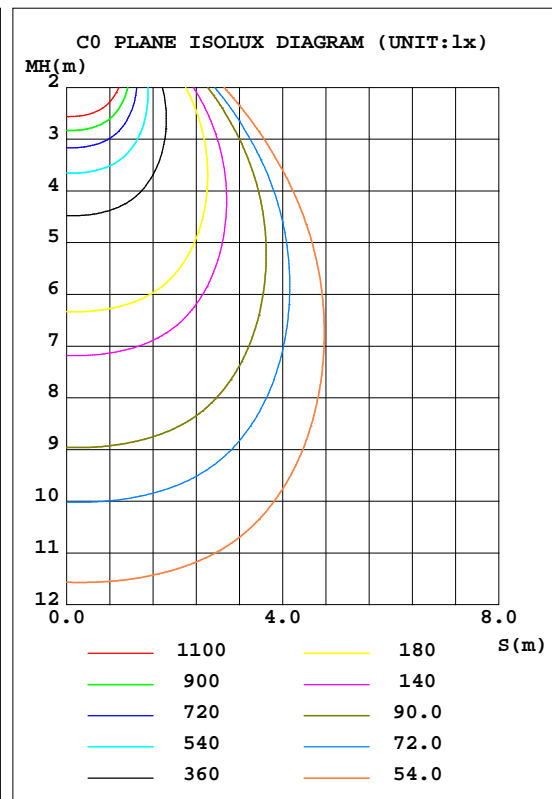
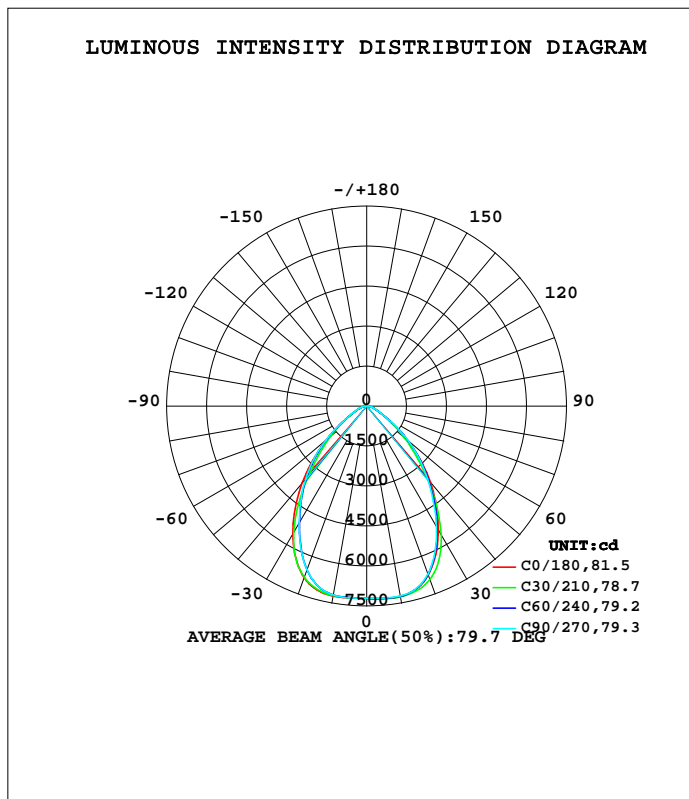


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 124.40 lm/W			
MODEL		I _{max} (cd)	7268	S/MH(C0/180)	1.15
NOMINAL POWER(W)	--	LOR(%)	100.0	S/MH(C90/270)	1.09
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	12378	η UP, DN(C0-180)	0.0, 50.2
NOMINAL FLUX(lm)	12378.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	--	η down(%)	100.0	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

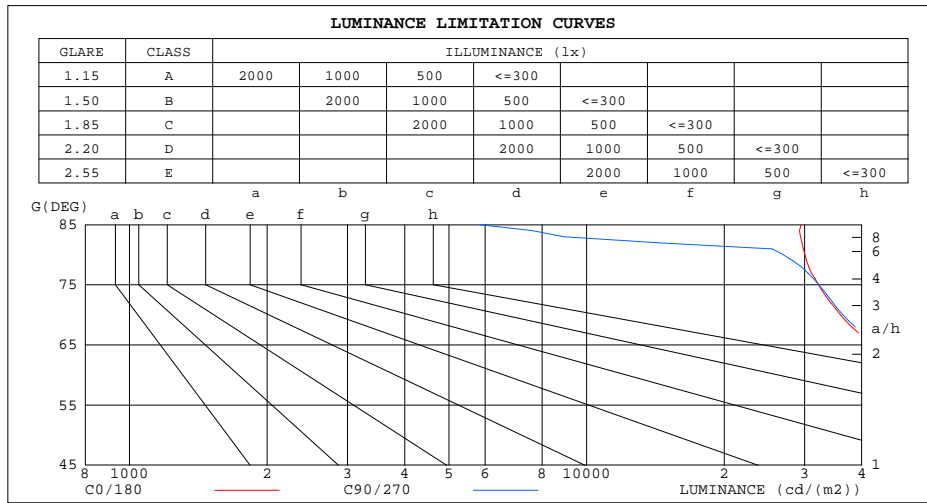
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	7248	7260	7235	7241	7238	7207	7198	7227	0- 10	690.3	690.3	5.58,5.58
20	6746	6858	6711	6876	6855	6698	6547	6816	10- 20	1997	2687	21.7,21.7
30	5378	5522	5245	5520	5546	5261	5068	5494	20- 30	2818	5505	44.5,44.5
40	3716	3588	3548	3540	3771	3381	3563	3555	30- 40	2791	8296	67,67
50	2004	1931	2057	1836	1973	1822	2003	1926	40- 50	2104	10400	84,84
60	758.3	808.4	806.1	721.2	758.4	739.7	787.2	799.8	50- 60	1149	11549	93.3,93.3
70	331.7	367.5	336.2	337.1	328.4	343.2	350.7	364.9	60- 70	512.0	12061	97.4,97.4
80	140.8	158.8	126.3	137.8	135.8	144.2	136.0	162.4	70- 80	251.4	12312	99.5,99.5
90	16.82	5.956	0.9184	4.442	14.79	6.269	1.768	8.805	80- 90	66.02	12378	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: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	29469	5823
80	30025	26943
75	32139	32222
70	35914	36404
65	42507	43694
60	56171	59710
55	81475	87796
50	115460	118514
45	149536	146258

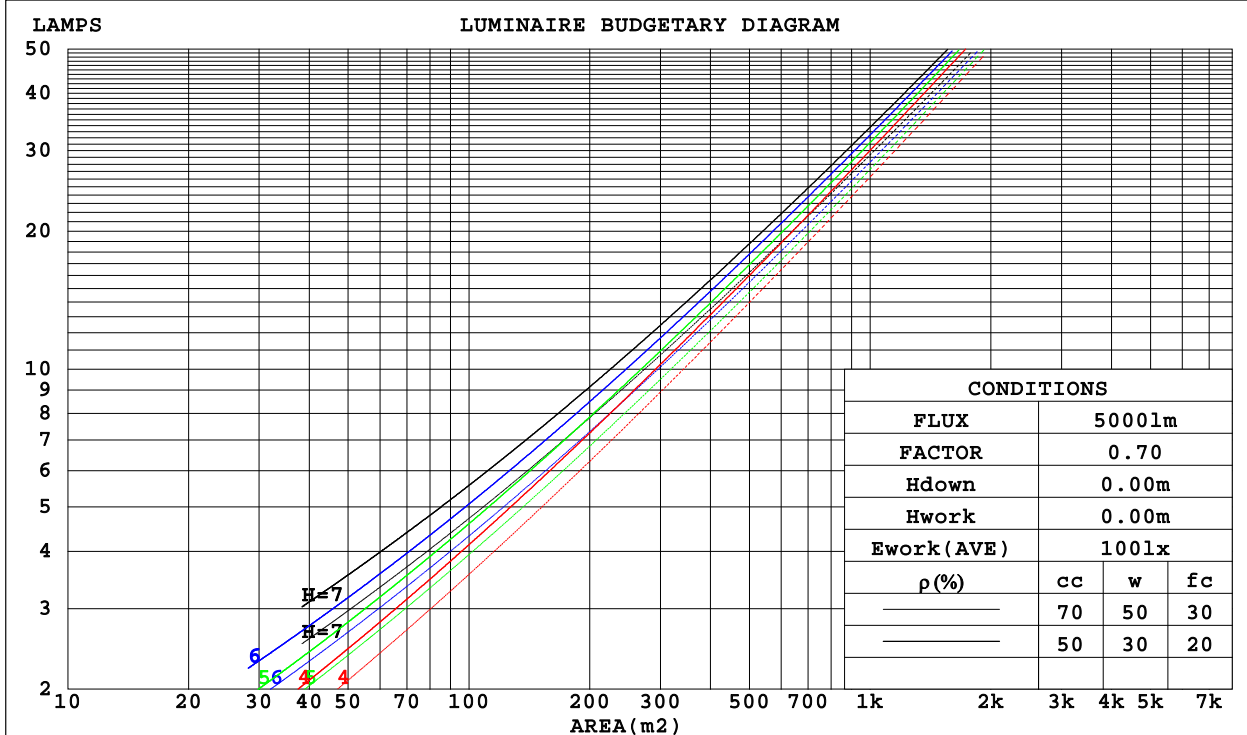
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	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	1.08	1.05	1.02	1.06	1.03	1.00	1.02	.99	.97	.98	.96	.94	.94	.93	.91	.89
2.0	.97	.92	.88	.96	.91	.87	.92	.88	.85	.89	.86	.83	.86	.83	.81	.79
3.0	.88	.82	.77	.87	.81	.76	.84	.79	.75	.81	.77	.73	.79	.75	.72	.70
4.0	.80	.73	.68	.79	.72	.67	.77	.71	.66	.74	.69	.65	.72	.68	.65	.63
5.0	.73	.66	.60	.72	.65	.60	.70	.64	.59	.68	.63	.59	.67	.62	.58	.56
6.0	.67	.60	.54	.66	.59	.54	.65	.58	.53	.63	.57	.53	.62	.57	.53	.51
7.0	.62	.54	.49	.61	.54	.49	.60	.53	.49	.58	.53	.48	.57	.52	.48	.46
8.0	.57	.50	.45	.56	.49	.45	.55	.49	.44	.54	.48	.44	.53	.48	.44	.42
9.0	.53	.46	.41	.52	.46	.41	.51	.45	.41	.50	.45	.40	.49	.44	.40	.39
10.0	.49	.42	.38	.49	.42	.38	.48	.42	.37	.47	.41	.37	.46	.41	.37	.36



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	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	.233	.133	.042	.226	.129	.041	.214	.123	.039	.202	.116	.037	.191	.111	.036	
2.0	.225	.123	.038	.219	.121	.037	.208	.116	.036	.198	.111	.035	.188	.106	.034	
3.0	.213	.114	.034	.208	.112	.034	.199	.108	.033	.190	.104	.032	.181	.100	.031	
4.0	.201	.105	.031	.197	.103	.030	.188	.100	.030	.181	.097	.029	.173	.094	.029	
5.0	.190	.097	.028	.186	.096	.028	.179	.093	.027	.172	.091	.027	.165	.088	.026	
6.0	.179	.090	.026	.176	.089	.026	.169	.087	.025	.163	.085	.025	.157	.083	.025	
7.0	.170	.084	.024	.166	.083	.024	.160	.081	.023	.155	.079	.023	.150	.078	.023	
8.0	.160	.078	.022	.158	.078	.022	.152	.076	.022	.147	.075	.022	.143	.073	.021	
9.0	.152	.074	.021	.150	.073	.020	.145	.072	.020	.140	.070	.020	.136	.069	.020	
10.0	.145	.069	.019	.142	.069	.019	.138	.068	.019	.134	.066	.019	.130	.065	.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	.175	.157	.140	.150	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.163	.132	.106	.140	.114	.092	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.090	.068	.050	.052	.040	.030	.017	.013	.010	
4.0	.145	.100	.065	.124	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.118	.077	.046	.081	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.112	.069	.038	.077	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.124	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.119	.067	.032	.102	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.113	.062	.028	.098	.054	.024	.068	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.108	.058	.024	.093	.050	.021	.065	.035	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm												
NAME: HYD-701 100W 6.5K					TYPE:			WEIGHT:				
SPEC.:					DIM.:			SERIAL No.:				
MFR.:					SUR.:185mm			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	27.2	28.4	27.4	28.6	28.8	27.5	28.7	27.7	28.9	29.1	
	3H	27.4	28.6	27.7	28.8	29.0	27.7	28.9	28.0	29.1	29.3	
	4H	27.6	28.6	27.9	28.9	29.1	27.8	28.9	28.1	29.1	29.3	
	6H	27.7	28.7	28.0	28.9	29.2	27.8	28.9	28.2	29.1	29.4	
	8H	27.7	28.7	28.0	28.9	29.2	27.8	28.8	28.1	29.1	29.3	
	12H	27.7	28.6	28.0	28.9	29.2	27.8	28.7	28.1	29.0	29.3	
	4H	2H	27.3	28.3	27.6	28.6	28.8	27.5	28.6	27.8	28.8	29.1
		3H	27.7	28.6	28.0	28.9	29.2	27.9	28.8	28.2	29.1	29.4
		4H	27.9	28.7	28.3	29.1	29.4	28.0	28.9	28.4	29.2	29.5
		6H	28.1	28.8	28.5	29.2	29.5	28.2	28.9	28.5	29.2	29.6
		8H	28.2	28.9	28.6	29.2	29.6	28.2	28.8	28.6	29.2	29.6
		12H	28.2	28.9	28.6	29.2	29.6	28.1	28.8	28.5	29.1	29.5
	8H	4H	27.9	28.6	28.3	29.0	29.4	28.1	28.8	28.5	29.1	29.5
		6H	28.3	28.8	28.7	29.2	29.6	28.3	28.8	28.7	29.2	29.7
		8H	28.4	28.9	28.8	29.3	29.8	28.3	28.8	28.8	29.2	29.7
		12H	28.5	28.9	29.0	29.4	29.9	28.3	28.7	28.8	29.2	29.6
	12H	4H	27.9	28.6	28.3	28.9	29.3	28.1	28.7	28.5	29.1	29.5
		6H	28.3	28.8	28.7	29.2	29.6	28.3	28.8	28.7	29.2	29.6
		8H	28.4	28.9	28.9	29.3	29.8	28.3	28.8	28.8	29.2	29.7
Variations with the observer position at spacings:												
S = 1.0H	+ 0.9 / - 1.2					+ 0.9 / - 1.2						
1.5H	+ 0.7 / - 0.9					+ 0.7 / - 0.7						
2.0H	+ 2.2 / - 1.7					+ 2.3 / - 2.2						

CIE Pub.117, 12378 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 8.7)
Area: 0.027 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-01-15

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:

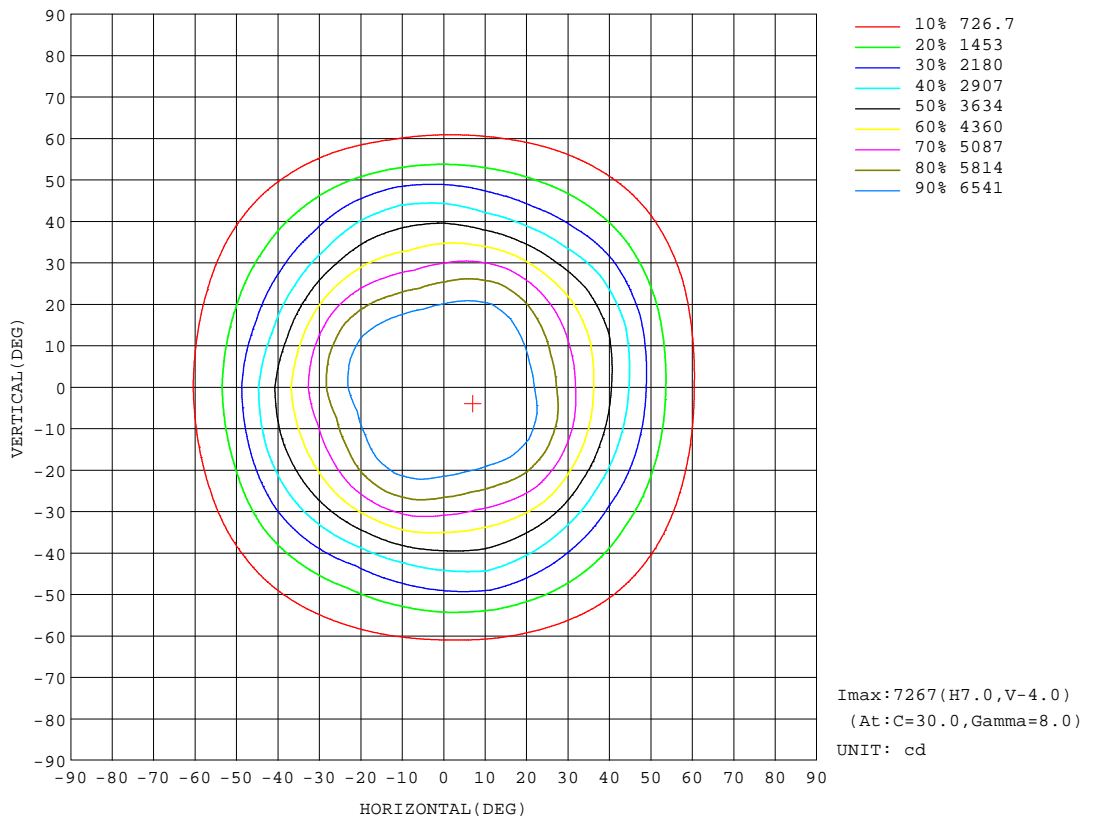
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	71	61	56	70	61	56	69	61	56	50
0.80	80	71	66	79	71	65	78	70	65	60
1.00	88	79	74	87	79	73	85	79	73	67
1.25	94	86	81	92	85	80	90	84	79	74
1.50	98	90	85	96	90	85	93	88	84	78
2.00	102	96	92	101	95	91	98	93	89	83
2.50	105	100	95	103	98	94	100	96	92	85
3.00	108	103	99	106	101	98	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	106	110	107	104	105	103	101	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:



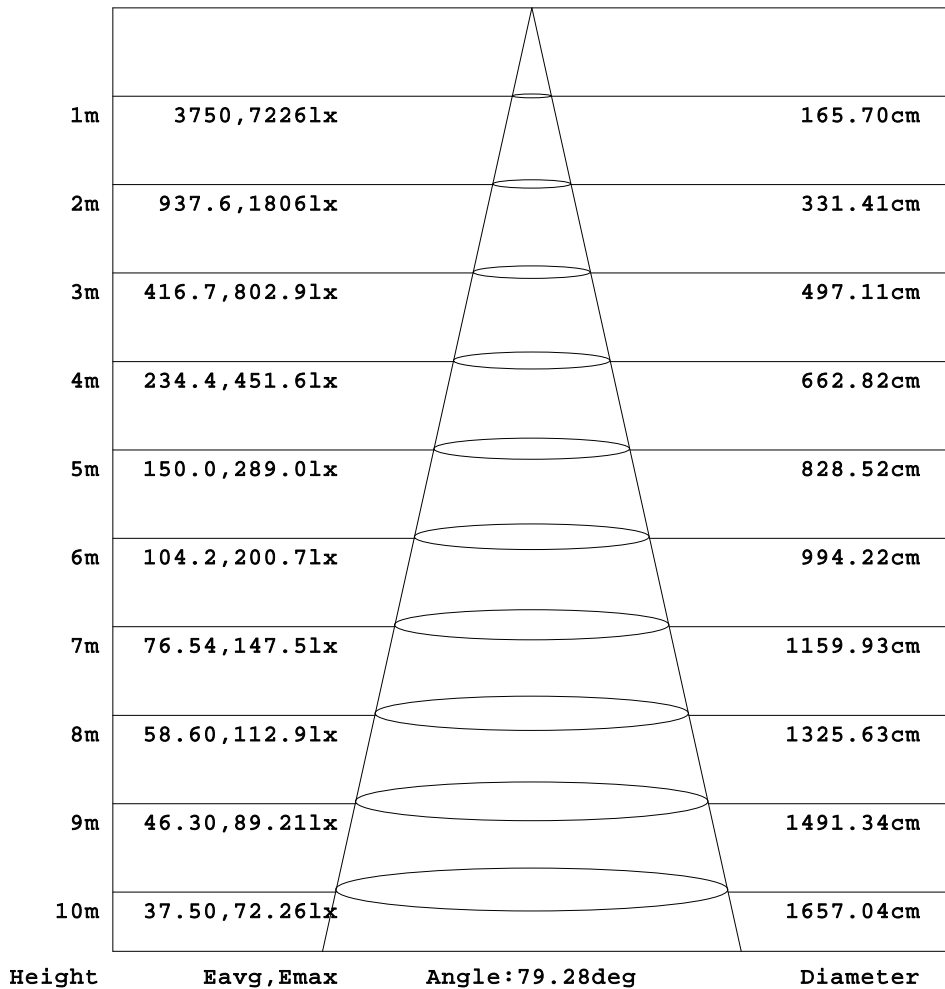
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

AAI Figure

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:

Flux out:8296 lm



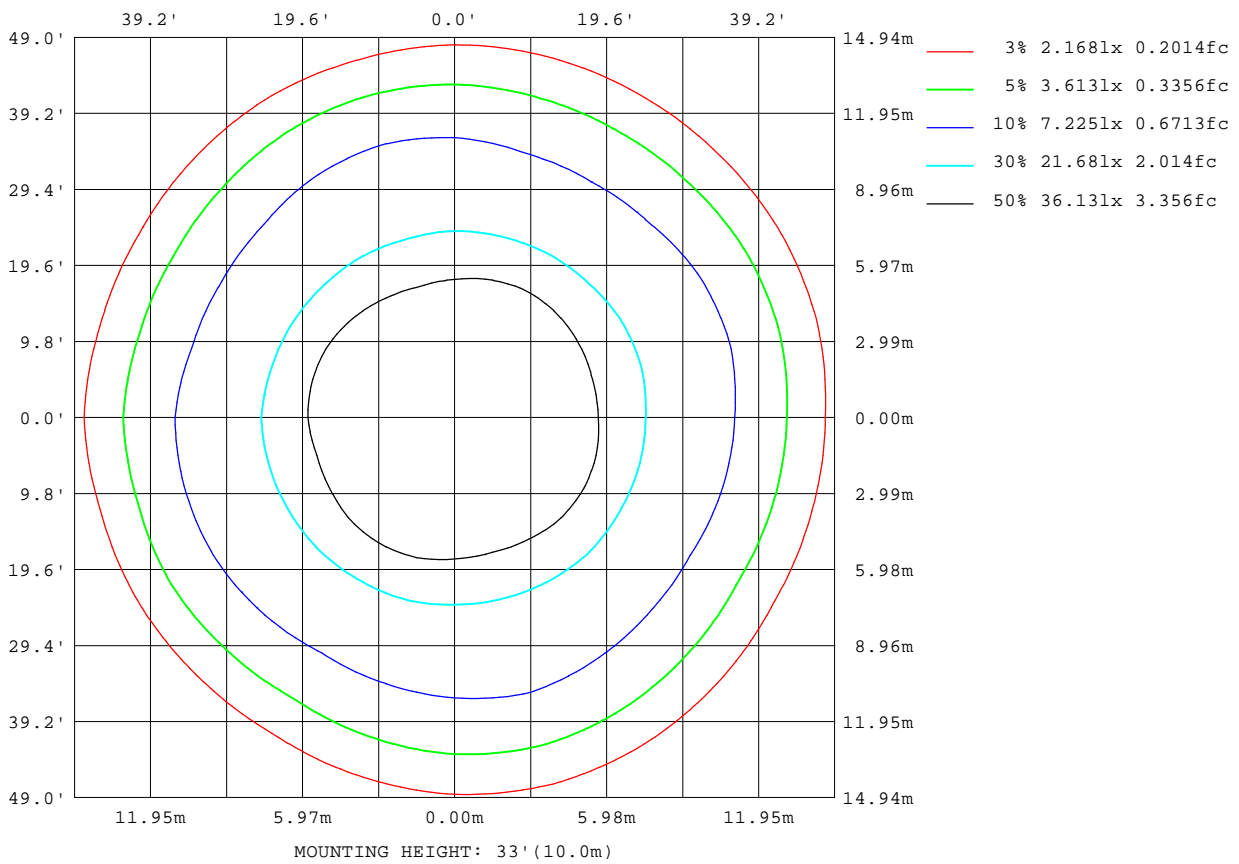
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:

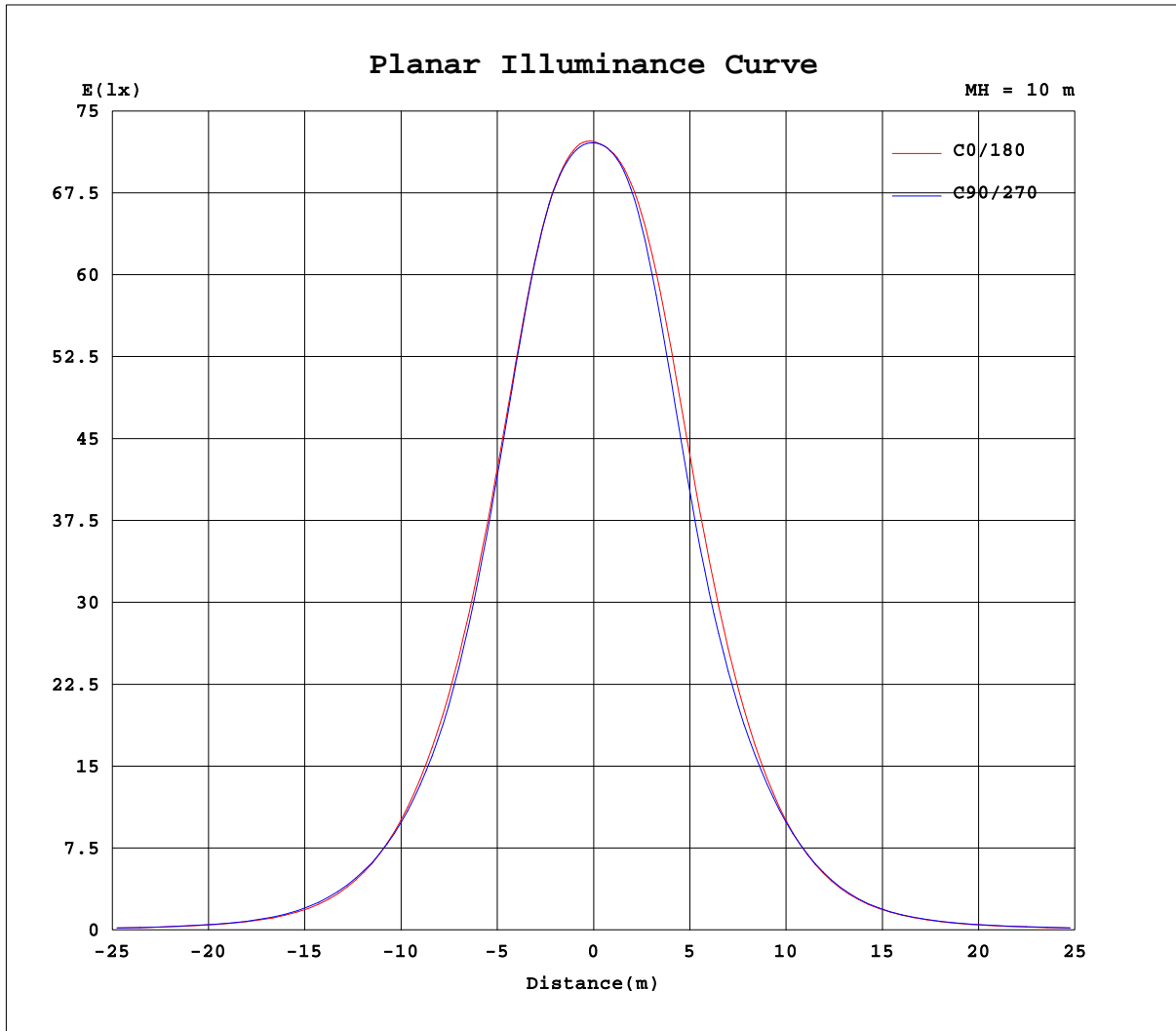
AvgL	cd/m2
L_0~180(65)av	42650
L_0~180(75)av	31973
L_0~180(85)av	28368
L_90~270(65)av	44384
L_90~270(75)av	32988
L_90~270(85)av	9005
L_45(65)av	44092
L_45(75)av	35102
L_45(85)av	24536

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.24V I:0.4577A P:99.505W PF:0.9825 Freq:50.00Hz Lamp Flux:12378.3x1 lm		
NAME: HYD-701 100W 6.5K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:185mm	Shielding Angle:

Table--1 UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	7221	7213	7209	7209	7208	7209	7211	7210	7212	7211	7208	7206	7221	7213	7209	7209	7208	7209	7211
5	7258	7254	7251	7246	7239	7232	7231	7229	7231	7229	7225	7218	7222	7215	7212	7211	7209	7212	7219
10	7248	7256	7263	7260	7248	7236	7235	7245	7251	7241	7229	7222	7238	7230	7221	7207	7193	7187	7198
15	7116	7161	7180	7160	7115	7089	7105	7157	7175	7154	7108	7094	7152	7144	7127	7070	7007	6969	7004
20	6746	6878	6926	6858	6728	6666	6711	6847	6911	6876	6764	6724	6855	6876	6839	6698	6544	6464	6547
25	6138	6335	6407	6308	6087	5986	6060	6275	6387	6334	6154	6095	6300	6354	6303	6081	5846	5728	5862
30	5378	5543	5594	5522	5294	5172	5245	5455	5544	5520	5370	5328	5546	5560	5477	5261	5041	4925	5068
35	4556	4588	4582	4580	4443	4367	4370	4487	4499	4534	4517	4547	4682	4561	4450	4324	4271	4208	4309
40	3716	3611	3542	3588	3604	3643	3548	3500	3457	3540	3642	3744	3771	3502	3396	3381	3526	3570	3563
45	2855	2726	2605	2666	2814	2952	2792	2629	2527	2646	2770	2853	2845	2562	2486	2528	2762	2882	2798
50	2004	1931	1848	1931	2052	2170	2057	1906	1771	1836	1934	1925	1973	1818	1769	1822	1962	2053	2003
55	1262	1236	1226	1299	1368	1404	1360	1257	1164	1163	1188	1186	1255	1185	1168	1204	1249	1255	1288
60	758	763	776	808	831	839	806	779	744	721	703	714	758	728	729	740	760	759	787
65	485	508	516	522	510	510	499	511	496	484	448	448	488	481	490	486	495	495	514
70	332	357	367	368	342	332	336	355	352	337	307	300	328	338	350	343	338	333	351
75	225	249	259	256	231	219	225	244	244	232	207	200	222	235	245	238	227	219	236
80	141	159	162	159	139	125	126	136	138	138	122	118	136	147	151	144	134	124	136
85	69.3	78.1	78.2	65.4	46.3	35.7	13.7	35.4	39.6	44.2	46.8	52.0	64.2	68.5	66.0	50.8	38.3	34.0	28.7
90	16.8	19.9	14.4	5.96	1.13	0.97	0.92	0.98	1.07	4.44	7.19	8.86	14.8	15.8	11.7	6.27	1.98	1.81	1.77

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-01-15

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.411
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

