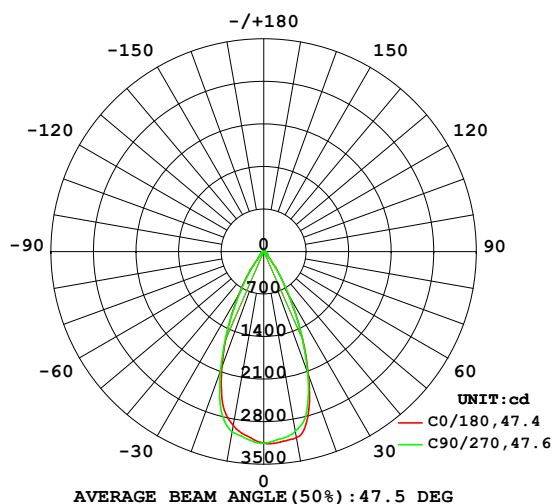


LUMINAIRE PHOTOMETRIC TEST REPORT

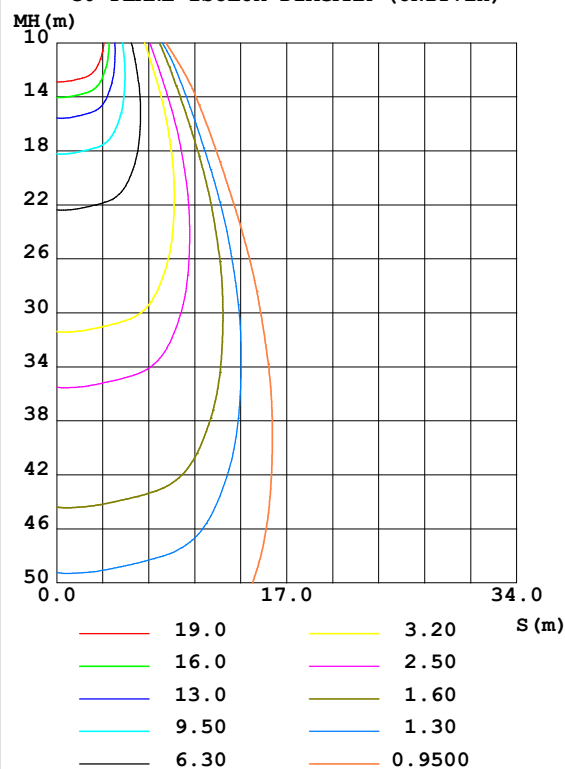
Test:U:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 96.88 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	3164	S/MH(C0/180)	0.73
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.73
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2129.9	η UP,DN(C0-180)	0.0,50.5
NOMINAL FLUX(lm)	2129.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.5
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: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	3110	3091	3003	2936	2905	2938	3010	3085	0- 10	293.0	293.0	13.8,13.8
20	2154	2144	2115	2066	2018	1994	2082	2137	10- 20	737.7	1031	48.4,48.4
30	807.5	807.9	833.6	840.5	832.4	780.1	804.8	814.3	20- 30	640.5	1671	78.5,78.5
40	150.9	141.4	144.9	152.8	150.6	136.8	140.6	146.5	30- 40	265.5	1937	90.9,90.9
50	69.22	65.53	66.24	68.33	69.53	68.65	70.60	70.31	40- 50	74.32	2011	94.4,94.4
60	48.25	46.48	47.34	49.10	49.29	48.08	48.40	49.33	50- 60	51.09	2062	96.8,96.8
70	31.58	30.65	30.27	30.32	30.18	30.00	30.78	31.85	60- 70	39.23	2101	98.7,98.7
80	13.18	12.65	11.87	11.22	10.93	11.13	12.04	12.93	70- 80	22.13	2124	99.7,99.7
90	0.4071	0.3815	0.1357	0.1247	0.1247	0.1210	0.1182	0.1210	80- 90	6.367	2130	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): 1979.2 lm

%lum = 92.9%

%lamp = 92.9%

Conical surface Flux(120deg): 2062.2 lm

%lum = 96.8%

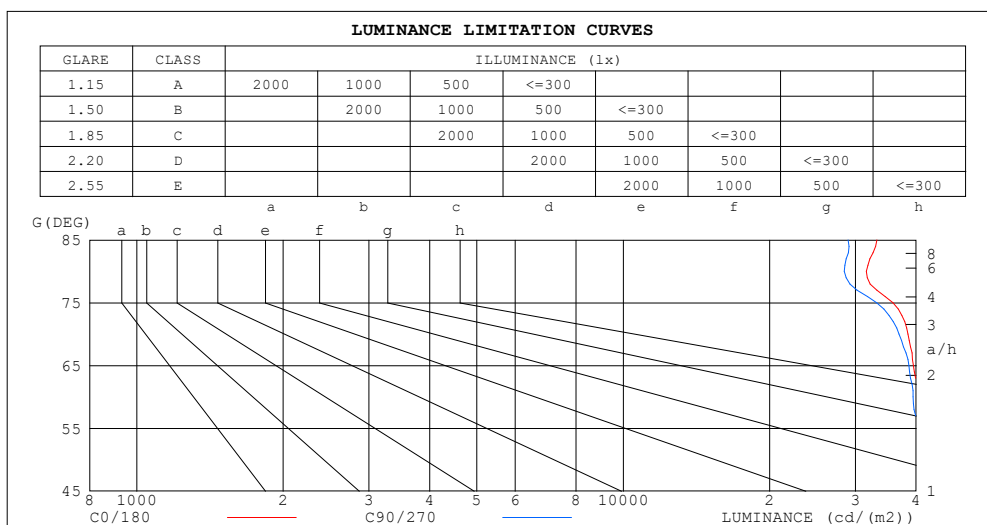
%lamp = 96.8%

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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	33200	28974
80	31621	28484
75	35815	33176
70	38480	36885
65	39507	38638
60	40216	39455
55	40989	40362
50	44877	42941
45	56485	54177

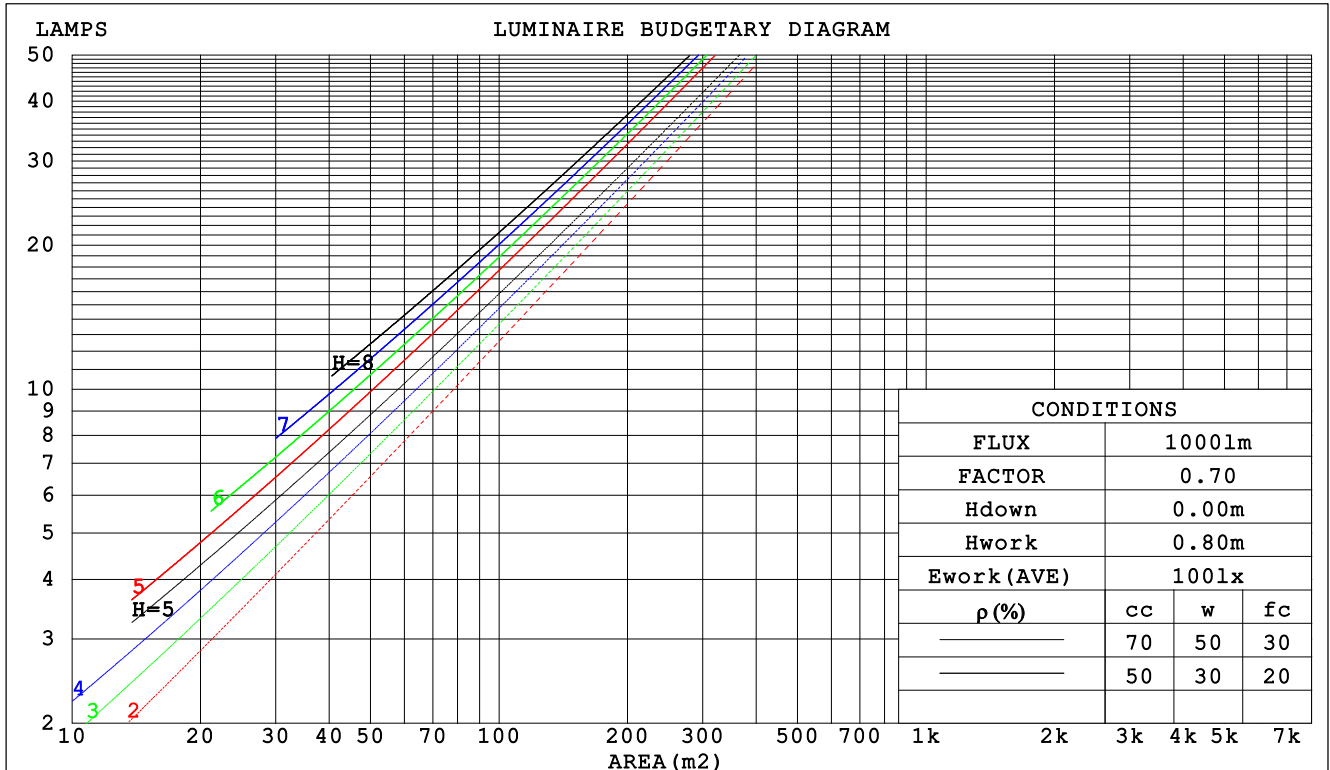
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K 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	.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	.91	.85	.81	.89	.84	.81	.87	.83	.80	.85	.82	.79	.83	.80	.78	.76
5.0	.85	.80	.75	.84	.79	.75	.83	.78	.74	.81	.77	.74	.79	.76	.73	.72
6.0	.81	.75	.71	.80	.74	.70	.78	.74	.70	.77	.73	.70	.76	.72	.69	.68
7.0	.76	.71	.67	.76	.70	.66	.74	.70	.66	.73	.69	.66	.72	.68	.65	.64
8.0	.72	.67	.63	.72	.66	.63	.71	.66	.62	.70	.65	.62	.69	.65	.62	.61
9.0	.69	.63	.60	.68	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.60	.57	.65	.60	.56	.64	.60	.56	.64	.59	.56	.63	.59	.56	.55



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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K 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	.099	.032	.162	.093	.030	.150	.087	.028	.139	.081	.026	
2.0	.171	.094	.029	.165	.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	.021	.126	.068	.021	
5.0	.143	.073	.021	.140	.072	.021	.133	.069	.020	.127	.067	.020	.121	.065	.019	
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018	
7.0	.129	.064	.018	.127	.063	.018	.121	.061	.018	.117	.060	.017	.112	.058	.017	
8.0	.123	.060	.017	.121	.060	.017	.116	.058	.017	.112	.057	.016	.108	.055	.016	
9.0	.118	.057	.016	.116	.056	.016	.112	.055	.016	.108	.054	.015	.104	.053	.015	
10.0	.113	.054	.015	.111	.054	.015	.107	.052	.015	.104	.051	.015	.100	.050	.014	

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	.143	.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	.061	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.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: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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm										
NAME: BARREL_WHT_55 DEG_500mA_3000K 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	22.0	22.9	22.2	23.1	23.3	22.0	22.9	22.3	23.1	23.3
3H	22.8	23.6	23.0	23.8	24.0	22.8	23.6	23.0	23.8	24.0
4H	23.2	24.0	23.4	24.2	24.4	23.1	23.9	23.4	24.1	24.3
6H	23.4	24.2	23.7	24.4	24.7	23.3	24.1	23.6	24.3	24.6
8H	23.5	24.3	23.8	24.5	24.8	23.4	24.1	23.7	24.4	24.6
12H	23.6	24.3	23.9	24.6	24.9	23.5	24.2	23.8	24.4	24.7
4H 2H	22.2	23.0	22.5	23.2	23.4	22.2	23.0	22.5	23.2	23.5
3H	23.2	23.9	23.5	24.2	24.5	23.2	23.9	23.5	24.2	24.4
4H	23.7	24.4	24.1	24.7	25.0	23.6	24.3	24.0	24.6	24.9
6H	24.1	24.7	24.5	25.0	25.4	24.0	24.5	24.3	24.9	25.2
8H	24.3	24.8	24.7	25.1	25.5	24.1	24.6	24.5	25.0	25.3
12H	24.4	24.9	24.8	25.3	25.6	24.2	24.7	24.6	25.1	25.4
8H 4H	23.9	24.4	24.3	24.7	25.1	23.8	24.3	24.2	24.7	25.0
6H	24.4	24.8	24.8	25.2	25.6	24.2	24.7	24.7	25.0	25.5
8H	24.6	25.0	25.1	25.4	25.8	24.4	24.8	24.9	25.2	25.7
12H	24.8	25.2	25.3	25.6	26.1	24.6	24.9	25.1	25.4	25.9
12H 4H	23.9	24.3	24.3	24.7	25.1	23.8	24.3	24.2	24.6	25.0
6H	24.4	24.8	24.8	25.2	25.6	24.3	24.6	24.7	25.1	25.5
8H	24.7	25.0	25.1	25.4	25.9	24.5	24.8	25.0	25.3	25.7
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 0.8					+ 1.2 / - 0.7				
1.5H	+ 2.3 / - 0.7					+ 2.3 / - 0.7				
2.0H	+ 0.4 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 2130 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.6)

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:

UTILIZATION FACTORS TABLE

Test:U:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

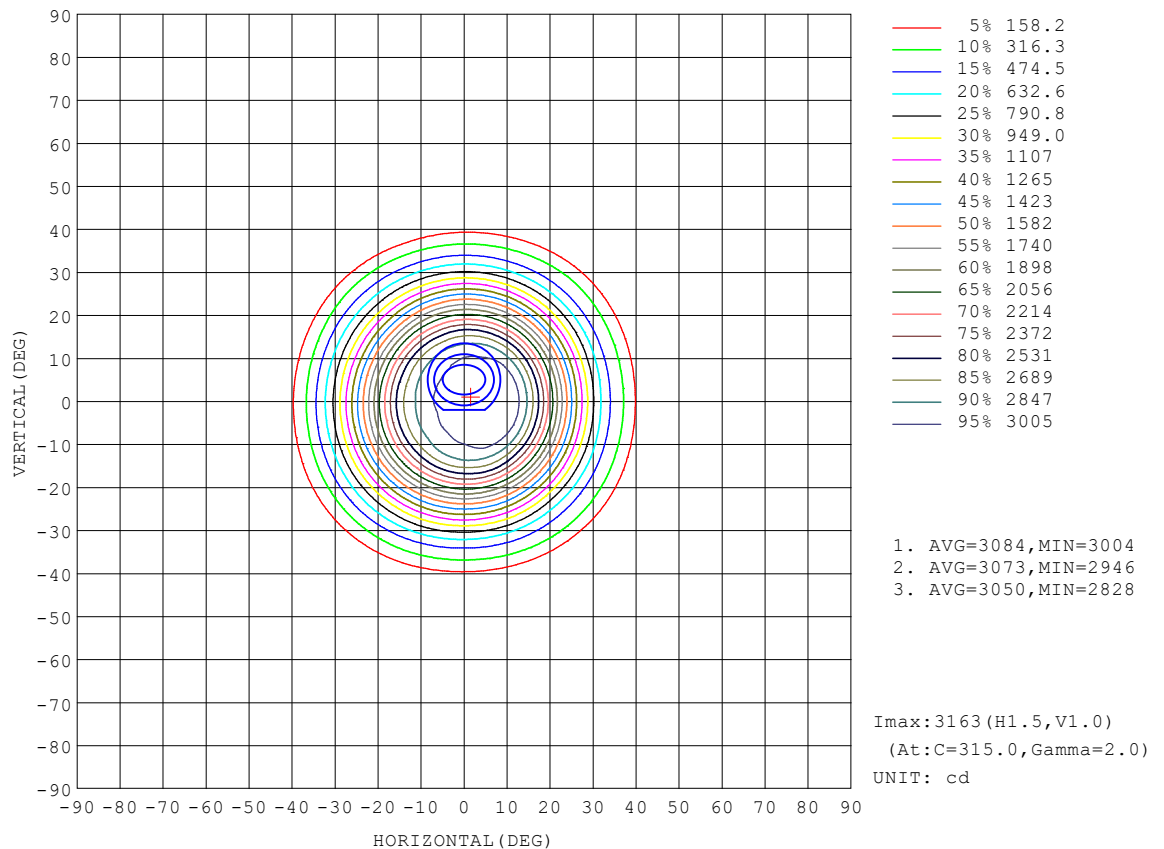
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	72
0.80	93	87	83	93	87	83	92	86	83	79
1.00	98	92	88	97	92	88	95	91	87	83
1.25	102	96	93	101	96	92	99	95	92	87
1.50	105	100	96	104	99	96	101	97	95	90
2.00	108	103	100	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	105	102	99	93
3.00	111	107	105	109	106	103	106	103	101	95
4.00	113	110	108	111	109	107	108	106	104	97
5.00	115	112	110	112	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: 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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

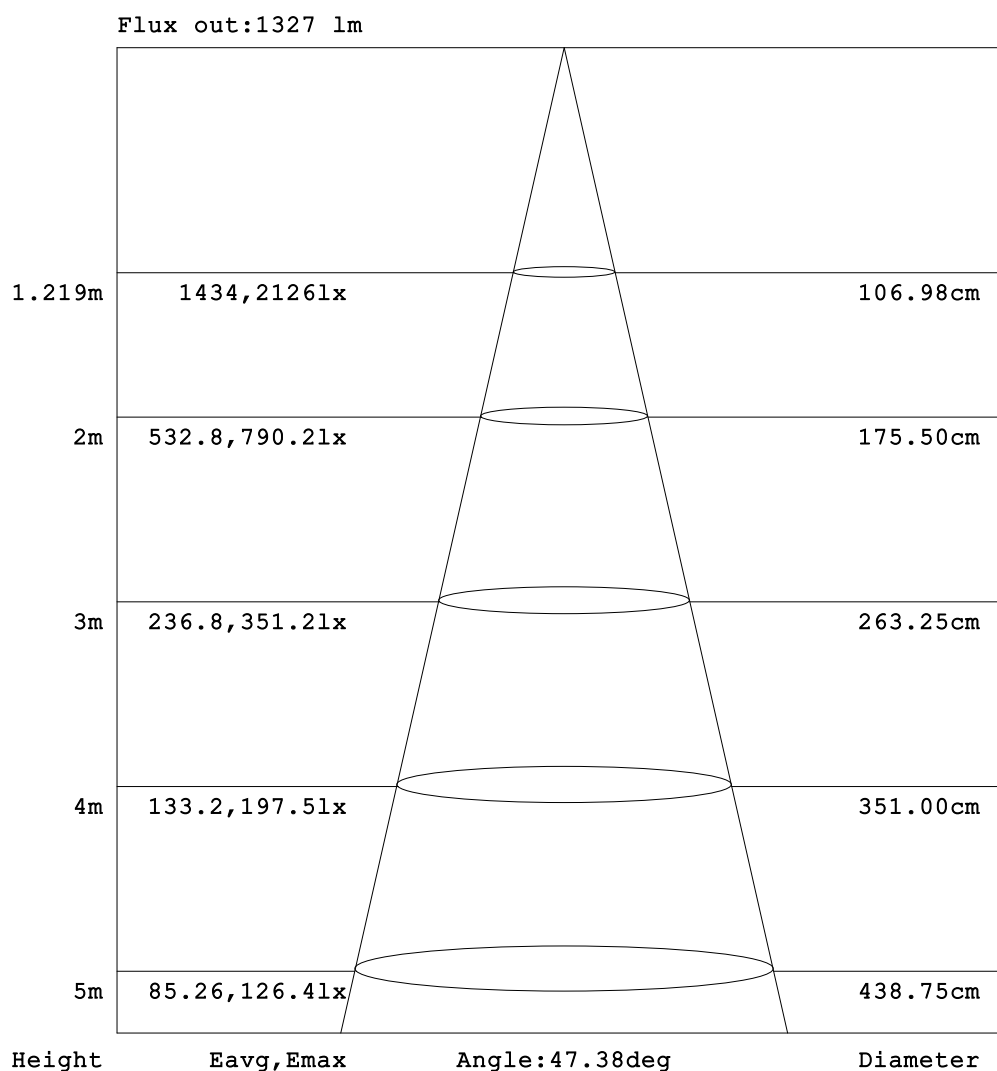


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



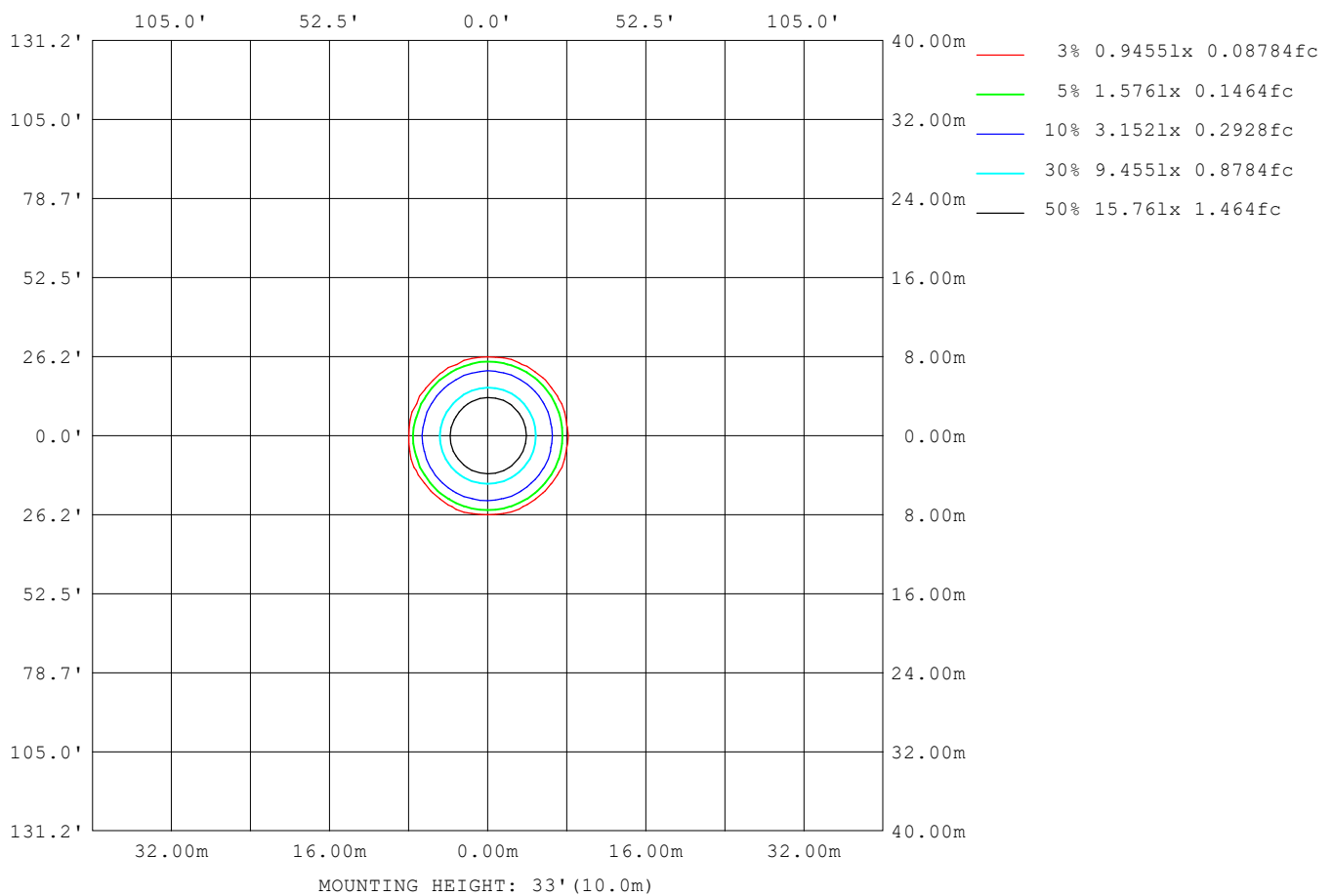
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date: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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K 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: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:240.2V I:0.0947A P:21.99W PF:0.9664 Lamp Flux:2129.9x1 lm		
NAME: BARREL_WHT_55 DEG_500mA_3000K CRI80	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

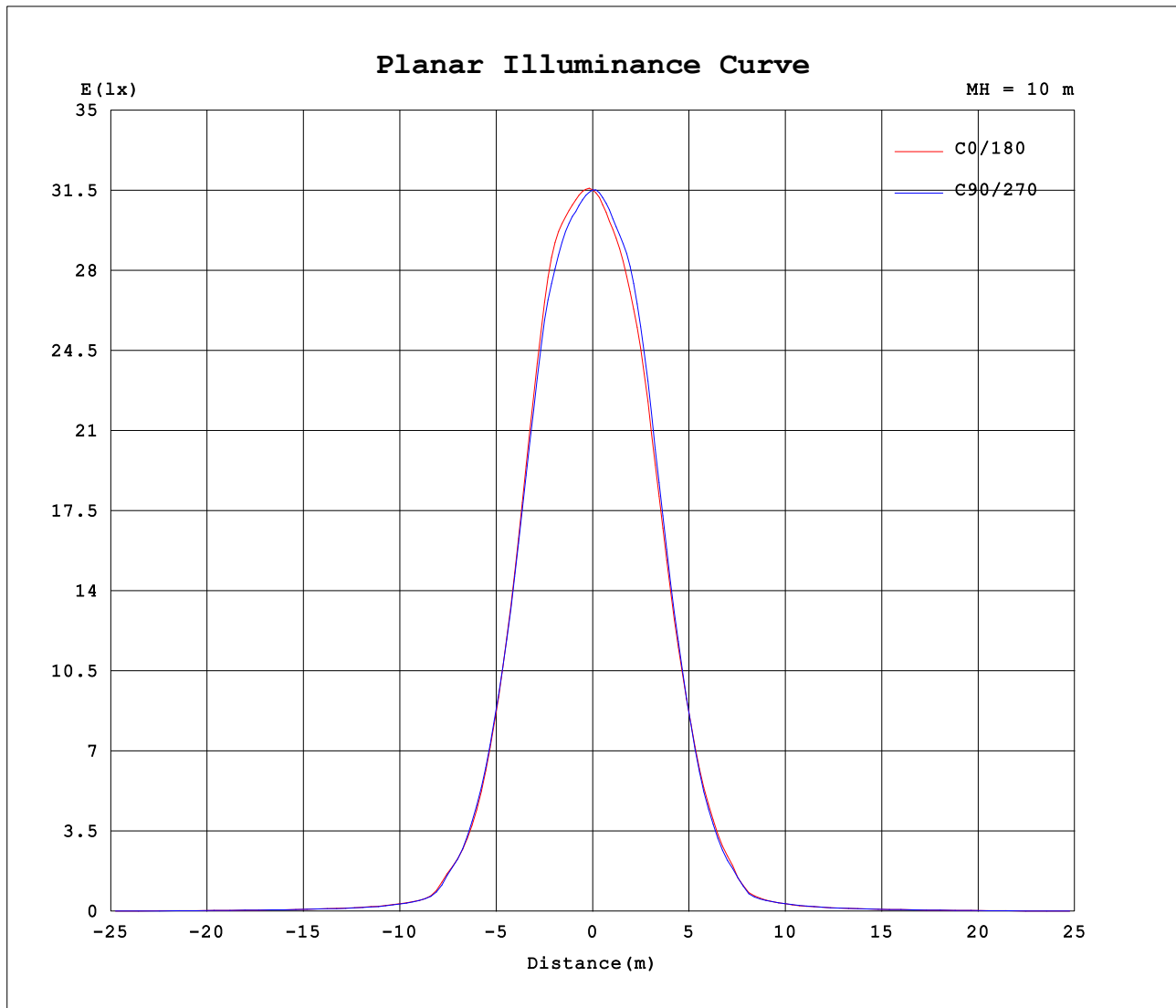
AvgL	cd/m2
L_0~180 (65) av	39404
L_0~180 (75) av	33998
L_0~180 (85) av	28278
L_90~270 (65) av	38814
L_90~270 (75) av	33452
L_90~270 (85) av	28008
L_45 (65) av	39162
L_45 (75) av	33721
L_45 (85) av	28156

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:

