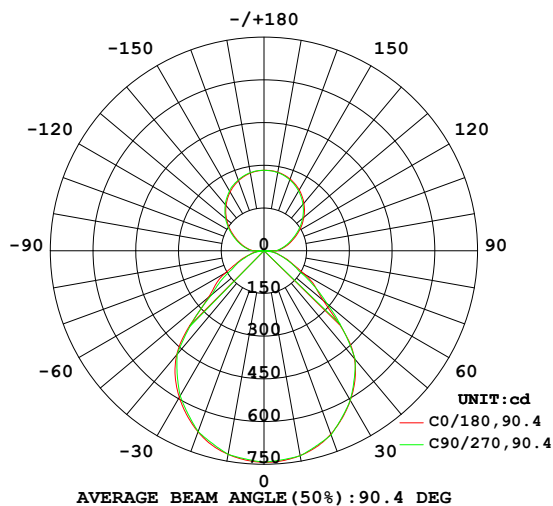


LUMINAIRE PHOTOMETRIC TEST REPORT

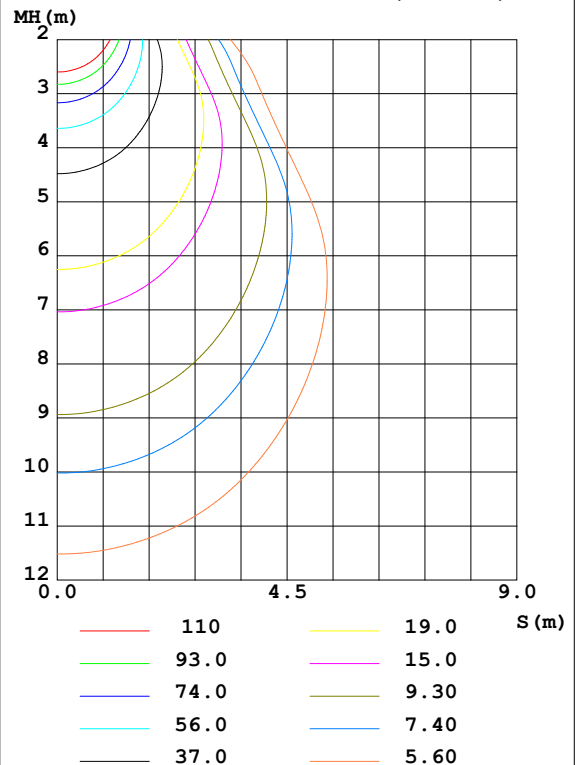
Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 103.50 lm/W			
MODEL	OSRAM-4000K	I <sub>max</sub> (cd)	742.8	S/MH (C0/180)	1.20
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	2477.3	$\eta$ UP, DN (C0-180)	18.6, 32.1
NOMINAL FLUX (lm)	2477.34	CIE CLASS	SEMI-D.	$\eta$ UP, DN (C180-360)	18.6, 30.8
LAMPS INSIDE	1	$\eta$ up (%)	37.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	$\eta$ down (%)	62.9	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 5.850m [K=1.7094]  
Remarks:

### ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

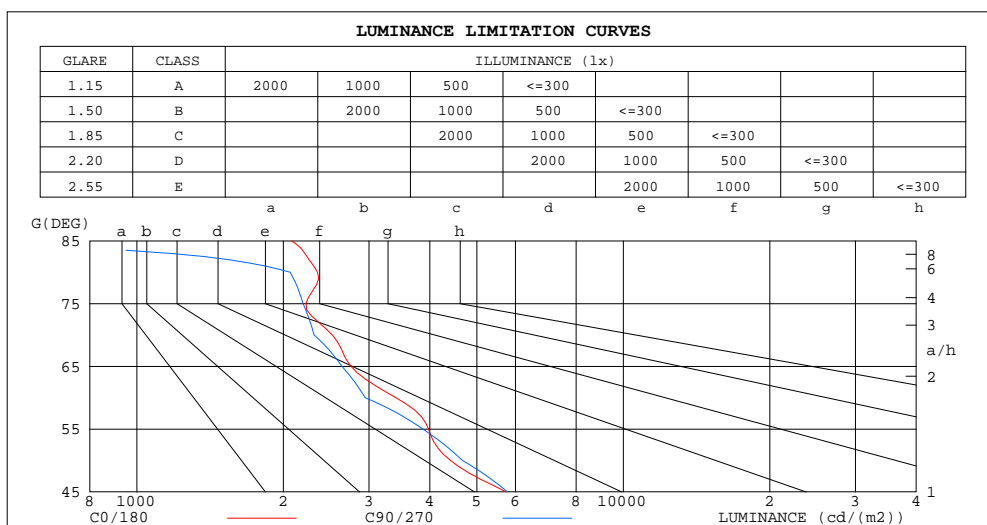
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	730.3	730.3	731.3	723.9	725.9	720.8	726.2	726.3	0- 10	69.96	69.96	2.82,2.82
20	685.6	689.1	688.4	674.0	676.9	665.4	676.0	680.7	10- 20	199.2	269.2	10.9,10.9
30	606.4	608.8	606.1	595.4	594.6	581.3	588.6	598.7	20- 30	294.9	564.1	22.8,22.8
40	493.9	499.5	498.8	487.3	476.9	463.1	473.9	484.2	30- 40	339.2	903.3	36.5,36.5
50	272.6	296.5	288.7	289.0	254.6	251.9	238.9	275.6	40- 50	293.6	1197	48.3,48.3
60	163.9	149.2	141.7	152.3	157.9	130.3	129.0	150.2	50- 60	182.9	1380	55.7,55.7
70	82.93	80.96	76.09	74.94	78.60	68.63	69.44	77.22	60- 70	105.5	1485	60,60
80	39.26	37.95	34.47	35.16	35.00	27.23	29.17	34.63	70- 80	57.50	1543	62.3,62.3
90	43.74	43.29	41.49	37.80	37.07	38.10	41.13	42.77	80- 90	14.23	1557	62.9,62.9
100	72.39	71.26	67.18	64.48	64.14	65.57	67.67	70.99	90-100	58.61	1616	65.2,65.2
110	105.2	103.7	98.84	96.15	94.99	96.60	99.97	103.5	100-110	88.35	1704	68.8,68.8
120	143.8	142.1	137.8	133.4	132.3	134.2	137.1	142.1	110-120	117.1	1821	73.5,73.5
130	182.8	181.4	177.1	172.5	171.5	172.8	176.0	181.1	120-130	141.0	1962	79.2,79.2
140	218.1	216.8	212.9	208.7	207.6	208.8	211.8	216.5	130-140	150.7	2113	85.3,85.3
150	247.2	246.1	243.0	239.5	238.4	239.6	242.8	246.8	140-150	143.0	2256	91.1,91.1
160	268.3	267.4	265.4	262.9	262.0	262.9	264.7	267.4	150-160	117.6	2373	95.8,95.8
170	280.3	279.7	278.9	277.5	277.1	277.6	278.6	279.8	160-170	77.10	2451	98.9,98.9
180	282.7	282.7	282.7	282.7	282.7	282.7	282.7	282.7	170-180	26.80	2477	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2081	0
80	2351	2064
75	2227	2196
70	2521	2314
65	2754	2640
60	3408	2947
55	3976	3872
50	4411	4670
45	5738	5779

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

```

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:5.850m [K=1.7094]
Remarks:

```

## WEC AND CCEC

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

$\rho_{cc}$	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	.259	.147	.047	.241	.137	.044	.207	.119	.038	.176	.101	.033	.147	.085	.027		
2.0	.245	.134	.041	.228	.126	.039	.197	.110	.034	.169	.095	.030	.143	.081	.025		
3.0	.229	.122	.036	.214	.114	.034	.186	.101	.031	.160	.088	.027	.136	.075	.023		
4.0	.213	.111	.033	.200	.104	.031	.174	.092	.028	.150	.081	.024	.128	.070	.021		
5.0	.199	.102	.029	.187	.096	.028	.163	.085	.025	.141	.075	.022	.121	.065	.019		
6.0	.186	.093	.027	.175	.088	.025	.153	.079	.023	.133	.069	.020	.114	.060	.018		
7.0	.175	.086	.025	.164	.082	.023	.144	.073	.021	.126	.064	.019	.108	.056	.016		
8.0	.164	.080	.023	.155	.076	.022	.136	.068	.019	.119	.060	.017	.102	.052	.015		
9.0	.155	.075	.021	.146	.071	.020	.129	.064	.018	.112	.056	.016	.097	.049	.014		
10.0	.147	.070	.020	.138	.067	.019	.122	.060	.017	.107	.053	.015	.092	.046	.013		

$\rho_{cc}$	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	.474	.474	.474	.405	.405	.405	.276	.276	.276	.159	.159	.159	.051	.051	.051	
1.0	.462	.442	.424	.395	.379	.365	.270	.261	.252	.156	.151	.147	.050	.049	.047	
2.0	.453	.419	.391	.388	.361	.338	.266	.250	.236	.153	.145	.138	.049	.047	.045	
3.0	.445	.403	.369	.382	.348	.320	.262	.241	.224	.151	.141	.132	.049	.046	.043	
4.0	.438	.390	.354	.376	.337	.307	.259	.235	.216	.150	.138	.128	.048	.045	.042	
5.0	.431	.380	.343	.370	.329	.298	.255	.230	.211	.148	.135	.125	.048	.044	.041	
6.0	.425	.373	.335	.365	.323	.292	.252	.226	.206	.146	.133	.123	.047	.043	.041	
7.0	.419	.366	.329	.361	.317	.287	.249	.223	.203	.145	.131	.121	.047	.043	.040	
8.0	.414	.361	.325	.356	.313	.283	.246	.220	.201	.143	.130	.120	.046	.043	.040	
9.0	.408	.356	.321	.352	.309	.280	.244	.217	.199	.142	.128	.119	.046	.042	.039	
10.0	.403	.352	.318	.348	.306	.278	.241	.215	.197	.141	.127	.118	.046	.042	.039	

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm										
NAME: GAME 350-U-20W-840					TYPE:Ceiling light			WEIGHT:0.2		
SPEC.:4000K					DIM.: $\phi$ 350mm*H78mm			SERIAL No.:		
MFR.: NEKO LIGHTING AG					SUR.: $\phi$ 350mm			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	11.8	12.8	12.5	13.5	14.4	11.8	12.8	12.5	13.5	14.4
3H	12.4	13.3	13.2	14.1	15.0	12.5	13.3	13.2	14.1	15.0
4H	12.7	13.5	13.5	14.3	15.2	12.7	13.6	13.5	14.3	15.2
6H	13.0	13.7	13.7	14.5	15.5	13.0	13.7	13.7	14.5	15.4
8H	13.1	13.8	13.8	14.6	15.5	13.0	13.7	13.8	14.5	15.5
12H	13.1	13.8	13.9	14.6	15.5	12.9	13.6	13.7	14.4	15.4
4H 2H	11.9	12.7	12.7	13.5	14.4	11.9	12.7	12.6	13.5	14.4
3H	12.7	13.4	13.5	14.2	15.2	12.7	13.4	13.5	14.2	15.2
4H	13.1	13.7	13.9	14.5	15.5	13.1	13.8	14.0	14.6	15.6
6H	13.5	14.0	14.3	14.8	15.9	13.5	14.1	14.4	14.9	16.0
8H	13.6	14.1	14.5	15.0	16.0	13.6	14.1	14.5	14.9	16.0
12H	13.7	14.1	14.6	15.0	16.1	13.5	14.0	14.4	14.9	15.9
8H 4H	13.1	13.6	14.0	14.5	15.5	13.2	13.7	14.1	14.6	15.6
6H	13.6	14.0	14.5	14.9	16.0	13.8	14.2	14.6	15.0	16.2
8H	13.9	14.2	14.8	15.1	16.2	13.9	14.2	14.8	15.1	16.3
12H	14.0	14.3	14.9	15.2	16.4	13.8	14.1	14.8	15.1	16.2
12H 4H	13.1	13.5	14.0	14.4	15.5	13.2	13.6	14.0	14.5	15.6
6H	13.6	14.0	14.6	14.9	16.0	13.8	14.1	14.7	15.0	16.1
8H	13.9	14.2	14.8	15.1	16.3	13.9	14.2	14.8	15.1	16.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.4 / - 0.5				
1.5H	+ 0.4 / - 0.5					+ 0.3 / - 0.4				
2.0H	+ 1.2 / - 0.7					+ 1.1 / - 1.0				

CIE Pub.117, 2477 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 3.2$ )

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

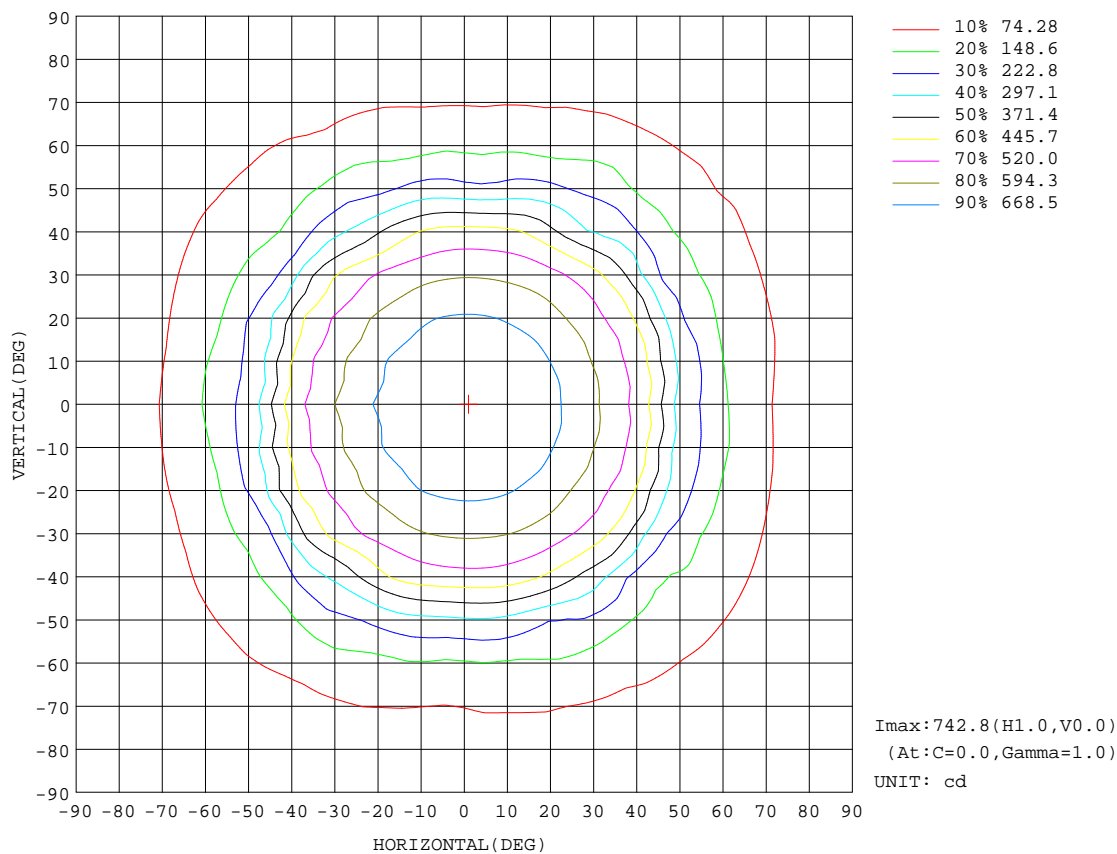
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	52	42	36	50	41	35	47	39	34	27
0.80	62	51	44	59	49	43	54	46	41	33
1.00	69	59	52	66	57	51	60	54	48	38
1.25	76	66	59	72	63	57	66	59	54	42
1.50	80	71	64	76	68	62	69	63	58	45
2.00	87	78	72	82	75	69	74	68	64	49
2.50	91	83	77	86	79	74	77	72	68	51
3.00	94	87	81	88	83	78	79	74	71	53
4.00	98	92	87	92	87	83	82	78	75	55
5.00	100	95	91	94	90	86	83	80	77	57
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:



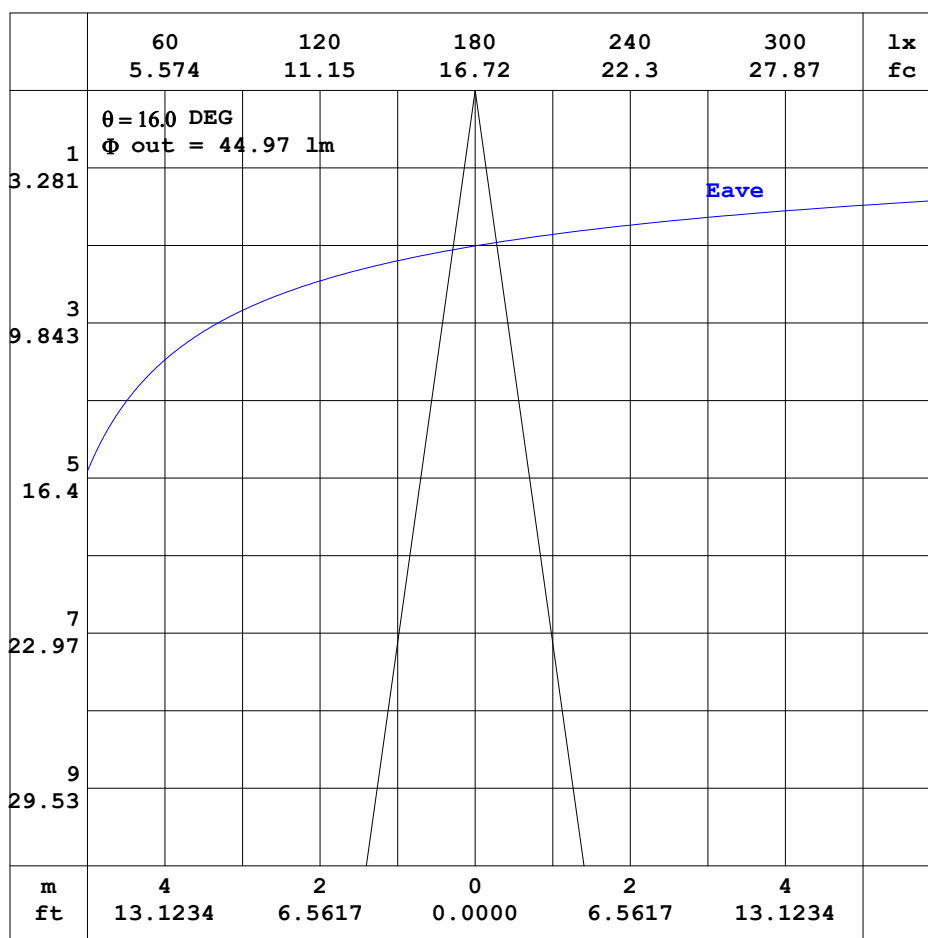
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:



AAI CURVES

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:



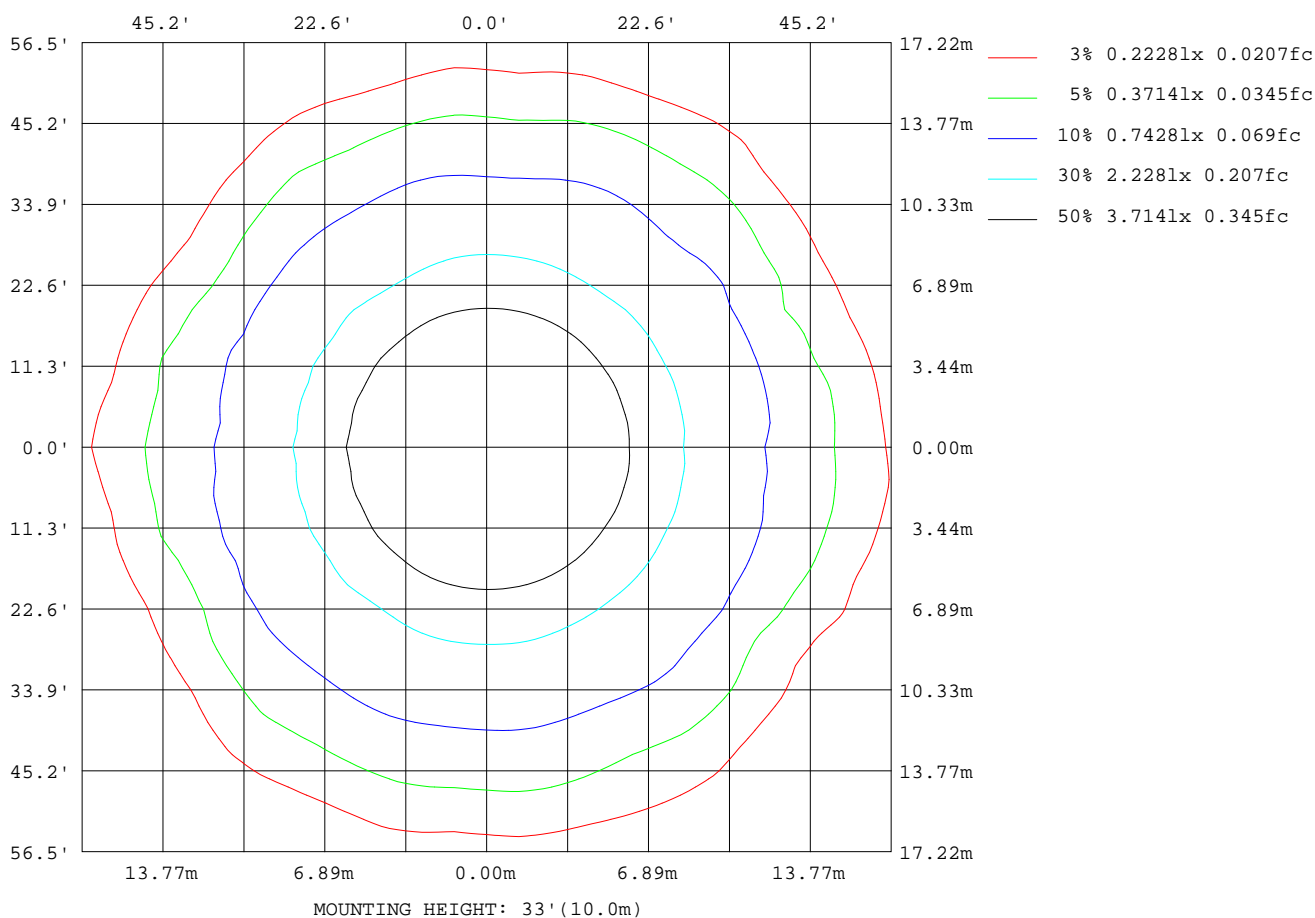
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

### LED Avg.L Report

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

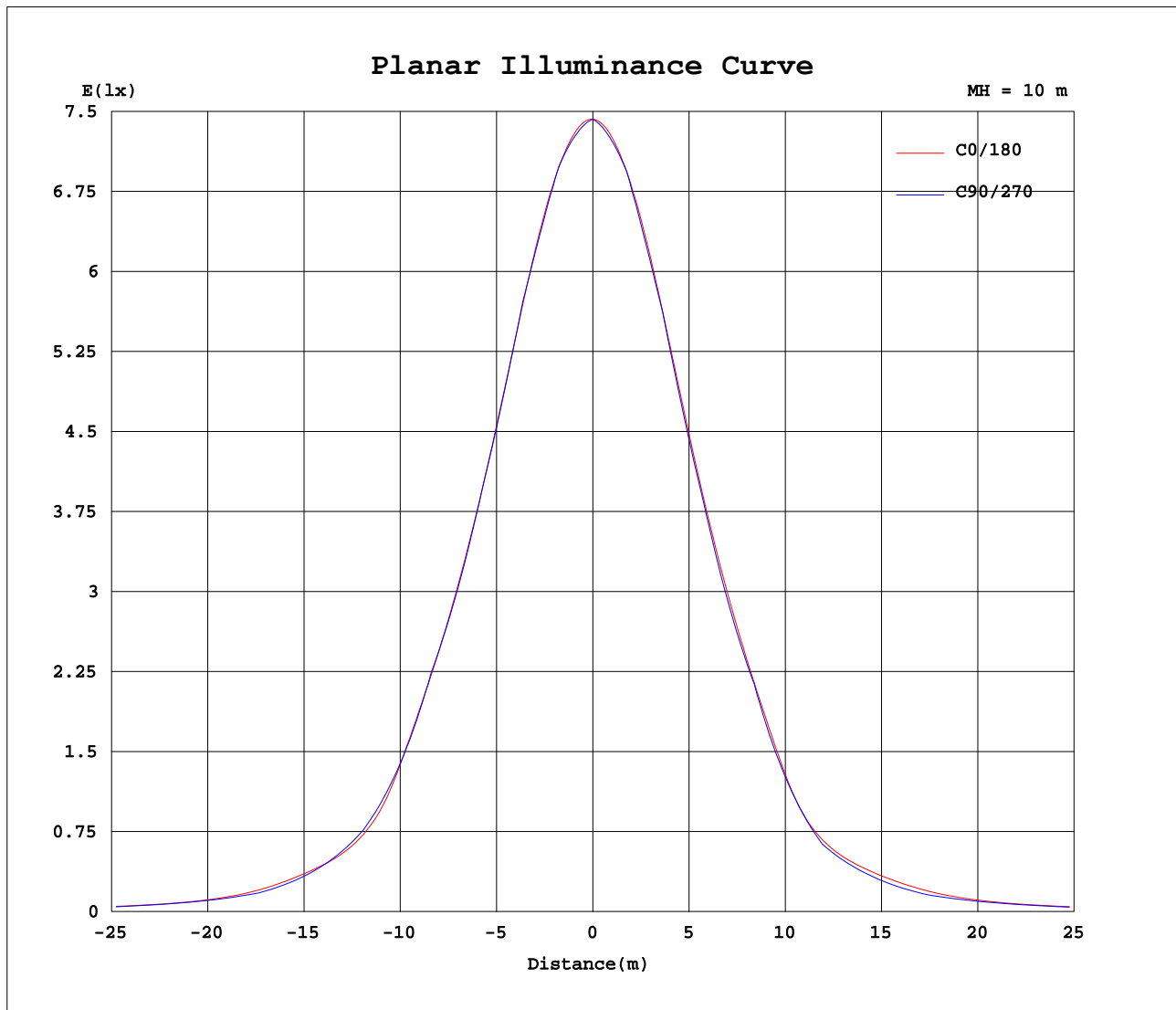
AvgL	cd/m2
L_0~180 (65) av	2711
L_0~180 (75) av	2153
L_0~180 (85) av	1880
L_90~270 (65) av	2556
L_90~270 (75) av	2094
L_90~270 (85) av	0
L_45 (65) av	2561
L_45 (75) av	2112
L_45 (85) av	1141

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 5.850m [K=1.7094]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: φ350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ350mm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743
5	740	740	739	739	739	739	739	738	738	738	738	738	738	738	737	737	737	737	737
10	730	730	730	730	730	730	730	730	730	731	731	731	731	731	731	732	732	731	731
15	713	713	713	714	715	715	715	715	716	715	714	714	713	713	712	711	711	710	709
20	686	686	688	689	688	688	689	689	689	689	689	688	687	688	688	688	688	689	688
25	649	651	654	652	652	652	653	654	653	652	652	653	653	652	651	650	649	648	647
30	606	609	612	609	609	610	610	608	607	609	611	612	611	610	609	608	607	607	606
35	557	562	562	560	562	560	556	557	561	561	560	561	559	559	558	557	556	554	552
40	494	504	501	503	506	499	501	504	502	499	494	494	494	495	497	500	501	500	499
45	390	415	399	421	414	420	421	421	419	412	402	402	407	405	405	404	402	397	393
50	273	285	282	299	300	303	296	306	300	297	309	309	300	290	289	293	296	294	289
55	219	225	228	227	223	206	200	180	197	221	227	225	211	205	210	217	222	220	214
60	164	173	167	162	151	156	141	141	147	149	155	165	165	162	156	149	148	148	142
65	112	117	107	98.7	108	109	111	108	112	111	101	98.2	116	123	119	113	114	115	107
70	82.9	86.9	87.3	82.8	81.3	80.9	80.6	80.5	80.2	81.0	78.2	80.4	85.4	87.4	86.8	84.1	82.4	82.1	76.1
75	55.4	57.6	58.4	59.6	56.2	56.7	56.9	57.8	57.3	55.9	58.3	61.8	61.4	62.2	63.9	62.1	60.9	58.8	54.7
80	39.3	42.6	42.1	40.1	37.9	36.5	36.0	37.3	37.4	38.0	40.3	42.7	42.5	42.6	43.6	41.4	40.0	36.5	34.5
85	17.4	15.5	16.7	17.7	18.7	18.0	17.6	15.6	13.1	11.0	9.44	7.73	5.76	3.99	2.63	1.41	0.60	0.14	0.00
90	43.7	41.5	40.0	39.1	39.1	39.5	40.3	41.4	42.4	43.3	43.3	43.1	42.7	42.5	0.00	0.00	41.9	41.7	41.5
95	57.3	55.8	54.9	54.6	55.3	56.2	57.1	57.0	56.8	56.5	56.4	56.2	56.1	55.7	55.3	54.9	54.6	54.3	53.9
100	72.4	72.3	72.3	72.2	72.2	72.1	72.0	71.8	71.5	71.3	71.0	70.7	70.4	70.0	69.5	68.9	68.3	67.7	67.2
105	88.8	88.8	88.7	88.6	88.4	88.1	87.9	87.6	87.3	86.9	86.5	86.0	85.5	85.0	84.5	84.0	83.4	82.9	82.4
110	105	106	106	106	106	105	105	105	104	104	103	103	102	101	101	100	99.9	99.3	98.8
115	124	124	125	125	124	124	124	123	123	122	122	121	121	120	120	119	118	118	117
120	144	144	144	144	144	144	144	143	143	142	142	142	141	140	140	139	138	138	138
125	164	164	164	164	164	164	164	163	163	162	162	161	161	160	160	159	158	158	158
130	183	183	183	183	183	183	183	182	182	181	181	181	180	180	179	178	178	177	177
135	201	201	201	202	202	201	201	201	200	200	199	199	199	198	197	197	196	196	196
140	218	218	218	218	218	218	218	218	217	217	216	216	216	215	215	214	214	213	213
145	234	234	234	234	234	234	234	233	233	232	232	232	232	231	230	230	230	229	229
150	247	247	247	247	247	247	247	247	246	246	246	246	245	245	244	244	244	243	243
155	259	259	259	259	259	259	259	258	258	258	258	257	257	257	256	256	256	255	255
160	268	268	268	268	268	268	268	268	268	267	267	267	267	267	266	266	266	266	265
165	275	276	276	276	276	275	275	275	275	275	275	275	275	274	274	274	274	274	273
170	280	280	280	280	280	280	280	280	280	280	280	280	280	279	279	279	279	279	279
175	283	283	283	283	283	283	282	282	282	282	282	282	282	282	282	282	282	282	282
180	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: φ350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ350mm	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743
5	736	736	736	736	735	735	735	735	735	735	735	735	735	736	736	737	737	738	737
10	731	730	730	729	728	727	726	725	724	723	722	721	721	721	722	723	724	726	724
15	709	708	707	706	706	706	706	707	708	709	707	704	702	700	700	701	704	706	703
20	688	687	685	683	681	679	677	675	674	675	676	679	676	671	668	669	672	677	671
25	646	645	644	644	644	644	645	645	641	636	632	634	637	636	631	627	632	639	631
30	605	604	603	602	601	598	595	594	595	598	593	586	585	590	589	582	586	595	584
35	551	550	550	550	550	551	553	548	542	539	541	543	534	533	542	533	532	543	530
40	498	497	497	494	487	477	470	474	487	486	475	477	486	474	476	475	462	477	455
45	391	394	400	404	403	399	386	375	379	396	409	389	389	398	368	380	342	364	327
50	286	288	296	301	298	291	286	286	289	294	284	280	260	274	270	270	254	255	242
55	211	217	221	218	214	212	216	223	215	207	196	176	174	182	202	199	205	208	199
60	139	149	155	150	150	156	164	164	152	141	136	139	136	139	135	133	144	158	150
65	106	113	113	109	110	114	116	110	103	102	104	103	105	100	97.8	92.2	95.8	108	107
70	73.1	76.7	80.4	81.6	83.9	83.3	80.8	75.8	74.9	75.9	75.8	73.7	73.5	72.8	70.3	71.7	75.6	78.6	72.0
75	53.5	55.5	57.1	59.0	59.9	57.9	55.2	54.7	53.9	53.0	51.9	53.6	51.7	50.2	47.9	49.2	51.3	51.7	51.2
80	33.9	34.4	35.3	37.1	38.4	38.9	37.2	37.3	35.2	32.9	31.8	30.9	31.2	31.2	30.7	30.9	32.0	35.0	31.6
85	0.13	0.52	1.19	2.20	3.56	5.22	6.83	8.99	10.6	11.5	13.0	13.9	13.2	12.5	12.5	10.4	7.72	14.1	10.1
90	41.0	40.4	0.00	0.00	38.9	38.5	38.2	38.0	37.8	37.6	37.4	37.2	37.2	37.1	37.1	37.1	37.1	37.1	36.9
95	53.4	52.8	52.3	52.0	51.7	51.5	51.2	50.9	50.6	50.5	50.4	50.3	50.2	50.0	49.9	50.0	50.1	50.2	50.3
100	66.8	66.5	66.2	66.0	65.8	65.5	65.2	64.8	64.5	64.4	64.3	64.3	64.1	63.9	63.8	63.9	64.0	64.1	64.2
105	82.0	81.6	81.3	81.0	80.8	80.6	80.4	80.1	79.9	79.7	79.5	79.4	79.2	79.1	79.0	79.0	79.0	79.1	79.1
110	98.4	98.0	97.6	97.3	96.9	96.7	96.5	96.3	96.1	95.9	95.7	95.4	95.3	95.1	95.1	95.0	95.0	95.0	94.9
115	117	116	116	116	115	115	115	114	114	114	113	113	113	113	113	113	113	112	112
120	137	136	136	136	135	135	135	134	133	133	133	133	133	132	132	132	132	132	132
125	157	156	156	155	155	155	154	154	153	153	153	153	152	152	152	152	152	152	152
130	176	176	175	175	174	174	174	173	173	172	172	172	172	171	171	171	171	171	171
135	195	194	194	193	193	193	192	192	191	191	191	191	190	190	190	190	190	190	190
140	212	212	211	211	211	210	210	209	209	209	208	208	208	208	207	207	207	208	208
145	228	228	227	227	227	226	226	225	225	225	225	225	224	224	224	224	224	224	224
150	243	242	242	241	241	241	240	240	240	239	239	239	239	239	238	238	238	238	238
155	255	254	254	254	254	253	253	253	252	252	252	252	252	251	251	251	251	251	251
160	265	265	264	264	264	264	264	263	263	263	263	263	262	262	262	262	262	262	262
165	273	273	273	273	272	272	272	272	271	271	271	271	271	271	271	271	271	271	271
170	279	279	278	278	278	278	278	278	278	277	277	277	277	277	277	277	277	277	277
175	282	282	282	282	282	281	281	281	281	281	281	281	281	281	281	281	281	281	281
180	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

Table--3

UNIT: cd

C (DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743
5	736	736	735	734	734	734	733	733	733	733	733	733	733	733	734	734	734	734	735
10	722	721	720	719	719	719	720	721	722	722	723	724	725	725	726	726	726	726	726
15	700	697	696	698	700	702	704	703	701	700	699	699	699	699	699	700	701	701	702
20	666	664	667	670	673	669	667	665	666	668	670	671	673	674	675	675	676	676	676
25	625	627	631	630	625	623	626	629	633	633	632	631	630	630	630	631	632	633	634
30	579	584	584	577	576	581	585	581	579	579	582	585	587	587	588	588	589	589	590
35	529	536	525	524	531	526	521	524	529	534	527	524	524	526	528	530	531	532	533
40	465	462	457	470	455	450	461	463	445	433	435	444	454	463	471	474	474	473	474
45	355	340	365	354	348	366	359	348	340	334	342	350	357	362	365	362	357	357	362
50	250	254	257	238	237	234	243	252	254	253	249	249	256	261	260	250	239	237	248
55	192	201	182	175	161	157	166	173	183	193	186	181	182	186	191	193	186	181	189
60	134	127	129	129	125	121	127	130	128	132	141	139	128	123	128	135	129	126	137
65	96.1	88.6	90.5	95.4	92.9	96.5	96.2	95.2	88.8	87.3	98.9	104	98.2	94.6	95.2	101	100	97.2	103
70	72.6	72.7	70.7	69.2	67.0	67.5	68.5	68.6	67.3	67.3	69.8	72.2	74.3	72.5	70.3	69.7	69.4	68.9	72.4
75	49.8	48.0	46.0	45.3	47.7	46.5	45.7	46.7	48.3	50.5	49.8	49.1	52.1	52.0	50.3	49.2	49.6	49.1	50.2
80	31.5	29.8	29.3	27.6	28.0	27.3	26.8	27.2	29.0	31.2	31.5	31.3	32.6	31.3	30.3	28.5	29.2	29.2	28.9
85	11.4	11.0	9.76	9.48	9.43	8.97	8.11	7.34	6.27	5.41	4.09	2.88	1.94	1.05	0.46	0.11	0.00	0.11	0.43
90	36.8	36.8	36.9	37.1	37.4	37.6	37.8	38.1	38.4	38.7	39.0	39.3	39.7	40.0	40.4	40.8	41.1	41.3	41.4
95	50.3	50.3	50.3	50.4	50.5	50.8	51.1	51.4	51.6	51.8	52.1	52.4	52.8	53.2	53.5	53.8	54.1	54.4	54.6
100	64.2	64.2	64.2	64.3	64.4	64.8	65.2	65.6	65.8	66.0	66.3	66.7	67.1	67.5	67.6	67.6	67.7	68.2	68.7
105	79.1	79.2	79.4	79.6	79.8	80.1	80.4	80.7	81.1	81.5	81.8	82.1	82.4	82.6	82.9	83.1	83.4	83.8	84.1
110	94.9	94.9	95.2	95.5	95.8	96.1	96.3	96.6	97.0	97.3	97.7	98.1	98.4	98.8	99.2	99.6	100.0	100	101
115	112	112	112	113	113	113	114	114	114	115	115	115	116	116	116	117	117	118	119
120	132	132	132	132	132	133	134	134	134	134	134	135	136	136	137	137	137	138	139
125	152	152	152	152	152	152	153	154	154	154	154	155	155	156	156	156	157	157	158
130	171	171	171	171	171	172	172	173	173	173	173	174	174	175	175	176	176	177	177
135	190	190	190	190	190	190	191	191	192	192	192	192	193	194	194	194	194	195	196
140	207	207	207	207	207	208	208	209	209	209	209	210	210	211	211	211	212	212	213
145	224	224	224	224	224	224	225	225	225	225	226	226	227	227	227	228	228	228	229
150	239	239	239	238	239	239	239	240	240	240	240	241	241	241	242	242	243	243	244
155	251	251	251	251	251	252	252	252	252	253	253	253	253	254	254	255	255	255	256
160	262	262	262	262	262	262	263	263	263	263	263	264	264	264	264	265	265	265	265
165	271	271	271	271	271	271	271	271	272	272	272	272	272	273	273	273	273	273	273
170	277	277	277	277	277	277	277	278	278	278	278	278	278	278	278	279	279	279	279
175	281	281	281	281	281	281	281	281	281	281	281	282	282	282	282	282	282	282	282
180	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

γ Range: 0 - 180DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.6V I:0.1085A P:23.93W PF:0 Freq:0Hz Lamp Flux:2477.34x1 lm		
NAME: GAME 350-U-20W-840	TYPE:Ceiling light	WEIGHT:0.2
SPEC.:4000K	DIM.: $\phi$ 350mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: $\phi$ 350mm	Shielding Angle:

Table--4

UNIT: cd

C (DEG) $\gamma$ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	743	743	743	743	743	743	743	743	743	743	743	743	743	743	743				
5	735	735	735	736	736	736	736	737	737	737	738	738	738	739	740				
10	726	726	726	726	726	726	726	726	727	727	728	728	728	729	729				
15	703	704	704	705	706	708	709	710	710	710	711	712	712	712	712				
20	676	676	676	677	678	679	681	681	682	683	683	684	686	686	685				
25	635	637	638	640	641	642	643	644	647	646	646	646	648	651	649				
30	591	592	594	597	599	599	599	599	600	603	604	602	604	608	607				
35	536	538	540	543	547	548	550	551	549	548	553	554	553	558	560				
40	474	473	470	466	466	471	484	489	492	490	492	499	499	500	503				
45	374	383	381	368	355	362	382	398	403	407	411	411	422	406	418				
50	269	284	291	289	280	273	276	300	307	284	289	290	297	295	296				
55	201	207	210	211	213	220	224	214	204	203	181	200	204	224	227				
60	139	137	142	153	163	166	150	144	149	145	148	147	154	155	157				
65	104	98.7	98.8	108	113	111	108	105	105	110	111	110	106	99.1	103				
70	74.0	74.0	77.3	79.1	81.5	78.9	77.2	77.0	77.7	78.0	75.5	79.3	81.6	84.4	87.0				
75	51.5	52.6	55.5	54.0	53.2	53.1	53.7	54.1	54.2	55.7	56.1	55.1	55.4	56.0	57.4				
80	30.3	31.7	33.9	35.0	34.3	35.2	34.6	33.6	33.2	32.8	34.2	34.1	36.8	38.8	40.0				
85	1.01	1.87	3.08	4.57	5.99	8.00	9.40	10.6	12.3	14.0	14.7	15.6	16.2	17.3	20.1				
90	41.5	41.6	41.8	42.0	42.3	42.5	42.8	43.0	43.2	43.4	43.5	43.6	43.7	43.7	43.7				
95	54.8	55.0	55.2	55.4	55.7	56.0	56.3	56.5	56.7	56.9	57.1	57.3	57.5	57.5	57.4				
100	69.3	69.6	69.8	70.0	70.3	70.7	71.0	71.3	71.5	71.8	72.0	72.1	72.3	72.3	72.4				
105	84.6	85.0	85.4	85.8	86.2	86.5	86.8	87.0	87.3	87.5	87.7	87.9	88.1	88.3	88.5				
110	101	102	102	102	103	103	103	104	104	104	105	105	105	105	105				
115	119	120	120	121	121	121	122	122	122	123	123	123	124	124	124				
120	139	140	140	140	141	141	142	142	143	143	143	144	144	144	144				
125	159	159	159	160	161	161	162	162	162	162	163	163	164	164	164				
130	178	178	179	179	180	180	181	181	182	182	182	183	183	183	183				
135	196	197	197	198	198	199	199	200	200	200	200	201	201	201	201				
140	214	214	214	215	215	216	217	217	217	217	218	218	218	218	218				
145	230	230	230	231	231	232	232	232	233	233	233	233	234	234	234				
150	244	244	244	245	245	246	247	247	247	246	247	247	247	247	247				
155	256	256	256	257	257	257	258	258	258	258	258	259	259	259	259				
160	266	266	266	266	267	267	267	268	268	268	268	268	268	268	268				
165	274	274	274	274	274	275	275	275	275	275	275	275	276	276	276				
170	279	279	279	279	280	280	280	280	280	280	280	280	280	280	280				
175	282	282	282	282	282	282	282	282	282	282	283	283	283	283	283				
180	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283				

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-05-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:5.850m [K=1.7094]  
Remarks: