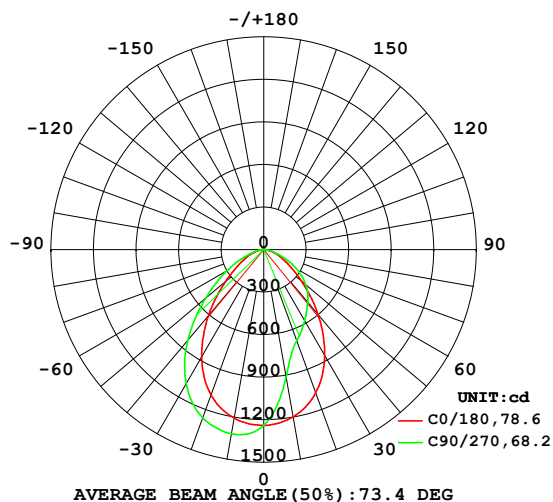


LUMINAIRE PHOTOMETRIC TEST REPORT

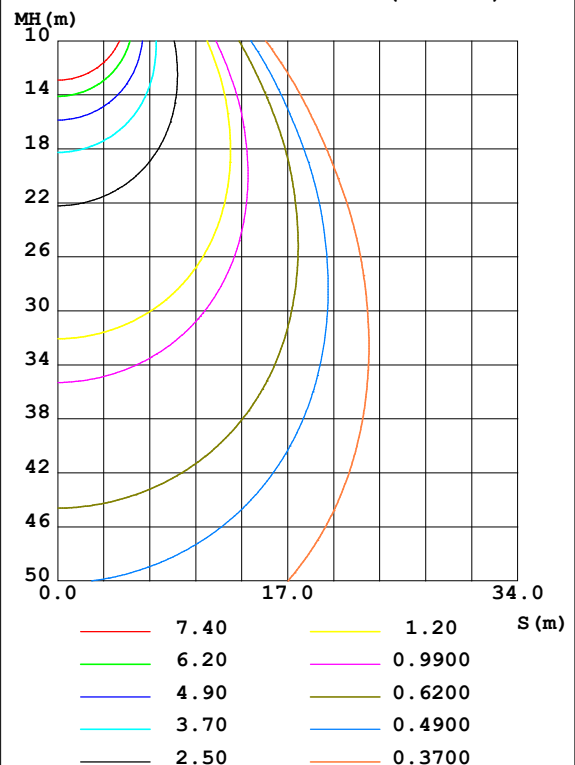
Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.81 lm/W			
LAMP MODEL	1300lm 940 HV ADV5	Imax(cd)	1319	S/MH(C0/180)	1.09
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2439.9	η UP,DN(C0-180)	0.0,39.3
NOMINAL FLUX(lm)	2439.93	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,60.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.15

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:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [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	1198	995.2	913.0	1009	1207	1311	1318	1295	0- 10	114.2	114.2	4.68,4.68
20	1075	727.4	683.6	732.0	1090	1275	1262	1250	10- 20	304.6	418.8	17.2,17.2
30	860.4	614.4	578.0	616.3	876.1	1163	1094	1133	20- 30	433.0	851.8	34.9,34.9
40	595.8	506.9	483.5	510.5	606.3	964.6	833.4	934.3	30- 40	485.9	1338	54.8,54.8
50	351.0	379.4	388.2	382.6	355.1	687.9	537.6	663.5	40- 50	450.7	1788	73.3,73.3
60	188.7	247.8	262.3	251.3	188.3	400.6	300.7	386.4	50- 60	342.0	2130	87.3,87.3
70	97.24	120.4	127.5	123.4	96.43	181.2	131.8	174.5	60- 70	206.3	2337	95.8,95.8
80	30.81	34.00	36.99	35.30	29.90	51.04	40.40	48.88	70- 80	86.06	2423	99.3,99.3
90	0.8409	1.406	1.576	1.269	0.5886	1.973	2.289	1.897	80- 90	17.12	2440	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): 1573 lm

%lum = 64.5%

%lamp = 64.5%

Conical surface Flux(120deg): 2130.4 lm

%lum = 87.3%

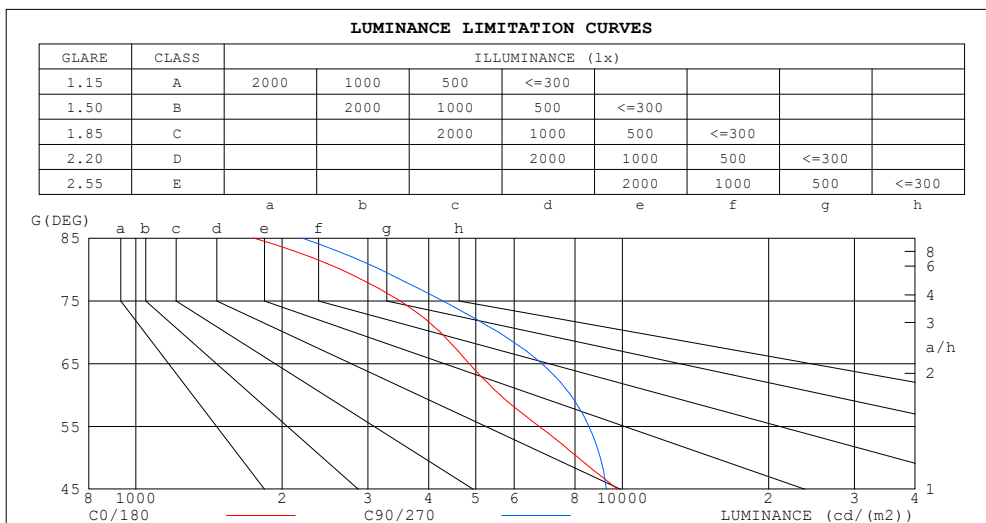
%lamp = 87.3%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1744	2193
80	2637	3180
75	3490	4271
70	4226	5564
65	4846	6831
60	5608	7832
55	6743	8541
50	8115	9016
45	9787	9283

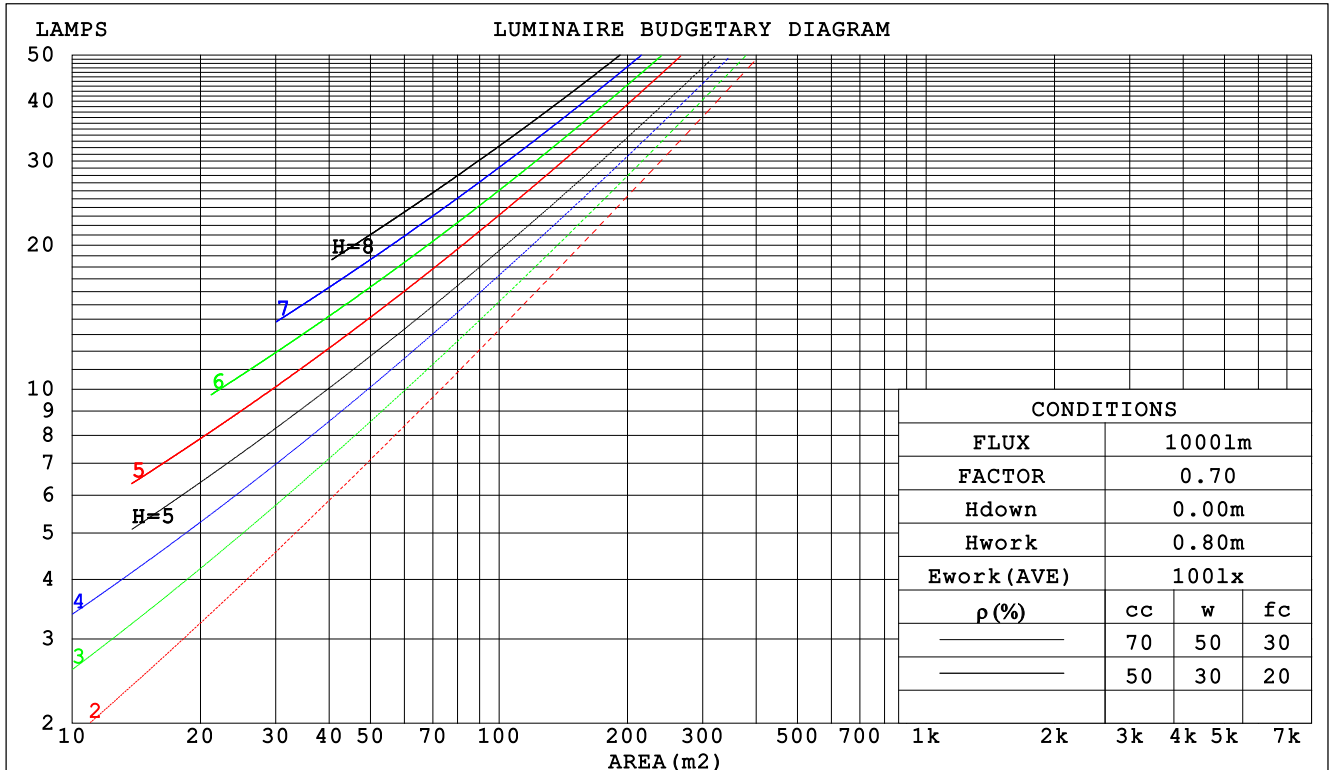
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED		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	1.06	1.03	.99	1.04	1.01	.98	.90	.97	.95	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.70	.80	.74	.69	.77	.72	.68	.75	.70	.67	.65
4.0	.75	.67	.61	.74	.67	.61	.72	.65	.60	.69	.64	.59	.67	.63	.59	.57
5.0	.68	.60	.54	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.53	.48	.61	.53	.47	.59	.52	.47	.57	.51	.47	.56	.50	.46	.44
7.0	.56	.48	.42	.56	.48	.42	.54	.47	.42	.53	.46	.42	.51	.46	.41	.40
8.0	.52	.44	.38	.51	.43	.38	.50	.43	.38	.49	.42	.38	.47	.42	.38	.36
9.0	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32
10.0	.44	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.41	.35	.31	.30



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE: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	.264	.150	.048	.257	.147	.047	.244	.140	.045	.232	.134	.043	.221	.128	.041		
2.0	.254	.139	.043	.248	.137	.042	.237	.132	.041	.226	.127	.040	.217	.123	.039		
3.0	.240	.128	.038	.234	.126	.038	.224	.122	.037	.215	.118	.036	.207	.114	.035		
4.0	.224	.117	.034	.220	.115	.034	.211	.112	.033	.203	.109	.033	.195	.106	.032		
5.0	.210	.107	.031	.206	.106	.031	.198	.103	.030	.191	.101	.030	.184	.098	.030		
6.0	.197	.099	.028	.193	.097	.028	.186	.095	.028	.179	.093	.027	.173	.091	.027		
7.0	.184	.091	.026	.181	.090	.026	.175	.088	.025	.169	.087	.025	.164	.085	.025		
8.0	.173	.085	.024	.171	.084	.024	.165	.082	.024	.160	.081	.023	.155	.079	.023		
9.0	.163	.079	.022	.161	.078	.022	.156	.077	.022	.151	.076	.022	.147	.075	.022		
10.0	.154	.074	.021	.152	.073	.020	.148	.072	.020	.143	.071	.020	.139	.070	.020		

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	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.022	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.031	.077	.045	.022	.045	.027	.013	.015	.009	.004	
8.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.026	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.008	.003	
10.0	.113	.059	.023	.097	.051	.020	.068	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm										
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE: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	18.5	19.9	18.7	20.1	20.3	19.0	20.4	19.3	20.6	20.8
3H	19.3	20.6	19.6	20.8	21.0	20.0	21.3	20.3	21.5	21.8
4H	19.5	20.7	19.8	21.0	21.2	20.3	21.5	20.6	21.8	22.0
6H	19.6	20.8	20.0	21.0	21.3	20.4	21.6	20.8	21.8	22.1
8H	19.6	20.7	20.0	21.0	21.3	20.4	21.5	20.8	21.8	22.1
12H	19.6	20.7	20.0	21.0	21.2	20.4	21.5	20.8	21.8	22.1
4H 2H	19.0	20.2	19.3	20.5	20.7	19.4	20.7	19.8	20.9	21.1
3H	20.0	21.0	20.3	21.3	21.6	20.6	21.6	20.9	21.9	22.2
4H	20.3	21.3	20.7	21.6	21.9	20.9	21.9	21.3	22.2	22.5
6H	20.5	21.3	20.9	21.7	22.0	21.1	22.0	21.5	22.3	22.7
8H	20.5	21.3	20.9	21.7	22.0	21.2	22.0	21.6	22.3	22.7
12H	20.5	21.2	20.9	21.6	22.0	21.2	21.9	21.6	22.3	22.7
8H 4H	20.4	21.2	20.8	21.6	21.9	21.0	21.8	21.4	22.2	22.5
6H	20.7	21.3	21.1	21.7	22.1	21.3	21.9	21.7	22.3	22.7
8H	20.7	21.3	21.2	21.7	22.2	21.4	21.9	21.8	22.3	22.8
12H	20.8	21.3	21.2	21.7	22.2	21.4	21.9	21.9	22.3	22.8
12H 4H	20.4	21.1	20.8	21.5	21.9	21.0	21.7	21.4	22.1	22.5
6H	20.7	21.2	21.1	21.7	22.1	21.3	21.8	21.7	22.3	22.7
8H	20.8	21.2	21.2	21.7	22.2	21.4	21.9	21.8	22.3	22.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.5					+ 0.3 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.4 / - 1.2					+ 0.5 / - 0.5				

CIE Pub.117 Corrected 2440 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.1)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

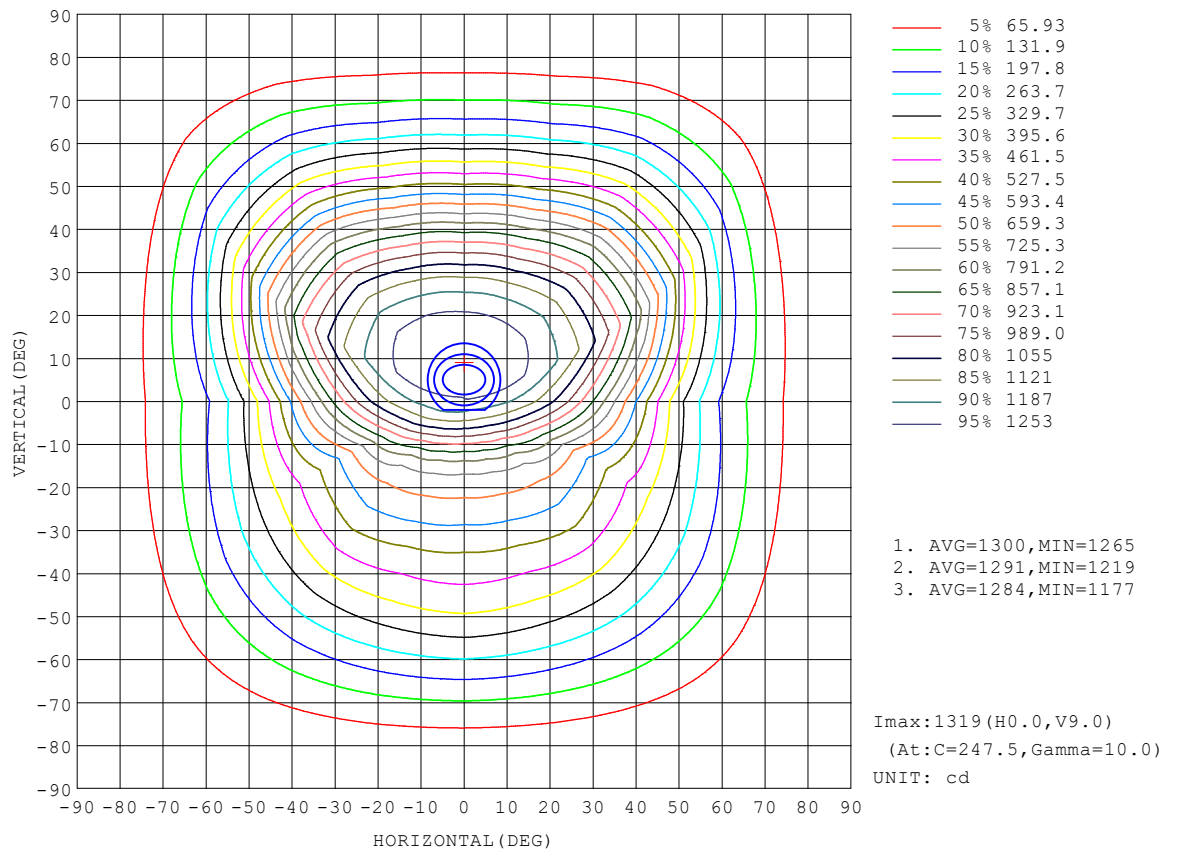
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	53	46	63	52	46	61	52	46	40
0.80	73	63	56	72	63	56	71	62	56	50
1.00	82	72	65	80	71	65	78	72	65	58
1.25	88	79	73	87	78	73	84	77	72	65
1.50	93	84	78	91	84	78	89	82	77	70
2.00	99	92	86	97	90	85	94	88	84	77
2.50	102	96	90	100	94	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	84
4.00	109	104	100	106	102	98	102	99	96	87
5.00	111	106	103	108	105	101	104	101	98	90
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: 23 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 7.995m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

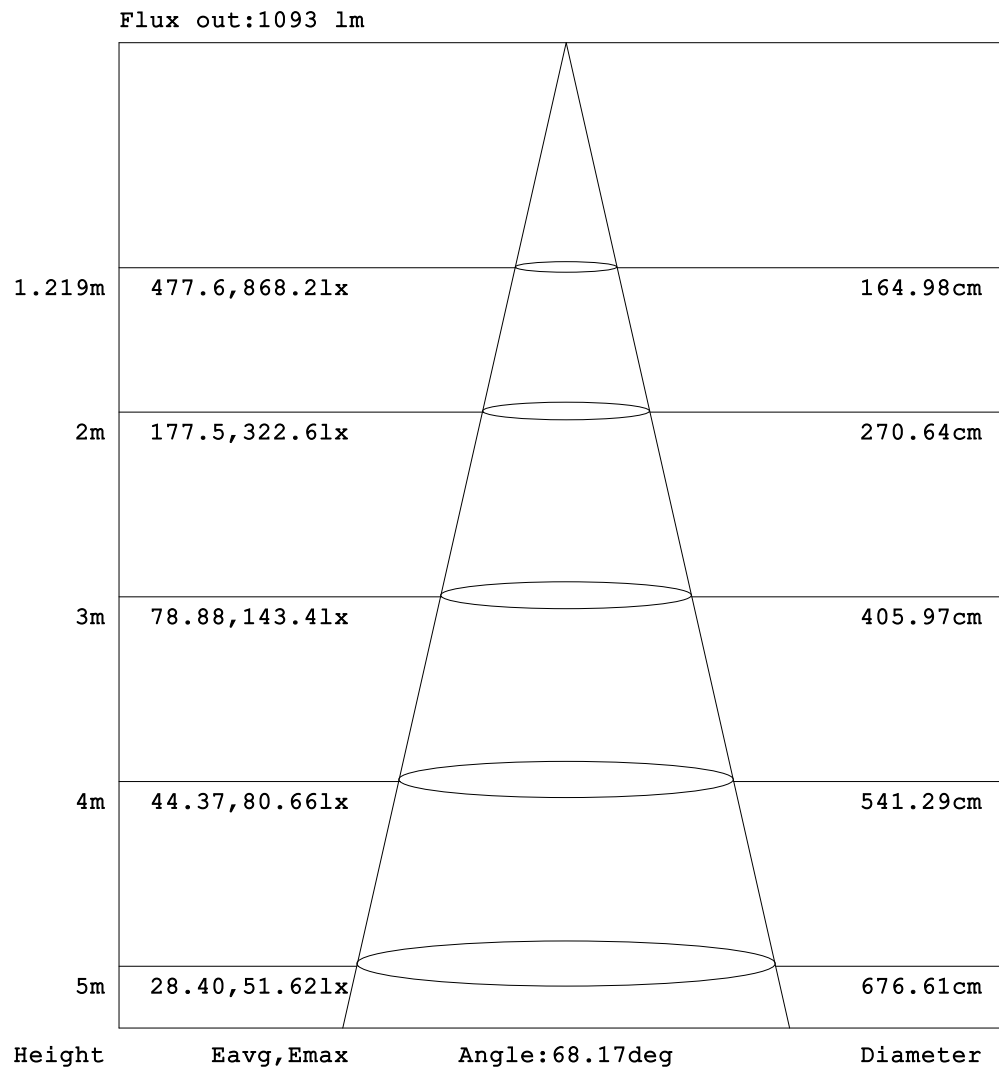


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



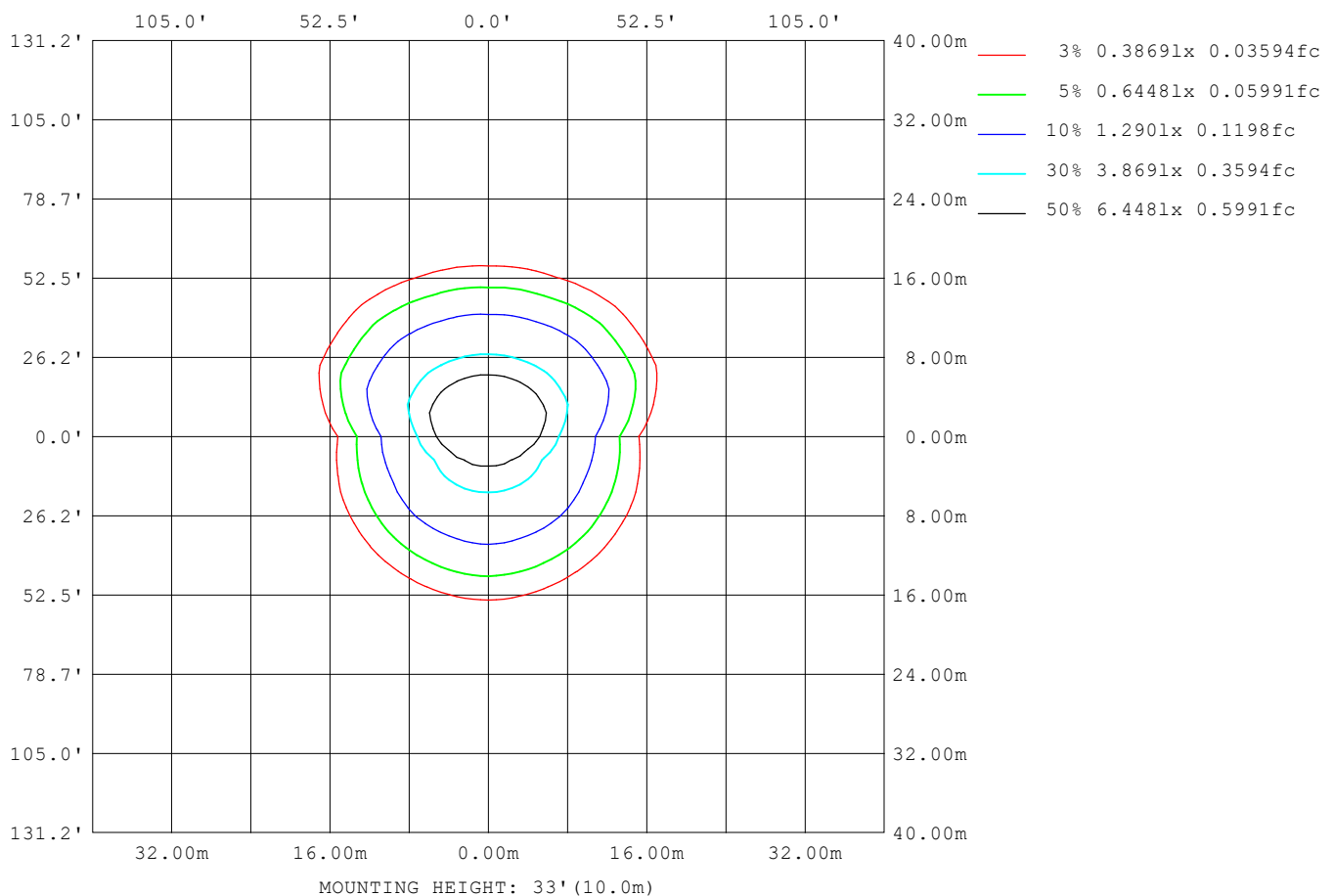
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE: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:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:239.9V I:0.1295A P:25.74W PF:0.8281 Lamp Flux:2439.93x1 lm		
NAME: HIP IP67_1186_NA_WHT_ASY_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

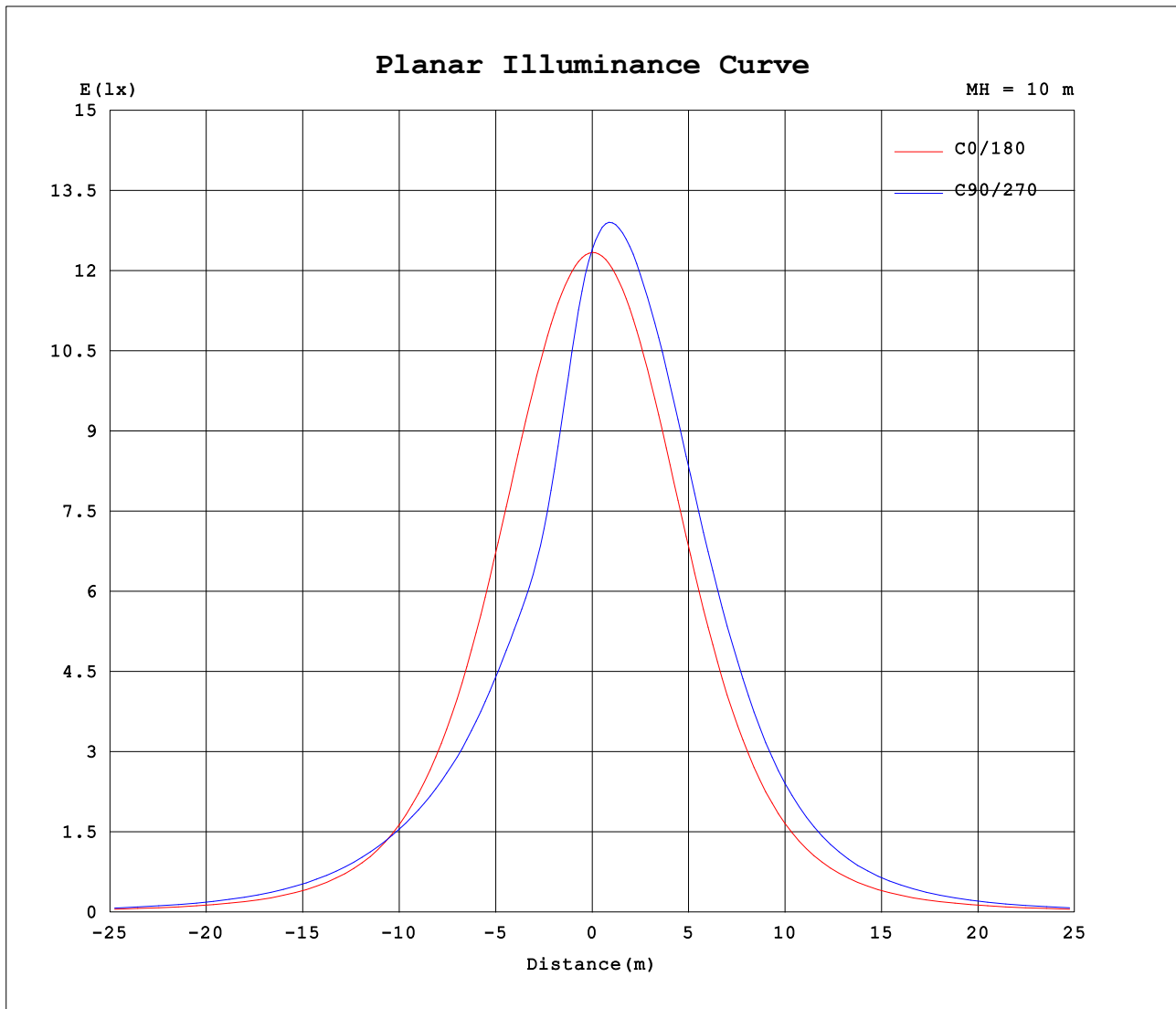
AvgL	cd/m2
L_0~180 (65) av	4854
L_0~180 (75) av	3478
L_0~180 (85) av	1688
L_90~270 (65) av	7071
L_90~270 (75) av	4353
L_90~270 (85) av	2430
L_45 (65) av	8117
L_45 (75) av	4959
L_45 (85) av	2534

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [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: 23 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

