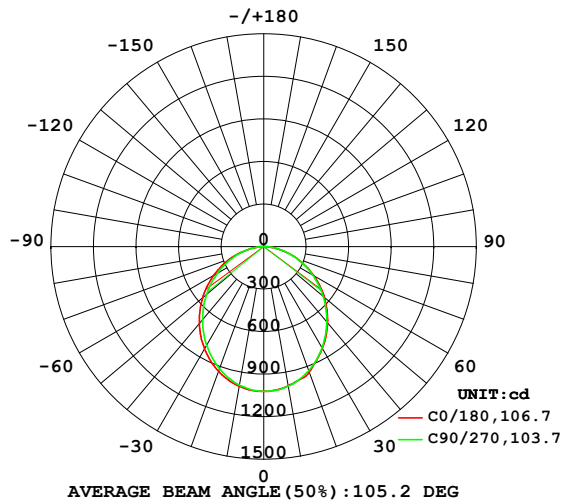


LUMINAIRE PHOTOMETRIC TEST REPORT

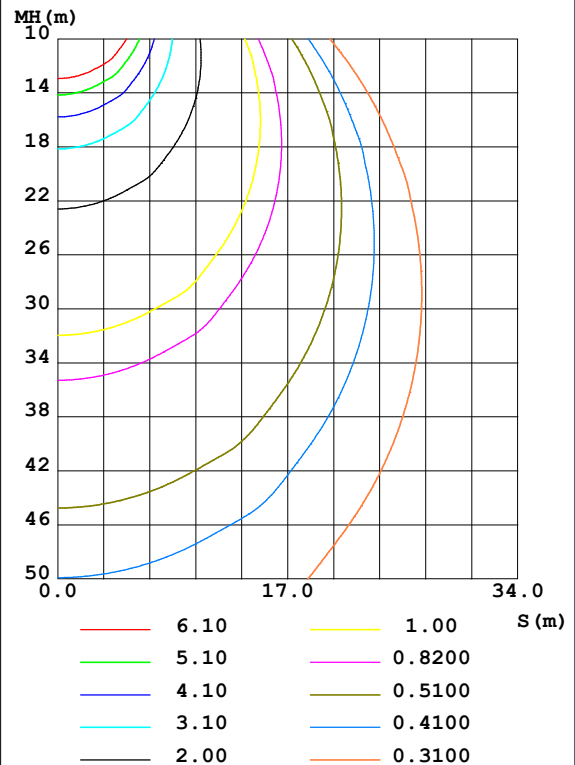
Test:U:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 91.71 lm/W			
LED MODULE	1300lm 930 HV ADV5	Imax(cd)	1022	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2706.0	η UP,DN(C0-180)	0.0,50.6
NOMINAL FLUX(lm)	2706.01	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.4
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

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:01 September 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	997.4	999.2	1000	1001	1001	995.9	991.9	993.5	0- 10	96.37	96.37	3.56,3.56
20	942.8	932.6	930.8	935.5	935.6	925.5	915.9	922.4	10- 20	273.1	369.5	13.7,13.7
30	828.5	832.2	824.0	832.0	834.7	818.7	805.1	818.5	20- 30	405.8	775.3	28.7,28.7
40	701.5	698.1	692.8	702.9	708.0	688.3	672.4	683.8	30- 40	475.9	1251	46.2,46.2
50	559.1	554.5	548.1	558.8	564.3	544.0	528.2	540.2	40- 50	481.2	1732	64,64
60	406.5	403.2	398.1	406.0	409.5	392.4	379.5	389.6	50- 60	424.2	2157	79.7,79.7
70	249.9	250.2	248.9	251.6	256.5	239.5	232.6	238.1	60- 70	318.0	2475	91.4,91.4
80	100.5	108.3	111.4	108.3	98.18	98.50	98.02	98.17	70- 80	181.5	2656	98.2,98.2
90	0.7998	4.596	6.506	4.396	0.7485	2.065	2.846	2.101	80- 90	49.94	2706	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): 1495.2 lm

%lum = 55.3%

%lamp = 55.3%

Conical surface Flux(120deg): 2156.5 lm

%lum = 79.7%

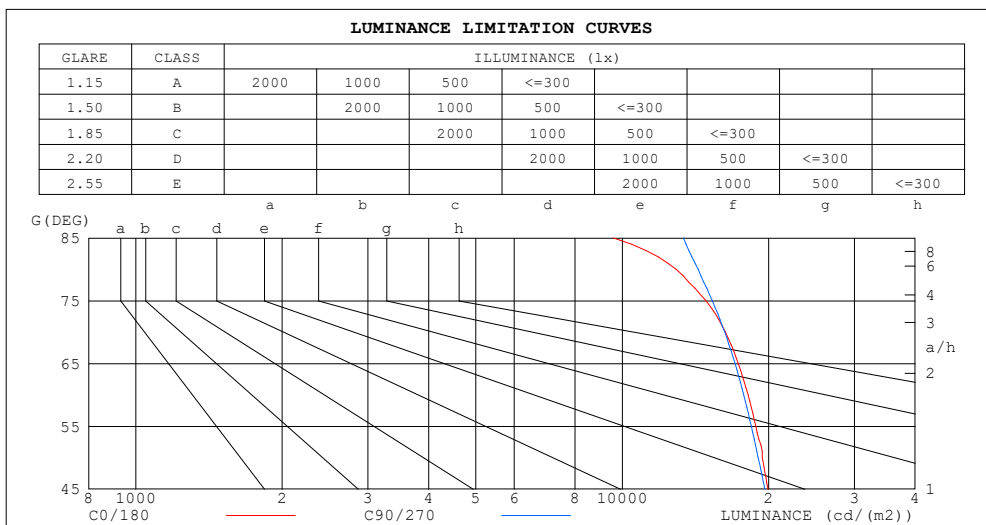
%lamp = 79.7%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JEFF
 Test Date:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9586	13361
80	12912	14322
75	14858	15316
70	16303	16244
65	17331	17052
60	18139	17773
55	18812	18428
50	19407	19035
45	19934	19629

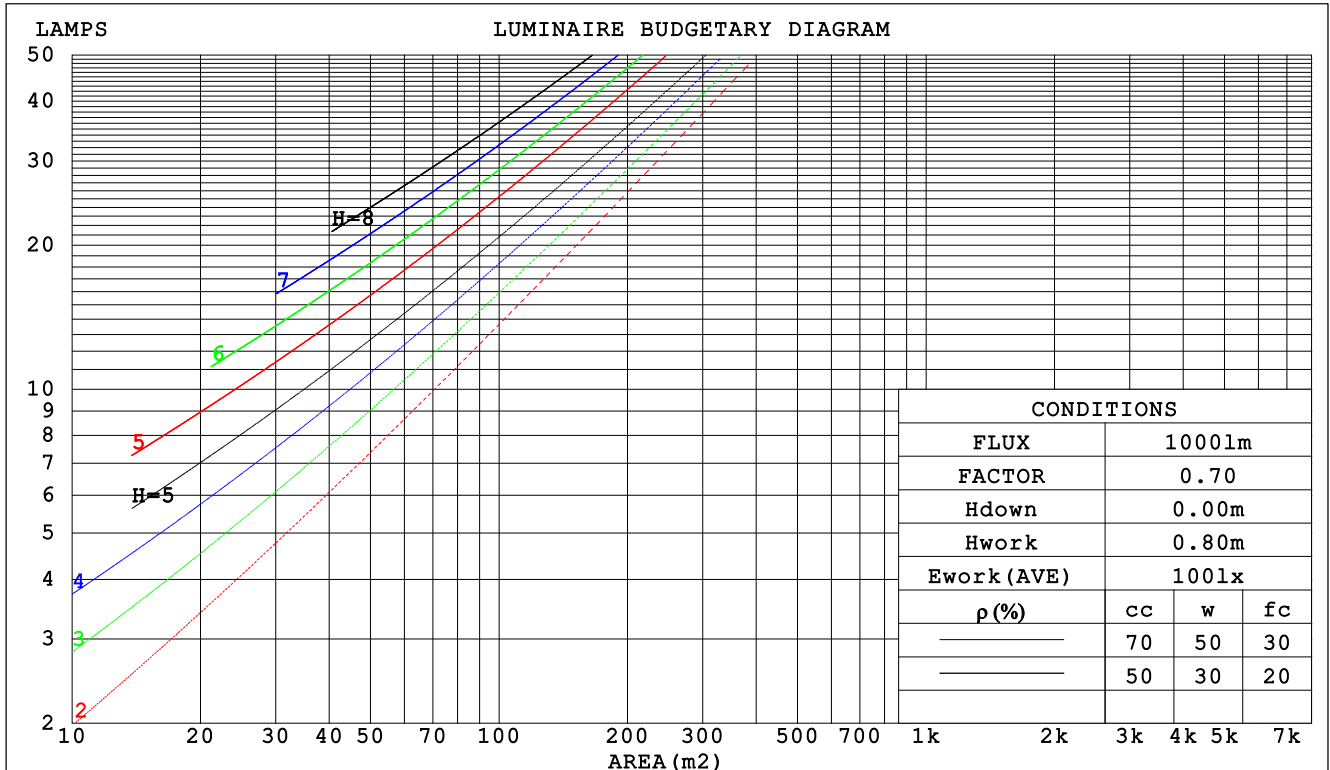
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:01 September 2023

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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	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	Coefficients of Utilization(CU)															
	RCR:Room Cavity Ratio															
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	1.04	.00	.96	1.02	.98	.94	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.78	.85	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.63	.70	.65	.61	.59
4.0	.71	.62	.56	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.55	.48	.62	.54	.48	.60	.53	.47	.58	.52	.47	.56	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.54	.47	.41	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.38	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.29	.28
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JEFF

Test Date:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	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	.305	.173	.055	.298	.170	.054	.285	.163	.052	.273	.157	.050	.261	.151	.049		
2.0	.287	.157	.048	.281	.155	.048	.269	.150	.047	.259	.145	.045	.249	.141	.044		
3.0	.266	.142	.042	.261	.140	.042	.250	.136	.041	.241	.132	.040	.232	.128	.040		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.215	.117	.036		
5.0	.227	.116	.034	.223	.115	.033	.215	.112	.033	.208	.110	.033	.200	.107	.032		
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.100	.030	.187	.098	.029		
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027		
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.164	.084	.025		
9.0	.172	.083	.023	.170	.083	.023	.164	.081	.023	.160	.080	.023	.155	.079	.023		
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.146	.074	.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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.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	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.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:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm											
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90								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	23.0	24.5	23.3	24.7	24.9	22.9	24.4	23.2	24.6	24.9
	3H	24.5	25.9	24.8	26.1	26.4	24.4	25.8	24.7	26.0	26.3
	4H	25.1	26.4	25.4	26.7	26.9	25.0	26.4	25.4	26.6	26.9
	6H	25.5	26.7	25.8	27.0	27.3	25.5	26.7	25.8	27.0	27.3
	8H	25.6	26.8	25.9	27.1	27.4	25.7	26.9	26.0	27.1	27.4
	12H	25.6	26.8	26.0	27.1	27.4	25.8	26.9	26.1	27.2	27.5
4H	2H	23.6	24.9	23.9	25.2	25.4	23.5	24.9	23.9	25.1	25.4
	3H	25.3	26.4	25.6	26.7	27.0	25.2	26.4	25.6	26.7	27.0
	4H	26.0	27.0	26.4	27.4	27.7	26.0	27.0	26.3	27.3	27.7
	6H	26.5	27.4	26.9	27.8	28.2	26.6	27.5	27.0	27.9	28.2
	8H	26.7	27.5	27.1	27.9	28.3	26.8	27.7	27.2	28.0	28.4
	12H	26.8	27.6	27.2	28.0	28.4	26.9	27.8	27.4	28.1	28.5
8H	4H	26.3	27.1	26.7	27.5	27.9	26.2	27.1	26.6	27.5	27.9
	6H	26.9	27.7	27.4	28.1	28.5	27.0	27.7	27.4	28.1	28.5
	8H	27.2	27.8	27.6	28.2	28.7	27.3	27.9	27.8	28.4	28.8
	12H	27.3	27.9	27.8	28.3	28.8	27.6	28.1	28.0	28.6	29.0
12H	4H	26.3	27.1	26.7	27.5	27.9	26.2	27.1	26.7	27.4	27.8
	6H	27.0	27.6	27.5	28.1	28.5	27.1	27.7	27.5	28.1	28.6
	8H	27.3	27.8	27.8	28.3	28.8	27.4	28.0	27.9	28.4	28.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117 Corrected 2706 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.5)

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JEFF

Test Date:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

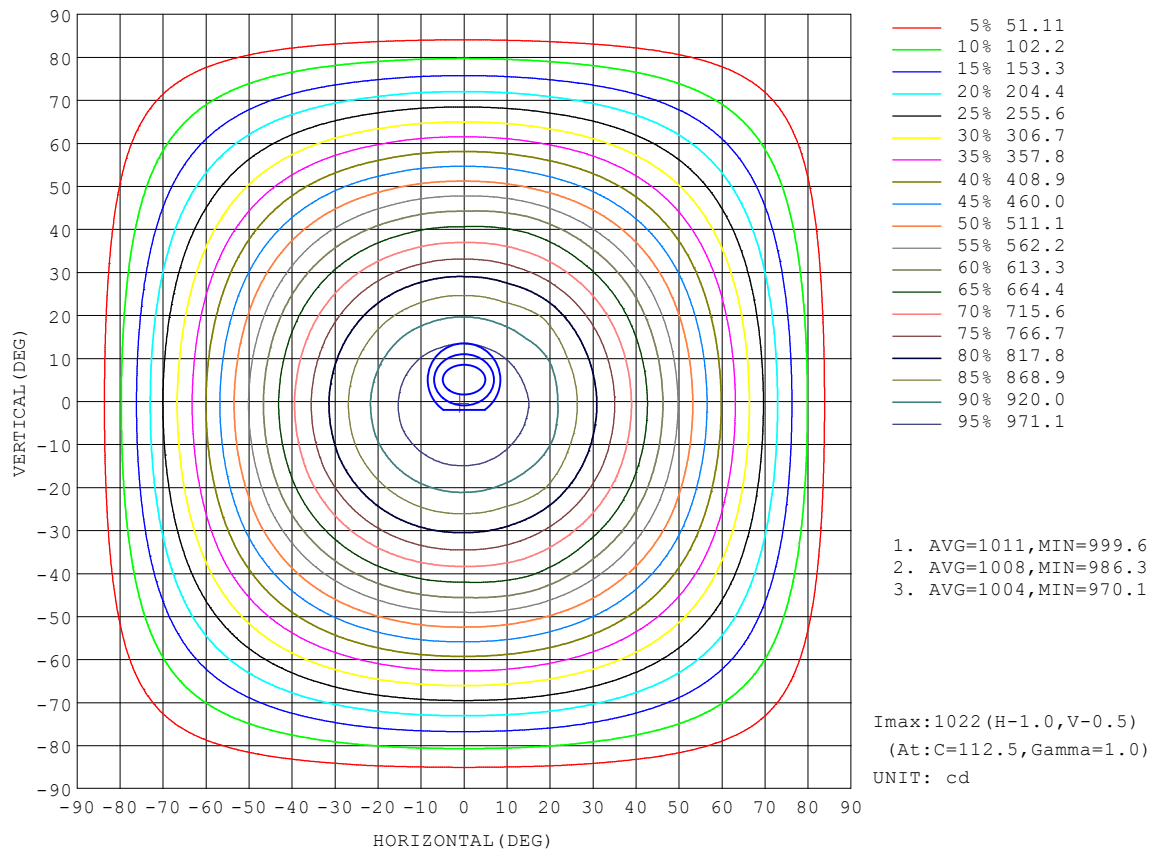
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	57	46	40	34
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	76	71	63
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	95	86
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: 01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

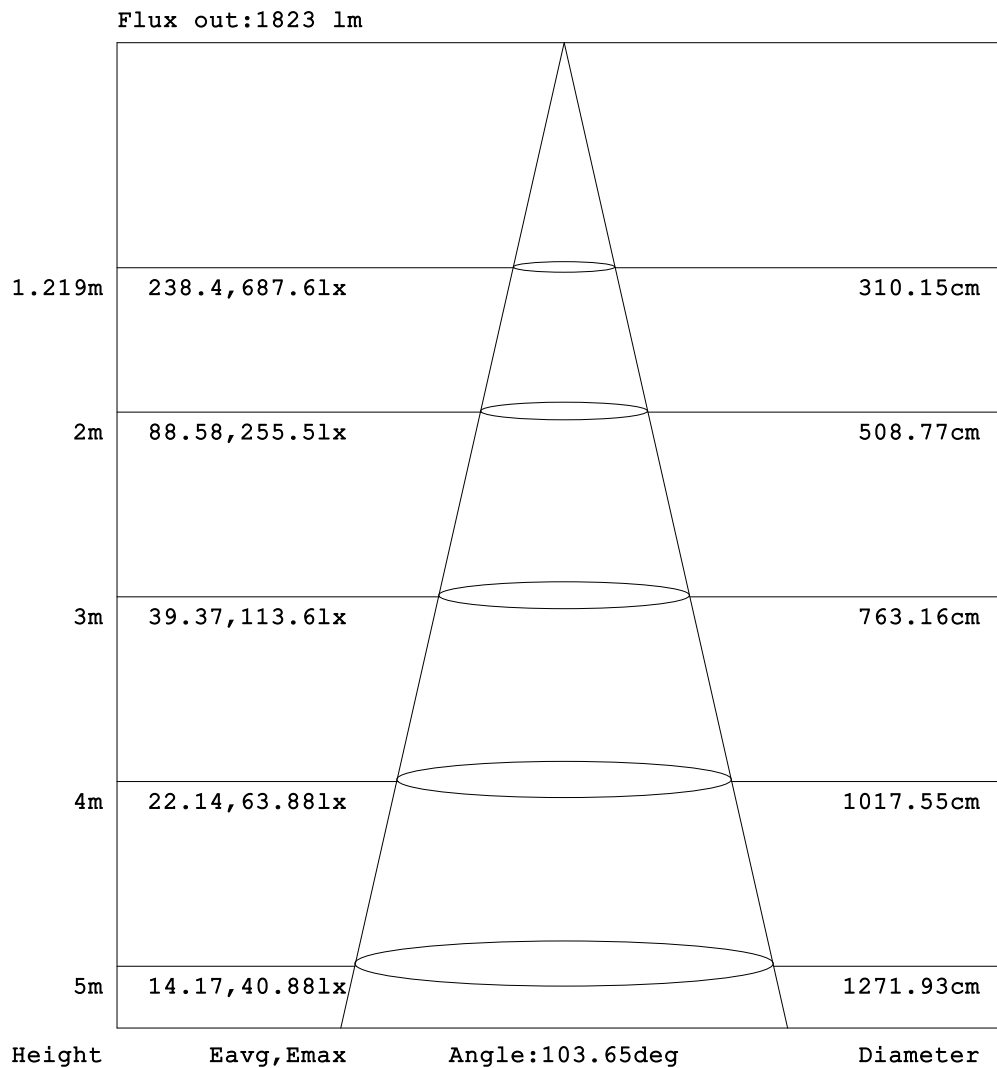


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 01 September 2023

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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



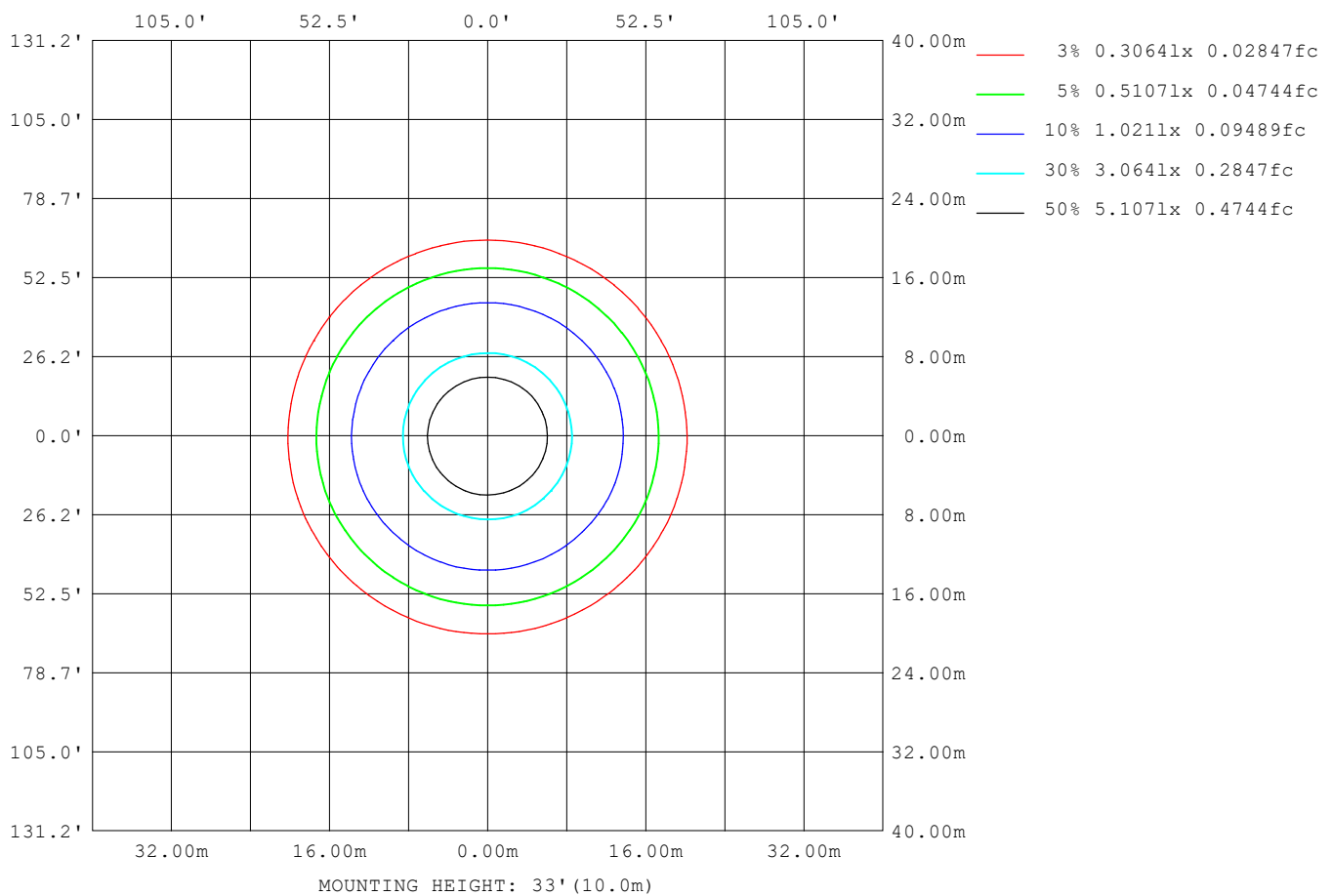
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	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:01 September 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:240.0V I:0.1305A P:29.51W PF:0.9422 Lamp Flux:2706.01x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HE_400mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

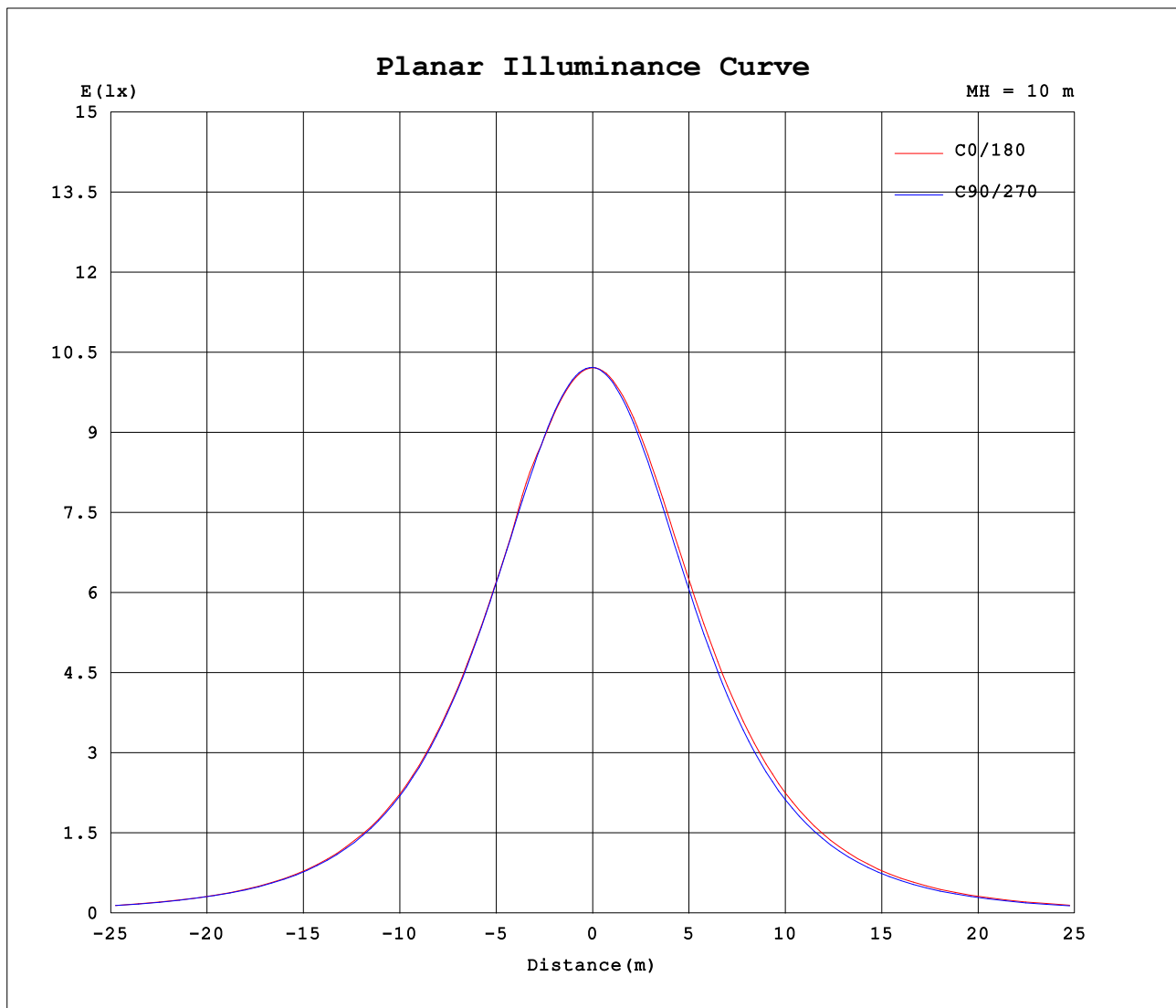
AvgL	cd/m2
L_0~180 (65) av	17372
L_0~180 (75) av	14943
L_0~180 (85) av	9282
L_90~270 (65) av	16584
L_90~270 (75) av	14672
L_90~270 (85) av	11894
L_45 (65) av	16949
L_45 (75) av	14771
L_45 (85) av	11288

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:01 September 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: 01 September 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:

