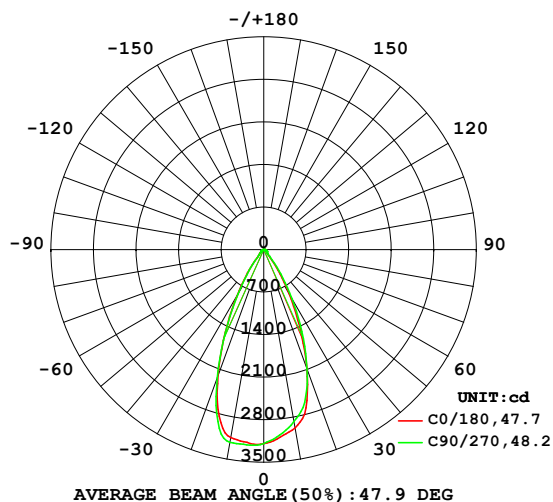


LUMINAIRE PHOTOMETRIC TEST REPORT

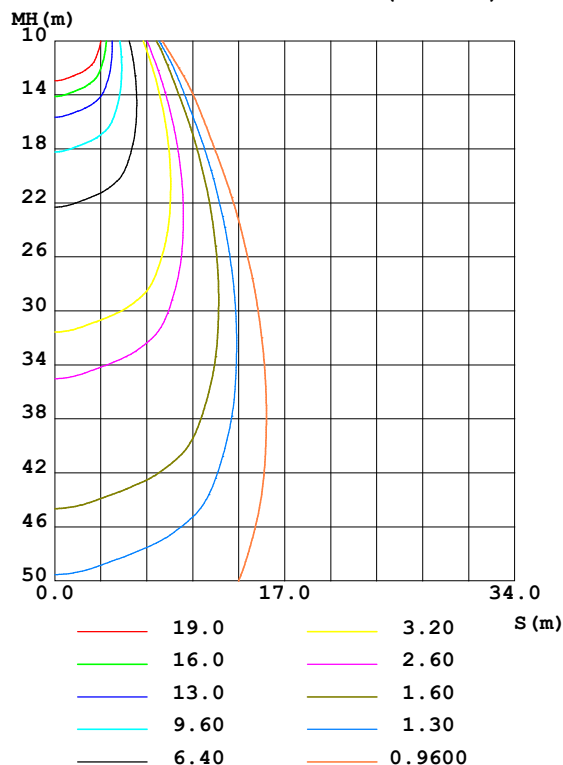
Test:U:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 98.42 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	3245	S/MH(C0/180)	0.75
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.74
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2205.1	η UP,DN(C0-180)	0.0,49.5
NOMINAL FLUX(lm)	2205.08	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.5
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: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	2978	2883	2873	2995	3141	3226	3221	3131	0- 10	297.3	297.3	13.5,13.5
20	2082	2063	2090	2126	2201	2274	2237	2142	10- 20	753.0	1050	47.6,47.6
30	834.5	888.0	934.0	924.3	894.0	891.9	852.9	833.4	20- 30	671.4	1722	78.1,78.1
40	142.9	161.7	176.0	166.8	144.7	140.3	139.6	140.9	30- 40	287.8	2010	91.1,91.1
50	66.91	69.38	72.88	72.07	69.91	67.75	66.86	67.32	40- 50	76.02	2086	94.6,94.6
60	47.18	49.02	51.55	50.48	49.10	47.77	47.58	46.93	50- 60	51.22	2137	96.9,96.9
70	30.24	31.80	32.82	32.15	31.17	30.69	30.60	30.03	60- 70	39.73	2176	98.7,98.7
80	12.14	12.63	12.52	11.86	11.42	11.44	11.67	11.83	70- 80	22.24	2199	99.7,99.7
90	0.1027	0.1357	0.1578	0.1284	0.1027	0.0954	0.1027	0.0982	80- 90	6.340	2205	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): 2053.4 lm

%lum = 93.1%

%lamp = 93.1%

Conical surface Flux(120deg): 2136.8 lm

%lum = 96.9%

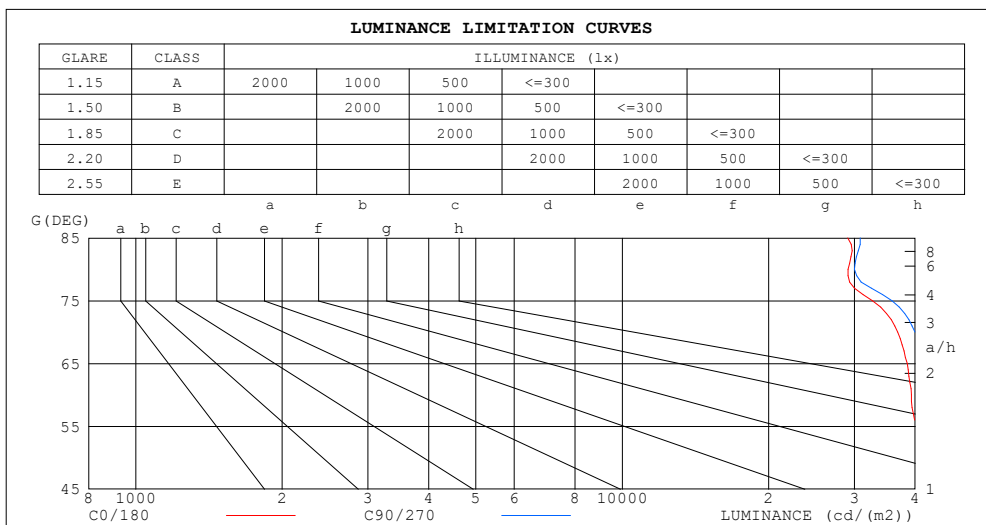
%lamp = 96.9%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date: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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 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	29062	30833
80	29136	30036
75	32663	35858
70	36842	39973
65	38517	42066
60	39320	42945
55	40187	43693
50	43377	47227
45	54246	60176

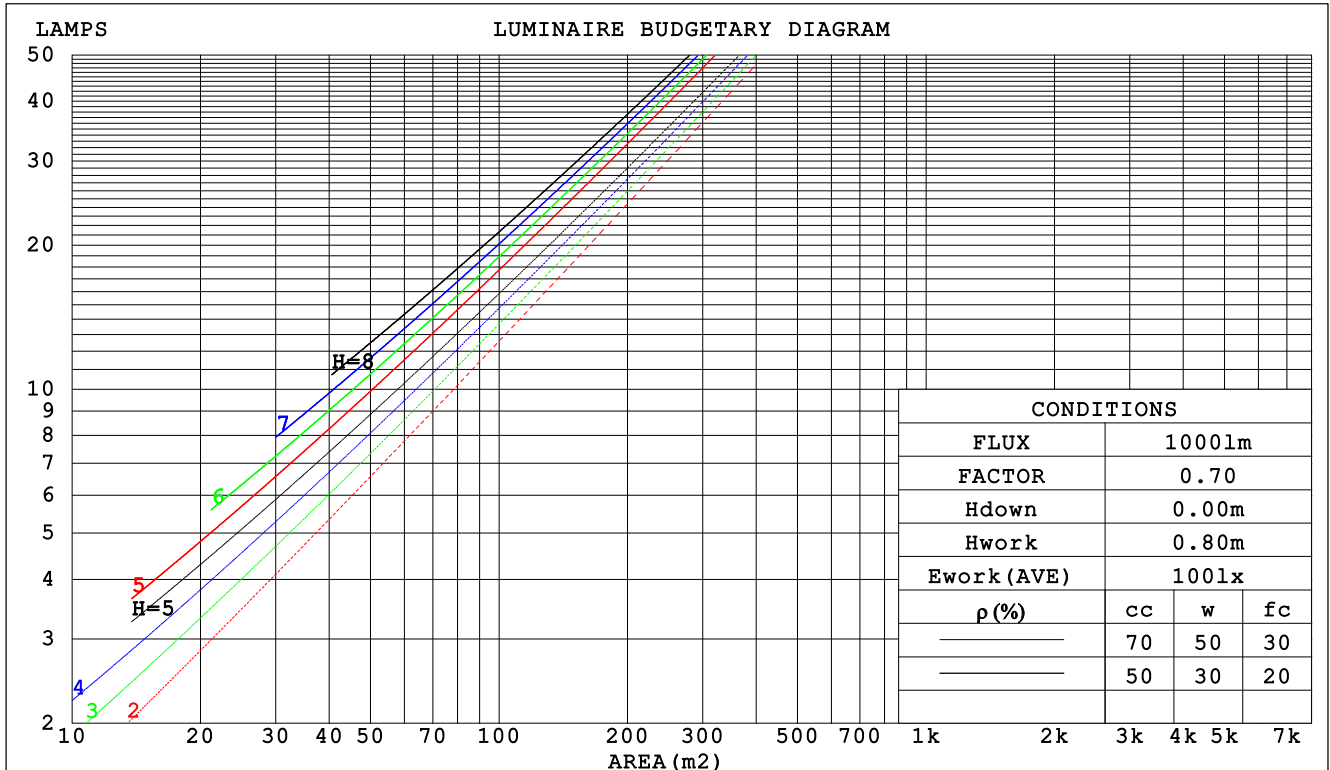
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 2023

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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 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	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	1.08	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	.92	.95	.93	.90	.92	.90	.89	.87
3.0	.96	.91	.88	.95	.90	.87	.92	.89	.85	.90	.87	.84	.88	.85	.83	.81
4.0	.90	.85	.81	.89	.84	.80	.87	.83	.79	.85	.82	.79	.83	.80	.78	.76
5.0	.85	.80	.75	.84	.79	.75	.82	.78	.74	.81	.77	.74	.79	.76	.73	.72
6.0	.80	.75	.71	.80	.74	.70	.78	.73	.70	.77	.73	.69	.75	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.67	.63	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.60
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.62	.59	.57
10.0	.65	.60	.56	.65	.60	.56	.64	.59	.56	.63	.59	.56	.63	.59	.56	.55



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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 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	.181	.103	.033	.174	.100	.032	.162	.093	.030	.150	.087	.028	.140	.081	.026		
2.0	.171	.094	.029	.166	.091	.028	.155	.086	.027	.145	.081	.025	.136	.077	.024		
3.0	.161	.086	.026	.156	.084	.025	.147	.080	.024	.139	.076	.023	.131	.073	.022		
4.0	.152	.079	.023	.148	.077	.023	.140	.074	.022	.133	.071	.022	.126	.069	.021		
5.0	.144	.073	.021	.140	.072	.021	.134	.070	.020	.127	.067	.020	.121	.065	.019		
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.122	.063	.019	.117	.061	.018		
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.017	.112	.058	.017		
8.0	.124	.060	.017	.121	.060	.017	.117	.058	.017	.112	.057	.016	.108	.056	.016		
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.016	.104	.053	.015		
10.0	.113	.054	.015	.111	.054	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015		

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	.144	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.060	.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	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.098	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm										
NAME: BARREL_WHT_55 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	22.1	23.1	22.4	23.2	23.4	22.7	23.6	22.9	23.8	24.0
3H	22.8	23.7	23.1	23.9	24.1	23.4	24.2	23.6	24.4	24.6
4H	23.1	23.9	23.4	24.2	24.4	23.7	24.5	24.0	24.7	24.9
6H	23.3	24.1	23.6	24.3	24.6	23.9	24.6	24.2	24.9	25.1
8H	23.4	24.2	23.7	24.4	24.7	24.0	24.7	24.3	24.9	25.2
12H	23.5	24.2	23.8	24.5	24.7	24.0	24.7	24.3	25.0	25.2
4H 2H	22.3	23.1	22.6	23.4	23.6	22.8	23.7	23.1	23.9	24.1
3H	23.3	24.0	23.6	24.2	24.5	23.7	24.4	24.1	24.7	25.0
4H	23.7	24.3	24.0	24.6	24.9	24.2	24.8	24.5	25.1	25.4
6H	24.0	24.6	24.4	24.9	25.2	24.5	25.0	24.8	25.4	25.7
8H	24.1	24.6	24.5	25.0	25.4	24.6	25.1	25.0	25.4	25.8
12H	24.2	24.7	24.6	25.1	25.5	24.7	25.1	25.1	25.5	25.9
8H 4H	23.8	24.3	24.2	24.7	25.1	24.3	24.8	24.7	25.1	25.5
6H	24.2	24.7	24.7	25.1	25.5	24.7	25.1	25.1	25.5	25.9
8H	24.5	24.8	24.9	25.3	25.7	24.9	25.2	25.3	25.6	26.1
12H	24.6	25.0	25.1	25.4	25.9	25.0	25.3	25.5	25.8	26.3
12H 4H	23.8	24.3	24.2	24.7	25.1	24.3	24.7	24.7	25.1	25.5
6H	24.3	24.7	24.7	25.1	25.5	24.7	25.1	25.1	25.5	25.9
8H	24.5	24.8	25.0	25.3	25.8	24.9	25.2	25.4	25.7	26.1
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 0.7					+ 1.4 / - 0.9				
1.5H	+ 2.2 / - 0.7					+ 2.7 / - 0.8				
2.0H	+ 0.4 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 2205 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.7)

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:

UTILIZATION FACTORS TABLE

Test:U:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

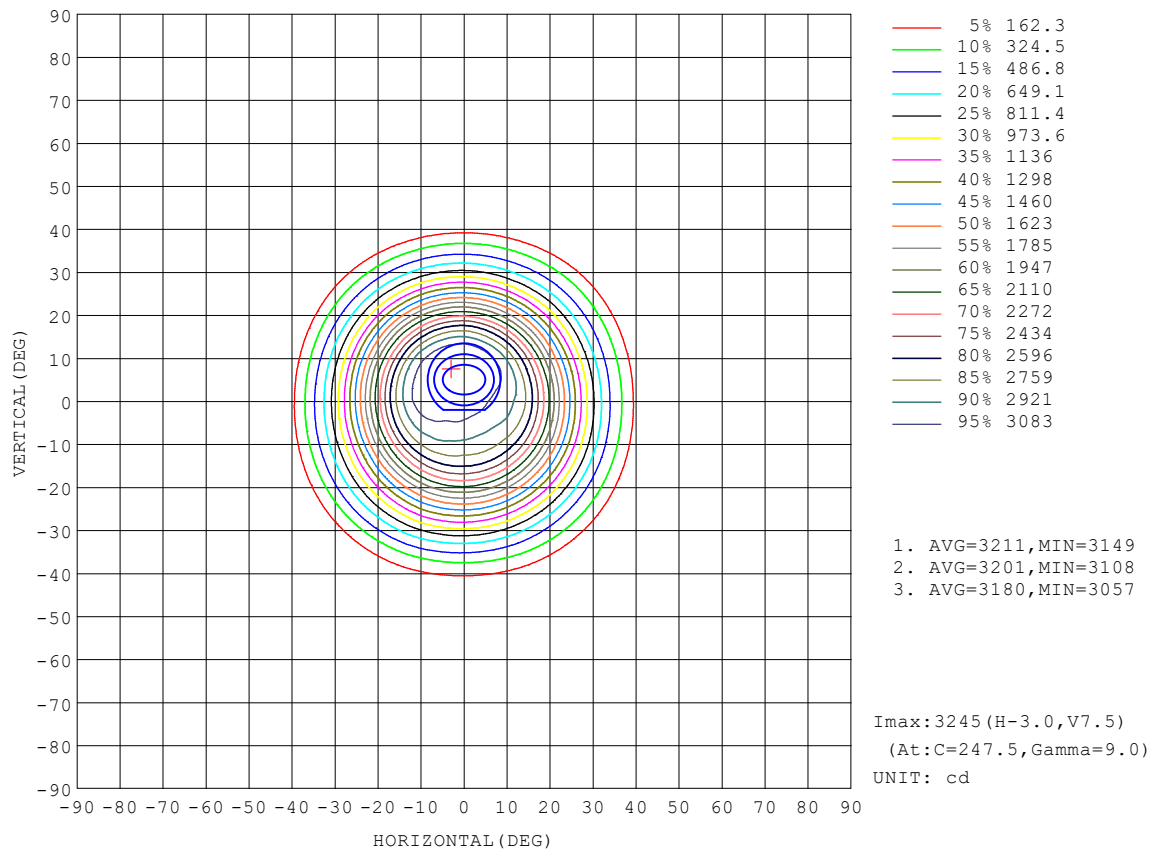
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	79	76	85	79	75	72
0.80	94	87	84	93	87	83	92	86	83	79
1.00	98	92	88	97	92	88	95	92	87	83
1.25	102	97	93	101	96	92	99	95	92	87
1.50	105	100	96	104	99	96	101	98	95	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	110	105	102	108	104	101	105	102	99	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: 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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

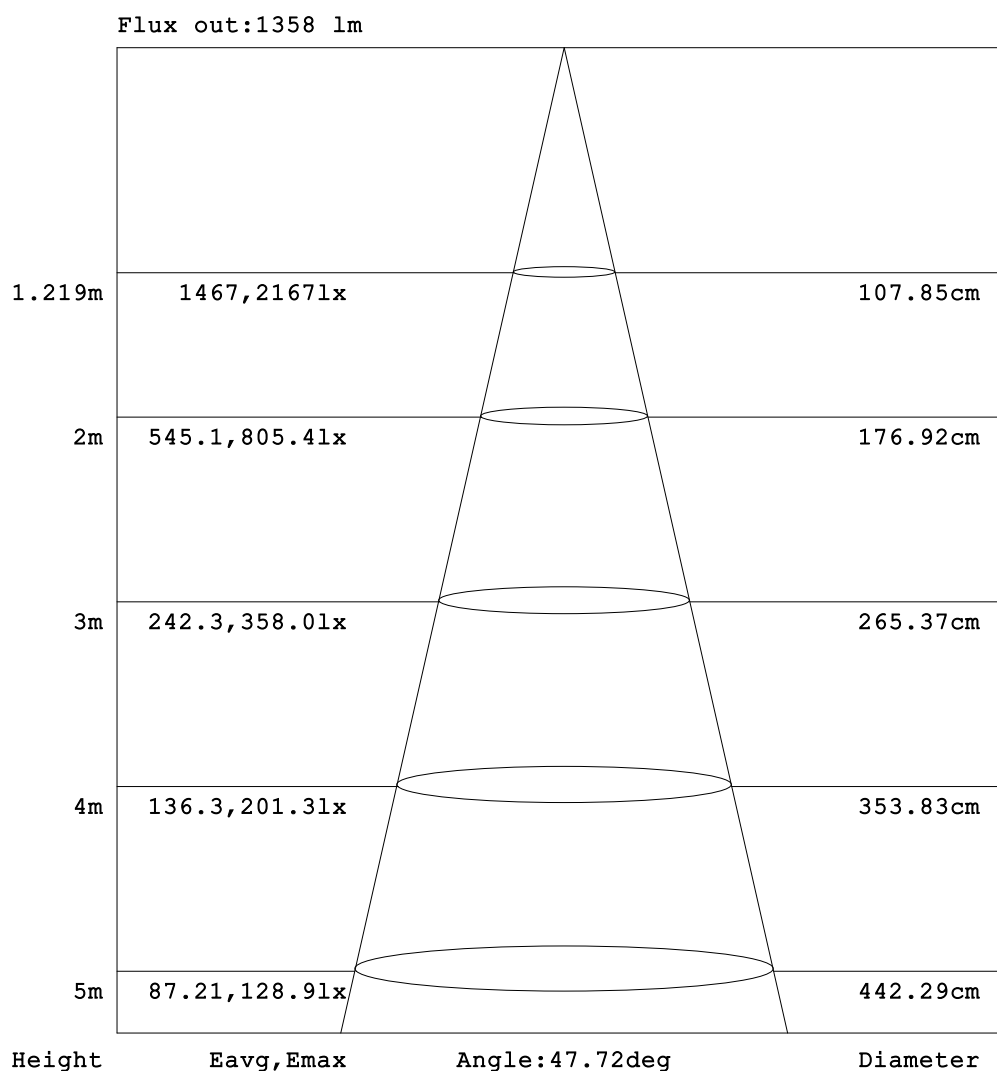


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:31 July 2023

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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



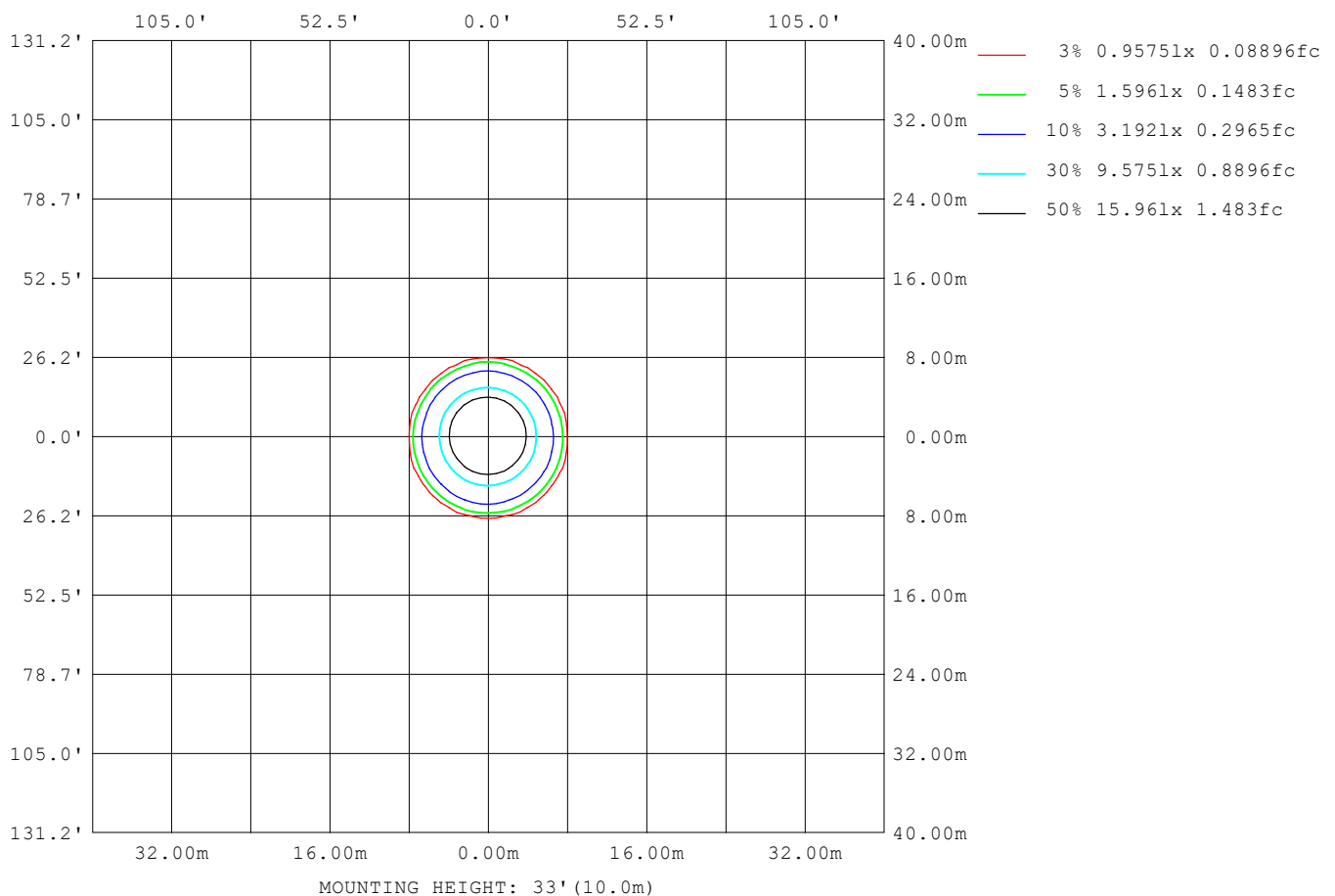
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 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:240.1V I:0.0966A P:22.41W PF:0.9660 Lamp Flux:2205.08x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_4000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

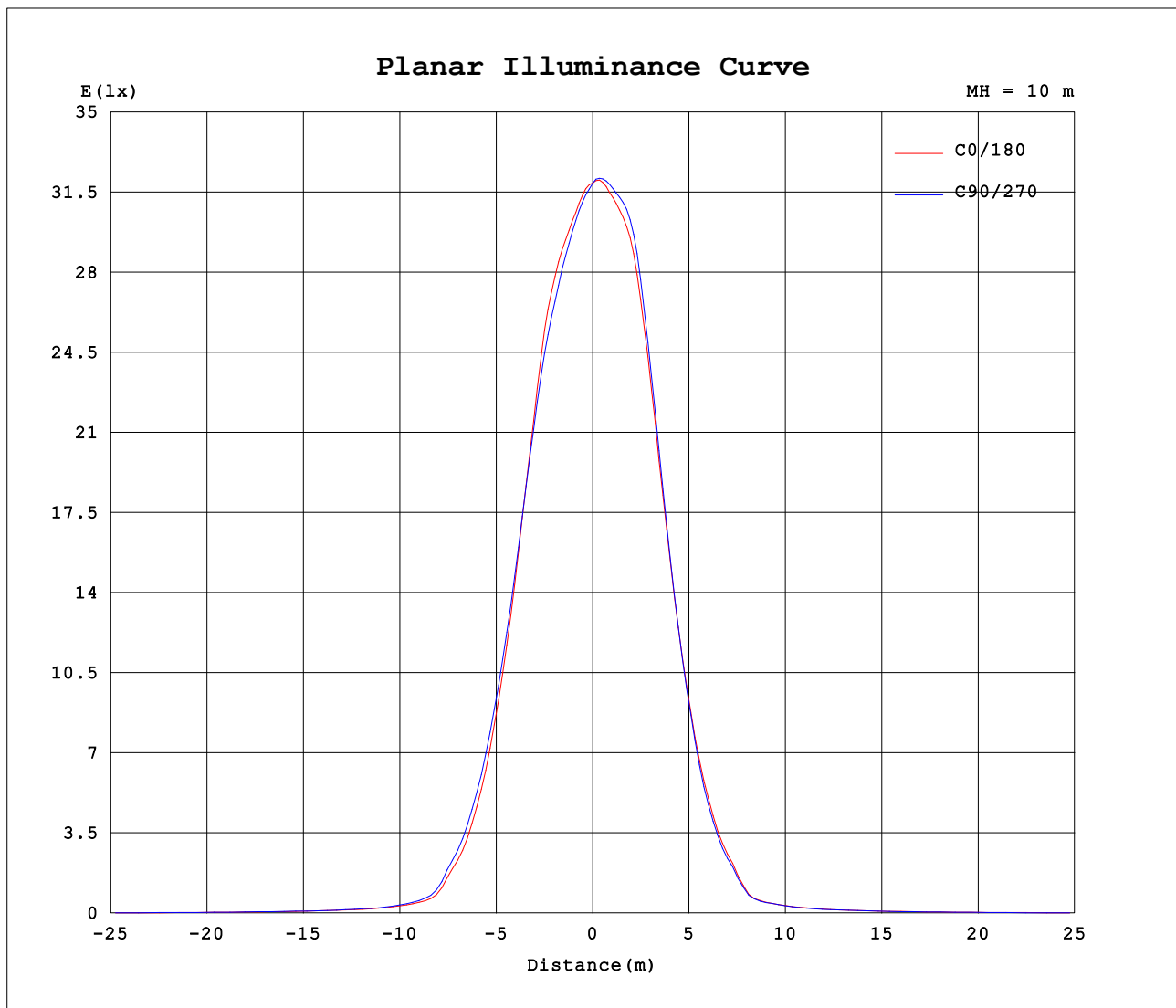
AvgL	cd/m2
L_0~180 (65) av	39213
L_0~180 (75) av	33091
L_0~180 (85) av	27728
L_90~270 (65) av	40392
L_90~270 (75) av	34337
L_90~270 (85) av	28456
L_45 (65) av	39578
L_45 (75) av	33782
L_45 (85) av	28090

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:

