

GAME-600-38W-830



Light Output Ratio:	100.0%	
Luminaire Power:	40.52 W	
SHR Nominal:	1.25	Calculated using the TM5
SHR Maximum:	1.35	fine grid method.

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

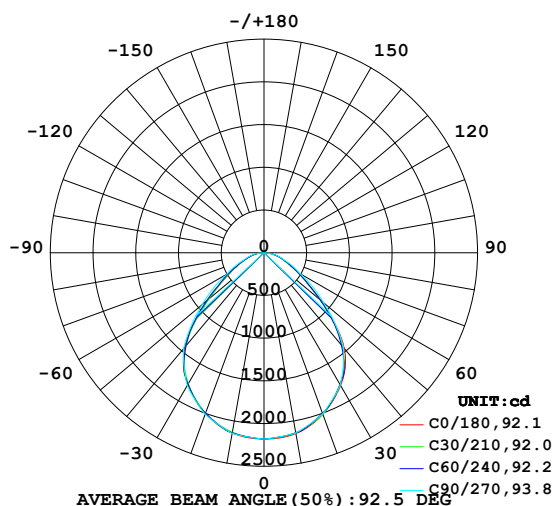
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

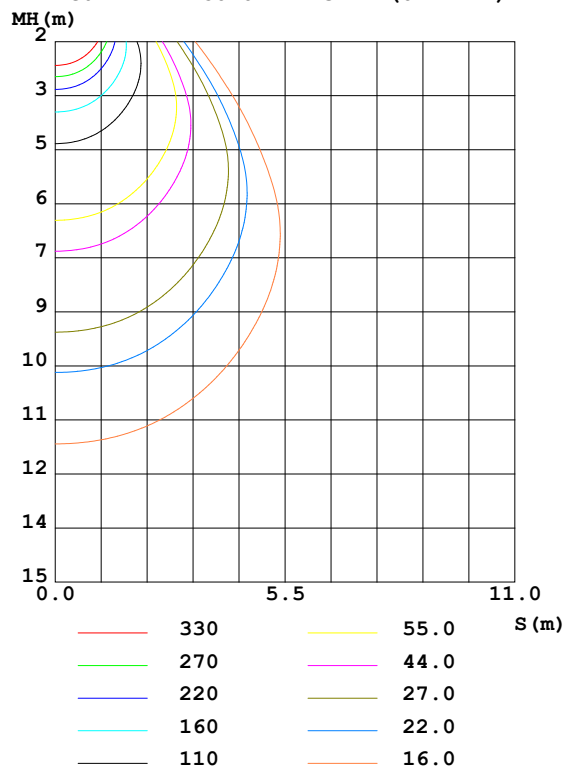
Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 116.97 lm/W			
MODEL	OSRAM-3000K	I <sub>max</sub> (cd)	2181	S/MH (C0/180)	1.22
NOMINAL POWER (W)	38	LOR (%)	100.0	S/MH (C90/270)	1.22
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	4740.0	$\eta$ UP,DN (C0-180)	0.0,49.8
NOMINAL FLUX (lm)	4740.04	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,50.2
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Myles  
 Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
 V(B) Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:56%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	2149	2138	2144	2132	2143	2136	2147	2140	0- 10	205.9	205.9	4.34,4.34
20	2012	1999	2006	1992	2001	1994	2013	2007	10- 20	586.9	792.8	16.7,16.7
30	1794	1782	1786	1778	1780	1778	1797	1796	20- 30	875.6	1668	35.2,35.2
40	1464	1447	1449	1442	1442	1440	1466	1474	30- 40	1018	2687	56.7,56.7
50	869.2	844.5	910.2	915.9	847.3	847.3	939.5	939.3	40- 50	902.1	3589	75.7,75.7
60	452.7	442.0	484.2	473.1	442.8	445.0	500.4	486.9	50- 60	581.9	4171	88,88
70	234.7	230.2	252.1	243.8	227.1	229.0	251.1	243.9	60- 70	338.2	4509	95.1,95.1
80	114.0	108.1	120.4	120.5	110.0	105.9	125.1	118.0	70- 80	187.5	4696	99.1,99.1
90	0.6472	0	0	0	0.9679	0	0	0	80- 90	43.83	4740	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		

Conical surface Flux(90deg): 3173.6 lm

%lum = 67.0%

%lamp = 67.0%

Conical surface Flux(120deg): 4170.6 lm

%lum = 88.0%

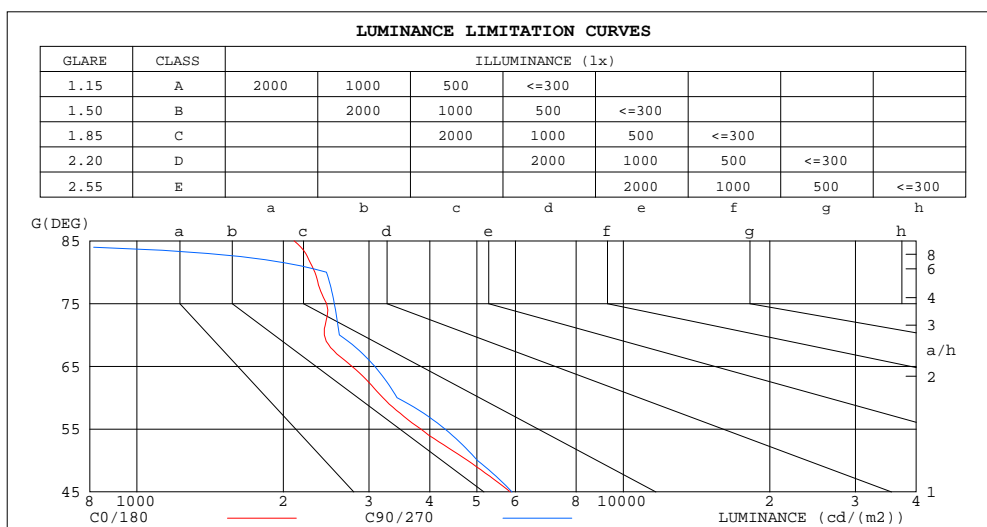
%lamp = 88.0%

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H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2104	0
80	2323	2453
75	2454	2546
70	2429	2608
65	2767	3082
60	3204	3427
55	3834	4301
50	4785	5011
45	5859	5902

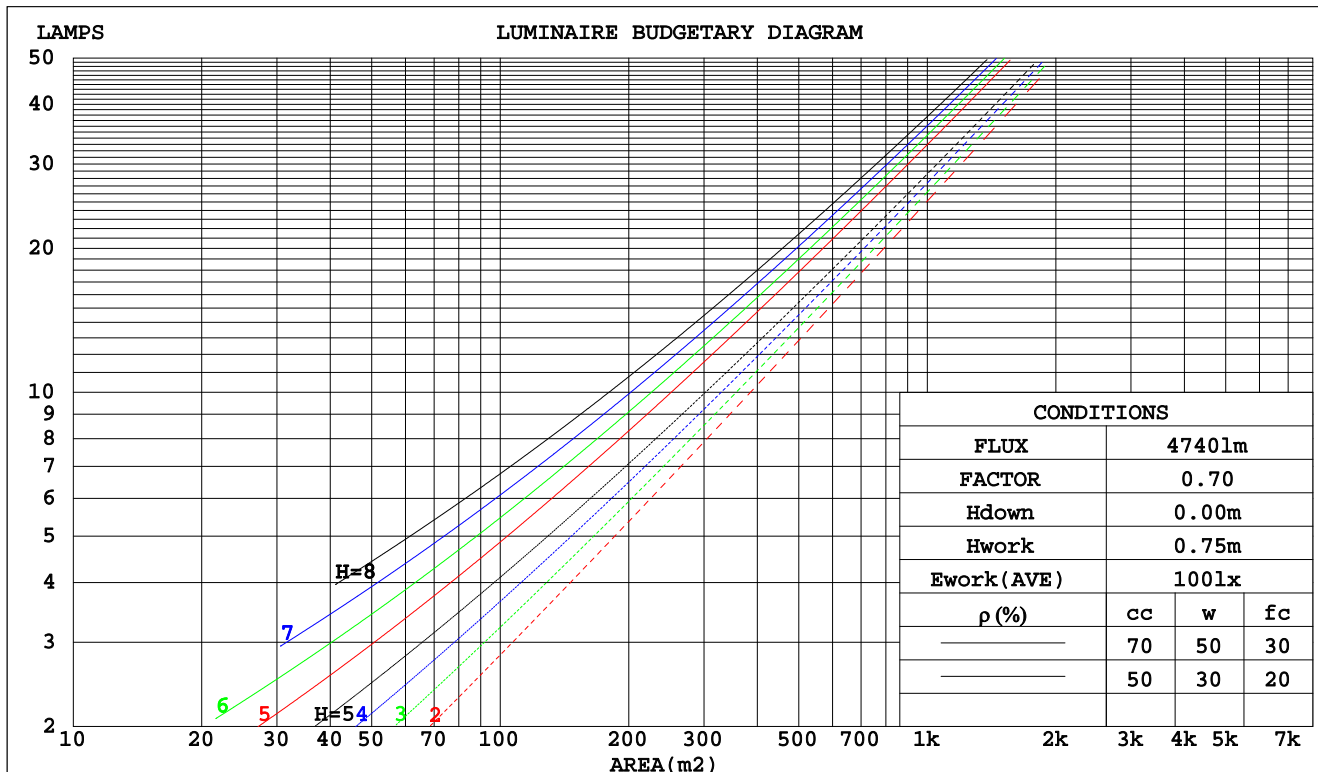
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Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

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	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	1.06	1.03	.99	1.04	1.01	.98	.90	.97	.95	.96	.94	.92	.92	.91	.89	.87
2.0	.95	.89	.84	.93	.87	.83	.89	.85	.81	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.71	.80	.74	.70	.77	.72	.68	.75	.71	.67	.65
4.0	.76	.68	.62	.75	.67	.61	.72	.66	.61	.70	.64	.60	.68	.63	.59	.57
5.0	.69	.60	.54	.67	.60	.54	.65	.59	.53	.63	.58	.53	.62	.57	.52	.50
6.0	.62	.54	.48	.61	.54	.48	.60	.53	.48	.58	.52	.47	.56	.51	.47	.45
7.0	.57	.49	.43	.56	.48	.43	.55	.48	.43	.53	.47	.42	.52	.46	.42	.40
8.0	.52	.44	.39	.52	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.48	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33
10.0	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.41	.36	.32	.30



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.264	.150	.048	.257	.147	.047	.244	.140	.045	.232	.134	.043	.221	.128	.041		
2.0	.253	.139	.042	.247	.136	.042	.235	.131	.041	.225	.126	.039	.215	.122	.038		
3.0	.238	.126	.038	.232	.124	.037	.222	.120	.037	.213	.117	.036	.205	.113	.035		
4.0	.222	.116	.034	.218	.114	.034	.209	.111	.033	.201	.108	.033	.193	.105	.032		
5.0	.208	.106	.031	.204	.105	.030	.196	.102	.030	.189	.100	.030	.182	.097	.029		
6.0	.195	.098	.028	.191	.097	.028	.184	.095	.027	.178	.092	.027	.172	.090	.027		
7.0	.183	.091	.026	.180	.090	.026	.174	.088	.025	.168	.086	.025	.162	.084	.025		
8.0	.172	.084	.024	.170	.083	.024	.164	.082	.023	.159	.080	.023	.154	.079	.023		
9.0	.163	.079	.022	.160	.078	.022	.155	.077	.022	.150	.075	.022	.146	.074	.021		
10.0	.154	.074	.020	.152	.073	.020	.147	.072	.020	.143	.071	.020	.139	.070	.020		

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.023	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.030	.106	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.027	.102	.055	.023	.070	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.113	.059	.023	.097	.051	.020	.067	.036	.015	.039	.021	.009	.013	.007	.003	

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Myles  
 Test Date:2019-01-05

$V(B)$  Range:-80 - 80DEG  
 $V(B)$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:56%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

## UGR(Unified Glare Rating) Table

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm										
NAME: GAME-600-38W-830					TYPE:Ceiling light			SERIAL No.:		
SPEC.:3000K					DIM.: $\phi$ 600mm*H78mm					
MFR.: NEKO LIGHTING AG										
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	11.5	12.9	11.8	13.1	13.3	11.7	13.1	12.0	13.3	13.5
3H	12.2	13.5	12.5	13.7	13.9	12.6	13.8	12.8	14.0	14.3
4H	12.6	13.8	12.9	14.0	14.3	12.9	14.1	13.2	14.4	14.6
6H	12.9	14.0	13.2	14.2	14.5	13.2	14.4	13.6	14.6	14.9
8H	12.9	14.0	13.3	14.3	14.6	13.3	14.4	13.6	14.7	14.9
12H	13.0	14.0	13.3	14.3	14.6	13.3	14.3	13.6	14.6	14.9
4H 2H	11.7	12.9	12.1	13.2	13.4	12.0	13.2	12.3	13.4	13.6
3H	12.7	13.7	13.0	14.0	14.3	13.0	14.0	13.3	14.3	14.6
4H	13.2	14.1	13.6	14.4	14.8	13.5	14.4	13.8	14.7	15.1
6H	13.6	14.5	14.0	14.8	15.2	13.9	14.8	14.3	15.1	15.5
8H	13.8	14.5	14.2	14.9	15.3	14.0	14.8	14.4	15.2	15.5
12H	13.8	14.5	14.2	14.9	15.3	14.0	14.7	14.4	15.1	15.5
8H 4H	13.4	14.1	13.8	14.5	14.9	13.6	14.4	14.0	14.8	15.1
6H	14.0	14.6	14.4	15.0	15.4	14.2	14.8	14.6	15.2	15.7
8H	14.2	14.7	14.6	15.2	15.6	14.3	14.9	14.8	15.3	15.8
12H	14.3	14.8	14.8	15.2	15.7	14.3	14.8	14.8	15.3	15.7
12H 4H	13.4	14.1	13.8	14.5	14.9	13.6	14.3	14.0	14.7	15.1
6H	14.0	14.6	14.5	15.0	15.4	14.2	14.8	14.7	15.2	15.7
8H	14.3	14.7	14.7	15.2	15.7	14.4	14.9	14.9	15.3	15.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.5					+ 0.4 / - 0.4				
1.5H	+ 0.3 / - 0.3					+ 0.3 / - 0.3				
2.0H	+ 1.2 / - 0.7					+ 1.0 / - 0.8				

CIE Pub.117, 4740 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 5.4$ )

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$V(\beta)$  Range:-80 - 80DEG  
 $V(\beta)$  Interval: 5.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
 Humidity:56%  
 Test Distance:5.850m [K=1.0000]  
 Remarks:

### UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
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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) $k(RI) \times RCR = 5$									
$k = 0.60$	64	54	48	64	54	48	63	53	48	42
0.80	74	64	58	74	64	58	72	63	57	51
1.00	82	73	67	81	72	66	79	73	66	60
1.25	89	80	74	88	79	74	85	78	73	66
1.50	94	85	79	92	84	79	89	83	78	71
2.00	99	92	87	98	91	86	94	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	105	100	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	99	102	99	96	88
5.00	111	106	103	108	105	101	104	101	98	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

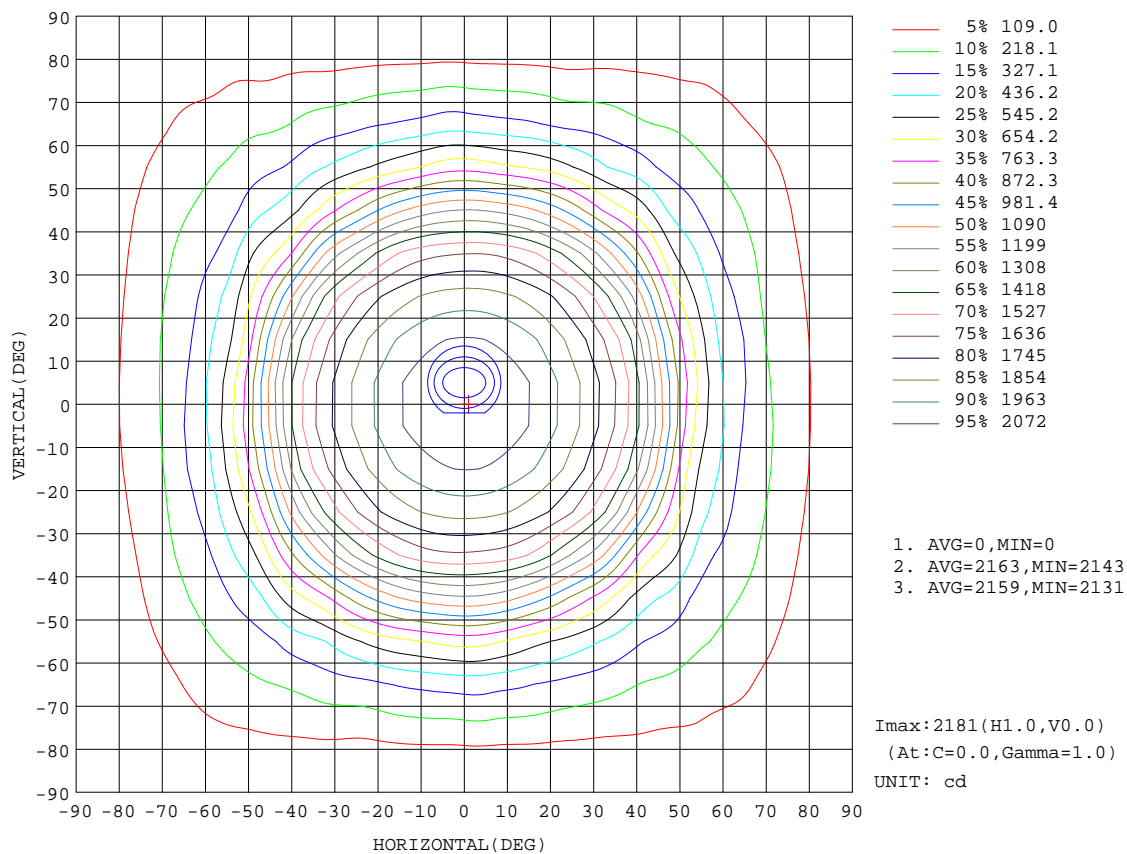
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ISOCANDELA DIAGRAM

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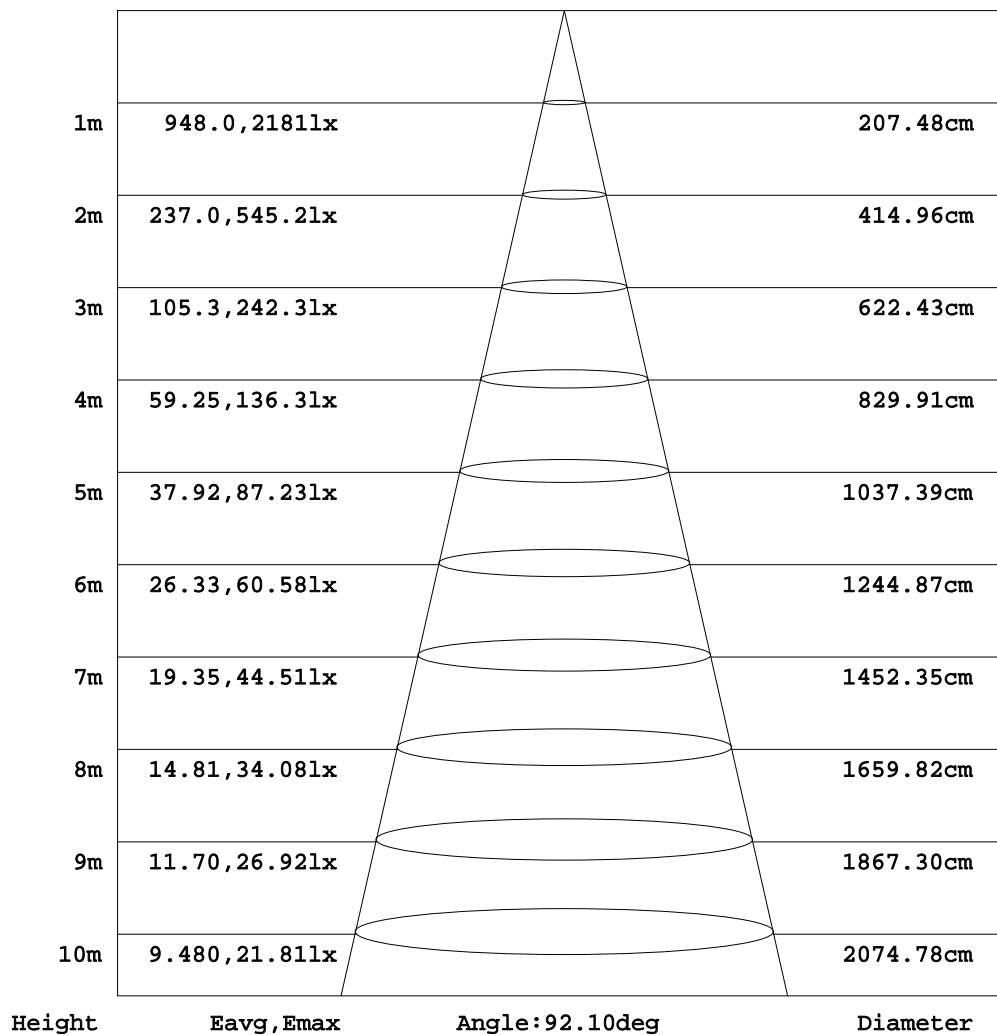
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**AAI Figure**

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NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

Flux out:3307 lm



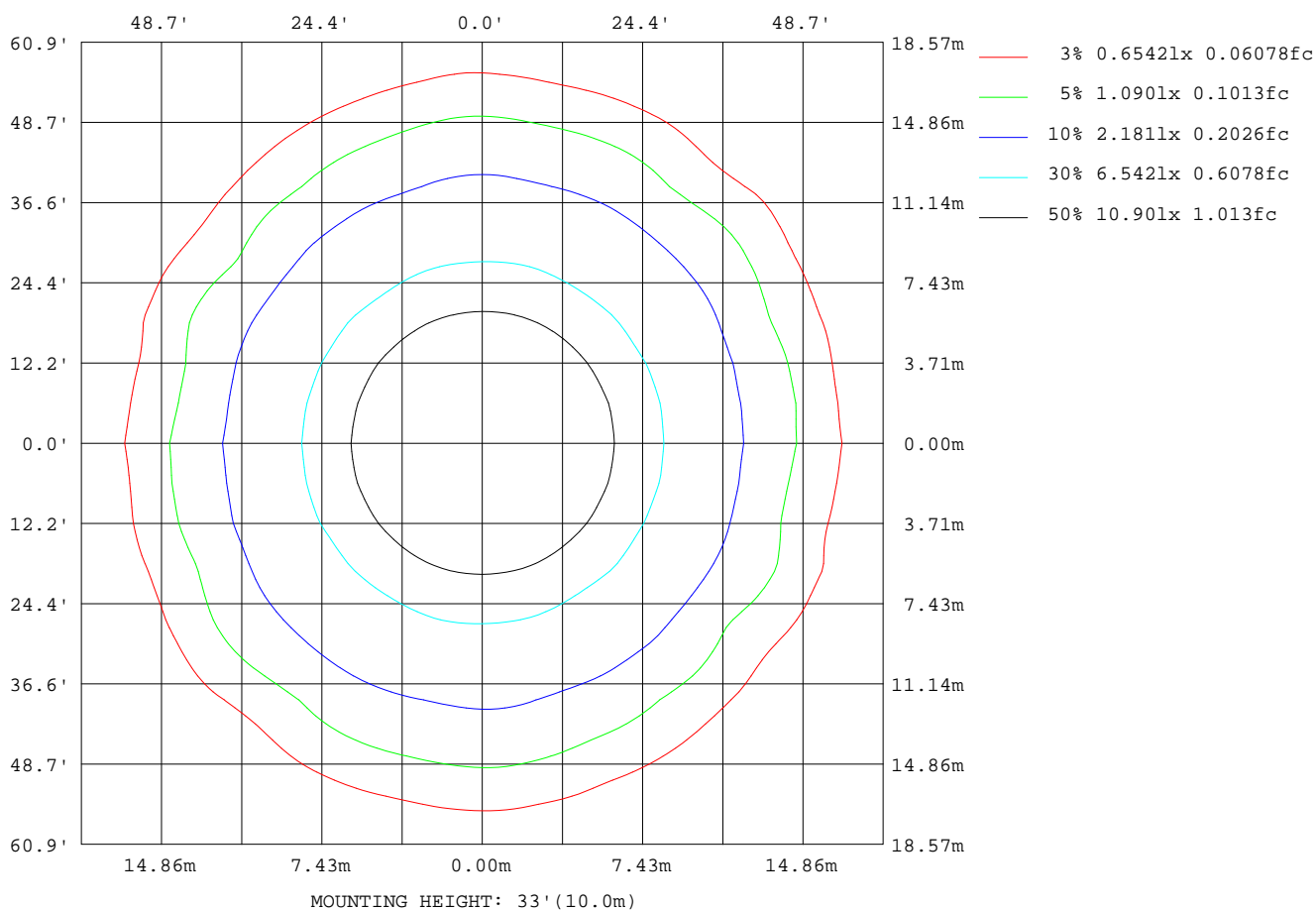
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
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Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
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Remarks:

### LED Avg.L Report

Test:U:220.9V I:0.1862A P:40.52W PF:0.9852 Freq:49.89Hz Lamp Flux:4740.04x1 lm		
NAME: GAME-600-38W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

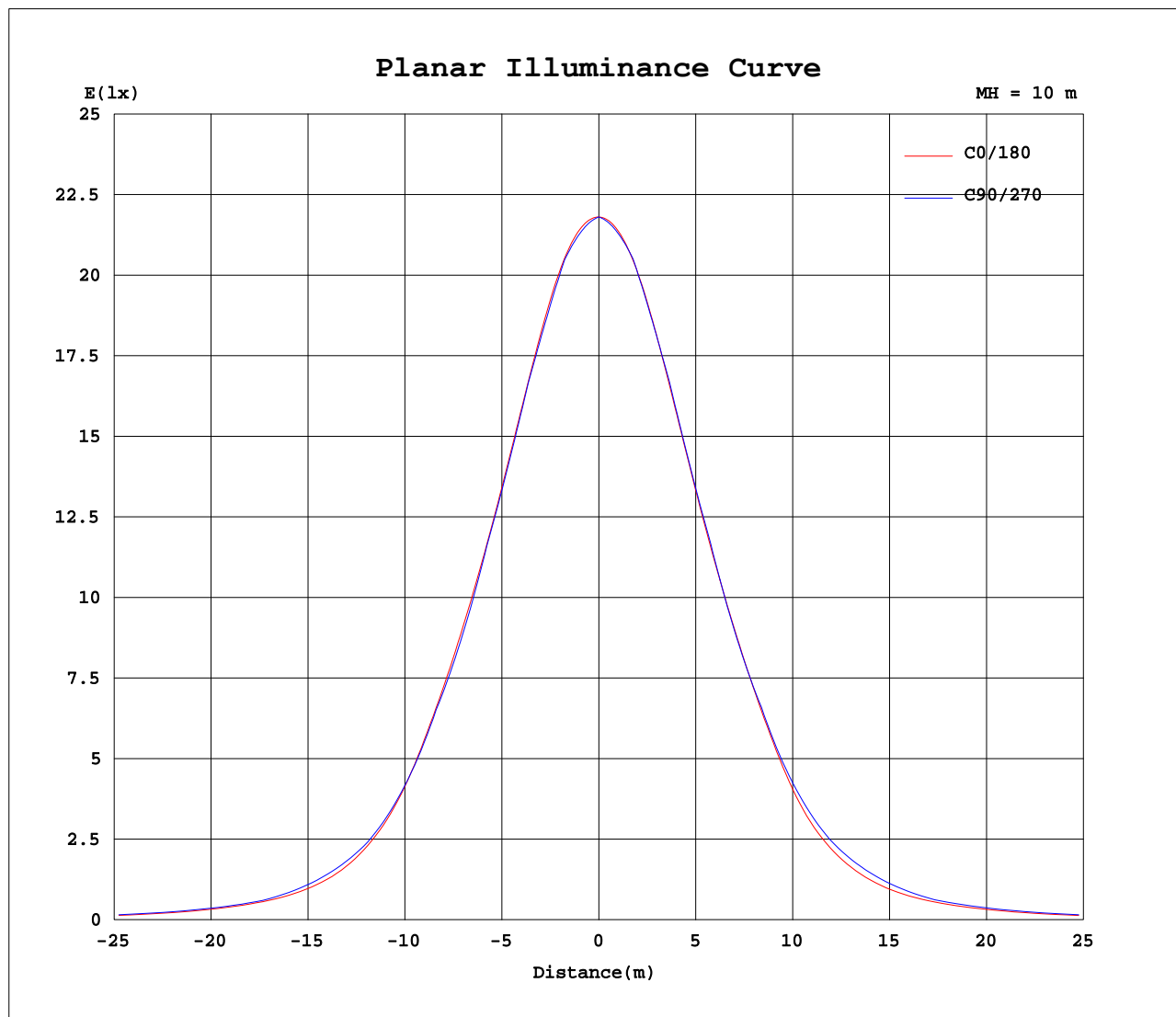
AvgL	cd/m2
L_0~180 (65) av	2751
L_0~180 (75) av	2424
L_0~180 (85) av	2060
L_90~270 (65) av	3114
L_90~270 (75) av	2559
L_90~270 (85) av	0
L_45 (65) av	2781
L_45 (75) av	2420
L_45 (85) av	1278

Standard: GB/T 29293-2012

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:



V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks: