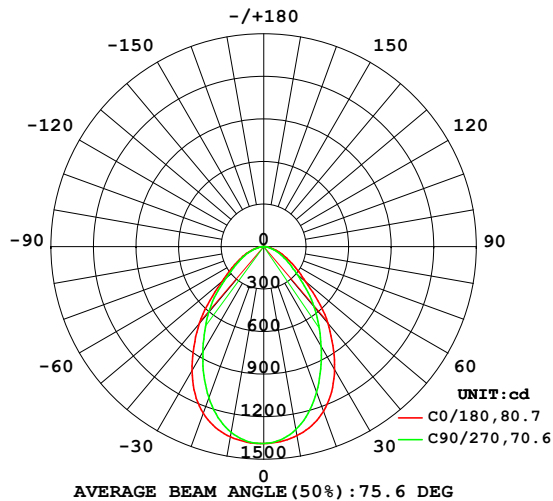


LUMINAIRE PHOTOMETRIC TEST REPORT

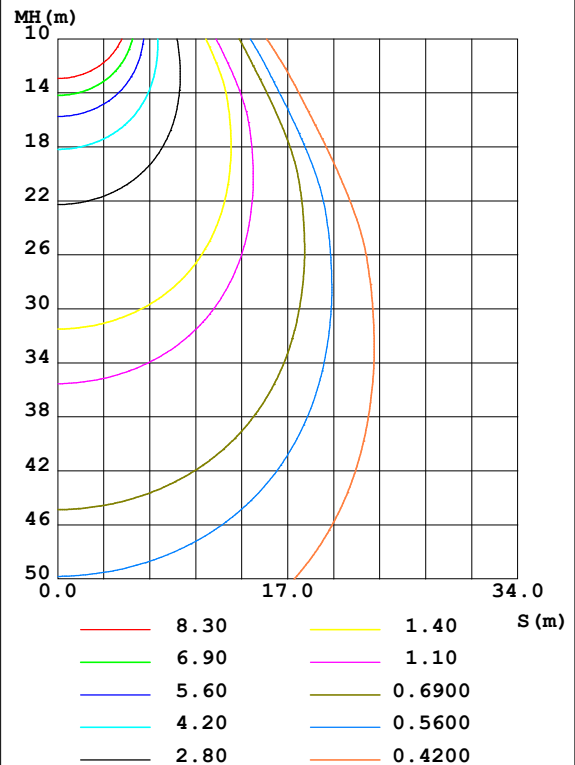
Test:U:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.80 lm/W			
MODEL: 20000mm	1300lm 940 HV ADV5	Imax(cd)	1389	S/MH(C0/180)	1.11
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.99
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2310.1	η UP,DN(C0-180)	0.0,48.9
NOMINAL FLUX(lm)	2310.05	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.1
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	1354	1326	1310	1337	1362	1350	1329	1339	0- 10	130.2	130.2	5.64,5.64
20	1235	1146	1092	1165	1250	1197	1134	1179	10- 20	356.5	486.7	21.1,21.1
30	999.9	878.9	810.5	897.1	1013	937.4	860.2	921.3	20- 30	482.3	969.0	41.9,41.9
40	702.8	604.3	553.6	618.2	706.4	658.5	604.8	647.2	30- 40	483.0	1452	62.9,62.9
50	388.0	341.9	313.3	350.4	385.3	380.8	348.7	373.2	40- 50	380.8	1833	79.3,79.3
60	221.1	190.3	177.5	193.8	215.1	208.5	196.5	205.6	50- 60	243.2	2076	89.9,89.9
70	116.4	99.38	89.68	101.4	113.5	110.9	100.9	108.9	60- 70	149.0	2225	96.3,96.3
80	36.55	31.25	29.02	32.16	34.54	35.80	33.48	34.86	70- 80	70.26	2295	99.4,99.4
90	0.8769	1.219	1.216	1.078	0.6186	1.358	1.613	1.406	80- 90	14.72	2310	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): 1661.9 lm

%lum = 71.9%

%lamp = 71.9%

Conical surface Flux(120deg): 2076.1 lm

%lum = 89.9%

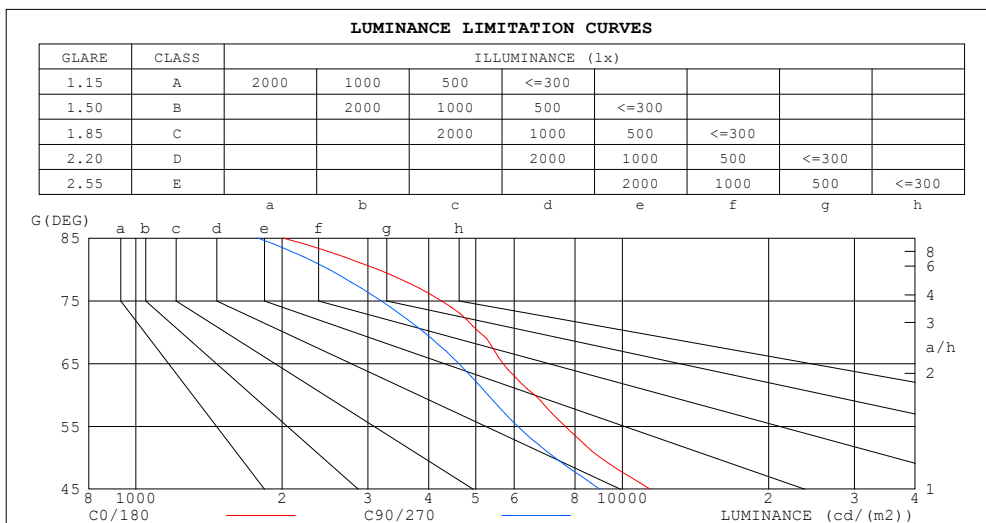
%lamp = 89.9%

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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_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	2006	1779
80	3144	2493
75	4247	3192
70	5083	3913
65	5686	4615
60	6604	5297
55	7634	6099
50	9014	7272
45	11413	8992

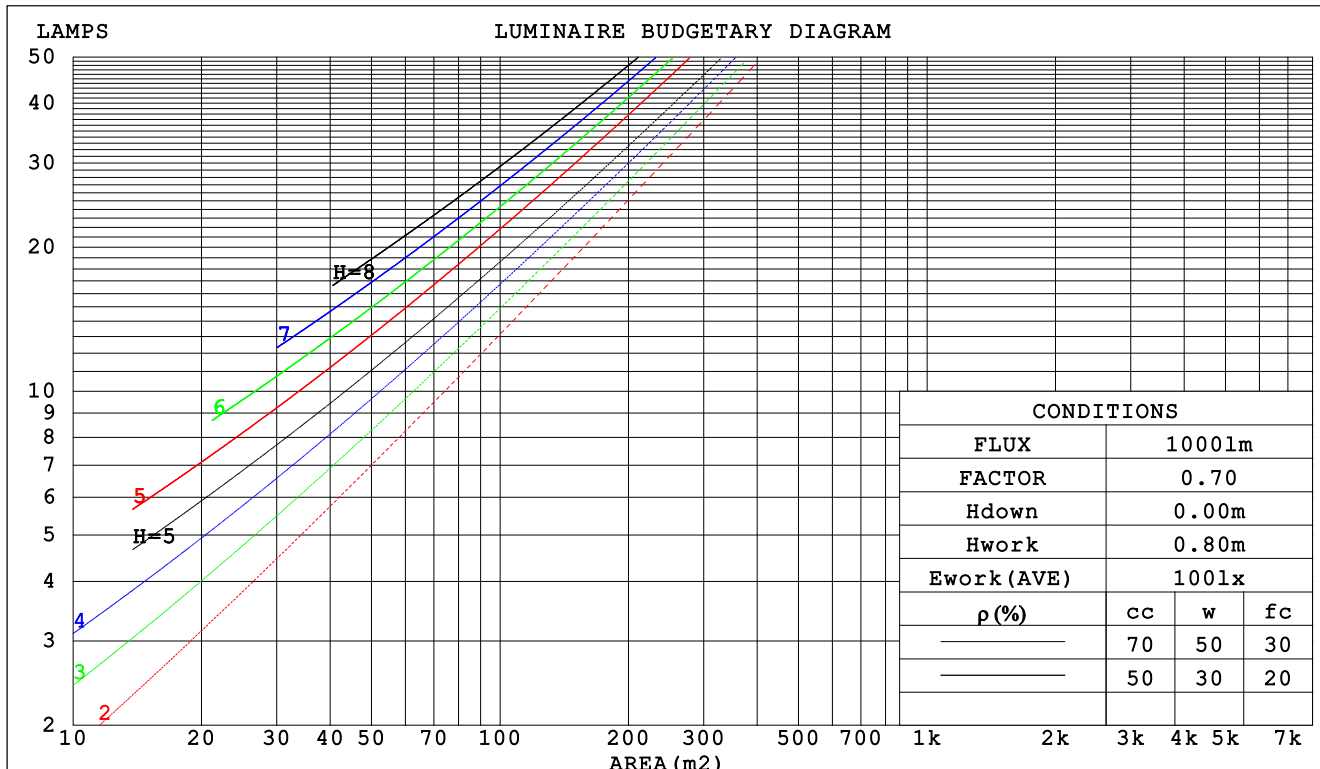
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_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	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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.91	.86	.94	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.79	.77
3.0	.87	.80	.74	.85	.79	.74	.82	.77	.72	.80	.75	.71	.77	.73	.70	.68
4.0	.78	.71	.65	.77	.70	.65	.75	.69	.64	.73	.67	.63	.70	.66	.62	.60
5.0	.71	.64	.58	.70	.63	.58	.68	.62	.57	.66	.61	.56	.65	.60	.56	.54
6.0	.65	.57	.52	.64	.57	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.49
7.0	.60	.52	.47	.59	.52	.47	.58	.51	.46	.56	.51	.46	.55	.50	.46	.44
8.0	.55	.48	.43	.55	.48	.43	.54	.47	.42	.52	.46	.42	.51	.46	.42	.40
9.0	.51	.44	.39	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.42	.38	.37
10.0	.48	.41	.36	.47	.40	.36	.46	.40	.36	.46	.40	.36	.45	.39	.35	.34



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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_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	.247	.141	.045	.240	.137	.044	.227	.130	.042	.215	.124	.040	.204	.118	.038		
2.0	.237	.130	.040	.231	.127	.039	.220	.122	.038	.210	.118	.037	.200	.113	.036		
3.0	.224	.119	.036	.219	.117	.035	.209	.113	.034	.200	.110	.034	.191	.106	.033		
4.0	.210	.109	.032	.206	.108	.032	.197	.104	.031	.189	.102	.031	.182	.099	.030		
5.0	.197	.101	.029	.193	.099	.029	.186	.097	.028	.178	.094	.028	.172	.092	.028		
6.0	.185	.093	.027	.182	.092	.026	.175	.090	.026	.169	.088	.026	.163	.086	.025		
7.0	.174	.086	.024	.171	.085	.024	.165	.084	.024	.160	.082	.024	.154	.080	.024		
8.0	.165	.080	.023	.162	.080	.023	.156	.078	.022	.151	.077	.022	.146	.075	.022		
9.0	.156	.075	.021	.153	.075	.021	.148	.073	.021	.144	.072	.021	.139	.071	.020		
10.0	.147	.071	.020	.145	.070	.020	.141	.069	.019	.137	.068	.019	.133	.067	.019		

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	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.081	.133	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.147	.100	.064	.126	.087	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.109	.064	.032	.075	.045	.023	.044	.026	.013	.014	.009	.004	
8.0	.120	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.013	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.094	.051	.021	.066	.036	.015	.038	.021	.009	.012	.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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm										
NAME: HIP IP67_1186_NA_WHT_C-DG_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	19.0	20.3	19.3	20.5	20.7	18.0	19.3	18.3	19.5	19.7
3H	19.8	21.0	20.1	21.2	21.5	18.8	19.9	19.0	20.2	20.4
4H	20.1	21.2	20.4	21.5	21.7	19.0	20.1	19.3	20.3	20.6
6H	20.3	21.3	20.6	21.6	21.8	19.1	20.2	19.4	20.4	20.7
8H	20.3	21.3	20.6	21.6	21.8	19.1	20.1	19.4	20.4	20.7
12H	20.3	21.2	20.6	21.5	21.8	19.1	20.1	19.4	20.4	20.7
4H 2H	19.2	20.4	19.5	20.6	20.8	18.4	19.5	18.7	19.8	20.0
3H	20.2	21.2	20.5	21.5	21.8	19.3	20.3	19.6	20.5	20.8
4H	20.6	21.5	21.0	21.8	22.1	19.6	20.5	20.0	20.8	21.1
6H	20.8	21.6	21.2	22.0	22.3	19.8	20.6	20.2	20.9	21.3
8H	20.9	21.6	21.3	22.0	22.3	19.8	20.6	20.2	20.9	21.3
12H	20.9	21.5	21.3	21.9	22.3	19.9	20.5	20.3	20.9	21.3
8H 4H	20.6	21.4	21.1	21.7	22.1	19.7	20.4	20.1	20.8	21.2
6H	21.0	21.6	21.4	22.0	22.4	20.0	20.6	20.4	21.0	21.4
8H	21.0	21.6	21.5	22.0	22.4	20.1	20.6	20.5	21.0	21.5
12H	21.1	21.5	21.5	22.0	22.4	20.1	20.6	20.6	21.0	21.5
12H 4H	20.6	21.3	21.0	21.7	22.1	19.7	20.4	20.1	20.7	21.1
6H	20.9	21.5	21.4	21.9	22.3	20.0	20.5	20.5	21.0	21.4
8H	21.0	21.5	21.5	21.9	22.4	20.1	20.6	20.6	21.0	21.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.6 / - 0.7				
1.5H	+ 0.5 / - 0.4					+ 0.4 / - 0.5				
2.0H	+ 1.3 / - 0.9					+ 1.0 / - 0.8				

CIE Pub.117 Corrected 2310 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.9)

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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

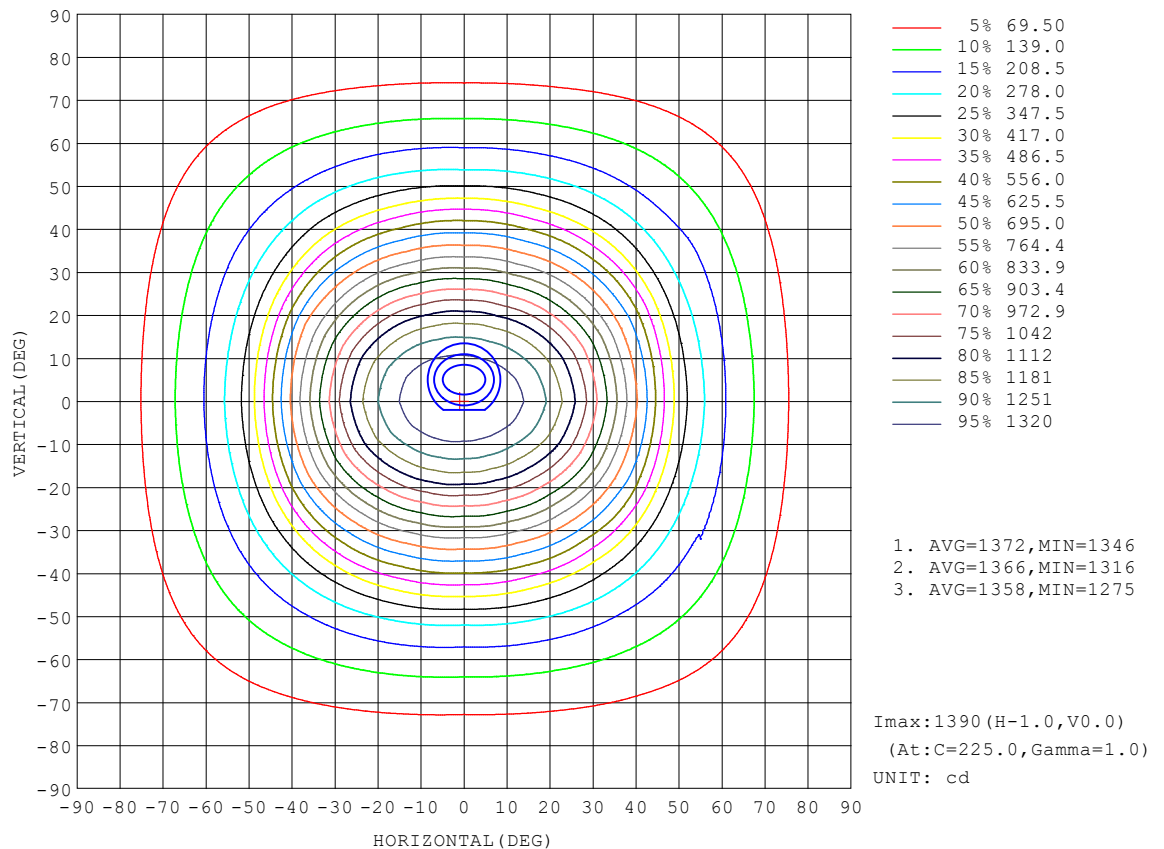
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	59	53	68	58	53	67	58	53	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	85	76	71	84	76	70	82	77	70	64
1.25	91	83	78	90	83	77	88	81	76	70
1.50	96	88	82	94	87	82	91	85	81	75
2.00	101	94	89	99	93	89	96	91	87	80
2.50	104	98	93	102	97	92	99	94	90	83
3.00	106	101	97	104	100	96	101	97	94	86
4.00	110	105	102	107	103	100	103	100	98	89
5.00	111	108	105	109	106	103	105	102	100	91
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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

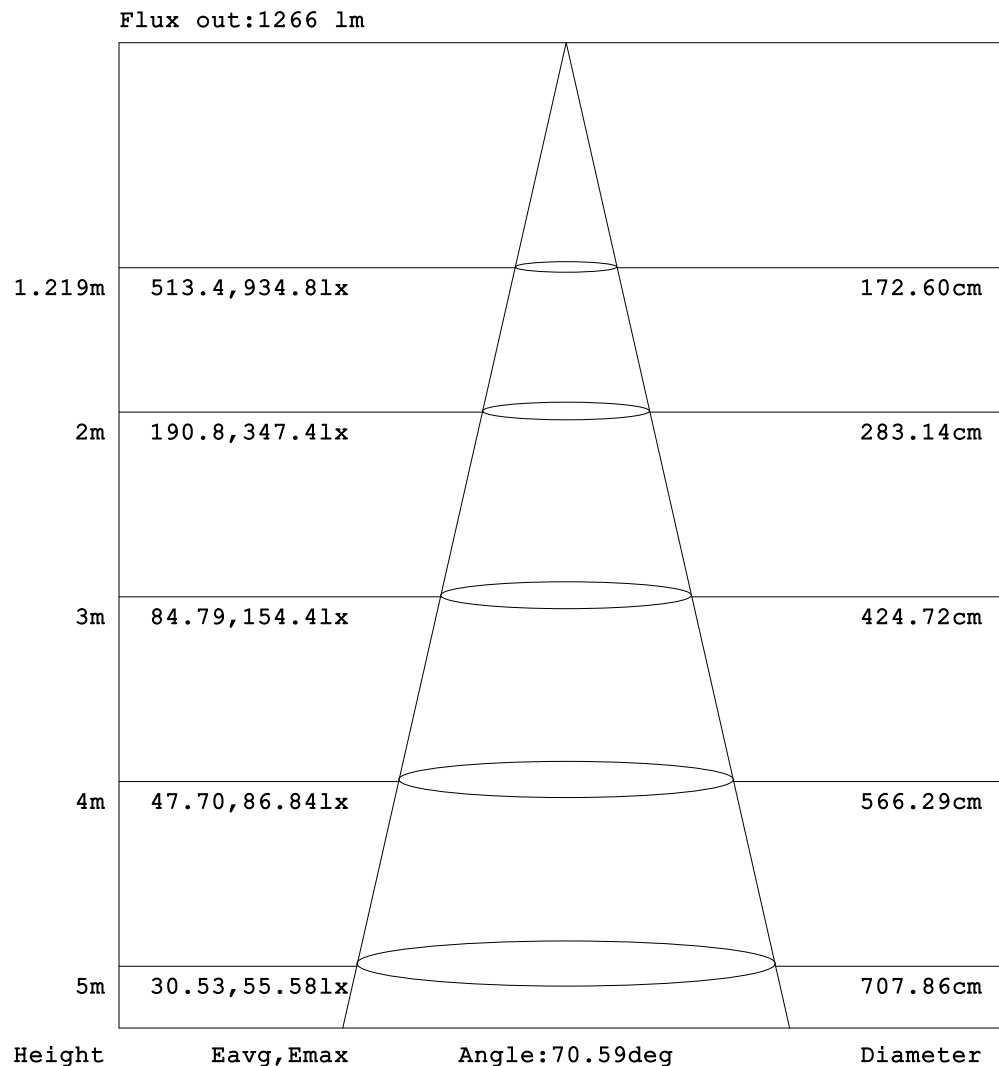


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:23 January 2023

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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



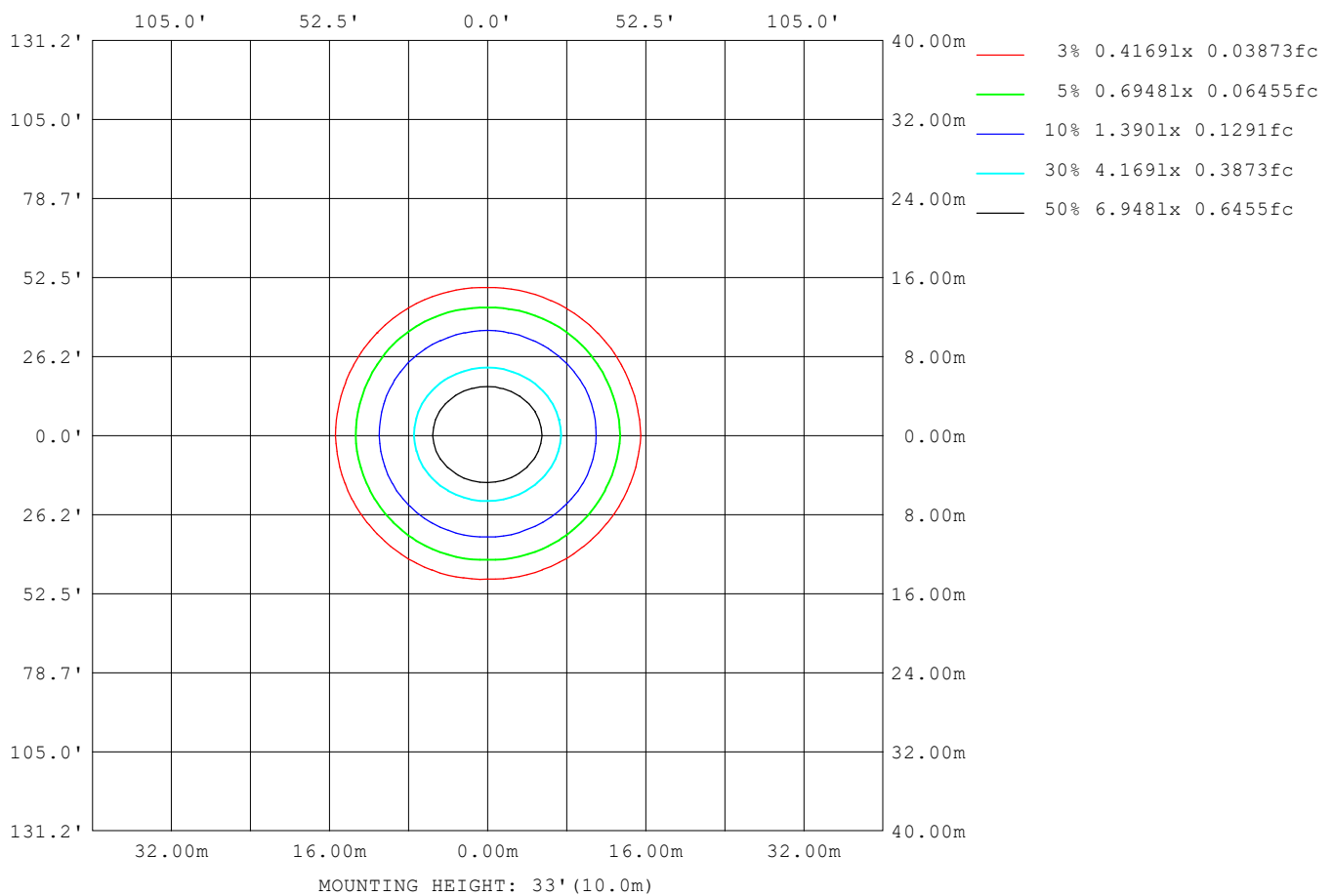
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_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:240.0V I:0.1294A P:25.72W PF:0.8282 Lamp Flux:2310.05x1 lm		
NAME: HIP IP67_1186_NA_WHT_C-DG_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

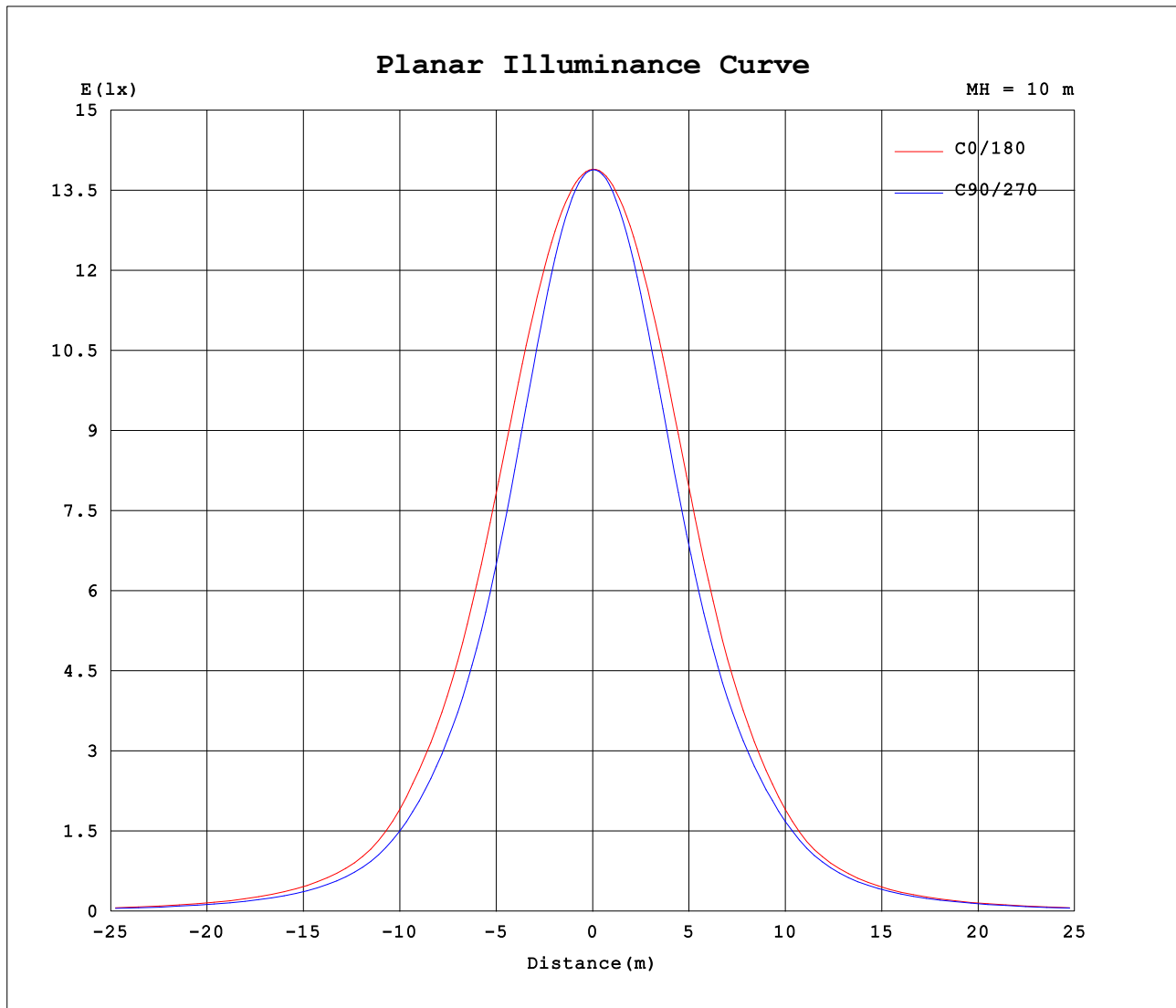
AvgL	cd/m2
L_0~180 (65) av	5657
L_0~180 (75) av	4155
L_0~180 (85) av	1912
L_90~270 (65) av	4871
L_90~270 (75) av	3399
L_90~270 (85) av	1983
L_45 (65) av	5260
L_45 (75) av	3755
L_45 (85) av	2034

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:

