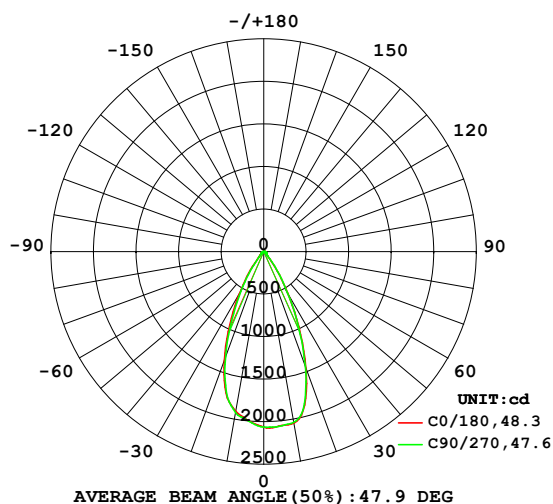


LUMINAIRE PHOTOMETRIC TEST REPORT

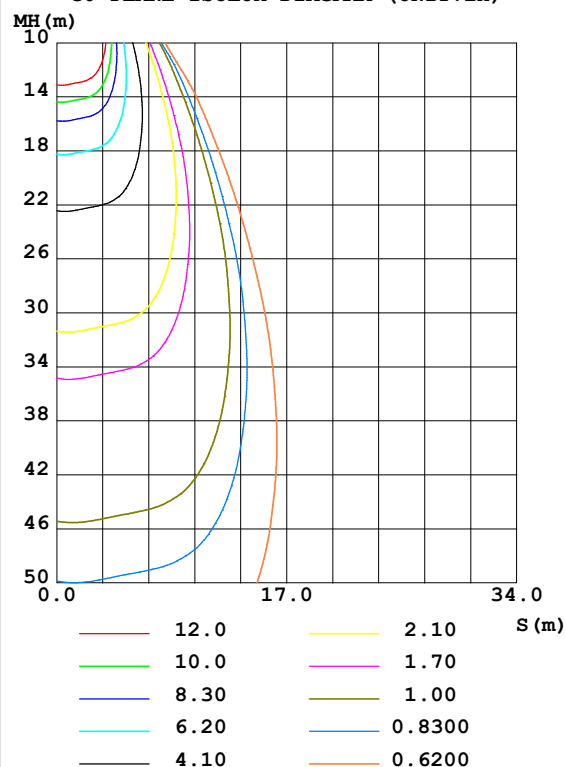
Test:U:240.2V I:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 92.05 lm/W			
MODEL	TRIDONIC SLE G7 09MM	Imax(cd)	2077	S/MH(C0/180)	0.75
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.73
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1421.5	η UP,DN(C0-180)	0.0,50.9
NOMINAL FLUX(lm)	1421.46	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.1
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	2047	2061	2038	1961	1905	1882	1921	1985	0- 10	192.0	192.0	13.5,13.5
20	1446	1457	1431	1400	1360	1328	1317	1393	10- 20	486.9	678.9	47.8,47.8
30	564.6	562.8	562.6	577.5	582.4	581.8	536.4	550.8	20- 30	433.0	1112	78.2,78.2
40	89.58	91.87	101.2	104.4	107.4	107.0	94.79	89.72	30- 40	184.3	1296	91.2,91.2
50	42.75	43.41	43.12	44.78	46.43	46.24	44.63	43.50	40- 50	48.68	1345	94.6,94.6
60	30.44	30.57	30.41	31.39	32.69	32.39	31.12	30.26	50- 60	32.85	1378	96.9,96.9
70	19.75	19.81	19.82	20.28	20.65	20.21	19.67	19.49	60- 70	25.45	1403	98.7,98.7
80	7.828	7.829	7.692	7.663	7.585	7.383	7.392	7.634	70- 80	14.26	1417	99.7,99.7
90	0.0697	0.0733	0.0843	0.0734	0.0697	0.0629	0.0660	0.0660	80- 90	4.042	1421	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): 1324.2 lm

%lum = 93.2%

%lamp = 93.2%

Conical surface Flux(120deg): 1377.7 lm

%lum = 96.9%

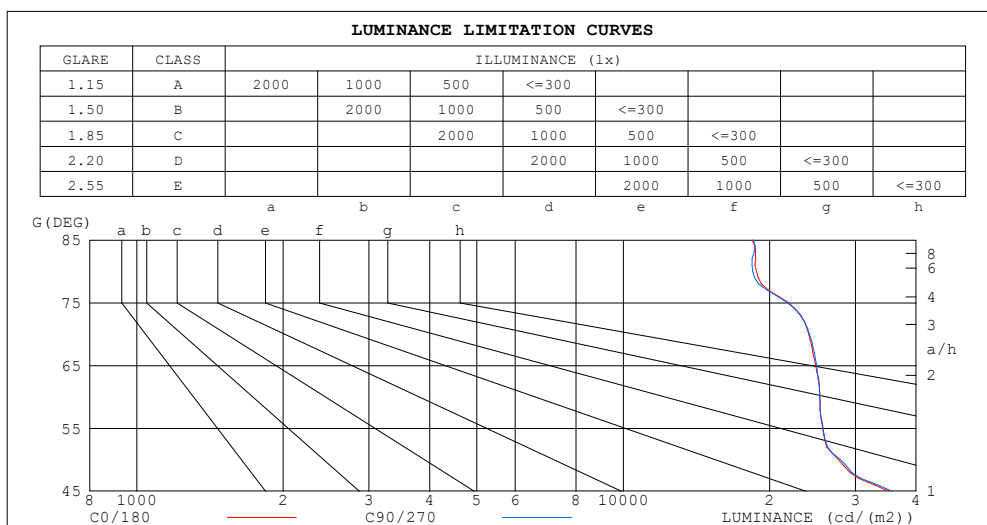
%lamp = 96.9%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date: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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_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	18403	18535
80	18790	18459
75	21855	21779
70	24064	24150
65	24865	24988
60	25371	25342
55	25752	25703
50	27719	27954
45	35156	35712

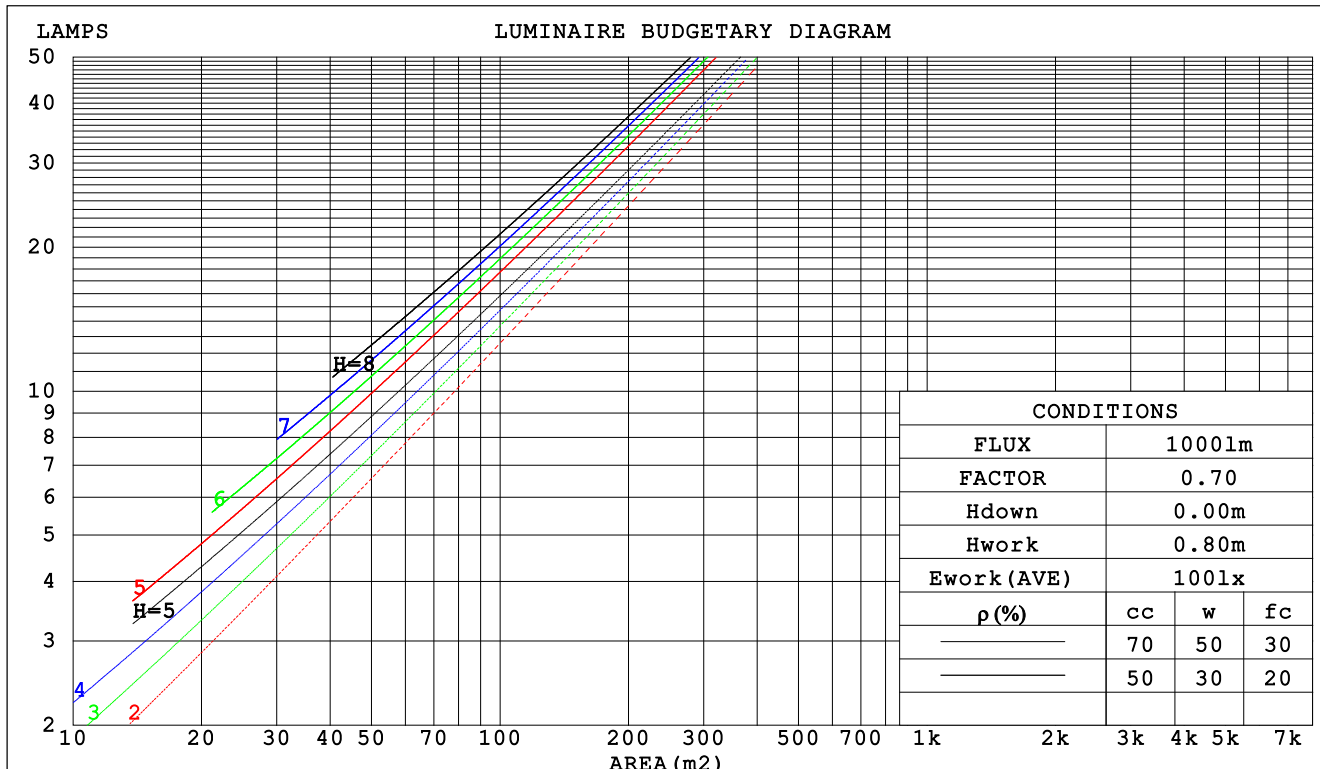
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_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	.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	.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	.80	.75	.71	.80	.74	.70	.78	.73	.70	.77	.73	.69	.76	.72	.69	.68
7.0	.76	.70	.66	.76	.70	.66	.74	.69	.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	.60
9.0	.69	.63	.59	.68	.63	.59	.67	.62	.59	.66	.62	.59	.66	.62	.59	.57
10.0	.66	.60	.56	.65	.60	.56	.64	.59	.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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_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	.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	.022	.126	.068	.021		
5.0	.144	.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	.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	.055	.016		
9.0	.118	.057	.016	.116	.057	.016	.112	.055	.016	.108	.054	.015	.104	.053	.015		
10.0	.113	.054	.015	.111	.054	.015	.107	.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	.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	.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: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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm										
NAME: BARREL_WHT_55 DEG_350mA_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	20.6	21.5	20.8	21.7	21.9	20.6	21.5	20.8	21.7	21.8
3H	21.3	22.2	21.6	22.4	22.6	21.3	22.1	21.6	22.3	22.5
4H	21.6	22.4	21.9	22.7	22.9	21.6	22.4	21.9	22.6	22.9
6H	21.8	22.6	22.1	22.8	23.1	21.8	22.6	22.1	22.8	23.1
8H	21.9	22.7	22.2	22.9	23.2	21.9	22.6	22.2	22.9	23.1
12H	22.0	22.7	22.3	22.9	23.2	22.0	22.7	22.3	22.9	23.2
4H 2H	20.8	21.6	21.1	21.8	22.0	20.8	21.6	21.0	21.8	22.0
3H	21.7	22.4	22.0	22.7	23.0	21.7	22.4	22.0	22.7	22.9
4H	22.2	22.8	22.5	23.1	23.4	22.1	22.8	22.5	23.1	23.4
6H	22.5	23.0	22.8	23.4	23.7	22.4	23.0	22.8	23.3	23.7
8H	22.6	23.1	23.0	23.5	23.8	22.6	23.1	23.0	23.4	23.8
12H	22.7	23.2	23.1	23.5	23.9	22.7	23.1	23.1	23.5	23.9
8H 4H	22.3	22.8	22.7	23.2	23.5	22.3	22.8	22.7	23.1	23.5
6H	22.7	23.1	23.1	23.5	23.9	22.7	23.1	23.1	23.5	23.9
8H	22.9	23.3	23.3	23.7	24.1	22.9	23.3	23.3	23.7	24.1
12H	23.1	23.4	23.5	23.8	24.3	23.0	23.4	23.5	23.8	24.3
12H 4H	22.3	22.7	22.7	23.1	23.5	22.3	22.7	22.7	23.1	23.5
6H	22.7	23.1	23.2	23.5	24.0	22.7	23.1	23.1	23.5	23.9
8H	22.9	23.3	23.4	23.7	24.2	22.9	23.2	23.4	23.7	24.2
Variations with the observer position at spacings:										
S = 1.0H	+ 1.2 / - 0.7					+ 1.3 / - 0.8				
1.5H	+ 2.4 / - 0.7					+ 2.6 / - 0.7				
2.0H	+ 0.4 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 1421 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.2)

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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

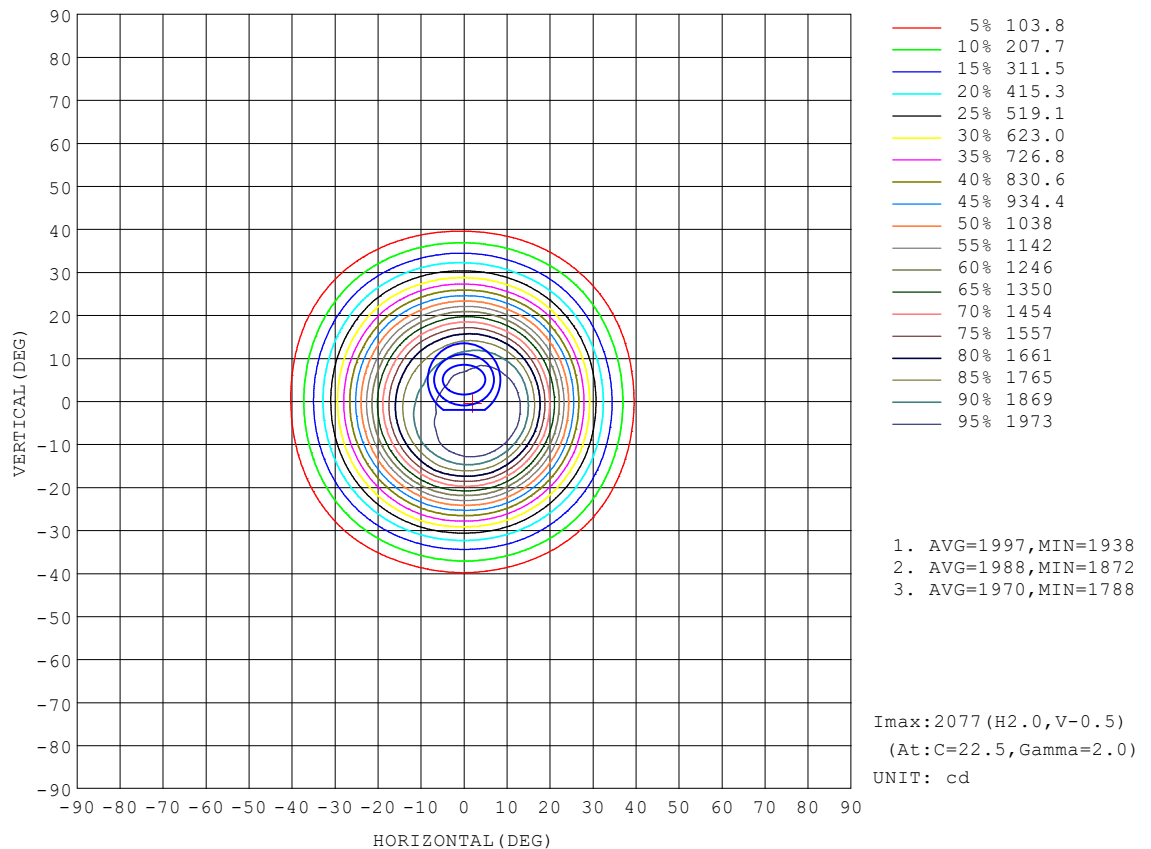
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	80	76	86	79	76	85	79	75	72
0.80	94	87	84	93	87	83	92	86	83	79
1.00	98	92	88	97	92	88	96	92	88	83
1.25	102	97	93	101	96	93	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: 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:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

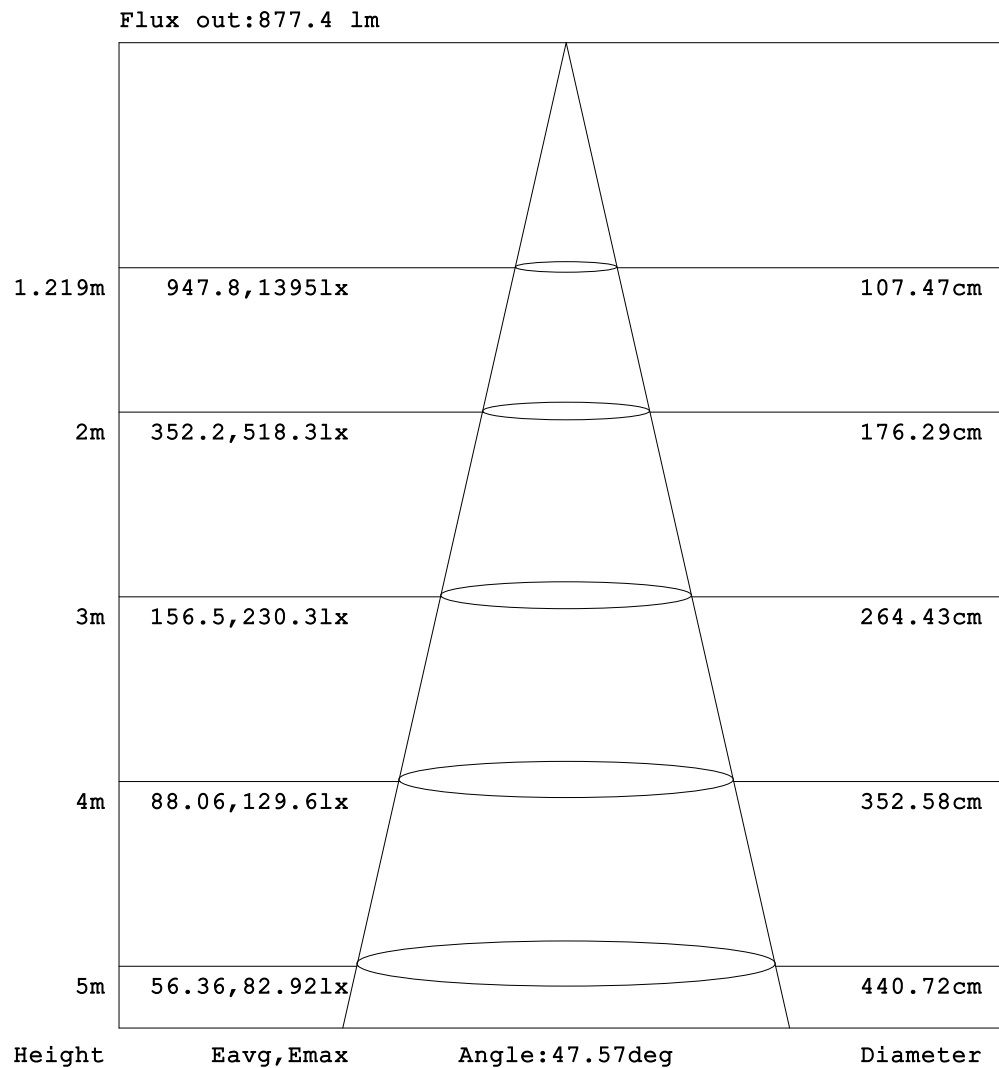


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:10 August 2023

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:240.2V I:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



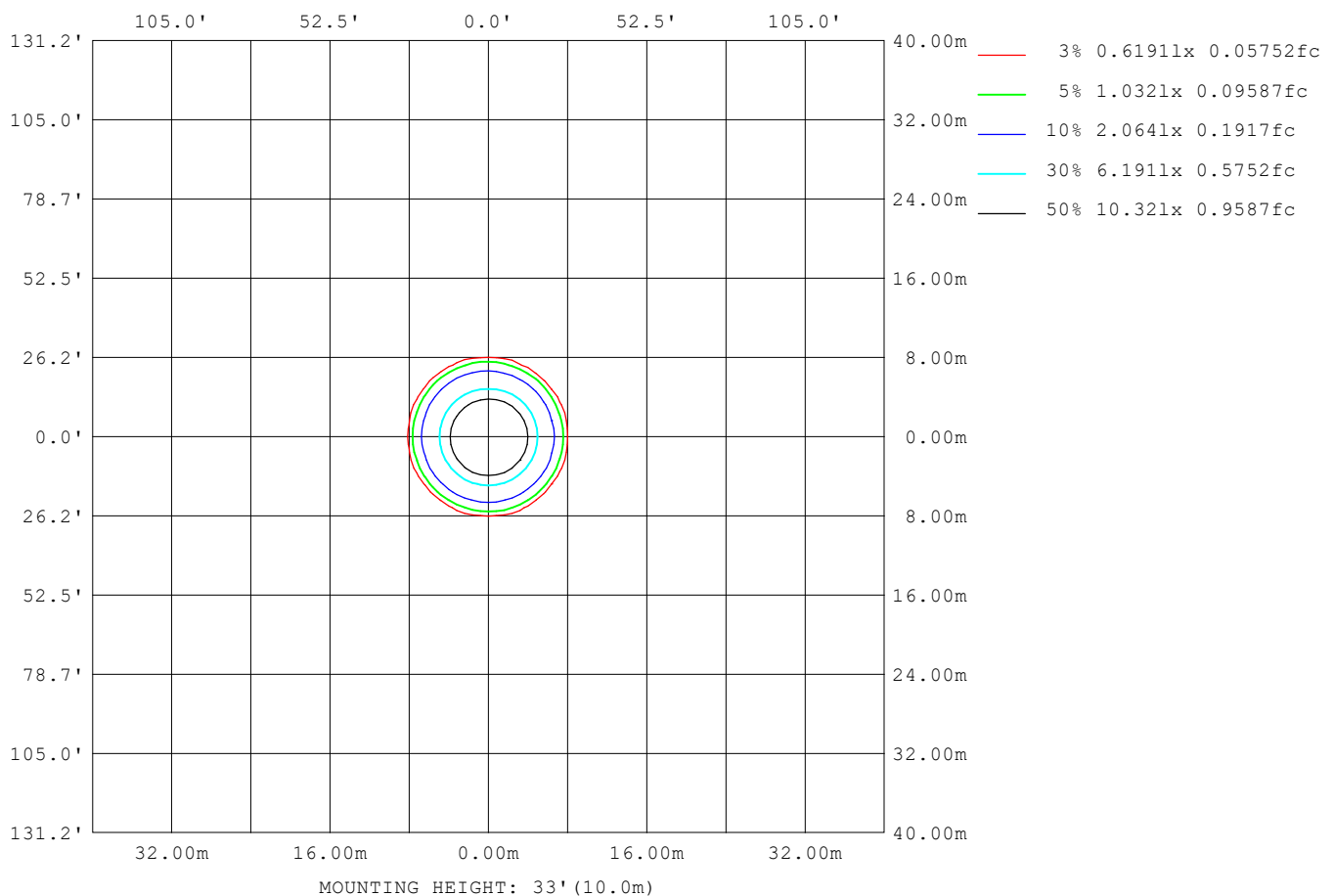
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.2V I:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_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:240.2V I:0.0688A P:15.44W PF:0.9350 Lamp Flux:1421.46x1 lm		
NAME: BARREL_WHT_55 DEG_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

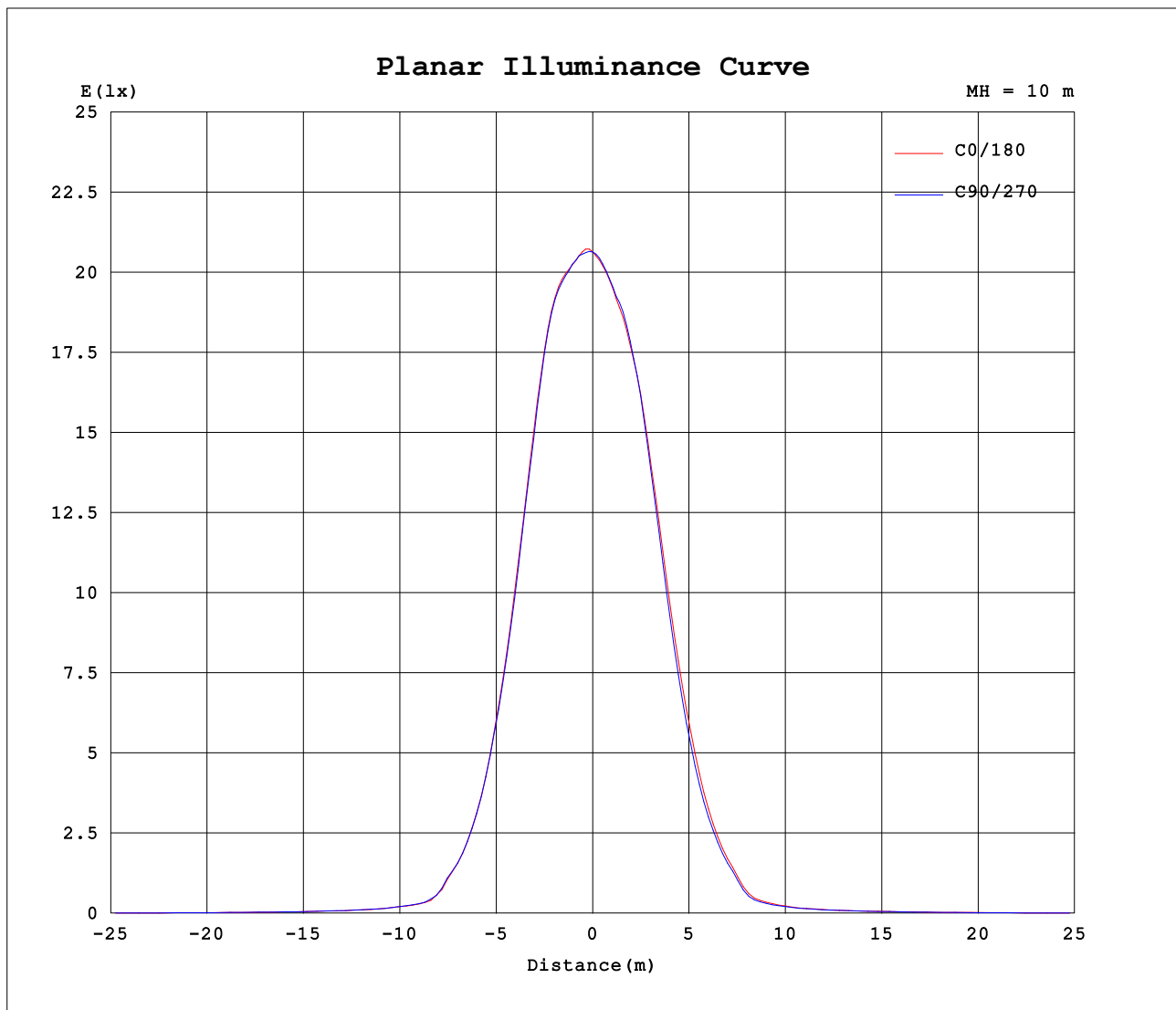
AvgL	cd/m2
L_0~180 (65) av	25817
L_0~180 (75) av	21964
L_0~180 (85) av	18089
L_90~270 (65) av	25123
L_90~270 (75) av	21492
L_90~270 (85) av	17758
L_45 (65) av	25376
L_45 (75) av	21703
L_45 (85) av	17935

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:

