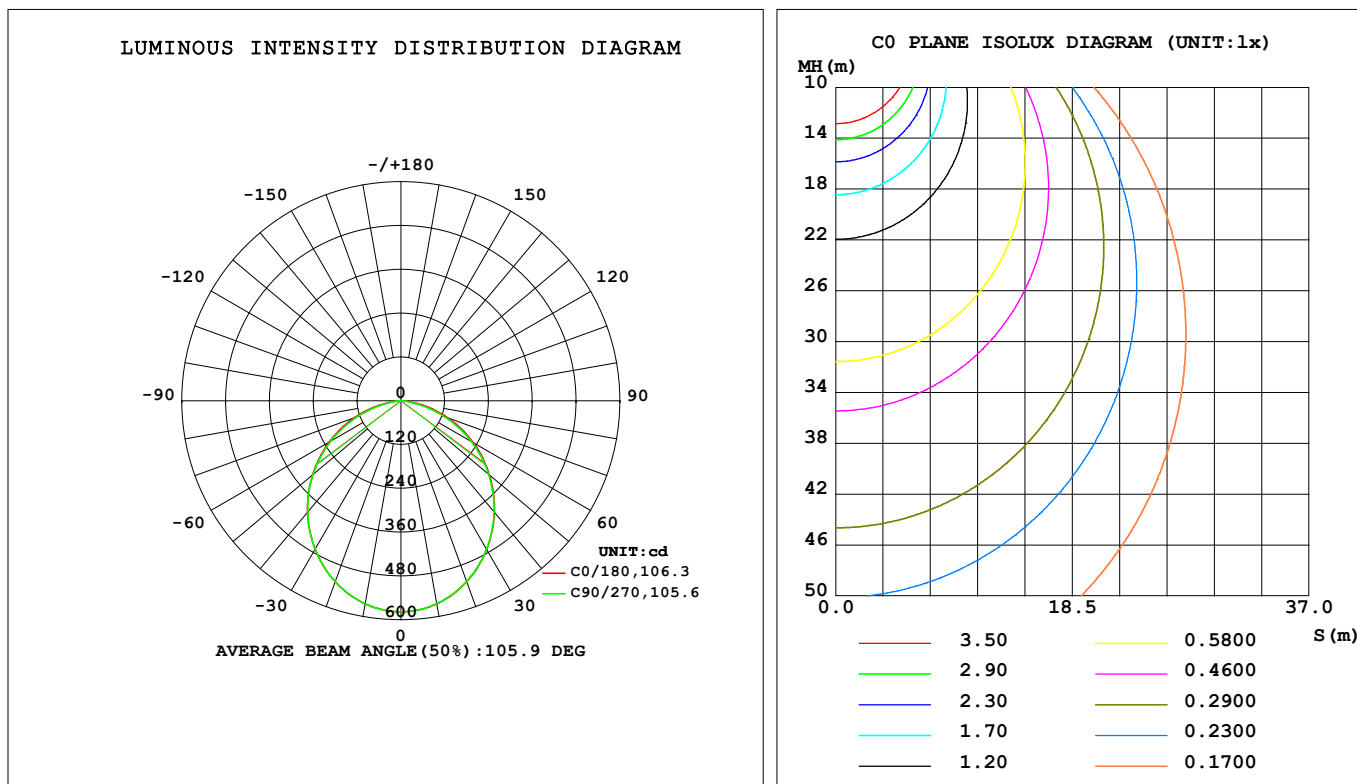


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 73.98 lm/W
MODEL	G1 120MM 2500LM 830 SNC	I _{max} (cd)	578.2	S/MH (C0/180)	1.22	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.22	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1506.5	η UP,DN (C0-180)	0.0,50.0	
NOMINAL FLUX (lm)	1506.51	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.0	
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	565.0	564.8	564.4	564.0	565.0	564.8	564.7	564.5	0- 10	54.52	54.52	3.62,3.62
20	527.4	527.0	526.7	526.4	527.5	527.3	527.3	527.1	10- 20	154.7	209.2	13.9,13.9
30	470.0	469.6	469.4	469.1	470.2	470.0	470.1	470.0	20- 30	230.5	439.7	29.2,29.2
40	398.1	397.7	397.1	397.1	398.2	398.1	397.9	398.2	30- 40	272.2	711.9	47.3,47.3
50	316.5	315.4	313.5	314.6	316.0	315.5	314.2	315.8	40- 50	275.7	987.6	65.6,65.6
60	228.2	225.8	221.9	224.4	227.1	225.2	222.3	226.0	50- 60	242.0	1230	81.6,81.6
70	135.7	130.8	124.7	128.9	134.5	130.1	125.4	131.3	60- 70	175.9	1406	93.3,93.3
80	43.67	40.71	33.70	38.89	41.11	39.13	33.83	40.79	70- 80	87.88	1493	99.1,99.1
90	0.8517	0.7025	0.6652	0.7149	0.7678	0.7522	0.7088	0.7305	80- 90	13.10	1507	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): 851.72 lm

%lum = 56.5%

%lamp = 56.5%

Conical surface Flux(120deg): 1229.6 lm

%lum = 81.6%

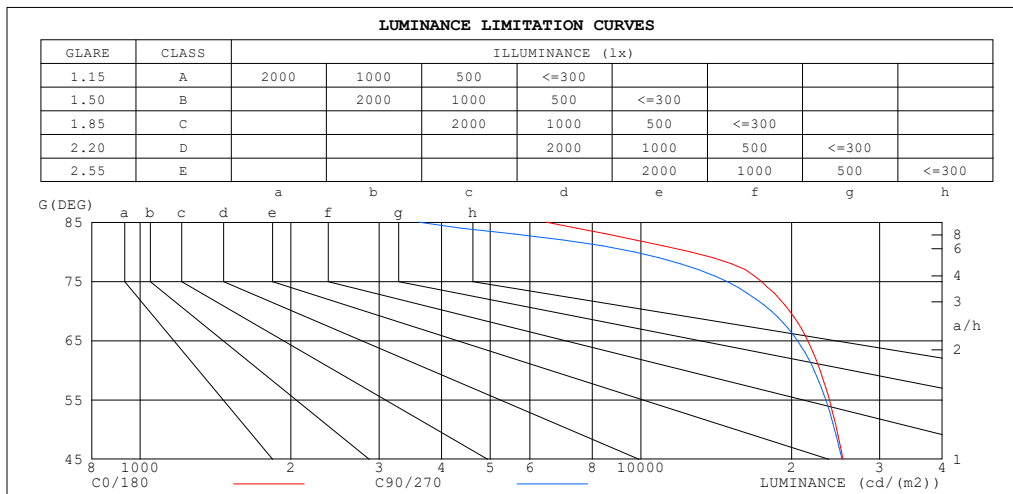
%lamp = 81.6%

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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6470	3601
80	12575	9703
75	17406	14844
70	19845	18228
65	21556	20562
60	22821	22193
55	23797	23415
50	24619	24388
45	25340	25209

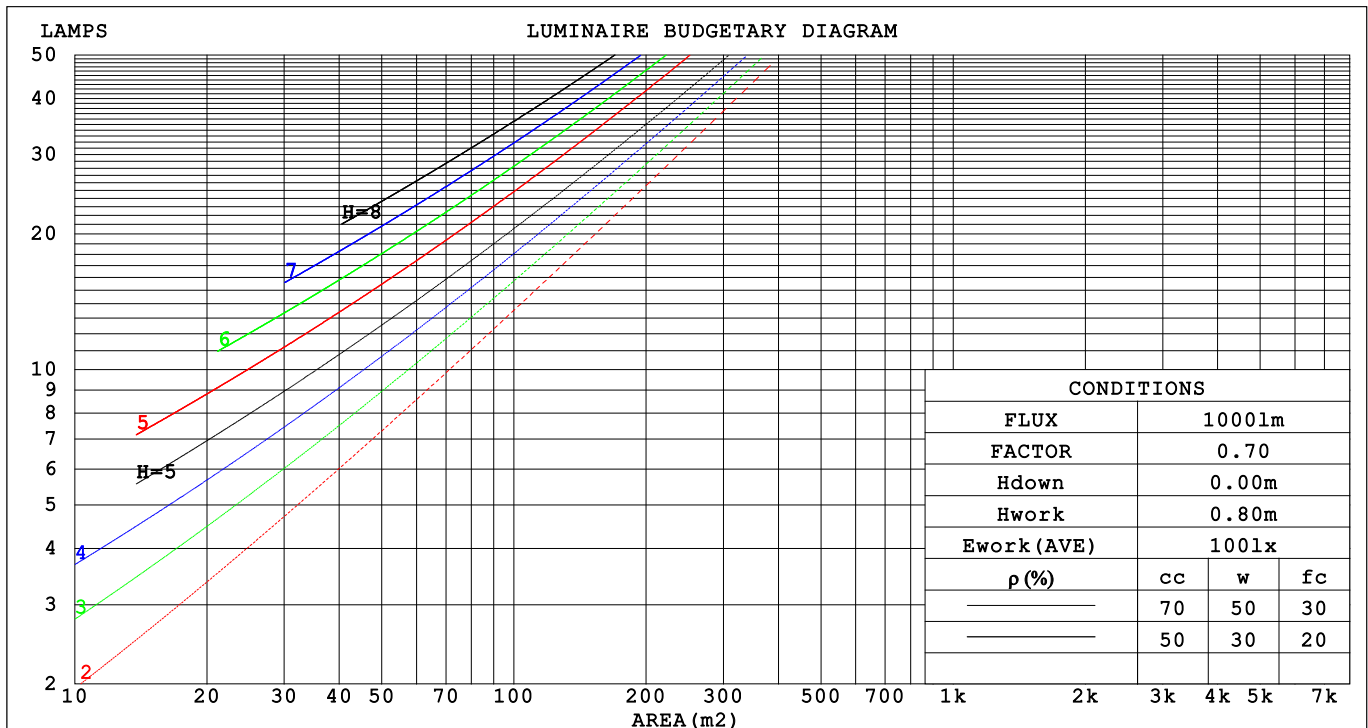
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:25 November 2019

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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	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						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	1.00
1.0	1.05	1.01	.97	1.03	.99	.96	.98	.95	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.74	.71
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.67	.63	.60
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.55	.66	.60	.55	.64	.58	.54	.52
5.0	.64	.55	.49	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.42	.54	.47	.42	.52	.46	.41	.39
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.31	.44	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.37	.32	.27	.26



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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	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	.270	.155	.050	.258	.149	.048	.247	.143	.046	
2.0	.279	.153	.047	.272	.150	.046	.261	.145	.045	.250	.140	.044	.240	.136	.043	
3.0	.260	.139	.041	.255	.137	.041	.245	.133	.040	.235	.129	.040	.226	.125	.039	
4.0	.242	.126	.037	.237	.124	.037	.228	.121	.036	.219	.118	.036	.212	.115	.035	
5.0	.225	.114	.033	.220	.113	.033	.212	.110	.033	.205	.108	.032	.198	.106	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.030	.191	.099	.029	.185	.097	.029	
7.0	.195	.096	.027	.192	.095	.027	.185	.094	.027	.179	.092	.027	.174	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.163	.081	.023	.159	.079	.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	.170	.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	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm											
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K					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	23.9	22.7	24.1	24.3	22.4	23.8	22.6	24.0	24.2
	3H	23.9	25.2	24.1	25.5	25.7	23.6	25.0	23.9	25.2	25.5
	4H	24.4	25.7	24.7	25.9	26.2	24.0	25.3	24.4	25.6	25.9
	6H	24.6	25.8	25.0	26.1	26.4	24.2	25.4	24.5	25.7	26.0
	8H	24.6	25.8	25.0	26.1	26.4	24.2	25.4	24.6	25.7	26.0
	12H	24.6	25.8	25.0	26.1	26.4	24.2	25.3	24.5	25.6	25.9
4H	2H	23.0	24.3	23.3	24.6	24.8	22.9	24.2	23.2	24.5	24.7
	3H	24.6	25.7	24.9	26.0	26.3	24.4	25.5	24.7	25.8	26.1
	4H	25.2	26.2	25.6	26.5	26.9	24.9	25.9	25.3	26.2	26.6
	6H	25.5	26.5	25.9	26.8	27.2	25.1	26.1	25.5	26.4	26.8
	8H	25.6	26.4	26.0	26.8	27.2	25.2	26.0	25.6	26.4	26.8
	12H	25.6	26.4	26.0	26.8	27.2	25.1	25.9	25.6	26.3	26.7
8H	4H	25.4	26.2	25.8	26.6	27.0	25.1	25.9	25.5	26.3	26.7
	6H	25.8	26.5	26.2	26.9	27.3	25.4	26.1	25.9	26.5	26.9
	8H	25.9	26.5	26.3	26.9	27.4	25.5	26.1	25.9	26.5	27.0
	12H	25.9	26.4	26.4	26.9	27.4	25.5	26.0	25.9	26.4	26.9
12H	4H	25.3	26.1	25.8	26.5	26.9	25.1	25.9	25.5	26.2	26.6
	6H	25.8	26.4	26.3	26.8	27.3	25.4	26.0	25.9	26.5	26.9
	8H	25.9	26.4	26.4	26.9	27.4	25.5	26.0	26.0	26.5	26.9
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, 1507 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.4)

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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

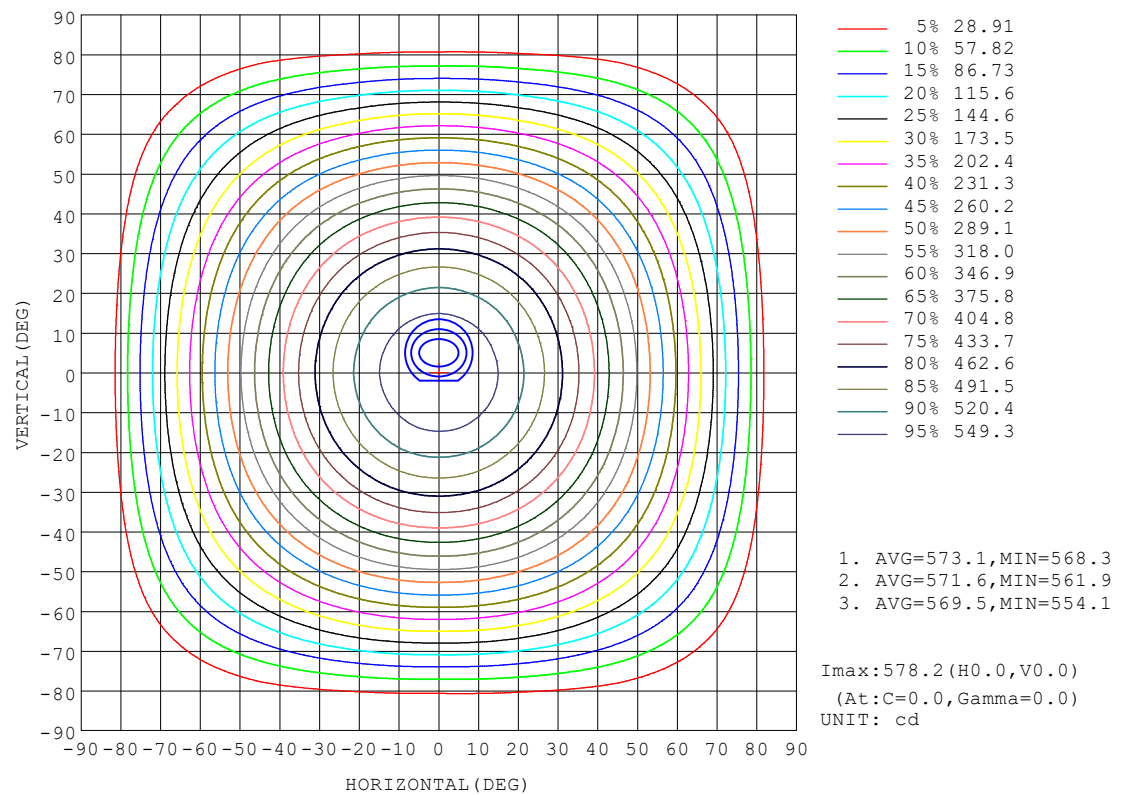
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	57	50	66	57	50	43
1.00	78	67	60	76	66	59	74	68	59	52
1.25	85	74	68	83	74	67	81	72	66	59
1.50	90	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	88
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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

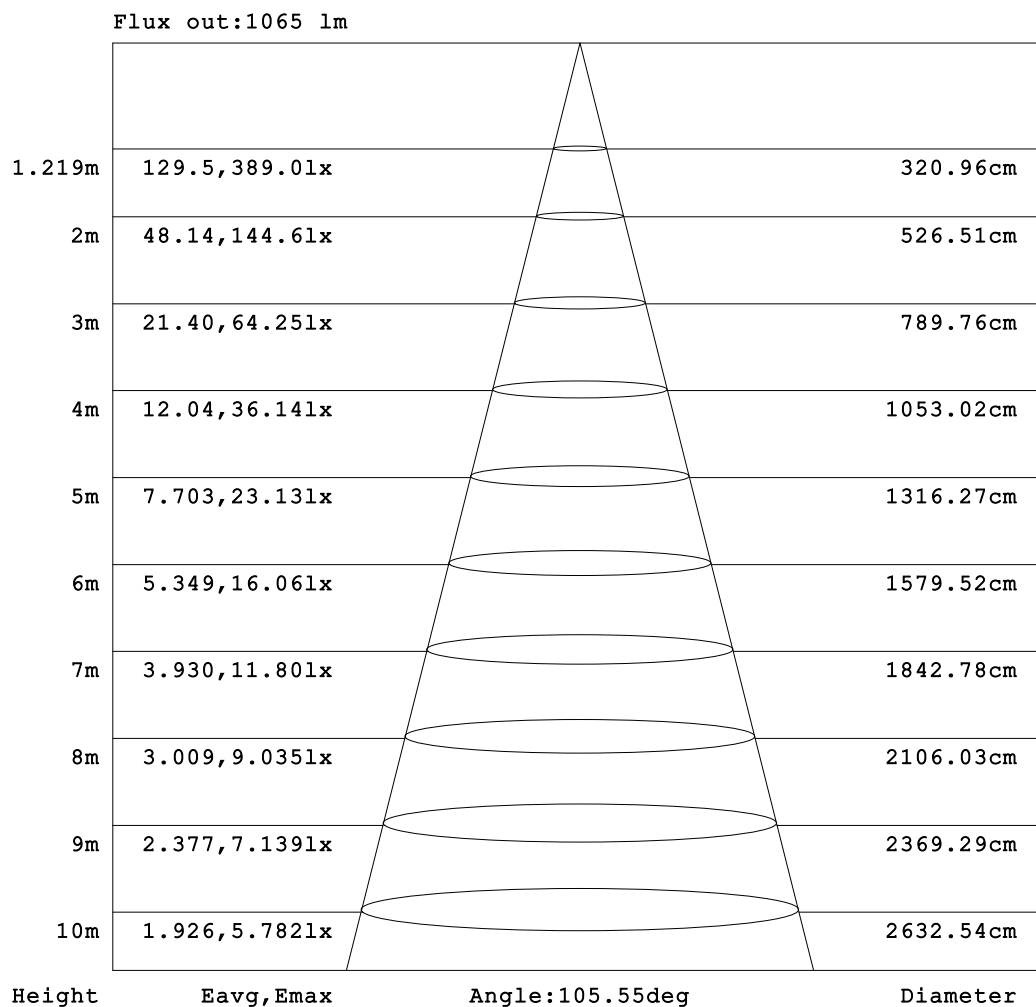


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 25 November 2019

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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



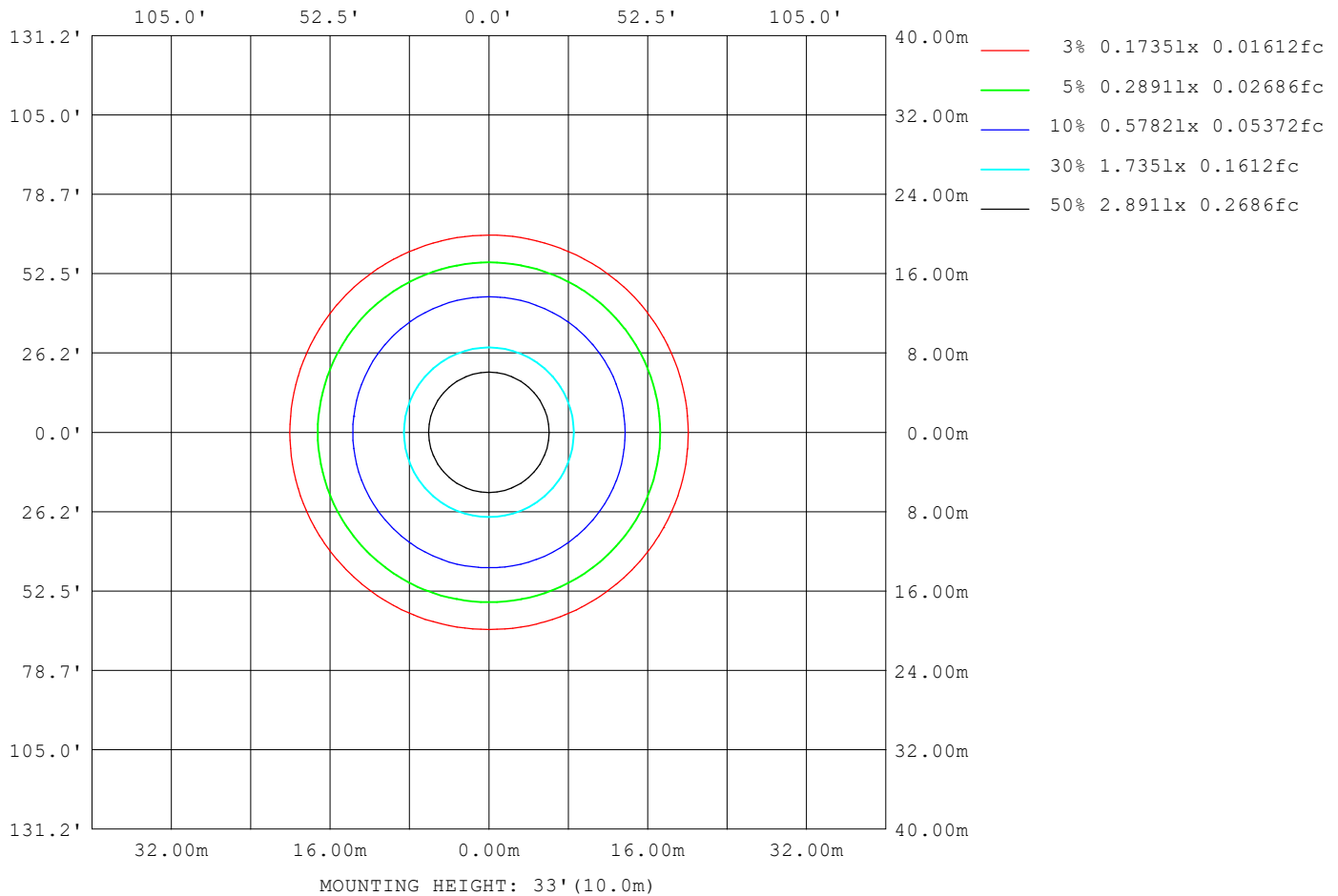
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	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:239.98V I:0.0867A P:20.362W PF:0.9791 Freq:50.09Hz Lamp Flux:1506.51x1 lm		
NAME: C FLAT 185_WHT_CLE120_500mA_OPAL V_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

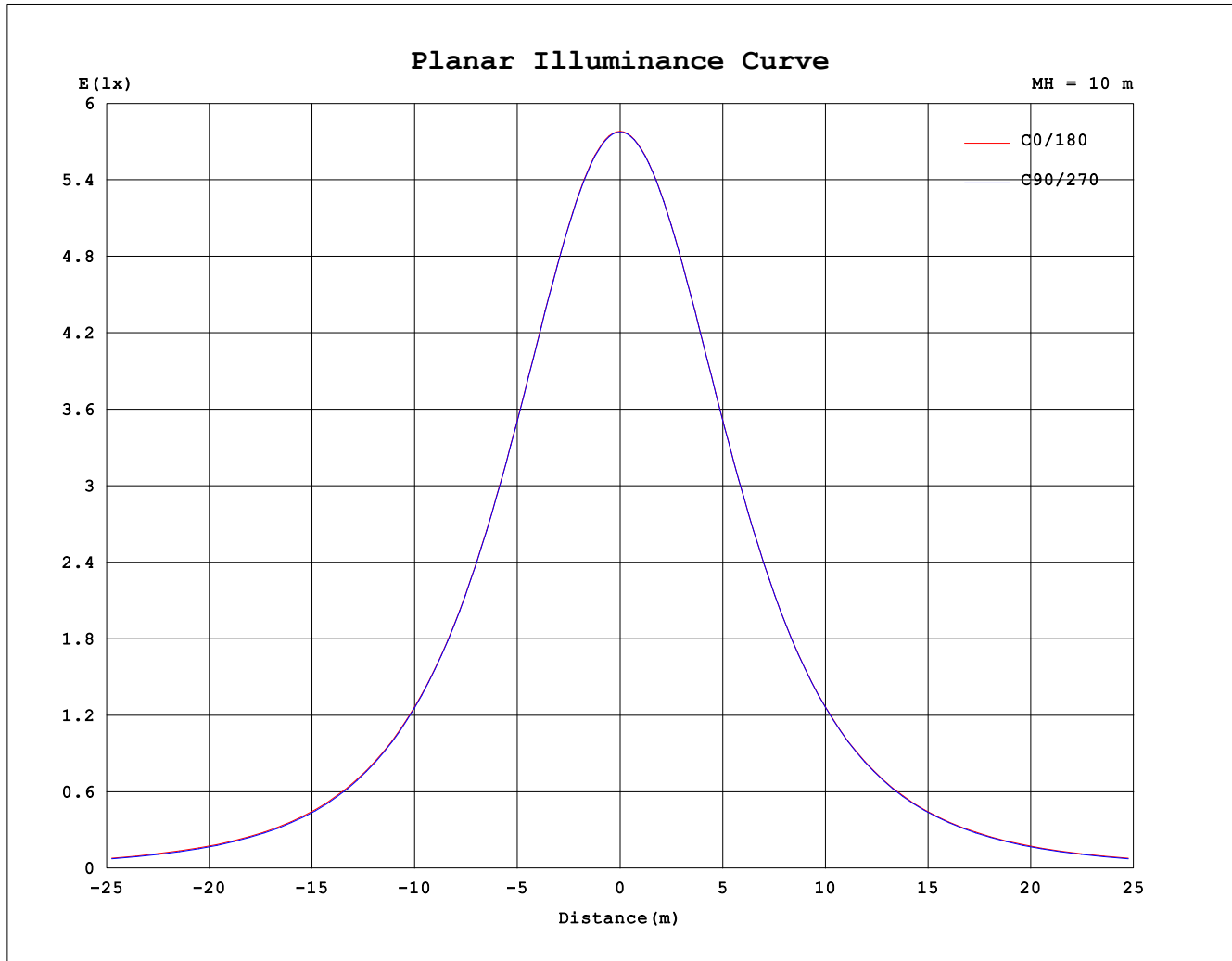
AvgL	cd/m2
L_0~180 (65) av	21495
L_0~180 (75) av	17230
L_0~180 (85) av	5996
L_90~270 (65) av	20601
L_90~270 (75) av	14874
L_90~270 (85) av	3570
L_45 (65) av	21088
L_45 (75) av	16070
L_45 (85) av	4756

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:

```