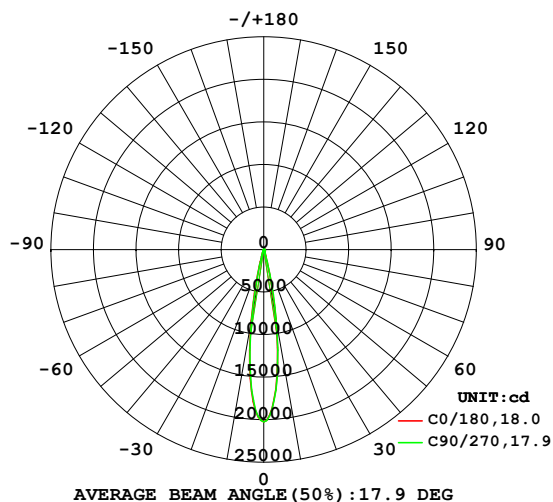


LUMINAIRE PHOTOMETRIC TEST REPORT

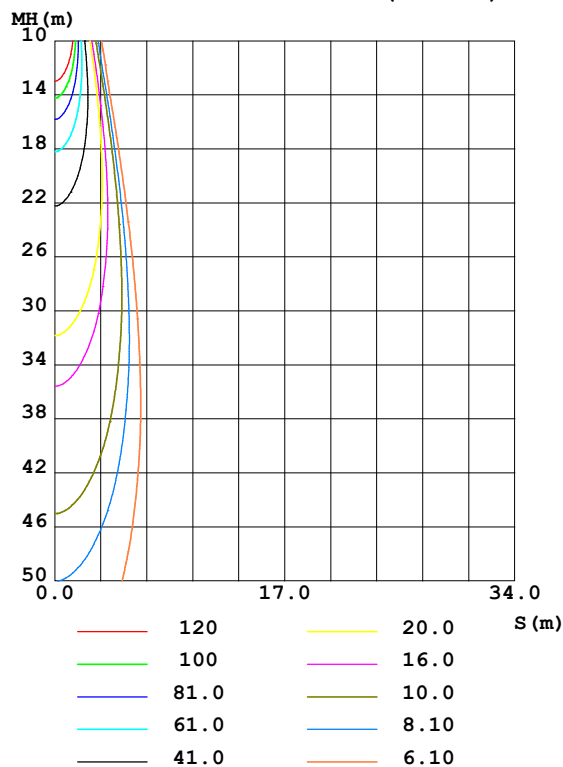
Test:U:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.24 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	20248	S/MH(C0/180)	0.30
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.29
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2314.4	η UP,DN(C0-180)	0.0,50.7
NOMINAL FLUX(lm)	2314.36	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.3
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:31 July 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	827.4	848.5	862.4	858.5	846.3	819.1	805.5	809.6	0- 10	1308	1308	56.5,56.5
20	59.10	57.76	55.82	58.97	60.05	59.06	61.83	61.27	10- 20	717.2	2026	87.5,87.5
30	15.10	15.04	15.24	15.44	15.47	15.52	15.46	15.31	20- 30	134.3	2160	93.3,93.3
40	6.933	6.817	6.785	6.892	6.843	6.897	6.935	6.987	30- 40	65.46	2225	96.1,96.1
50	3.386	3.301	3.296	3.285	3.219	3.271	3.316	3.460	40- 50	37.37	2263	97.8,97.8
60	2.064	2.033	2.044	2.069	2.040	2.037	2.044	2.081	50- 60	22.79	2285	98.7,98.7
70	1.302	1.286	1.294	1.304	1.305	1.306	1.323	1.314	60- 70	16.69	2302	99.5,99.5
80	0.5110	0.5340	0.5409	0.5279	0.5115	0.4998	0.4984	0.5005	70- 80	9.615	2312	99.9,99.9
90	0.0073	0.0092	0.0099	0.0088	0.0077	0.0070	0.0073	0.0070	80- 90	2.635	2314	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): 2246.5 lm

%lum = 97.1%

%lamp = 97.1%

Conical surface Flux(120deg): 2285.4 lm

%lum = 98.7%

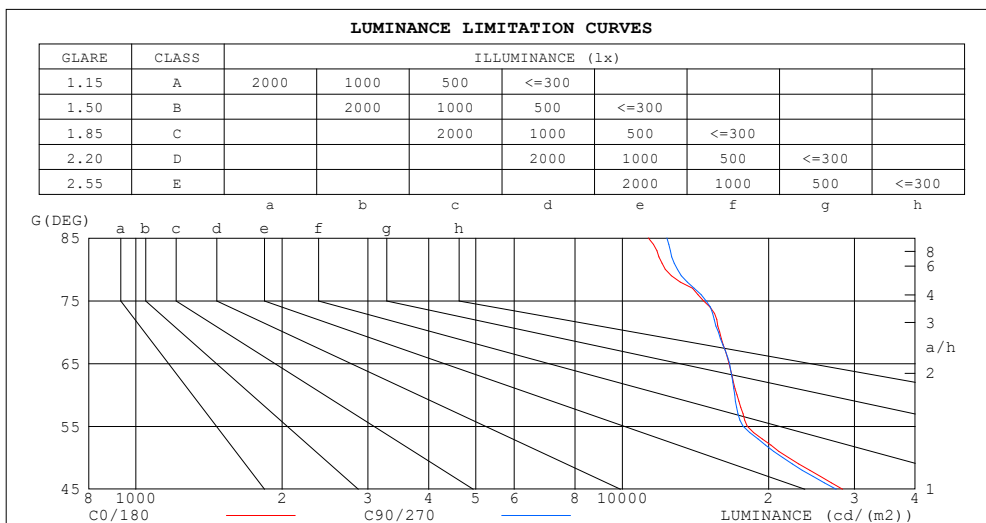
%lamp = 98.7%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 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	11309	12344
80	12263	12980
75	14692	14855
70	15869	15760
65	16585	16618
60	17203	17036
55	18081	17727
50	21954	21368
45	28373	27550

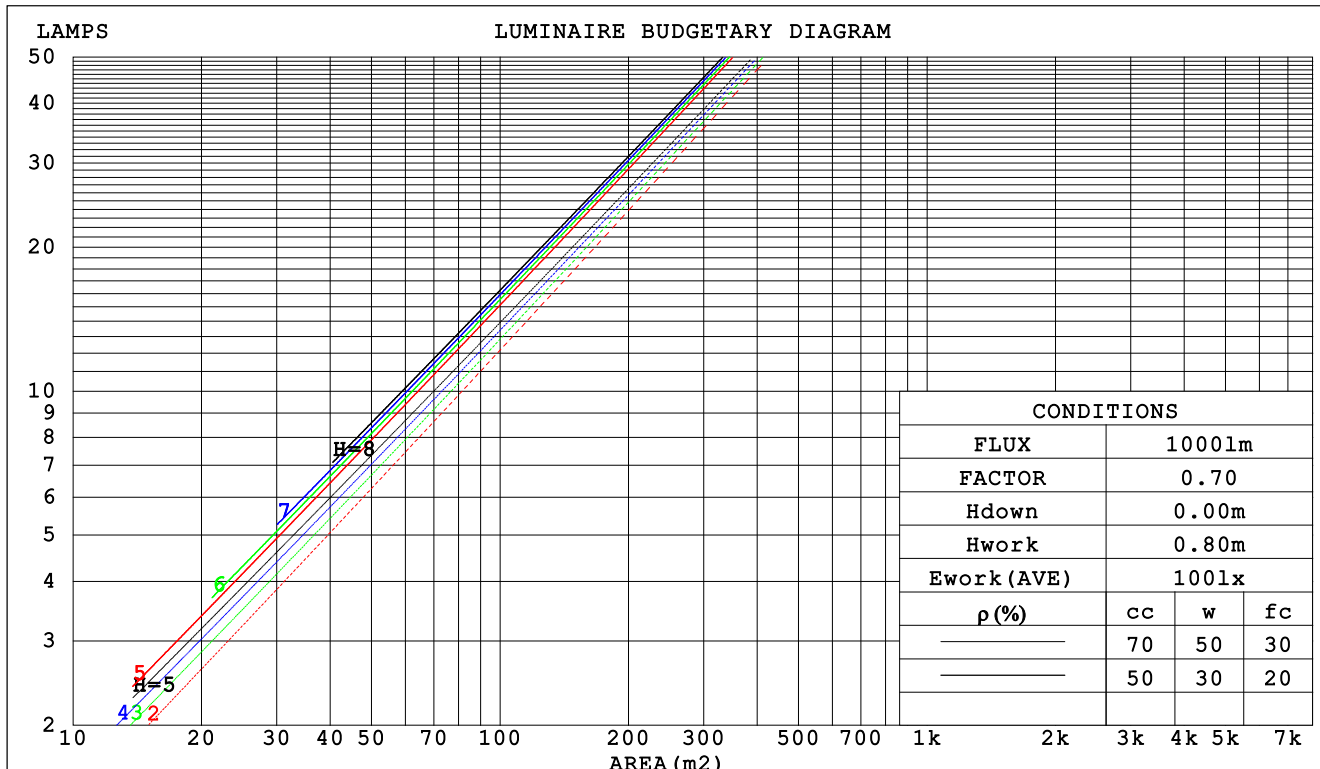
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 2023

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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 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	1.13	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	1.03	1.07	1.04	1.02	1.04	1.02	1.00	1.01	.99	.98	.98	.97	.96	.95
3.0	1.05	1.01	.99	1.03	1.00	.98	1.01	.98	.96	.99	.97	.95	.97	.95	.94	.92
4.0	1.01	.98	.95	1.00	.97	.94	.98	.96	.93	.97	.94	.92	.95	.93	.91	.90
5.0	.98	.95	.92	.98	.94	.92	.96	.93	.91	.95	.92	.90	.93	.91	.89	.88
6.0	.96	.92	.90	.95	.92	.89	.94	.91	.89	.93	.90	.88	.92	.89	.88	.87
7.0	.94	.90	.87	.93	.90	.87	.92	.89	.87	.91	.88	.86	.90	.88	.86	.85
8.0	.92	.88	.86	.91	.88	.85	.90	.87	.85	.89	.87	.85	.89	.86	.85	.84
9.0	.90	.86	.84	.89	.86	.84	.89	.86	.84	.88	.85	.83	.87	.85	.83	.82
10.0	.88	.85	.83	.88	.85	.82	.87	.84	.82	.87	.84	.82	.86	.84	.82	.81



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 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	.129	.073	.023	.122	.070	.022	.110	.063	.020	.098	.057	.018	.088	.051	.016		
2.0	.118	.064	.020	.112	.062	.019	.102	.057	.018	.093	.052	.016	.084	.048	.015		
3.0	.108	.058	.017	.104	.055	.017	.095	.052	.016	.087	.048	.015	.080	.044	.014		
4.0	.100	.052	.015	.096	.050	.015	.089	.047	.014	.083	.044	.013	.077	.042	.013		
5.0	.093	.047	.014	.090	.046	.013	.084	.044	.013	.078	.041	.012	.073	.039	.012		
6.0	.087	.044	.012	.084	.042	.012	.079	.041	.012	.074	.039	.011	.070	.037	.011		
7.0	.082	.040	.011	.079	.039	.011	.075	.038	.011	.071	.036	.011	.067	.035	.010		
8.0	.077	.038	.011	.075	.037	.010	.071	.036	.010	.068	.034	.010	.064	.033	.010		
9.0	.073	.035	.010	.071	.035	.010	.068	.034	.009	.065	.032	.009	.062	.031	.009		
10.0	.069	.033	.009	.068	.033	.009	.065	.032	.009	.062	.031	.009	.059	.030	.009		

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	.144	.135	.128	.098	.093	.089	.057	.054	.051	.018	.017	.017		
2.0	.149	.133	.119	.128	.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	.057	.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	.047	.032	.047	.033	.023	.027	.019	.014	.009	.006	.005		
10.0	.073	.049	.033	.063	.042	.028	.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:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm										
NAME: BARREL_WHT_10 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	14.7	15.3	14.9	15.4	15.5	14.7	15.2	14.9	15.4	15.5
3H	15.8	16.3	16.0	16.5	16.7	15.8	16.3	16.0	16.5	16.7
4H	16.3	16.8	16.5	17.0	17.2	16.3	16.8	16.5	17.0	17.2
6H	16.6	17.1	16.9	17.3	17.5	16.6	17.1	16.9	17.3	17.6
8H	16.7	17.2	17.0	17.4	17.6	16.7	17.2	17.0	17.4	17.7
12H	16.7	17.2	17.0	17.5	17.7	16.8	17.3	17.1	17.5	17.8
4H 2H	15.1	15.6	15.4	15.8	16.0	15.1	15.6	15.3	15.8	16.0
3H	16.4	16.8	16.7	17.1	17.4	16.4	16.9	16.7	17.1	17.4
4H	17.0	17.4	17.3	17.7	18.0	17.0	17.4	17.3	17.7	18.0
6H	17.4	17.8	17.8	18.1	18.5	17.5	17.8	17.8	18.2	18.5
8H	17.6	17.9	17.9	18.3	18.6	17.6	18.0	18.0	18.3	18.7
12H	17.6	18.0	18.0	18.3	18.7	17.7	18.1	18.1	18.4	18.8
8H 4H	17.2	17.5	17.6	17.9	18.2	17.2	17.6	17.6	17.9	18.3
6H	17.7	18.0	18.1	18.4	18.8	17.8	18.1	18.2	18.4	18.9
8H	17.9	18.2	18.4	18.6	19.0	18.0	18.3	18.4	18.7	19.1
12H	18.1	18.3	18.5	18.7	19.2	18.2	18.4	18.6	18.8	19.3
12H 4H	17.2	17.5	17.6	17.9	18.3	17.2	17.5	17.6	17.9	18.3
6H	17.7	18.0	18.2	18.4	18.9	17.8	18.0	18.2	18.5	18.9
8H	18.0	18.2	18.4	18.6	19.1	18.0	18.3	18.5	18.7	19.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.6				
1.5H	+ 0.7 / - 0.4					+ 0.7 / - 0.4				
2.0H	+ 0.7 / - 0.4					+ 0.7 / - 0.4				

CIE Pub.117 Corrected 2314 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.9)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

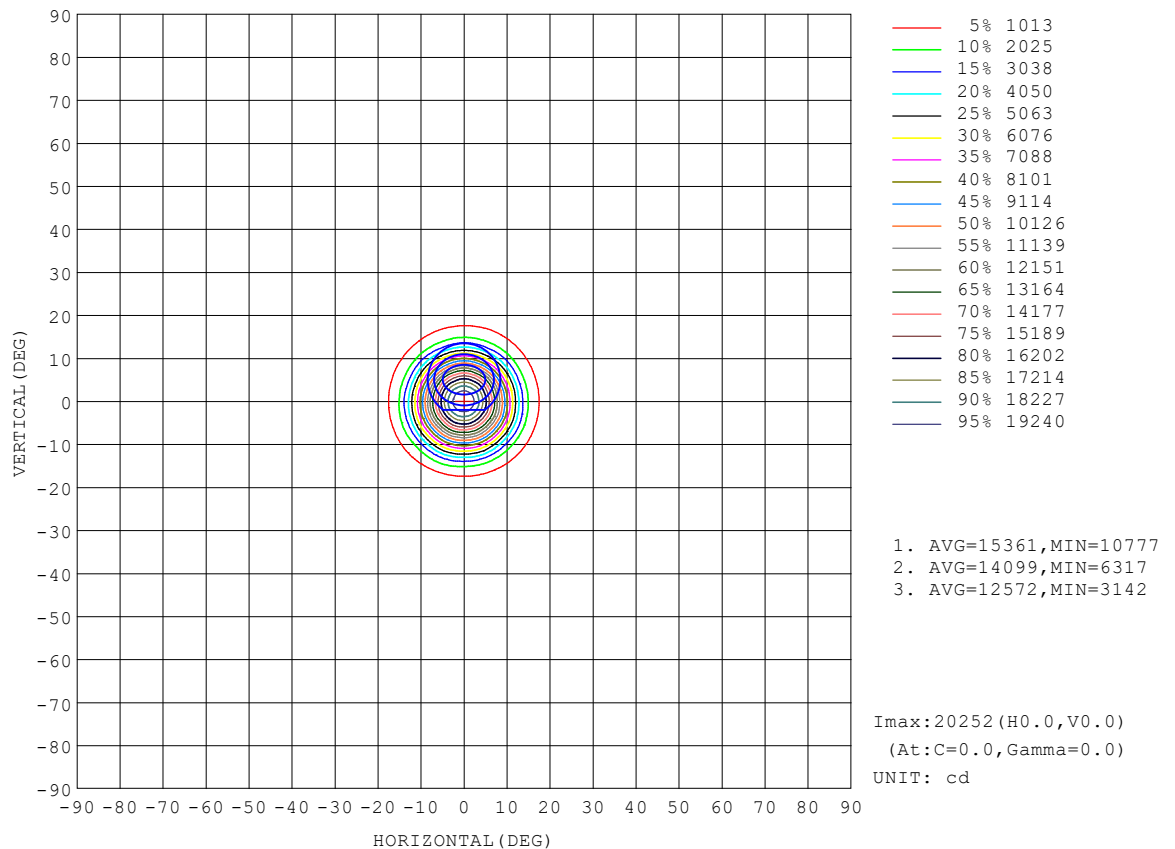
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	79	76
0.80	96	91	87	96	90	87	95	90	87	83
1.00	100	95	92	99	95	91	98	94	91	87
1.25	104	99	96	103	99	95	101	97	95	91
1.50	107	102	99	105	101	98	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	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	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:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

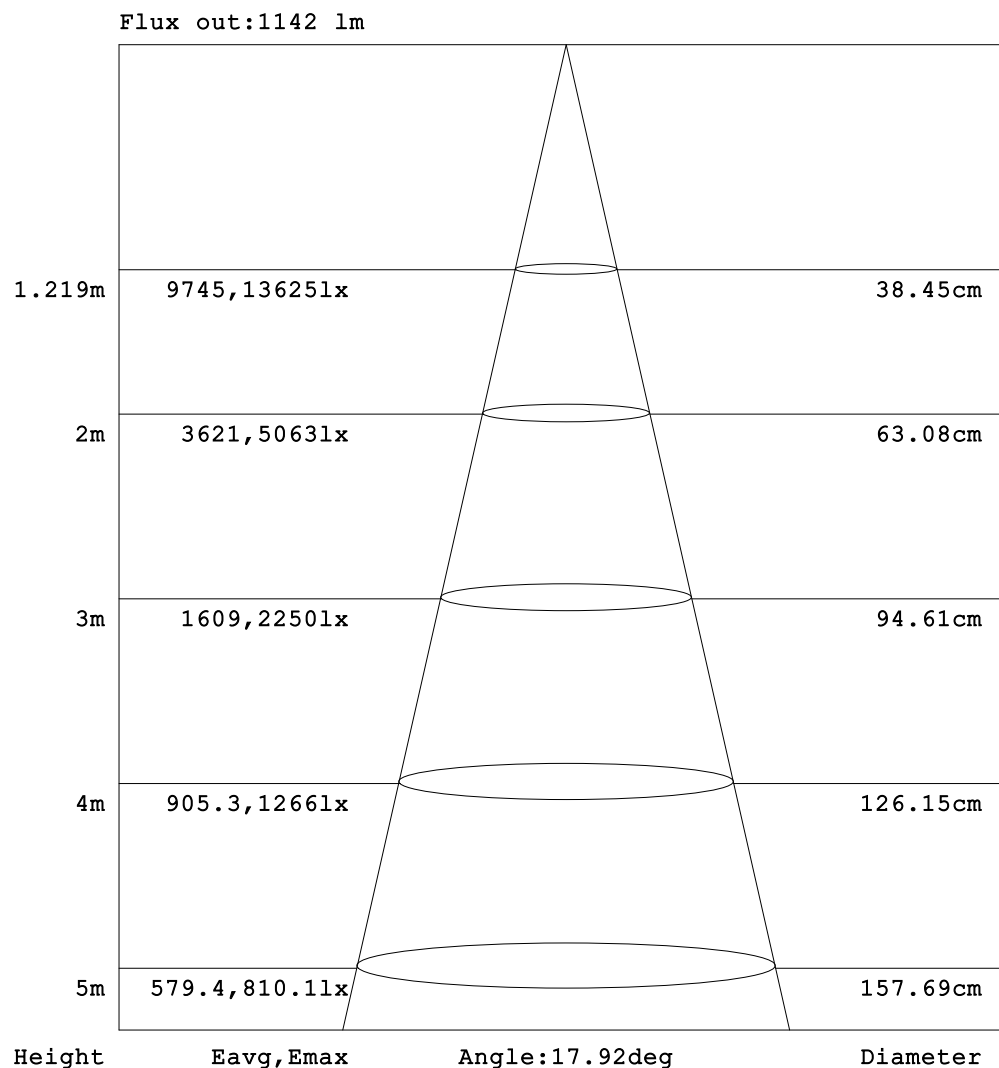


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 2023

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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



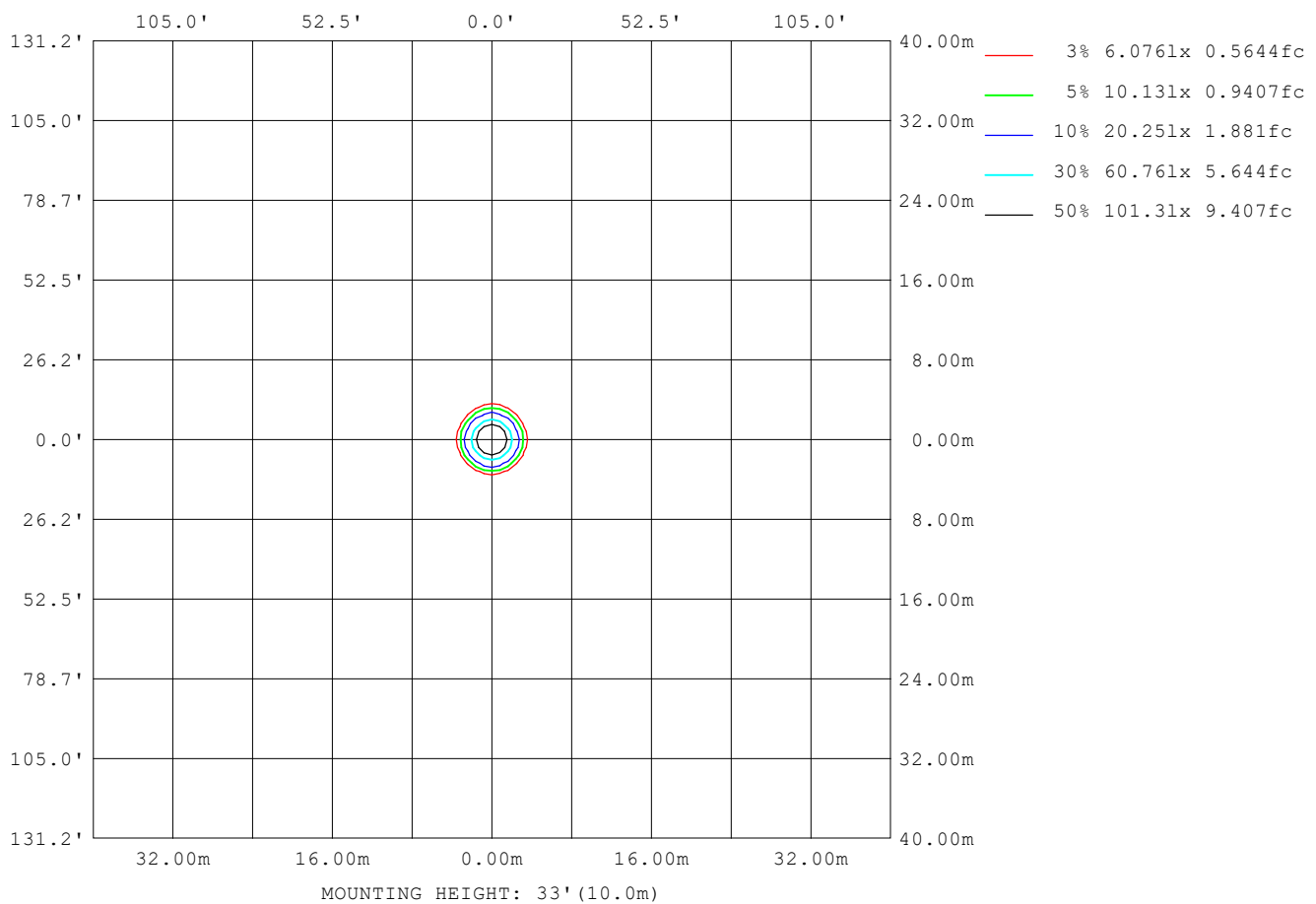
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 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:31 July 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:239.9V I:0.0967A P:22.42W PF:0.9661 Lamp Flux:2314.36x1 lm		
NAME: BARREL_WHT_10 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

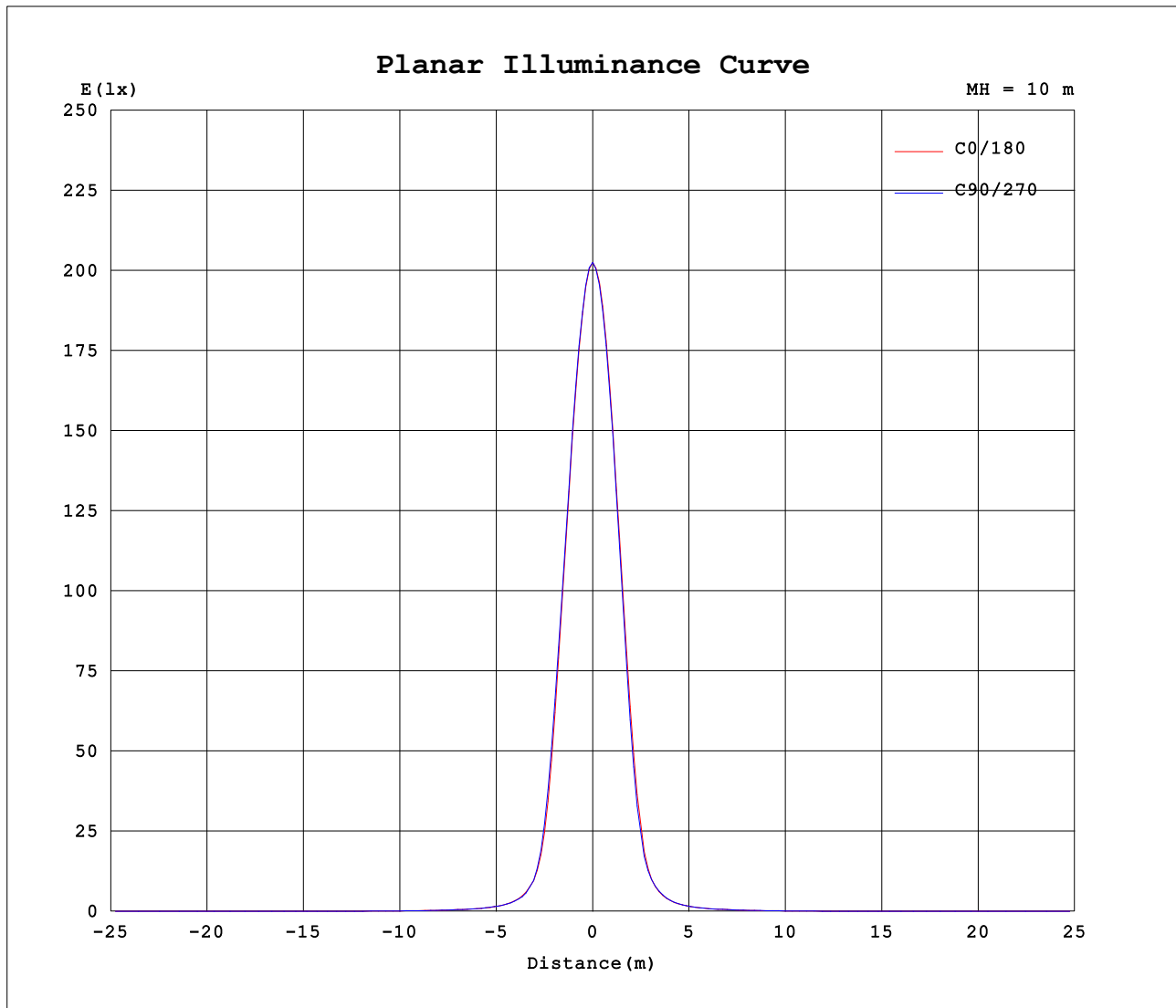
AvgL	cd/m2
L_0~180 (65) av	16610
L_0~180 (75) av	14654
L_0~180 (85) av	11295
L_90~270 (65) av	16657
L_90~270 (75) av	14929
L_90~270 (85) av	11429
L_45 (65) av	16663
L_45 (75) av	14726
L_45 (85) av	11370

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 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: 31 July 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:

