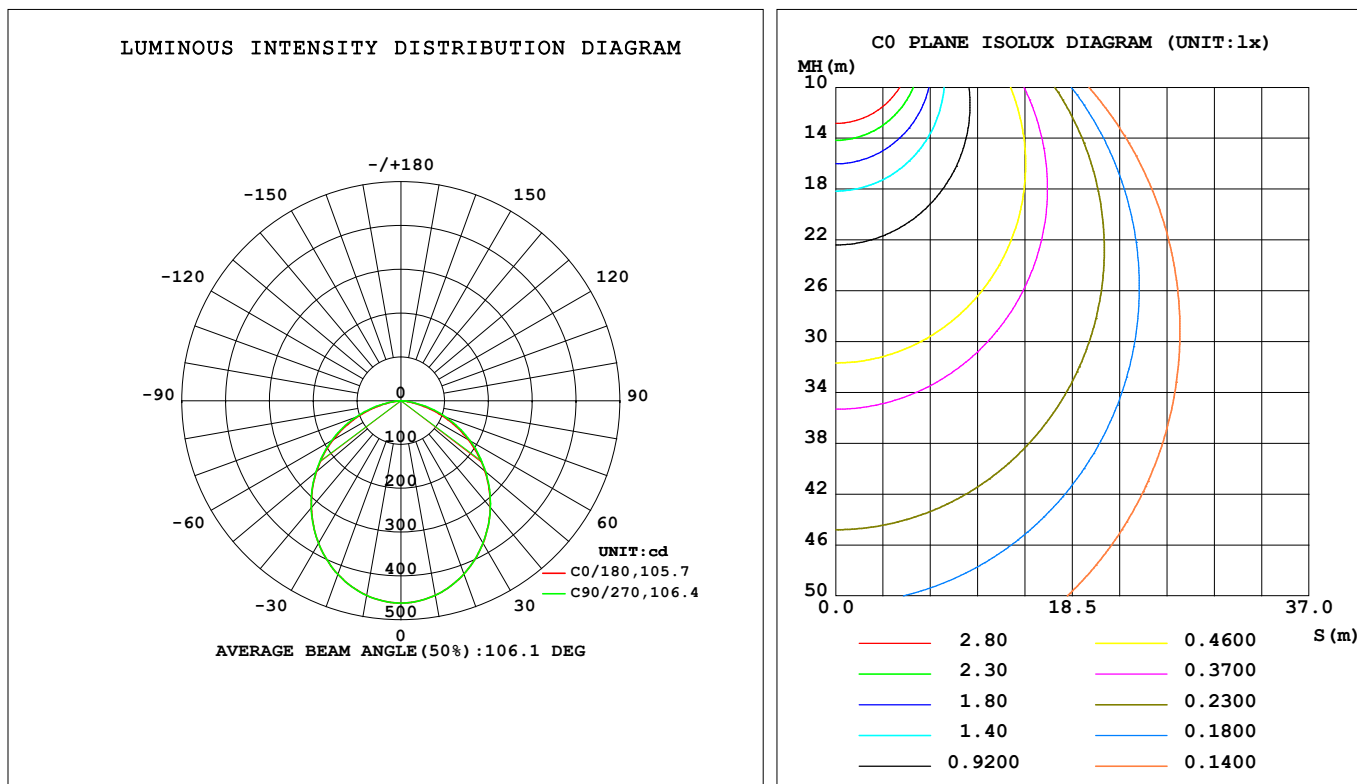


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 91.15 lm/W
MODEL	G1 120MM 2500LM 840 SNC	I _{max} (cd)	461.7	S/MH (C0/180)	1.22	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.22	
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	1207.3	η UP,DN (C0-180)	0.0,50.0	
NOMINAL FLUX (lm)	1207.27	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: 29 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	450.9	450.8	450.9	451.1	451.2	451.3	451.3	451.2	0- 10	43.56	43.56	3.61,3.61
20	420.9	420.8	420.9	421.2	421.4	421.5	421.6	421.5	10- 20	123.6	167.2	13.8,13.8
30	375.2	375.0	375.2	375.6	375.9	376.0	376.0	375.9	20- 30	184.3	351.4	29.1,29.1
40	317.4	317.6	317.9	318.2	318.4	318.8	318.8	318.6	30- 40	217.7	569.2	47.1,47.1
50	250.5	251.8	252.7	252.5	251.8	253.1	253.5	252.8	40- 50	220.7	789.8	65.4,65.4
60	177.3	179.8	182.1	180.7	179.4	182.1	183.1	181.4	50- 60	193.9	983.7	81.5,81.5
70	99.62	103.9	108.3	104.9	102.0	106.1	109.3	105.2	60- 70	141.4	1125	93.2,93.2
80	27.13	32.07	34.25	32.92	28.70	33.34	34.80	32.47	70- 80	71.31	1196	99.1,99.1
90	0.5285	0.5595	0.5968	0.5564	0.5564	0.5750	0.6030	0.5968	80- 90	10.78	1207	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): 681.03 lm

%lum = 56.4%

%lamp = 56.4%

Conical surface Flux(120deg): 983.74 lm

%lum = 81.5%

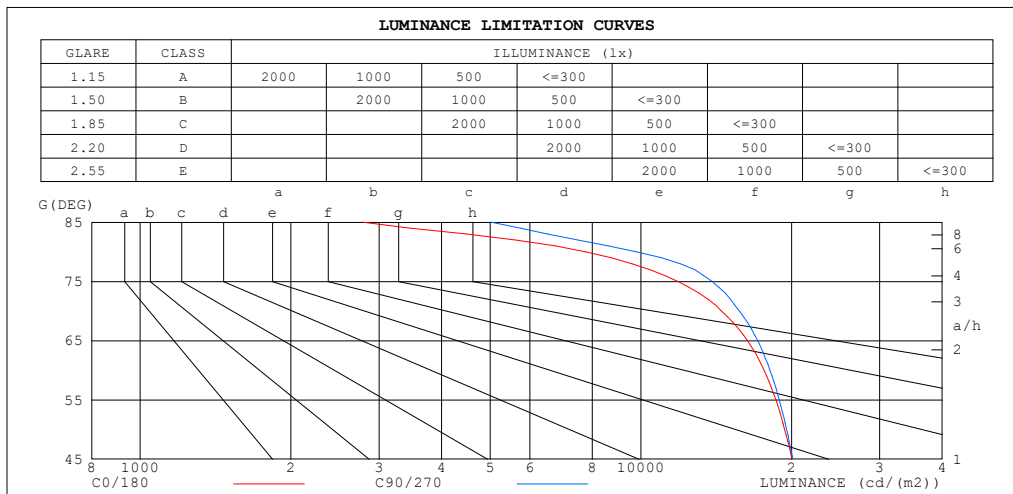
%lamp = 81.5%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2781	5022
80	7774	9812
75	11855	13873
70	14490	15749
65	16341	17110
60	17639	18119
55	18609	18905
50	19385	19557
45	20043	20129

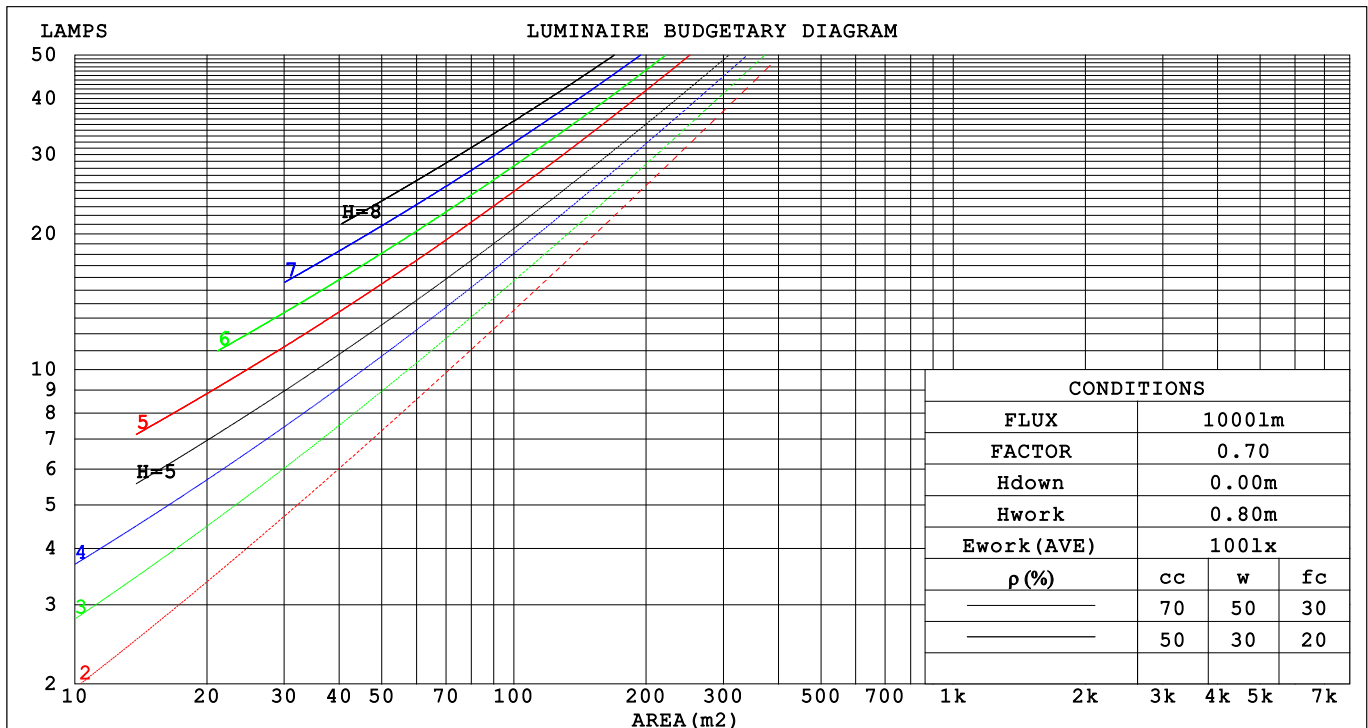
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 October 2019

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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	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			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	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.73	.71
3.0	.81	.73	.67	.79	.72	.66	.76	.70	.65	.74	.68	.64	.71	.66	.63	.60
4.0	.72	.63	.57	.70	.62	.56	.68	.61	.55	.66	.60	.55	.63	.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	.53	.47	.42	.52	.46	.41	.39
7.0	.53	.44	.38	.52	.43	.38	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	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	.291	.166	.052	.284	.162	.052	.271	.156	.050	.259	.149	.048	.248	.144	.046	
2.0	.279	.153	.047	.273	.150	.046	.261	.145	.045	.251	.141	.044	.241	.136	.043	
3.0	.261	.139	.042	.255	.137	.041	.245	.133	.040	.236	.129	.040	.227	.126	.039	
4.0	.242	.126	.037	.237	.124	.037	.228	.121	.036	.220	.118	.036	.212	.115	.035	
5.0	.225	.115	.033	.221	.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	.096	.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	.164	.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	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm											
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K						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	2H	22.3	23.8	22.6	24.0	24.2	22.4	23.9	22.7	24.1	24.3
	3H	23.6	25.0	23.9	25.2	25.4	23.8	25.2	24.1	25.4	25.6
	4H	24.0	25.3	24.3	25.6	25.8	24.3	25.6	24.6	25.9	26.1
	6H	24.2	25.4	24.5	25.7	26.0	24.6	25.8	24.9	26.1	26.3
	8H	24.2	25.4	24.5	25.6	25.9	24.6	25.8	24.9	26.1	26.3
	12H	24.1	25.3	24.5	25.6	25.9	24.6	25.7	24.9	26.0	26.3
4H	2H	22.9	24.2	23.2	24.4	24.7	23.0	24.3	23.3	24.5	24.8
	3H	24.3	25.5	24.7	25.8	26.1	24.5	25.7	24.9	26.0	26.3
	4H	24.8	25.9	25.2	26.2	26.5	25.1	26.2	25.5	26.5	26.8
	6H	25.1	26.0	25.5	26.4	26.7	25.5	26.4	25.9	26.8	27.1
	8H	25.1	26.0	25.5	26.3	26.7	25.5	26.4	25.9	26.7	27.1
	12H	25.1	25.9	25.5	26.3	26.7	25.5	26.3	26.0	26.7	27.1
8H	4H	25.0	25.9	25.4	26.3	26.6	25.3	26.2	25.7	26.5	26.9
	6H	25.4	26.1	25.8	26.5	26.9	25.7	26.4	26.2	26.8	27.3
	8H	25.4	26.0	25.9	26.5	26.9	25.8	26.4	26.3	26.9	27.3
	12H	25.4	25.9	25.9	26.4	26.9	25.8	26.4	26.3	26.8	27.3
12H	4H	25.0	25.8	25.5	26.2	26.6	25.3	26.1	25.7	26.5	26.9
	6H	25.4	26.0	25.8	26.4	26.9	25.7	26.4	26.2	26.8	27.2
	8H	25.4	26.0	25.9	26.4	26.9	25.8	26.4	26.3	26.8	27.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3					
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.3					

CIE Pub.117, 1207 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.7)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

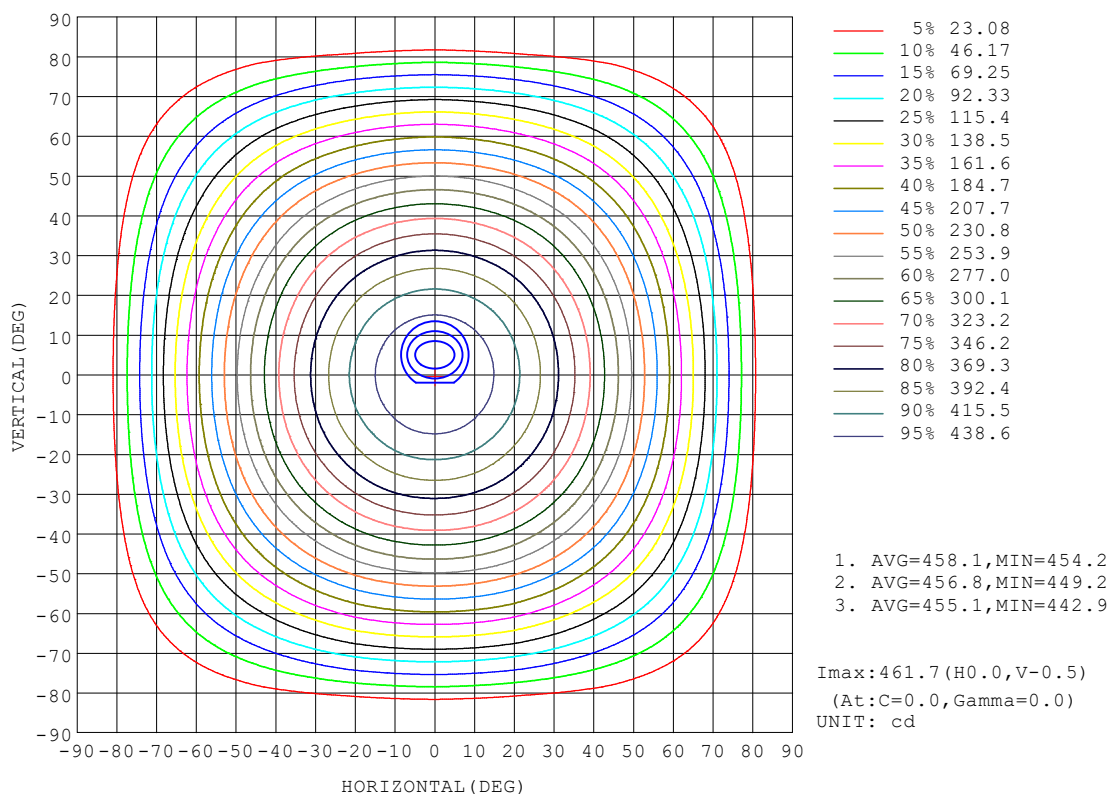
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	57	50	66	56	50	43
1.00	77	67	60	76	66	59	74	67	59	52
1.25	85	74	68	83	74	67	80	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	91	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	99	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:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

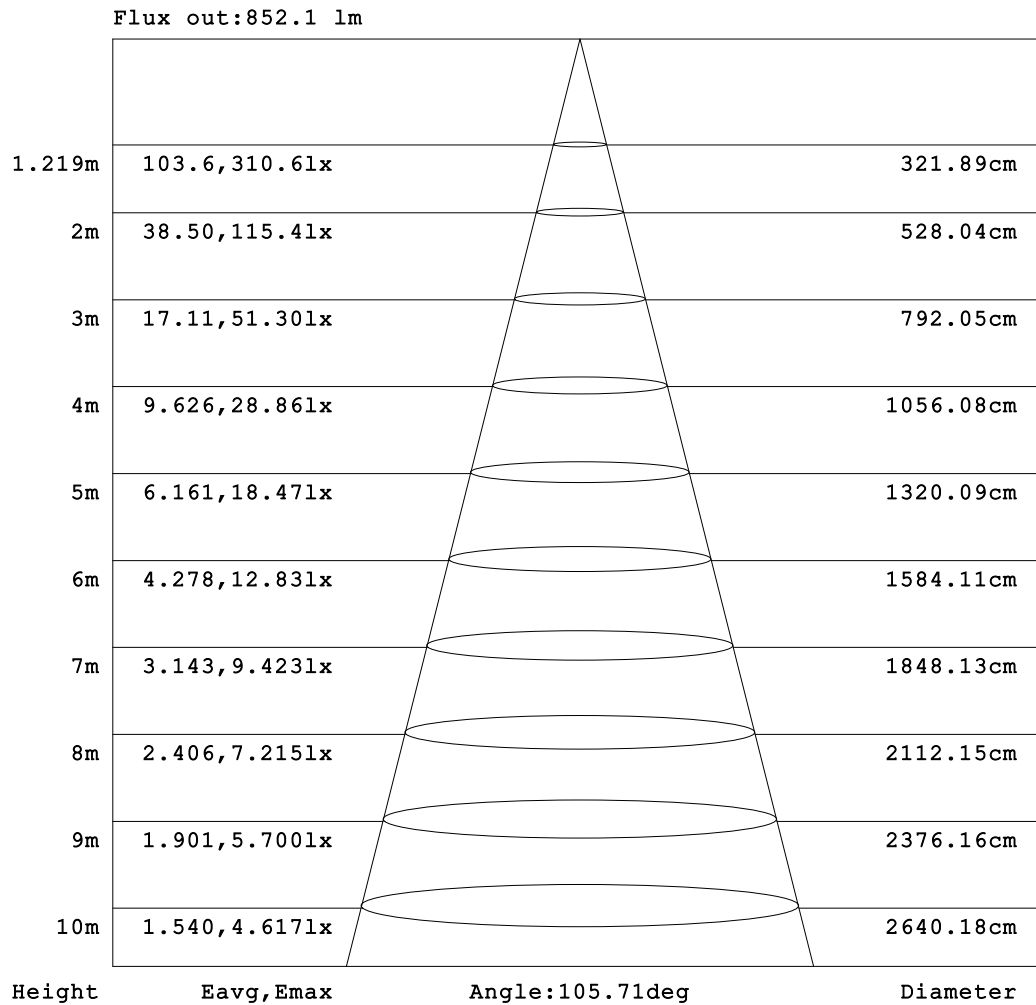


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 29 October 2019

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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



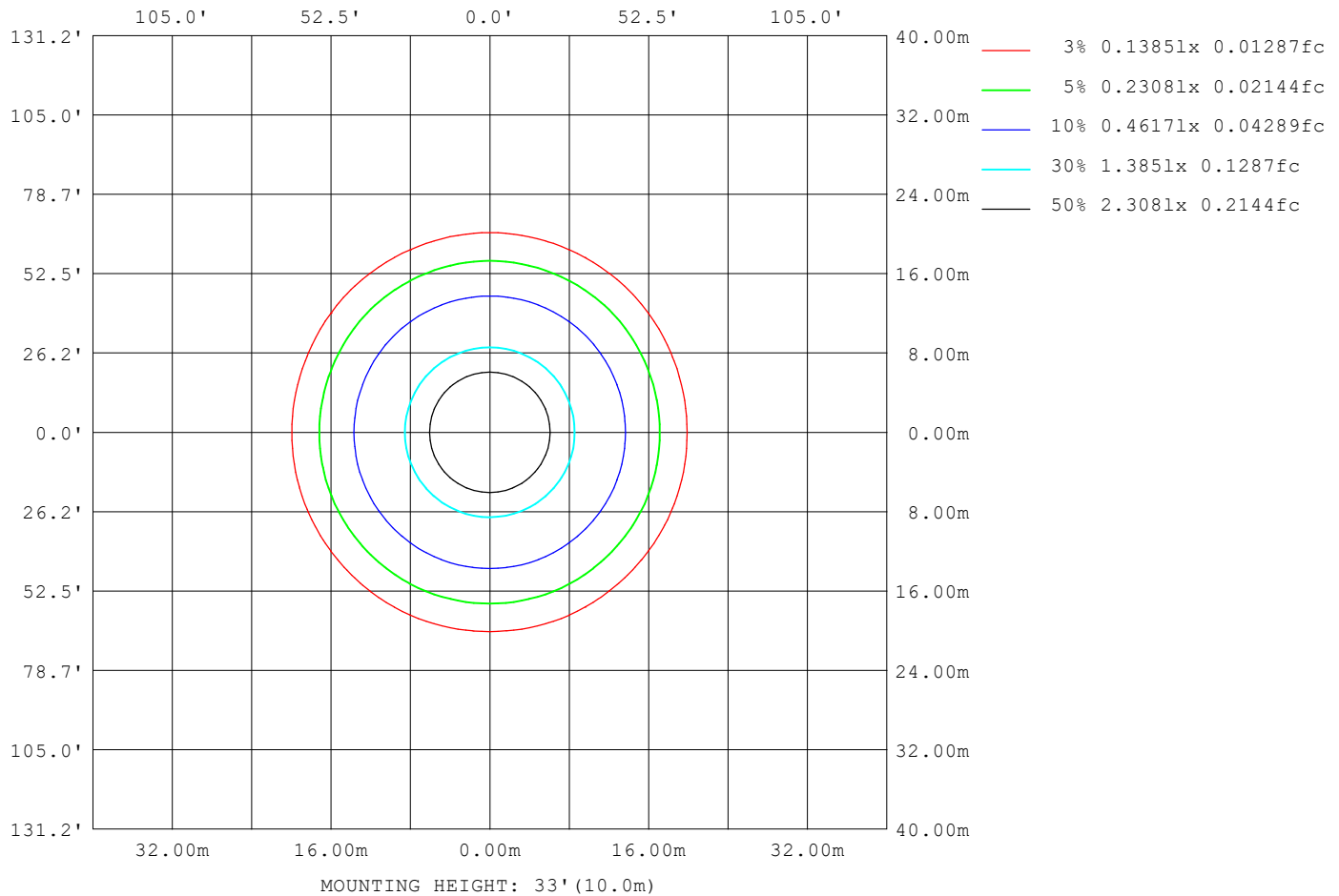
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	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:29 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:240.01V I:0.0603A P:13.245W PF:0.9156 Freq:50.09Hz Lamp Flux:1207.27x1 lm		
NAME: C FLAT 185_WHT_CLE120_350mA_OPAL V_4K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

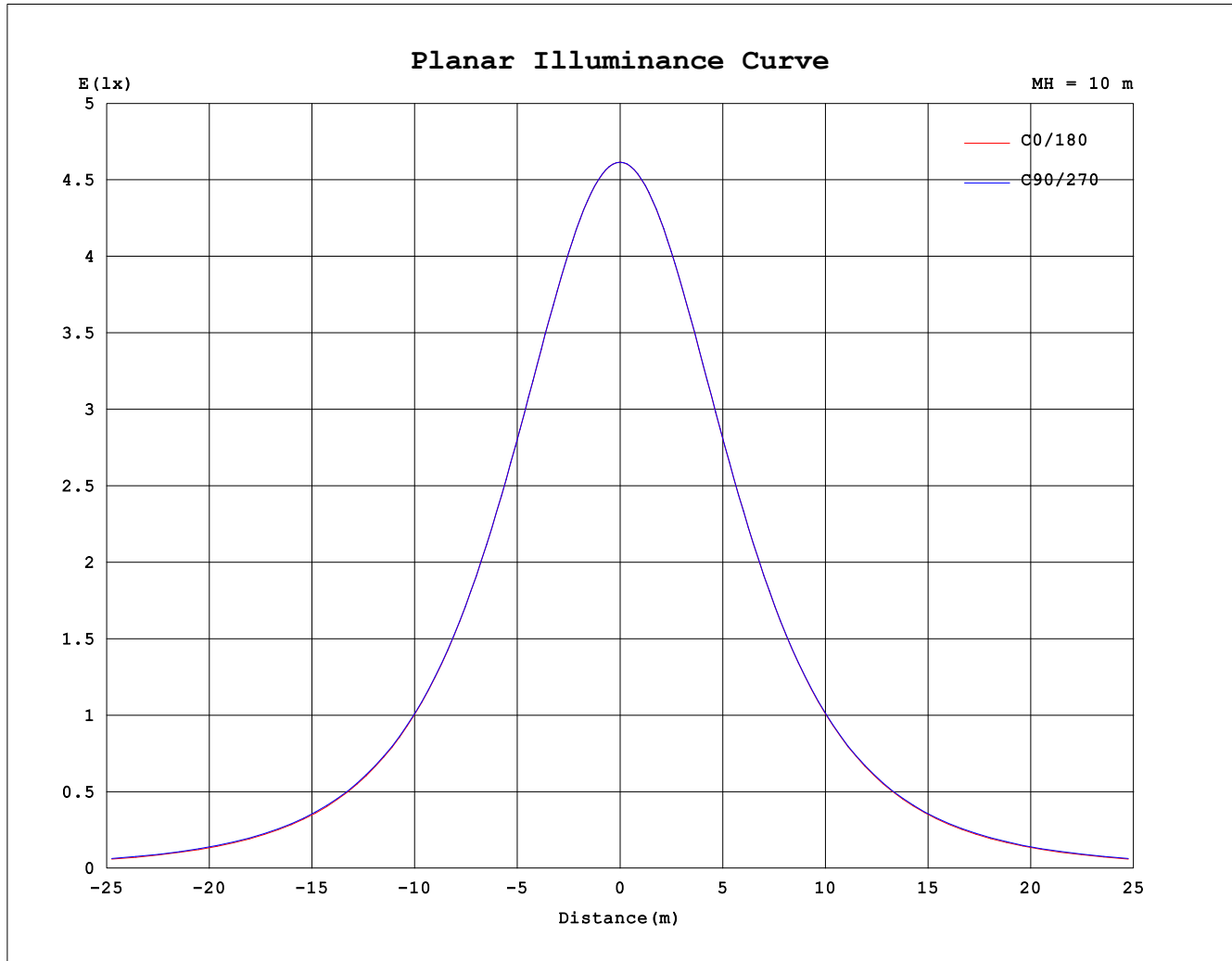
AvgL	cd/m2
L_0~180 (65) av	16471
L_0~180 (75) av	12031
L_0~180 (85) av	2896
L_90~270 (65) av	17182
L_90~270 (75) av	13900
L_90~270 (85) av	4955
L_45 (65) av	16866
L_45 (75) av	12969
L_45 (85) av	3910

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:29 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: 29 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:

```