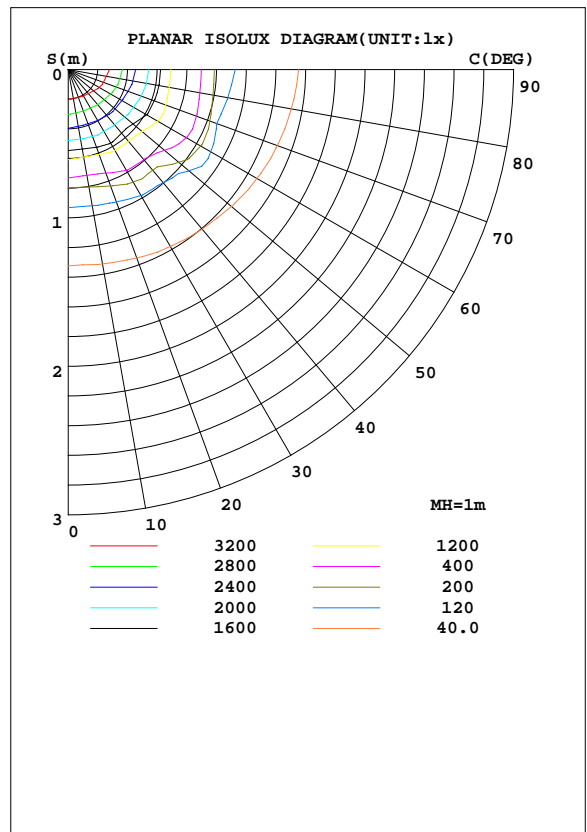
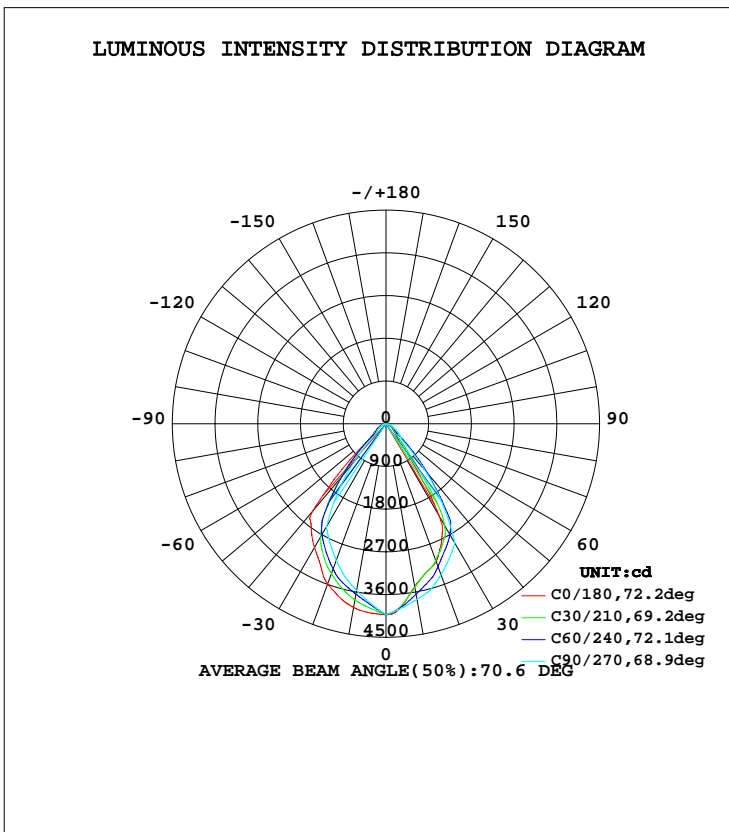


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.50 lm/W			
MODEL	M5-6-60-30-90	I _{max} (cd)	4024	S/MH(C0/180)	1.13
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	0.96
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	4770.0	η UP, DN(C0-180)	0.0, 53.6
NOMINAL FLUX(lm)	4769.96	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 46.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)		η down(%)	100.0	CIBSE SHR MAX	1.05



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2014-08-29

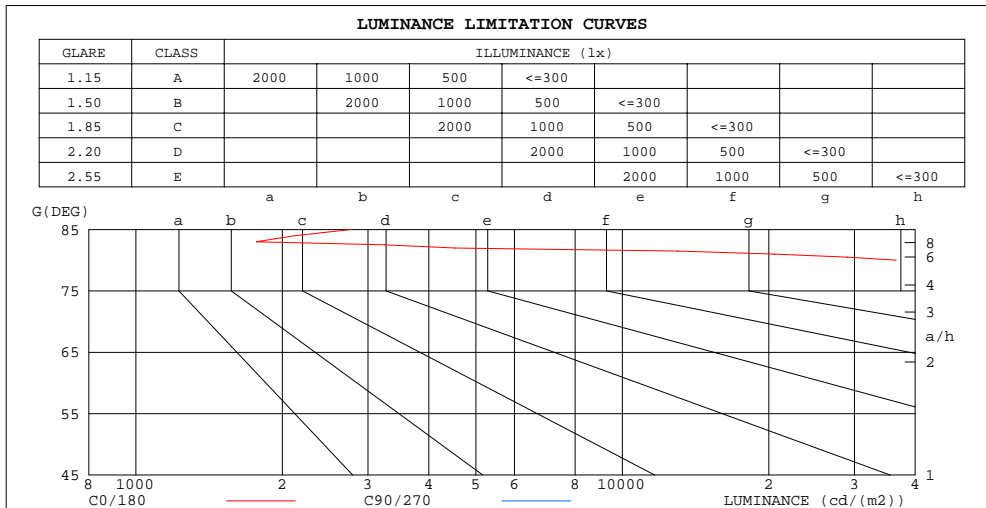
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity: 65.0%
 Test Distance: 7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

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
5	3855	3849	3891	3928	3998	3856	3795	3781	0- 5	93.84	93.84	1.97,1.97
10	3485	3570	3758	3838	3931	3708	3567	3436	5- 10	268.1	362.0	7.59,7.59
15	3251	3322	3625	3715	3786	3533	3338	3190	10- 15	421.1	783.0	16.4,16.4
20	3088	3162	3384	3560	3593	3326	3062	3052	15- 20	552.8	1336	28,28
25	2770	2833	3144	3297	3275	3008	2785	2521	20- 25	649.4	1985	41.6,41.6
30	2241	2298	2904	3022	3012	2547	2509	1662	25- 30	696.4	2682	56.2,56.2
35	897.2	1592	2091	2778	2742	1977	1776	919.2	30- 35	653.0	3335	69.9,69.9
40	354.2	640.0	1279	2471	2407	1278	1043	353.6	35- 40	513.7	3848	80.7,80.7
45	272.3	354.6	466.5	1676	1070	733.6	310.6	274.8	40- 45	340.5	4189	87.8,87.8
50	211.4	267.7	377.6	765.5	371.8	371.8	252.3	210.0	45- 50	177.6	4367	91.5,91.5
55	160.9	206.3	288.7	280.0	279.2	244.0	194.0	155.8	50- 55	117.3	4484	94,94
60	119.1	159.0	199.7	221.6	215.3	190.7	135.7	116.6	55- 60	91.77	4576	95.9,95.9
65	84.80	117.7	159.5	168.9	163.4	141.1	103.7	81.24	60- 65	71.51	4647	97.4,97.4
70	55.31	83.03	119.2	126.0	121.0	101.2	71.64	51.41	65- 70	54.94	4702	98.6,98.6
75	29.93	53.74	78.92	92.08	86.21	69.63	39.61	26.54	70- 75	39.23	4741	99.4,99.4
80	7.617	23.95	0	51.40	56.42	34.66	0	4.904	75- 80	21.97	4763	99.9,99.9
85	0.2900	0	0	0	31.14	0	0	0	80- 85	5.835	4769	100,100
90	0.3488	0	0	0	8.130	0	0	0	85- 90	0.8707	4770	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2014-08-29

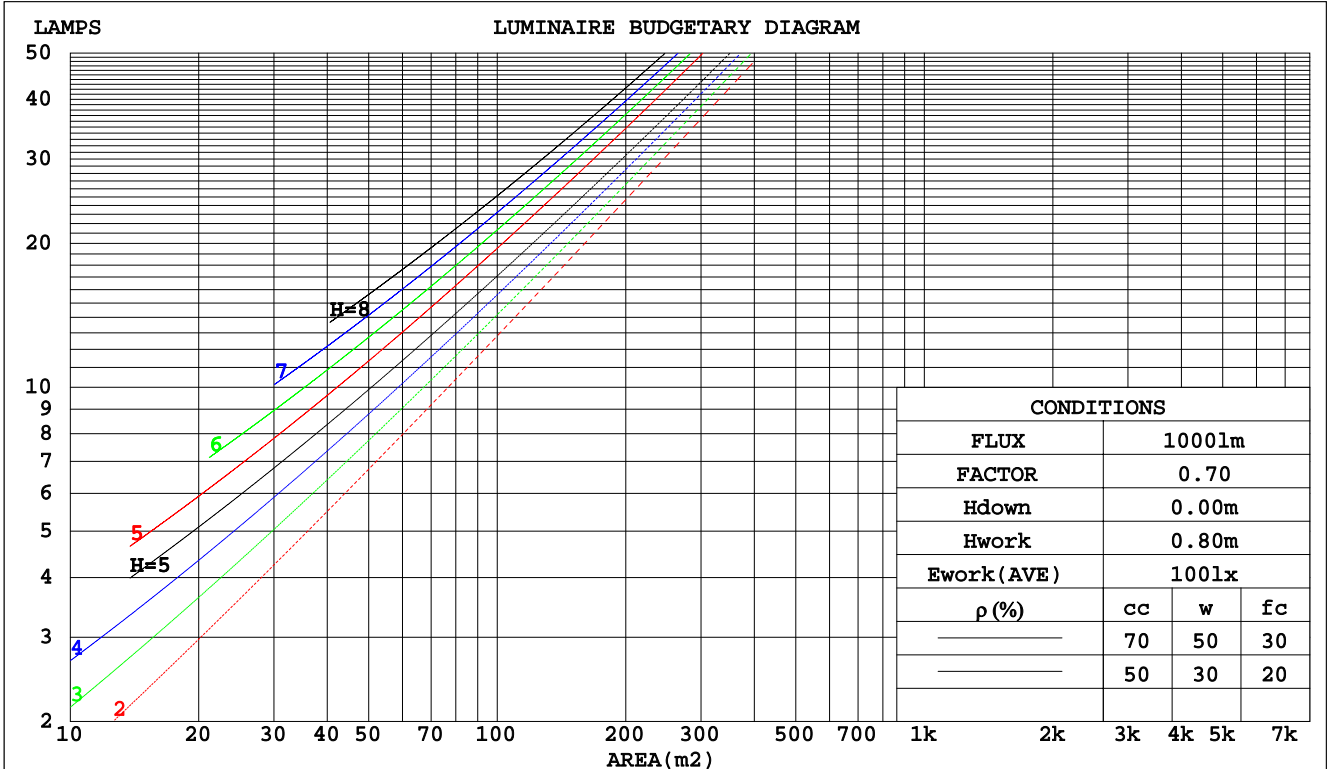
γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.288
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	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	.00
1.0	1.09	1.06	1.04	1.07	1.04	1.02	1.03	1.01	.99	.99	.98	.96	.96	.94	.93	.91
2.0	1.00	.95	.91	.98	.94	.90	.95	.91	.88	.92	.89	.86	.89	.87	.85	.83
3.0	.92	.86	.82	.90	.85	.81	.88	.83	.80	.85	.81	.78	.83	.80	.77	.75
4.0	.85	.78	.73	.83	.78	.73	.81	.76	.72	.79	.75	.71	.77	.73	.70	.69
5.0	.78	.72	.67	.77	.71	.66	.75	.70	.66	.74	.69	.65	.72	.68	.64	.63
6.0	.73	.66	.61	.72	.65	.61	.70	.64	.60	.69	.64	.60	.67	.63	.59	.58
7.0	.67	.61	.56	.67	.60	.56	.65	.60	.55	.64	.59	.55	.63	.58	.55	.53
8.0	.63	.56	.52	.62	.56	.51	.61	.55	.51	.60	.55	.51	.59	.54	.51	.49
9.0	.59	.52	.48	.58	.52	.48	.57	.52	.47	.56	.51	.47	.55	.51	.47	.46
10.0	.55	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.52	.47	.44	.42



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION 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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.207	.118	.037	.200	.114	.036	.187	.107	.034	.175	.101	.032	.165	.095	.031	
2.0	.199	.109	.034	.194	.107	.033	.183	.102	.032	.173	.097	.030	.163	.092	.029	
3.0	.190	.101	.030	.185	.099	.030	.175	.095	.029	.167	.091	.028	.159	.088	.027	
4.0	.180	.093	.027	.176	.092	.027	.167	.089	.027	.160	.086	.026	.153	.083	.025	
5.0	.171	.087	.025	.167	.086	.025	.160	.083	.024	.153	.081	.024	.147	.078	.024	
6.0	.162	.081	.023	.159	.080	.023	.152	.078	.023	.146	.076	.022	.141	.074	.022	
7.0	.154	.076	.022	.151	.075	.021	.145	.073	.021	.140	.072	.021	.135	.070	.021	
8.0	.146	.072	.020	.144	.071	.020	.139	.069	.020	.134	.068	.020	.129	.066	.019	
9.0	.140	.067	.019	.137	.067	.019	.133	.066	.019	.128	.064	.018	.124	.063	.018	
10.0	.133	.064	.018	.131	.063	.018	.127	.062	.018	.123	.061	.017	.119	.060	.017	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.173	.157	.143	.148	.135	.123	.101	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.094	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.149	.114	.086	.128	.098	.074	.088	.068	.052	.051	.040	.031	.016	.013	.010	
4.0	.140	.099	.069	.120	.086	.060	.082	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.132	.088	.056	.113	.076	.049	.078	.053	.034	.045	.031	.020	.015	.010	.007	
6.0	.125	.079	.047	.107	.069	.041	.074	.048	.029	.043	.028	.017	.014	.009	.006	
7.0	.118	.072	.039	.102	.062	.034	.070	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.113	.066	.034	.097	.057	.029	.067	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.026	.064	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.010	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm										
NAME:					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:320mm			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	29.0	30.1	29.2	30.3	30.5	32.6	33.7	32.9	33.9	34.1
3H	29.3	30.3	29.6	30.5	30.7	33.0	34.0	33.3	34.2	34.4
4H	29.4	30.3	29.6	30.6	30.8	33.2	34.1	33.5	34.4	34.6
6H	29.3	30.2	29.6	30.5	30.7	33.1	34.0	33.4	34.3	34.5
8H	29.3	30.1	29.6	30.4	30.7	33.1	34.0	33.4	34.2	34.5
12H	29.2	30.1	29.6	30.3	30.6	33.0	33.9	33.4	34.1	34.4
4H 2H	29.2	30.2	29.5	30.4	30.7	32.5	33.5	32.8	33.7	34.0
3H	29.7	30.5	30.0	30.8	31.1	33.1	33.9	33.4	34.2	34.4
4H	29.9	30.6	30.2	30.9	31.2	33.3	34.1	33.7	34.4	34.7
6H	29.9	30.5	30.2	30.9	31.2	33.3	34.0	33.7	34.3	34.7
8H	29.8	30.4	30.2	30.8	31.2	33.3	33.9	33.7	34.2	34.6
12H	29.8	30.3	30.2	30.7	31.1	33.2	33.8	33.6	34.1	34.5
8H 4H	30.0	30.6	30.4	31.0	31.3	33.3	33.9	33.7	34.2	34.6
6H	30.0	30.6	30.5	30.9	31.4	33.3	33.8	33.7	34.2	34.6
8H	30.0	30.5	30.5	30.9	31.3	33.2	33.7	33.7	34.1	34.5
12H	30.0	30.3	30.4	30.8	31.3	33.2	33.6	33.7	34.0	34.5
12H 4H	30.0	30.5	30.4	30.9	31.3	33.2	33.8	33.6	34.2	34.6
6H	30.0	30.5	30.5	30.9	31.3	33.2	33.7	33.7	34.1	34.5
8H	30.0	30.4	30.5	30.8	31.3	33.2	33.6	33.7	34.0	34.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.9					+ 1.6 / - 2.4				
1.5H	+ 0.5 / - 0.7					+ 3.5 / - 2.3				
2.0H	+ 0.7 / - 1.0					+ 1.2 / - 1.0				

CIE Pub.117 Corrected 4770 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.4)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	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) $k(RI) \times RCR = 5$									
k = 0.60	79	72	67	79	72	67	78	71	67	63
0.80	88	81	76	87	80	76	86	80	75	71
1.00	94	87	82	93	86	82	91	86	81	77
1.25	99	92	88	97	92	87	95	90	87	82
1.50	102	96	92	101	95	91	98	94	90	85
2.00	106	101	97	104	99	96	101	97	94	89
2.50	108	103	99	106	102	99	103	99	97	90
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	108	111	109	107	107	105	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

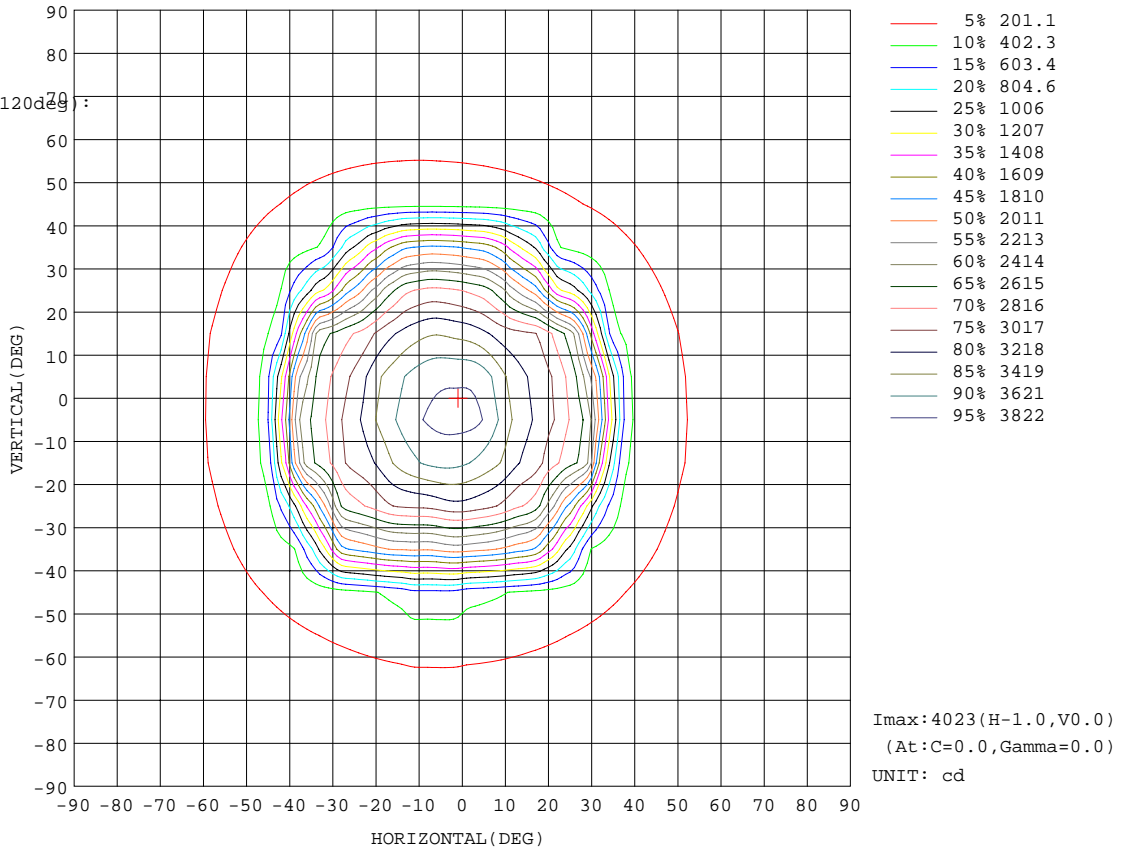
Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

Conical surface Flux(90deg):

4188.9 lm
 %lum = 87.8%
 %lamp = 87.8%

Conical surface Flux(120deg):

4575.6 lm
 %lum = 95.9%
 %lamp = 95.9%



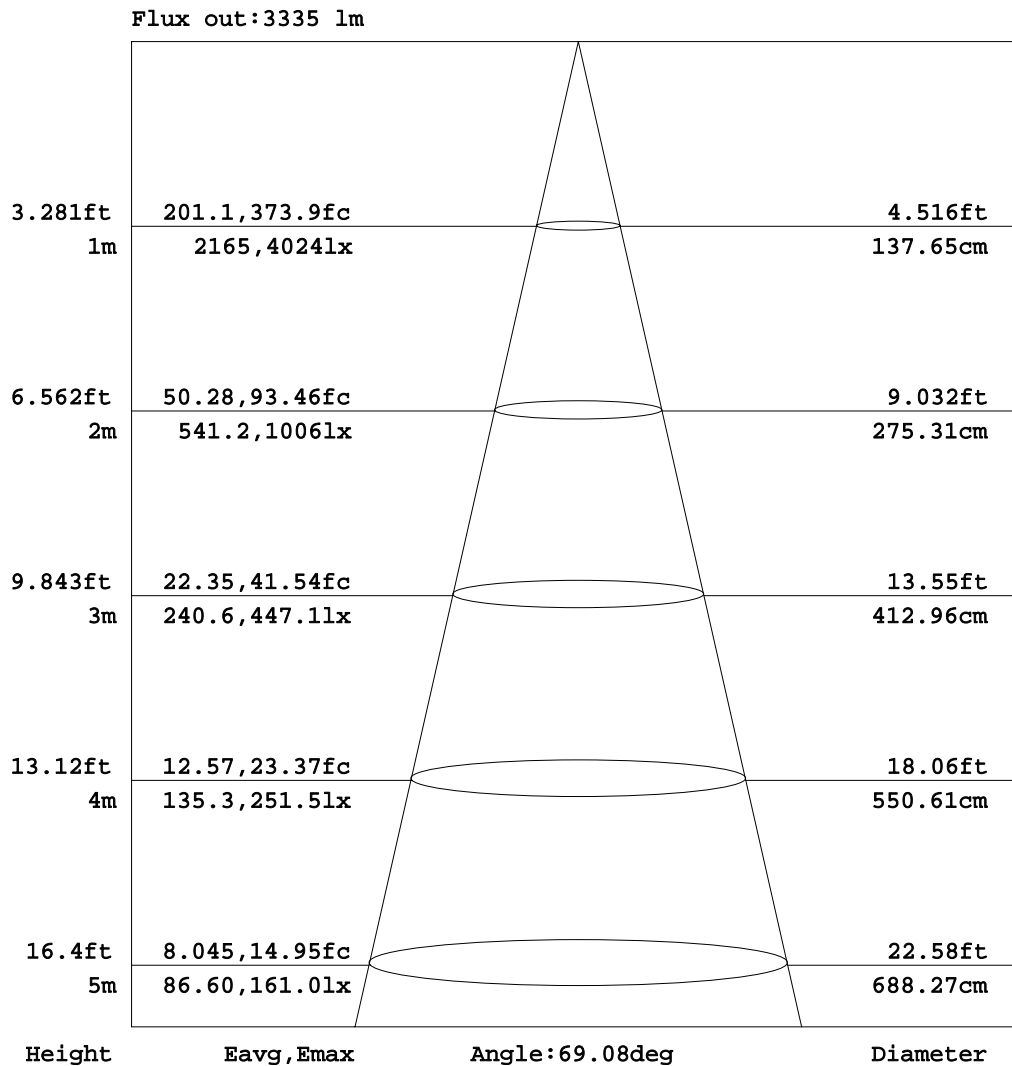
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity: 65.0%
 Test Distance: 7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:



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

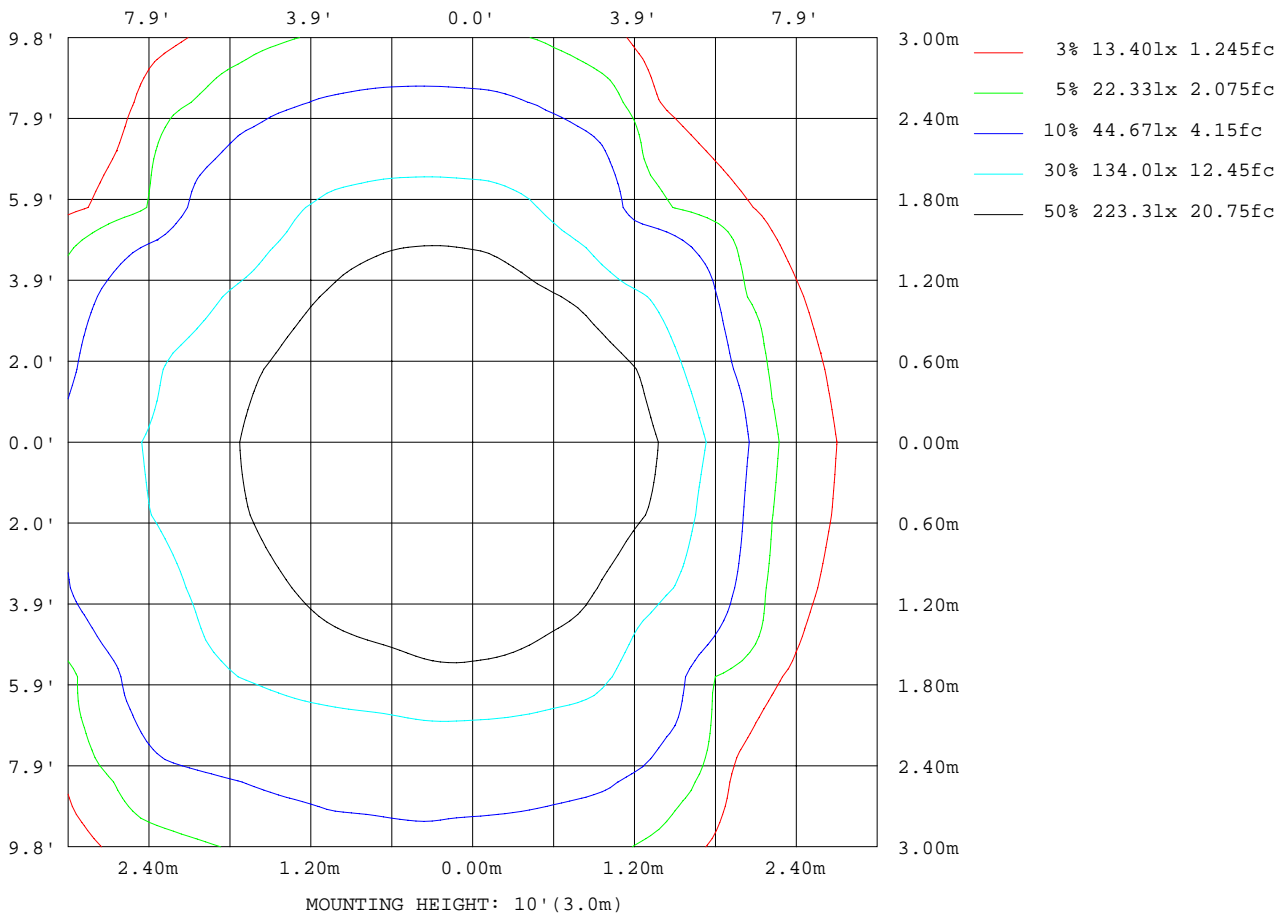
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

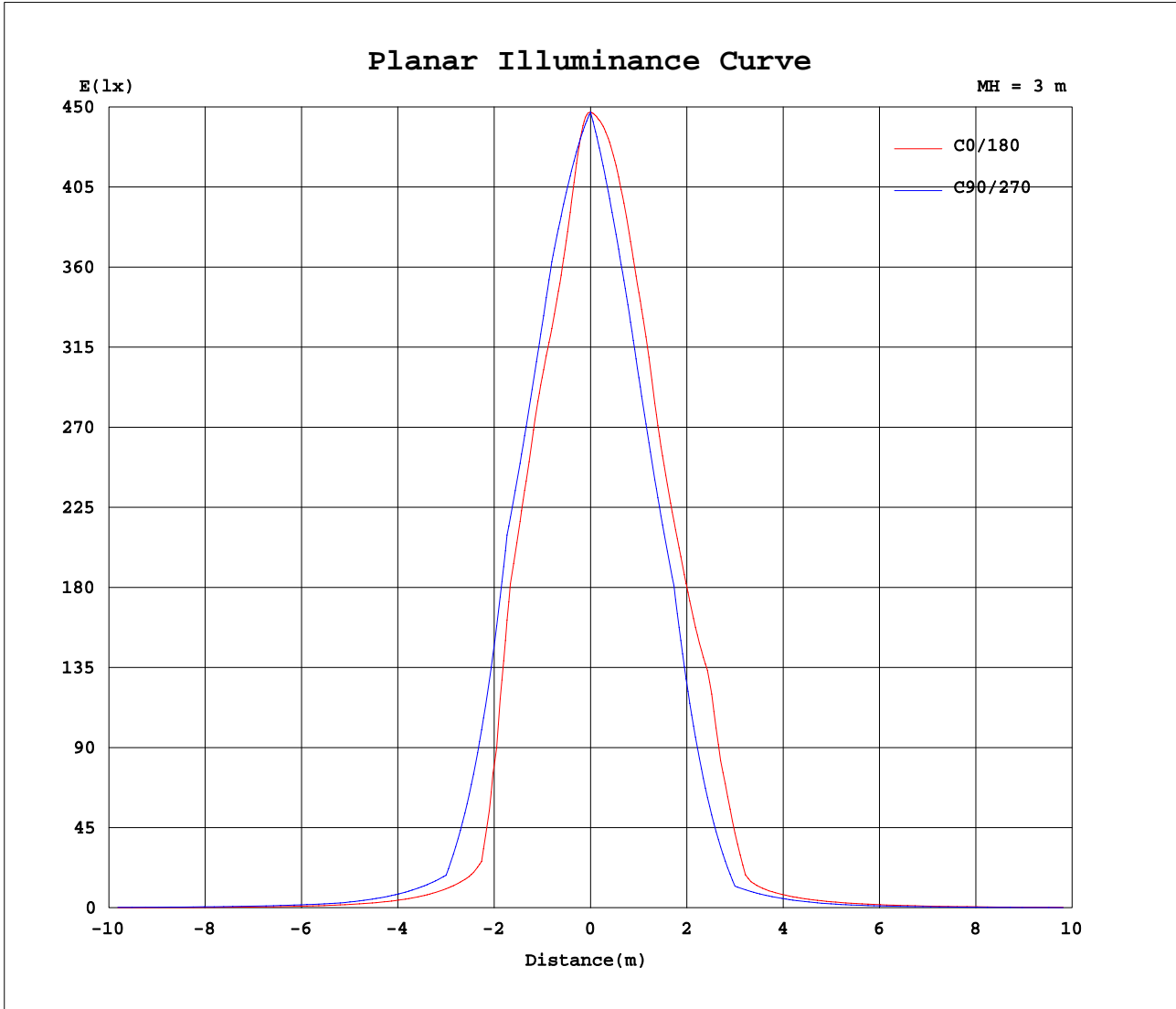
Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.288
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024
5	3855	3846	3839	3835	3832	3832	3835	3839	3843	3849	3855	3862	3867	3874	3878	3882	3886	3888	3891
10	3485	3476	3472	3473	3478	3488	3503	3522	3545	3570	3596	3623	3649	3672	3695	3715	3733	3747	3758
15	3251	3242	3238	3237	3240	3245	3253	3269	3292	3322	3361	3404	3447	3484	3515	3543	3572	3600	3625
20	3088	3064	3046	3035	3031	3038	3065	3102	3138	3162	3165	3174	3203	3241	3275	3302	3327	3355	3384
25	2770	2753	2746	2748	2758	2778	2813	2850	2807	2833	2906	2930	2937	2969	3017	3057	3086	3112	3144
30	2241	2155	2151	2245	2393	2527	2466	2331	2250	2298	2401	2571	2691	2723	2764	2814	2852	2873	2904
35	897	865	900	965	1067	1240	1345	1488	1485	1592	1683	1994	2189	2227	2148	2112	2089	2076	2091
40	354	352	358	371	393	439	559	608	583	640	988	1166	1358	1450	1385	1320	1287	1269	1279
45	272	271	275	285	290	297	309	320	330	355	464	652	700	694	625	541	489	463	467
50	211	211	215	221	225	233	242	249	258	268	281	299	292	304	315	329	347	363	378
55	161	161	166	169	174	181	186	192	199	206	215	224	233	242	250	259	269	279	289
60	119	119	123	126	132	135	140	145	152	159	166	172	178	184	188	192	194	197	200
65	84.8	85.5	88.0	91.9	94.5	98.4	103	107	113	118	122	126	132	138	143	148	152	156	159
70	55.3	56.5	58.5	61.1	64.0	67.3	70.8	74.6	78.5	83.0	87.6	92.3	97.2	102	106	110	113	116	119
75	29.9	30.9	33.0	35.1	37.5	40.2	43.2	46.7	50.3	53.7	57.1	60.5	63.8	66.8	69.6	72.1	74.4	76.8	78.9
80	7.62	8.72	10.4	12.4	15.3	17.1	19.2	21.6	24.1	24.0	21.8	18.8	15.3	11.5	7.90	4.71	2.19	0.57	0.00
85	0.29	0.32	0.66	1.57	0.70	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024
5	3893	3896	3900	3903	3908	3912	3916	3922	3928	3935	3942	3949	3956	3964	3972	3980	3989	3998	3980
10	3769	3780	3790	3800	3809	3818	3824	3831	3838	3844	3851	3858	3866	3876	3887	3900	3915	3931	3900
15	3652	3674	3692	3705	3712	3716	3718	3717	3715	3713	3712	3713	3717	3724	3734	3747	3764	3786	3743
20	3412	3434	3450	3462	3480	3503	3529	3553	3560	3546	3531	3517	3510	3511	3520	3537	3562	3593	3538
25	3166	3173	3166	3163	3185	3221	3255	3283	3297	3297	3292	3270	3259	3253	3248	3250	3257	3275	3219
30	2914	2897	2861	2866	2918	2974	3018	3033	3022	3016	3030	3066	3080	3058	3030	3011	3004	3012	2957
35	2134	2152	2180	2285	2438	2623	2798	2787	2778	2789	2814	2803	2784	2796	2758	2736	2730	2742	2697
40	1347	1379	1435	1558	1681	1851	2028	2230	2471	2513	2244	2118	2183	2422	2423	2341	2336	2407	2161
45	562	616	695	792	890	1049	1236	1464	1676	1470	1242	1225	1253	1299	1260	1139	1036	1070	907
50	435	443	456	419	392	374	454	693	765	698	547	400	513	441	403	381	368	372	361
55	320	326	338	314	303	293	287	283	280	325	296	285	283	282	281	282	276	279	273
60	204	210	219	221	223	223	222	222	222	220	219	220	219	218	216	217	214	215	211
65	162	164	165	166	166	166	165	167	169	169	169	168	167	166	166	164	163	163	161
70	122	124	125	126	127	128	128	127	126	125	125	126	125	124	122	122	122	121	120
75	81.1	83.3	85.3	87.3	89.0	90.5	91.5	92.0	92.1	91.6	90.8	89.7	89.1	88.5	88.0	87.0	86.7	86.2	85.2
80	0.60	2.46	5.62	10.1	15.9	22.9	31.2	40.7	51.4	60.6	60.9	60.7	60.0	59.0	58.1	57.6	56.6	56.4	55.4
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.0	30.6	33.5	32.3	31.5	30.9
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.13	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2014-08-29

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
 Humidity:65.0%
 Test Distance:7.000m [K=1.0000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024
5	3963	3946	3930	3914	3898	3884	3870	3856	3844	3833	3824	3816	3810	3804	3800	3797	3795	3793	3792
10	3870	3842	3816	3792	3770	3749	3728	3708	3686	3666	3646	3626	3609	3594	3584	3575	3567	3557	3545
15	3704	3670	3640	3612	3588	3567	3549	3533	3517	3500	3480	3454	3426	3398	3374	3357	3338	3315	3291
20	3489	3448	3412	3383	3360	3345	3334	3326	3306	3282	3260	3234	3198	3158	3121	3091	3062	3031	3001
25	3175	3141	3118	3105	3099	3099	3045	3008	3004	3001	2984	2970	2949	2910	2868	2827	2785	2748	2700
30	2914	2884	2858	2840	2747	2623	2570	2547	2592	2633	2695	2691	2686	2658	2612	2565	2509	2469	2375
35	2667	2645	2626	2458	2220	2088	1972	1977	2031	2170	2195	2179	2078	1993	1902	1832	1776	1755	1690
40	1985	1884	1893	1790	1506	1271	1239	1278	1367	1418	1444	1418	1328	1234	1148	1085	1043	1033	1001
45	769	676	859	878	741	493	542	734	809	819	764	688	584	473	389	334	311	316	345
50	359	357	356	356	340	340	350	372	410	342	292	287	281	275	267	260	252	245	238
55	274	270	267	264	262	259	253	244	241	238	233	227	221	214	207	200	194	188	183
60	211	207	206	203	200	195	193	191	186	181	175	168	161	153	146	140	136	132	129
65	159	158	155	153	151	148	145	141	135	129	126	123	119	115	111	107	104	100	96.6
70	118	116	115	113	111	108	103	101	98.7	95.8	92.7	89.3	85.7	82.1	78.5	75.0	71.6	68.6	65.7
75	83.9	82.8	80.9	78.7	76.5	74.6	72.3	69.6	66.6	63.3	59.7	56.0	52.3	48.8	45.4	42.4	39.6	37.2	35.1
80	54.8	53.1	51.6	50.0	48.0	45.4	42.4	34.7	26.7	19.9	14.2	9.51	5.85	3.15	1.33	0.31	0.00	0.28	1.02
85	29.5	28.2	24.0	10.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG C Interval: 5.0DEG Test Speed: HIGH Temperature:25.3DEG Operators:DAMIN Test Date:2014-08-29	γ Range: 0 - 90DEG γ Interval: 0.5DEG Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288 Humidity:65.0% Test Distance:7.000m [K=1.0000] Remarks:
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EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.0V I:0.2730A P:60.00W PF:0.9000 Lamp Flux:4769.96x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:320mm	PROTECTION ANGLE:

Table--4

UNIT: cd

C(DEC) γ (DEC)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024	4024				
5	3790	3789	3788	3785	3784	3783	3781	3782	3784	3787	3792	3800	3810	3822	3837				
10	3532	3517	3500	3482	3465	3450	3436	3428	3422	3420	3421	3427	3436	3448	3464				
15	3268	3243	3223	3207	3198	3192	3190	3190	3189	3190	3194	3200	3209	3219	3233				
20	2956	2915	2895	2889	2934	3001	3052	3054	3044	3022	3007	3002	3008	3025	3052				
25	2610	2522	2422	2397	2424	2488	2521	2614	2747	2706	2675	2658	2657	2666	2706				
30	2222	1988	1860	1806	1721	1657	1662	1824	1994	2045	1969	1861	1877	1945	2065				
35	1573	1416	1279	1076	781	735	919	1037	1043	973	822	698	724	780	820				
40	927	867	801	593	400	370	354	437	439	369	352	345	344	342	345				
45	377	405	389	310	290	280	275	270	268	266	263	263	265	262	265				
50	231	225	219	214	211	211	210	208	206	205	203	202	204	204	205				
55	179	174	171	167	163	159	156	156	155	155	155	153	154	156	156				
60	127	126	124	123	121	119	117	114	113	113	113	113	113	114	115				
65	93.3	90.3	87.4	84.8	82.3	81.8	81.2	80.4	79.6	79.0	78.8	79.1	80.2	80.4	81.7				
70	63.2	60.8	58.7	56.7	54.8	53.0	51.4	50.0	50.0	50.0	50.0	50.2	50.9	51.7	53.1				
75	33.3	31.8	30.5	29.3	28.2	27.3	26.5	26.1	25.7	25.5	25.1	25.3	26.2	27.1	28.1				
80	2.08	3.33	4.57	5.59	6.13	5.96	4.90	3.58	5.18	7.68	8.34	6.18	5.03	5.37	6.29				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.23	0.27	0.28	0.27			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2014-08-29

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.288
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks: