

GAME-900-65W-830



Light Output Ratio:	100.0%	
Luminaire Power:	67.51 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:2019-04-15

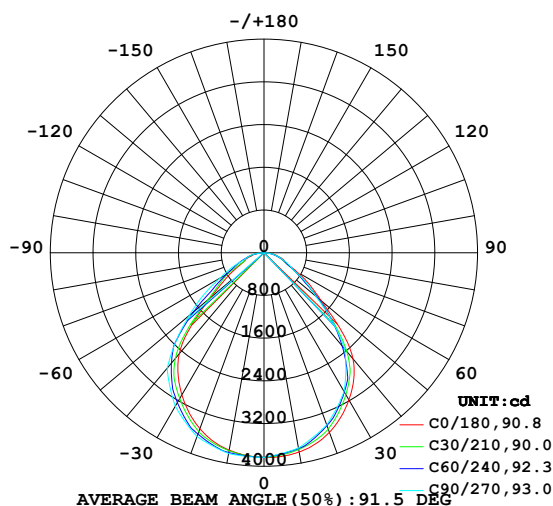
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

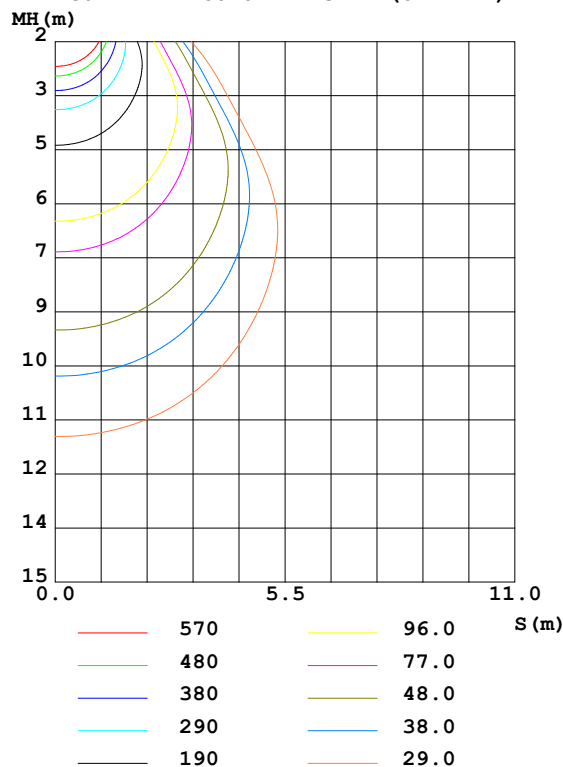
Test:U:220.9V I:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.86 lm/W			
MODEL	OSRAM-3000K	I <sub>max</sub> (cd)	3835	S/MH (C0/180)	1.20
NOMINAL POWER (W)	68	LOR (%)	100.0	S/MH (C90/270)	1.28
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	8091.3	$\eta$ UP,DN (C0-180)	0.0,46.9
NOMINAL FLUX (lm)	8091.29	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,53.1
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:2019-04-15

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	3788	3732	3715	3705	3754	3782	3820	3804	0- 10	361.8	361.8	4.47,4.47
20	3580	3465	3432	3421	3508	3582	3665	3636	10- 20	1034	1396	17.3,17.3
30	3181	3029	2999	2997	3076	3203	3321	3292	20- 30	1543	2939	36.3,36.3
40	2593	2389	2350	2319	2469	2646	2822	2778	30- 40	1784	4722	58.4,58.4
50	1405	1137	1266	1175	1299	1586	1819	1625	40- 50	1535	6257	77.3,77.3
60	704.4	581.5	623.9	704.0	638.1	676.0	948.1	905.5	50- 60	926.9	7184	88.8,88.8
70	394.2	343.7	365.2	383.3	367.1	411.6	407.9	471.8	60- 70	529.5	7714	95.3,95.3
80	211.5	156.0	169.2	168.9	181.2	208.5	220.8	252.2	70- 80	302.5	8016	99.1,99.1
90	2.106	0	0	0	1.688	0	0	0	80- 90	75.22	8091	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): 5565.9 lm

%lum = 68.8%

%lamp = 68.8%

Conical surface Flux(120deg): 7184.1 lm

%lum = 88.8%

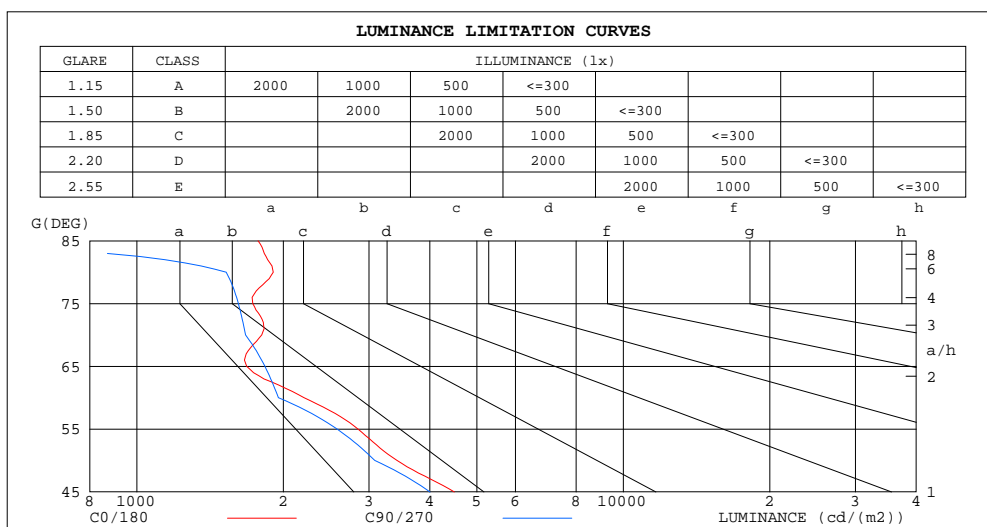
%lamp = 88.8%

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-15

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:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1775	0
80	1907	1526
75	1731	1617
70	1805	1672
65	1682	1833
60	2206	1954
55	2848	2580
50	3424	3083
45	4492	4004

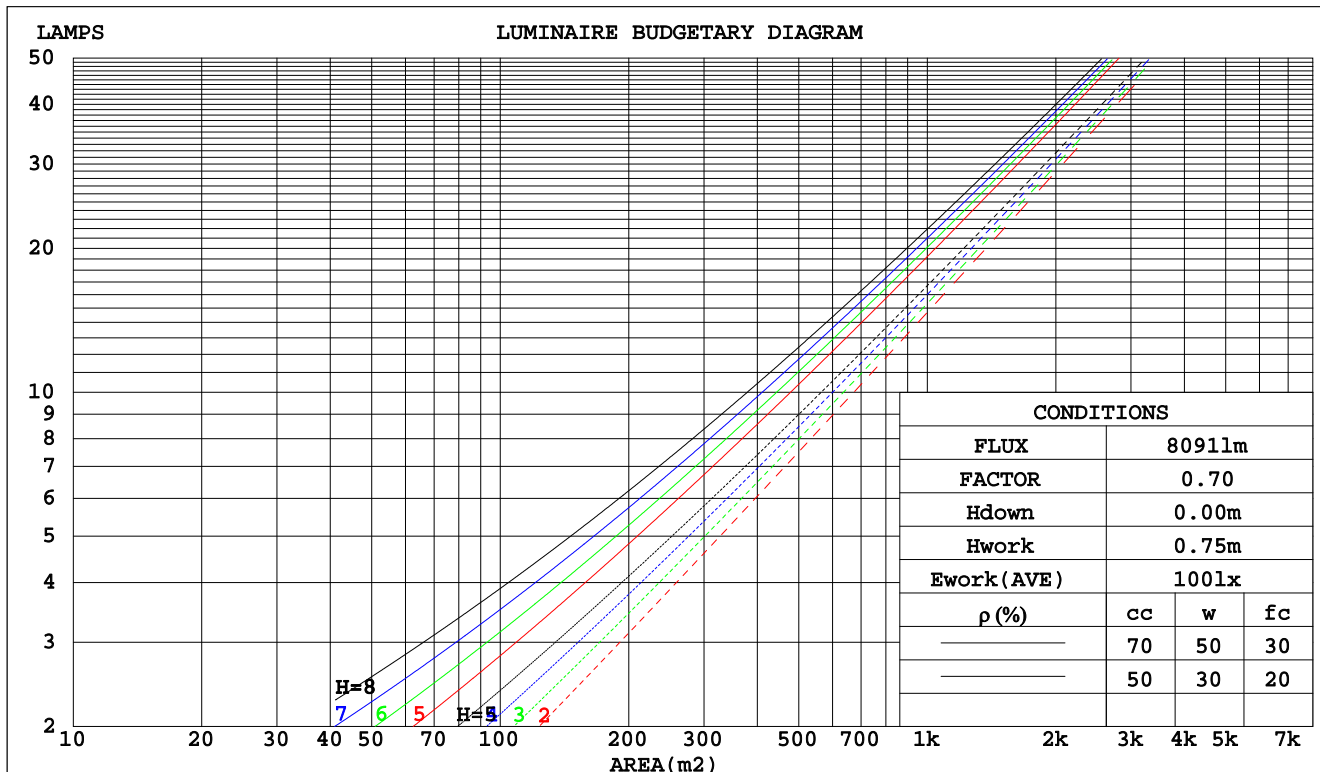
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-15

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:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
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	.00
1.0	1.06	1.03	.00	1.04	1.01	.98	1.00	.97	.95	.96	.94	.92	.93	.91	.89	.87
2.0	.95	.89	.84	.93	.88	.83	.90	.85	.81	.86	.83	.79	.84	.80	.78	.76
3.0	.85	.78	.72	.83	.77	.72	.81	.75	.70	.78	.73	.69	.75	.71	.68	.66
4.0	.76	.69	.63	.75	.68	.62	.73	.67	.62	.71	.65	.61	.68	.64	.60	.58
5.0	.69	.61	.55	.68	.61	.55	.66	.59	.54	.64	.58	.54	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.54	.48	.59	.53	.48	.57	.52	.48	.46
7.0	.58	.50	.44	.57	.49	.44	.55	.48	.43	.54	.48	.43	.53	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.40	.51	.44	.39	.50	.44	.39	.49	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.36	.45	.40	.35	.34
10.0	.45	.38	.33	.45	.38	.33	.44	.37	.33	.43	.37	.33	.42	.36	.32	.31



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-15

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:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing$ 900mm*H105mm	
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	.260	.148	.047	.253	.144	.046	.240	.138	.044	.228	.132	.042	.217	.126	.041		
2.0	.249	.136	.042	.243	.134	.041	.231	.129	.040	.221	.124	.039	.211	.120	.038		
3.0	.234	.125	.037	.229	.123	.037	.219	.119	.036	.210	.115	.035	.201	.111	.034		
4.0	.219	.114	.033	.215	.112	.033	.206	.109	.033	.198	.106	.032	.190	.103	.031		
5.0	.205	.105	.030	.201	.103	.030	.194	.101	.030	.186	.098	.029	.180	.096	.029		
6.0	.193	.097	.028	.189	.096	.027	.182	.093	.027	.176	.091	.027	.170	.089	.027		
7.0	.181	.090	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.161	.083	.025		
8.0	.171	.083	.023	.168	.083	.023	.162	.081	.023	.157	.080	.023	.152	.078	.023		
9.0	.161	.078	.022	.159	.077	.022	.154	.076	.022	.149	.075	.021	.145	.073	.021		
10.0	.153	.073	.020	.150	.073	.020	.146	.071	.020	.142	.070	.020	.138	.069	.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	.151	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.056	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.135	.098	.069	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.041	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.097	.051	.021	.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:2019-04-15

$V(B)$  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:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm										
NAME: GAME-900-65W-830					TYPE:Ceiling light			SERIAL No.:		
SPEC.:3000K					DIM.: $\phi$ 900mm*H105mm					
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	8.1	9.5	8.4	9.6	9.8	7.9	9.2	8.1	9.4	9.6
3H	8.8	10.1	9.1	10.3	10.5	8.7	9.9	8.9	10.1	10.3
4H	9.2	10.4	9.5	10.6	10.9	9.0	10.2	9.3	10.4	10.7
6H	9.5	10.6	9.9	10.9	11.2	9.3	10.5	9.7	10.7	11.0
8H	9.7	10.7	10.0	11.0	11.3	9.4	10.5	9.7	10.7	11.0
12H	9.7	10.8	10.1	11.0	11.3	9.4	10.4	9.7	10.7	11.0
4H 2H	8.2	9.4	8.6	9.7	9.9	8.1	9.2	8.4	9.5	9.7
3H	9.2	10.2	9.5	10.5	10.8	9.0	10.1	9.4	10.3	10.6
4H	9.7	10.6	10.1	10.9	11.3	9.6	10.5	9.9	10.8	11.1
6H	10.2	11.0	10.6	11.3	11.7	10.0	10.9	10.4	11.2	11.6
8H	10.4	11.1	10.8	11.5	11.9	10.1	10.9	10.6	11.3	11.7
12H	10.5	11.2	10.9	11.6	12.0	10.1	10.8	10.6	11.2	11.6
8H 4H	9.8	10.6	10.2	10.9	11.3	9.7	10.5	10.1	10.8	11.2
6H	10.5	11.1	10.9	11.5	11.9	10.3	10.9	10.8	11.3	11.8
8H	10.7	11.3	11.2	11.7	12.1	10.5	11.0	10.9	11.5	11.9
12H	10.9	11.4	11.4	11.8	12.3	10.5	11.0	11.0	11.4	11.9
12H 4H	9.8	10.5	10.2	10.9	11.3	9.7	10.4	10.1	10.8	11.2
6H	10.5	11.0	10.9	11.5	11.9	10.3	10.9	10.8	11.3	11.8
8H	10.8	11.3	11.3	11.7	12.2	10.5	11.0	11.0	11.5	11.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.5 / - 0.6				
1.5H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				
2.0H	+ 1.6 / - 1.1					+ 1.1 / - 0.9				

CIE Pub.117, 8091 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 7.3$ )

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Myles  
 Test Date:2019-04-15

$V(\beta)$  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:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing 900\text{mm} \times H105\text{mm}$	
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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	65	55	49	64	55	49	43
0.80	75	65	59	74	65	59	73	64	59	53
1.00	83	74	68	82	73	68	80	74	67	61
1.25	90	81	75	88	80	75	86	79	74	68
1.50	94	86	80	93	85	80	90	83	79	72
2.00	100	93	88	98	92	87	95	90	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	104	99	94	100	96	92	85
4.00	109	104	100	107	102	99	103	99	96	88
5.00	111	107	103	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

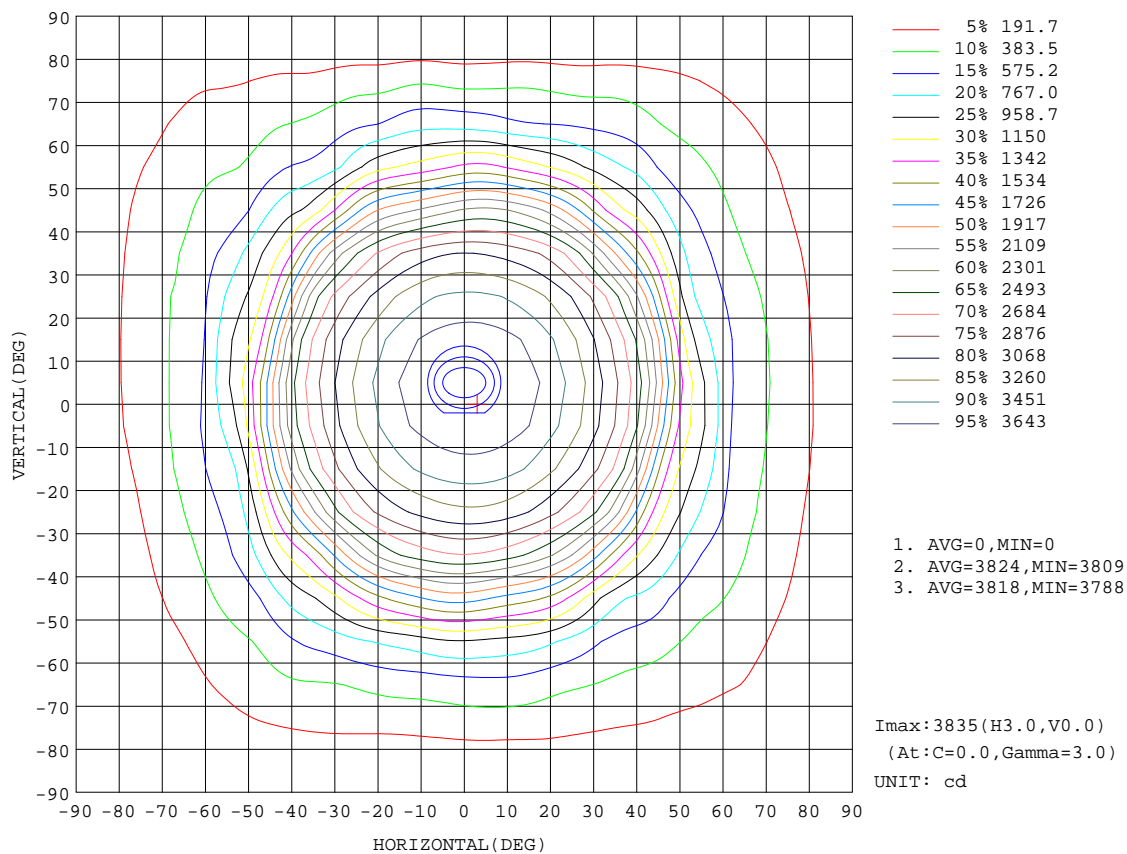
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$V(B)$  Range:-80 - 80DEG  
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 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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 Test Distance:5.850m [K=1.0000]  
 Remarks:



ISOCANDELA DIAGRAM

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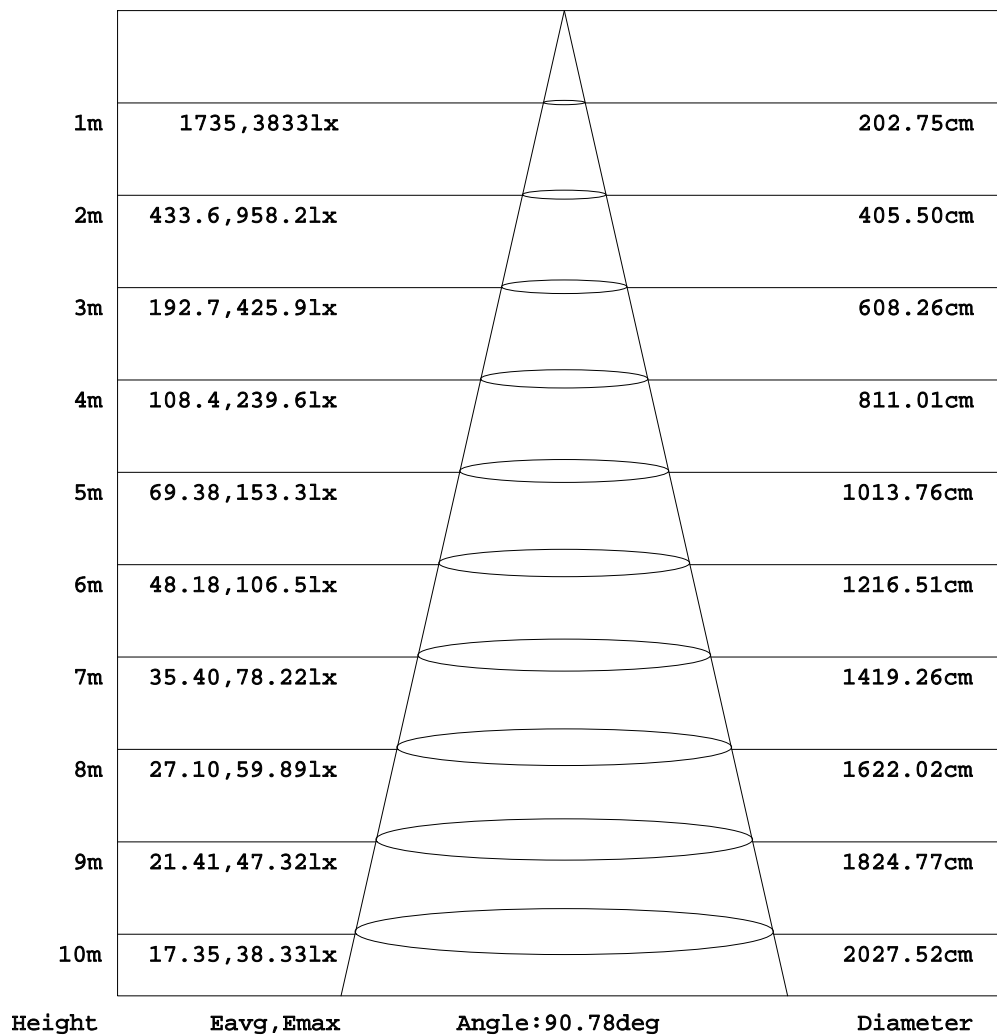
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**AAI Figure**

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NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

Flux out:5643 lm



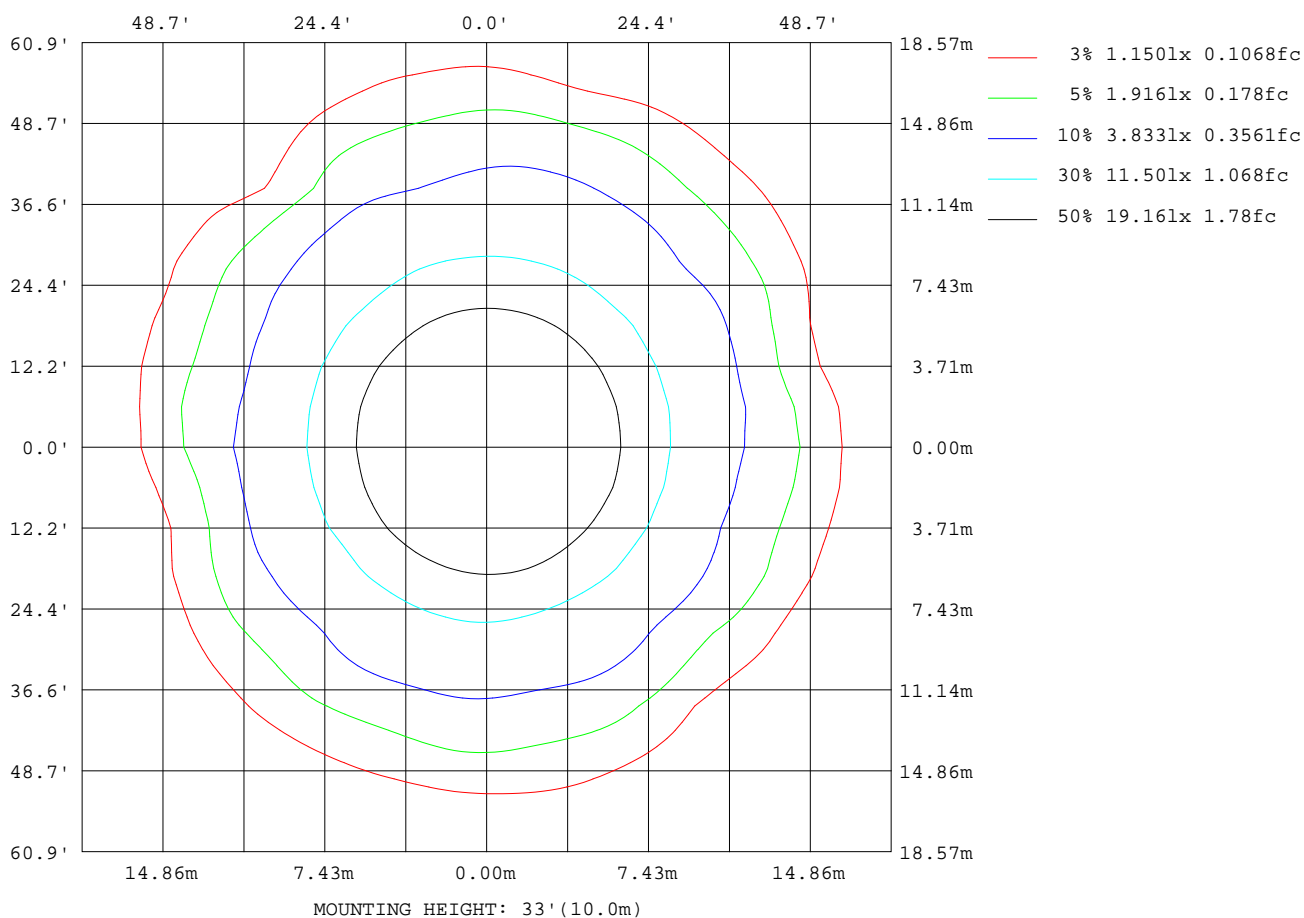
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

Test:U:220.9V I:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
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V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
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Test Distance:5.850m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:220.9V I:0.3102A P:67.51W PF:0.9852 Freq:49.90Hz Lamp Flux:8091.29x1 lm		
NAME: GAME-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

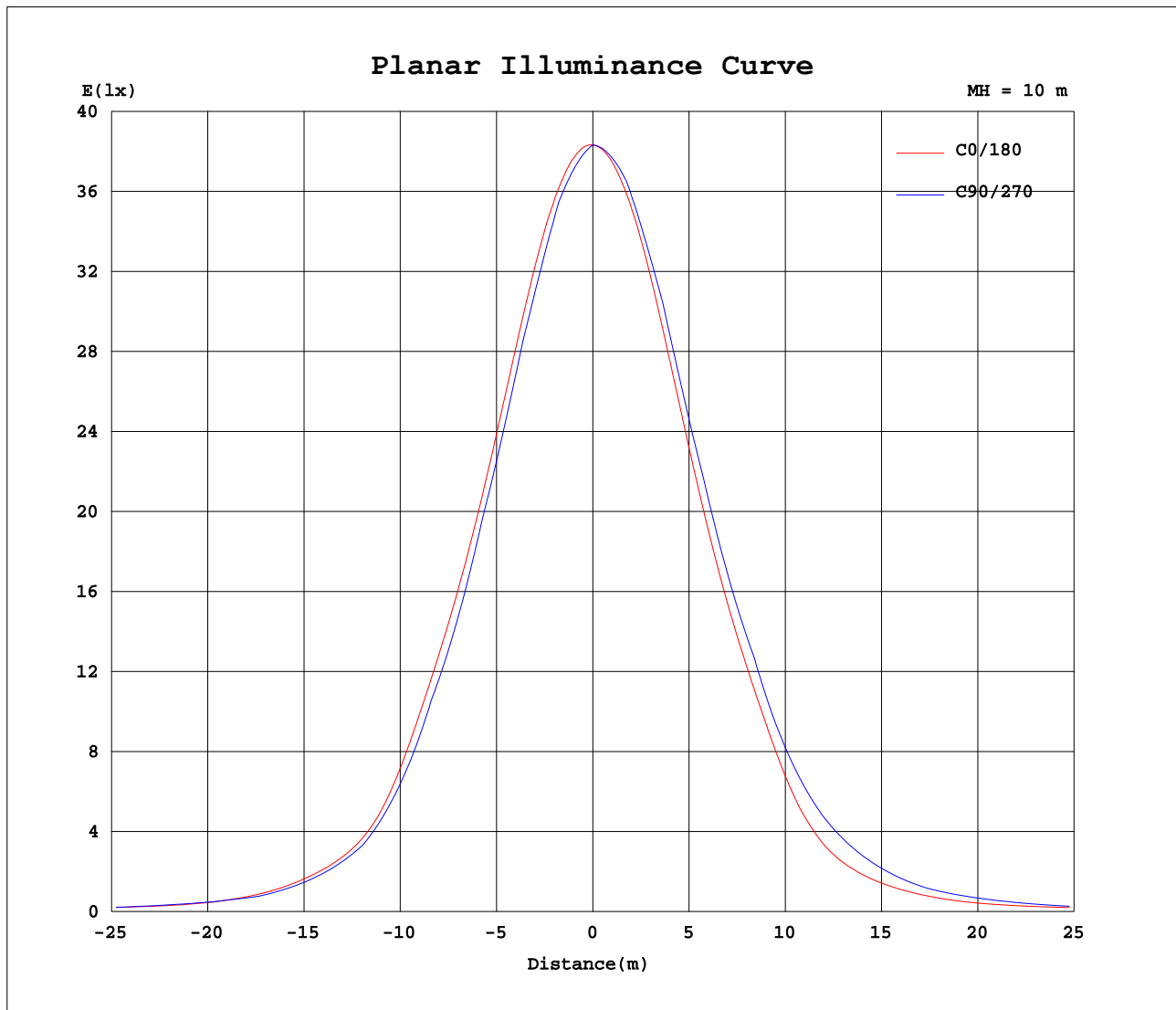
AvgL	cd/m2
L_0~180 (65) av	1652
L_0~180 (75) av	1642
L_0~180 (85) av	1607
L_90~270 (65) av	2173
L_90~270 (75) av	1759
L_90~270 (85) av	0
L_45 (65) av	2026
L_45 (75) av	1791
L_45 (85) av	1029

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:2019-04-15

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:2019-04-15

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: