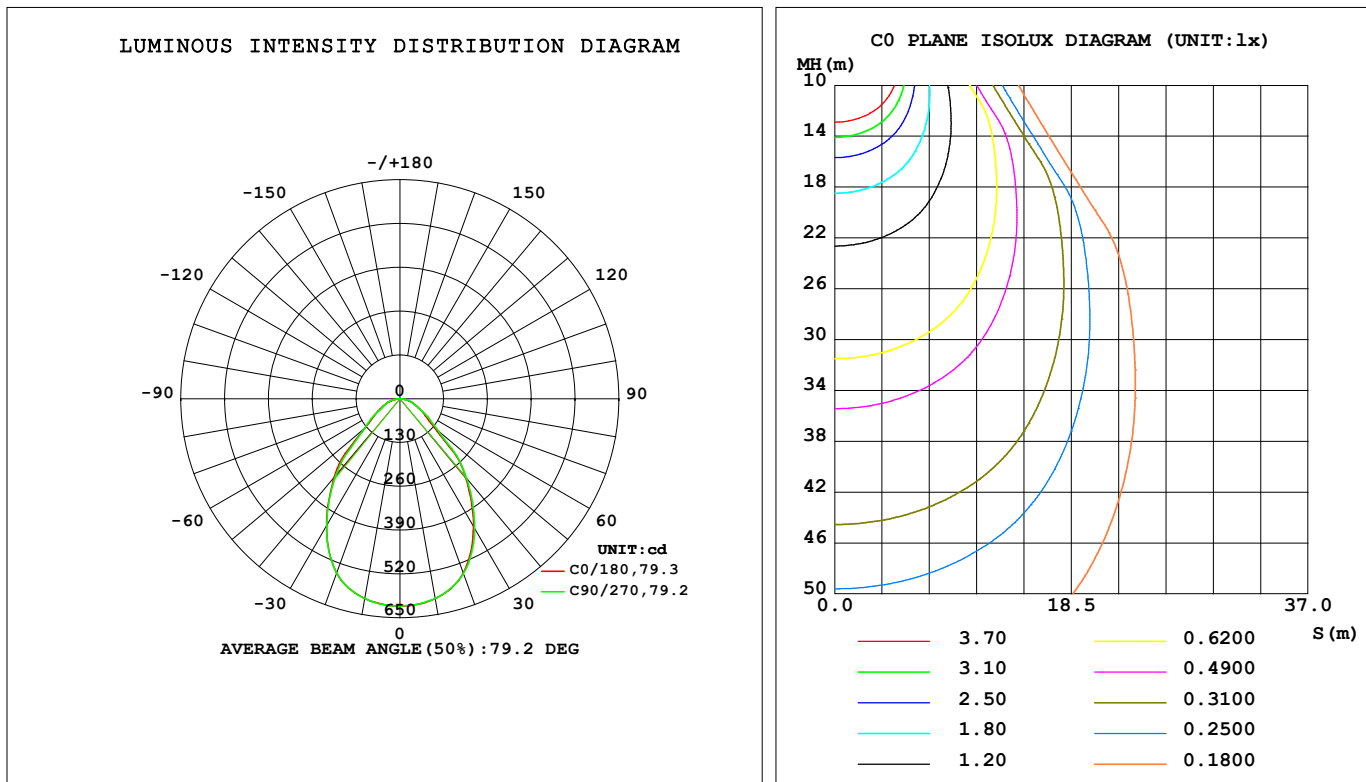


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 77.22 lm/W
MODEL	G1 120MM 2500LM 830 SNC	I _{max} (cd)	615.1	S/MH (C0/180)	1.09	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.09	
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	1046.7	η UP,DN (C0-180)	0.0, 50.5	
NOMINAL FLUX (lm)	1046.7	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0, 49.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00	
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.15	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [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	602.3	601.9	601.7	601.5	601.9	601.9	602.2	602.4	0- 10	58.10	58.10	5.55,5.55
20	550.3	551.4	551.7	551.0	550.0	548.6	549.8	549.6	10- 20	163.8	221.9	21.2,21.2
30	436.9	440.6	443.4	440.9	436.1	433.8	435.3	435.5	20- 30	228.9	450.9	43.1,43.1
40	303.6	308.3	308.0	308.4	303.1	301.0	295.8	302.3	30- 40	230.8	681.7	65.1,65.1
50	135.0	159.1	148.7	155.9	136.6	147.0	138.0	148.7	40- 50	173.6	855.3	81.7,81.7
60	77.01	73.43	80.57	71.64	77.31	71.73	72.75	70.28	50- 60	94.04	949.3	90.7,90.7
70	43.43	42.37	43.21	44.28	44.03	43.35	43.32	43.52	60- 70	56.85	1006	96.1,96.1
80	16.18	19.66	19.55	19.46	16.69	19.88	20.77	19.66	70- 80	33.25	1039	99.3,99.3
90	0.2144	0.2269	0.2456	0.2238	0.2207	0.2300	0.2487	0.2456	80- 90	7.311	1047	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): 781.62 lm

%lum = 74.7%

%lamp = 74.7%

Conical surface Flux(120deg): 949.29 lm

%lum = 90.7%

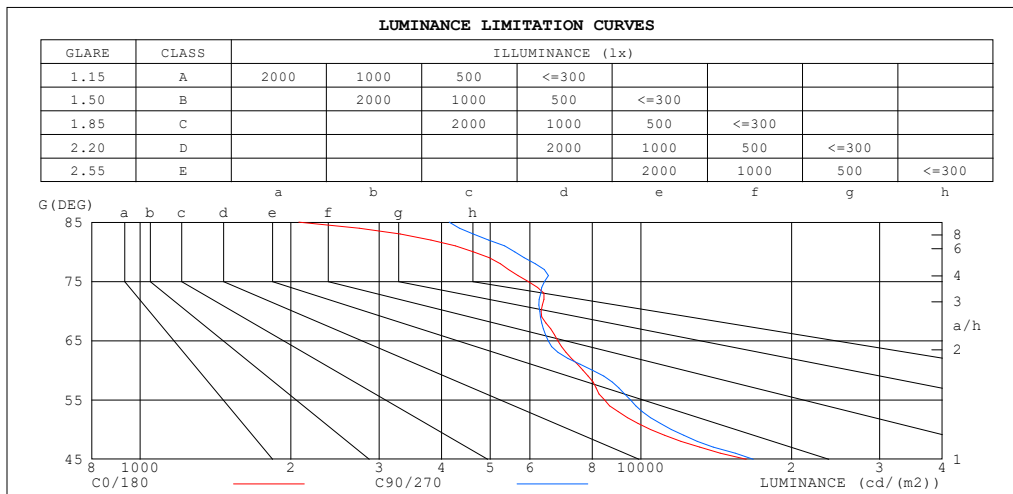
%lamp = 90.7%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2073	4145
80	4636	5602
75	5948	6426
70	6319	6285
65	6822	6533
60	7664	8017
55	8461	9526
50	10452	11511
45	16234	16782

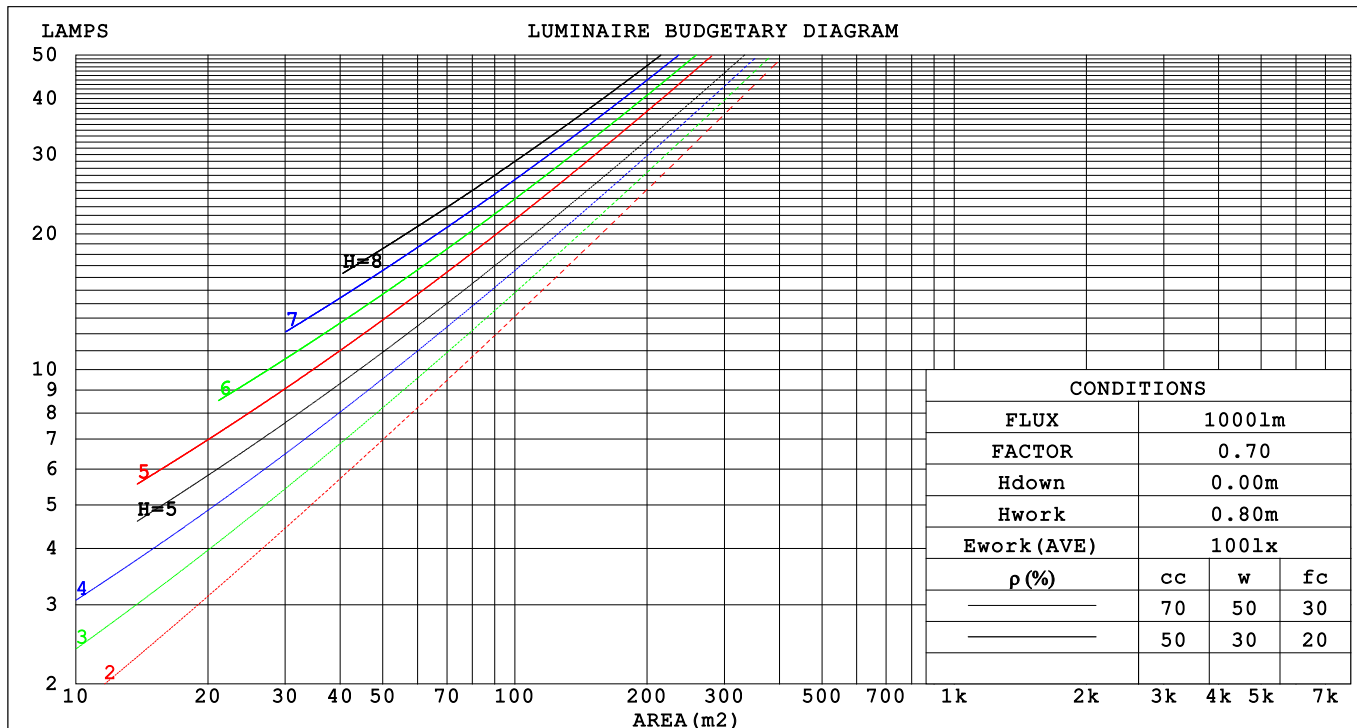
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.94	.92	.90	.89
2.0	.96	.91	.86	.95	.90	.85	.91	.87	.83	.88	.85	.82	.85	.82	.80	.78
3.0	.87	.80	.75	.86	.79	.74	.83	.78	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.79	.72	.66	.78	.71	.66	.75	.70	.65	.73	.68	.64	.71	.67	.63	.61
5.0	.72	.64	.59	.71	.64	.59	.69	.63	.58	.67	.62	.57	.65	.61	.57	.55
6.0	.66	.58	.53	.65	.58	.53	.63	.57	.52	.62	.56	.52	.60	.55	.51	.50
7.0	.61	.53	.48	.60	.53	.48	.59	.52	.47	.57	.51	.47	.56	.51	.47	.45
8.0	.56	.49	.44	.56	.48	.43	.54	.48	.43	.53	.47	.43	.52	.47	.43	.41
9.0	.52	.45	.40	.52	.45	.40	.50	.44	.40	.49	.44	.39	.49	.43	.39	.38
10.0	.49	.41	.37	.48	.41	.37	.47	.41	.36	.46	.40	.36	.45	.40	.36	.35



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	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	.244	.139	.044	.237	.135	.043	.224	.129	.041	.212	.122	.039	.201	.117	.038	
2.0	.234	.128	.039	.228	.125	.039	.217	.120	.037	.206	.116	.036	.197	.111	.035	
3.0	.220	.117	.035	.215	.115	.035	.205	.111	.034	.196	.108	.033	.188	.104	.032	
4.0	.207	.107	.032	.202	.106	.031	.194	.103	.031	.186	.100	.030	.178	.097	.030	
5.0	.194	.099	.029	.190	.098	.028	.183	.095	.028	.176	.093	.028	.169	.090	.027	
6.0	.183	.092	.026	.179	.091	.026	.173	.088	.026	.166	.086	.025	.160	.084	.025	
7.0	.172	.085	.024	.169	.084	.024	.163	.082	.024	.158	.081	.023	.152	.079	.023	
8.0	.163	.080	.022	.160	.079	.022	.155	.077	.022	.150	.076	.022	.145	.074	.022	
9.0	.154	.075	.021	.152	.074	.021	.147	.073	.021	.142	.071	.020	.138	.070	.020	
10.0	.146	.070	.019	.144	.069	.019	.140	.068	.019	.135	.067	.019	.131	.066	.019	

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	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.071	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.126	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.053	.119	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.125	.073	.037	.108	.064	.032	.075	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.119	.067	.032	.103	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.114	.062	.028	.098	.054	.024	.068	.038	.017	.040	.022	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.050	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm											
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K					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	19.5	20.8	19.7	21.0	21.1	19.8	21.0	20.0	21.2	21.4	
	3H	20.2	21.3	20.4	21.5	21.8	20.4	21.6	20.7	21.8	22.0
	4H	20.5	21.6	20.8	21.8	22.1	20.7	21.9	21.0	22.1	22.3
	6H	20.7	21.7	21.0	22.0	22.3	21.0	22.1	21.4	22.3	22.6
	8H	20.7	21.7	21.1	22.0	22.3	21.1	22.1	21.4	22.4	22.7
	12H	20.7	21.7	21.1	22.0	22.3	21.1	22.1	21.5	22.4	22.7
4H	2H	19.7	20.8	20.0	21.0	21.3	19.9	21.0	20.2	21.3	21.5
	3H	20.6	21.5	20.9	21.8	22.1	20.8	21.7	21.1	22.0	22.3
	4H	21.0	21.9	21.4	22.2	22.5	21.3	22.2	21.7	22.5	22.8
	6H	21.4	22.1	21.7	22.5	22.8	21.7	22.5	22.1	22.8	23.2
	8H	21.4	22.1	21.8	22.5	22.9	21.8	22.6	22.2	22.9	23.3
	12H	21.4	22.1	21.8	22.5	22.9	21.9	22.5	22.3	22.9	23.3
8H	4H	21.2	21.9	21.6	22.3	22.6	21.4	22.2	21.8	22.5	22.9
	6H	21.6	22.2	22.1	22.6	23.1	22.0	22.6	22.4	23.0	23.4
	8H	21.8	22.3	22.2	22.7	23.2	22.2	22.7	22.6	23.1	23.6
	12H	21.8	22.2	22.3	22.7	23.2	22.3	22.7	22.7	23.1	23.6
12H	4H	21.2	21.8	21.6	22.2	22.6	21.4	22.1	21.9	22.5	22.9
	6H	21.7	22.2	22.1	22.6	23.1	22.0	22.5	22.5	23.0	23.4
	8H	21.8	22.3	22.3	22.7	23.2	22.2	22.7	22.7	23.1	23.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.7 / - 0.9					+ 0.6 / - 0.7					
1.5H	+ 0.7 / - 0.8					+ 0.5 / - 0.7					
2.0H	+ 1.6 / - 0.9					+ 1.6 / - 0.8					

CIE Pub.117, 1047 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

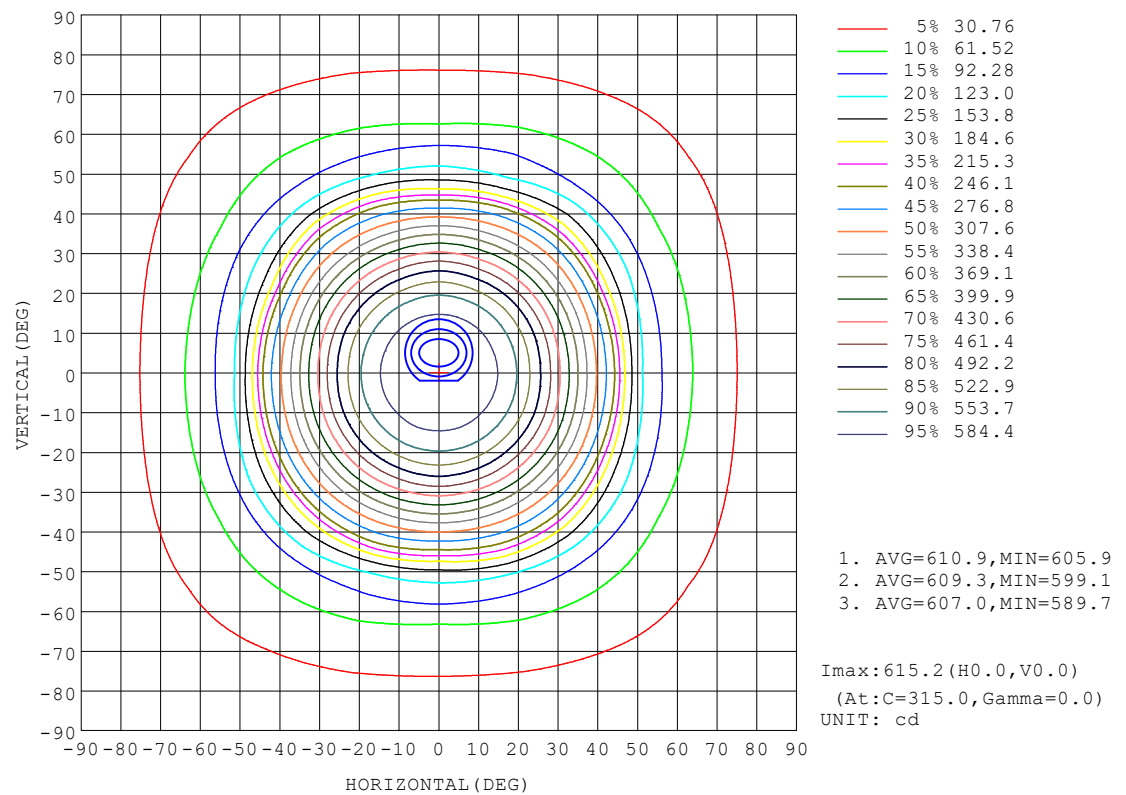
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	70	60	55	69	60	55	68	60	54	49
0.80	79	70	64	78	70	64	77	69	64	58
1.00	86	78	72	85	77	72	83	78	71	66
1.25	92	84	79	91	84	79	89	82	78	72
1.50	96	89	84	95	88	83	92	87	82	76
2.00	102	95	90	100	94	89	97	92	88	81
2.50	104	98	94	102	97	93	99	95	91	84
3.00	107	102	97	105	100	96	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
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:25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

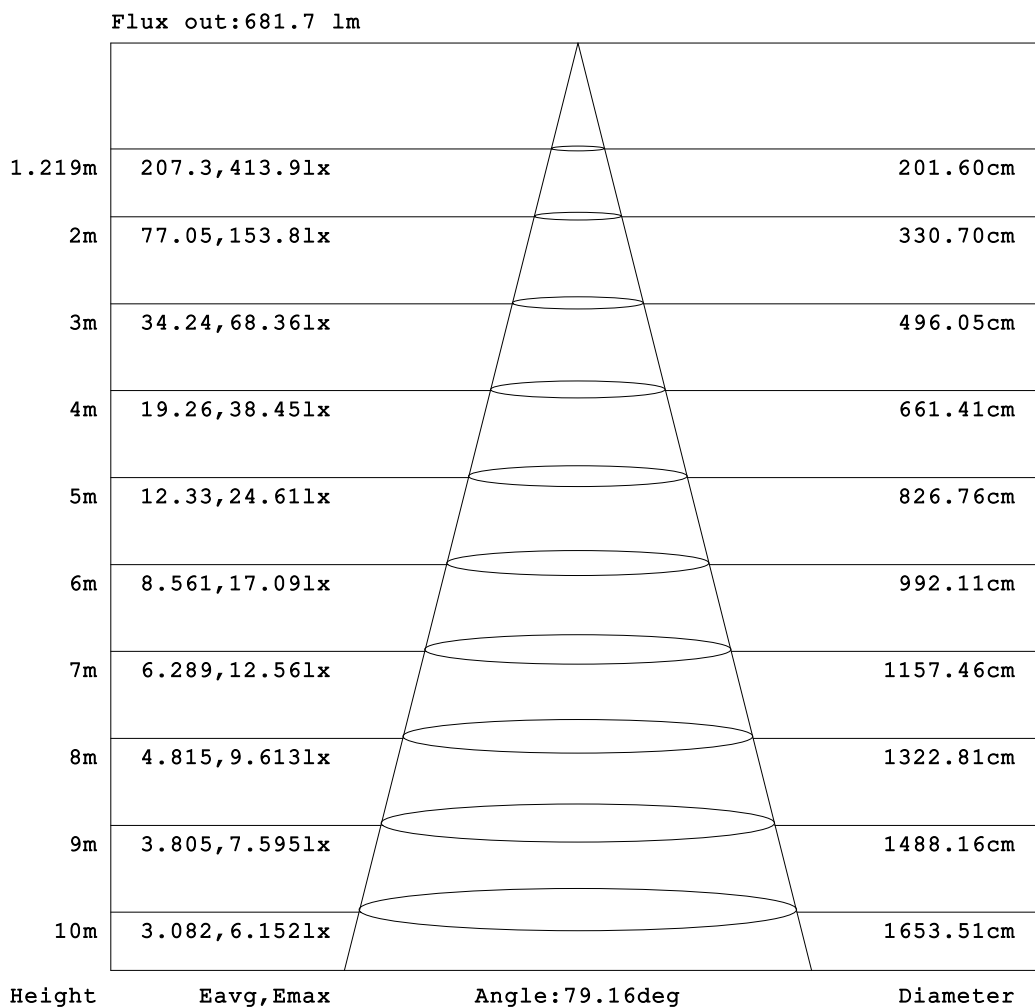


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



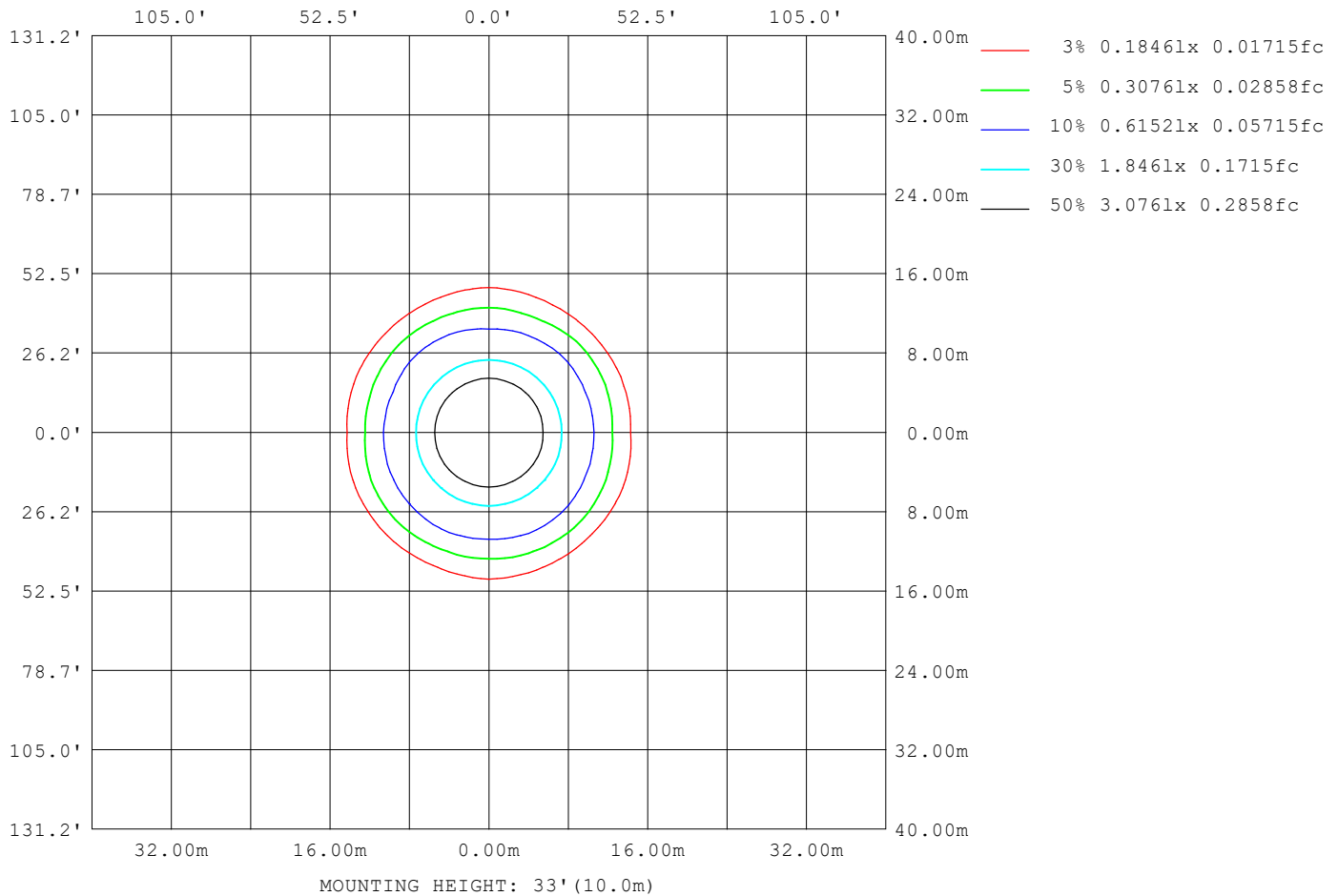
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	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:25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:239.95V I:0.0615A P:13.555W PF:0.9184 Freq:50.08Hz Lamp Flux:1046.7x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_C-DG_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

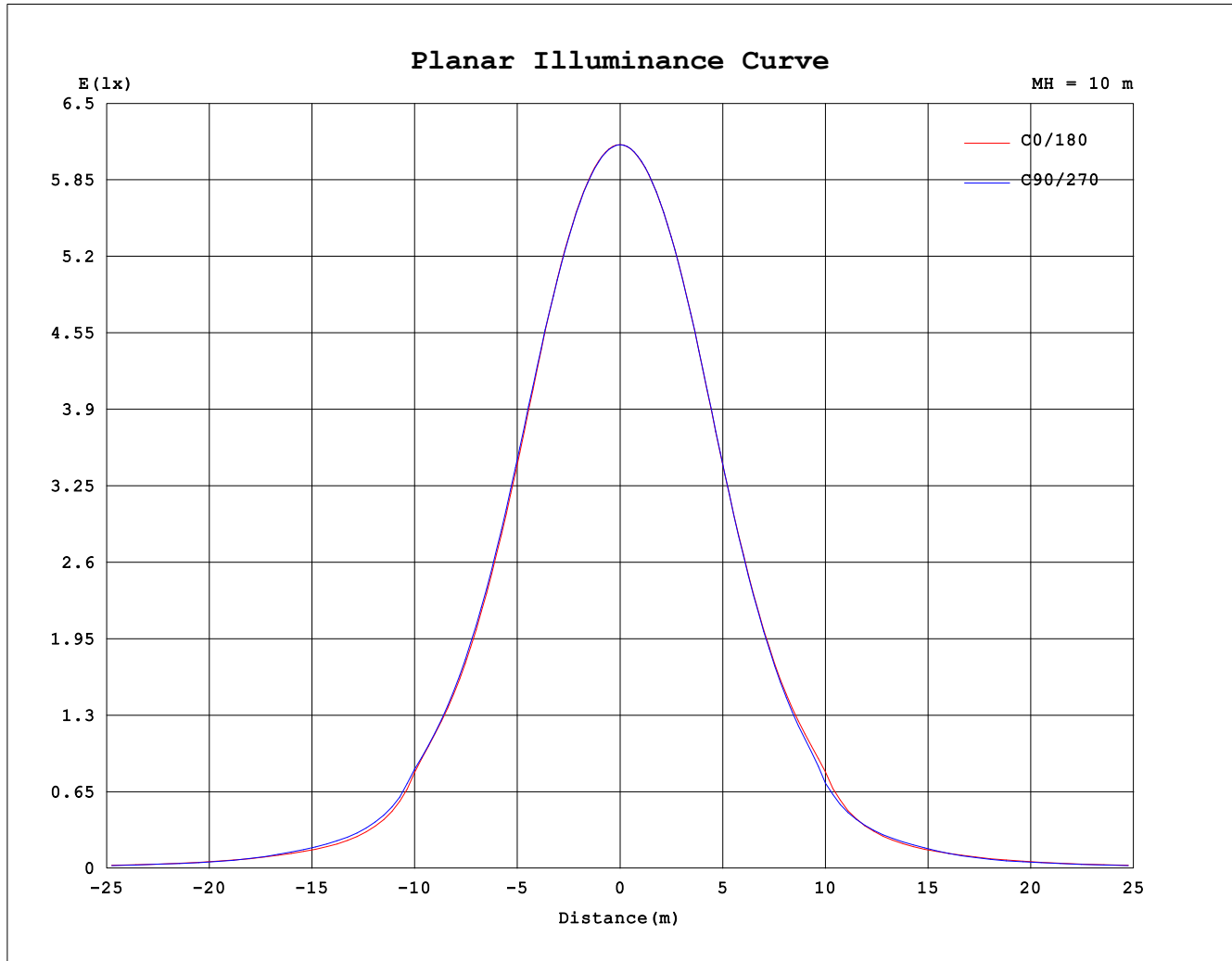
AvgL	cd/m2
L_0~180 (65) av	6822
L_0~180 (75) av	5992
L_0~180 (85) av	2177
L_90~270 (65) av	6476
L_90~270 (75) av	6458
L_90~270 (85) av	3924
L_45 (65) av	6699
L_45 (75) av	6050
L_45 (85) av	3171

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 October 2019

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [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: 25 October 2019

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

```