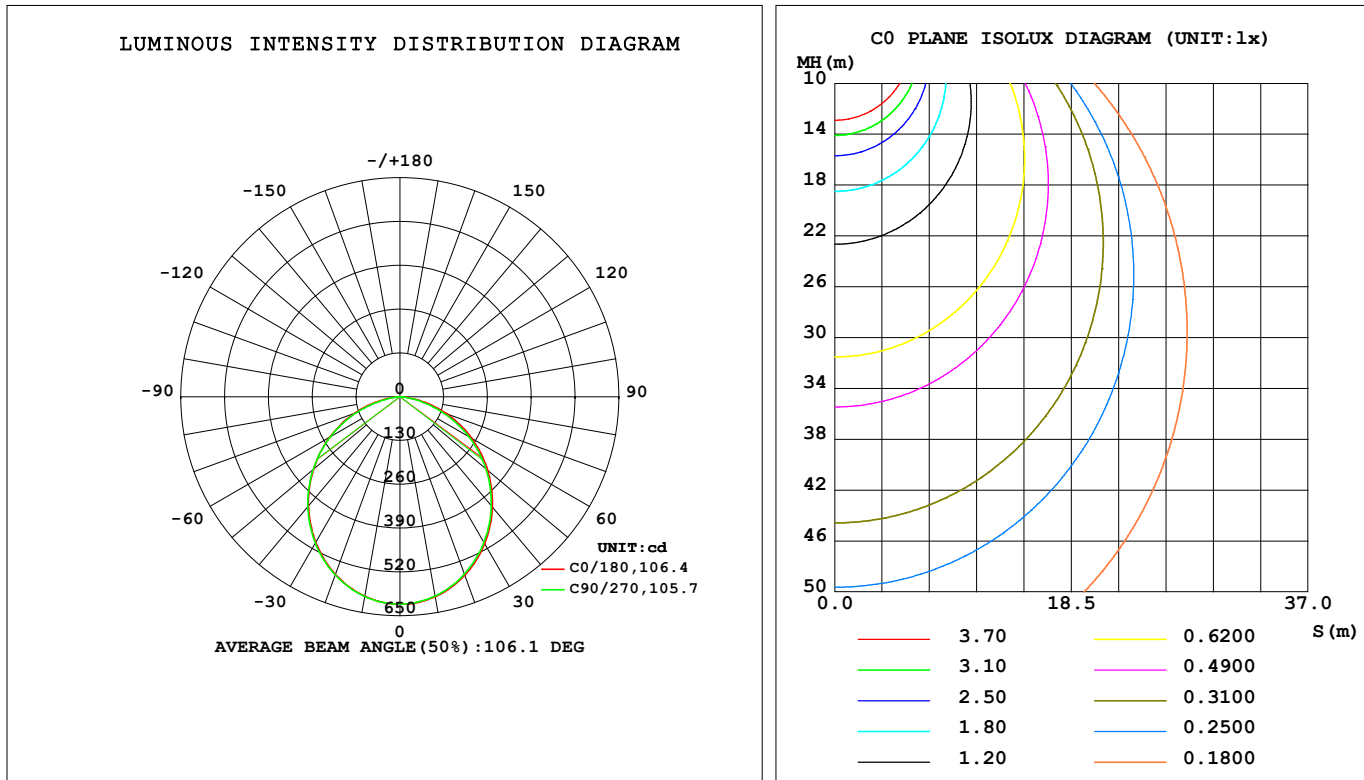


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 81.04 lm/W
MODEL	G1 120MM 2500LM 840 SNC	I _{max} (cd)	615.9	S/MH (C0/180)	1.21	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.22	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1607.4	η UP,DN (C0-180)	0.0,49.9	
NOMINAL FLUX (lm)	1607.45	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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	602.6	601.7	600.6	599.7	601.0	601.5	601.9	602.0	0- 10	58.06	58.06	3.61,3.61
20	563.3	561.9	560.2	559.1	560.5	561.5	562.7	563.2	10- 20	164.7	222.8	13.9,13.9
30	502.9	501.2	499.0	497.6	499.2	500.6	502.2	503.0	20- 30	245.6	468.4	29.1,29.1
40	426.9	424.8	422.0	420.8	422.4	424.1	425.5	427.0	30- 40	290.2	758.6	47.2,47.2
50	340.0	337.2	333.1	333.0	335.1	336.3	336.4	339.4	40- 50	294.1	1053	65.5,65.5
60	245.7	241.5	235.8	237.3	240.7	240.2	238.6	243.6	50- 60	258.4	1311	81.6,81.6
70	146.8	140.3	132.7	136.3	142.4	138.8	135.0	142.3	60- 70	188.0	1499	93.3,93.3
80	47.78	43.90	36.15	41.40	43.53	41.66	36.70	44.73	70- 80	94.22	1593	99.1,99.1
90	0.8641	0.7491	0.7180	0.7678	0.8237	0.8113	0.7522	0.7802	80- 90	14.14	1607	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): 907.74 lm

%lum = 56.5%

%lamp = 56.5%

Conical surface Flux(120deg): 1311.1 lm

%lum = 81.6%

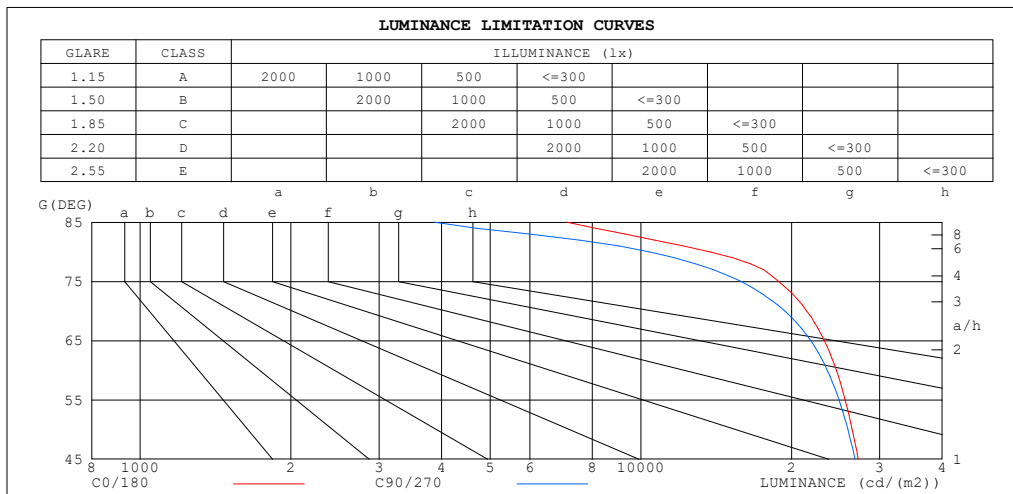
%lamp = 81.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	7115	3865
80	13758	10408
75	18844	15854
70	21462	19398
65	23263	21853
60	24575	23582
55	25601	24879
50	26450	25913
45	27191	26785

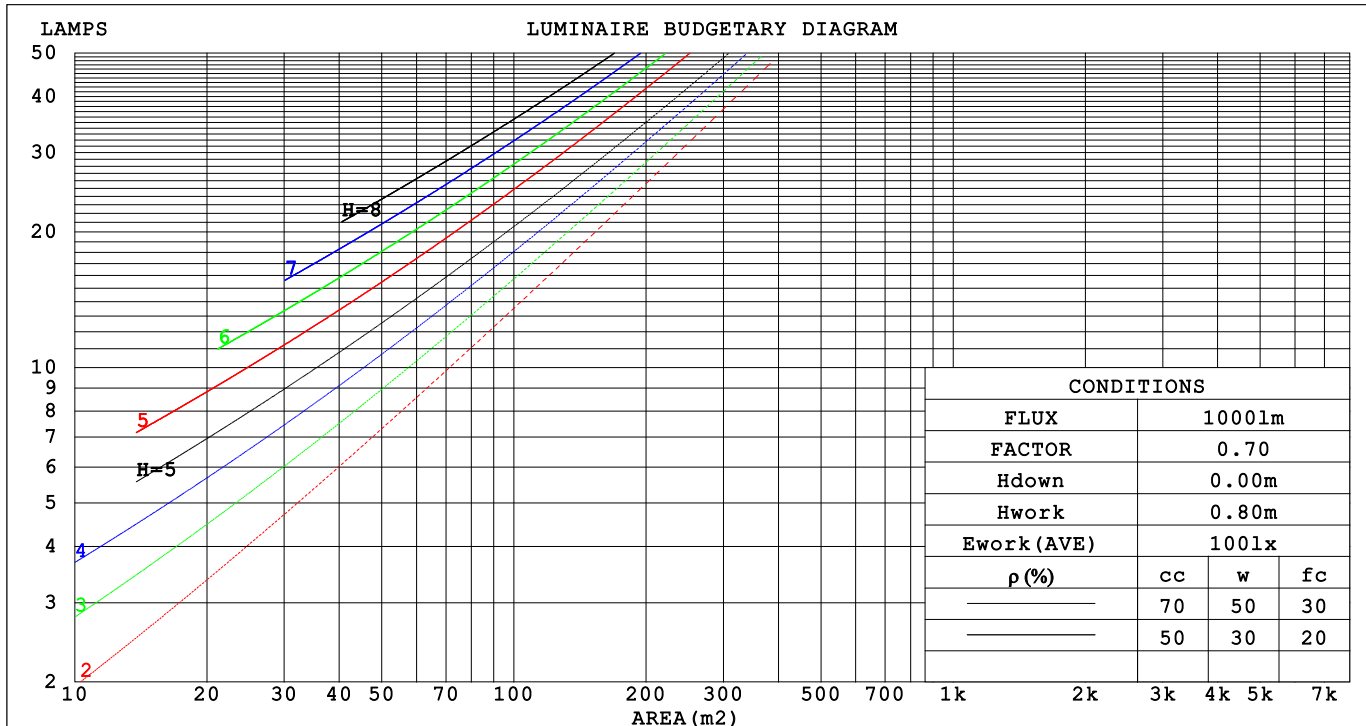
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 2019

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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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															



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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	.291	.165	.052	.284	.162	.051	.271	.155	.050	.259	.149	.048	.247	.143	.046	
2.0	.279	.153	.047	.273	.150	.046	.261	.145	.045	.250	.140	.044	.241	.136	.043	
3.0	.261	.139	.042	.255	.137	.041	.245	.133	.040	.235	.129	.040	.227	.125	.039	
4.0	.242	.126	.037	.237	.124	.037	.228	.121	.036	.220	.118	.036	.212	.115	.035	
5.0	.225	.114	.033	.220	.113	.033	.212	.111	.033	.205	.108	.032	.198	.106	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.102	.030	.191	.099	.029	.185	.097	.029	
7.0	.195	.096	.027	.192	.095	.027	.185	.094	.027	.179	.092	.027	.174	.090	.027	
8.0	.183	.089	.025	.180	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.163	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021	

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm											
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K						TYPE:LED			WEIGHT:		
SPEC.:						DIM.:			SERIAL No.:		
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	2H	22.5	24.0	22.8	24.2	24.4	22.4	23.8	22.6	24.0	24.2
	3H	23.9	25.3	24.2	25.5	25.7	23.6	25.0	23.9	25.2	25.5
	4H	24.4	25.7	24.7	26.0	26.2	24.0	25.3	24.4	25.6	25.8
	6H	24.7	25.9	25.0	26.2	26.5	24.2	25.4	24.5	25.7	26.0
	8H	24.7	25.9	25.1	26.2	26.5	24.2	25.4	24.5	25.7	26.0
	12H	24.7	25.8	25.1	26.1	26.4	24.2	25.3	24.5	25.6	25.9
4H	2H	23.1	24.4	23.4	24.6	24.9	22.9	24.2	23.2	24.5	24.7
	3H	24.6	25.8	25.0	26.1	26.4	24.4	25.5	24.7	25.8	26.1
	4H	25.3	26.3	25.6	26.6	26.9	24.9	25.9	25.3	26.2	26.6
	6H	25.6	26.5	26.0	26.9	27.2	25.1	26.1	25.5	26.4	26.8
	8H	25.7	26.5	26.1	26.9	27.3	25.2	26.0	25.6	26.4	26.8
	12H	25.7	26.4	26.1	26.8	27.2	25.1	25.9	25.6	26.3	26.7
8H	4H	25.4	26.3	25.8	26.6	27.0	25.1	25.9	25.5	26.3	26.7
	6H	25.9	26.6	26.3	27.0	27.4	25.4	26.1	25.9	26.5	27.0
	8H	26.0	26.6	26.4	27.0	27.5	25.5	26.1	25.9	26.5	27.0
	12H	26.0	26.5	26.5	27.0	27.4	25.5	26.0	25.9	26.5	26.9
12H	4H	25.4	26.2	25.8	26.6	27.0	25.1	25.9	25.5	26.2	26.6
	6H	25.9	26.5	26.3	26.9	27.4	25.4	26.1	25.9	26.5	26.9
	8H	26.0	26.5	26.4	27.0	27.4	25.5	26.0	26.0	26.5	27.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					

CIE Pub.117, 1607 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.6)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

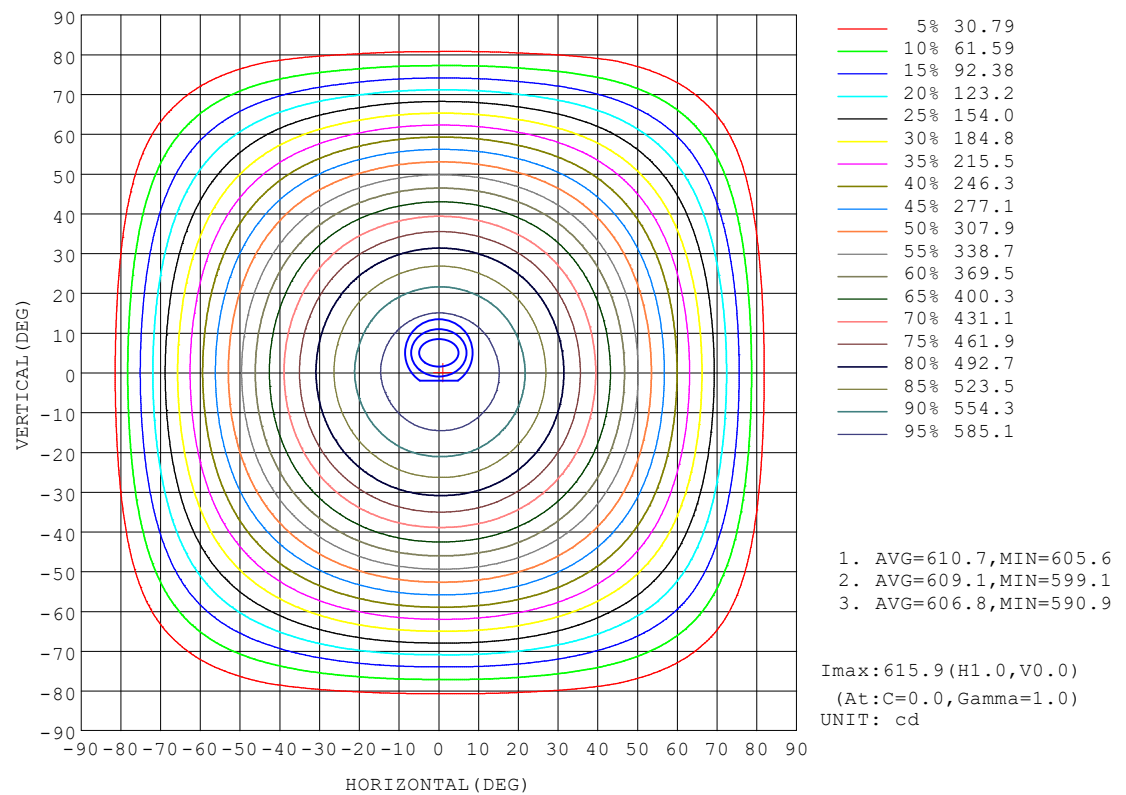
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	57	50	66	57	50	43
1.00	77	67	60	76	66	59	74	67	59	52
1.25	85	74	68	83	74	67	81	72	66	59
1.50	89	80	73	88	79	73	85	77	72	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	99	96	87
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 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

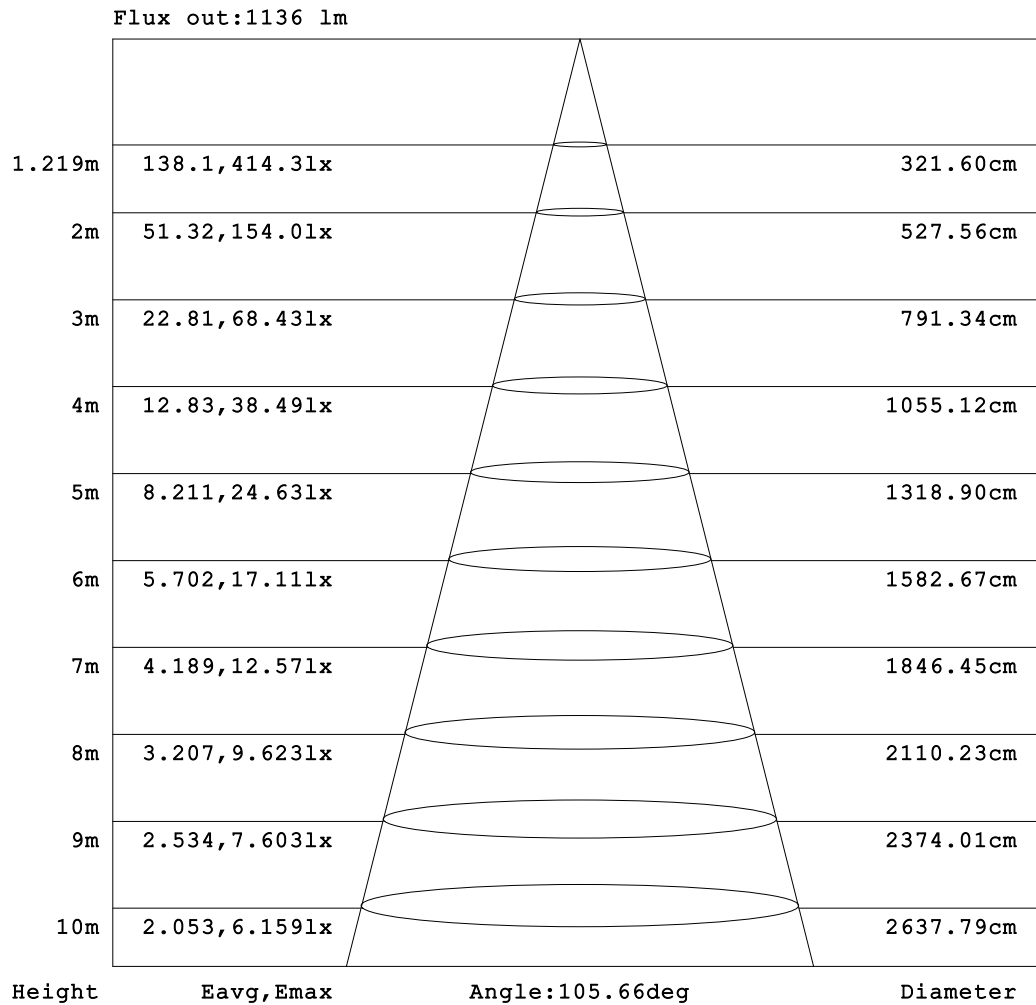


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 25 November 2019

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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



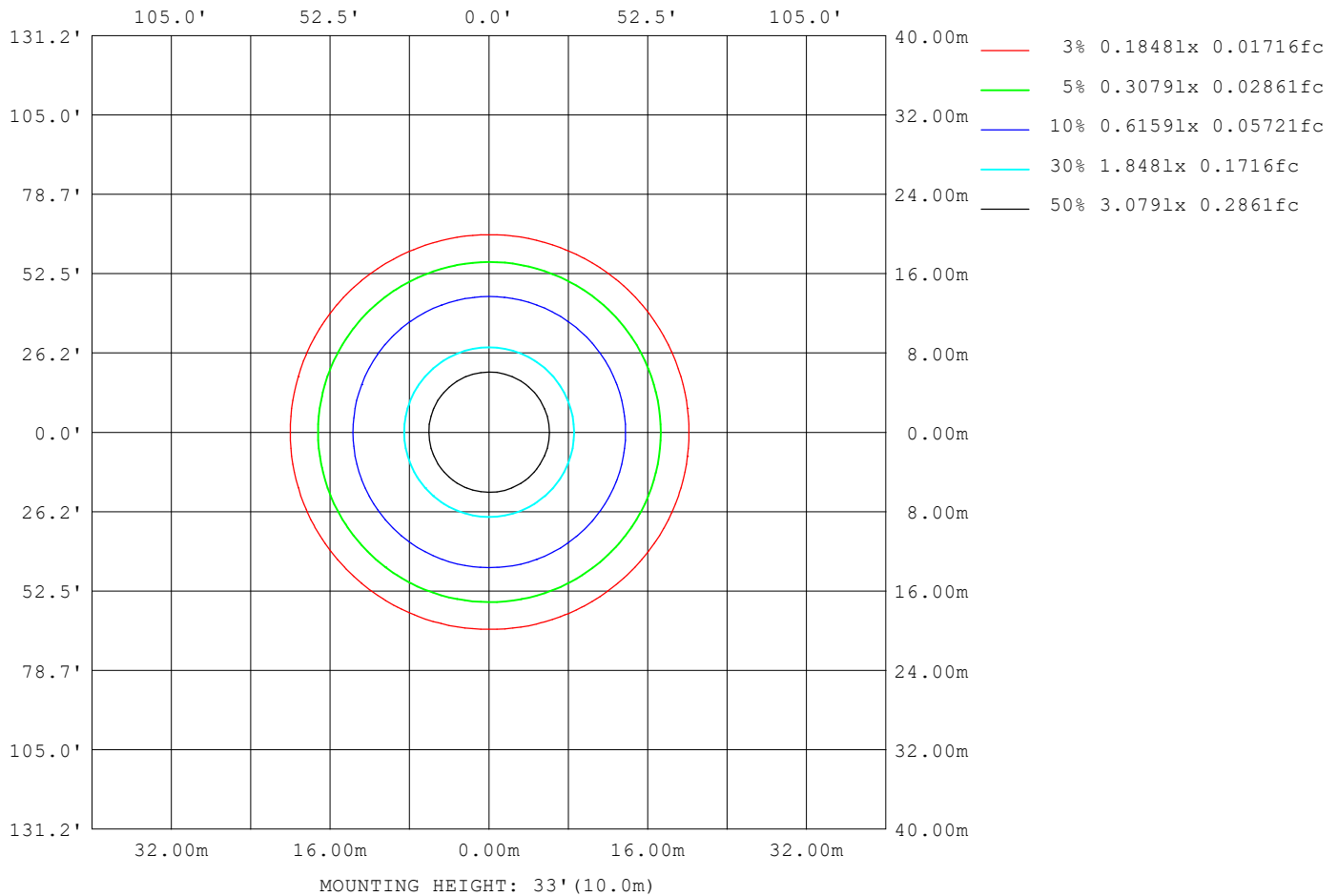
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 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:240.07V I:0.0845A P:19.836W PF:0.9783 Freq:50.08Hz Lamp Flux:1607.45x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

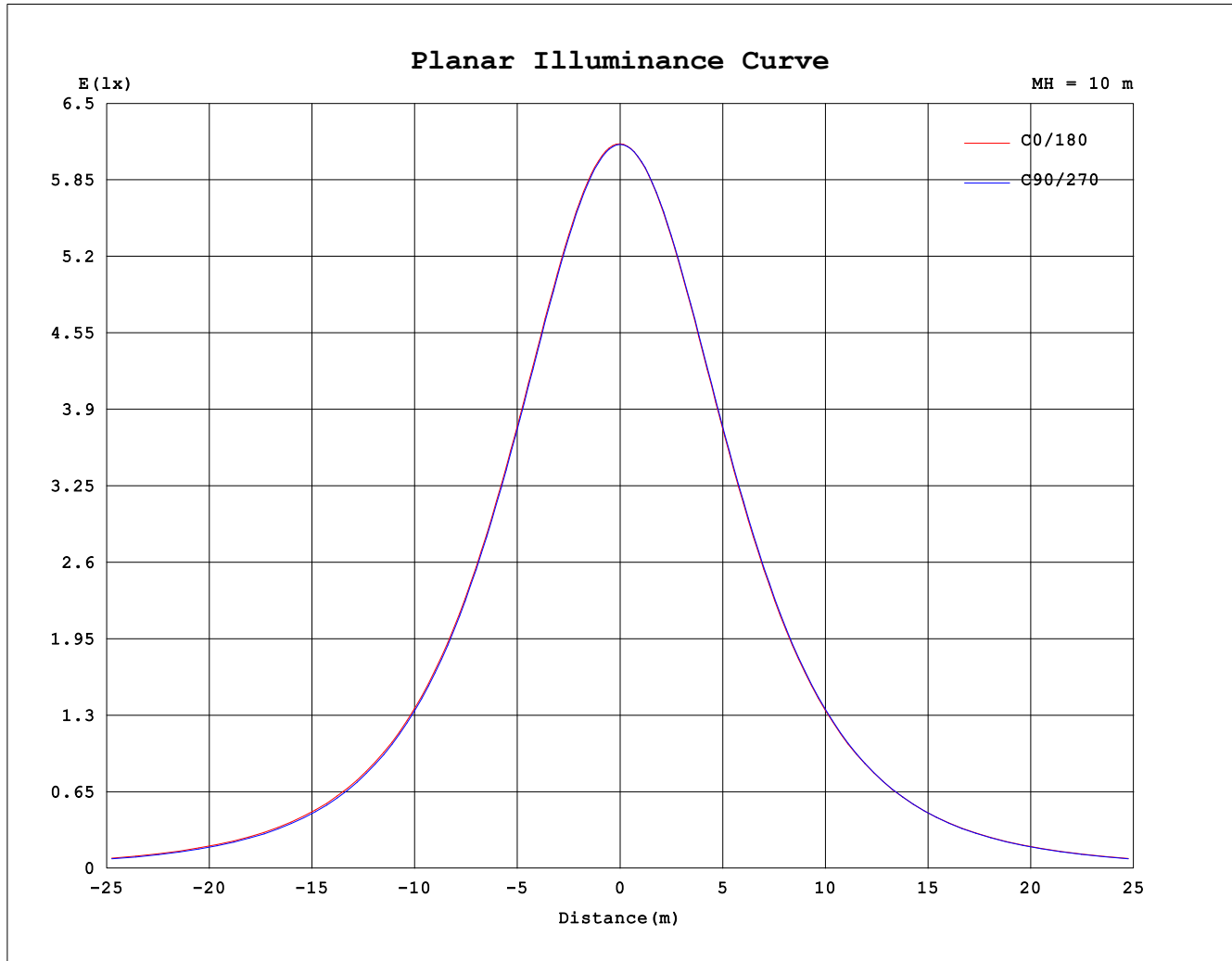
AvgL	cd/m2
L_0~180 (65) av	22970
L_0~180 (75) av	18448
L_0~180 (85) av	6497
L_90~270 (65) av	22006
L_90~270 (75) av	15963
L_90~270 (85) av	3834
L_45 (65) av	22523
L_45 (75) av	17208
L_45 (85) av	5151

Standard: GB/T 29293-2012

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

```