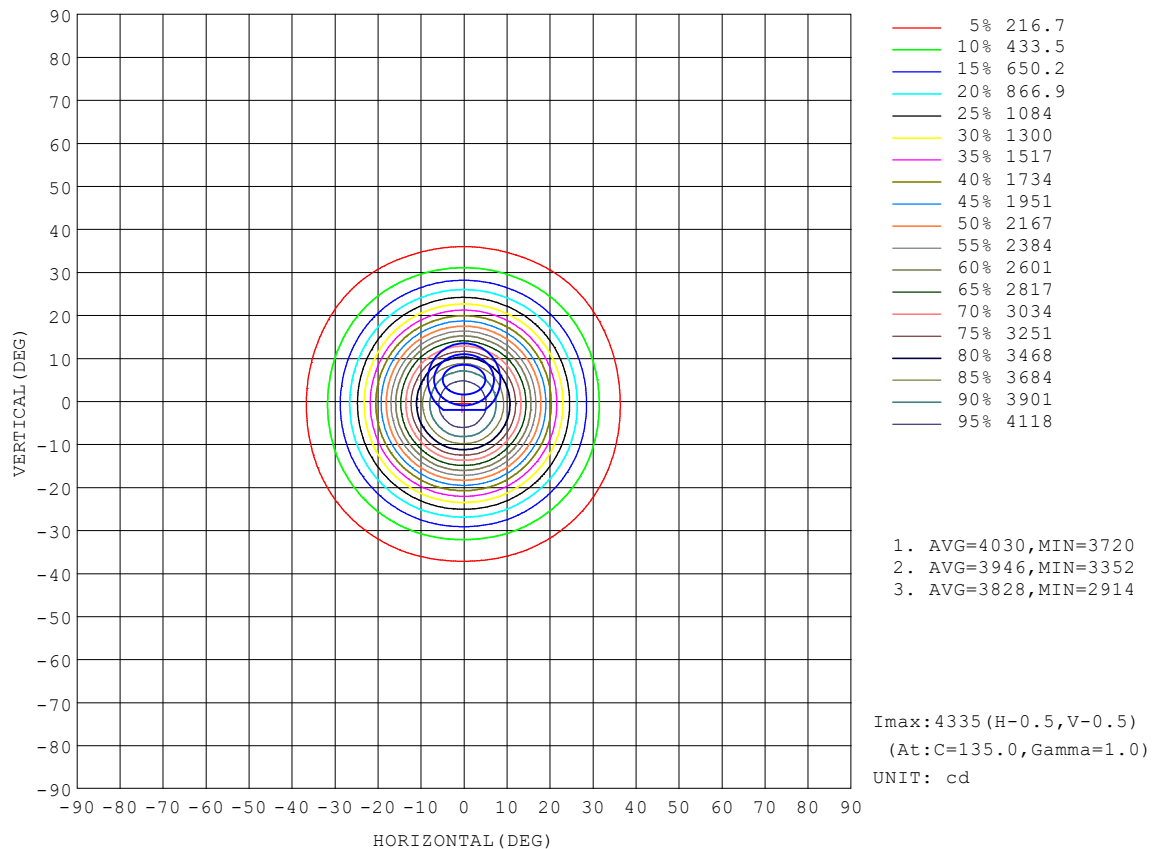
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	94	88	85	94	88	85	93	88	84	80
1.00	99	93	89	98	93	89	96	92	89	85
1.25	103	97	94	102	97	93	100	96	93	88
1.50	105	101	97	104	100	97	102	98	96	91
2.00	108	104	101	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	107	104	106	104	102	95
4.00	114	111	108	112	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:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

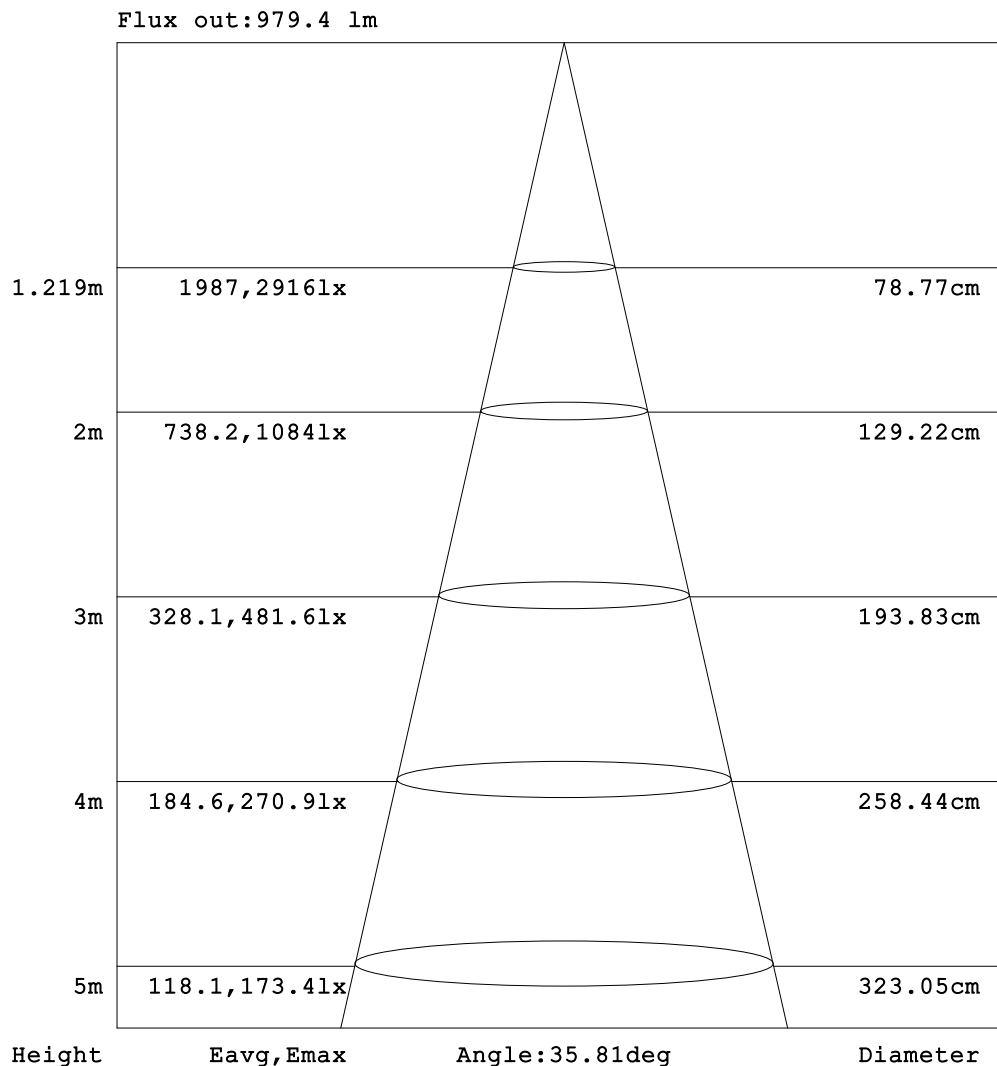


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



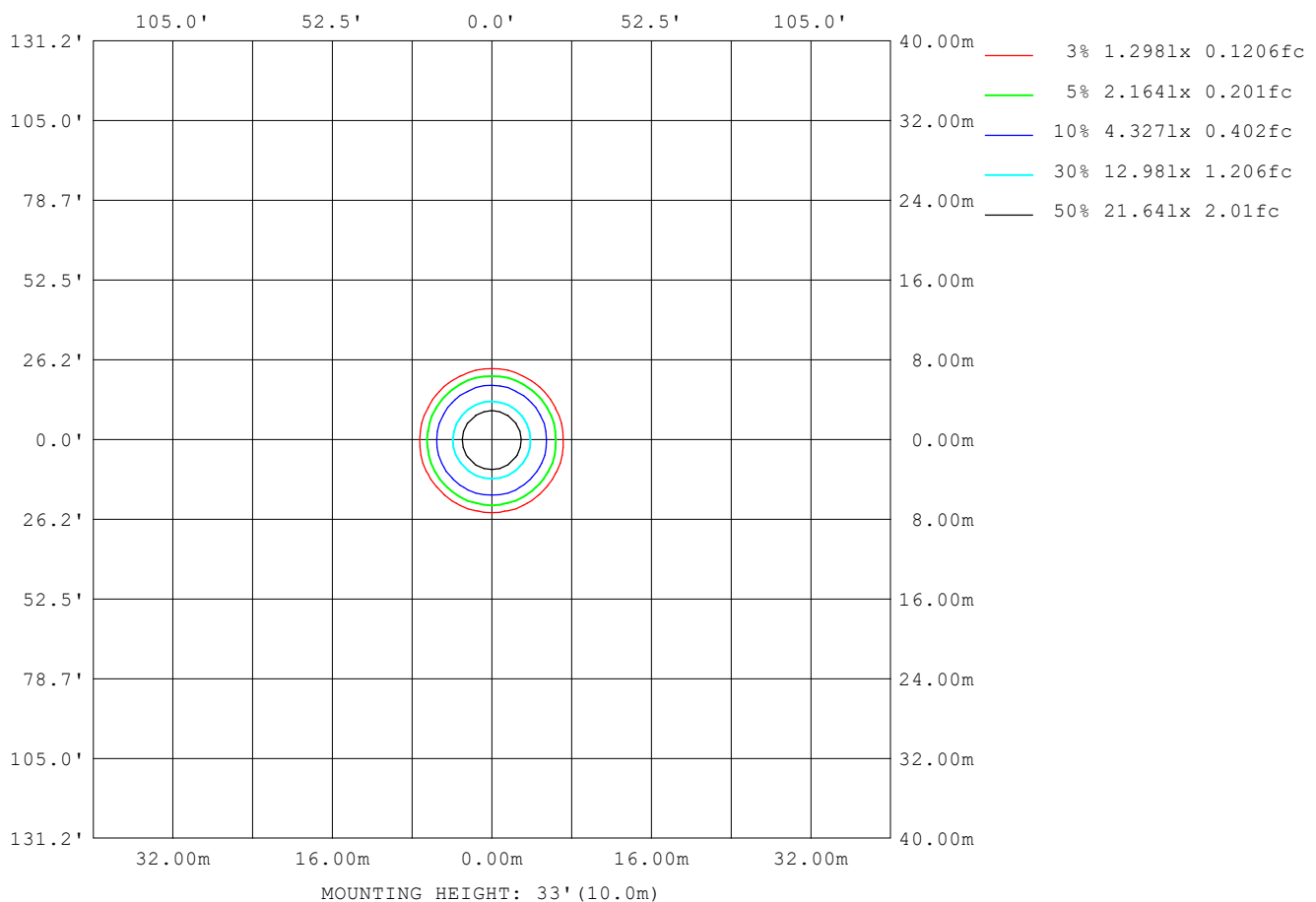
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K 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:10 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:240.0V I:0.0940A P:21.75W PF:0.9642 Lamp Flux:1921x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

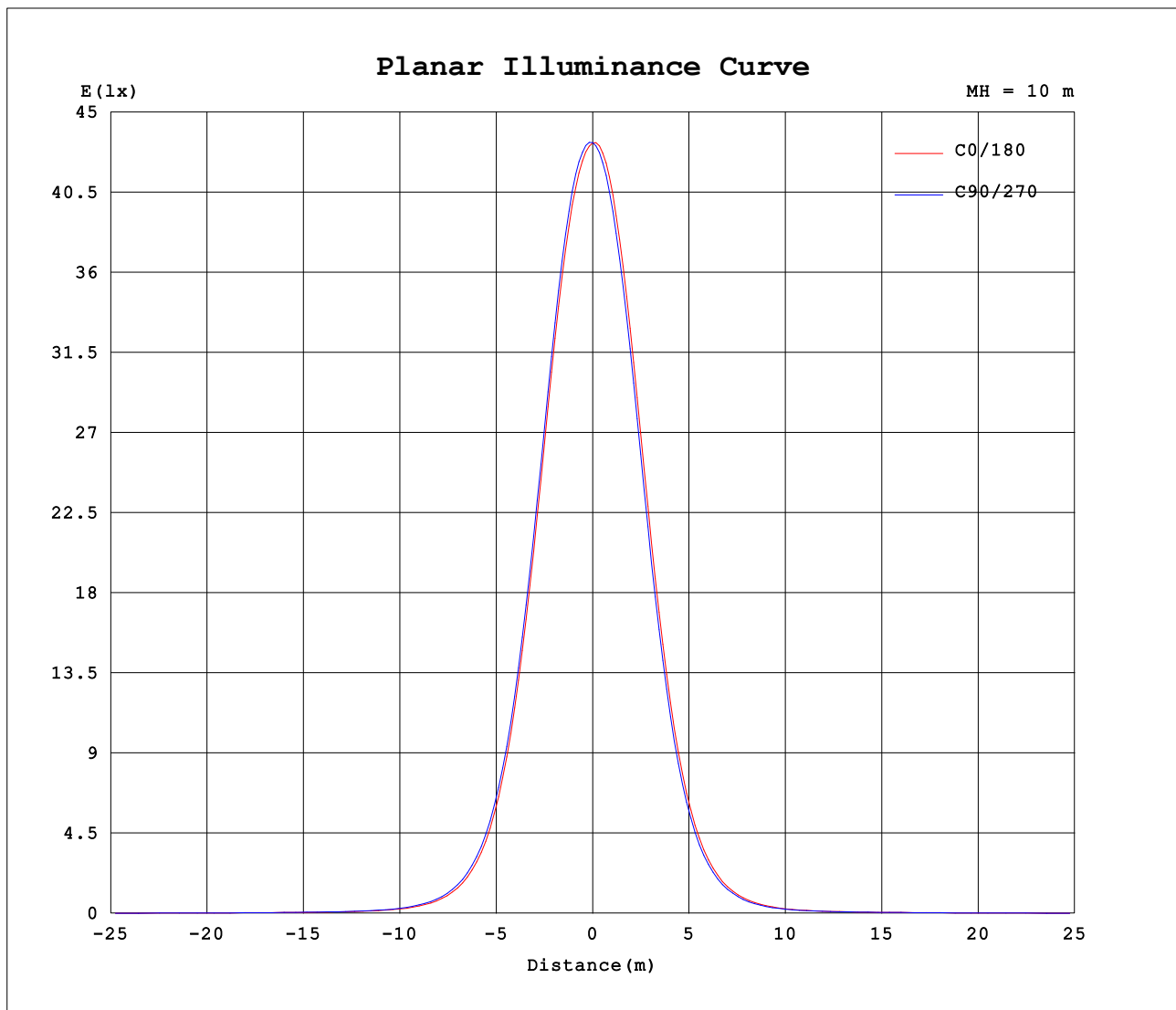
AvgL	cd/m2
L_0~180 (65) av	25791
L_0~180 (75) av	22906
L_0~180 (85) av	20677
L_90~270 (65) av	26078
L_90~270 (75) av	22802
L_90~270 (85) av	20627
L_45 (65) av	25846
L_45 (75) av	22831
L_45 (85) av	20614

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 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: 10 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:

