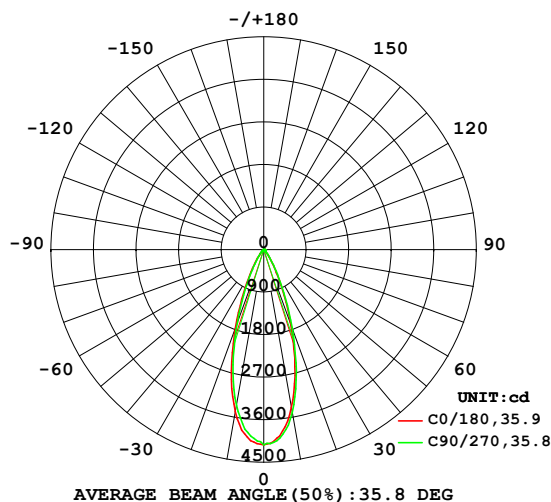


LUMINAIRE PHOTOMETRIC TEST REPORT

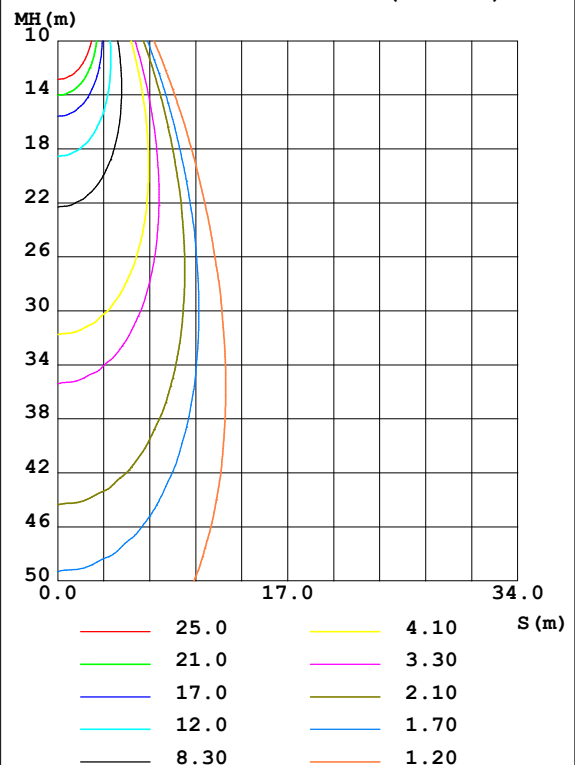
Test:U:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.21 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	4145	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)	1825.3	η UP,DN(C0-180)	0.0,50.8
NOMINAL FLUX(lm)	1825.35	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.2
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: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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	3388	3450	3501	3542	3480	3386	3345	3368	0- 10	361.6	361.6	19.8,19.8
20	1677	1723	1770	1781	1744	1679	1641	1659	10- 20	709.0	1071	58.7,58.7
30	488.4	506.9	528.9	538.2	532.8	502.0	486.5	487.8	20- 30	458.1	1529	83.7,83.7
40	117.5	122.3	129.4	130.9	129.5	125.5	120.3	118.9	30- 40	166.5	1695	92.9,92.9
50	43.53	44.39	44.76	44.69	44.03	44.28	44.04	43.86	40- 50	55.80	1751	95.9,95.9
60	29.80	30.35	30.14	29.81	29.37	29.10	28.92	29.47	50- 60	31.91	1783	97.7,97.7
70	19.11	19.39	19.37	19.30	18.59	17.93	17.86	18.51	60- 70	24.02	1807	99,99
80	8.441	8.603	8.702	8.611	8.115	7.769	7.809	8.209	70- 80	14.05	1821	99.8,99.8
90	0.0807	0.0989	0.0948	0.0663	0.0660	0.0623	0.0620	0.0699	80- 90	4.372	1825	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): 1729.2 lm

%lum = 94.7%

%lamp = 94.7%

Conical surface Flux(120deg): 1782.9 lm

%lum = 97.7%

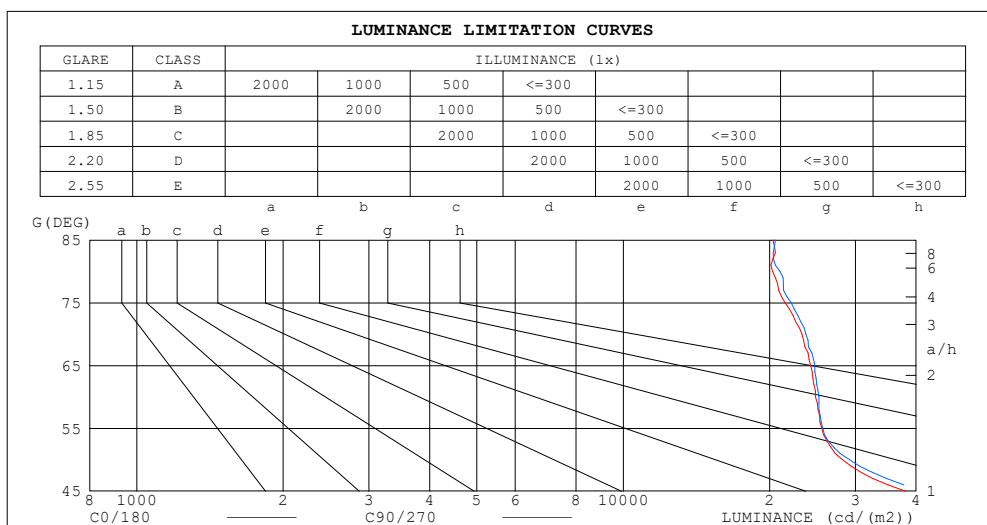
%lamp = 97.7%

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:

LUMINANCE LIMITATION CURVES

Test:U:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 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	20292	20555
80	20264	20994
75	21518	22143
70	23297	23726
65	24275	24745
60	24847	25251
55	25591	25703
50	28228	29172
45	38076	41043

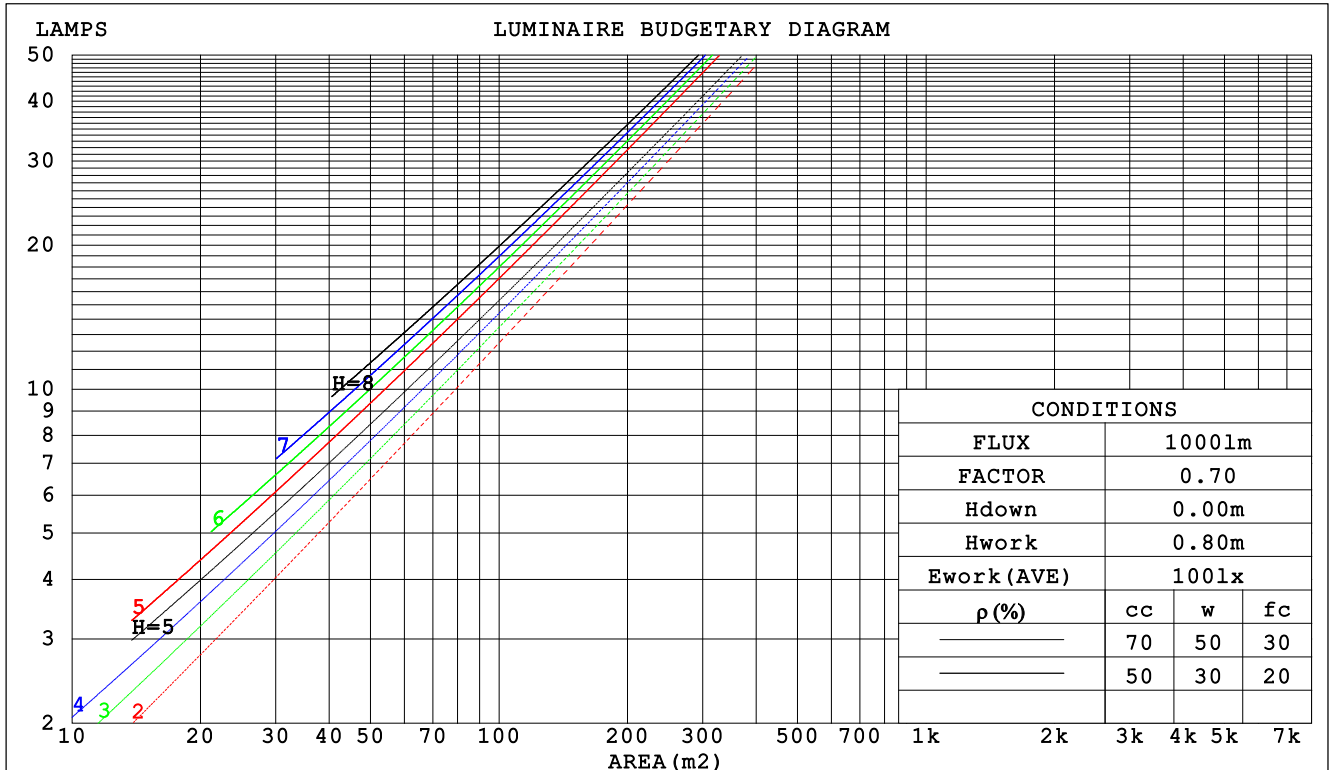
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:14 August 2023

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K 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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	.98	1.03	.99	.96	.99	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.90	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.84	.90	.86	.83	.88	.85	.82	.86	.83	.81	.80
5.0	.88	.83	.79	.87	.83	.79	.86	.82	.78	.84	.80	.78	.83	.79	.77	.76
6.0	.84	.79	.75	.83	.78	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.72
7.0	.80	.75	.71	.80	.75	.71	.78	.74	.71	.77	.73	.70	.76	.73	.70	.69
8.0	.77	.71	.68	.76	.71	.68	.75	.71	.67	.74	.70	.67	.73	.70	.67	.66
9.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.67	.64	.71	.67	.64	.63
10.0	.70	.65	.62	.70	.65	.62	.69	.65	.62	.69	.65	.62	.68	.64	.62	.60



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:

WEC AND CCEC

Test:U:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 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	.168	.096	.030	.161	.092	.029	.149	.085	.027	.137	.079	.025	.127	.073	.024		
2.0	.158	.086	.027	.152	.084	.026	.142	.079	.024	.132	.074	.023	.123	.070	.022		
3.0	.148	.079	.024	.143	.077	.023	.135	.073	.022	.126	.069	.021	.119	.066	.020		
4.0	.139	.072	.021	.135	.071	.021	.128	.068	.020	.121	.065	.020	.114	.062	.019		
5.0	.132	.067	.019	.128	.066	.019	.122	.063	.019	.116	.061	.018	.110	.059	.018		
6.0	.125	.063	.018	.122	.062	.018	.116	.059	.017	.111	.058	.017	.106	.056	.017		
7.0	.119	.059	.017	.116	.058	.016	.111	.056	.016	.106	.054	.016	.102	.053	.016		
8.0	.113	.055	.016	.111	.055	.015	.106	.053	.015	.102	.052	.015	.098	.050	.015		
9.0	.108	.052	.015	.106	.052	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014		
10.0	.103	.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	.092	.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	.096	.067	.045	.067	.047	.032	.039	.027	.019	.012	.009	.006	
7.0	.105	.069	.044	.090	.060	.038	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.099	.063	.038	.085	.054	.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: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:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm										
NAME: BARREL_WHT_35 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	19.3	20.1	19.5	20.3	20.4	19.6	20.4	19.8	20.6	20.7
3H	20.1	20.8	20.3	21.0	21.2	20.3	21.1	20.5	21.3	21.4
4H	20.4	21.2	20.7	21.4	21.6	20.6	21.4	20.9	21.6	21.8
6H	20.7	21.4	21.0	21.6	21.9	20.9	21.6	21.2	21.8	22.1
8H	20.8	21.5	21.1	21.7	22.0	21.0	21.7	21.3	21.9	22.2
12H	20.9	21.5	21.2	21.8	22.1	21.1	21.7	21.4	22.0	22.3
4H 2H	19.5	20.3	19.8	20.5	20.7	19.8	20.5	20.0	20.7	20.9
3H	20.5	21.2	20.8	21.4	21.7	20.7	21.3	21.0	21.6	21.9
4H	21.0	21.6	21.3	21.9	22.2	21.2	21.8	21.5	22.1	22.4
6H	21.4	21.9	21.8	22.3	22.6	21.6	22.1	22.0	22.4	22.8
8H	21.6	22.1	22.0	22.4	22.8	21.7	22.2	22.1	22.6	22.9
12H	21.7	22.2	22.1	22.5	22.9	21.9	22.3	22.3	22.7	23.1
8H 4H	21.2	21.6	21.6	22.0	22.4	21.3	21.8	21.7	22.2	22.5
6H	21.7	22.1	22.1	22.5	22.9	21.9	22.3	22.3	22.7	23.1
8H	22.0	22.3	22.4	22.7	23.2	22.1	22.5	22.5	22.9	23.3
12H	22.2	22.5	22.6	22.9	23.4	22.3	22.6	22.8	23.0	23.5
12H 4H	21.2	21.6	21.6	22.0	22.4	21.3	21.8	21.7	22.1	22.5
6H	21.7	22.1	22.2	22.5	22.9	21.9	22.2	22.3	22.7	23.1
8H	22.0	22.3	22.5	22.8	23.2	22.2	22.5	22.6	22.9	23.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.7					+ 0.9 / - 0.8				
1.5H	+ 1.6 / - 0.7					+ 1.9 / - 0.8				
2.0H	+ 0.5 / - 0.3					+ 0.6 / - 0.3				

CIE Pub.117 Corrected 1825 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:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

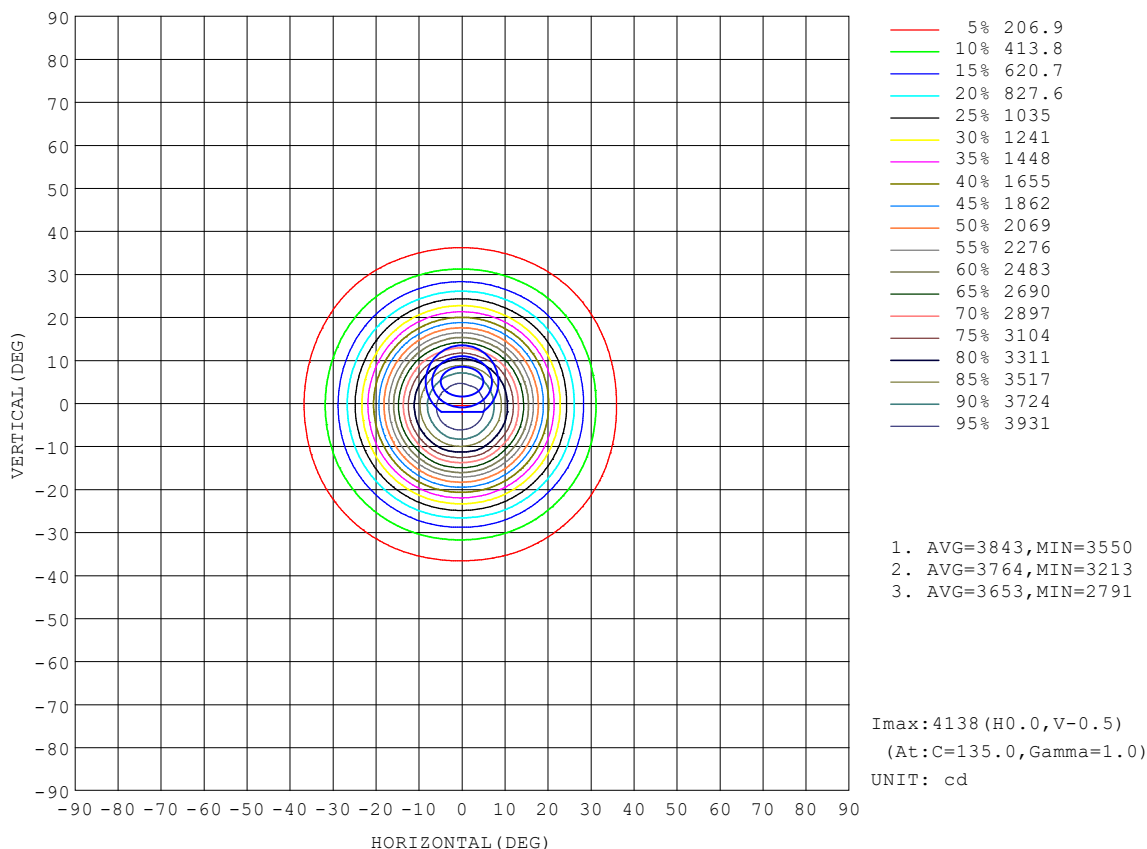
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	81	77	86	80	77	73
0.80	94	89	85	94	88	85	93	88	84	81
1.00	99	93	89	98	93	89	96	93	89	85
1.25	103	97	94	102	97	94	100	96	93	89
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					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

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:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

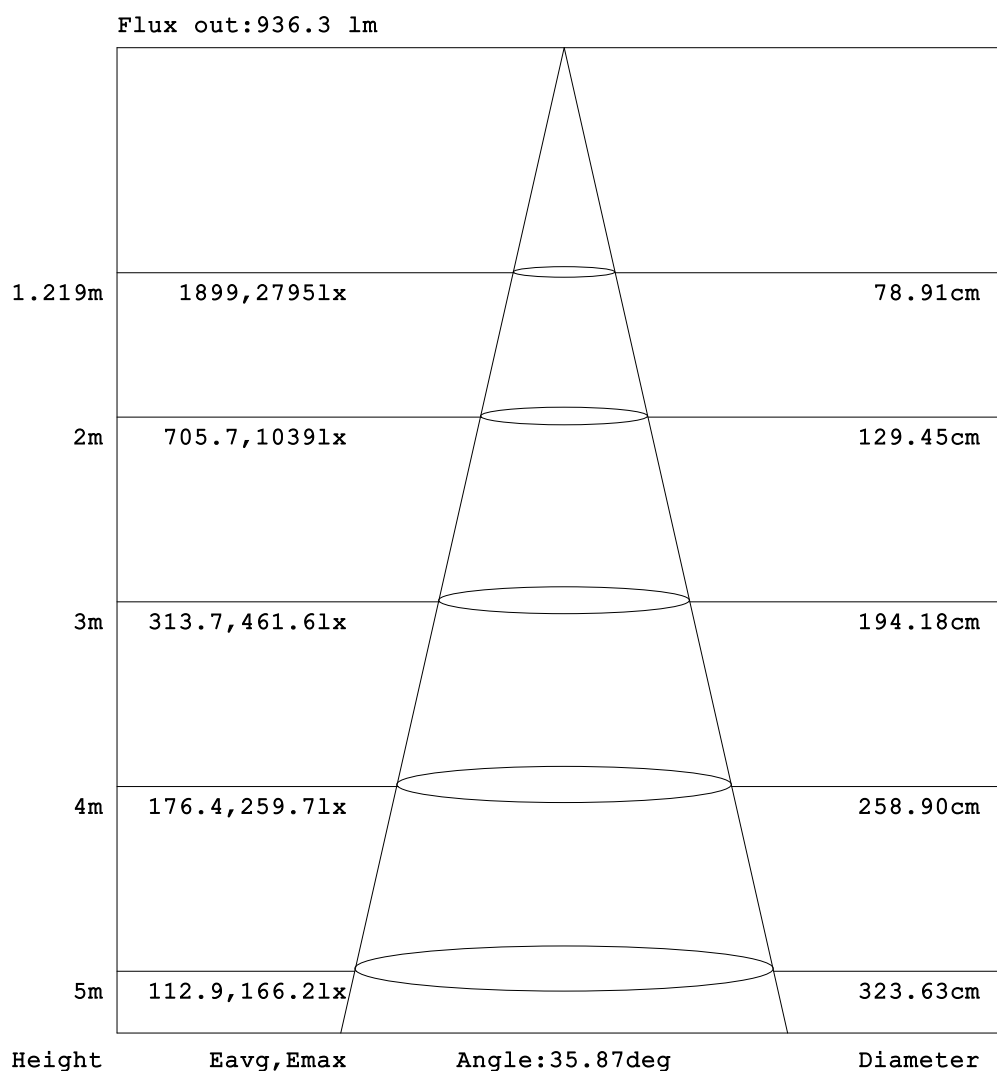


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:14 August 2023

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:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



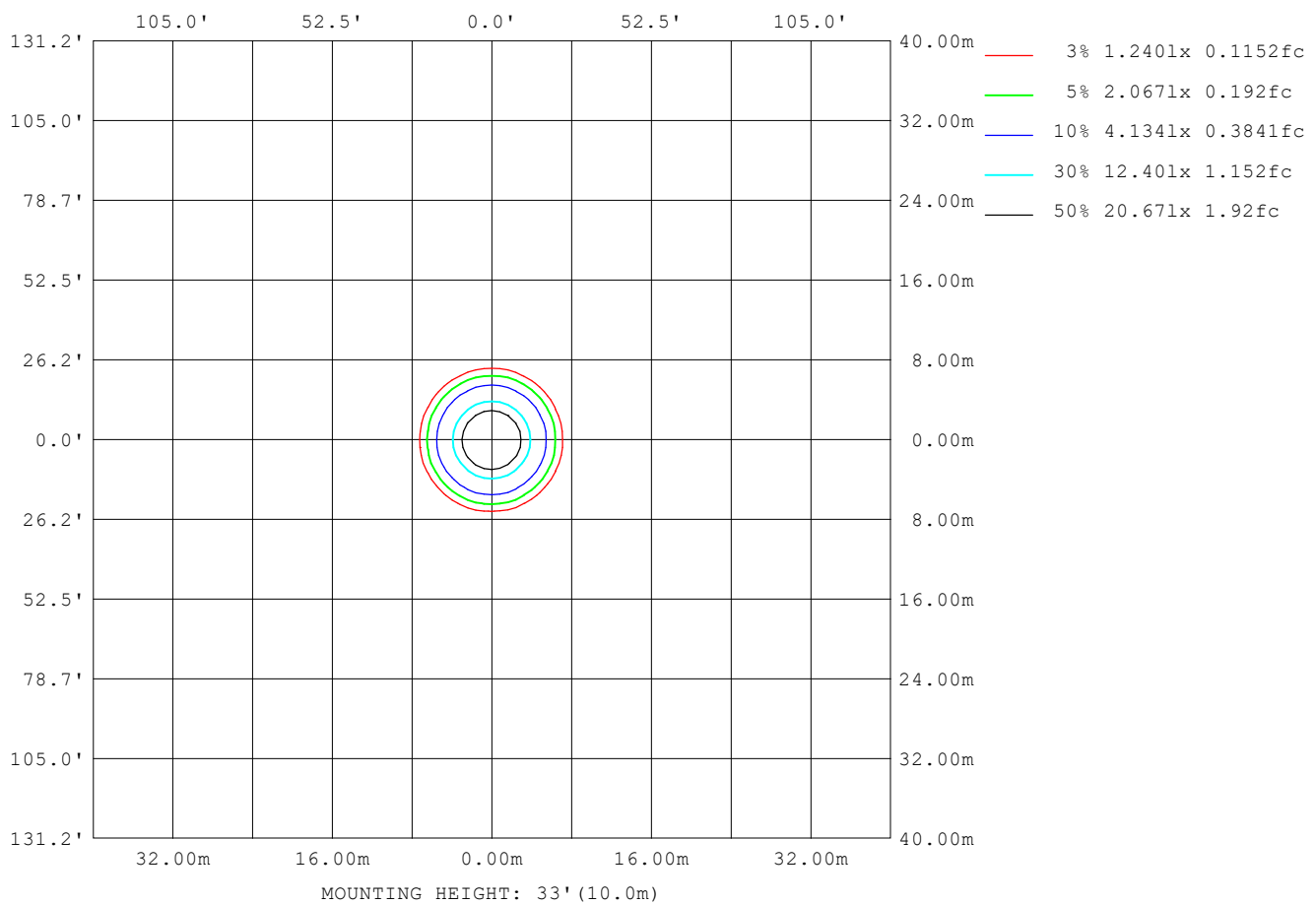
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 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:

LED Avg.L Report

Test:U:240.1V I:0.0958A P:22.20W PF:0.9656 Lamp Flux:1825.35x1 lm		
NAME: BARREL_WHT_35 DEG_500mA_3000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

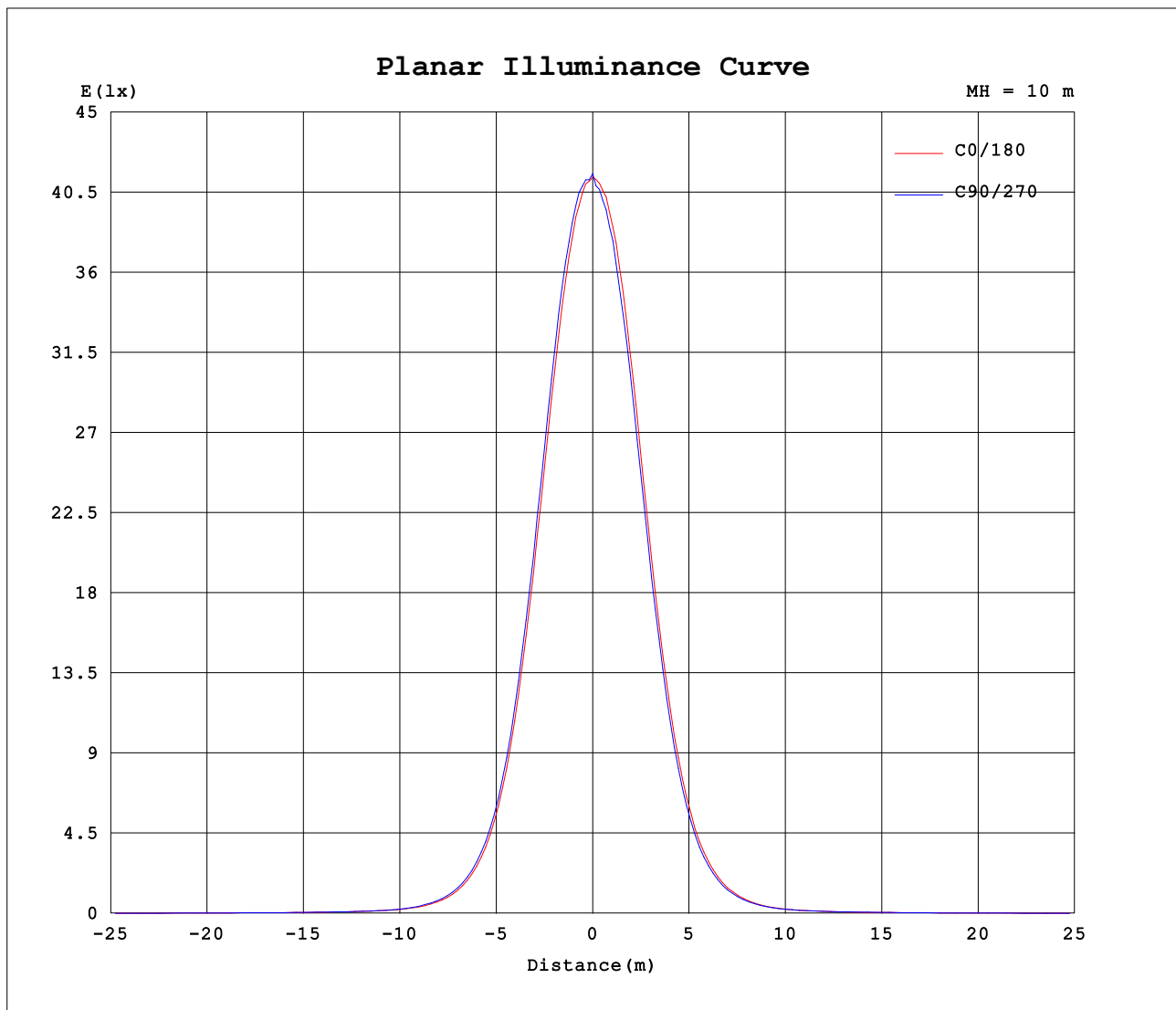
AvgL	cd/m2
L_0~180 (65) av	24002
L_0~180 (75) av	21294
L_0~180 (85) av	19423
L_90~270 (65) av	23815
L_90~270 (75) av	20993
L_90~270 (85) av	19201
L_45 (65) av	24025
L_45 (75) av	21253
L_45 (85) av	19423

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

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:

