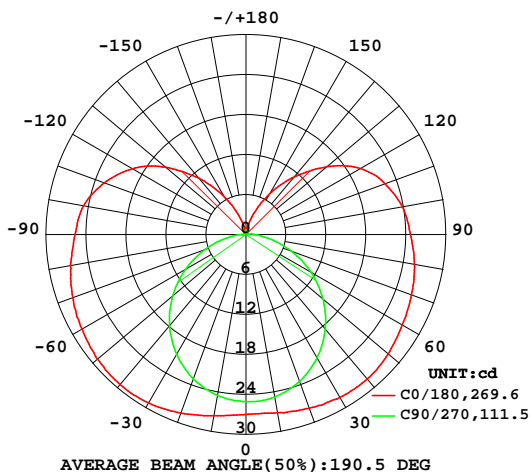


LUMINAIRE PHOTOMETRIC TEST REPORT

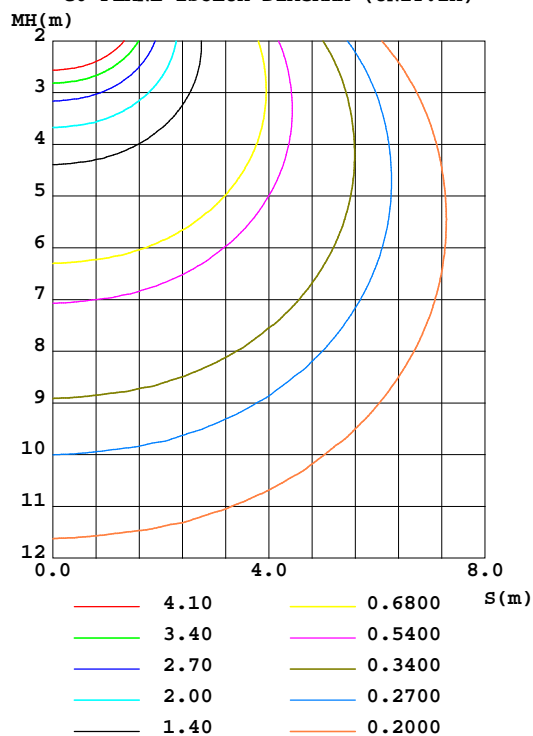
Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 12.46 lm/W			
MODEL	NNR25	I _{max} (cd)	29.41	S/MH(C0/180)	1.60
NOMINAL POWER(W)	14.4	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	180.24	h UP,DN(C0-180)	15.6,34.6
NOMINAL FLUX(lm)	180.24	CIE CLASS	SEMI-D.	h UP,DN(C180-360)	15.5,34.3
LAMPS INSIDE	1	h up(%)	31.2	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	68.8	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-08-12

Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

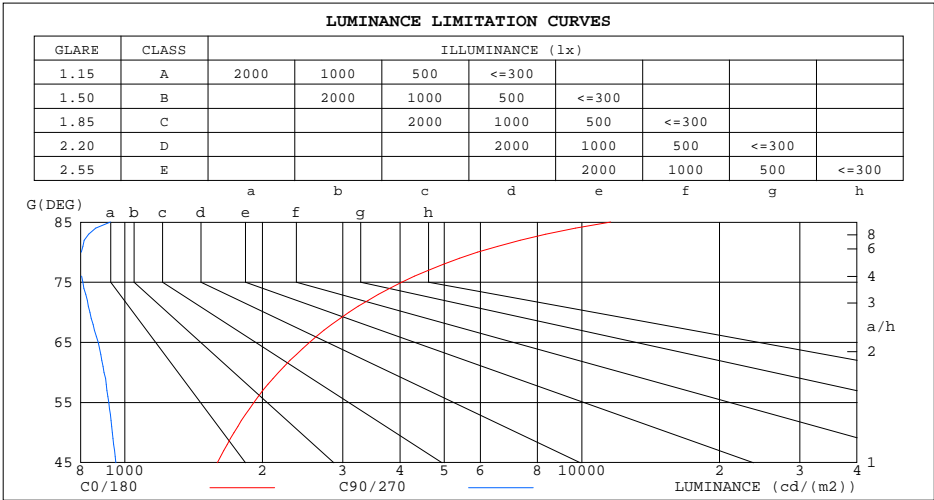
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	27.17	25.43	24.75	24.97	27.61	25.82	24.54	24.14	0~ 10	2.442	2.442	1.35,1.35
20	27.76	25.02	23.48	25.00	28.52	25.70	23.06	23.60	10~ 20	7.208	9.650	5.35,5.35
30	28.22	24.24	21.36	24.68	29.20	25.04	20.80	22.83	20~ 30	11.54	21.19	11.8,11.8
40	28.32	23.18	18.54	23.83	29.40	23.79	17.86	21.86	30~ 40	15.05	36.23	20.1,20.1
50	27.87	21.69	15.10	22.31	29.08	22.00	14.35	20.65	40~ 50	17.43	53.66	29.8,29.8
60	27.10	19.85	11.27	20.47	28.41	19.92	10.49	19.05	50~ 60	18.47	72.13	40,40
70	26.43	17.92	7.176	18.70	27.66	17.92	6.448	17.45	60~ 70	18.36	90.50	50.2,50.2
80	25.69	16.43	3.485	17.02	26.71	16.17	2.862	16.19	70~ 80	17.44	107.9	59.9,59.9
90	24.69	15.16	1.270	15.70	25.67	14.73	0.6121	15.15	80~ 90	16.11	124.0	68.8,68.8
100	23.86	14.53	0.3370	14.63	24.80	13.71	0.2271	13.70	90~100	14.92	139.0	77.1,77.1
110	22.25	13.77	0.1603	12.57	22.64	12.01	0.3340	12.87	100~110	13.33	152.3	84.5,84.5
120	19.84	10.69	0.2137	9.255	19.74	9.253	0.3473	11.25	110~120	11.09	163.4	90.6,90.6
130	15.83	7.654	0.3138	5.914	15.70	6.279	0.3473	8.528	120~130	7.890	171.3	95,95
140	11.30	5.325	0.4205	3.222	11.03	3.695	0.3473	6.004	130~140	4.950	176.2	97.8,97.8
150	6.967	3.409	0.4342	1.241	6.566	1.650	0.3542	3.644	140~150	2.579	178.8	99.2,99.2
160	3.194	1.942	0.5542	0.7464	2.751	0.7287	0.5083	2.020	150~160	1.061	179.9	99.8,99.8
170	0.8828	0.9551	0.6809	0.4542	0.6538	0.4477	0.6281	1.309	160~170	0.3176	180.2	100,100
180	0.3741	0.4542	0.7481	0.6613	0.4342	0.5344	0.6479	0.6546	170~180	0.0638	180.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-08-12

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11564	931
80	5917	803
75	4035	809
70	3091	839
65	2535	874
60	2168	901
55	1916	923
50	1734	940
45	1593	956

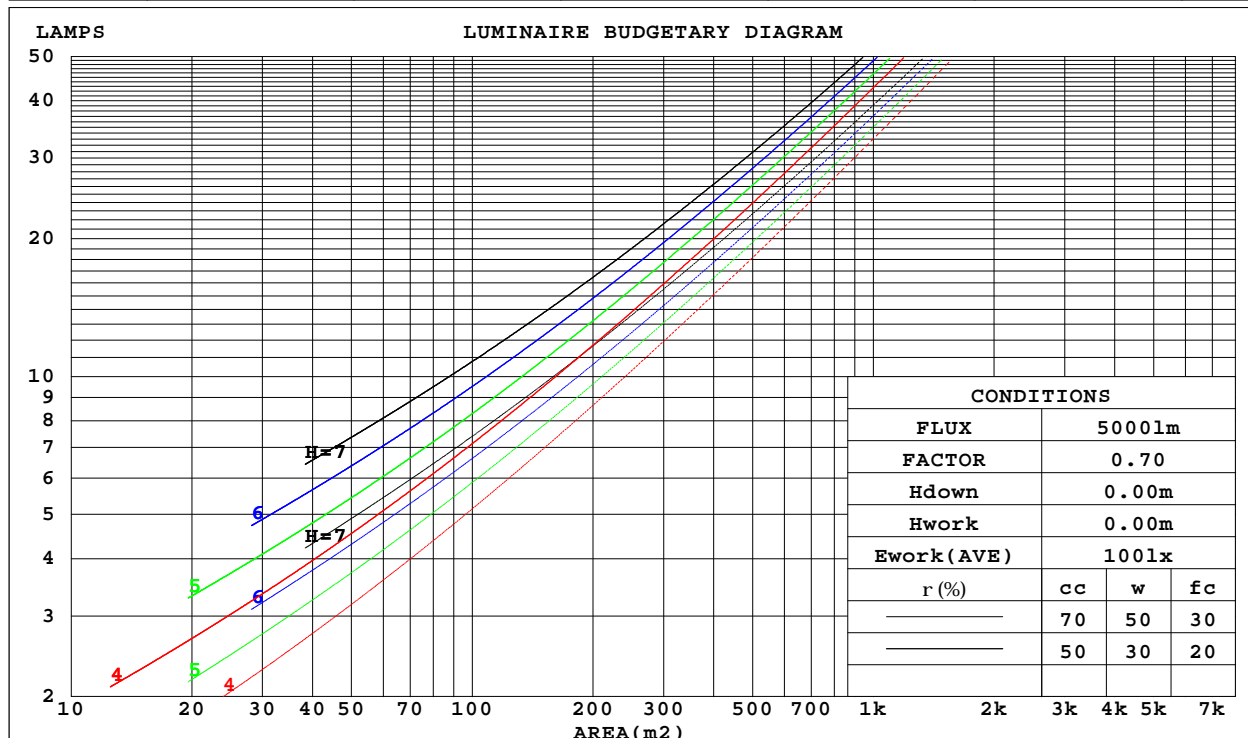
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-08-12

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-08-12

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.404	.229	.073	.387	.221	.070	.355	.204	.065	.327	.188	.060	.300	.174	.056	
2.0	.342	.187	.057	.327	.180	.055	.298	.166	.051	.272	.152	.048	.247	.140	.044	
3.0	.300	.160	.048	.287	.153	.046	.261	.141	.043	.237	.130	.040	.214	.119	.037	
4.0	.269	.140	.041	.256	.134	.040	.232	.123	.037	.210	.113	.034	.190	.103	.031	
5.0	.243	.124	.036	.232	.119	.035	.210	.109	.032	.190	.100	.030	.171	.091	.027	
6.0	.222	.111	.032	.211	.107	.031	.192	.098	.029	.173	.090	.026	.156	.082	.024	
7.0	.204	.101	.029	.195	.097	.028	.176	.089	.026	.159	.082	.024	.143	.074	.022	
8.0	.189	.092	.026	.180	.089	.025	.163	.082	.023	.147	.075	.022	.132	.068	.020	
9.0	.176	.085	.024	.168	.082	.023	.152	.075	.021	.137	.069	.020	.123	.063	.018	
10.0	.164	.079	.022	.157	.076	.021	.142	.070	.020	.128	.064	.018	.115	.058	.017	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.428	.428	.428	.366	.366	.366	.250	.250	.250	.143	.143	.143	.046	.046	.046	
1.0	.426	.395	.366	.365	.339	.315	.249	.233	.218	.144	.135	.127	.046	.043	.041	
2.0	.420	.373	.333	.360	.321	.288	.247	.222	.201	.142	.129	.118	.046	.042	.038	
3.0	.413	.357	.312	.354	.308	.271	.243	.214	.190	.140	.125	.112	.045	.041	.037	
4.0	.405	.345	.299	.348	.298	.260	.239	.208	.183	.138	.122	.108	.044	.040	.036	
5.0	.397	.335	.290	.341	.290	.252	.235	.203	.178	.136	.119	.106	.044	.039	.035	
6.0	.390	.328	.283	.335	.284	.246	.231	.199	.174	.134	.117	.104	.043	.038	.034	
7.0	.383	.321	.278	.330	.279	.242	.228	.195	.172	.132	.115	.102	.043	.038	.034	
8.0	.376	.316	.274	.324	.274	.239	.224	.192	.170	.130	.114	.101	.042	.037	.033	
9.0	.370	.311	.272	.319	.270	.237	.221	.190	.168	.129	.112	.100	.042	.037	.033	
10.0	.364	.307	.269	.314	.267	.235	.218	.188	.167	.127	.111	.100	.041	.036	.033	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-08-12

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm										
NAME: NNR25					TYPE:			WEIGHT:		
SPEC.:NNR25-0Y24NSN000CC0100					DIM.: 1000*25			SERIAL No.:		
MFR.: COLORS					SUR.:1000*25			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	20.8	20.2	21.5	22.3	16.5	17.7	17.1	18.4	19.2
3H	22.7	23.9	23.4	24.6	25.5	18.1	19.3	18.8	20.0	20.8
4H	24.6	25.7	25.3	26.4	27.3	18.8	19.9	19.6	20.7	21.5
6H	26.6	27.6	27.3	28.4	29.3	19.4	20.5	20.2	21.2	22.1
8H	27.8	28.8	28.5	29.5	30.4	19.7	20.7	20.4	21.4	22.3
12H	29.1	30.0	29.8	30.8	31.7	19.9	20.8	20.6	21.6	22.5
4H 2H	20.1	21.2	20.8	21.9	22.8	17.9	19.0	18.7	19.8	20.6
3H	23.5	24.4	24.2	25.2	26.1	19.9	20.9	20.7	21.6	22.6
4H	25.5	26.3	26.2	27.1	28.1	20.9	21.8	21.7	22.6	23.5
6H	27.7	28.5	28.5	29.3	30.3	21.8	22.5	22.6	23.3	24.3
8H	29.0	29.7	29.8	30.5	31.5	22.1	22.8	22.9	23.7	24.7
12H	30.5	31.1	31.3	32.0	33.0	22.4	23.1	23.2	23.9	24.9
8H 4H	25.8	26.5	26.6	27.3	28.3	22.3	23.1	23.2	23.9	24.9
6H	28.3	28.9	29.2	29.8	30.8	23.7	24.3	24.5	25.1	26.2
8H	29.8	30.4	30.7	31.2	32.3	24.3	24.9	25.2	25.7	26.8
12H	31.5	32.0	32.4	32.9	34.0	24.9	25.4	25.7	26.2	27.3
12H 4H	25.8	26.5	26.6	27.3	28.3	22.8	23.5	23.7	24.3	25.4
6H	28.4	29.0	29.3	29.9	30.9	24.5	25.0	25.3	25.9	26.9
8H	30.0	30.5	30.9	31.4	32.5	25.3	25.8	26.2	26.7	27.7
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					+ 0.3 / - 0.4				

CIE Pub.117, 180.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.0)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-08-12

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

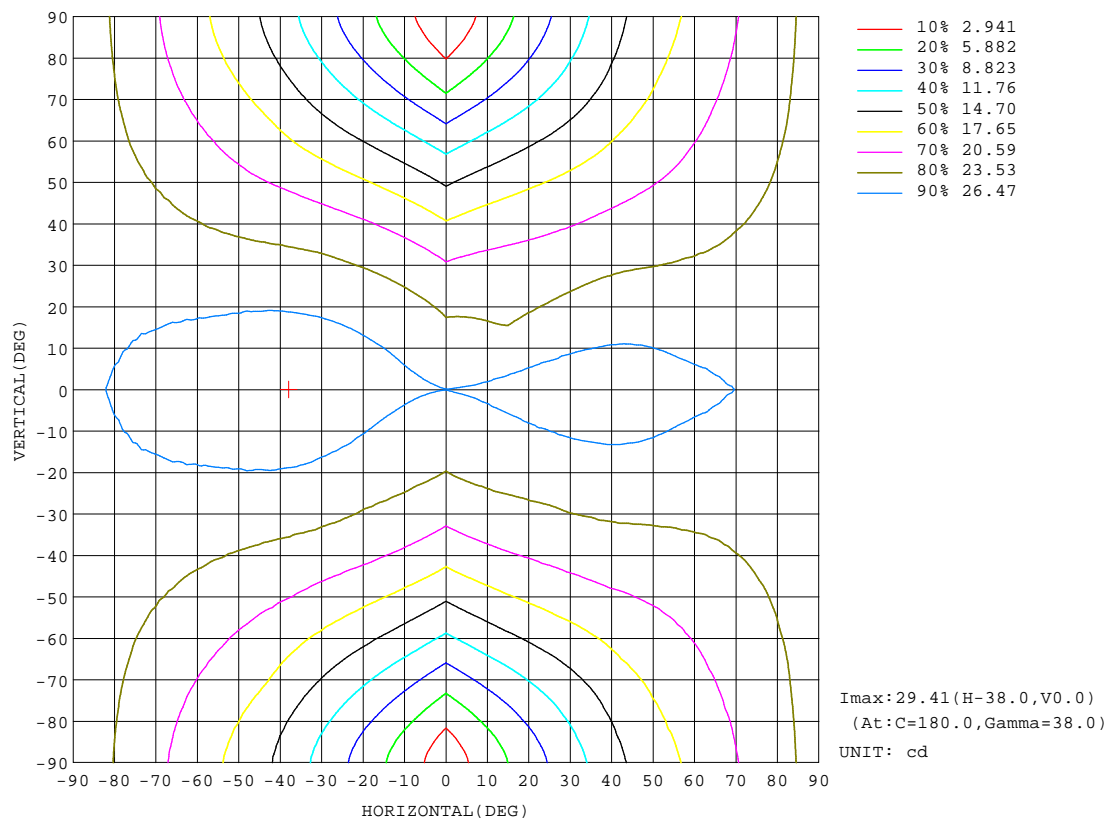
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	42	30	22	41	29	22	38	28	21	14
0.80	51	38	29	49	37	29	46	35	27	19
1.00	59	45	36	56	43	35	52	43	33	24
1.25	65	52	43	62	50	42	57	47	39	28
1.50	71	57	48	67	55	47	61	51	44	31
2.00	78	66	57	74	63	55	67	58	51	37
2.50	83	72	63	79	68	61	71	62	56	40
3.00	87	77	68	82	73	65	74	66	60	43
4.00	92	83	76	87	79	72	78	71	66	48
5.00	95	87	81	90	83	77	80	75	70	51
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-08-12

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:



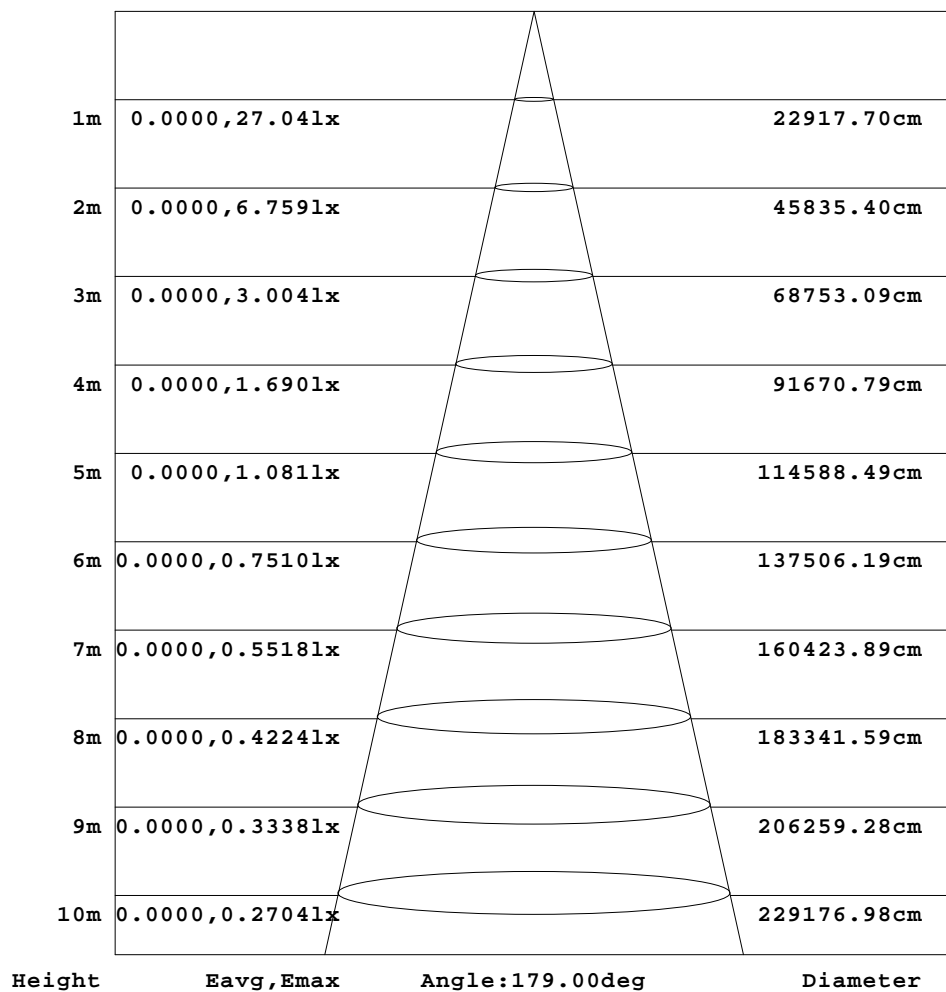
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-08-12

Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.950m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

Flux out:124.0 lm



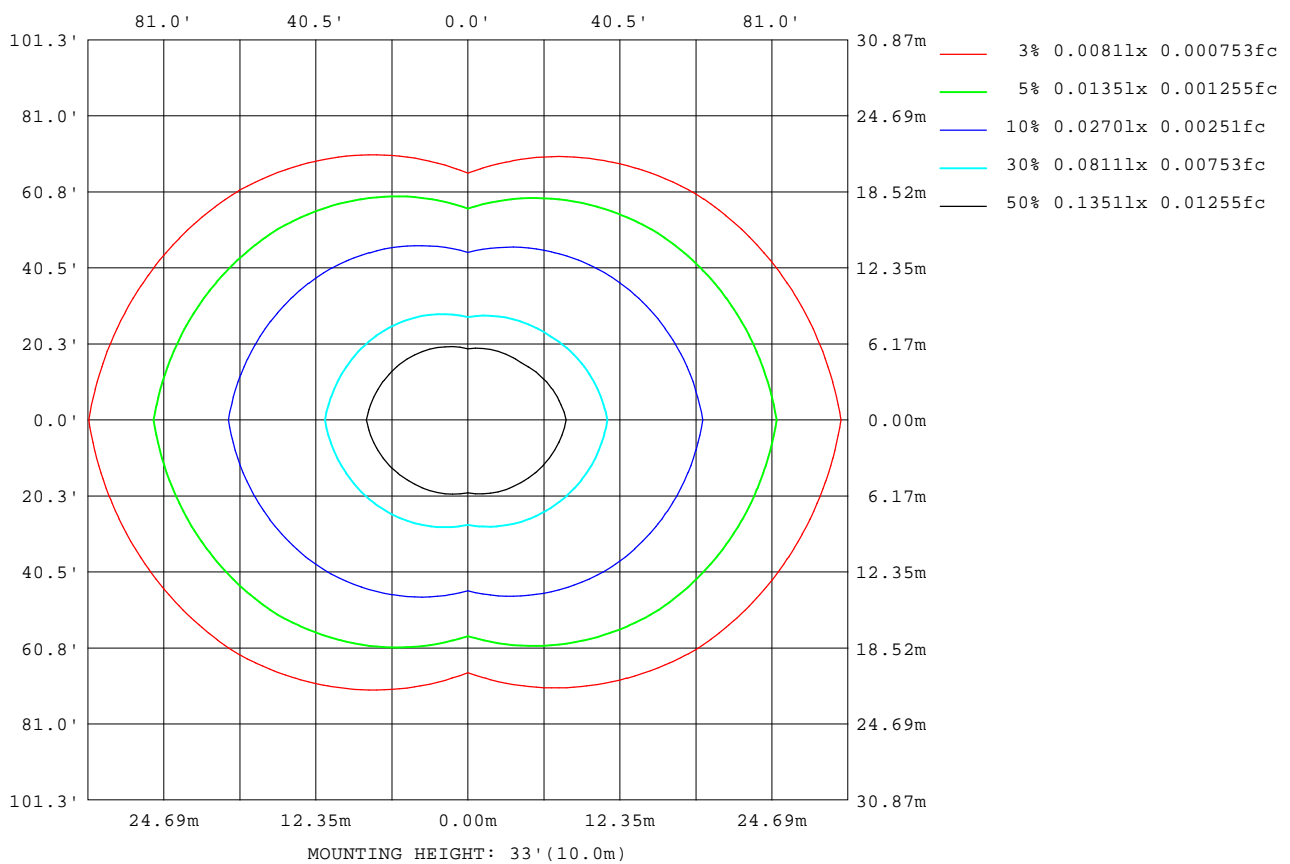
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-08-12

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

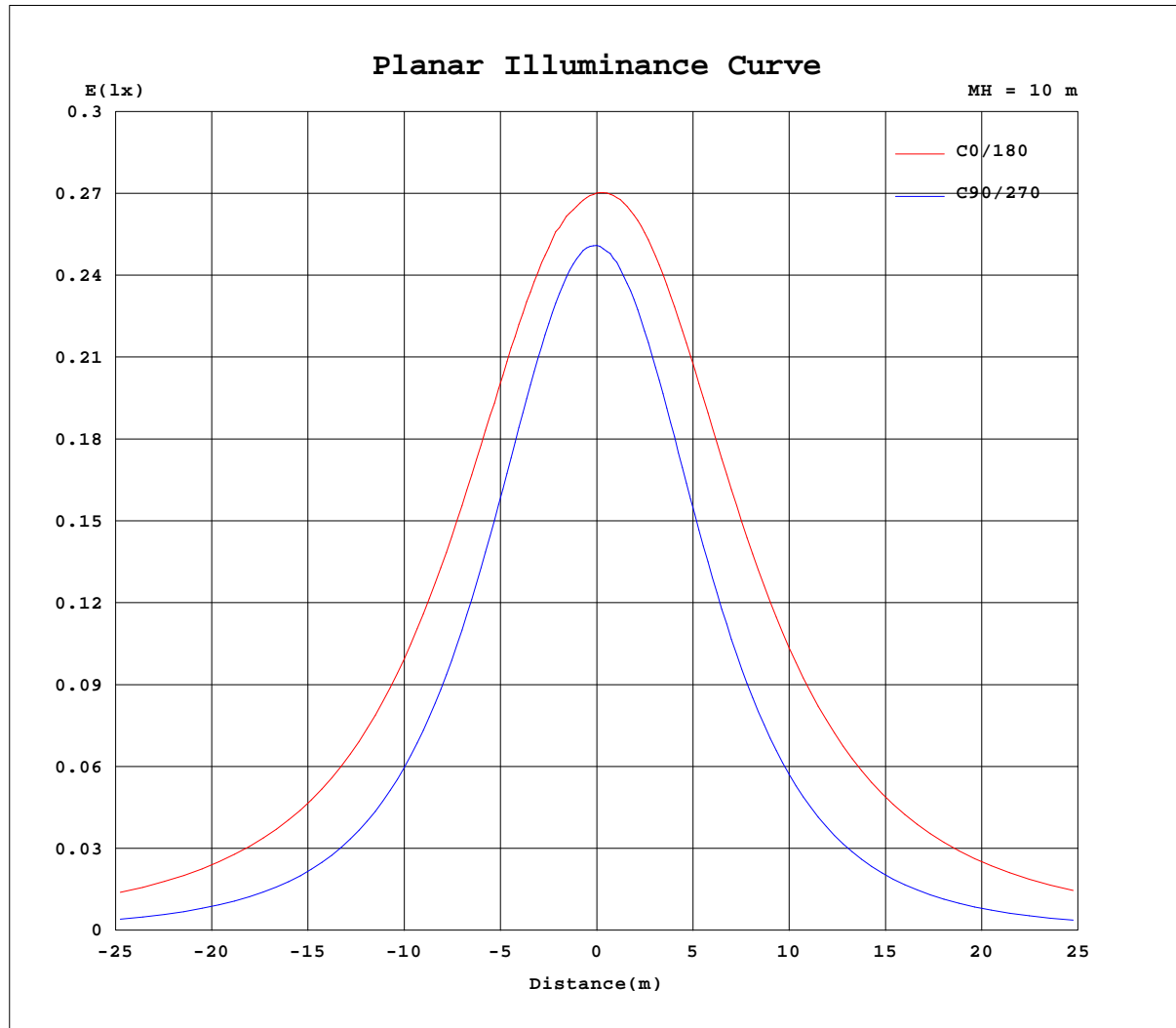
Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-08-12

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-08-12

Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.950m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.6027A P:14.46W PF:1.000 Freq:0Hz Lamp Flux:180.24x1 lm		
NAME: NNR25	TYPE:	WEIGHT:
SPEC.:NNR25-0Y24NSN000CC0100	DIM.: 1000*25	SERIAL No.:
MFR.: COLORS	SUR.:1000*25	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	27.0	25.7	25.1	24.6	27.0	25.7	25.1	24.6										
5	27.0	25.6	25.1	24.8	27.2	25.8	24.9	24.4										
10	27.2	25.4	24.7	25.0	27.6	25.8	24.5	24.1										
15	27.4	25.3	24.2	25.0	28.1	25.8	23.9	23.9										
20	27.8	25.0	23.5	25.0	28.5	25.7	23.1	23.6										
25	28.0	24.7	22.5	24.9	28.9	25.4	22.0	23.3										
30	28.2	24.2	21.4	24.7	29.2	25.0	20.8	22.8										
35	28.3	23.7	20.0	24.3	29.4	24.5	19.4	22.4										
40	28.3	23.2	18.5	23.8	29.4	23.8	17.9	21.9										
45	28.2	22.4	16.9	23.1	29.3	23.0	16.2	21.3										
50	27.9	21.7	15.1	22.3	29.1	22.0	14.4	20.6										
55	27.5	20.8	13.2	21.4	28.7	21.0	12.4	19.9										
60	27.1	19.8	11.3	20.5	28.4	19.9	10.5	19.0										
65	26.8	18.9	9.24	19.6	28.1	18.9	8.47	18.2										
70	26.4	17.9	7.18	18.7	27.7	17.9	6.45	17.4										
75	26.1	17.1	5.24	17.9	27.2	17.0	4.57	16.8										
80	25.7	16.4	3.49	17.0	26.7	16.2	2.86	16.2										
85	25.2	15.8	2.03	16.2	26.2	15.3	1.46	15.6										
90	24.7	15.2	1.27	15.7	25.7	14.7	0.61	15.1										
95	24.3	14.8	1.04	15.3	25.3	14.3	0.43	13.7										
100	23.9	14.5	0.34	14.6	24.8	13.7	0.23	13.7										
105	23.1	14.2	0.17	13.6	23.8	12.9	0.27	12.1										
110	22.3	13.8	0.16	12.6	22.6	12.0	0.33	12.9										
115	21.2	12.4	0.17	11.2	21.3	10.8	0.35	12.0										
120	19.8	10.7	0.21	9.25	19.7	9.25	0.35	11.3										
125	18.0	8.67	0.22	7.32	17.9	7.66	0.35	9.76										
130	15.8	7.65	0.31	5.91	15.7	6.28	0.35	8.53										
135	13.5	6.45	0.31	4.55	13.3	4.98	0.35	7.34										
140	11.3	5.33	0.42	3.22	11.0	3.69	0.35	6.00										
145	9.12	4.35	0.43	2.01	8.74	2.56	0.35	4.76										
150	6.97	3.41	0.43	1.24	6.57	1.65	0.35	3.64										
155	4.96	2.64	0.52	0.95	4.53	1.08	0.41	2.69										
160	3.19	1.94	0.55	0.75	2.75	0.73	0.51	2.02										
165	1.63	1.36	0.64	0.51	1.43	0.53	0.57	1.52										
170	0.88	0.96	0.68	0.45	0.65	0.45	0.63	1.31										
175	0.51	0.72	0.74	0.47	0.39	0.44	0.65	1.15										
180	0.37	0.45	0.75	0.66	0.43	0.53	0.65	0.65										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-08-12

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks: