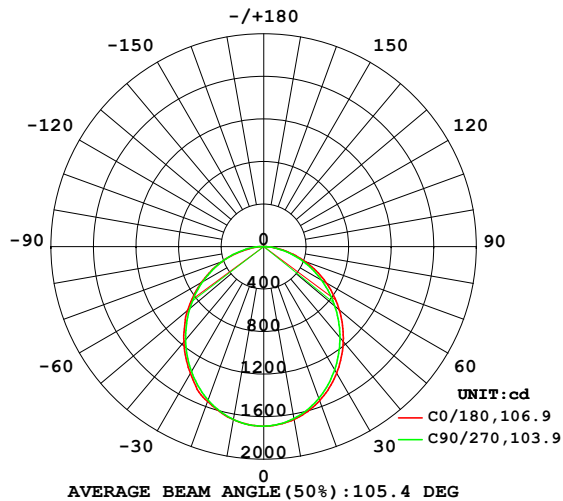


LUMINAIRE PHOTOMETRIC TEST REPORT

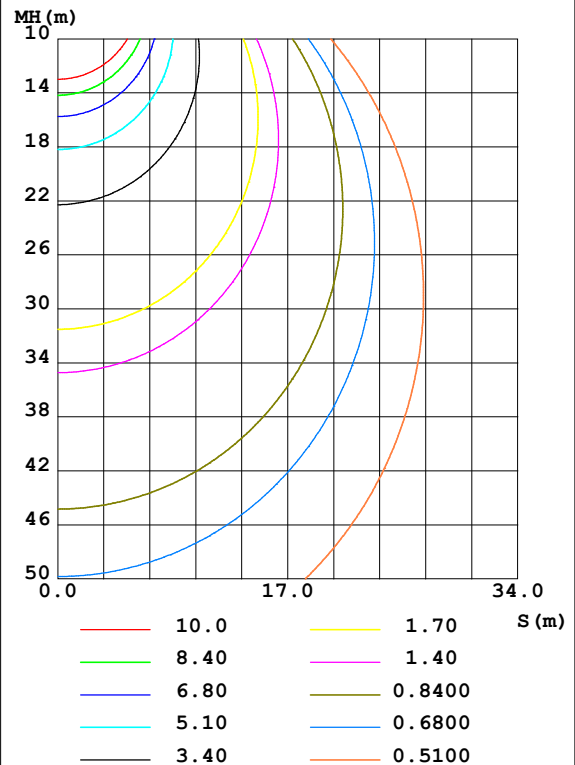
Test:U:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA 4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 92.67 lm/W			
L E M C E 30mm	2400lm 940 HV ADV5	Imax(cd)	1688	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)	4481.3	η UP,DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	4481.26	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	1650	1644	1641	1646	1652	1653	1650	1650	0- 10	159.2	159.2	3.55,3.55
20	1541	1526	1518	1530	1548	1543	1535	1539	10- 20	450.9	610.2	13.6,13.6
30	1373	1350	1336	1356	1378	1382	1359	1368	20- 30	670.3	1280	28.6,28.6
40	1164	1135	1116	1140	1169	1161	1144	1156	30- 40	787.4	2068	46.1,46.1
50	928.2	896.8	875.4	900.0	934.5	924.4	908.4	921.2	40- 50	796.2	2864	63.9,63.9
60	676.3	645.4	627.1	647.6	677.7	674.9	663.7	673.1	50- 60	703.4	3568	79.6,79.6
70	417.0	392.8	381.0	392.8	422.4	422.0	419.4	421.8	60- 70	528.3	4096	91.4,91.4
80	166.5	159.7	156.6	158.0	162.5	184.1	191.5	185.5	70- 80	302.3	4398	98.1,98.1
90	1.412	4.849	6.320	4.489	1.320	6.998	11.94	8.135	80- 90	83.12	4481	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): 2471.5 lm

%lum = 55.2%

%lamp = 55.2%

Conical surface Flux(120deg): 3567.5 lm

%lum = 79.6%

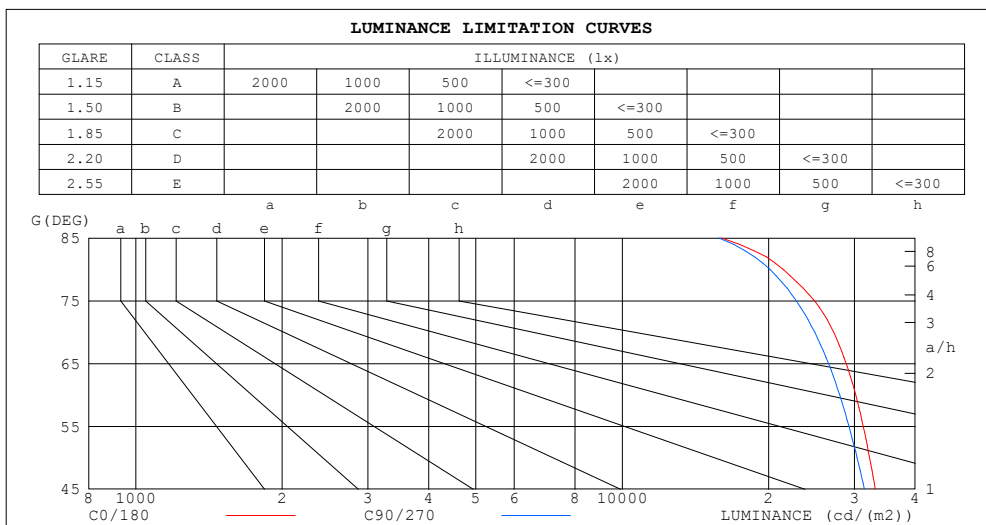
%lamp = 79.6%

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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA 4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15985	15797
80	21401	20132
75	24842	22790
70	27216	24862
65	28874	26550
60	30195	27992
55	31286	29249
50	32235	30395
45	33115	31483

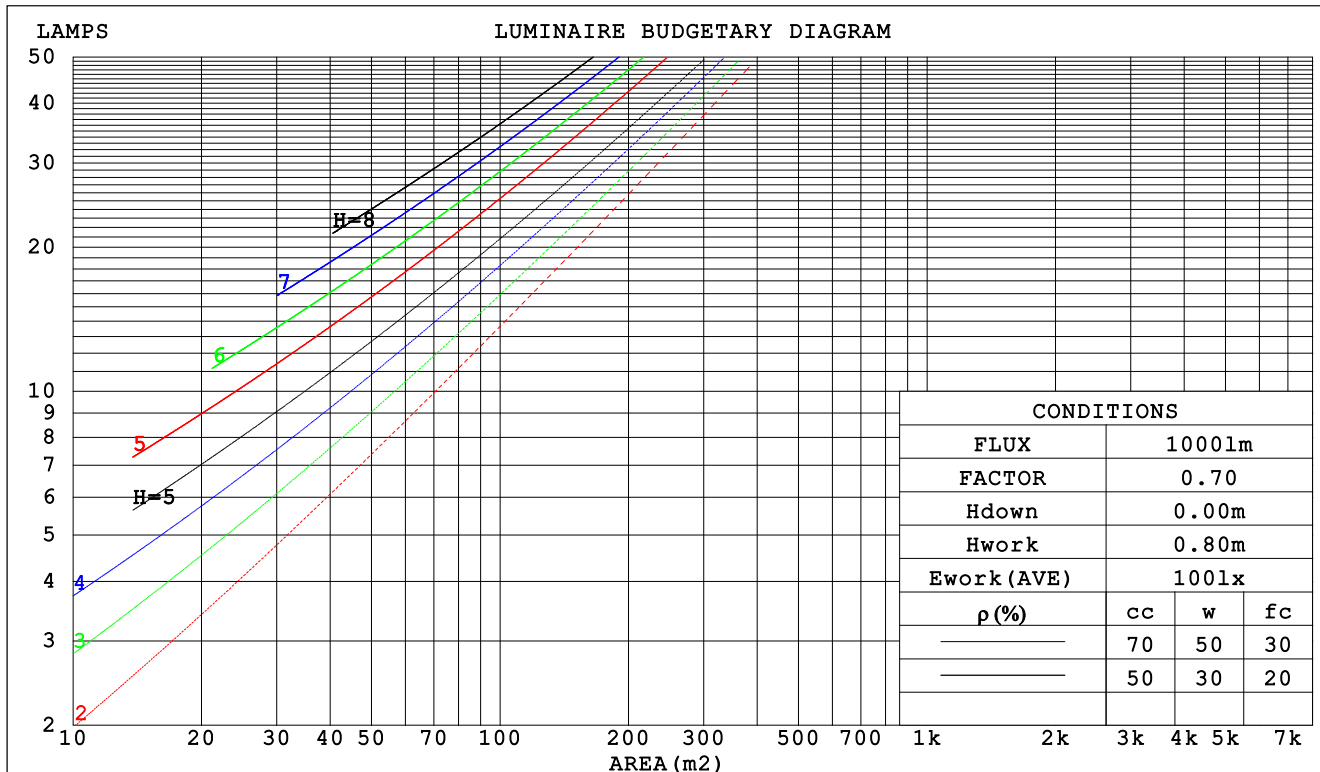
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 September 2023

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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_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	.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	.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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm											
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_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	24.7	26.2	25.0	26.4	26.6	24.4	25.9	24.7	26.1	26.3
	3H	26.2	27.6	26.5	27.8	28.1	25.8	27.2	26.1	27.4	27.7
	4H	26.8	28.1	27.1	28.3	28.6	26.4	27.7	26.7	27.9	28.2
	6H	27.2	28.4	27.5	28.7	29.0	26.8	28.0	27.1	28.3	28.6
	8H	27.3	28.5	27.6	28.8	29.1	26.9	28.1	27.2	28.4	28.7
	12H	27.3	28.5	27.7	28.8	29.1	26.9	28.1	27.3	28.4	28.7
4H	2H	25.3	26.6	25.6	26.8	27.1	25.0	26.3	25.3	26.6	26.8
	3H	26.9	28.1	27.3	28.4	28.7	26.6	27.8	27.0	28.1	28.4
	4H	27.6	28.7	28.0	29.0	29.3	27.3	28.3	27.7	28.7	29.0
	6H	28.1	29.1	28.5	29.4	29.8	27.8	28.7	28.2	29.1	29.5
	8H	28.3	29.2	28.7	29.5	29.9	28.0	28.8	28.4	29.2	29.6
	12H	28.4	29.2	28.8	29.6	30.0	28.1	28.9	28.5	29.2	29.7
8H	4H	27.8	28.7	28.3	29.1	29.5	27.5	28.4	28.0	28.8	29.2
	6H	28.5	29.2	28.9	29.6	30.1	28.2	28.9	28.6	29.3	29.8
	8H	28.7	29.4	29.2	29.8	30.3	28.4	29.1	28.9	29.5	30.0
	12H	28.9	29.4	29.4	29.9	30.4	28.6	29.2	29.1	29.6	30.1
12H	4H	27.9	28.7	28.3	29.0	29.4	27.6	28.4	28.0	28.7	29.2
	6H	28.5	29.2	29.0	29.6	30.1	28.3	28.9	28.7	29.3	29.8
	8H	28.8	29.4	29.3	29.8	30.3	28.5	29.1	29.0	29.5	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 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117 Corrected 4481 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.2)

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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

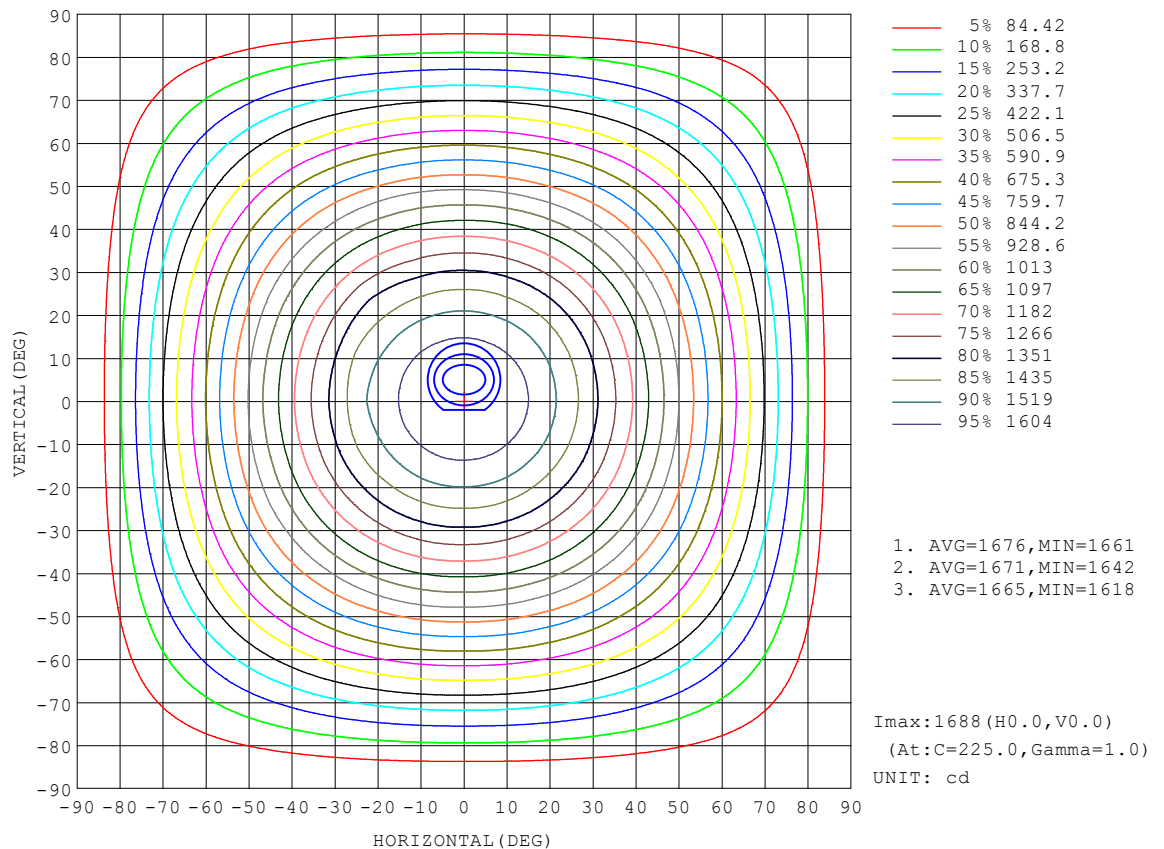
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	58	47	40	57	46	40	33
0.80	68	57	50	67	57	50	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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

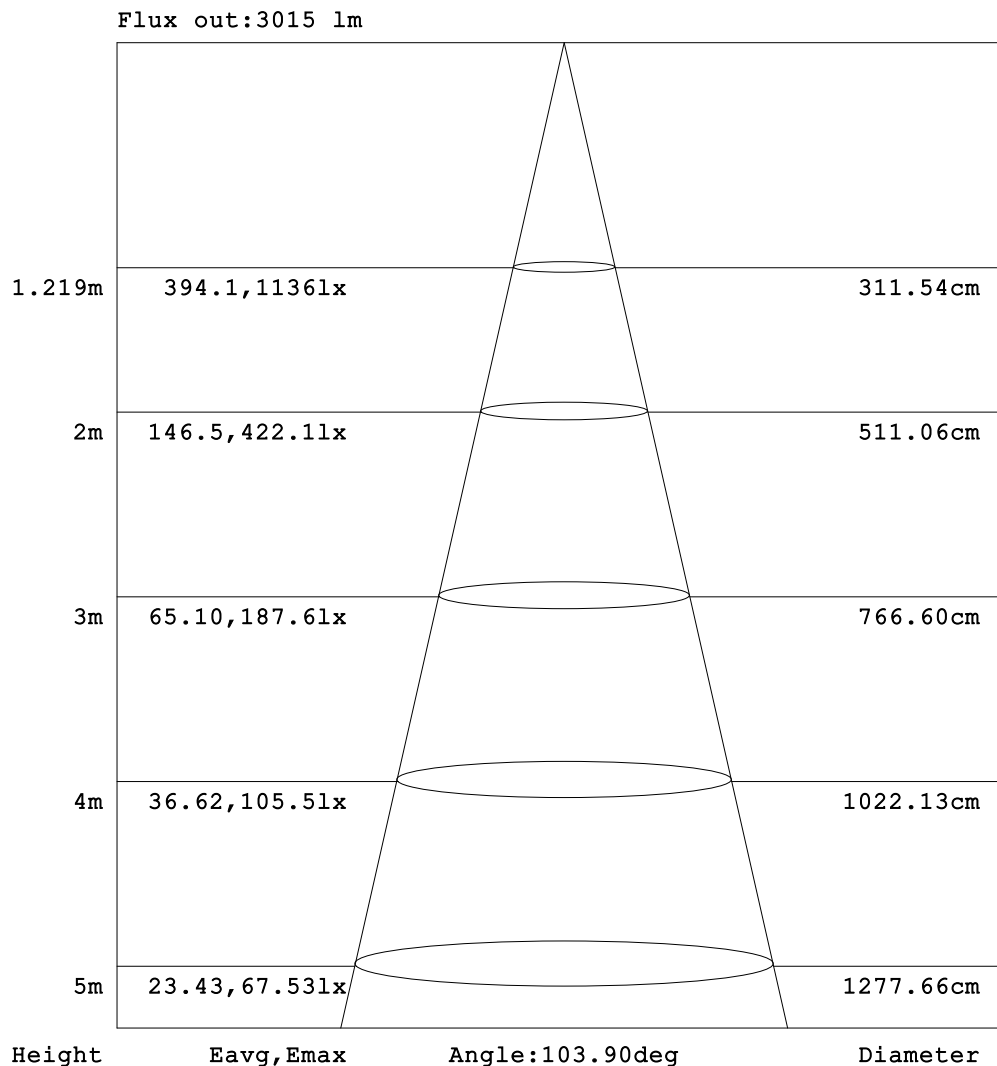


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:18 September 2023

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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_4000K CRI90	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



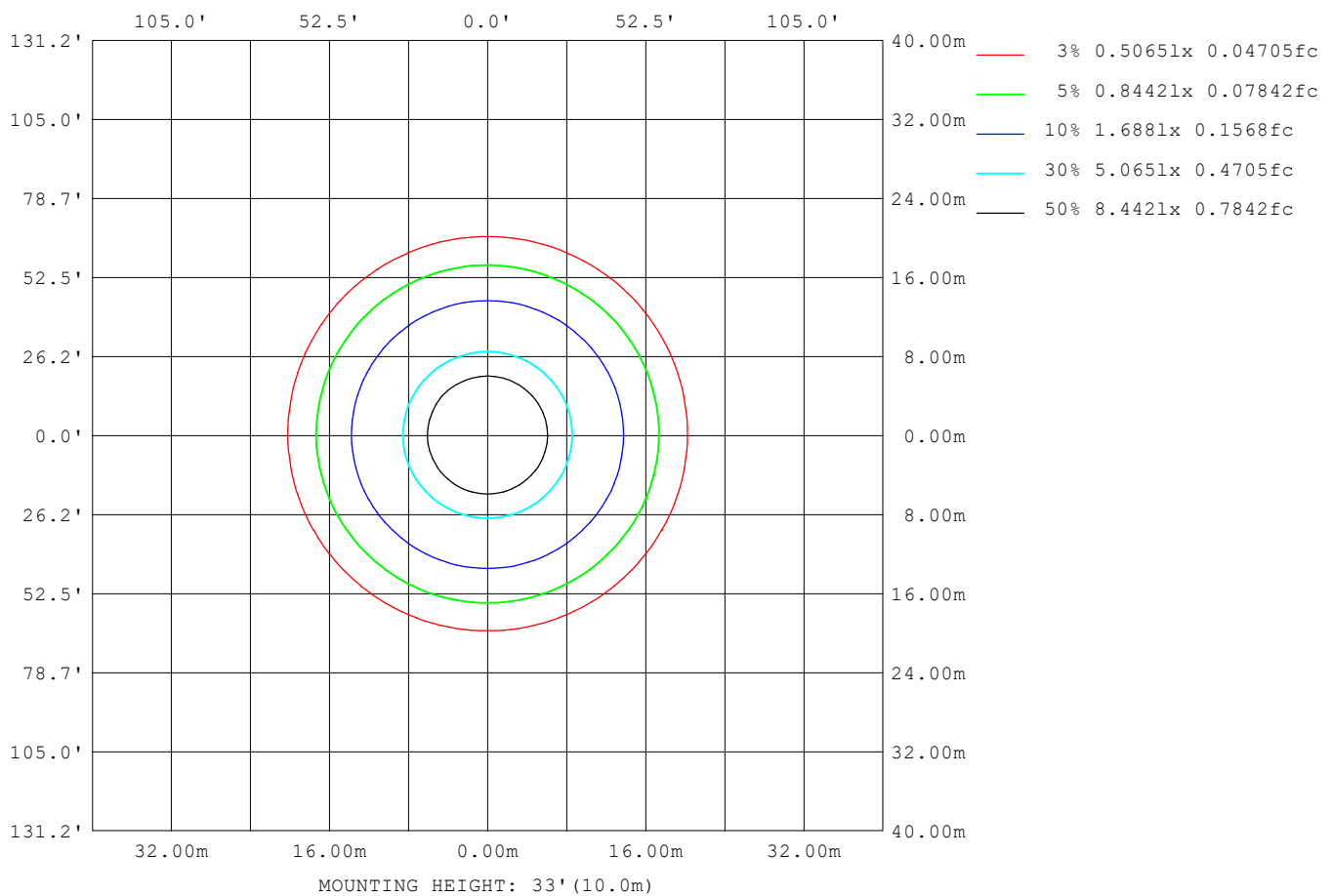
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_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:240.1V I:0.2069A P:48.35W PF:0.9736 Lamp Flux:4481.26x1 lm		
NAME: FLATLINE_1296_SUS_WHT_UPLIGHT_OPAL V_HO_500mA_4000K CRI90		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

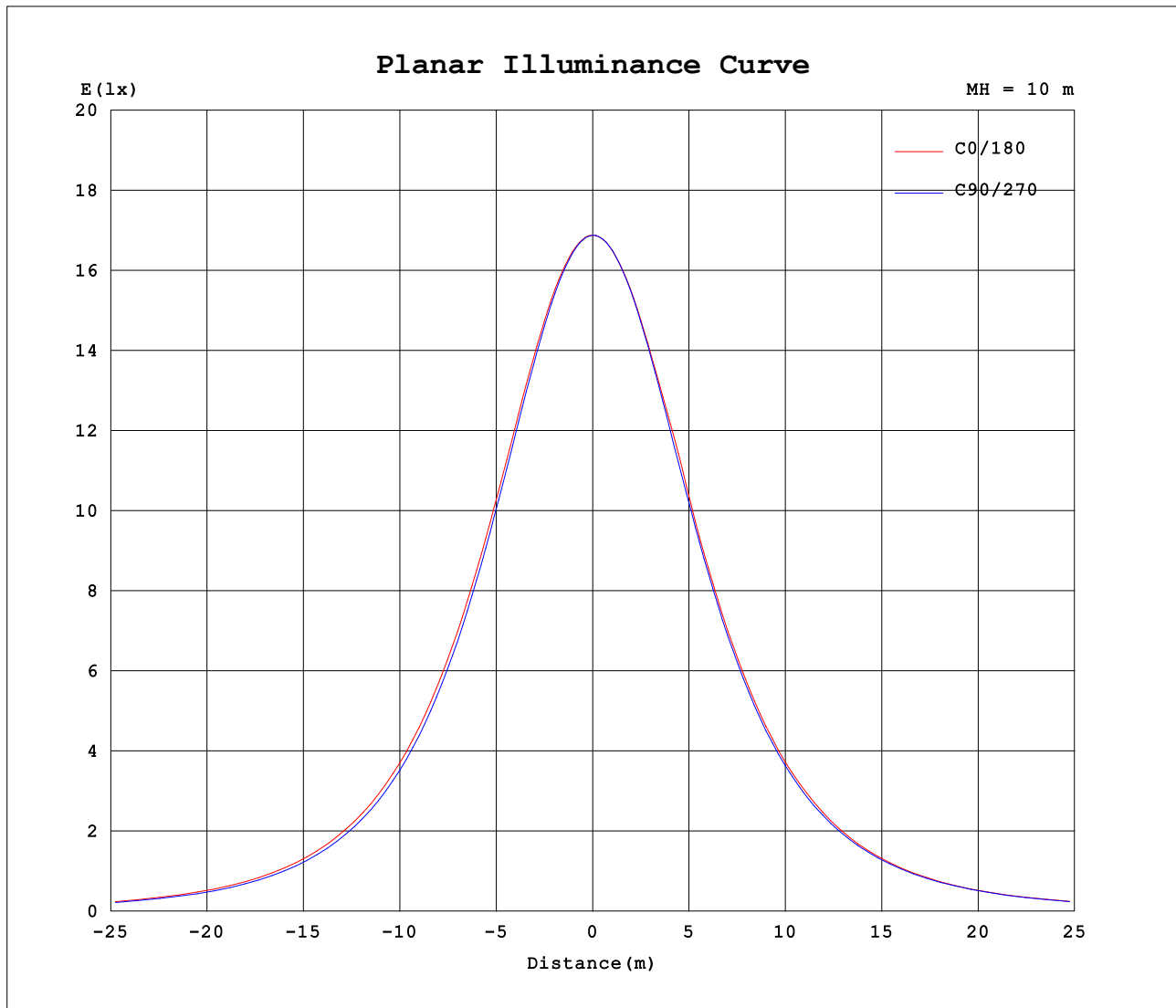
AvgL	cd/m2
L_0~180 (65) av	28918
L_0~180 (75) av	24897
L_0~180 (85) av	15462
L_90~270 (65) av	27556
L_90~270 (75) av	24421
L_90~270 (85) av	19727
L_45 (65) av	28154
L_45 (75) av	24600
L_45 (85) av	18732

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:

