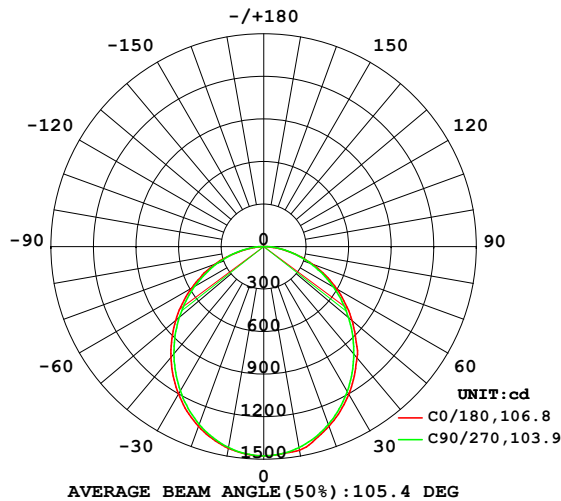


LUMINAIRE PHOTOMETRIC TEST REPORT

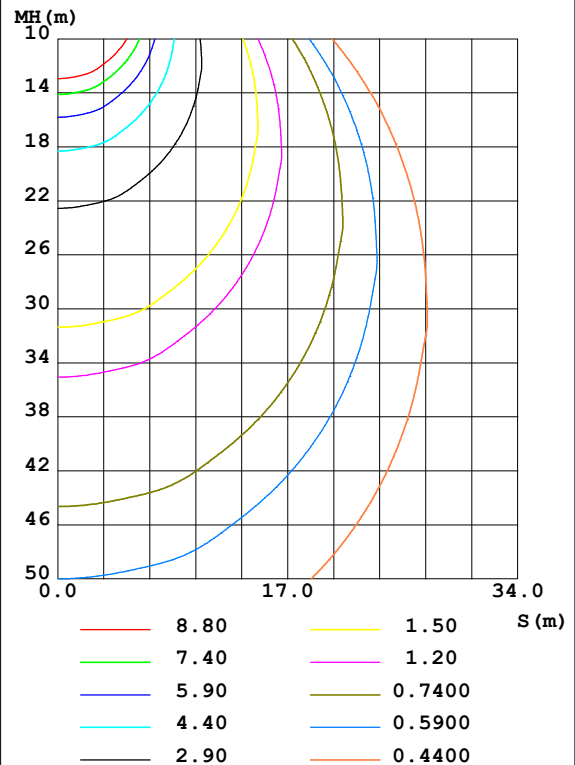
Test:U:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.43 lm/W			
LED MODULE	2400lm 930 HV ADV5	Imax(cd)	1475	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.19
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3919.0	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	3919.02	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
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:21 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	1457	1444	1439	1441	1443	1441	1438	1444	0- 10	139.3	139.3	3.55,3.55
20	1347	1348	1334	1342	1348	1341	1334	1348	10- 20	395.0	534.2	13.6,13.6
30	1201	1189	1178	1191	1202	1189	1177	1188	20- 30	585.8	1120	28.6,28.6
40	1024	1003	989.2	1004	1019	1002	986.3	1002	30- 40	688.2	1808	46.1,46.1
50	813.1	797.6	781.4	796.2	811.3	794.0	778.0	795.7	40- 50	695.6	2504	63.9,63.9
60	593.5	579.4	566.8	576.7	588.3	574.6	562.8	577.4	50- 60	614.6	3118	79.6,79.6
70	367.1	359.7	353.0	355.6	365.2	353.4	349.3	357.8	60- 70	462.0	3580	91.4,91.4
80	149.1	154.5	155.3	150.0	139.1	148.1	152.3	152.6	70- 80	265.0	3845	98.1,98.1
90	1.200	6.331	8.131	5.654	1.141	5.582	7.844	5.929	80- 90	73.65	3919	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): 2161 lm

%lum = 55.1%

%lamp = 55.1%

Conical surface Flux(120deg): 3118.4 lm

%lum = 79.6%

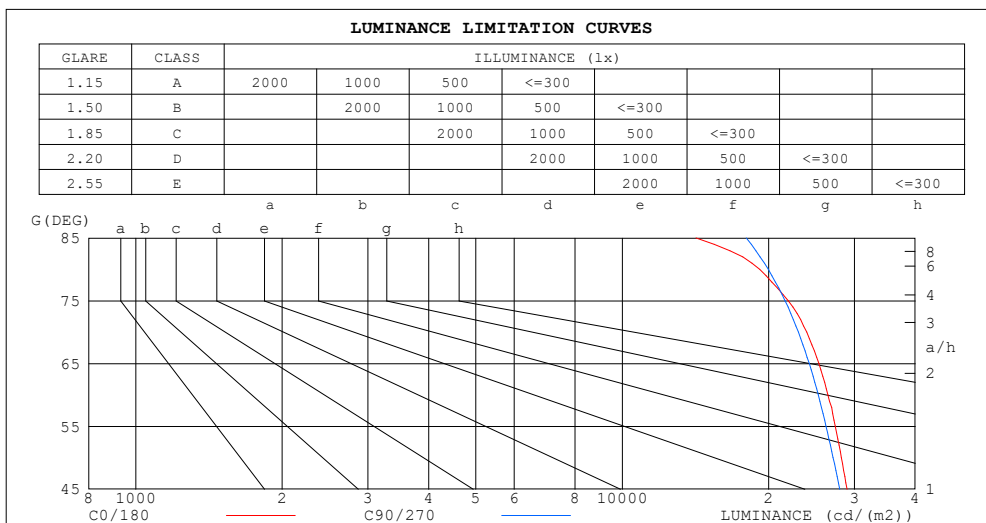
%lamp = 79.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14173	17983
80	19157	19961
75	21952	21619
70	23948	23036
65	25367	24241
60	26480	25301
55	27406	26249
50	28222	27134
45	28979	28007

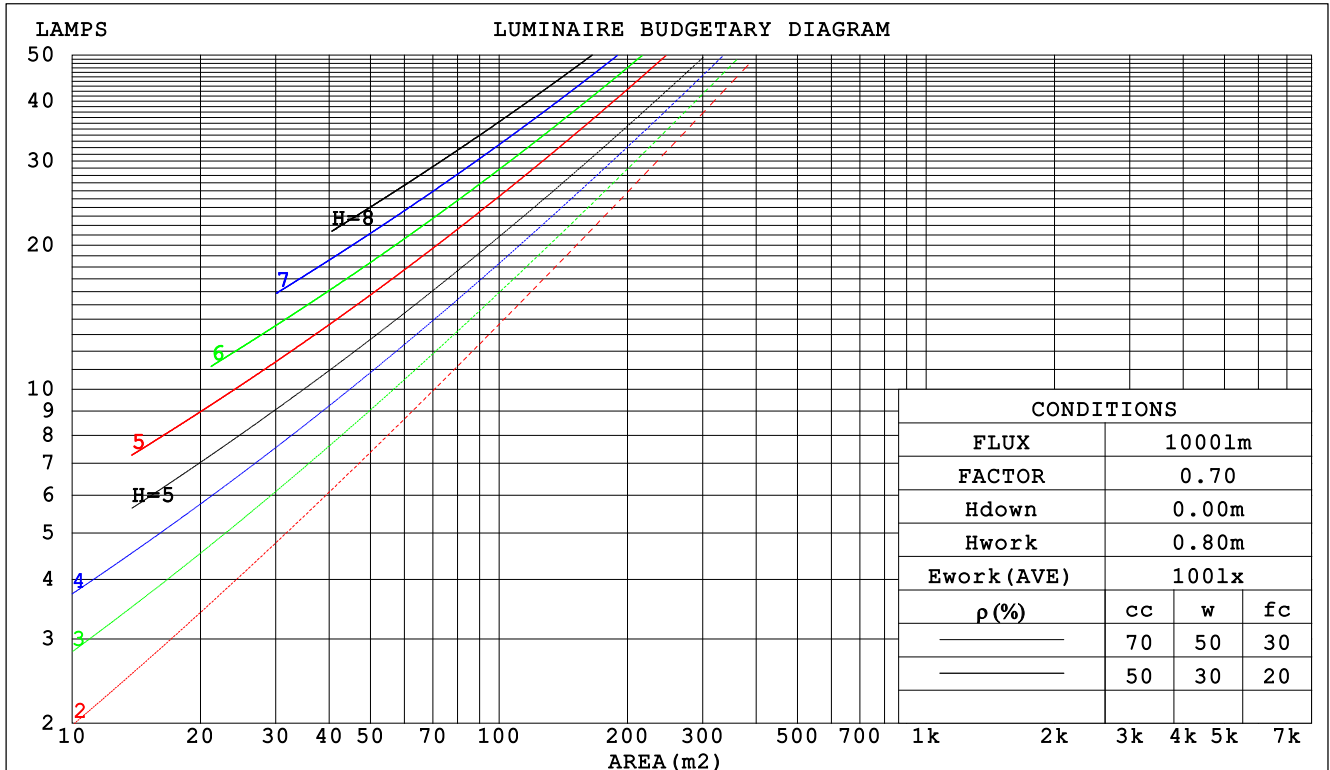
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 21 September 2023

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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_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	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	1.04	.00	.96	1.02	.98	.94	.98	.94	.91	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.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	.37	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
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:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_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	.306 .174 .055	.299 .170 .054	.285 .164 .052	.273 .158 .051	.262 .152 .049	
2.0	.288 .158 .048	.282 .155 .048	.270 .150 .047	.259 .145 .045	.249 .141 .044	
3.0	.266 .142 .042	.261 .140 .042	.251 .136 .041	.241 .132 .041	.232 .129 .040	
4.0	.246 .128 .038	.241 .126 .037	.232 .123 .037	.224 .120 .036	.216 .117 .036	
5.0	.228 .116 .034	.223 .115 .033	.215 .112 .033	.208 .110 .033	.201 .107 .032	
6.0	.211 .106 .030	.208 .105 .030	.200 .103 .030	.194 .101 .030	.187 .099 .029	
7.0	.197 .097 .028	.193 .096 .027	.187 .095 .027	.181 .093 .027	.175 .091 .027	
8.0	.184 .090 .025	.181 .089 .025	.175 .087 .025	.170 .086 .025	.165 .085 .025	
9.0	.172 .083 .023	.170 .083 .023	.165 .081 .023	.160 .080 .023	.155 .079 .023	
10.0	.162 .078 .022	.160 .077 .022	.155 .076 .021	.151 .075 .021	.147 .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 .098	.147 .114 .085	.101 .079 .059	.058 .046 .035	.019 .015 .011	
3.0	.164 .114 .075	.140 .099 .065	.096 .068 .045	.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	.117 .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:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm										
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_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	24.3	25.8	24.6	26.0	26.2	24.1	25.6	24.4	25.8	26.0
3H	25.8	27.2	26.1	27.4	27.7	25.6	27.0	25.9	27.2	27.5
4H	26.4	27.7	26.7	28.0	28.2	26.2	27.5	26.5	27.8	28.0
6H	26.8	28.1	27.1	28.3	28.6	26.7	27.9	27.0	28.2	28.5
8H	26.9	28.1	27.3	28.4	28.7	26.8	28.0	27.2	28.3	28.6
12H	27.0	28.1	27.3	28.4	28.7	26.9	28.1	27.3	28.4	28.7
4H 2H	24.9	26.2	25.2	26.5	26.7	24.7	26.1	25.1	26.3	26.6
3H	26.6	27.7	26.9	28.0	28.3	26.4	27.6	26.8	27.9	28.2
4H	27.3	28.4	27.7	28.7	29.0	27.1	28.2	27.5	28.5	28.9
6H	27.8	28.8	28.2	29.1	29.5	27.7	28.7	28.1	29.0	29.4
8H	28.0	28.9	28.4	29.2	29.6	27.9	28.8	28.3	29.2	29.6
12H	28.1	28.9	28.5	29.3	29.7	28.1	28.9	28.5	29.3	29.7
8H 4H	27.6	28.4	28.0	28.8	29.2	27.4	28.3	27.8	28.7	29.0
6H	28.2	29.0	28.7	29.4	29.8	28.2	28.9	28.6	29.3	29.7
8H	28.5	29.1	28.9	29.6	30.0	28.5	29.1	28.9	29.5	30.0
12H	28.7	29.2	29.1	29.7	30.1	28.7	29.2	29.2	29.7	30.2
12H 4H	27.6	28.4	28.0	28.8	29.2	27.4	28.2	27.9	28.6	29.0
6H	28.3	28.9	28.8	29.4	29.8	28.2	28.9	28.7	29.3	29.7
8H	28.6	29.1	29.1	29.6	30.1	28.6	29.1	29.0	29.6	30.0
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 / - 0.2					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 3919 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.7)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

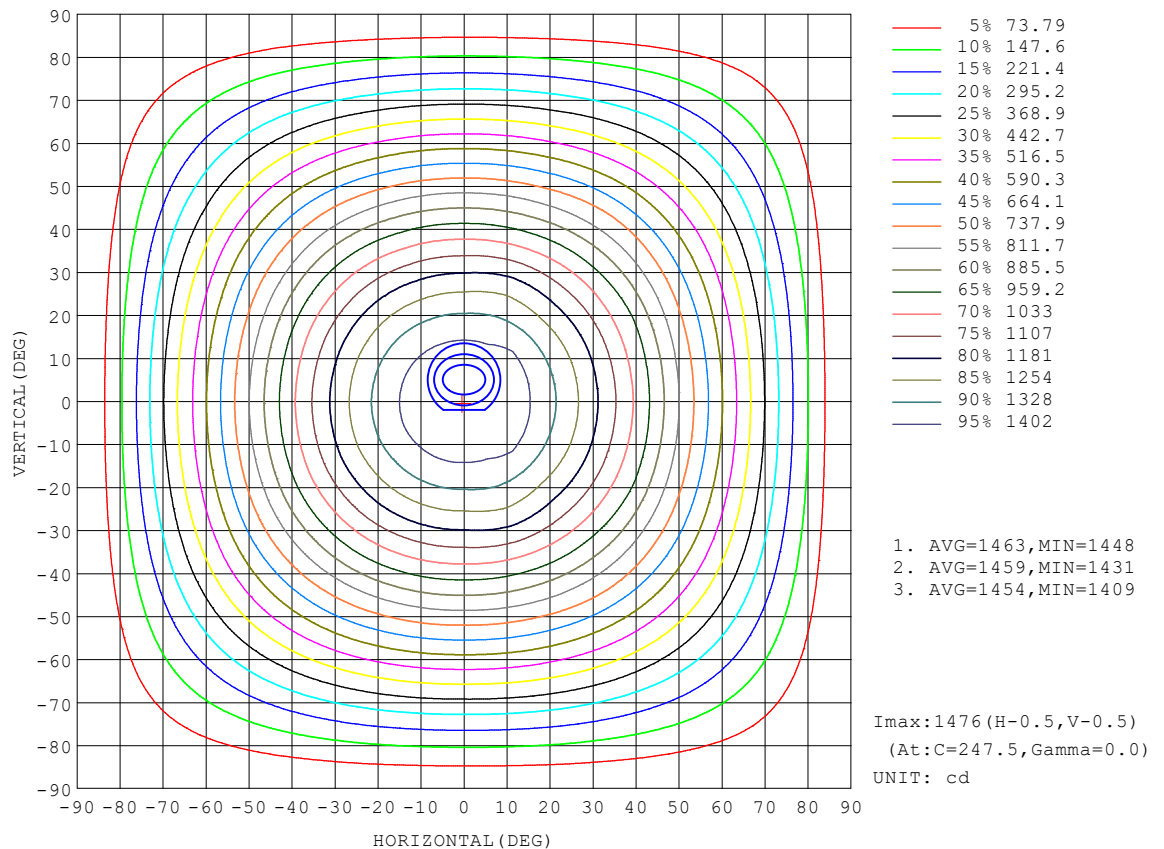
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	57	46	40	33
0.80	68	57	50	67	57	50	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	70	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: 21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

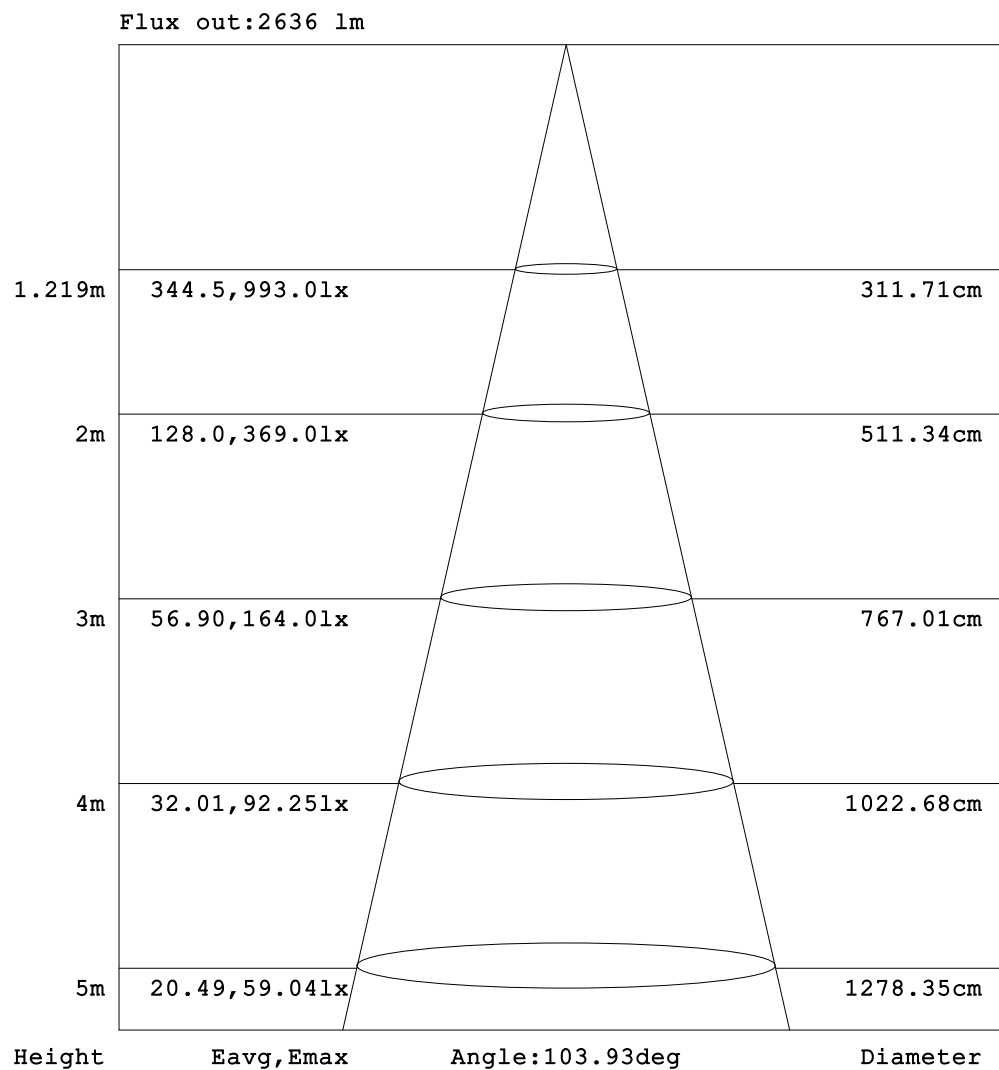


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:21 September 2023

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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



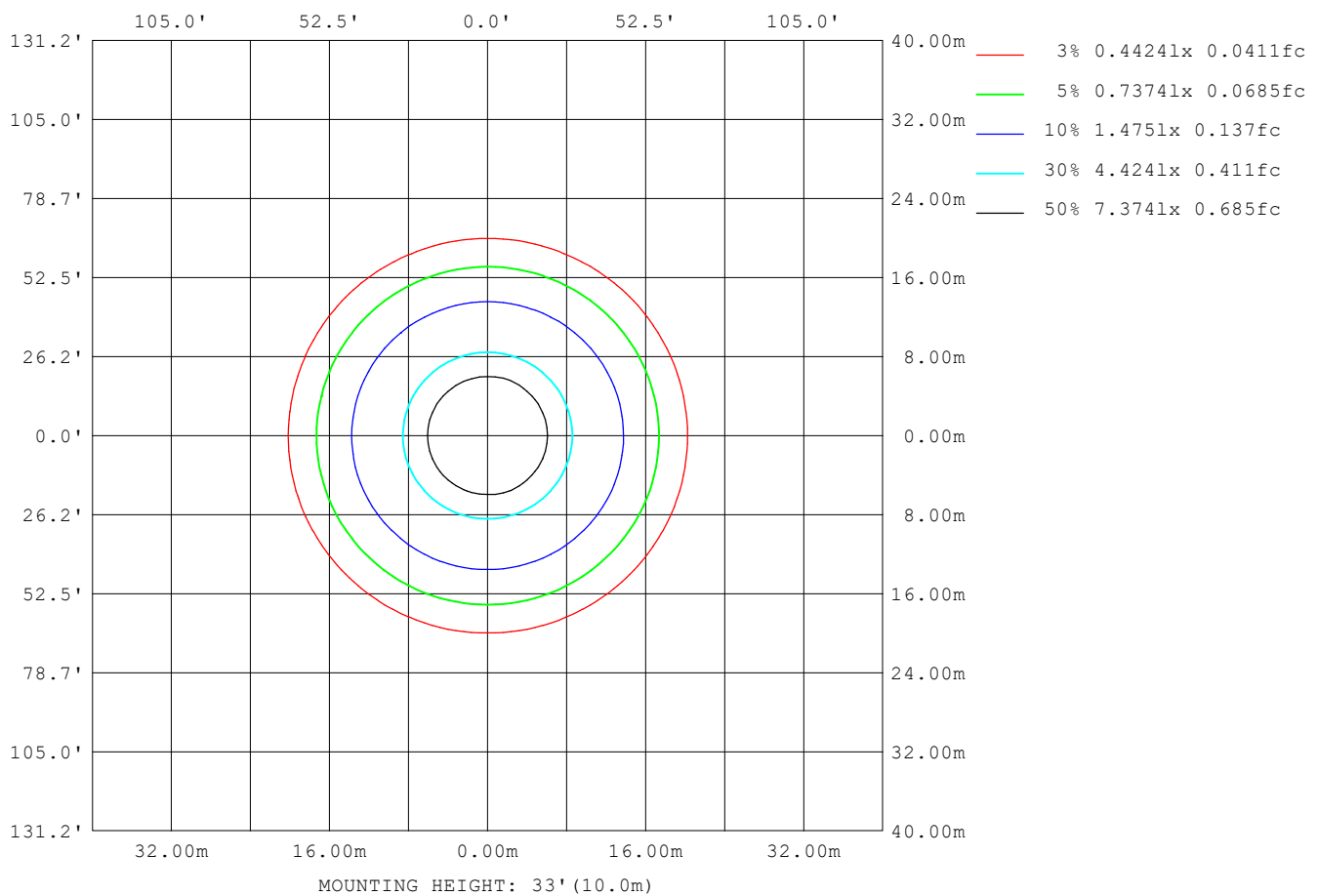
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_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:21 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:239.9V I:0.1863A P:43.34W PF:0.9695 Lamp Flux:3919.02x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_H0_450mA_3000K CRI90		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

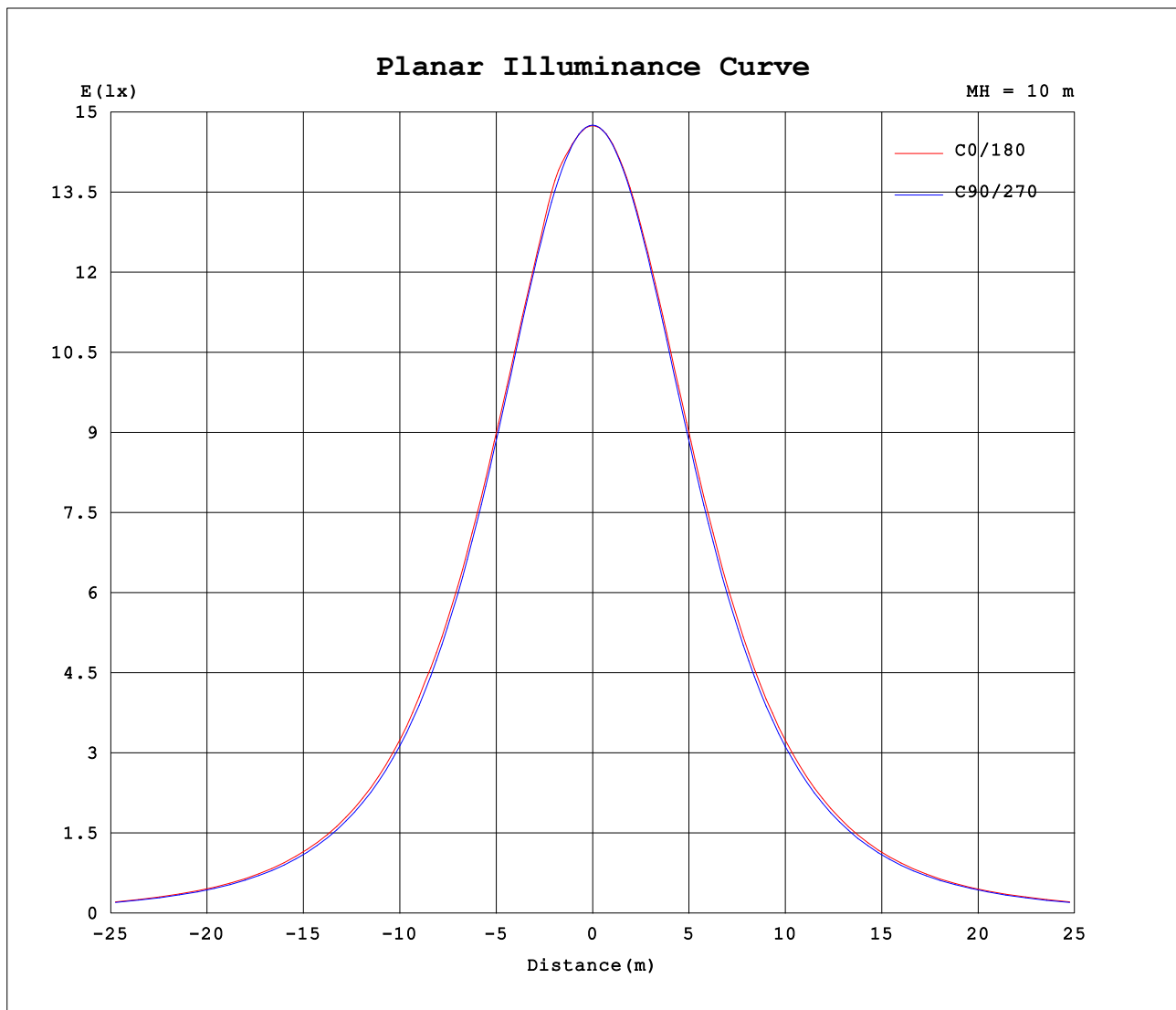
AvgL	cd/m2
L_0~180 (65) av	25329
L_0~180 (75) av	21751
L_0~180 (85) av	13473
L_90~270 (65) av	24141
L_90~270 (75) av	21484
L_90~270 (85) av	17681
L_45 (65) av	24623
L_45 (75) av	21577
L_45 (85) av	16688

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:21 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: 21 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:

