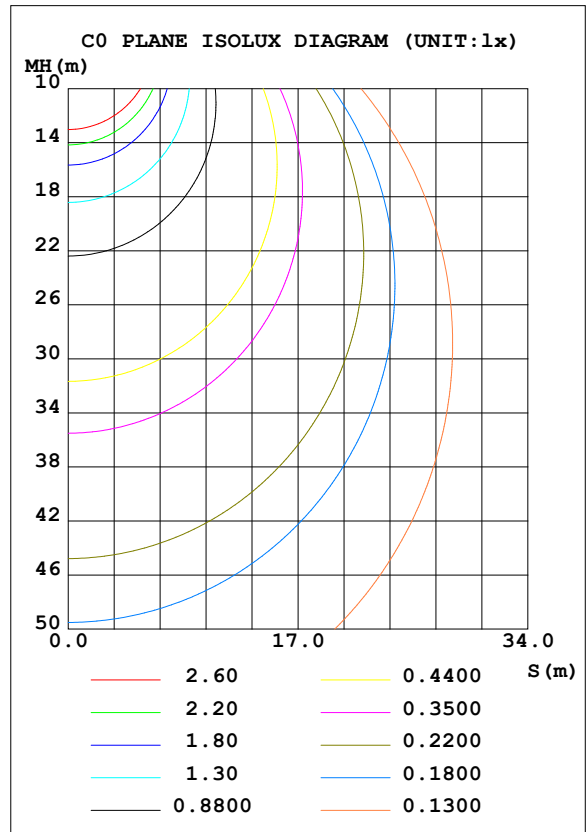
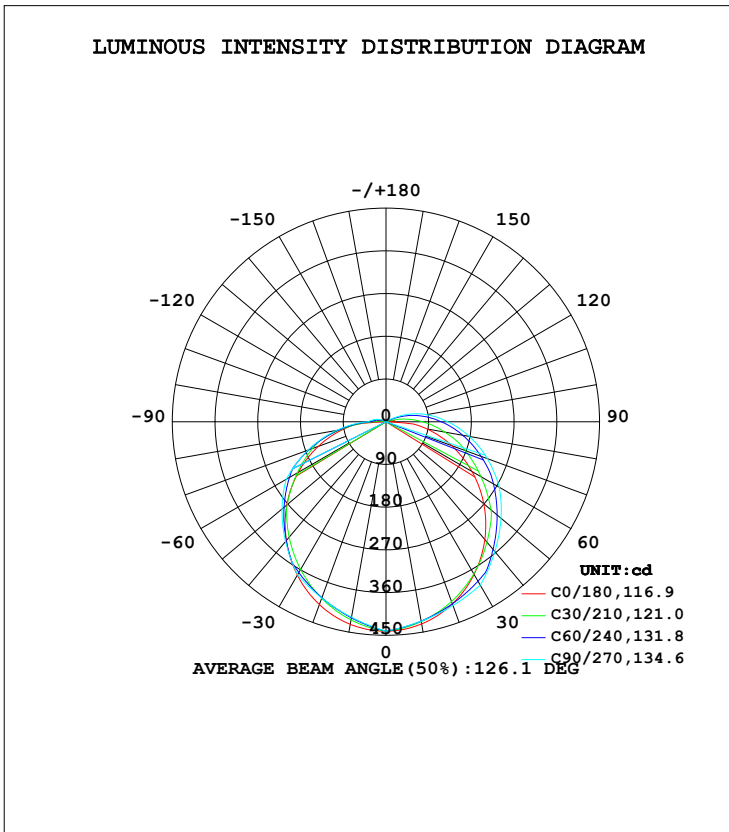


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Schwabing XXL	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 83.15 lm/W
MODEL	20	I _{max} (cd)	441.2	S/MH (C0/180)	1.26	
NOMINAL POWER (W)	20	LOR (%)	100.0	S/MH (C90/270)	1.26	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1581.8	η UP, DN (C0-180)	4.1, 49.7	
NOMINAL FLUX (lm)	1581.84	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.7, 44.5	
LAMPS INSIDE	1	η up (%)	5.8	CIBSE SHR NOM	1.50	
TEST VOLTAGE (V)	229.9	η down (%)	94.2	CIBSE SHR MAX	1.50	



H(β) Range: -90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2016-12-02

V(B) Range: -180 - 180DEG
 V(B) Interval: 5.0DEG
 Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 9.782m [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	432.5	426.6	426.6	427.0	433.3	421.3	418.3	420.6	0- 10	41.16	41.16	2.6,2.6
20	408.5	405.2	412.0	405.3	409.9	394.4	395.3	393.0	10- 20	117.0	158.2	10,10
30	371.3	378.3	397.4	377.7	373.3	362.3	372.4	360.2	20- 30	179.0	337.1	21.3,21.3
40	323.9	346.7	356.9	344.9	326.4	325.9	329.2	323.2	30- 40	221.1	558.3	35.3,35.3
50	268.9	295.5	316.3	293.6	272.9	274.7	286.0	271.8	40- 50	237.9	796.2	50.3,50.3
60	208.9	246.2	275.7	244.2	213.4	225.5	242.8	221.9	50- 60	231.9	1028	65,65
70	147.6	198.3	227.0	196.5	151.8	172.8	174.6	169.0	60- 70	205.1	1233	78,78
80	87.37	147.2	178.4	145.8	91.39	98.76	106.5	97.64	70- 80	157.9	1391	87.9,87.9
90	0.4992	99.69	129.7	98.61	0.2454	26.19	38.28	28.31	80- 90	98.46	1490	94.2,94.2
100	14.92	54.45	87.05	53.95	14.38	15.71	26.18	16.06	90-100	51.17	1541	97.4,97.4
110	2.352	10.99	44.40	11.14	2.826	5.804	14.09	4.462	100-110	24.26	1565	98.9,98.9
120	3.686	2.704	1.752	3.054	6.706	4.291	1.987	3.004	110-120	7.029	1572	99.4,99.4
130	5.216	3.182	1.936	3.421	6.860	3.714	2.177	3.119	120-130	3.428	1575	99.6,99.6
140	2.938	2.796	2.119	2.897	3.292	2.710	2.367	2.389	130-140	2.668	1578	99.8,99.8
150	2.151	2.297	2.302	2.402	2.460	2.520	2.557	2.318	140-150	1.609	1580	99.9,99.9
160	2.394	2.324	2.404	2.447	2.674	2.656	2.627	2.485	150-160	1.132	1581	99.9,99.9
170	2.511	2.483	2.506	2.548	2.766	2.728	2.697	2.650	160-170	0.7217	1582	100,100
180	2.608	2.608	2.608	2.608	2.766	2.766	2.766	2.766	170-180	0.2517	1582	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 676.65 lm

%lum = 42.8%
%lamp = 42.8%

Conical surface Flux(120deg): 1028.1 lm

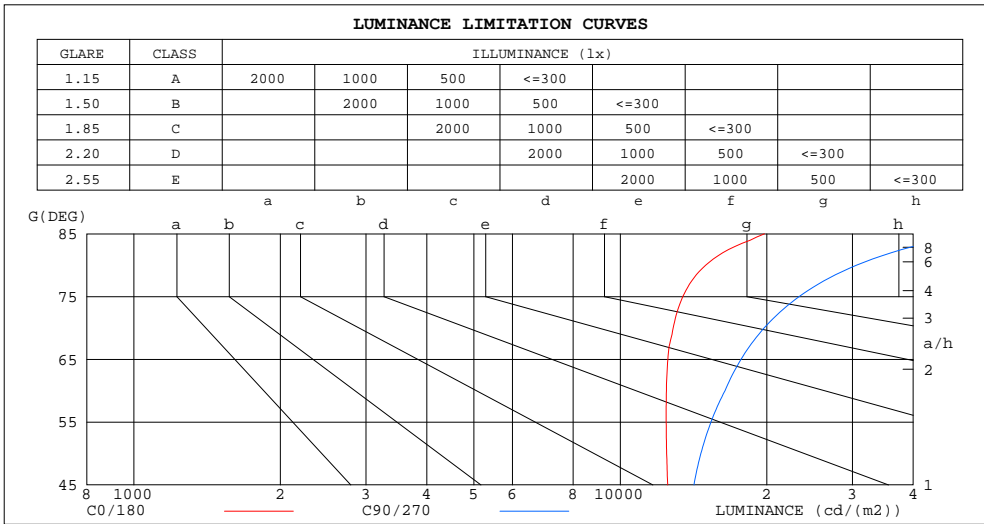
%lum = 65.0%
%lamp = 65.0%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	19780	52598
80	14975	30569
75	13442	23307
70	12843	19755
65	12522	17701
60	12437	16409
55	12424	15357
50	12452	14644
45	12511	14166

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.374	.213	.067	.365	.208	.066	.349	.200	.064	.333	.192	.062	.319	.185	.060	
2.0	.331	.181	.056	.323	.178	.055	.308	.171	.053	.294	.165	.052	.281	.159	.050	
3.0	.296	.158	.047	.289	.155	.047	.276	.149	.045	.263	.144	.044	.252	.139	.043	
4.0	.268	.139	.041	.262	.137	.040	.250	.132	.040	.238	.128	.039	.228	.124	.038	
5.0	.244	.125	.036	.239	.122	.036	.228	.119	.035	.218	.115	.034	.208	.111	.033	
6.0	.224	.112	.032	.219	.111	.032	.209	.107	.031	.200	.104	.031	.192	.101	.030	
7.0	.207	.102	.029	.202	.101	.029	.194	.098	.028	.185	.095	.028	.178	.092	.027	
8.0	.192	.094	.026	.188	.093	.026	.180	.090	.026	.173	.087	.025	.165	.085	.025	
9.0	.179	.087	.024	.175	.086	.024	.168	.083	.024	.161	.081	.023	.155	.079	.023	
10.0	.168	.080	.022	.164	.079	.022	.158	.077	.022	.152	.075	.021	.146	.073	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.235	.235	.235	.201	.201	.201	.137	.137	.137	.079	.079	.079	.025	.025	.025	
1.0	.230	.200	.174	.196	.172	.150	.134	.118	.104	.077	.068	.060	.025	.022	.019	
2.0	.223	.177	.138	.191	.152	.120	.131	.105	.083	.075	.061	.049	.024	.020	.016	
3.0	.215	.160	.116	.184	.138	.100	.126	.096	.070	.073	.056	.042	.023	.018	.014	
4.0	.207	.147	.101	.178	.127	.088	.122	.088	.062	.071	.052	.037	.023	.017	.012	
5.0	.199	.137	.091	.171	.118	.079	.118	.083	.056	.068	.049	.033	.022	.016	.011	
6.0	.192	.129	.083	.165	.111	.073	.114	.078	.051	.066	.046	.031	.021	.015	.010	
7.0	.185	.122	.078	.159	.106	.068	.110	.074	.048	.064	.044	.029	.021	.014	.009	
8.0	.178	.116	.074	.153	.101	.064	.106	.071	.046	.062	.042	.027	.020	.014	.009	
9.0	.171	.111	.071	.148	.097	.062	.102	.068	.044	.060	.040	.026	.019	.013	.009	
10.0	.165	.107	.068	.143	.093	.059	.099	.065	.042	.058	.039	.025	.019	.013	.008	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: 20		TYPE:					WEIGHT:				
SPEC.:		DIM.:					SERIAL No.:				
MFR.:		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	19.6	21.2	20.0	21.5	21.8	20.8	22.4	21.2	22.7	23.0	
3H	21.5	22.9	21.9	23.3	23.6	23.3	24.7	23.7	25.1	25.4	
4H	22.4	23.7	22.8	24.1	24.5	24.6	26.0	25.0	26.3	26.7	
6H	23.2	24.5	23.6	24.9	25.3	26.0	27.3	26.4	27.7	28.1	
8H	23.6	24.8	24.0	25.2	25.6	26.8	28.0	27.2	28.4	28.9	
12H	24.0	25.2	24.4	25.6	26.0	27.7	28.9	28.1	29.3	29.7	
4H 2H	20.6	22.0	21.0	22.4	22.7	21.5	22.9	21.9	23.2	23.6	
3H	22.7	23.9	23.2	24.3	24.8	24.2	25.4	24.6	25.8	26.2	
4H	23.8	24.9	24.2	25.3	25.8	25.7	26.8	26.2	27.2	27.7	
6H	24.8	25.8	25.3	26.2	26.7	27.3	28.3	27.8	28.8	29.3	
8H	25.3	26.2	25.8	26.7	27.2	28.2	29.1	28.7	29.6	30.1	
12H	25.7	26.6	26.3	27.1	27.6	29.2	30.1	29.7	30.6	31.1	
8H 4H	24.6	25.5	25.1	26.0	26.5	26.1	27.1	26.6	27.5	28.0	
6H	25.9	26.7	26.4	27.2	27.7	28.0	28.8	28.6	29.3	29.9	
8H	26.6	27.3	27.1	27.8	28.4	29.1	29.8	29.7	30.4	31.0	
12H	27.2	27.8	27.8	28.4	29.0	30.4	31.0	31.0	31.6	32.2	
12H 4H	24.8	25.6	25.3	26.1	26.7	26.2	27.0	26.7	27.5	28.1	
6H	26.3	27.0	26.8	27.5	28.1	28.2	28.9	28.8	29.4	30.0	
8H	27.1	27.7	27.6	28.2	28.9	29.4	30.0	30.0	30.6	31.2	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117, 1582 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.6)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

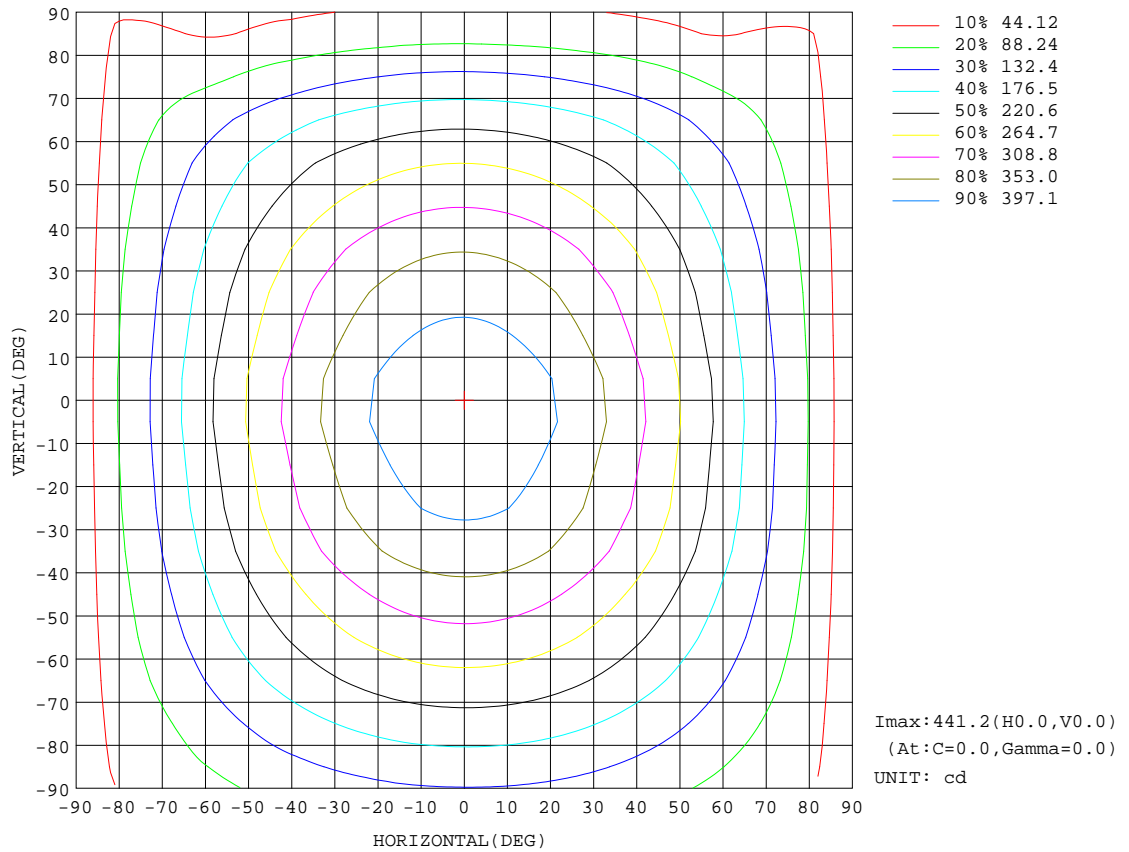
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	40	33	51	40	32	50	39	32	25
0.80	62	49	41	60	48	41	58	47	40	33
1.00	70	57	49	68	56	49	65	58	48	40
1.25	77	64	56	75	64	56	72	62	55	47
1.50	82	70	62	80	69	61	76	67	60	51
2.00	89	78	71	87	77	70	82	74	68	59
2.50	93	84	76	91	82	75	86	79	73	63
3.00	97	88	81	94	86	80	89	83	77	67
4.00	101	94	88	98	92	86	93	88	83	72
5.00	104	98	92	101	95	91	96	91	87	76
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

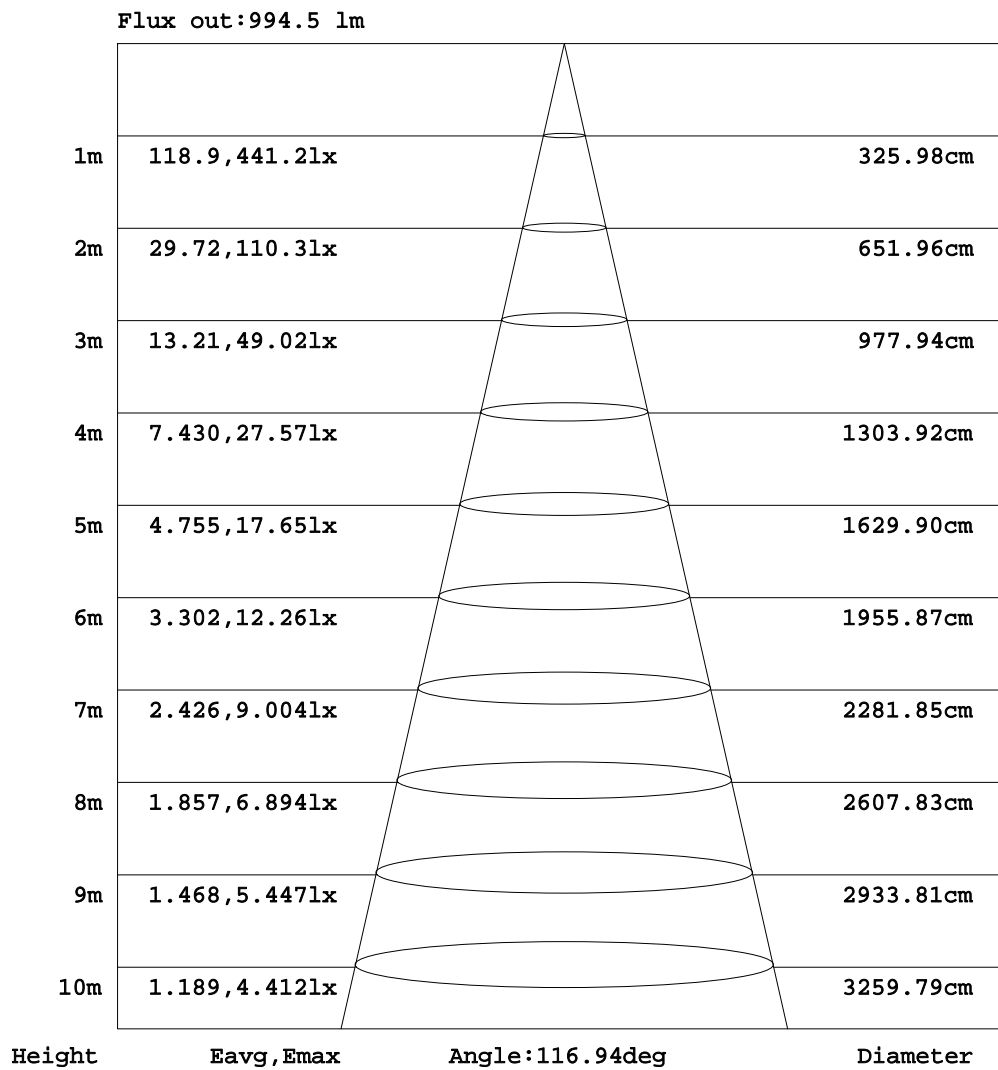


H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-12-02

V(B) Range:-180 - 180DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.782m [K=1.0000]
 Remarks:

AAI Figure

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

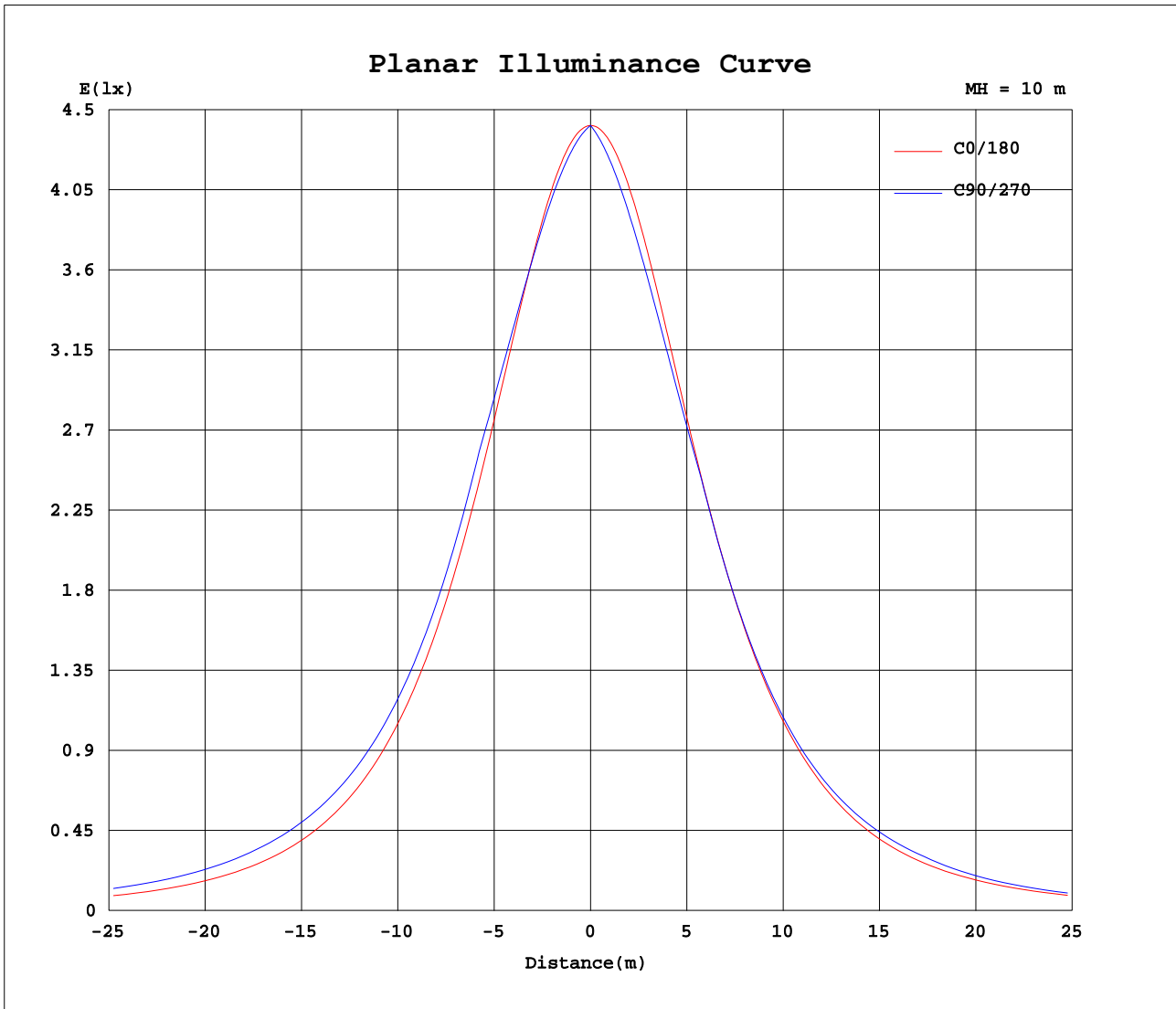


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-12-02

V(B) Range:-180 - 180DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:9.782m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding 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	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441
5	439	438	438	437	437	436	436	435	435	435	435	434	434	434	434	434	434	434	434
10	433	431	430	429	429	428	428	427	427	427	427	426	426	426	426	426	427	427	427
15	422	421	419	418	417	417	417	416	416	417	417	417	418	418	419	419	419	419	419
20	409	406	405	404	403	403	403	404	404	405	406	407	408	409	410	411	412	412	412
25	391	389	387	386	386	387	387	389	390	392	394	396	398	400	402	403	404	405	405
30	371	369	367	367	367	368	370	372	375	378	382	385	388	391	393	395	396	397	397
35	349	346	345	345	346	348	351	355	359	364	368	373	374	375	376	376	377	377	377
40	324	321	320	321	323	326	331	336	342	347	348	349	351	353	354	355	356	357	357
45	297	295	294	296	300	305	311	317	319	321	323	326	328	331	333	334	336	336	337
50	269	267	267	270	275	282	289	290	292	295	299	302	306	309	311	313	315	316	316
55	239	237	239	243	250	257	259	263	267	270	275	279	283	287	290	293	295	296	296
60	209	207	210	217	225	227	231	236	241	246	251	257	261	266	269	272	274	275	276
65	178	177	181	190	194	198	204	210	216	223	229	234	239	242	246	248	250	251	251
70	148	147	154	159	164	171	178	186	193	198	204	209	213	217	221	224	226	227	227
75	117	118	125	130	137	145	153	160	166	172	178	184	189	193	196	199	201	202	203
80	87.4	90.9	95.8	103	111	118	126	133	141	147	153	159	164	169	172	175	177	178	178
85	57.9	63.0	70.7	77.5	84.9	92.7	101	109	116	123	129	135	140	145	148	151	153	154	154
90	0.50	24.8	47.9	54.3	61.5	69.3	77.3	85.2	92.8	99.7	106	112	117	121	124	127	129	130	130
95	0.73	8.38	17.7	34.4	40.5	47.4	54.7	62.2	69.6	76.8	83.4	89.4	94.7	99.0	103	105	107	108	108
100	14.9	15.9	17.4	17.5	19.5	25.9	32.7	39.7	46.9	54.5	61.3	67.5	73.0	77.5	81.0	83.7	85.7	86.8	87.0
105	6.86	8.02	8.03	9.51	9.69	8.53	10.5	17.3	24.7	32.5	39.6	46.0	51.5	56.0	59.5	62.3	64.3	65.4	65.7
110	2.35	3.06	2.76	3.70	5.31	5.31	4.07	2.26	3.03	11.0	18.1	24.6	30.1	34.5	38.1	40.9	42.8	44.0	44.4
115	2.56	2.30	2.03	1.90	3.25	3.67	3.15	2.45	2.30	2.06	1.92	3.46	8.91	13.2	16.7	19.5	21.4	22.7	23.1
120	3.69	3.28	3.02	2.90	3.07	3.50	3.47	3.43	3.20	2.70	2.43	2.40	2.31	2.02	1.86	1.76	1.69	1.72	1.75
125	4.73	4.36	4.13	4.05	4.23	4.60	4.61	4.40	3.77	3.07	2.71	2.51	2.27	2.02	1.89	1.82	1.78	1.81	1.84
130	5.22	5.02	4.92	4.92	5.08	5.39	5.57	4.77	3.82	3.18	2.79	2.49	2.21	2.02	1.93	1.89	1.88	1.90	1.94
135	4.63	4.69	4.71	4.74	4.85	4.91	4.68	4.35	3.61	3.06	2.68	2.37	2.15	2.04	1.99	1.96	1.98	2.00	2.03
140	2.94	3.26	3.48	3.61	3.64	3.60	3.52	3.36	3.12	2.80	2.48	2.27	2.13	2.07	2.05	2.05	2.08	2.09	2.12
145	2.04	2.29	2.52	2.70	2.83	2.87	2.84	2.76	2.61	2.45	2.32	2.20	2.14	2.13	2.13	2.14	2.18	2.18	2.21
150	2.15	2.26	2.37	2.46	2.51	2.52	2.49	2.43	2.37	2.30	2.23	2.20	2.19	2.21	2.21	2.24	2.28	2.28	2.30
155	2.32	2.34	2.36	2.37	2.38	2.37	2.35	2.32	2.29	2.27	2.25	2.26	2.26	2.27	2.28	2.32	2.32	2.33	2.35
160	2.39	2.39	2.38	2.37	2.36	2.35	2.34	2.33	2.32	2.32	2.32	2.33	2.33	2.34	2.37	2.38	2.38	2.39	2.40
165	2.46	2.44	2.43	2.43	2.42	2.41	2.40	2.40	2.40	2.39	2.40	2.40	2.41	2.42	2.44	2.43	2.44	2.45	2.46
170	2.51	2.50	2.50	2.49	2.49	2.48	2.48	2.48	2.48	2.48	2.48	2.49	2.49	2.49	2.49	2.50	2.50	2.50	2.51
175	2.58	2.58	2.57	2.57	2.57	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
180	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding 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	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441
5	434	434	434	434	434	434	435	435	435	435	436	436	437	437	438	438	439	439	438
10	427	427	427	427	427	427	427	427	427	427	428	428	429	429	430	431	432	433	431
15	419	419	419	419	418	418	418	417	417	417	417	417	417	418	419	420	422	424	421
20	412	412	411	410	409	408	407	406	405	405	404	404	404	404	405	406	408	410	406
25	405	404	403	401	400	398	396	394	392	390	389	388	387	387	387	389	390	393	389
30	397	396	394	392	390	387	384	381	378	375	372	370	368	367	367	368	370	373	369
35	377	376	376	375	374	373	371	367	362	358	354	351	348	346	345	346	348	351	346
40	357	356	355	353	352	350	348	346	345	341	335	330	326	323	321	321	323	326	321
45	336	335	334	332	330	327	324	322	319	317	315	309	303	299	296	295	297	301	295
50	316	315	313	310	308	304	301	297	294	290	288	286	280	274	270	268	269	273	267
55	295	294	292	289	286	282	278	273	269	264	260	257	254	248	243	240	240	244	238
60	275	274	271	268	264	260	255	250	244	239	233	228	224	222	215	211	210	213	208
65	251	249	247	245	241	237	233	227	221	214	208	201	196	191	188	181	179	183	178
70	226	225	223	220	216	212	207	202	196	191	184	176	169	162	157	153	149	152	148
75	202	201	199	195	192	187	182	176	171	164	158	151	144	135	129	124	119	121	119
80	178	177	174	171	167	163	157	152	146	139	132	124	117	110	102	95.0	91.1	91.4	91.4
85	154	152	150	147	143	139	134	128	122	114	107	99.2	90.8	82.2	75.5	69.7	62.9	62.3	62.9
90	129	128	126	123	119	115	110	105	98.6	90.8	83.3	75.8	66.6	57.3	50.9	46.2	25.0	0.25	23.9
95	108	107	105	102	97.8	93.5	88.2	82.6	76.0	68.0	60.5	53.3	45.4	37.8	32.5	16.3	7.80	1.55	9.14
100	86.6	85.4	83.4	80.2	76.5	72.1	66.8	60.7	53.9	45.9	38.2	31.2	24.5	18.1	16.5	16.3	14.7	14.4	13.6
105	65.3	64.1	62.1	59.0	55.2	50.9	45.6	39.3	32.3	24.3	16.2	9.18	7.47	8.87	8.39	6.43	6.42	5.56	5.62
110	44.0	42.8	40.7	37.8	34.1	29.7	24.5	18.3	11.1	3.05	1.92	3.68	5.23	5.51	3.90	2.40	2.93	2.83	2.79
115	22.7	21.5	19.5	16.6	13.0	8.70	3.67	2.37	2.41	2.67	3.20	3.88	4.69	4.64	3.49	3.58	3.95	4.76	4.44
120	1.79	1.80	1.84	1.92	2.01	2.18	2.52	2.78	3.05	3.57	4.40	5.08	5.55	5.62	5.32	5.38	5.75	6.71	6.46
125	1.88	1.89	1.93	1.97	2.06	2.21	2.52	2.95	3.39	4.01	4.95	6.14	7.02	6.82	6.59	6.59	6.82	7.58	7.57
130	1.98	1.98	2.01	2.04	2.10	2.22	2.47	2.90	3.42	4.07	4.92	6.08	6.63	6.66	6.56	6.53	6.56	6.86	7.05
135	2.07	2.08	2.10	2.11	2.14	2.23	2.41	2.73	3.21	3.82	4.53	4.84	5.08	5.23	5.26	5.17	4.94	4.78	5.10
140	2.16	2.17	2.18	2.20	2.20	2.25	2.35	2.57	2.90	3.25	3.54	3.73	3.83	3.86	3.81	3.68	3.47	3.29	3.55
145	2.25	2.27	2.28	2.29	2.28	2.29	2.34	2.42	2.56	2.71	2.87	2.99	3.04	3.02	2.92	2.77	2.57	2.46	2.65
150	2.33	2.36	2.36	2.36	2.36	2.35	2.34	2.37	2.40	2.46	2.53	2.58	2.61	2.62	2.59	2.52	2.42	2.46	2.52
155	2.38	2.40	2.40	2.40	2.41	2.40	2.40	2.39	2.39	2.42	2.43	2.43	2.45	2.47	2.47	2.45	2.43	2.55	2.55
160	2.42	2.43	2.44	2.45	2.45	2.45	2.46	2.46	2.45	2.45	2.44	2.45	2.46	2.47	2.48	2.49	2.50	2.67	2.66
165	2.47	2.47	2.48	2.49	2.49	2.50	2.50	2.50	2.51	2.51	2.52	2.53	2.52	2.52	2.53	2.54	2.55	2.74	2.73
170	2.51	2.52	2.52	2.52	2.53	2.53	2.54	2.55	2.55	2.55	2.55	2.56	2.56	2.57	2.58	2.58	2.59	2.77	2.76
175	2.56	2.56	2.56	2.56	2.57	2.57	2.57	2.57	2.58	2.58	2.58	2.59	2.59	2.59	2.60	2.60	2.60	2.77	2.77
180	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.77	2.77

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding 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	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441
5	437	436	436	435	434	433	433	432	432	431	431	431	430	430	430	430	430	430	430
10	430	428	427	425	424	423	422	421	421	420	420	419	419	419	418	418	418	418	418
15	418	416	414	413	411	410	409	409	408	408	407	407	407	407	407	407	407	407	407
20	403	401	399	397	396	395	395	394	394	394	395	395	395	395	395	395	395	395	395
25	386	383	381	379	379	378	378	379	380	380	381	382	383	383	384	384	384	384	383
30	365	362	360	360	359	360	361	362	364	365	367	369	370	371	372	372	372	372	371
35	342	340	338	338	339	340	342	345	348	350	350	351	351	351	351	351	351	351	350
40	317	315	315	316	317	320	323	326	326	326	327	328	328	329	329	329	329	329	328
45	291	290	290	292	295	299	300	300	301	302	304	305	306	307	307	308	308	307	306
50	264	263	265	268	272	272	273	275	277	279	280	282	284	285	286	286	286	286	285
55	236	236	239	243	243	245	247	250	252	255	257	260	261	263	264	264	264	264	263
60	207	209	213	214	216	219	222	226	229	232	235	237	239	241	242	243	243	242	241
65	178	182	184	186	190	194	198	202	206	209	208	208	209	209	209	209	209	208	208
70	151	153	155	160	165	170	174	173	172	172	173	173	174	174	175	175	175	174	174
75	123	125	129	135	138	136	136	136	136	136	137	138	139	140	140	141	141	140	139
80	93.7	98.8	102	100	97.9	97.0	97.7	98.8	99.1	100	102	103	104	105	106	106	106	106	105
85	68.2	69.1	67.8	64.3	59.8	58.5	60.4	62.3	63.0	64.7	66.3	67.9	69.3	70.9	71.8	72.2	72.4	71.8	71.1
90	42.1	40.2	35.9	29.5	22.3	20.5	23.4	26.2	27.1	29.2	31.2	33.0	34.6	36.5	37.5	38.1	38.3	37.6	36.9
95	24.9	25.1	23.4	19.8	15.6	15.2	18.1	20.9	22.1	24.1	25.9	27.5	29.0	30.7	31.5	32.0	32.2	31.7	31.0
100	13.5	12.1	10.9	10.1	8.79	10.1	13.0	15.7	17.3	19.2	20.7	22.1	23.4	24.8	25.6	26.0	26.2	25.7	25.1
105	4.84	5.91	5.47	3.47	2.73	5.26	8.11	10.7	12.5	14.2	15.5	16.6	17.7	19.0	19.6	20.0	20.1	19.7	19.2
110	2.67	3.79	4.27	3.47	2.87	2.75	3.35	5.80	7.79	9.19	10.2	11.2	12.1	13.1	13.6	14.0	14.1	13.8	13.3
115	4.51	5.00	5.26	5.01	4.68	4.33	4.02	4.04	4.15	4.03	4.88	5.69	6.44	7.17	7.64	7.95	8.04	7.82	7.41
120	6.52	6.91	7.43	6.88	6.16	5.21	4.59	4.29	4.01	3.45	3.04	2.71	2.46	2.26	2.10	2.04	1.99	1.96	1.96
125	7.66	7.86	8.10	7.94	6.48	5.37	4.65	4.18	3.62	3.16	2.82	2.61	2.43	2.29	2.18	2.13	2.08	2.06	2.05
130	7.13	7.14	6.94	6.53	5.91	4.97	4.30	3.71	3.21	2.86	2.65	2.53	2.42	2.33	2.26	2.22	2.18	2.15	2.14
135	5.26	5.27	5.15	4.91	4.60	4.21	3.64	3.16	2.83	2.62	2.55	2.49	2.44	2.38	2.34	2.31	2.27	2.25	2.23
140	3.72	3.79	3.76	3.67	3.50	3.26	2.98	2.71	2.54	2.50	2.51	2.49	2.47	2.44	2.42	2.40	2.37	2.34	2.33
145	2.79	2.89	2.94	2.92	2.84	2.72	2.59	2.49	2.47	2.49	2.51	2.53	2.53	2.52	2.51	2.49	2.46	2.44	2.43
150	2.58	2.62	2.62	2.59	2.56	2.52	2.50	2.52	2.53	2.54	2.57	2.58	2.59	2.59	2.59	2.58	2.56	2.53	2.52
155	2.56	2.56	2.55	2.55	2.55	2.57	2.58	2.58	2.60	2.61	2.61	2.62	2.63	2.62	2.63	2.61	2.59	2.56	2.55
160	2.65	2.64	2.64	2.63	2.63	2.64	2.65	2.66	2.65	2.66	2.66	2.66	2.66	2.65	2.65	2.64	2.63	2.61	2.59
165	2.73	2.72	2.72	2.71	2.71	2.70	2.70	2.70	2.70	2.69	2.69	2.69	2.68	2.69	2.67	2.67	2.66	2.65	2.63
170	2.76	2.75	2.75	2.74	2.74	2.74	2.73	2.73	2.72	2.72	2.72	2.72	2.71	2.71	2.71	2.71	2.70	2.69	2.68
175	2.77	2.76	2.76	2.76	2.76	2.75	2.75	2.75	2.75	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.73	2.73	2.73
180	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: 20	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441				
5	430	430	430	431	431	431	432	432	433	434	434	435	436	437	438				
10	418	418	419	419	419	420	421	421	422	423	424	426	427	429	431				
15	407	407	407	407	407	407	408	408	409	410	411	413	415	417	420				
20	395	394	394	394	393	393	393	393	394	395	396	397	399	402	405				
25	382	382	381	380	379	378	377	377	377	377	378	379	381	384	387				
30	370	369	367	366	364	362	360	359	358	357	357	358	360	363	366				
35	350	349	349	349	348	345	343	340	338	336	336	336	337	340	344				
40	328	327	326	325	324	324	323	321	317	315	313	312	313	315	318				
45	305	304	303	301	300	298	297	297	297	293	289	287	287	288	292				
50	283	282	280	278	276	274	272	270	269	269	265	262	260	260	263				
55	261	259	257	255	252	249	247	244	242	240	239	236	232	232	234				
60	239	237	235	232	229	225	222	218	215	212	210	209	205	202	204				
65	207	207	206	206	205	202	198	194	189	185	181	179	178	173	173				
70	173	172	171	170	170	169	169	169	165	159	154	150	147	145	143				
75	139	138	137	136	135	134	133	132	132	132	129	123	118	116	114				
80	104	103	102	101	100.0	98.8	97.6	96.4	95.1	94.9	96.0	96.2	92.4	87.9	86.2				
85	70.3	69.3	67.9	66.7	65.5	64.2	62.8	61.1	59.2	59.6	62.8	64.8	64.9	63.3	58.2				
90	36.2	35.2	33.7	32.5	31.2	29.8	28.3	26.2	23.9	25.2	31.1	36.1	39.3	41.0	22.1				
95	30.3	29.3	28.0	26.8	25.5	23.8	22.1	19.9	17.6	18.0	21.7	24.6	25.8	25.2	9.06				
100	24.5	23.6	22.4	21.2	19.8	18.0	16.1	13.9	11.3	10.8	12.1	13.0	14.0	15.2	15.4				
105	18.6	17.8	16.7	15.7	14.3	12.3	10.2	7.90	5.32	3.71	4.95	6.63	7.21	6.74	7.71				
110	12.8	12.0	11.1	10.1	8.78	6.74	4.46	2.09	1.77	2.03	3.20	3.85	2.94	2.28	2.82				
115	6.89	6.22	5.42	4.56	3.38	2.67	2.44	2.63	2.80	2.86	2.95	3.07	2.47	2.32	2.34				
120	2.03	2.18	2.37	2.67	3.01	2.97	3.00	3.46	3.87	4.05	4.06	3.91	3.54	3.38	3.42				
125	2.08	2.17	2.30	2.48	2.82	3.02	3.22	3.73	4.66	5.18	5.46	5.10	4.71	4.48	4.44				
130	2.13	2.19	2.26	2.34	2.52	2.84	3.12	3.62	4.45	5.65	5.84	5.66	5.41	5.24	5.17				
135	2.20	2.22	2.24	2.29	2.32	2.50	2.79	3.19	3.82	4.26	4.67	4.98	5.04	5.02	4.92				
140	2.29	2.28	2.27	2.27	2.25	2.25	2.39	2.65	2.91	3.14	3.30	3.44	3.50	3.48	3.35				
145	2.39	2.37	2.34	2.30	2.27	2.24	2.23	2.32	2.45	2.57	2.64	2.64	2.60	2.49	2.34				
150	2.49	2.44	2.42	2.39	2.34	2.33	2.32	2.28	2.30	2.34	2.39	2.41	2.42	2.40	2.36				
155	2.55	2.51	2.48	2.46	2.43	2.41	2.39	2.38	2.38	2.37	2.37	2.38	2.39	2.40	2.42				
160	2.59	2.57	2.55	2.53	2.52	2.50	2.49	2.48	2.46	2.46	2.46	2.47	2.47	2.48	2.49				
165	2.63	2.62	2.62	2.60	2.59	2.57	2.57	2.57	2.56	2.55	2.55	2.56	2.56	2.56	2.57				
170	2.67	2.67	2.66	2.66	2.66	2.65	2.65	2.65	2.64	2.64	2.64	2.64	2.64	2.64	2.65				
175	2.72	2.72	2.71	2.71	2.71	2.71	2.71	2.71	2.70	2.70	2.70	2.71	2.71	2.71	2.71				
180	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77				

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2016-12-02

V(B) Range:-180 - 180DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:9.782m [K=1.0000]
Remarks: