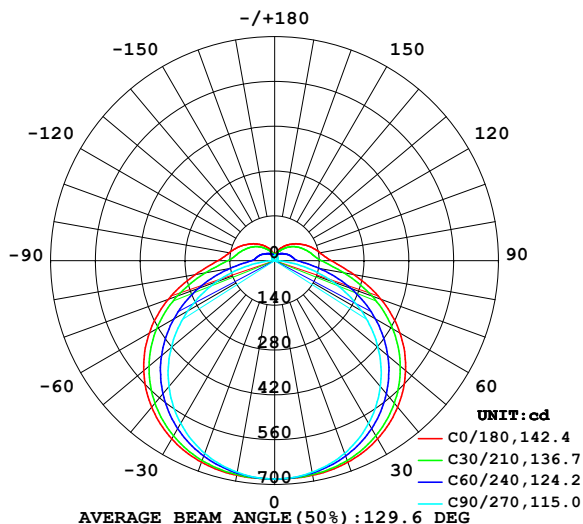


LUMINAIRE PHOTOMETRIC TEST REPORT

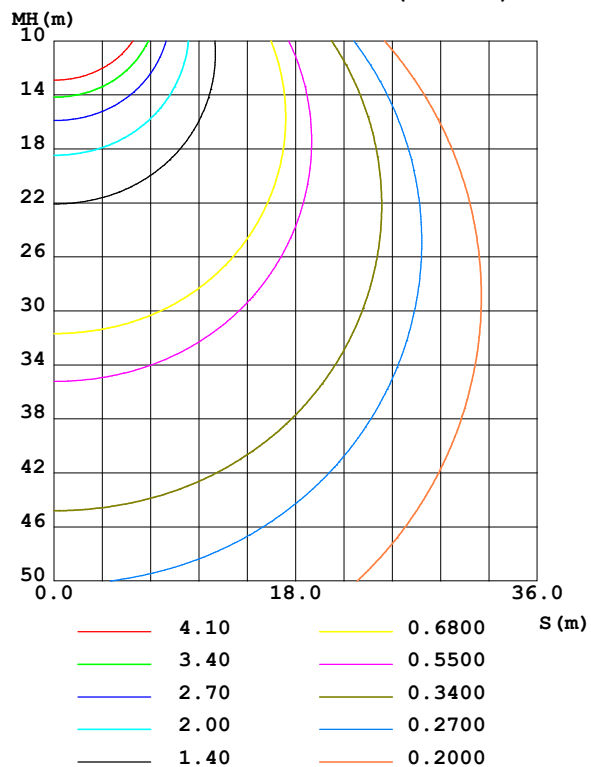
Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 132.48 lm/W			
MODEL	NU28	Imax (cd)	682.7	S/MH(C0/180)	1.41
NOMINAL POWER(W)	22	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2817.8	□ UP,DN(C0-180)	6.7,43.3
NOMINAL FLUX(lm)	2817.75	CIE CLASS	SEMI-D.	□ UP,DN(C180-360)	6.7,43.3
LAMPS INSIDE	1	□ up (%)	13.4	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230	□ down (%)	86.6	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

□ Range: 0 - 180DEG  
□ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	681.2	677.0	672.2	677.0	681.2	677.0	672.2	677.0	0- 10	64.89	64.89	2.3,2.3
20	670.3	657.8	640.7	657.8	670.3	657.8	640.7	657.8	10- 20	189.1	254.0	9.01,9.01
30	643.5	620.5	587.6	620.5	643.5	620.5	587.6	620.5	20- 30	295.2	549.2	19.5,19.5
40	598.1	564.4	514.2	564.4	598.1	564.4	514.2	564.4	30- 40	370.5	919.7	32.6,32.6
50	534.6	489.3	421.6	489.3	534.6	489.3	421.6	489.3	40- 50	405.0	1325	47,47
60	452.5	397.1	313.1	397.1	452.5	397.1	313.1	397.1	50- 60	393.0	1718	61,61
70	354.0	291.3	192.8	291.3	354.0	291.3	192.8	291.3	60- 70	335.0	2053	72.9,72.9
80	251.3	183.2	73.11	183.2	251.3	183.2	73.11	183.2	70- 80	241.1	2294	81.4,81.4
90	177.8	112.5	4.068	112.5	177.8	112.5	4.068	112.5	80- 90	145.8	2440	86.6,86.6
100	144.5	91.54	5.354	91.54	144.5	91.54	5.354	91.54	90-100	100.7	2540	90.2,90.2
110	122.9	78.40	7.080	78.40	122.9	78.40	7.080	78.40	100-110	83.02	2623	93.1,93.1
120	101.9	65.45	8.581	65.45	101.9	65.45	8.581	65.45	110-120	66.29	2690	95.5,95.5
130	82.44	51.32	10.26	51.32	82.44	51.32	10.26	51.32	120-130	49.66	2739	97.2,97.2
140	65.02	40.46	11.90	40.46	65.02	40.46	11.90	40.46	130-140	34.84	2774	98.5,98.5
150	49.33	31.86	13.52	31.86	49.33	31.86	13.52	31.86	140-150	22.59	2797	99.3,99.3
160	35.19	24.71	14.82	24.71	35.19	24.71	14.82	24.71	150-160	13.09	2810	99.7,99.7
170	22.61	19.25	15.77	19.25	22.61	19.25	15.77	19.25	160-170	6.195	2816	99.9,99.9
180	16.26	16.06	16.19	16.06	16.26	16.06	16.19	16.06	170-180	1.680	2818	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1120.7 lm

%lum = 39.8%

%lamp = 39.8%

Conical surface Flux(130deg): 1895.1 lm

%lum = 67.3%

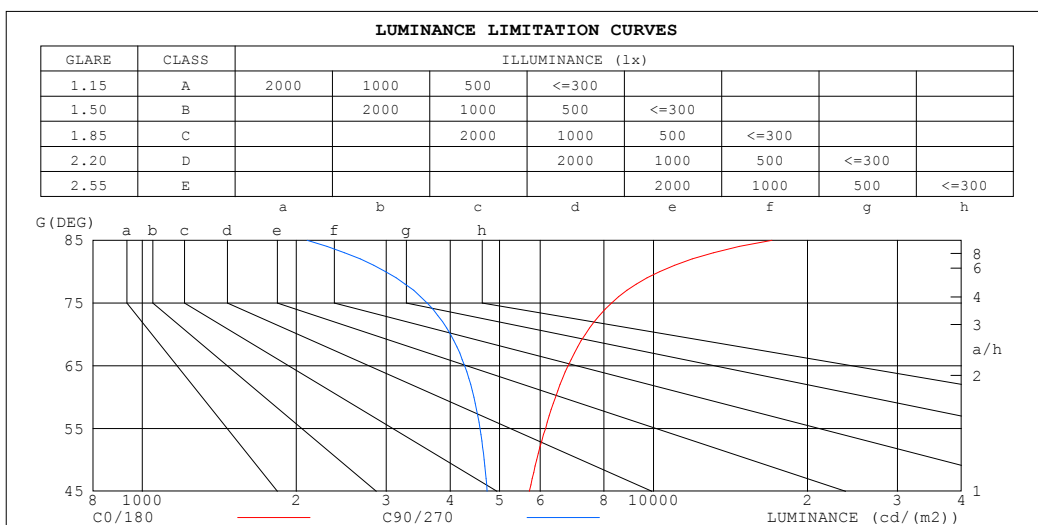
%lamp = 67.3%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

□ Range: 0 - 180DEG  
□ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17035	2101
80	10282	2993
75	8274	3607
70	7353	4006
65	6806	4270
60	6429	4451
55	6146	4575
50	5909	4662
45	5714	4726

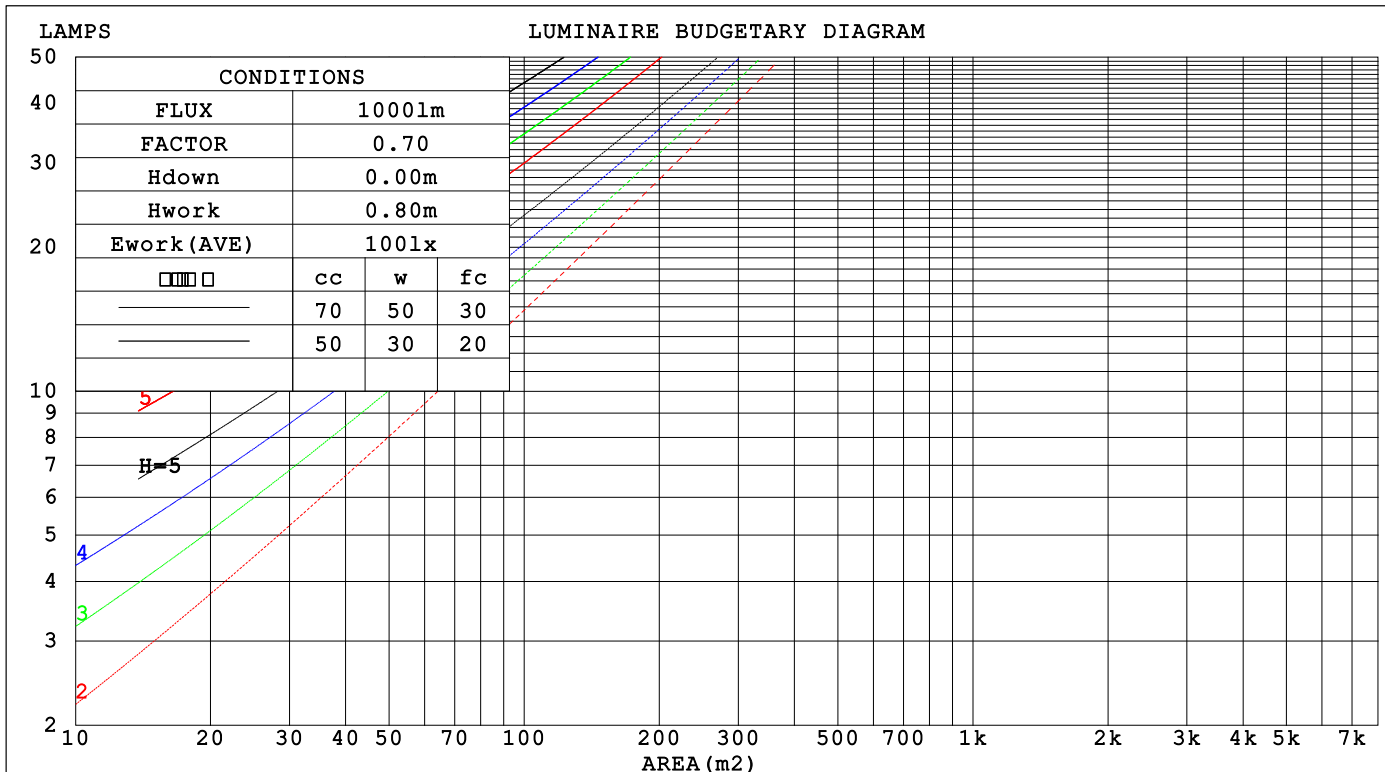
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: QC  
Test Date: 2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity: 65.0%  
Test Distance: 10.640m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210		Lamp Flux:2817.75x1 lm
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0														
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
□fc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Coefficients of Utilization(CU)														
0.0	1.16	1.16	1.16	1.12	1.12	1.12	1.04	1.04	1.04	.96	.96	.96	.90	.90	.90	.87														
1.0	.98	.93	.89	.95	.90	.86	.88	.84	.81	.82	.79	.76	.76	.74	.71	.68														
2.0	.84	.77	.71	.81	.74	.69	.76	.70	.65	.70	.66	.62	.65	.62	.58	.55														
3.0	.73	.65	.58	.71	.63	.56	.66	.59	.54	.61	.56	.51	.57	.52	.48	.46														
4.0	.65	.55	.48	.62	.54	.47	.58	.51	.45	.54	.48	.43	.50	.45	.41	.38														
5.0	.57	.48	.41	.55	.47	.40	.52	.44	.38	.48	.42	.37	.45	.40	.35	.33														
6.0	.51	.42	.35	.50	.41	.35	.46	.39	.33	.43	.37	.32	.41	.35	.31	.28														
7.0	.46	.37	.31	.45	.36	.30	.42	.35	.29	.39	.33	.28	.37	.31	.27	.25														
8.0	.42	.33	.27	.41	.33	.27	.38	.31	.26	.36	.30	.25	.34	.28	.24	.22														
9.0	.38	.30	.24	.37	.29	.24	.35	.28	.23	.33	.27	.22	.31	.26	.22	.20														
10.0	.35	.27	.22	.34	.27	.22	.32	.26	.21	.31	.25	.20	.29	.23	.20	.18														



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

□ Range: 0 - 180DEG  
□ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

### WEC AND CCEC

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio					Wall Exitance Coefficients(WEC)
0.0						
1.0	.357 .203 .064	.346 .197 .063	.325 .186 .059	.305 .176 .057	.287 .167 .054	
2.0	.319 .175 .054	.308 .170 .052	.289 .161 .050	.272 .153 .048	.256 .145 .046	
3.0	.287 .153 .046	.278 .149 .045	.261 .141 .043	.245 .134 .041	.231 .128 .039	
4.0	.261 .136 .040	.253 .132 .039	.237 .126 .038	.223 .120 .036	.210 .114 .035	
5.0	.239 .122 .035	.231 .119 .035	.217 .113 .033	.204 .108 .032	.192 .103 .031	
6.0	.220 .110 .032	.213 .108 .031	.200 .103 .030	.188 .098 .029	.177 .093 .028	
7.0	.203 .100 .028	.197 .098 .028	.185 .094 .027	.175 .089 .026	.164 .085 .025	
8.0	.189 .092 .026	.183 .090 .026	.173 .086 .025	.163 .082 .024	.153 .079 .023	
9.0	.176 .085 .024	.171 .083 .023	.161 .080 .023	.152 .076 .022	.144 .073 .021	
10.0	.165 .079 .022	.161 .078 .022	.152 .074 .021	.143 .071 .020	.135 .068 .019	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio					Ceiling Cavity Exitance Coefficients(CCEC)
0.0	.293 .293 .293	.250 .250 .250	.171 .171 .171	.098 .098 .098	.031 .031 .031	
1.0	.287 .259 .234	.245 .222 .201	.168 .153 .139	.097 .088 .081	.031 .028 .026	
2.0	.280 .236 .199	.239 .203 .172	.164 .140 .120	.095 .082 .070	.030 .026 .023	
3.0	.272 .219 .176	.233 .189 .153	.160 .131 .107	.093 .077 .063	.030 .025 .021	
4.0	.265 .206 .161	.227 .178 .140	.156 .124 .099	.090 .073 .058	.029 .024 .019	
5.0	.257 .196 .151	.221 .170 .131	.152 .119 .093	.088 .070 .055	.028 .023 .018	
6.0	.250 .188 .144	.215 .163 .125	.148 .114 .089	.086 .067 .053	.028 .022 .017	
7.0	.243 .181 .138	.209 .157 .121	.144 .110 .085	.084 .065 .051	.027 .021 .017	
8.0	.236 .176 .134	.203 .152 .117	.141 .107 .083	.082 .063 .049	.026 .021 .016	
9.0	.230 .171 .131	.198 .148 .114	.137 .104 .081	.080 .062 .048	.026 .020 .016	
10.0	.224 .167 .129	.193 .145 .112	.134 .102 .080	.078 .060 .048	.025 .020 .016	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz UTHDi:0.24% ITHDi:12.97% KDisp:0.9210Lamp Flux:2817.75x1 lm											
NAME: NU28-LC-22W-1200K-30H					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: Ervan					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		15.2	16.6	15.6	17.0	17.5	13.7	15.1	14.1	15.5	16.0
3H		17.4	18.7	17.9	19.2	19.7	15.1	16.4	15.6	16.9	17.4
4H		18.6	19.8	19.1	20.3	20.8	15.7	16.9	16.2	17.4	17.9
6H		19.7	20.9	20.3	21.4	22.0	16.1	17.2	16.6	17.7	18.3
8H		20.4	21.5	20.9	22.0	22.6	16.1	17.3	16.7	17.8	18.3
12H		21.1	22.2	21.6	22.7	23.3	16.2	17.2	16.7	17.8	18.4
4H 2H		15.7	16.9	16.2	17.4	18.0	14.6	15.8	15.1	16.3	16.9
3H		18.2	19.3	18.7	19.8	20.4	16.3	17.4	16.8	17.9	18.5
4H		19.5	20.5	20.1	21.0	21.7	17.0	18.0	17.6	18.6	19.2
6H		20.9	21.8	21.5	22.3	23.0	17.5	18.4	18.1	19.0	19.6
8H		21.6	22.5	22.2	23.1	23.7	17.7	18.5	18.3	19.1	19.7
12H		22.5	23.3	23.1	23.9	24.6	17.7	18.5	18.4	19.1	19.8
8H 4H		19.8	20.6	20.4	21.2	21.9	17.7	18.5	18.3	19.1	19.8
6H		21.4	22.1	22.1	22.7	23.5	18.5	19.2	19.1	19.8	20.5
8H		22.4	23.0	23.0	23.6	24.4	18.8	19.4	19.4	20.0	20.8
12H		23.5	24.0	24.2	24.7	25.4	19.0	19.5	19.6	20.2	20.9
12H 4H		19.8	20.5	20.4	21.2	21.8	17.9	18.6	18.5	19.3	19.9
6H		21.5	22.1	22.2	22.8	23.5	18.8	19.4	19.5	20.1	20.8
8H		22.5	23.1	23.2	23.7	24.5	19.2	19.8	19.9	20.4	21.2
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117, 2818 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 3.6)  
Area: 0.1407 m2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

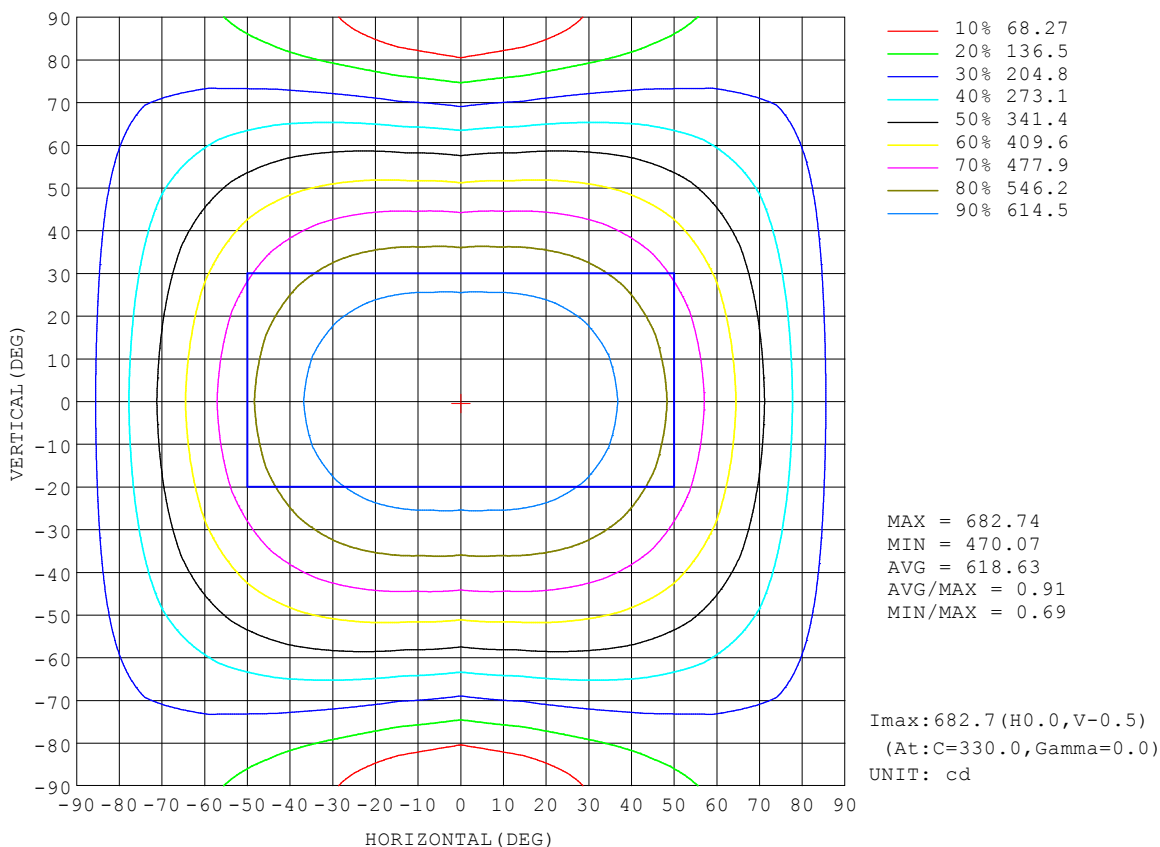
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	50	38	31	49	38	31	47	37	30	23
0.80	60	47	39	58	46	39	56	45	38	30
1.00	68	55	47	66	54	47	63	55	46	37
1.25	75	63	55	73	62	54	69	59	52	43
1.50	80	68	60	77	67	59	73	64	58	48
2.00	87	77	69	84	75	68	79	71	65	55
2.50	92	82	75	88	80	73	83	76	70	59
3.00	95	87	80	92	84	78	86	80	75	62
4.00	100	93	87	96	90	84	90	85	80	67
5.00	103	96	91	99	93	89	92	88	84	70
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:25.3°C  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

### ISOCANDELA DIAGRAM

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:



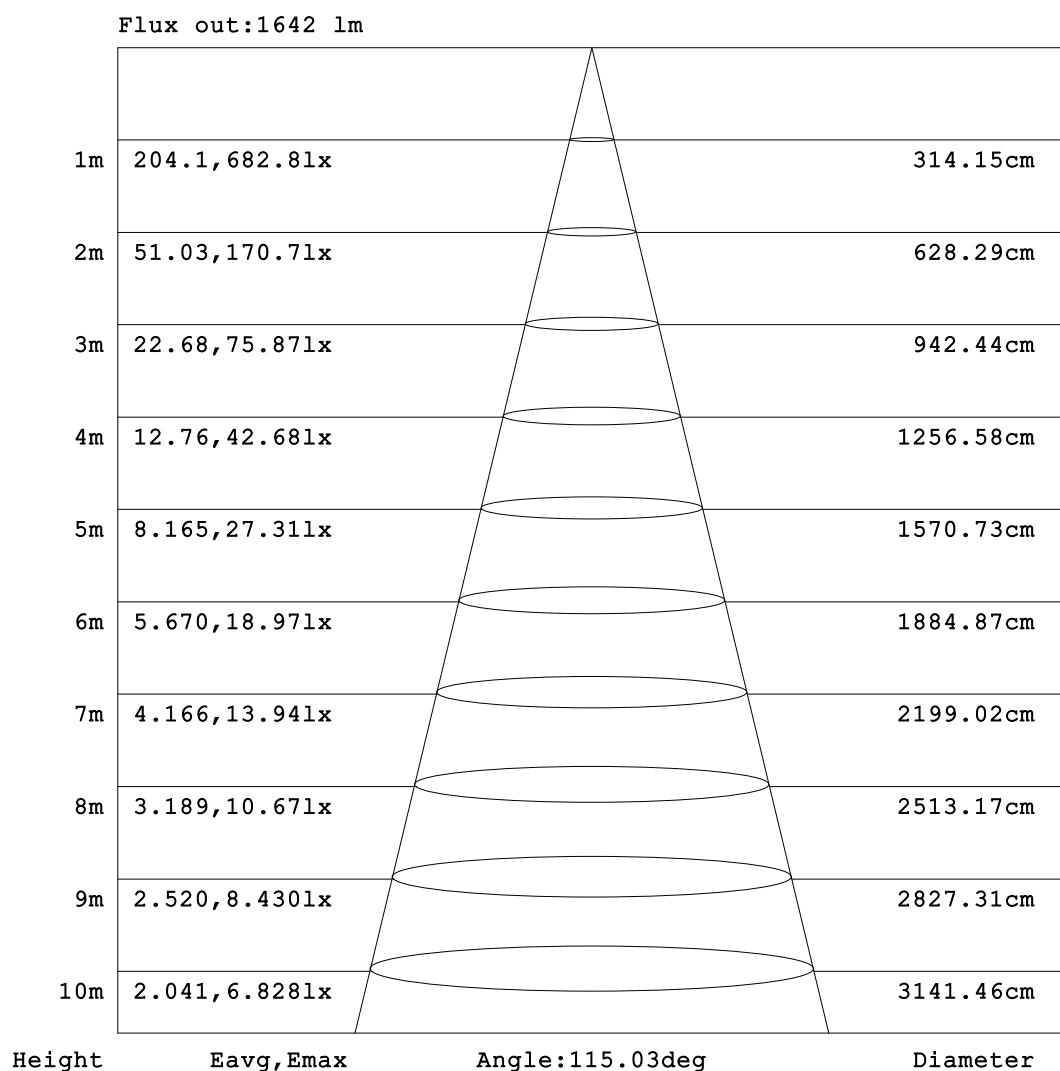
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: QC  
Test Date: 2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity: 65.0%  
Test Distance: 10.640m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:



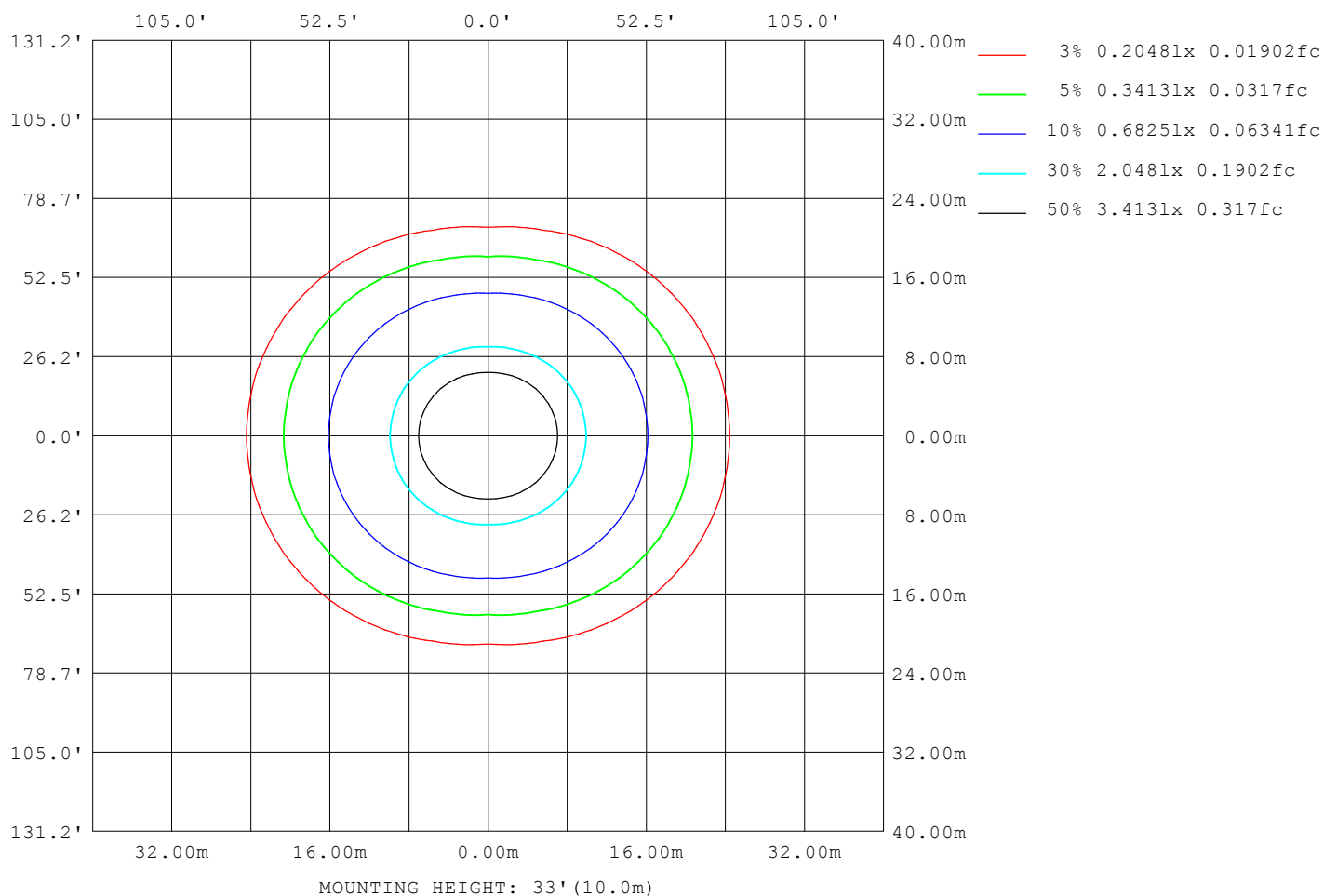
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

# ISOLUX DIAGRAM

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

## LED Avg.L Report

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

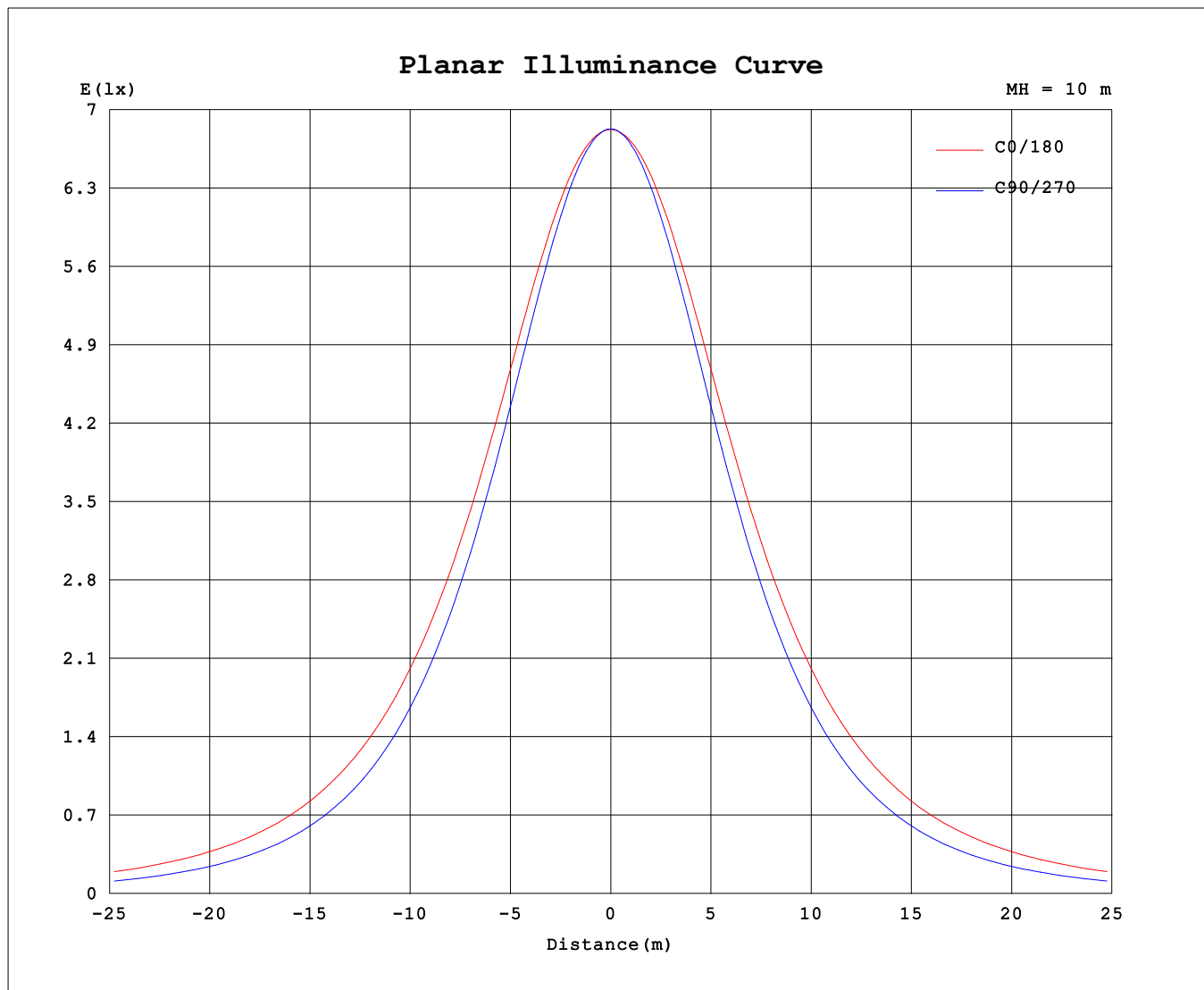
AvgL	cd/m2
L_0~180 (65) av	6808
L_0~180 (75) av	8277
L_0~180 (85) av	17040
L_90~270 (65) av	4270
L_90~270 (75) av	3606
L_90~270 (85) av	2101
L_45 (65) av	5811
L_45 (75) av	6477
L_45 (85) av	11421

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3℃  
 Operators:QC  
 Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
 Humidity:65.0%  
 Test Distance:10.640m [K=1.0000]  
 Remarks:

## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3°C  
Operators: QC  
Test Date: 2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity: 65.0%  
Test Distance: 10.640m [K=1.0000]  
Remarks:

### LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210		Lamp Flux:2817.75x1 lm
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) □ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	683	683	683	683	683	683	683	683	683	683	683	683	683	683	683	683	683	683	683
5	682	682	682	681	681	680	680	680	681	681	682	682	682	682	682	681	681	680	680
10	681	681	679	677	675	673	672	673	675	677	679	681	681	681	679	677	675	673	672
15	678	677	674	669	665	661	659	661	665	669	674	677	678	677	674	669	665	661	659
20	670	669	665	658	650	643	641	643	650	658	665	669	670	669	665	658	650	643	641
25	659	657	651	641	630	621	617	621	630	641	651	657	659	657	651	641	630	621	617
30	643	641	633	620	606	593	588	593	606	620	633	641	643	641	633	620	606	593	588
35	623	620	610	595	577	561	554	561	577	595	610	620	623	620	610	595	577	561	554
40	598	594	582	564	543	524	514	524	543	564	582	594	598	594	582	564	543	524	514
45	569	564	550	529	505	482	470	482	505	529	550	564	569	564	550	529	505	482	470
50	535	529	513	489	462	435	422	435	462	489	513	529	535	529	513	489	462	435	422
55	496	489	472	445	415	385	369	385	415	445	472	489	496	489	472	445	415	385	369
60	452	445	426	397	364	331	313	331	364	397	426	445	452	445	426	397	364	331	313
65	405	397	376	346	310	274	254	274	310	346	376	397	405	397	376	346	310	274	254
70	354	346	324	291	253	215	193	215	253	291	324	346	354	346	324	291	253	215	193
75	301	293	270	236	196	156	131	156	196	236	270	293	301	293	270	236	196	156	131
80	251	243	219	183	142	99.8	73.1	99.8	142	183	219	243	251	243	219	183	142	99.8	73.1
85	209	200	176	140	97.5	53.8	25.8	53.8	97.5	140	176	200	209	200	176	140	97.5	53.8	25.8
90	178	170	147	113	72.0	30.3	4.07	30.3	72.0	113	147	170	178	170	147	113	72.0	30.3	4.07
95	157	150	129	98.8	62.9	26.1	4.54	26.1	62.9	98.8	129	150	157	150	129	98.8	62.9	26.1	4.54
100	144	138	119	91.5	58.2	24.3	5.35	24.3	58.2	91.5	119	138	144	138	119	91.5	58.2	24.3	5.35
105	134	128	111	84.9	54.1	23.3	6.20	23.3	54.1	84.9	111	128	134	128	111	84.9	54.1	23.3	6.20
110	123	117	102	78.4	50.2	22.4	7.08	22.4	50.2	78.4	102	117	123	117	102	78.4	50.2	22.4	7.08
115	112	107	93.4	71.9	46.1	21.3	7.76	21.3	46.1	71.9	93.4	107	112	107	93.4	71.9	46.1	21.3	7.76
120	102	97.5	85.1	65.5	41.7	20.5	8.58	20.5	41.7	65.5	85.1	97.5	102	97.5	85.1	65.5	41.7	20.5	8.58
125	91.9	88.1	77.1	58.2	37.5	19.7	9.43	19.7	37.5	58.2	77.1	88.1	91.9	88.1	77.1	58.2	37.5	19.7	9.43
130	82.4	79.2	68.7	51.3	34.4	19.0	10.3	19.0	34.4	51.3	68.7	79.2	82.4	79.2	68.7	51.3	34.4	19.0	10.3
135	73.5	70.6	59.9	45.6	31.6	18.5	11.1	18.5	31.6	45.6	59.9	70.6	73.5	70.6	59.9	45.6	31.6	18.5	11.1
140	65.0	62.6	52.3	40.5	29.0	18.0	11.9	18.0	29.0	40.5	52.3	62.6	65.0	62.6	52.3	40.5	29.0	18.0	11.9
145	57.0	54.4	45.0	36.1	26.5	17.5	12.8	17.5	26.5	36.1	45.0	54.4	57.0	54.4	45.0	36.1	26.5	17.5	12.8
150	49.3	46.7	38.7	31.9	24.3	17.3	13.5	17.3	24.3	31.9	38.7	46.7	49.3	46.7	38.7	31.9	24.3	17.3	13.5
155	42.1	39.5	33.2	27.9	22.5	17.1	14.2	17.1	22.5	27.9	33.2	39.5	42.1	39.5	33.2	27.9	22.5	17.1	14.2
160	35.2	31.7	28.2	24.7	20.8	16.8	14.8	16.8	20.8	24.7	28.2	31.7	35.2	31.7	28.2	24.7	20.8	16.8	14.8
165	28.5	25.5	23.7	21.9	19.3	16.5	15.3	16.5	19.3	21.9	23.7	25.5	28.5	25.5	23.7	21.9	19.3	16.5	15.3
170	22.6	20.9	20.1	19.2	17.7	16.3	15.8	16.3	17.7	19.2	20.1	20.9	22.6	20.9	20.1	19.2	17.7	16.3	15.8
175	18.3	17.3	17.3	17.0	16.6	16.2	16.1	16.2	16.6	17.0	17.3	17.3	18.3	17.3	17.3	17.0	16.6	16.2	16.1
180	16.3	15.8	16.0	16.1	16.1	16.2	16.2	16.2	16.1	16.1	16.0	15.8	16.3	15.8	16.0	16.1	16.1	16.2	16.2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks:

### LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.32V I:0.1011A P:21.270W PF:0.9137 Freq:49.99Hz		
UTHDi:0.24% ITHDi:12.97% KDisp:0.9210 Lamp Flux:2817.75x1 lm		
NAME: NU28-LC-22W-1200K-30H	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Ervan	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C (DEG) □ (DEG)	285	300	315	330	345													
0	683	683	683	683	683													
5	680	681	681	682	682													
10	673	675	677	679	681													
15	661	665	669	674	677													
20	643	650	658	665	669													
25	621	630	641	651	657													
30	593	606	620	633	641													
35	561	577	595	610	620													
40	524	543	564	582	594													
45	482	505	529	550	564													
50	435	462	489	513	529													
55	385	415	445	472	489													
60	331	364	397	426	445													
65	274	310	346	376	397													
70	215	253	291	324	346													
75	156	196	236	270	293													
80	99.8	142	183	219	243													
85	53.8	97.5	140	176	200													
90	30.3	72.0	113	147	170													
95	26.1	62.9	98.8	129	150													
100	24.3	58.2	91.5	119	138													
105	23.3	54.1	84.9	111	128													
110	22.4	50.2	78.4	102	117													
115	21.3	46.1	71.9	93.4	107													
120	20.5	41.7	65.5	85.1	97.5													
125	19.7	37.5	58.2	77.1	88.1													
130	19.0	34.4	51.3	68.7	79.2													
135	18.5	31.6	45.6	59.9	70.6													
140	18.0	29.0	40.5	52.3	62.6													
145	17.5	26.5	36.1	45.0	54.4													
150	17.3	24.3	31.9	38.7	46.7													
155	17.1	22.5	27.9	33.2	39.5													
160	16.8	20.8	24.7	28.2	31.7													
165	16.5	19.3	21.9	23.7	25.5													
170	16.3	17.7	19.2	20.1	20.9													
175	16.2	16.6	17.0	17.3	17.3													
180	16.2	16.1	16.1	16.0	15.8													

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:QC  
Test Date:2022-06-21

☐ Range: 0 - 180DEG  
☐ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.458  
Humidity:65.0%  
Test Distance:10.640m [K=1.0000]  
Remarks: