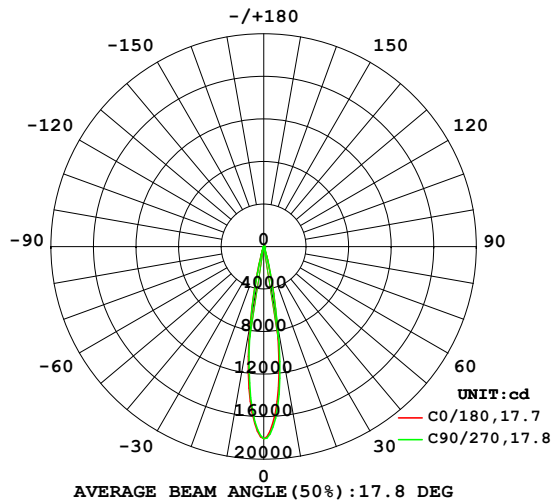


LUMINAIRE PHOTOMETRIC TEST REPORT

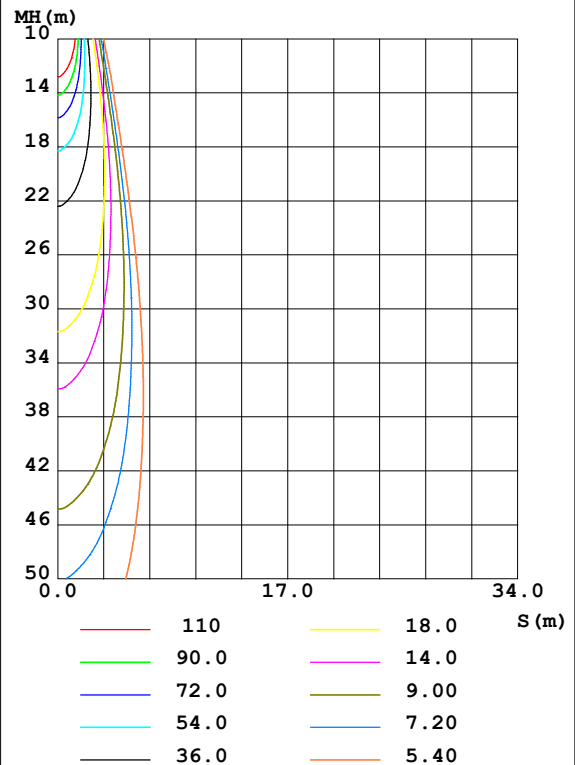
Test:U:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 93.05 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	18068	S/MH(C0/180)	0.30
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.30
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2024.7	η UP,DN(C0-180)	0.0,51.6
NOMINAL FLUX(lm)	2024.67	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.00

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	727.3	749.2	756.0	748.3	737.0	714.7	709.5	722.7	0- 10	1156	1156	57.1,57.1
20	48.65	57.59	60.31	58.86	52.03	44.85	42.24	42.31	10- 20	629.1	1785	88.2,88.2
30	12.60	13.20	13.47	13.35	12.79	12.30	12.02	12.09	20- 30	113.6	1899	93.8,93.8
40	5.517	5.799	6.178	5.754	5.636	5.445	5.266	5.258	30- 40	53.74	1953	96.4,96.4
50	2.599	2.773	2.962	2.743	2.656	2.576	2.497	2.528	40- 50	30.15	1983	97.9,97.9
60	1.602	1.662	1.800	1.713	1.690	1.631	1.594	1.585	50- 60	18.26	2001	98.8,98.8
70	1.015	1.070	1.172	1.119	1.089	1.025	0.9878	0.9936	60- 70	13.49	2015	99.5,99.5
80	0.4082	0.4174	0.4320	0.4404	0.4305	0.4082	0.4021	0.4043	70- 80	7.886	2023	99.9,99.9
90	0.0048	0.0048	0.0059	0.0048	0.0055	0.0040	0.0051	0.0048	80- 90	2.118	2025	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: μ A10cd									UNIT: lm		

Conical surface Flux(90deg): 1970 lm

%lum = 97.3%

%lamp = 97.3%

Conical surface Flux(120deg): 2001.2 lm

%lum = 98.8%

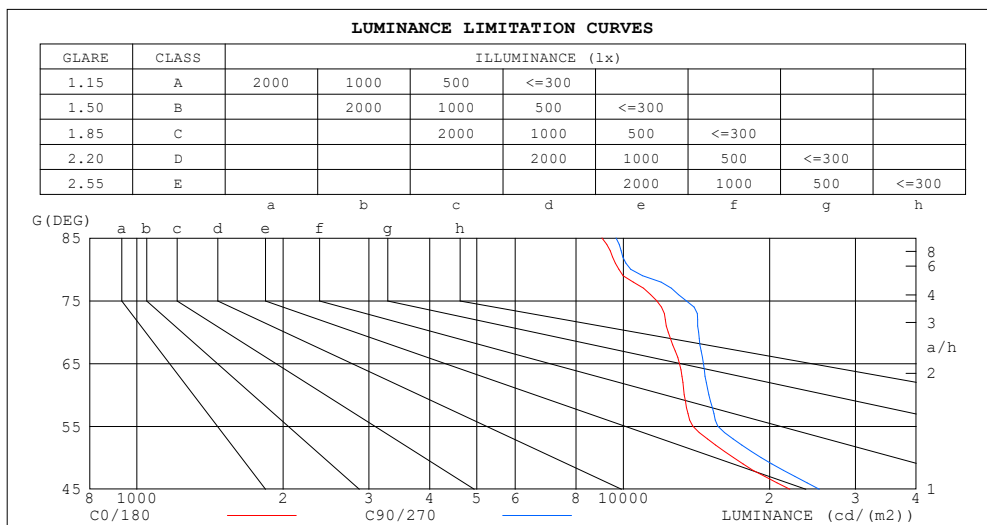
%lamp = 98.8%

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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 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	9038	9669
80	9798	10368
75	11724	13464
70	12375	14277
65	13051	14620
60	13351	15007
55	13906	15642
50	16857	19203
45	22018	25294

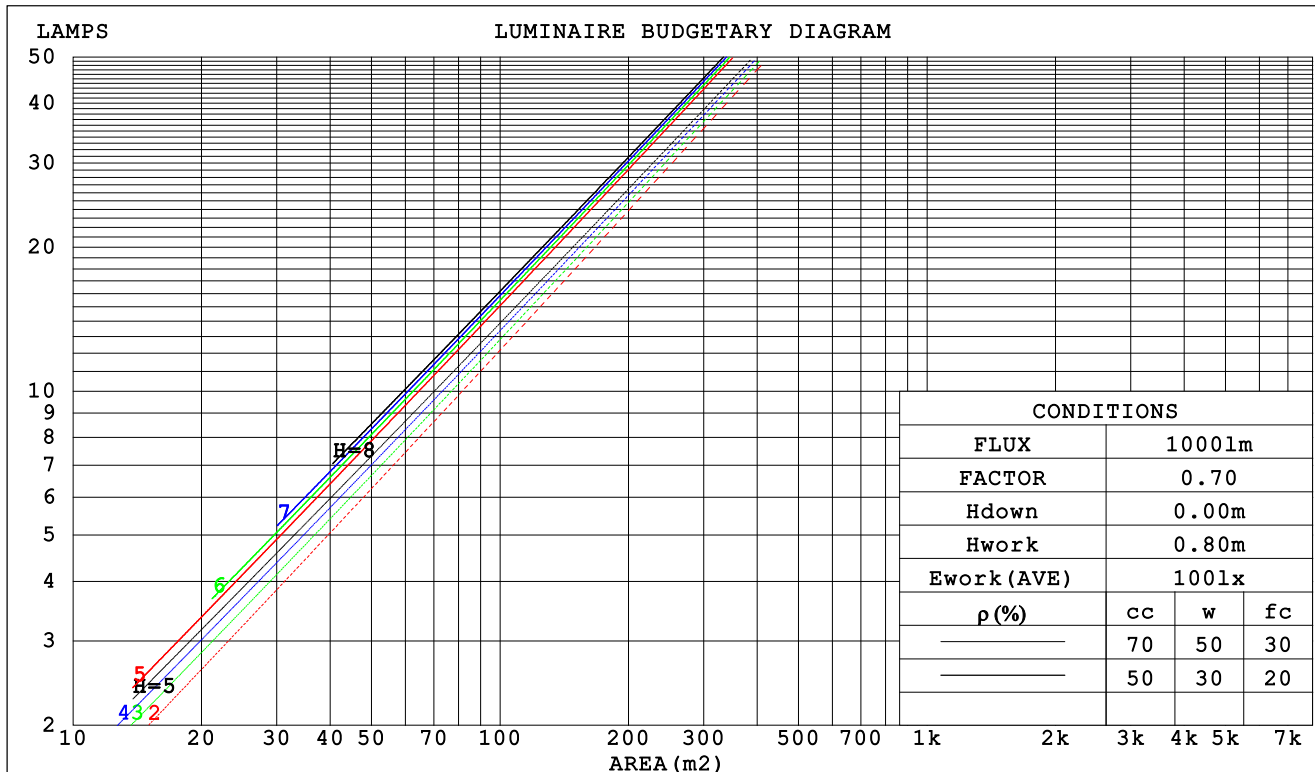
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 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	1.13	1.12	1.10	1.11	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.02	1.00	.00	.99	.97
2.0	1.09	1.06	1.04	1.07	1.05	1.03	1.04	1.02	1.00	1.01	.00	.98	.99	.97	.96	.95
3.0	1.05	1.02	.99	1.04	1.01	.98	1.01	.99	.97	.99	.97	.95	.97	.95	.94	.93
4.0	1.02	.98	.95	1.00	.97	.95	.99	.96	.94	.97	.95	.93	.95	.93	.92	.91
5.0	.99	.95	.92	.98	.94	.92	.96	.93	.91	.95	.92	.91	.93	.91	.90	.89
6.0	.96	.93	.90	.95	.92	.90	.94	.91	.89	.93	.91	.89	.92	.90	.88	.87
7.0	.94	.90	.88	.93	.90	.88	.92	.89	.87	.91	.89	.87	.90	.88	.86	.86
8.0	.92	.88	.86	.92	.88	.86	.91	.88	.86	.90	.87	.85	.89	.87	.85	.84
9.0	.90	.87	.84	.90	.87	.84	.89	.86	.84	.88	.86	.84	.88	.85	.84	.83
10.0	.89	.85	.83	.88	.85	.83	.88	.85	.83	.87	.84	.83	.86	.84	.82	.82



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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 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	.127	.072	.023	.121	.069	.022	.108	.062	.020	.097	.056	.018	.087	.050	.016		
2.0	.116	.064	.020	.111	.061	.019	.101	.056	.017	.092	.051	.016	.083	.047	.015		
3.0	.107	.057	.017	.102	.055	.017	.094	.051	.015	.086	.047	.015	.079	.044	.014		
4.0	.099	.051	.015	.095	.050	.015	.088	.047	.014	.082	.044	.013	.075	.041	.012		
5.0	.092	.047	.014	.089	.046	.013	.083	.043	.013	.077	.041	.012	.072	.039	.012		
6.0	.086	.043	.012	.083	.042	.012	.078	.040	.012	.073	.038	.011	.069	.036	.011		
7.0	.081	.040	.011	.078	.039	.011	.074	.037	.011	.070	.036	.010	.066	.034	.010		
8.0	.076	.037	.010	.074	.036	.010	.070	.035	.010	.067	.034	.010	.063	.033	.009		
9.0	.072	.035	.010	.070	.034	.010	.067	.033	.009	.064	.032	.009	.061	.031	.009		
10.0	.068	.033	.009	.067	.032	.009	.064	.031	.009	.061	.030	.009	.059	.030	.008		

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	.168	.158	.149	.143	.135	.128	.098	.093	.089	.056	.054	.052	.018	.017	.017	
2.0	.149	.133	.119	.127	.114	.103	.087	.079	.072	.050	.046	.042	.016	.015	.014	
3.0	.133	.113	.097	.114	.098	.084	.078	.068	.059	.045	.040	.035	.015	.013	.011	
4.0	.120	.098	.081	.103	.084	.070	.071	.059	.049	.041	.034	.029	.013	.011	.010	
5.0	.109	.085	.068	.093	.074	.059	.064	.051	.042	.037	.030	.025	.012	.010	.008	
6.0	.099	.075	.058	.085	.065	.050	.059	.045	.035	.034	.027	.021	.011	.009	.007	
7.0	.091	.066	.049	.078	.058	.043	.054	.040	.030	.031	.024	.018	.010	.008	.006	
8.0	.084	.059	.043	.072	.052	.037	.050	.036	.026	.029	.021	.016	.009	.007	.005	
9.0	.078	.054	.037	.067	.046	.032	.046	.033	.023	.027	.019	.014	.009	.006	.005	
10.0	.072	.049	.033	.062	.042	.029	.043	.030	.020	.025	.018	.012	.008	.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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm										
NAME: BARREL_WHT_10 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	13.7	14.3	13.9	14.4	14.5	14.1	14.7	14.3	14.8	15.0
3H	14.7	15.3	15.0	15.5	15.6	15.2	15.8	15.5	15.9	16.1
4H	15.2	15.7	15.5	15.9	16.2	15.8	16.3	16.0	16.5	16.7
6H	15.5	16.0	15.8	16.3	16.5	16.1	16.6	16.4	16.8	17.0
8H	15.6	16.1	15.9	16.4	16.6	16.2	16.6	16.5	16.9	17.1
12H	15.7	16.2	16.0	16.4	16.7	16.2	16.7	16.5	16.9	17.2
4H 2H	14.1	14.6	14.4	14.8	15.0	14.5	15.0	14.7	15.2	15.4
3H	15.4	15.9	15.7	16.1	16.4	15.8	16.3	16.1	16.5	16.8
4H	16.0	16.4	16.4	16.7	17.0	16.5	16.9	16.8	17.2	17.5
6H	16.4	16.8	16.8	17.1	17.5	16.9	17.3	17.3	17.6	17.9
8H	16.6	16.9	16.9	17.2	17.6	17.0	17.4	17.4	17.7	18.1
12H	16.6	17.0	17.0	17.3	17.7	17.1	17.4	17.5	17.8	18.2
8H 4H	16.2	16.6	16.6	16.9	17.3	16.6	17.0	17.0	17.3	17.7
6H	16.7	17.0	17.2	17.4	17.8	17.2	17.4	17.6	17.8	18.2
8H	16.9	17.2	17.4	17.6	18.0	17.3	17.6	17.8	18.0	18.4
12H	17.1	17.3	17.5	17.7	18.2	17.5	17.7	17.9	18.1	18.6
12H 4H	16.2	16.5	16.6	16.9	17.3	16.6	17.0	17.0	17.3	17.7
6H	16.8	17.0	17.2	17.4	17.9	17.2	17.4	17.6	17.8	18.3
8H	17.0	17.2	17.4	17.6	18.1	17.4	17.6	17.8	18.0	18.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.4 / - 0.5				
1.5H	+ 0.7 / - 0.5					+ 0.8 / - 0.4				
2.0H	+ 0.7 / - 0.5					+ 0.9 / - 0.4				

CIE Pub.117 Corrected 2025 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.5)

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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

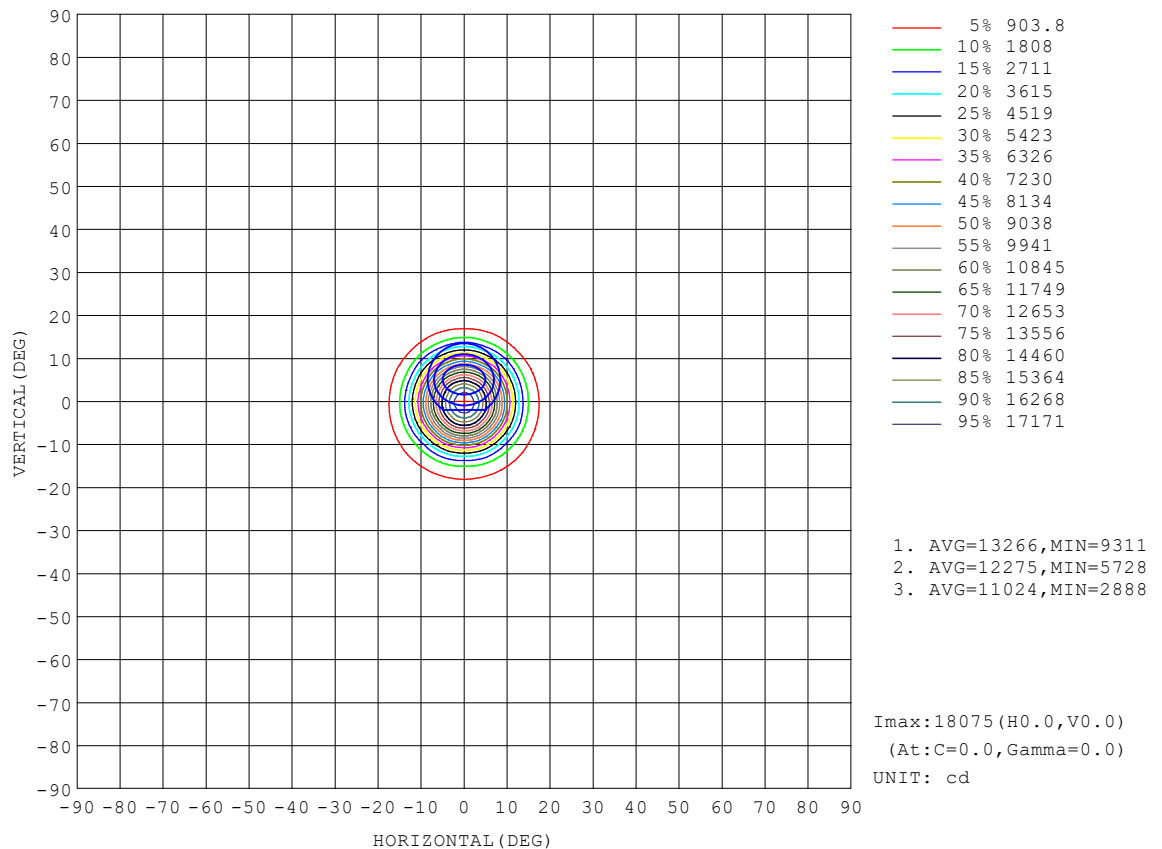
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	96	91	87	96	91	87	95	90	87	84
1.00	100	95	92	100	95	91	98	94	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	101	99	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	109	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

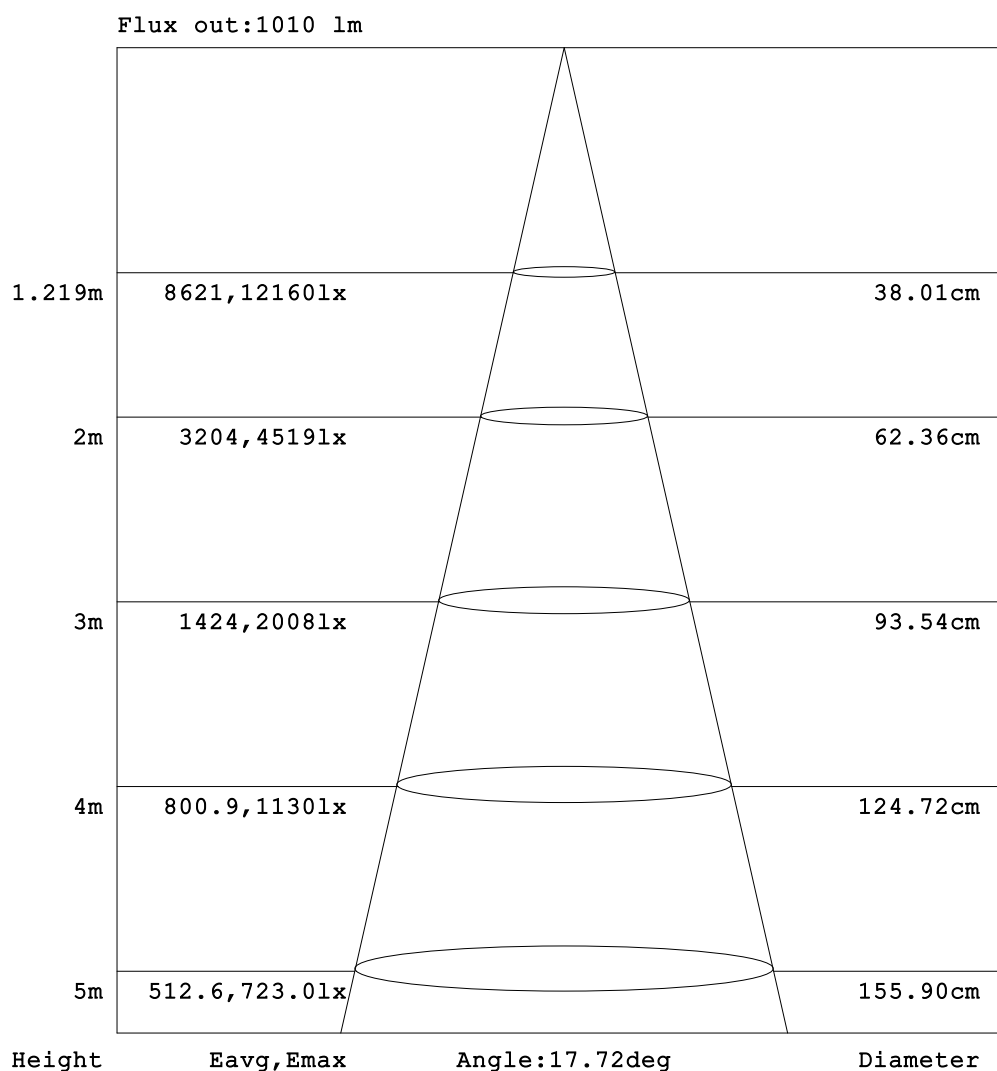


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



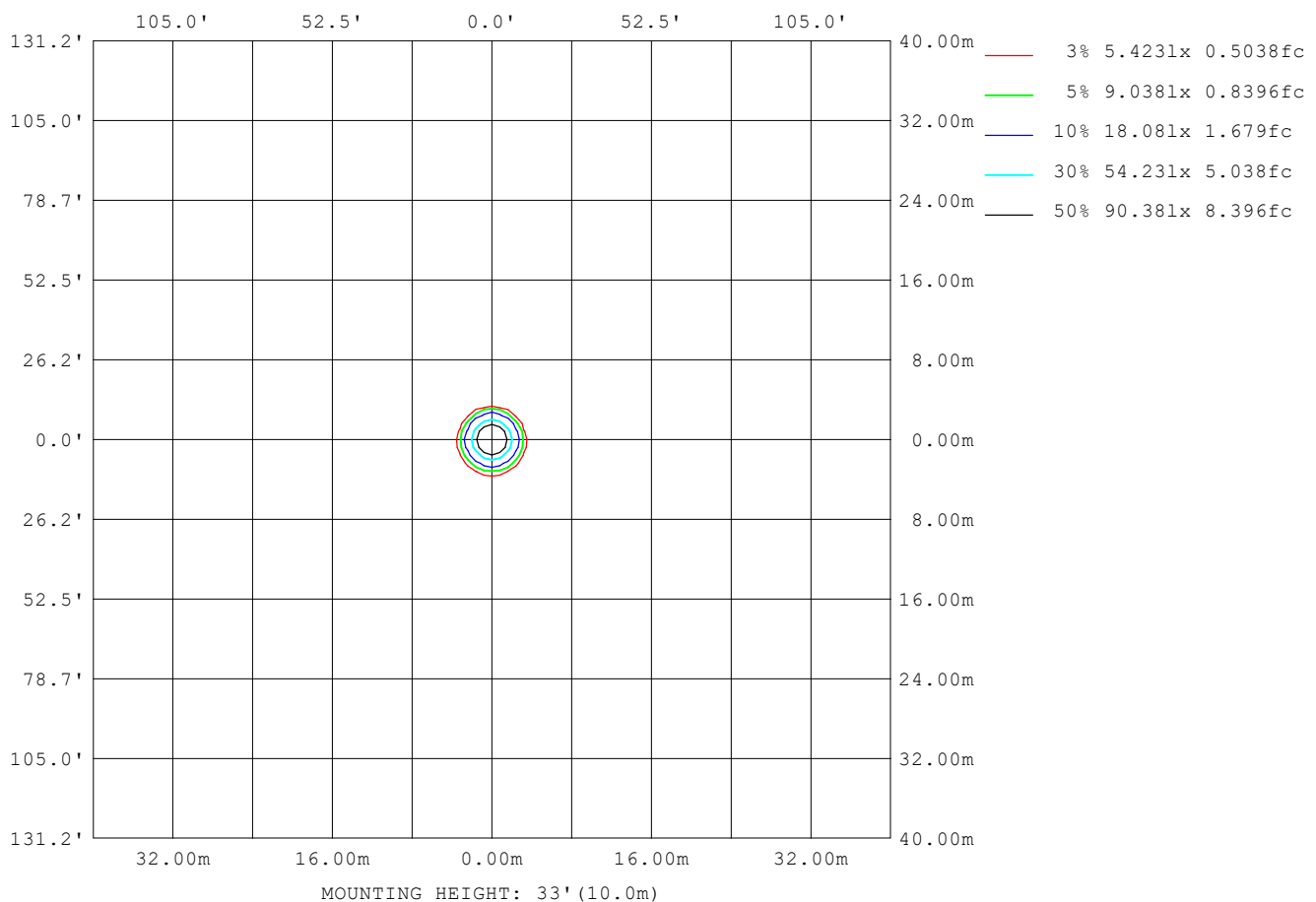
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 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:240.1V I:0.0940A P:21.76W PF:0.9642 Lamp Flux:2024.67x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

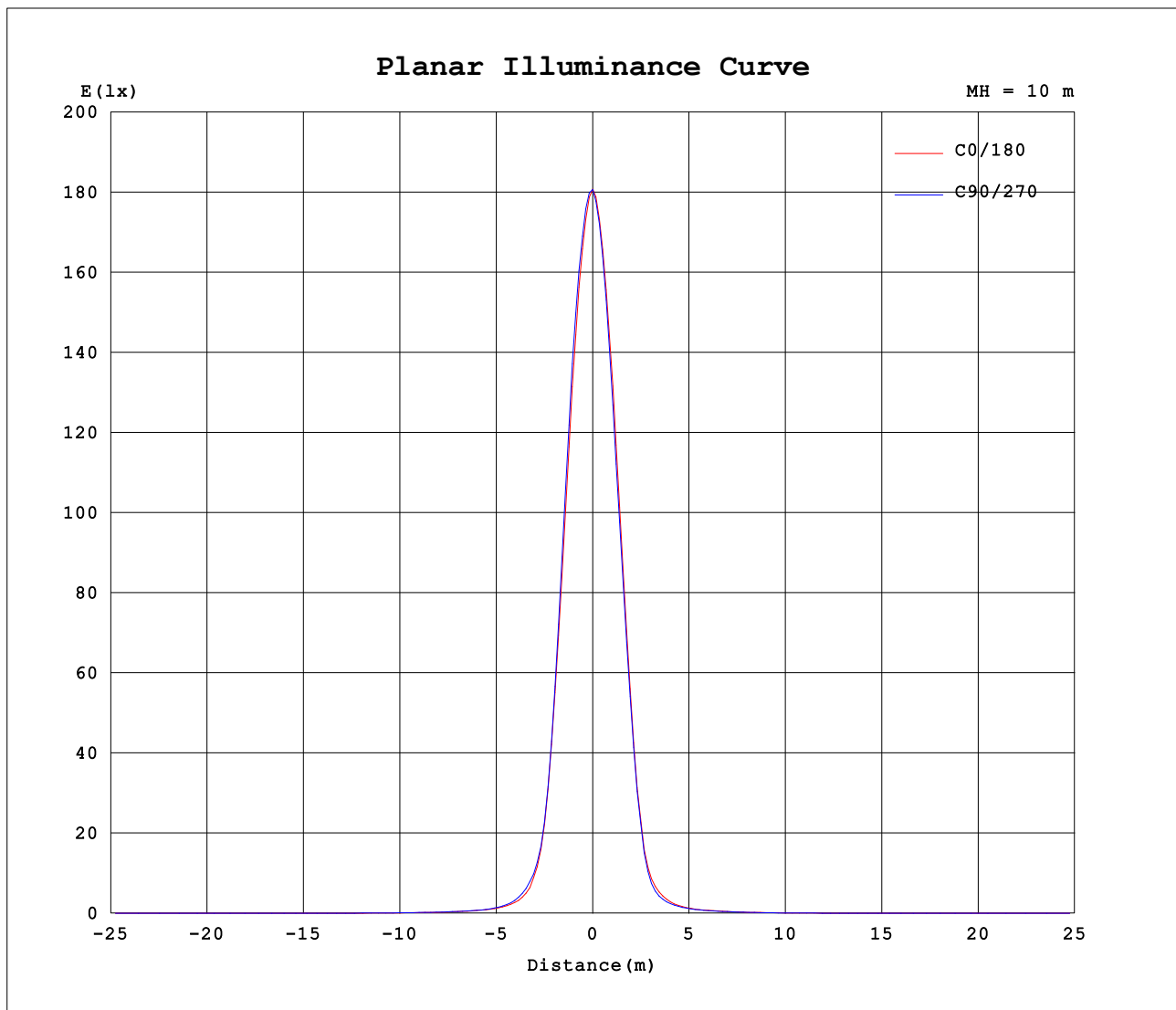
AvgL	cd/m2
L_0~180 (65) av	13476
L_0~180 (75) av	12155
L_0~180 (85) av	9158
L_90~270 (65) av	13729
L_90~270 (75) av	12278
L_90~270 (85) av	9121
L_45 (65) av	13443
L_45 (75) av	12174
L_45 (85) av	9109

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:

