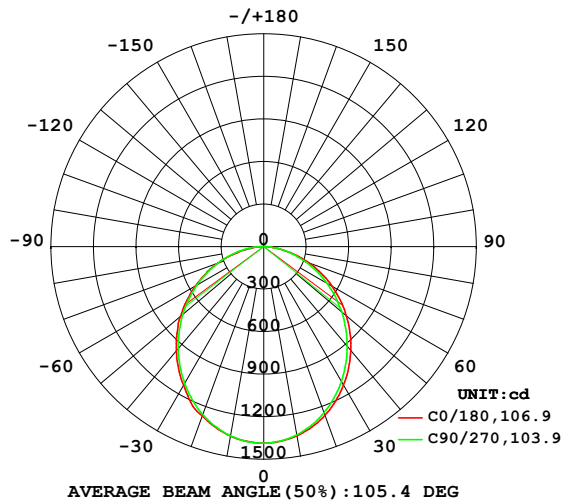


LUMINAIRE PHOTOMETRIC TEST REPORT

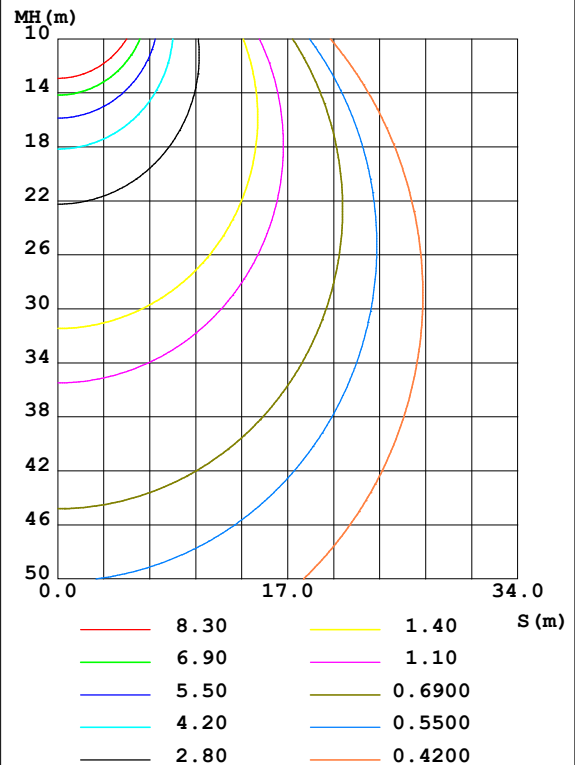
Test:U:240.0V I:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA 4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.72 lm/W			
L E M C E 30mm	2400lm 940 HV ADV5	Imax(cd)	1386	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3678.6	η UP,DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	3678.62	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.7
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:18 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	1354	1350	1348	1351	1356	1357	1355	1355	0- 10	130.7	130.7	3.55,3.55
20	1265	1253	1246	1256	1271	1266	1260	1263	10- 20	370.2	501.0	13.6,13.6
30	1127	1108	1097	1113	1132	1134	1116	1123	20- 30	550.3	1051	28.6,28.6
40	956.0	931.5	916.3	935.7	960.1	952.9	939.4	949.0	30- 40	646.5	1698	46.2,46.2
50	762.1	736.1	718.9	739.0	767.2	758.7	745.7	756.1	40- 50	653.6	2351	63.9,63.9
60	555.2	529.7	514.8	531.7	556.4	553.8	544.7	552.5	50- 60	577.5	2929	79.6,79.6
70	342.2	322.3	312.8	322.5	346.6	346.1	344.3	346.0	60- 70	433.6	3362	91.4,91.4
80	136.6	131.1	128.4	129.6	133.4	150.9	157.2	152.3	70- 80	248.0	3610	98.1,98.1
90	1.145	3.966	5.168	3.656	1.068	5.686	9.737	6.636	80- 90	68.17	3679	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): 2029.1 lm

%lum = 55.2%

%lamp = 55.2%

Conical surface Flux(120deg): 2928.8 lm

%lum = 79.6%

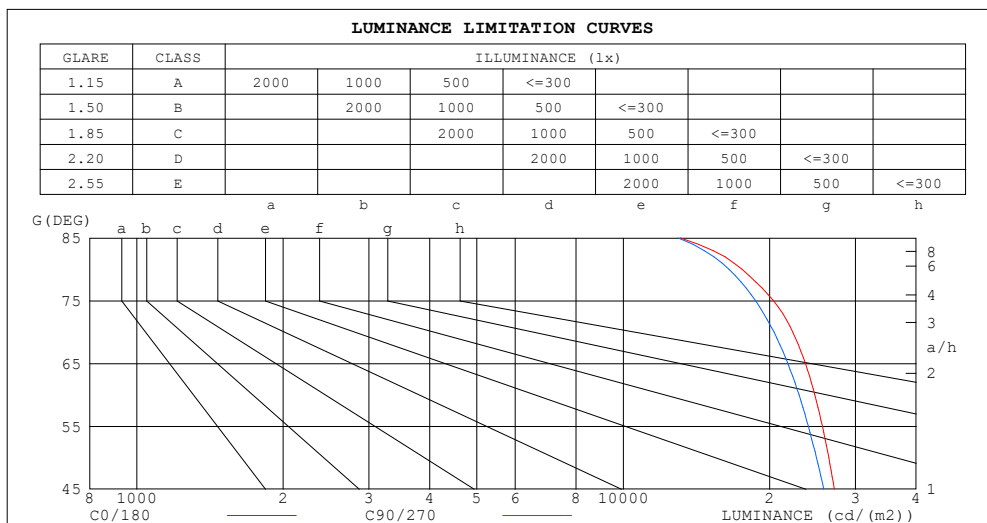
%lamp = 79.6%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA 4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13112	12964
80	17547	16504
75	20363	18704
70	22319	20415
65	23689	21801
60	24775	22982
55	25668	24018
50	26451	24964
45	27173	25850

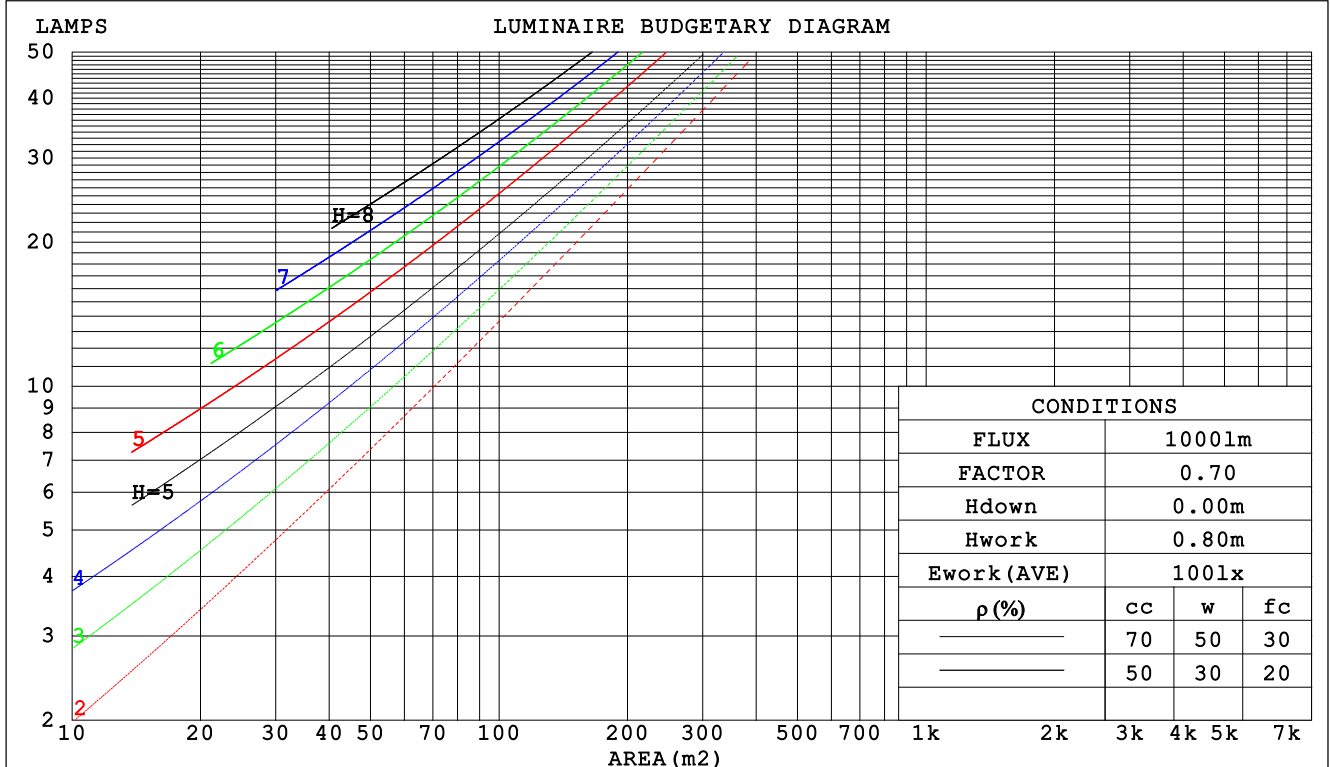
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 18 September 2023

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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K 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	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.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	.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:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K 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 .174 .055	.298 .170 .054	.285 .164 .052	.273 .157 .051	.262 .152 .049	
2.0	.288 .158 .048	.281 .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	.207 .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 .099	.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:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm											
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA 4000K 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	24.0	25.5	24.3	25.7	25.9	23.7	25.2	24.0	25.4	25.6
	3H	25.5	26.9	25.8	27.1	27.4	25.1	26.5	25.4	26.8	27.0
	4H	26.1	27.4	26.4	27.7	27.9	25.7	27.0	26.0	27.3	27.5
	6H	26.5	27.7	26.8	28.0	28.3	26.1	27.3	26.4	27.6	27.9
	8H	26.6	27.8	26.9	28.1	28.4	26.2	27.4	26.5	27.7	28.0
	12H	26.6	27.8	27.0	28.1	28.4	26.2	27.4	26.6	27.7	28.0
4H	2H	24.6	25.9	24.9	26.1	26.4	24.3	25.7	24.6	25.9	26.2
	3H	26.2	27.4	26.6	27.7	28.0	25.9	27.1	26.3	27.4	27.7
	4H	26.9	28.0	27.3	28.3	28.6	26.6	27.7	27.0	28.0	28.3
	6H	27.4	28.4	27.8	28.7	29.1	27.1	28.0	27.5	28.4	28.8
	8H	27.6	28.5	28.0	28.9	29.2	27.3	28.1	27.7	28.5	28.9
	12H	27.7	28.5	28.1	28.9	29.3	27.4	28.2	27.8	28.6	29.0
8H	4H	27.2	28.0	27.6	28.4	28.8	26.9	27.7	27.3	28.1	28.5
	6H	27.8	28.5	28.3	28.9	29.4	27.5	28.2	28.0	28.6	29.1
	8H	28.0	28.7	28.5	29.1	29.6	27.8	28.4	28.2	28.8	29.3
	12H	28.2	28.8	28.7	29.2	29.7	27.9	28.5	28.4	28.9	29.4
12H	4H	27.2	28.0	27.6	28.4	28.8	26.9	27.7	27.3	28.1	28.5
	6H	27.9	28.5	28.3	28.9	29.4	27.6	28.2	28.0	28.6	29.1
	8H	28.1	28.7	28.6	29.1	29.6	27.8	28.4	28.3	28.8	29.3
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 3679 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.5)

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JEFF

Test Date:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

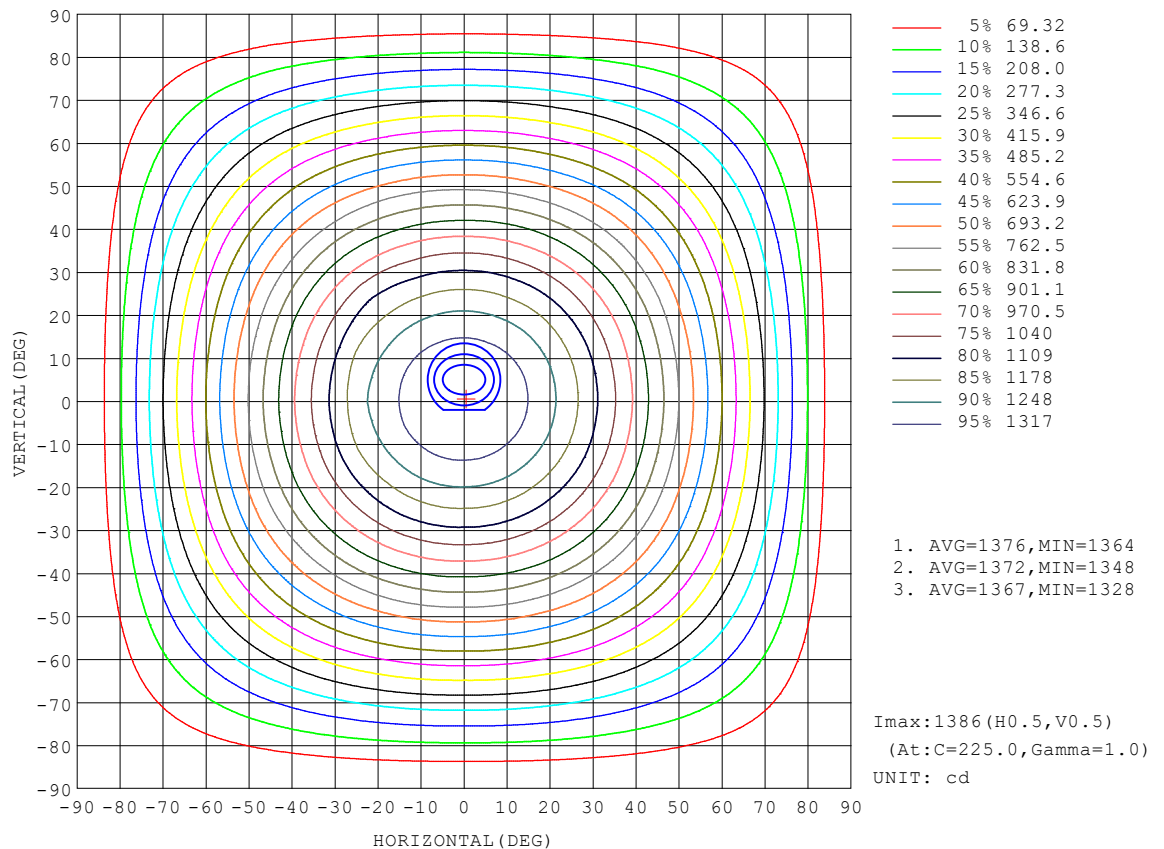
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	57	46	40	33
0.80	68	57	50	67	57	50	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	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: 18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

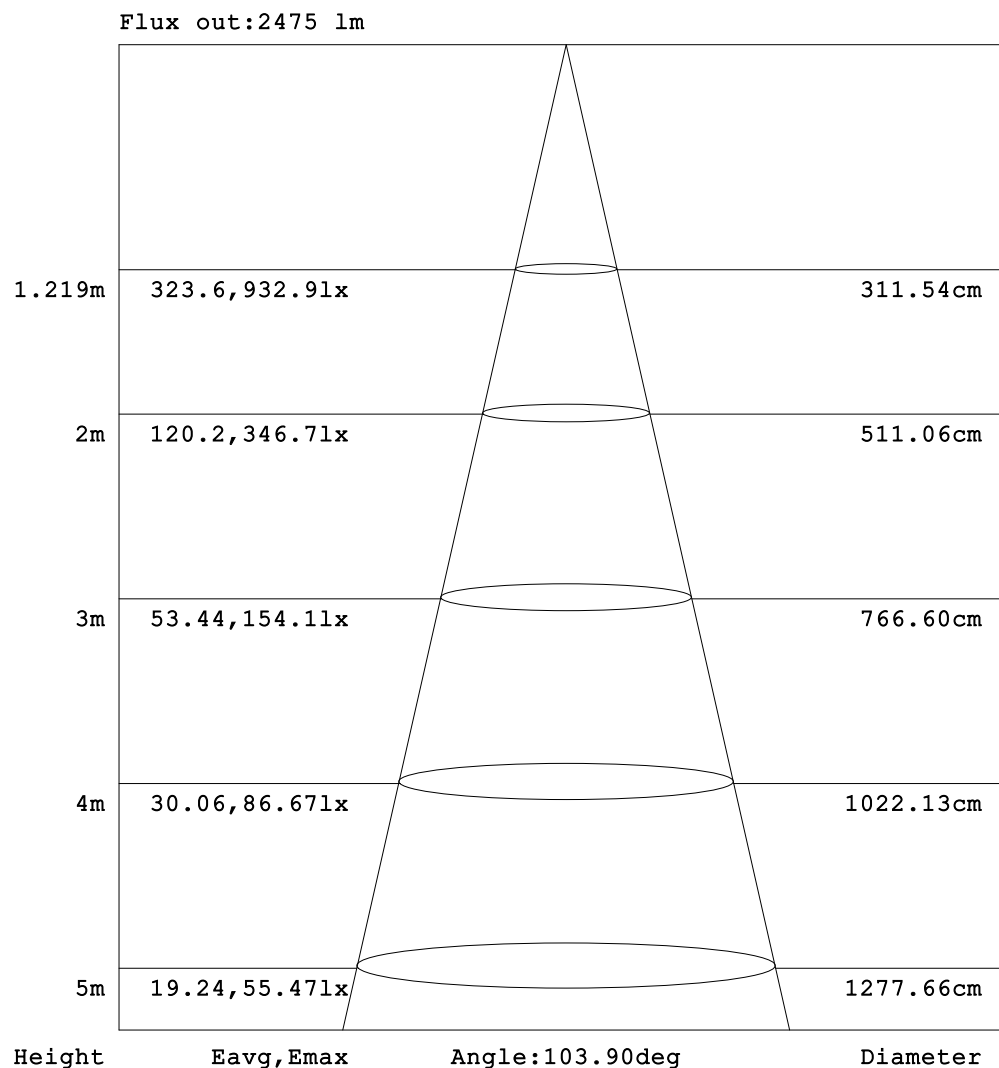


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 September 2023

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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



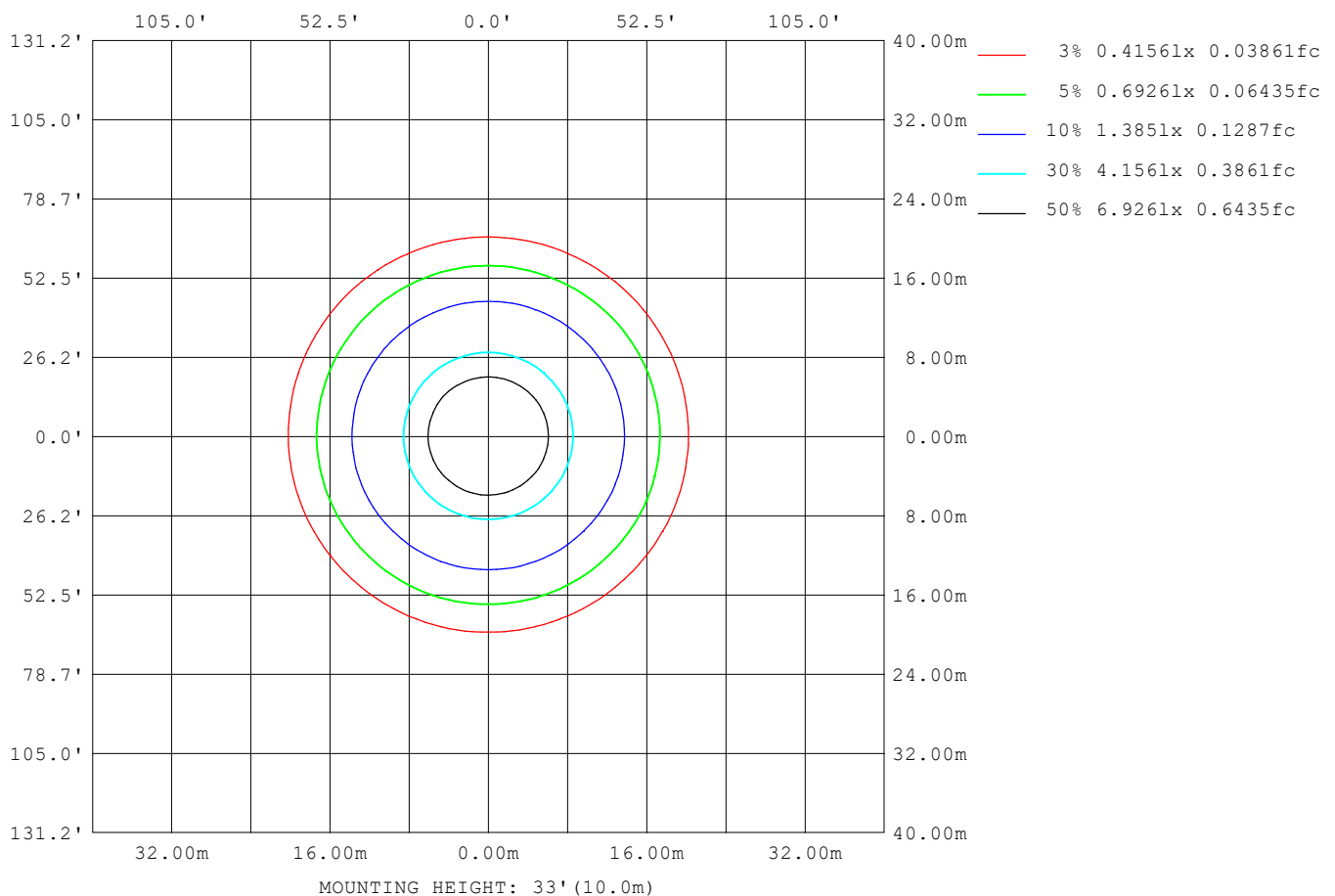
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K 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:18 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:0.1666A P:38.43W PF:0.9612 Lamp Flux:3678.62x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_400mA_4000K CRI90		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

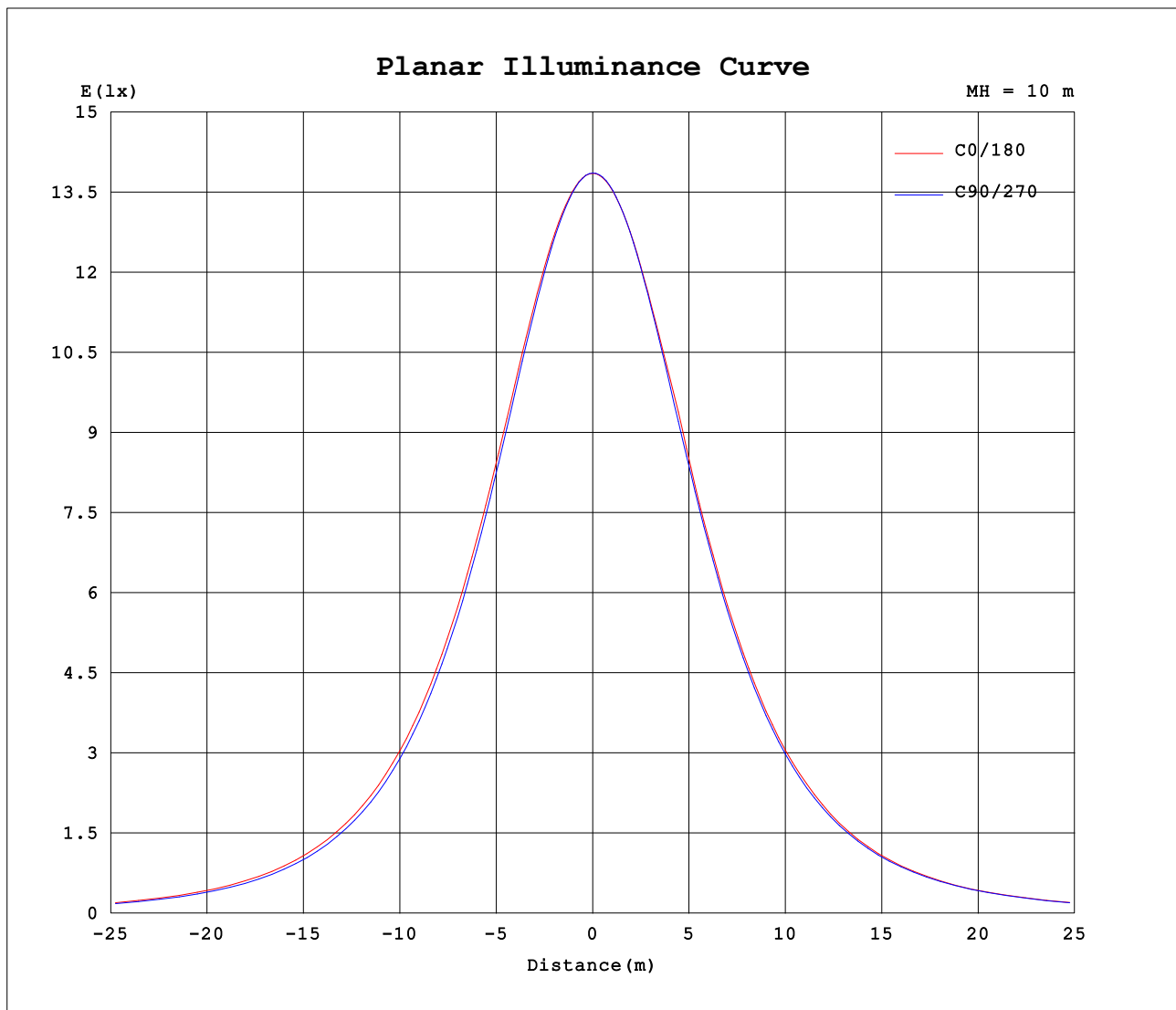
AvgL	cd/m2
L_0~180 (65) av	23735
L_0~180 (75) av	20432
L_0~180 (85) av	12677
L_90~270 (65) av	22618
L_90~270 (75) av	20038
L_90~270 (85) av	16180
L_45 (65) av	23109
L_45 (75) av	20188
L_45 (85) av	15369

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 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: 18 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:

