

GAME-600-38W-840



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

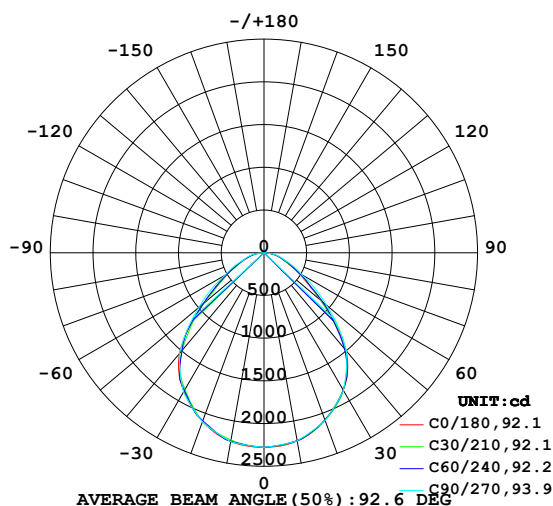
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

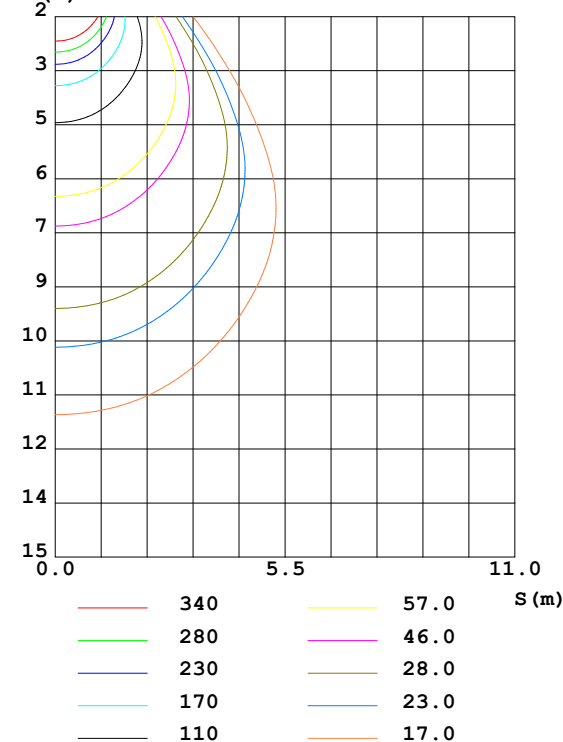
Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 122.28 lm/W			
MODEL	OSRAM-4000K	I <sub>max</sub> (cd)	2277	S/MH (C0/180)	1.23
NOMINAL POWER (W)	38	LOR (%)	100.0	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	4954.8	$\eta$ UP,DN (C0-180)	0.0,49.6
NOMINAL FLUX (lm)	4954.79	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,50.4
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	2238	2230	2237	2225	2243	2233	2245	2236	0- 10	215.0	215.0	4.34,4.34
20	2087	2086	2089	2074	2102	2083	2107	2101	10- 20	612.7	827.8	16.7,16.7
30	1855	1851	1858	1855	1876	1866	1884	1875	20- 30	914.2	1742	35.2,35.2
40	1492	1487	1502	1514	1539	1528	1542	1530	30- 40	1063	2805	56.6,56.6
50	868.1	848.7	951.4	967.3	922.4	921.5	992.5	968.3	40- 50	942.5	3747	75.6,75.6
60	454.3	456.3	506.1	497.0	481.0	478.1	529.3	506.6	50- 60	609.8	4357	87.9,87.9
70	237.1	241.1	265.0	254.9	247.7	242.7	261.4	255.3	60- 70	354.4	4712	95.1,95.1
80	109.8	114.2	126.5	125.0	123.8	113.2	135.3	124.9	70- 80	196.8	4908	99.1,99.1
90	0	0	0	0	1.079	0	0	0	80- 90	46.37	4955	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): 3313.4 lm

%lum = 66.9%

%lamp = 66.9%

Conical surface Flux(120deg): 4357.2 lm

%lum = 87.9%

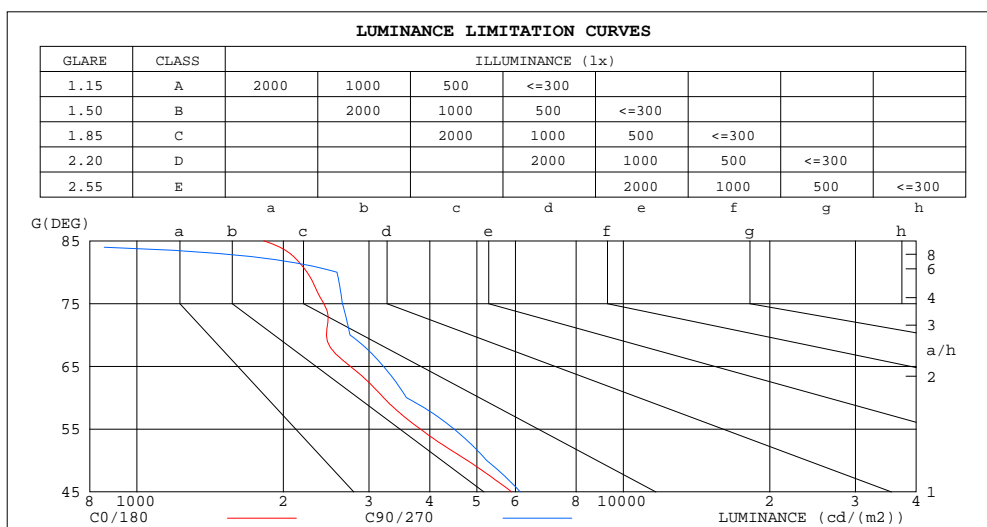
%lamp = 87.9%

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:

### LUMINANCE LIMITATION CURVES

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		



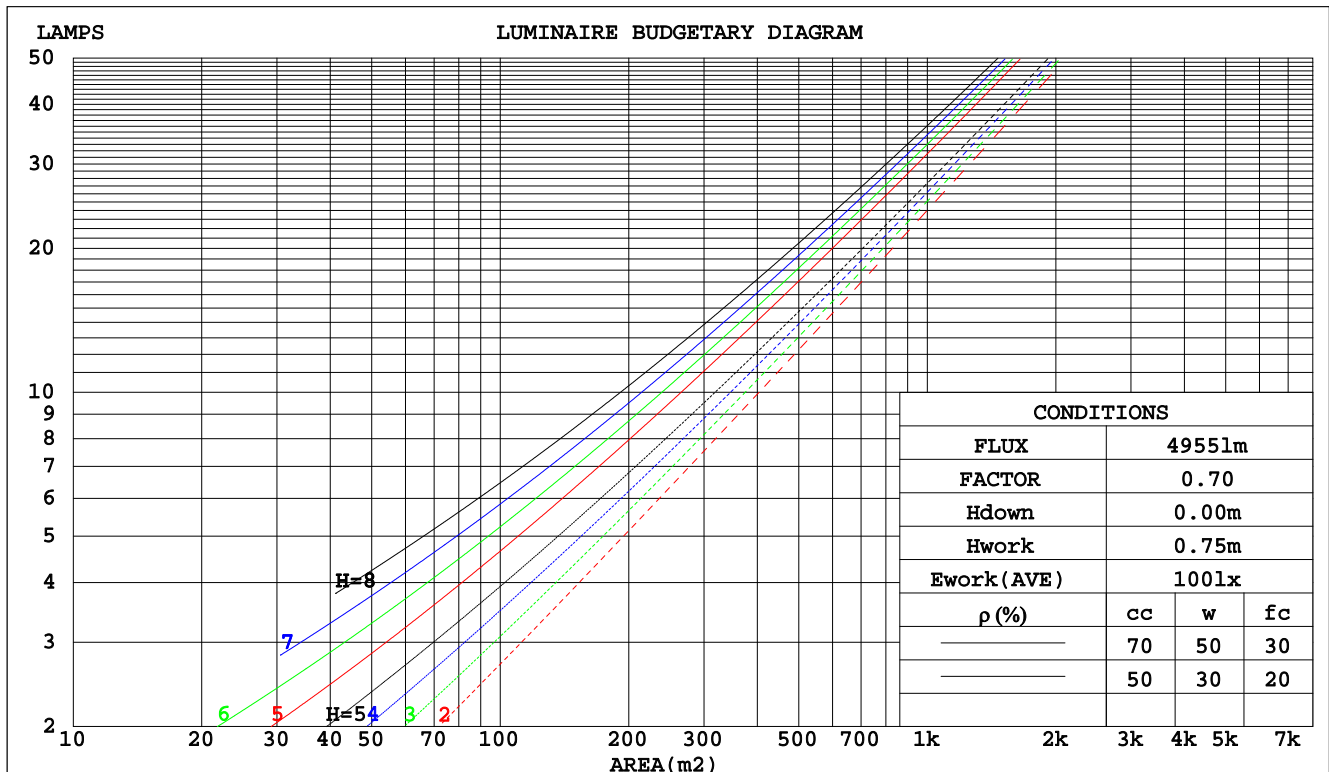
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

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:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

pcc	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						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	.94	.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	.68	.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	.47	.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	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.47	.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:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	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	.043	.247	.136	.042	.236	.131	.041	.225	.126	.040	.215	.122	.038		
3.0	.238	.127	.038	.232	.124	.037	.223	.121	.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	.031	.196	.102	.030	.189	.100	.030	.182	.097	.029		
6.0	.195	.098	.028	.191	.097	.028	.185	.095	.028	.178	.093	.027	.172	.091	.027		
7.0	.183	.091	.026	.180	.090	.026	.174	.088	.025	.168	.086	.025	.163	.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	.085	.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	.124	.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:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm										
NAME: GAME-600-38W-840					TYPE:Ceiling light			SERIAL No.:		
SPEC.:4000K					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	11.4	12.7	11.6	12.9	13.1	11.7	13.1	12.0	13.3	13.5
3H	12.1	13.4	12.4	13.6	13.8	12.5	13.8	12.8	14.0	14.2
4H	12.4	13.6	12.7	13.9	14.1	12.9	14.1	13.2	14.3	14.6
6H	12.7	13.9	13.1	14.1	14.4	13.2	14.3	13.5	14.6	14.9
8H	12.8	13.9	13.1	14.2	14.4	13.3	14.4	13.6	14.6	14.9
12H	12.8	13.9	13.2	14.2	14.4	13.2	14.3	13.6	14.6	14.9
4H 2H	11.6	12.8	11.9	13.1	13.3	11.9	13.1	12.2	13.4	13.6
3H	12.6	13.6	12.9	13.9	14.2	12.9	14.0	13.3	14.3	14.6
4H	13.1	14.0	13.5	14.3	14.7	13.5	14.4	13.8	14.7	15.0
6H	13.5	14.4	13.9	14.7	15.1	13.9	14.7	14.3	15.1	15.4
8H	13.6	14.4	14.1	14.8	15.2	14.0	14.8	14.4	15.1	15.5
12H	13.7	14.4	14.1	14.8	15.2	14.0	14.7	14.4	15.1	15.5
8H 4H	13.3	14.0	13.7	14.4	14.8	13.6	14.4	14.0	14.7	15.1
6H	13.9	14.5	14.3	14.9	15.3	14.2	14.8	14.6	15.2	15.6
8H	14.1	14.7	14.5	15.1	15.5	14.3	14.9	14.8	15.3	15.8
12H	14.2	14.7	14.7	15.1	15.6	14.3	14.8	14.8	15.2	15.7
12H 4H	13.3	14.0	13.7	14.4	14.8	13.6	14.3	14.0	14.7	15.1
6H	13.9	14.5	14.4	14.9	15.4	14.2	14.8	14.7	15.2	15.7
8H	14.2	14.7	14.7	15.1	15.6	14.4	14.9	14.9	15.3	15.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.3 / - 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, 4955 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 5.6$ )

$H(\beta)$  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:

### UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

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	73	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	93	85	79	92	84	79	89	83	78	71
2.00	99	92	87	98	91	86	94	89	84	77
2.50	102	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		

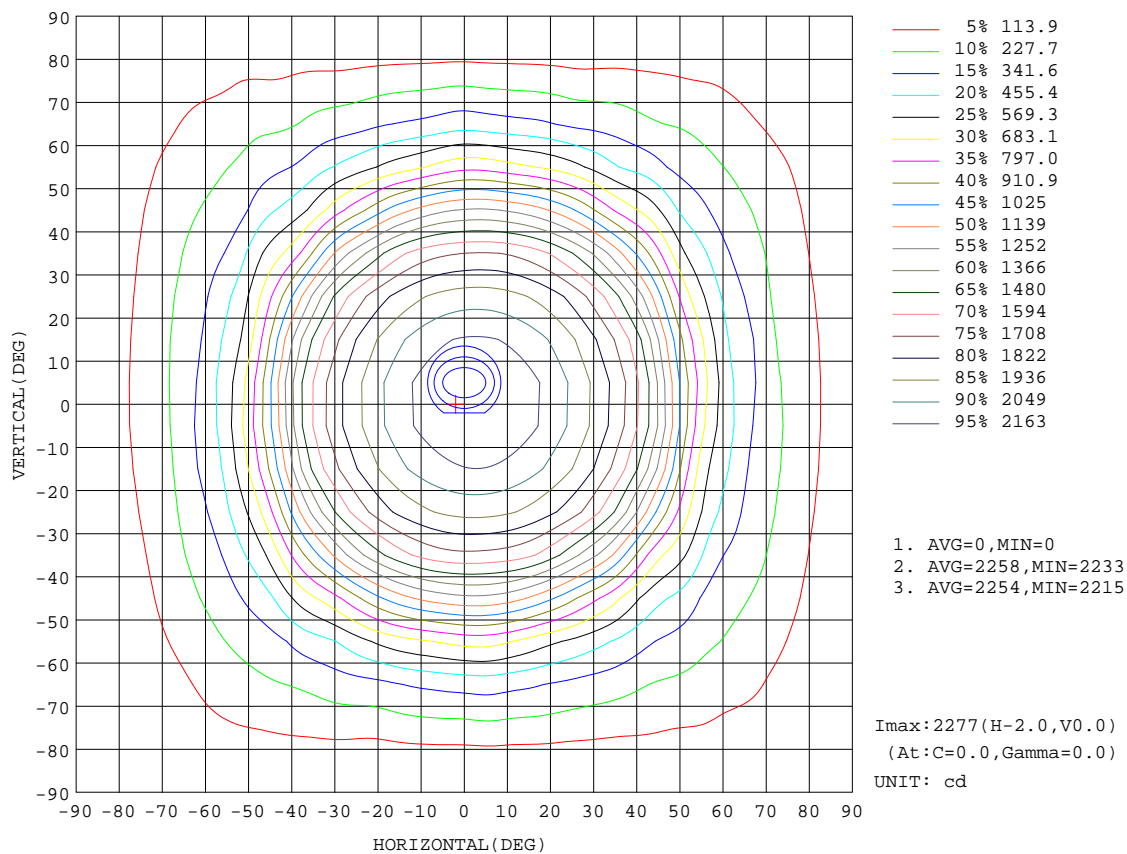
$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Myles  
 Test Date:2019-01-05

$V(B)$  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:



ISOCANDELA DIAGRAM

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		



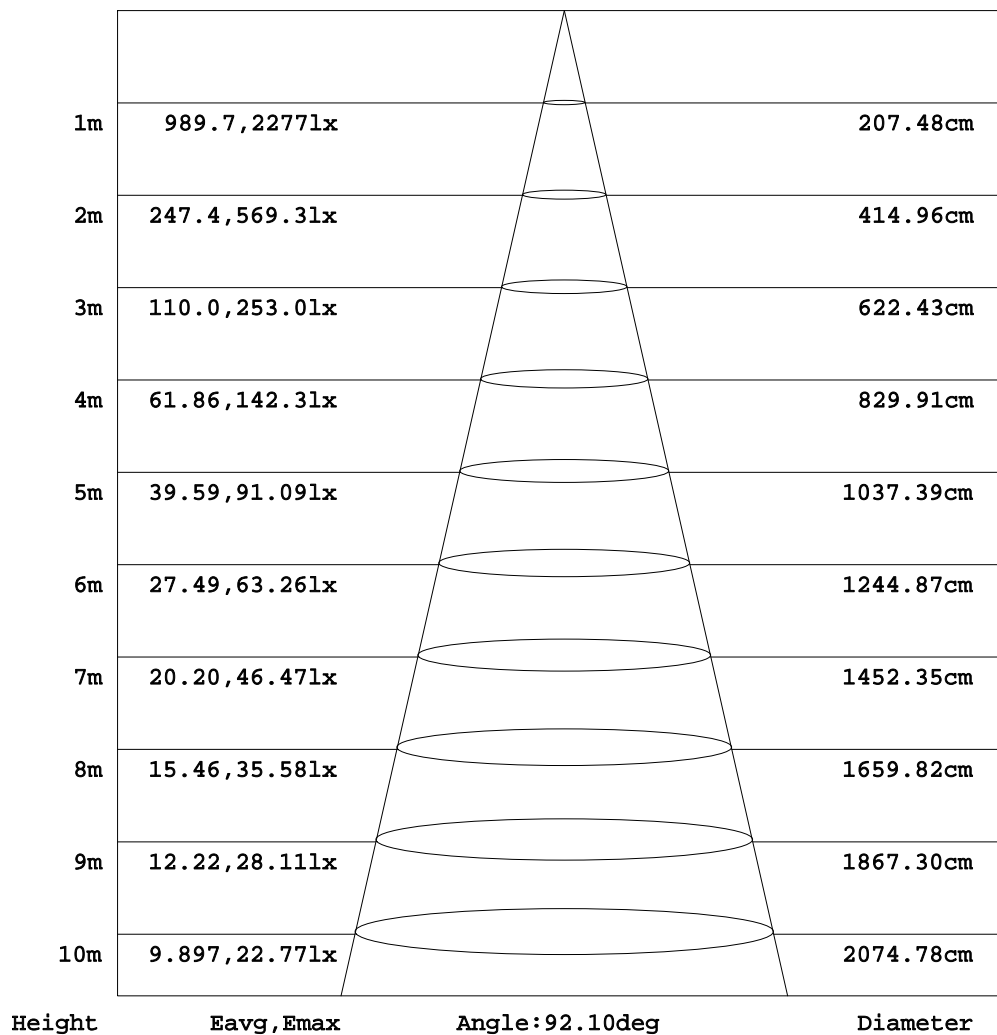
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-01-05

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:

**AAI Figure**

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

Flux out:3453 lm



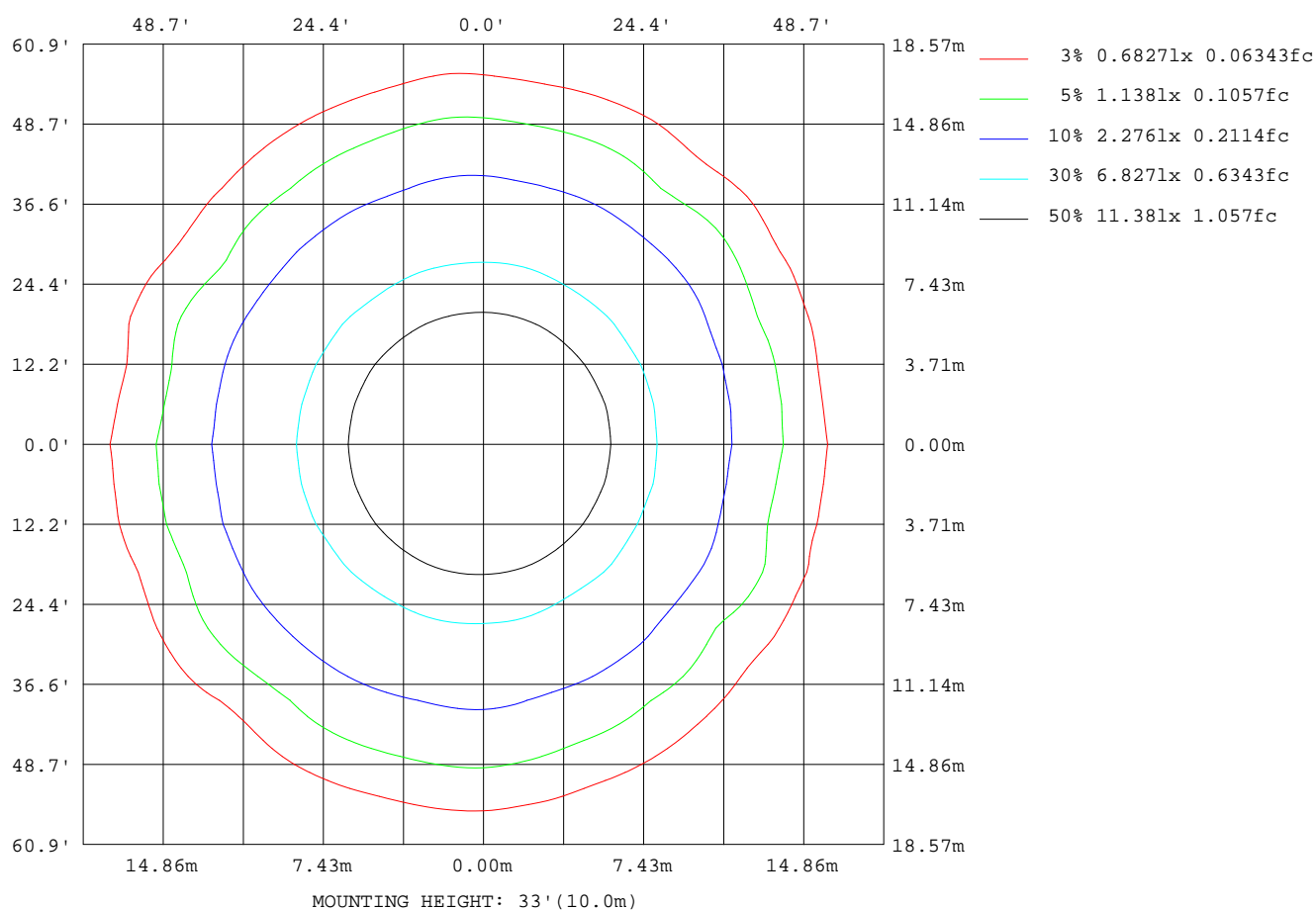
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

**ISOLUX DIAGRAM**

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		



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:

### LED Avg.L Report

Test:U:220.9V I:0.1863A P:40.52W PF:0.9852 Freq:49.90Hz Lamp Flux:4954.79x1 lm		
NAME: GAME-600-38W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: $\phi$ 600mm*H78mm	
MFR.: NEKO LIGHTING AG		

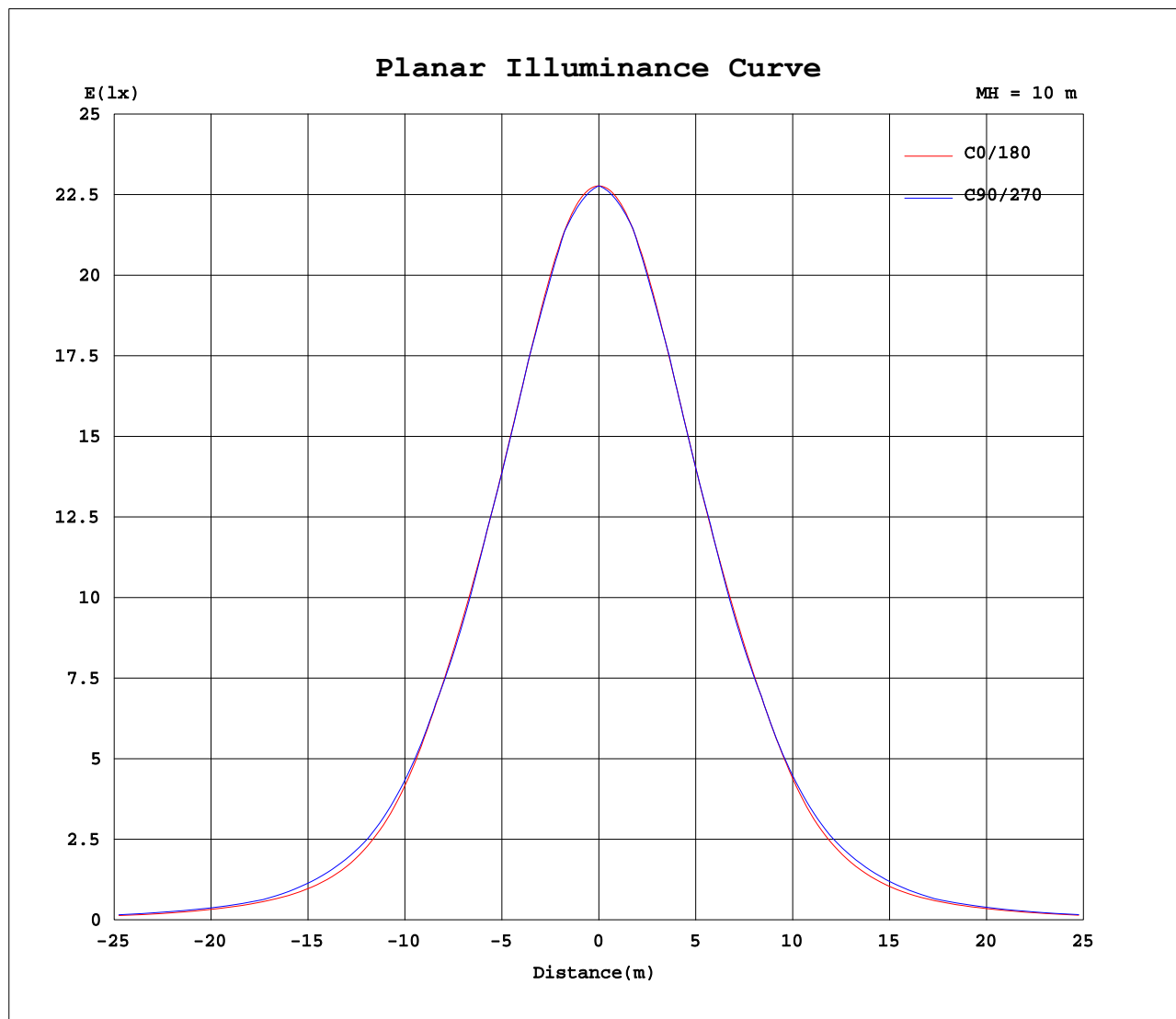
AvgL	cd/m2
L_0~180 (65) av	2871
L_0~180 (75) av	2511
L_0~180 (85) av	2136
L_90~270 (65) av	3275
L_90~270 (75) av	2694
L_90~270 (85) av	0
L_45 (65) av	2918
L_45 (75) av	2545
L_45 (85) av	1357

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: