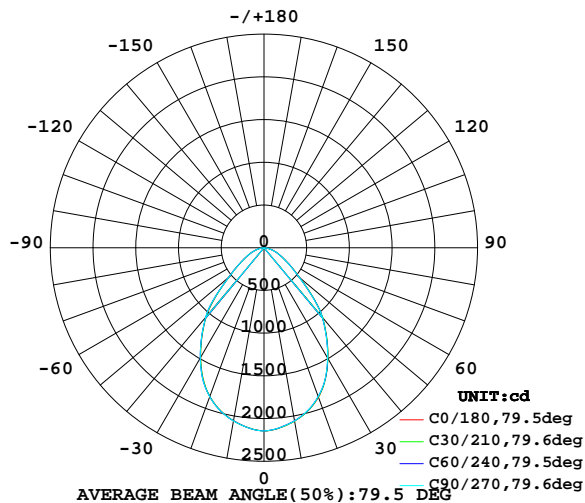


LUMINAIRE PHOTOMETRIC TEST REPORT

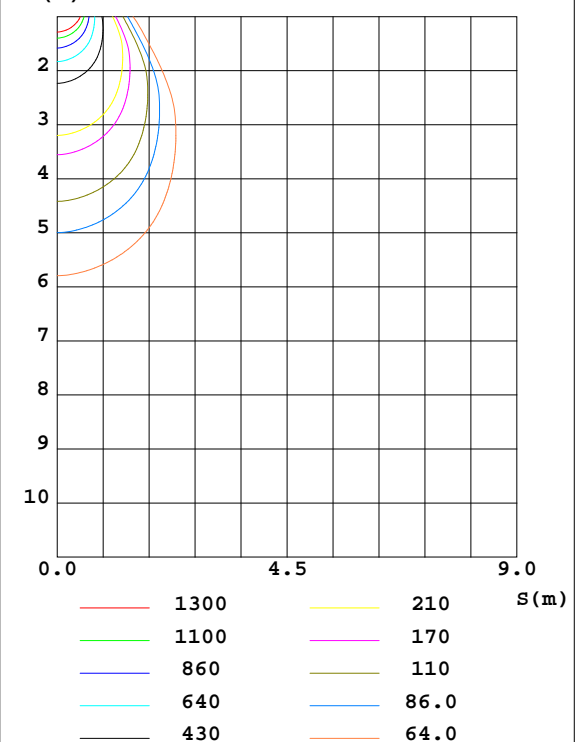
Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME: LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 109.32 lm/W			
MODEL	161122	I _{max} (cd)	2144	S/MH(C0/180)	1.08
NOMINAL POWER(W)	35	LOR(%)	100.0	S/MH(C90/270)	1.07
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	3607.6	η UP,DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	3607.56	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	240.7	η down(%)	100.0	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



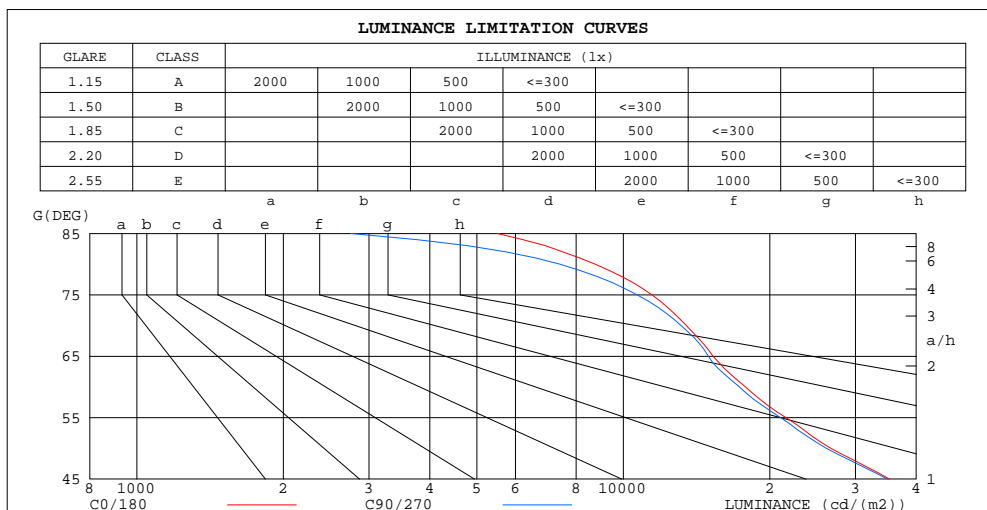
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-10-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	2061	2058	2058	2055	2056	2057	2059	2061	0- 10	200.1	200.1	5.55,5.55
20	1863	1857	1855	1854	1855	1853	1856	1865	10- 20	555.2	755.3	20.9,20.9
30	1494	1494	1489	1482	1484	1488	1491	1498	20- 30	775.8	1531	42.4,42.4
40	1066	1066	1064	1054	1055	1059	1065	1070	30- 40	794.9	2326	64.5,64.5
50	548.9	543.2	537.8	535.1	539.3	537.1	538.8	548.3	40- 50	611.4	2937	81.4,81.4
60	284.9	281.0	277.1	276.2	278.7	277.6	277.9	282.5	50- 60	352.2	3290	91.2,91.2
70	147.3	146.1	143.9	143.1	143.5	142.6	142.9	146.4	60- 70	203.6	3493	96.8,96.8
80	48.57	45.28	41.14	43.16	45.82	44.43	43.28	47.29	70- 80	97.46	3591	99.5,99.5
90	0.8216	0.7840	0.7663	0.7952	0.7373	0.7347	0.7874	0.7635	80- 90	16.98	3608	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		



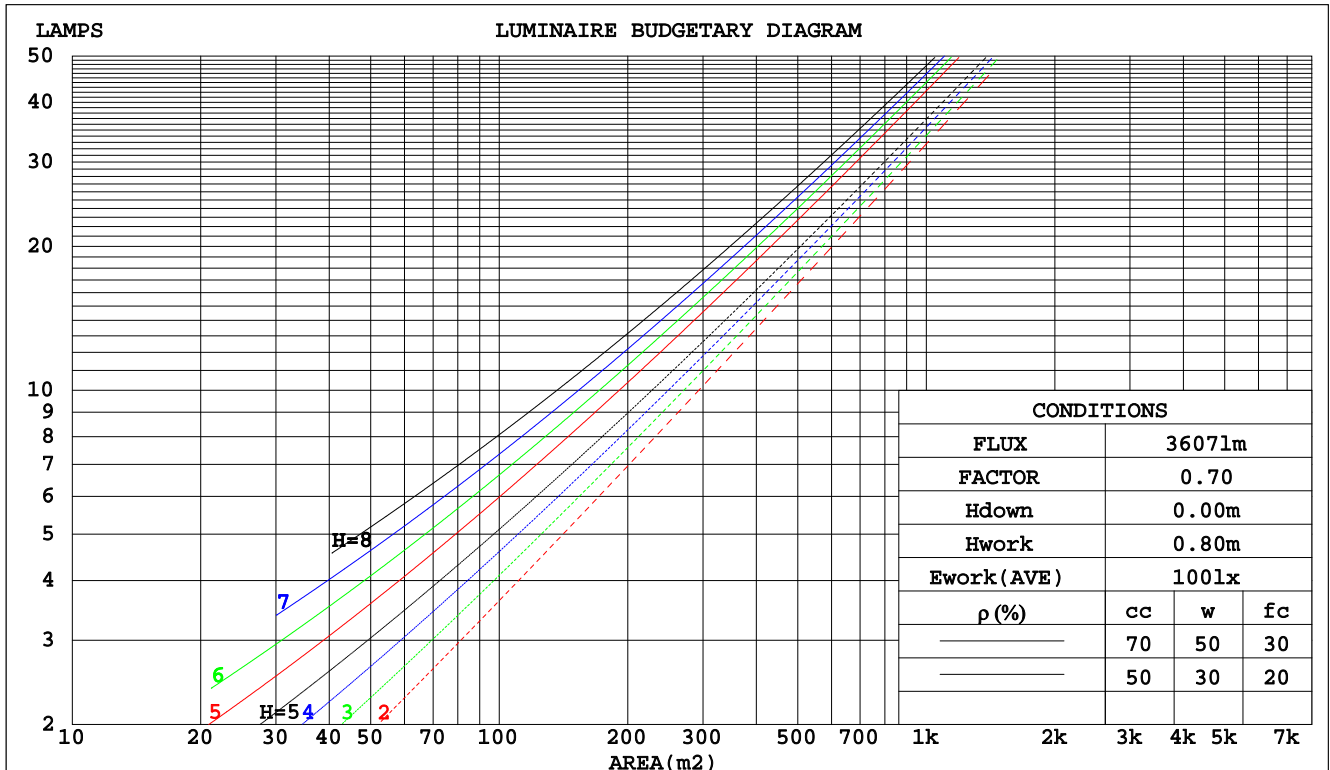
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2020-10-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 10.237m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME: LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION 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															



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm					
NAME: LPA-DR-HAL10-35-857-90D-C3			TYPE:35W		WEIGHT:
DIM.:			SPEC.:5700K		SERIAL No.:1
MFR.:			SUR.:0.101		PROTECTION 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	.241	.137	.043	.234	.134	.042	.221	.127	.041	.209	.121	.039	.198	.115	.037		
2.0	.233	.127	.039	.227	.125	.038	.215	.120	.037	.205	.115	.036	.196	.111	.035		
3.0	.220	.117	.035	.215	.115	.035	.205	.111	.034	.196	.107	.033	.188	.104	.032		
4.0	.207	.108	.032	.202	.106	.031	.194	.103	.031	.186	.100	.030	.179	.097	.030		
5.0	.195	.099	.029	.191	.098	.029	.183	.095	.028	.176	.093	.028	.169	.091	.027		
6.0	.183	.092	.026	.180	.091	.026	.173	.089	.026	.167	.087	.025	.161	.085	.025		
7.0	.173	.085	.024	.170	.085	.024	.164	.083	.024	.158	.081	.024	.153	.079	.023		
8.0	.163	.080	.022	.160	.079	.022	.155	.077	.022	.150	.076	.022	.145	.075	.022		
9.0	.155	.075	.021	.152	.074	.021	.147	.073	.021	.143	.071	.020	.138	.070	.020		
10.0	.147	.070	.020	.144	.070	.019	.140	.069	.019	.136	.067	.019	.132	.066	.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	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.071	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.126	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.119	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.108	.064	.032	.075	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.120	.067	.032	.103	.059	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.114	.062	.027	.098	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm											
NAME: LPA-DR-HAL10-35-857-90D-C3					TYPE:35W			WEIGHT:			
DIM.:					SPEC.:5700K			SERIAL No.:1			
MFR.:					SUR.:0.101			PROTECTION 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	22.7	24.0	23.0	24.2	24.4	22.6	23.9	22.9	24.1	24.3
	3H	23.3	24.5	23.6	24.7	24.9	23.2	24.4	23.5	24.6	24.9
	4H	23.6	24.7	23.9	24.9	25.2	23.5	24.6	23.8	24.8	25.0
	6H	23.7	24.7	24.0	25.0	25.2	23.5	24.6	23.9	24.8	25.1
	8H	23.7	24.7	24.0	25.0	25.2	23.5	24.5	23.9	24.8	25.1
	12H	23.7	24.6	24.0	24.9	25.2	23.5	24.5	23.8	24.7	25.0
4H	2H	22.9	24.0	23.2	24.3	24.5	22.8	24.0	23.1	24.2	24.4
	3H	23.7	24.7	24.1	25.0	25.2	23.6	24.6	24.0	24.9	25.2
	4H	24.0	24.9	24.4	25.2	25.6	23.9	24.8	24.3	25.1	25.4
	6H	24.3	25.0	24.6	25.4	25.7	24.1	24.9	24.5	25.2	25.6
	8H	24.3	25.0	24.7	25.4	25.7	24.1	24.8	24.5	25.2	25.6
	12H	24.3	24.9	24.7	25.3	25.7	24.1	24.7	24.5	25.1	25.5
8H	4H	24.1	24.8	24.5	25.2	25.6	24.0	24.7	24.4	25.1	25.5
	6H	24.4	25.0	24.8	25.4	25.8	24.2	24.8	24.7	25.2	25.6
	8H	24.5	25.0	24.9	25.4	25.9	24.3	24.8	24.7	25.2	25.7
	12H	24.5	24.9	25.0	25.4	25.9	24.3	24.7	24.7	25.2	25.6
12H	4H	24.1	24.7	24.5	25.1	25.5	24.0	24.6	24.4	25.0	25.4
	6H	24.4	24.9	24.8	25.3	25.8	24.2	24.8	24.7	25.2	25.6
	8H	24.5	24.9	24.9	25.4	25.8	24.3	24.7	24.8	25.2	25.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.7 / - 0.9					+ 0.8 / - 0.9					
1.5H	+ 0.6 / - 0.6					+ 0.7 / - 0.6					
2.0H	+ 1.6 / - 1.0					+ 1.6 / - 1.0					

CIE Pub.117 Corrected 3608 lm Total Lamp Luminous Flux.(8log(F/F0) = 4.5)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME: LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION ANGLE:

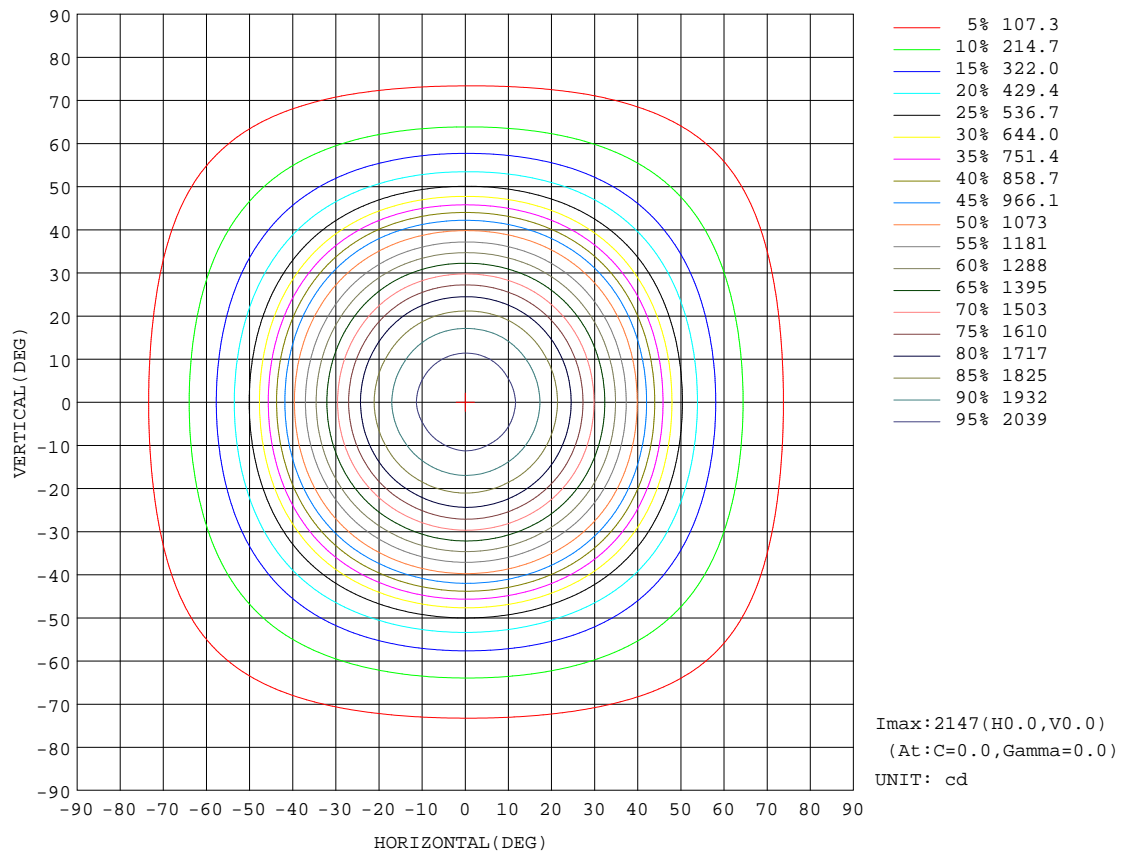
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	69	60	54	69	60	54	68	59	54	48
0.80	79	70	64	78	69	64	76	68	63	58
1.00	86	78	72	85	77	72	83	78	71	65
1.25	92	84	79	91	84	78	89	82	78	72
1.50	96	89	84	95	88	83	92	86	82	76
2.00	102	95	90	100	94	90	97	92	88	81
2.50	104	99	94	103	97	93	99	95	91	84
3.00	107	102	98	105	100	97	101	97	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	109	106	103	105	103	100	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME:LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION ANGLE:



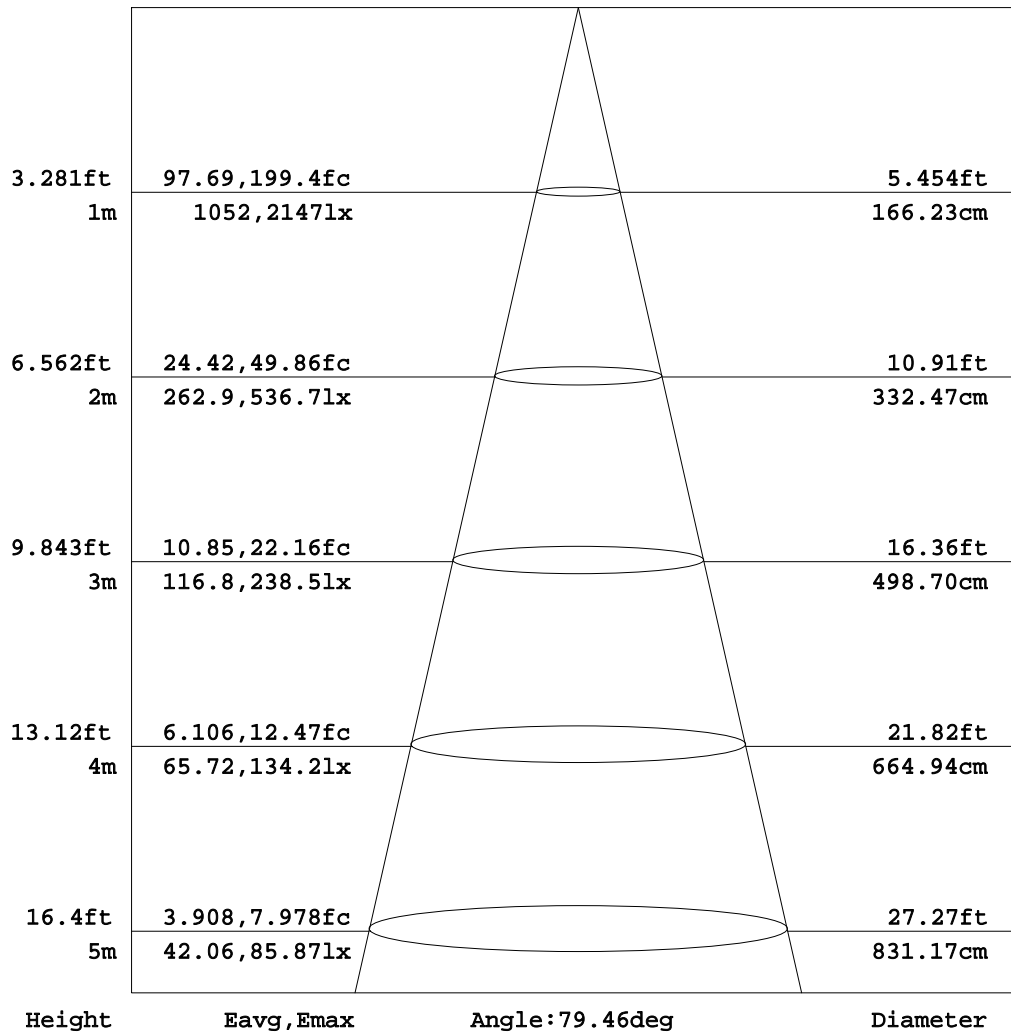
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME: LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION ANGLE:

Flux out:2326 lm



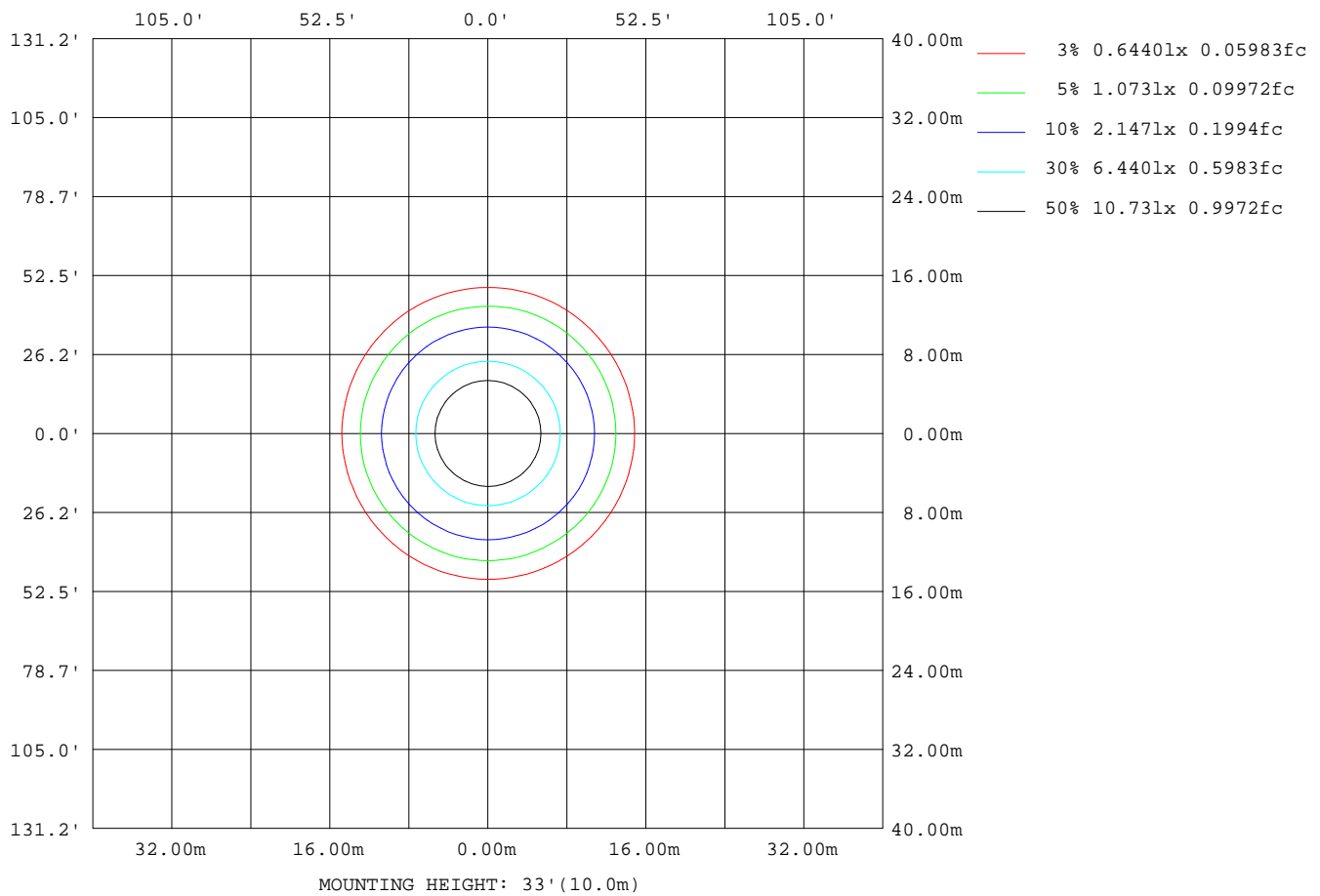
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-10-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 10.237m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

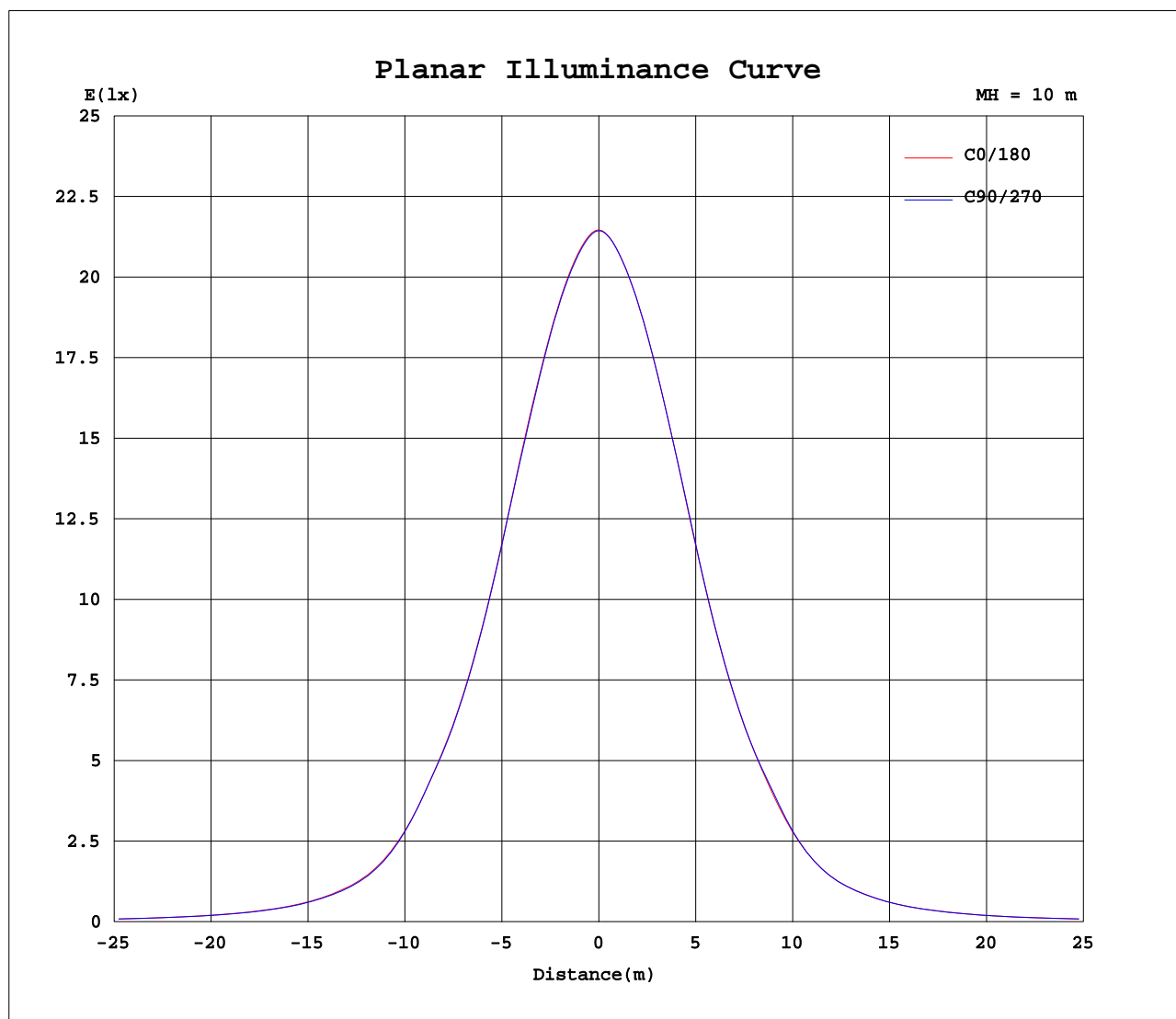
Test:U:240.6V I:0.1450A P:33.00W PF:0.9430 Lamp Flux:3607.56x1 lm		
NAME: LPA-DR-HAL10-35-857-90D-C3	TYPE:35W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.101	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-10-07

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-10-07

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: 65.0%
Test Distance: 10.237m [K=1.0000]
Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

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