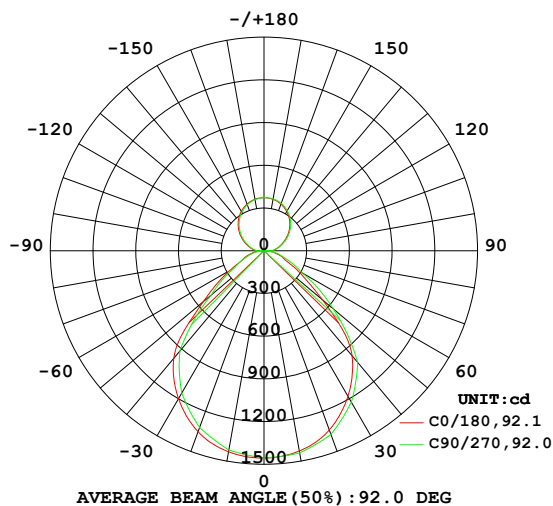


LUMINAIRE PHOTOMETRIC TEST REPORT

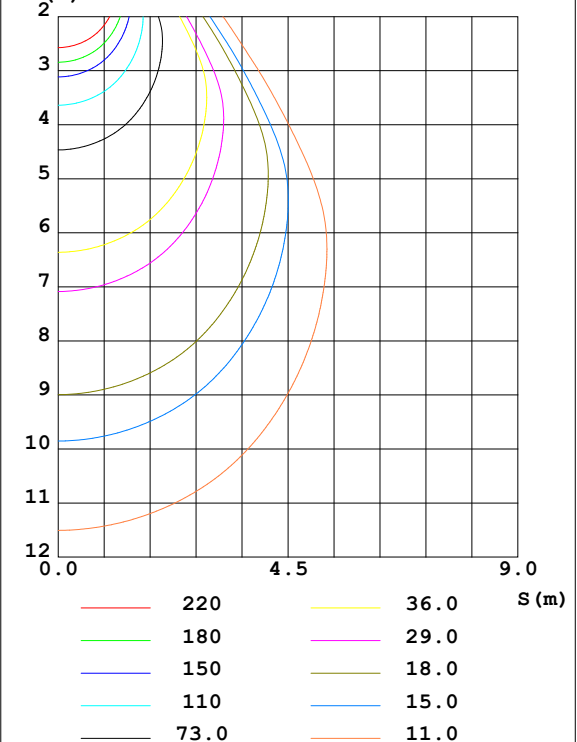
Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 109.08 lm/W			
MODEL	OSRAM-4000K	I _{max} (cd)	1456	S/MH (C0/180)	1.23
NOMINAL POWER (W)	39	LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	4271.5	η UP, DN (C0-180)	14.5, 37.3
NOMINAL FLUX (lm)	4271.5	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	13.8, 34.5
LAMPS INSIDE	1	η up (%)	28.3	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	71.7	CIBSE SHR MAX	1.35

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: 2019-11-15

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

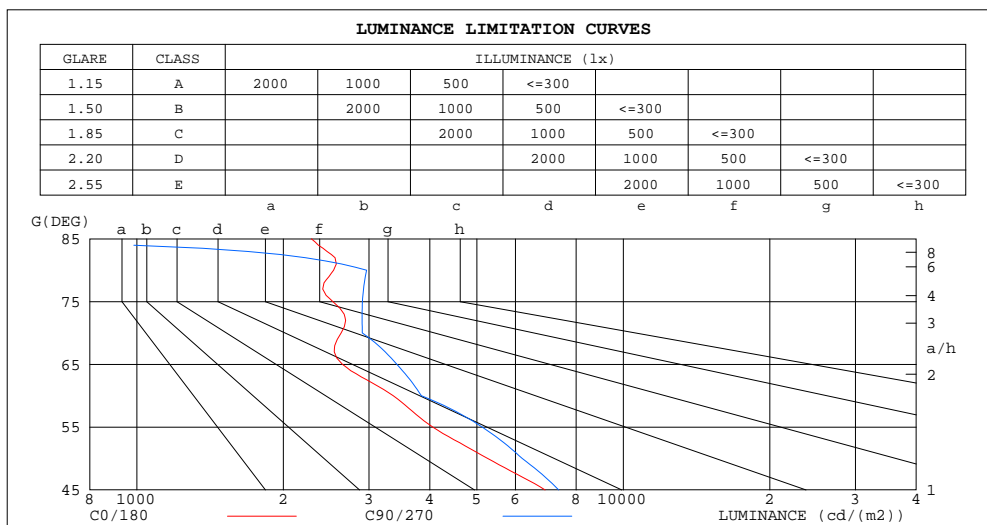
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1428	1433	1442	1434	1434	1417	1421	1420	0- 10	137.4	137.4	3.22,3.22
20	1340	1360	1373	1353	1353	1317	1321	1325	10- 20	392.7	530.1	12.4,12.4
30	1180	1212	1227	1213	1200	1160	1154	1161	20- 30	585.2	1115	26.1,26.1
40	962.1	1002	1023	999.1	985.6	935.8	918.4	911.1	30- 40	676.6	1792	41.9,41.9
50	537.0	648.8	632.6	514.1	556.5	531.5	483.4	412.4	40- 50	582.5	2374	55.6,55.6
60	267.3	260.7	305.4	299.3	278.2	234.2	237.1	254.1	50- 60	344.5	2719	63.7,63.7
70	142.9	170.0	158.0	167.7	148.2	138.6	132.6	147.0	60- 70	197.4	2916	68.3,68.3
80	70.00	79.71	81.84	83.05	76.63	62.75	58.49	65.43	70- 80	116.4	3033	71.71
90	53.11	56.92	57.04	52.92	50.86	48.22	48.57	47.83	80- 90	31.07	3064	71.7,71.7
100	89.11	93.86	93.49	91.31	88.16	84.46	82.07	83.03	90-100	75.78	3140	73.5,73.5
110	131.2	136.8	137.9	134.2	131.2	126.3	122.0	124.4	100-110	114.9	3254	76.2,76.2
120	181.4	187.8	189.9	185.9	181.5	175.2	170.9	174.5	110-120	153.7	3408	79.8,79.8
130	233.0	239.4	241.6	237.9	232.9	226.5	222.7	226.1	120-130	185.2	3593	84.1,84.1
140	280.1	286.0	288.2	285.0	280.2	274.3	270.8	273.9	130-140	198.3	3792	88.8,88.8
150	319.6	324.6	326.5	323.9	319.9	314.9	312.2	314.7	140-150	188.2	3980	93.2,93.2
160	349.2	352.9	354.2	352.6	349.5	345.8	344.0	345.8	150-160	154.8	4135	96.8,96.8
170	367.3	369.1	370.1	369.1	367.8	365.7	364.8	365.8	160-170	101.6	4236	99.2,99.2
180	373.0	373.0	373.0	373.0	373.0	373.0	373.0	373.0	170-180	35.35	4272	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:2019-11-15

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 γ 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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2284	0
80	2537	2966
75	2528	2908
70	2630	2907
65	2646	3422
60	3364	3844
55	4056	5125
50	5258	6193
45	6903	7363

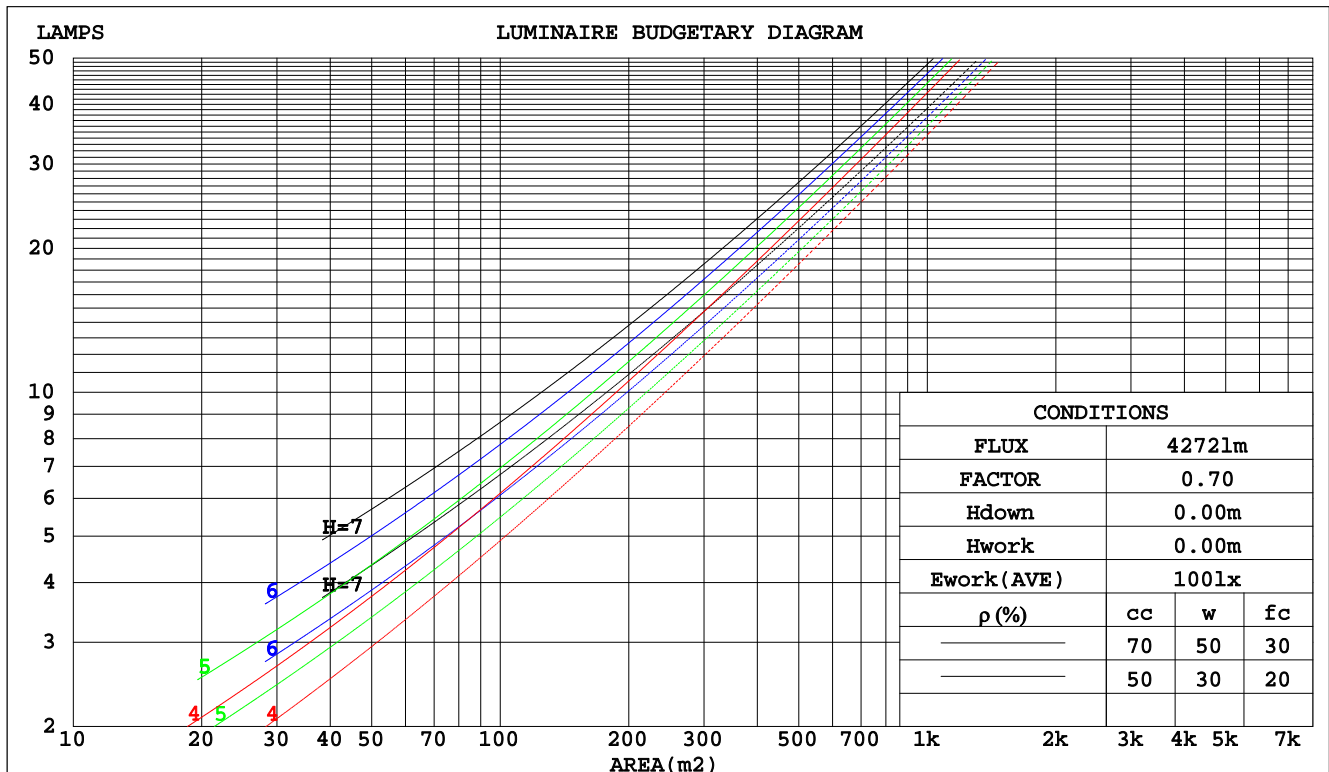
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.12	1.12	1.12	1.06	1.06	1.06	.95	.95	.95	.85	.85	.85	.76	.76	.76	.72
1.0	.00	.96	.93	.95	.92	.89	.85	.83	.81	.77	.75	.73	.69	.68	.66	.63
2.0	.88	.83	.78	.84	.79	.75	.76	.72	.69	.69	.66	.63	.62	.60	.58	.54
3.0	.79	.72	.66	.75	.69	.64	.68	.63	.59	.62	.58	.55	.56	.53	.50	.47
4.0	.71	.63	.57	.67	.61	.55	.62	.56	.52	.56	.52	.48	.51	.47	.44	.42
5.0	.64	.56	.50	.61	.54	.48	.56	.50	.45	.51	.46	.42	.46	.43	.39	.37
6.0	.58	.50	.44	.55	.48	.43	.51	.45	.40	.46	.41	.38	.42	.38	.35	.33
7.0	.52	.45	.39	.50	.43	.38	.46	.40	.36	.43	.38	.34	.39	.35	.32	.29
8.0	.48	.40	.35	.46	.39	.34	.43	.37	.32	.39	.34	.31	.36	.32	.29	.27
9.0	.44	.37	.32	.42	.36	.31	.39	.33	.29	.36	.31	.28	.33	.29	.26	.24
10.0	.41	.33	.29	.39	.33	.28	.36	.31	.27	.34	.29	.25	.31	.27	.24	.22



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: φ450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.:φ450mm	Shielding Angle:

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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.260	.148	.047	.244	.139	.044	.215	.123	.039	.189	.109	.035	.164	.095	.031		
2.0	.245	.135	.041	.232	.128	.039	.205	.114	.035	.181	.102	.032	.159	.090	.028		
3.0	.230	.122	.037	.217	.116	.035	.193	.105	.032	.171	.094	.029	.151	.084	.026		
4.0	.214	.111	.033	.203	.106	.031	.181	.096	.029	.161	.087	.026	.143	.077	.024		
5.0	.200	.102	.030	.190	.097	.028	.170	.089	.026	.152	.080	.024	.135	.072	.022		
6.0	.188	.094	.027	.178	.090	.026	.160	.082	.024	.143	.074	.022	.127	.067	.020		
7.0	.176	.087	.025	.167	.083	.024	.151	.076	.022	.135	.069	.020	.120	.062	.018		
8.0	.166	.081	.023	.158	.078	.022	.142	.071	.020	.128	.065	.019	.114	.059	.017		
9.0	.156	.076	.021	.149	.073	.020	.134	.066	.019	.121	.061	.017	.108	.055	.016		
10.0	.148	.071	.020	.141	.068	.019	.127	.062	.018	.115	.057	.016	.103	.052	.015		

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	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.406	.406	.406	.347	.347	.347	.237	.237	.237	.136	.136	.136	.043	.043	.043	
1.0	.394	.374	.356	.337	.321	.306	.231	.221	.212	.133	.128	.123	.043	.041	.040	
2.0	.385	.351	.322	.330	.302	.279	.226	.209	.194	.130	.122	.114	.042	.039	.037	
3.0	.377	.334	.300	.323	.288	.260	.222	.200	.182	.128	.117	.107	.041	.038	.035	
4.0	.369	.321	.284	.317	.277	.247	.218	.193	.174	.126	.113	.103	.041	.037	.034	
5.0	.362	.311	.273	.311	.269	.238	.214	.188	.168	.124	.110	.100	.040	.036	.033	
6.0	.356	.303	.265	.306	.262	.231	.211	.184	.163	.122	.108	.097	.039	.035	.032	
7.0	.350	.296	.259	.301	.257	.226	.208	.180	.160	.121	.106	.095	.039	.035	.031	
8.0	.344	.291	.254	.296	.252	.222	.205	.177	.157	.119	.105	.094	.039	.034	.031	
9.0	.339	.286	.251	.292	.248	.219	.202	.175	.155	.118	.103	.093	.038	.034	.031	
10.0	.334	.282	.248	.288	.245	.216	.200	.172	.154	.116	.102	.092	.038	.033	.030	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

UGR(Unified Glare Rating) Table

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm											
NAME: GAME 450-U-36W-840					TYPE:Ceiling light			WEIGHT:			
SPEC.:4000K					DIM.: ϕ 450mm*H78mm			SERIAL No.:			
MFR.: NEKO LIGHTING AG					SUR.: ϕ 450mm			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		11.0	12.1	11.6	12.7	13.4	11.5	12.6	12.2	13.2	13.9
	3H	11.5	12.5	12.2	13.1	13.9	12.2	13.1	12.8	13.8	14.5
	4H	11.9	12.8	12.5	13.4	14.2	12.5	13.3	13.1	14.0	14.8
	6H	12.1	12.9	12.8	13.6	14.4	12.7	13.5	13.4	14.2	15.0
	8H	12.2	13.0	12.9	13.7	14.5	12.7	13.5	13.5	14.2	15.0
	12H	12.2	13.0	13.0	13.7	14.5	12.7	13.5	13.4	14.2	15.0
4H	2H	11.2	12.1	11.8	12.7	13.5	11.6	12.5	12.3	13.2	13.9
	3H	11.9	12.6	12.6	13.3	14.2	12.4	13.2	13.2	13.9	14.7
	4H	12.4	13.0	13.1	13.8	14.6	12.9	13.6	13.6	14.3	15.1
	6H	12.8	13.4	13.5	14.1	15.0	13.3	13.9	14.1	14.7	15.6
	8H	12.9	13.5	13.7	14.3	15.2	13.4	14.0	14.2	14.7	15.7
	12H	13.0	13.5	13.8	14.3	15.3	13.4	13.9	14.2	14.6	15.6
8H	4H	12.5	13.0	13.2	13.8	14.7	12.9	13.5	13.7	14.2	15.2
	6H	13.0	13.5	13.8	14.3	15.2	13.5	14.0	14.4	14.8	15.8
	8H	13.3	13.7	14.1	14.5	15.5	13.7	14.1	14.5	14.9	15.9
	12H	13.5	13.9	14.4	14.7	15.7	13.7	14.0	14.5	14.8	15.8
12H	4H	12.4	12.9	13.2	13.7	14.7	12.9	13.4	13.7	14.2	15.1
	6H	13.1	13.5	13.9	14.3	15.2	13.6	14.0	14.4	14.8	15.7
	8H	13.4	13.7	14.2	14.6	15.6	13.7	14.1	14.6	14.9	15.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 0.7					+ 0.4 / - 0.4					
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.4					
2.0H	+ 1.0 / - 1.0					+ 0.9 / - 0.9					

CIE Pub.117, 4272 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 5.0$)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

UTILIZATION FACTORS TABLE

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

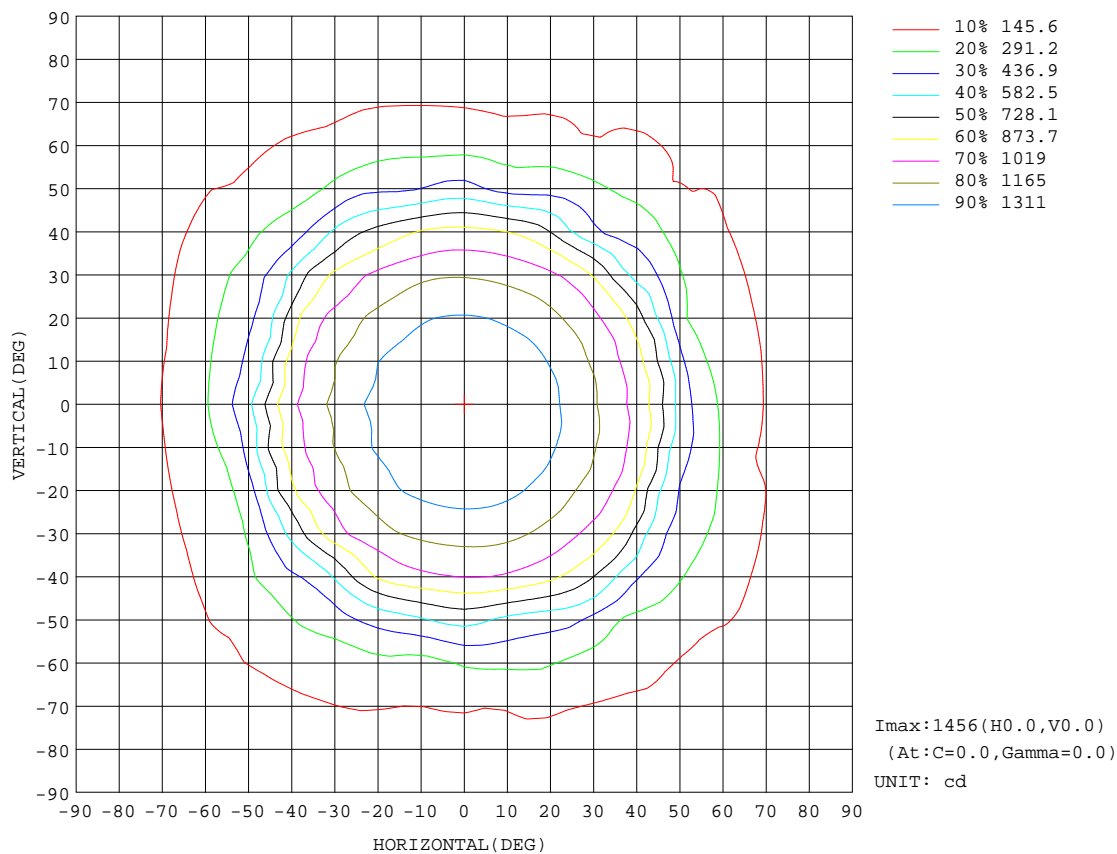
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	45	39	54	44	39	51	43	38	31
0.80	65	55	48	63	53	47	59	51	46	38
1.00	73	62	56	70	61	55	65	59	53	44
1.25	79	70	63	76	68	62	71	64	59	49
1.50	84	75	68	80	72	67	74	68	63	52
2.00	90	82	76	86	79	74	79	73	69	56
2.50	94	86	81	89	83	78	82	77	73	58
3.00	97	90	85	92	86	82	84	80	76	61
4.00	100	95	90	95	91	87	87	83	80	63
5.00	102	98	94	97	93	90	88	85	83	65
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:2019-11-15

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:

ISOCANDELA DIAGRAM

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

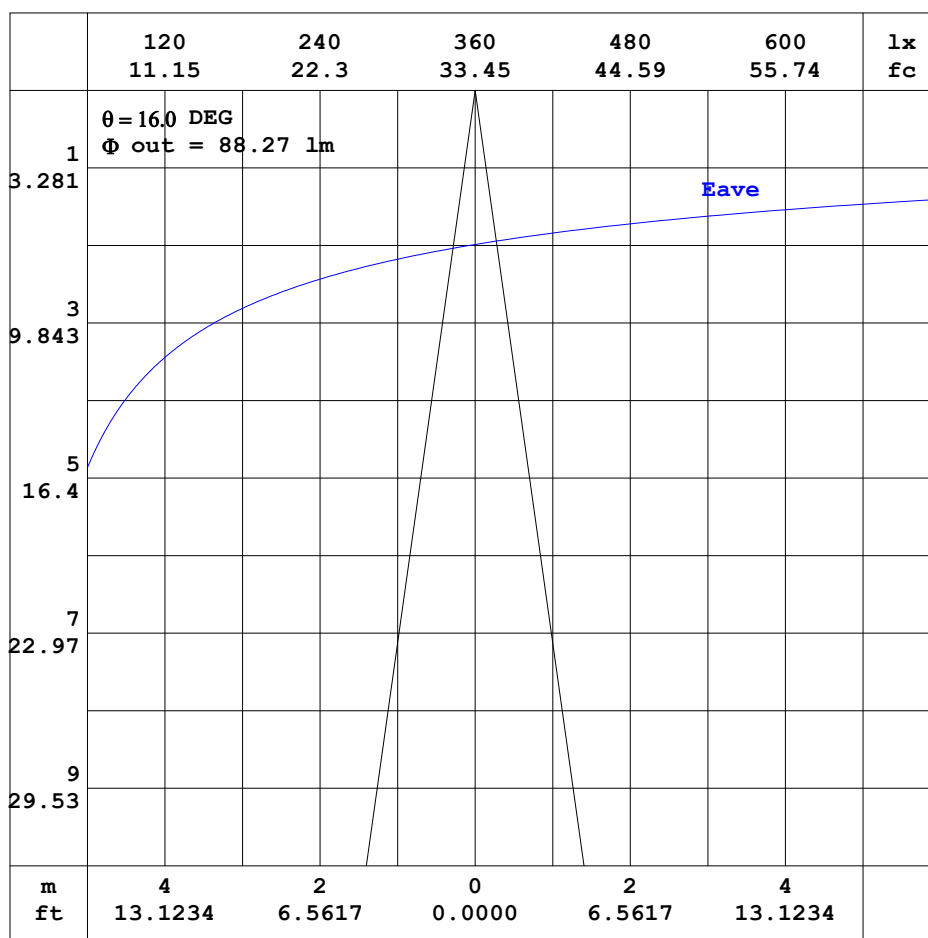


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

AAI CURVES

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



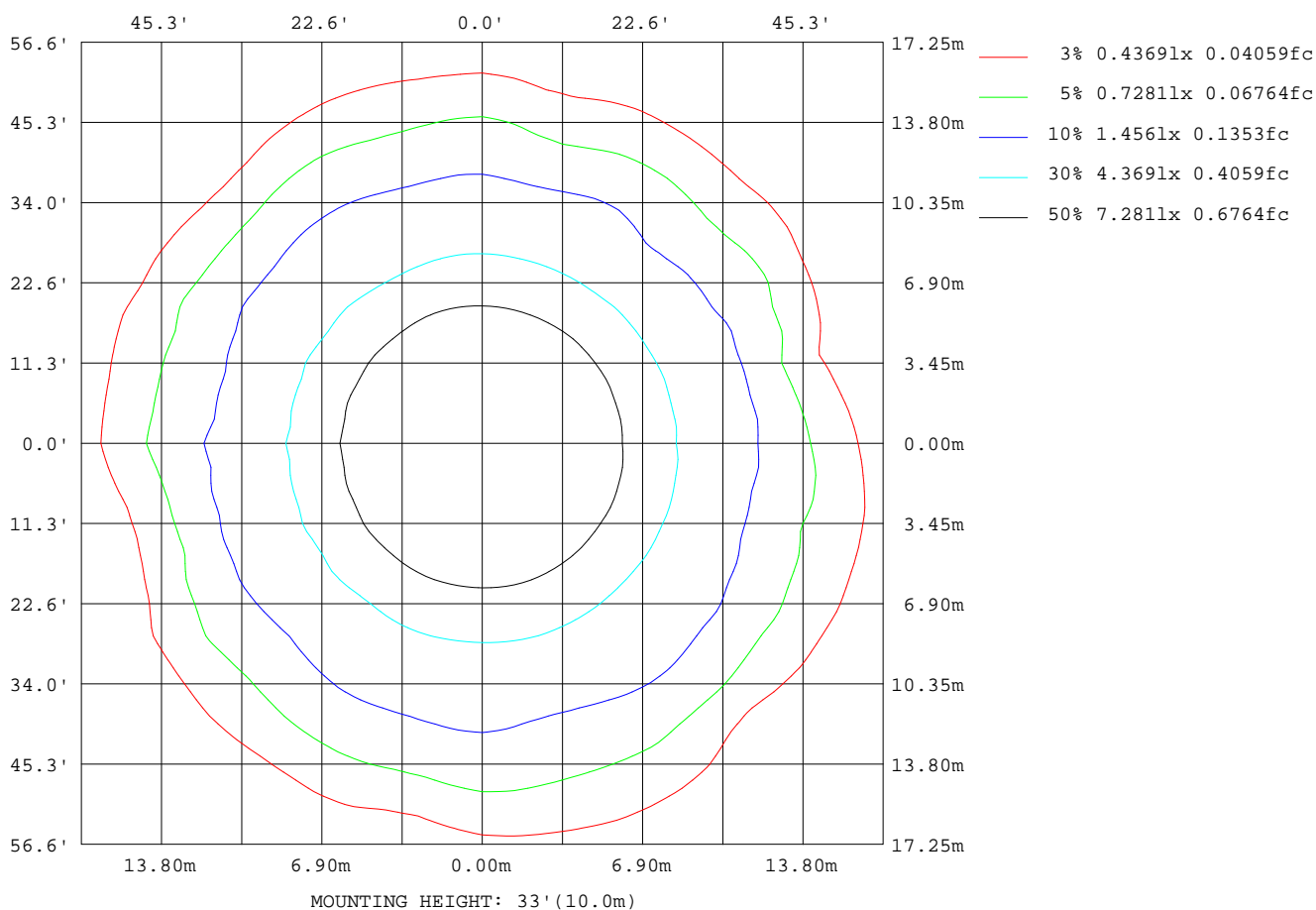
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

ISOLUX DIAGRAM

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

LED Avg.L Report

Test:U:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	Shielding Angle:

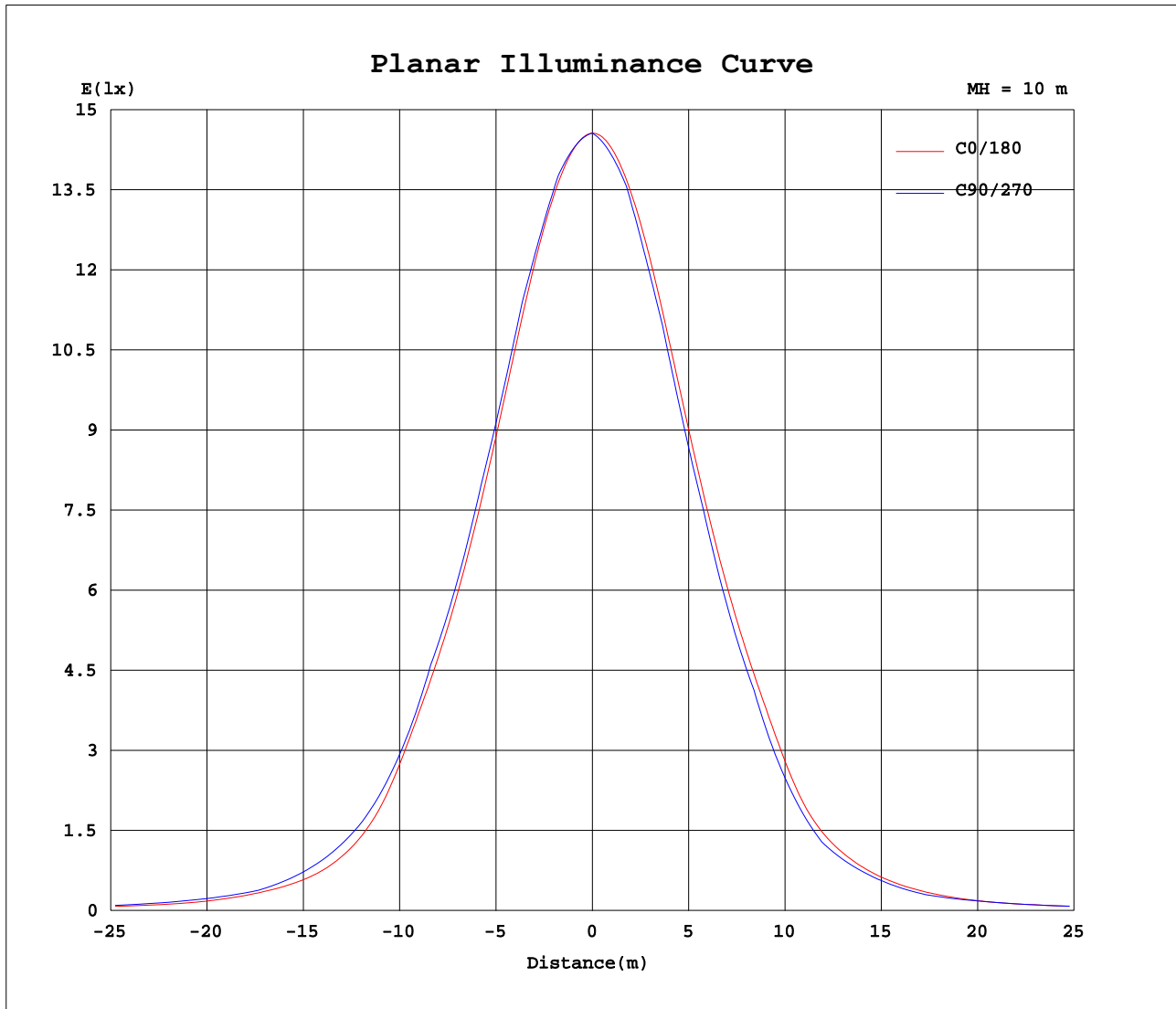
AvgL	cd/m2
L_0~180 (65) av	2695
L_0~180 (75) av	2610
L_0~180 (85) av	2474
L_90~270 (65) av	3090
L_90~270 (75) av	2627
L_90~270 (85) av	0
L_45 (65) av	3072
L_45 (75) av	2665
L_45 (85) av	1526

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: Jason
Test Date: 2019-11-15

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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm		
NAME: GAME 450-U-36W-840	TYPE:Ceiling light	WEIGHT:
SPEC.:4000K	DIM.: ϕ 450mm*H78mm	SERIAL No.:
MFR.: NEKO LIGHTING AG	SUR.: ϕ 450mm	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	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456
5	1448	1448	1448	1447	1447	1447	1447	1448	1448	1448	1448	1448	1449	1449	1449	1449	1449	1449	1449
10	1428	1428	1428	1429	1429	1431	1432	1432	1433	1433	1434	1435	1437	1438	1439	1440	1440	1441	1442
15	1394	1395	1396	1399	1401	1401	1402	1404	1406	1406	1406	1406	1406	1407	1407	1407	1407	1408	1407
20	1340	1343	1348	1352	1352	1354	1356	1357	1358	1360	1361	1361	1363	1364	1366	1369	1370	1372	1373
25	1266	1273	1282	1283	1284	1287	1290	1295	1293	1293	1296	1299	1301	1302	1303	1303	1302	1301	1300
30	1180	1191	1201	1200	1203	1209	1210	1207	1208	1212	1217	1222	1223	1224	1227	1228	1229	1228	1227
35	1079	1096	1103	1105	1113	1115	1110	1112	1118	1119	1120	1124	1127	1130	1132	1133	1131	1128	1124
40	962	986	985	992	1002	996	1003	1008	1002	1002	1005	1012	1016	1019	1021	1025	1028	1027	1023
45	776	813	777	813	792	829	849	855	856	861	860	868	866	848	830	819	819	826	827
50	537	551	522	528	534	582	593	642	639	649	669	671	649	615	588	576	583	611	633
55	370	399	400	376	403	408	431	419	423	445	446	445	452	445	440	442	452	466	467
60	267	281	301	316	315	316	311	308	283	261	289	322	336	341	342	334	325	318	305
65	178	172	186	213	221	208	211	207	218	218	216	212	227	250	261	252	237	234	230
70	143	144	151	165	164	151	147	151	154	170	167	166	171	177	183	179	157	150	158
75	104	116	121	122	122	125	124	116	119	118	116	121	124	128	136	134	119	117	120
80	70.0	75.2	82.9	86.2	82.8	80.8	76.1	79.0	81.2	79.7	80.5	82.8	84.5	88.4	94.9	95.0	87.5	82.6	81.8
85	31.6	33.0	38.0	39.0	46.1	44.3	43.4	36.1	28.2	23.0	19.0	15.0	11.3	8.26	5.73	3.24	1.33	0.31	0.00
90	53.1	53.9	54.6	55.2	55.7	56.0	56.2	56.5	56.7	56.9	57.0	57.0	57.0	57.0	0.00	0.00	57.0	57.0	57.0
95	70.2	71.2	72.0	72.8	73.3	73.7	74.0	74.3	74.5	74.7	74.8	74.8	74.9	74.8	74.8	74.8	74.9	74.9	74.9
100	89.1	90.1	91.0	91.7	92.3	92.7	93.0	93.3	93.6	93.9	94.0	94.1	94.2	94.3	94.3	94.3	94.0	93.8	93.5
105	109	110	111	112	112	113	113	114	114	115	115	115	115	115	115	115	115	115	114
110	131	132	133	134	135	135	136	136	137	137	137	138	138	138	138	138	138	138	138
115	155	156	157	158	159	160	161	161	161	162	162	163	163	163	163	163	163	163	163
120	181	182	183	184	185	186	187	187	188	188	188	189	190	190	189	189	189	190	190
125	207	208	210	210	212	212	213	214	214	214	215	215	216	216	216	215	216	216	216
130	233	234	235	236	237	238	239	239	239	239	240	241	241	241	241	241	241	241	242
135	257	258	259	260	261	262	263	263	263	264	264	265	265	265	265	265	265	266	266
140	280	281	282	283	284	285	285	286	286	286	287	287	288	288	288	288	288	288	288
145	301	302	303	304	304	305	306	306	306	306	307	308	308	308	308	308	308	308	309
150	320	320	321	322	323	323	324	324	324	325	325	326	326	326	326	326	326	326	326
155	336	336	337	338	338	339	339	340	340	340	340	341	341	341	341	341	341	342	342
160	349	350	350	351	351	352	352	352	353	353	353	354	354	354	354	354	354	354	354
165	360	360	361	361	361	362	362	362	362	363	363	363	363	364	364	364	364	364	364
170	367	368	368	368	368	369	369	369	369	369	369	370	370	370	370	370	370	370	370
175	372	372	372	372	372	372	372	372	372	373	373	373	373	373	373	373	373	373	373
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm																		
NAME: GAME 450-U-36W-840									TYPE:Ceiling light					WEIGHT:				
SPEC.:4000K									DIM.: φ450mm*H78mm					SERIAL No.:				
MFR.: NEKO LIGHTING AG									SUR.:φ450mm					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	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456
5	1449	1449	1449	1448	1448	1448	1448	1448	1448	1448	1448	1448	1448	1448	1449	1450	1450	1451	1449
10	1442	1442	1442	1441	1440	1439	1437	1436	1434	1432	1430	1429	1428	1429	1429	1430	1432	1434	1430
15	1407	1407	1406	1406	1406	1406	1407	1409	1411	1412	1407	1402	1398	1394	1394	1396	1399	1403	1395
20	1373	1373	1371	1369	1366	1362	1358	1355	1353	1354	1357	1361	1355	1346	1339	1340	1346	1353	1342
25	1299	1298	1297	1297	1297	1299	1303	1304	1296	1287	1279	1281	1286	1284	1272	1265	1273	1284	1269
30	1226	1225	1222	1220	1216	1213	1209	1210	1213	1219	1208	1194	1190	1198	1194	1179	1185	1200	1182
35	1121	1118	1117	1118	1120	1124	1131	1122	1111	1103	1109	1112	1092	1086	1100	1082	1080	1102	1079
40	1019	1015	1012	1010	1005	992	976	976	999	995	968	970	994	963	966	969	953	986	944
45	818	810	810	821	836	841	813	765	746	778	809	769	783	803	755	799	735	792	700
50	624	603	591	593	603	600	577	545	514	528	548	561	537	537	509	528	513	557	494
55	443	418	414	423	425	420	412	394	383	391	408	377	358	316	317	325	356	403	382
60	280	250	260	292	297	288	284	295	299	288	272	280	251	241	229	240	261	278	276
65	210	192	200	217	212	197	191	214	225	201	177	182	198	188	189	194	193	184	179
70	156	149	152	163	167	161	160	166	168	159	150	146	151	144	134	134	141	148	144
75	117	113	114	120	128	128	127	118	114	120	120	120	110	111	104	99.7	102	111	109
80	79.5	79.7	78.1	78.8	88.6	93.2	95.8	85.8	83.1	87.3	84.5	83.7	73.9	71.1	70.0	63.3	66.4	76.6	73.1
85	0.30	1.21	2.65	4.71	8.41	13.0	18.8	22.1	27.1	36.2	40.1	45.3	42.4	36.9	34.7	28.7	23.0	36.9	30.4
90	57.0	56.7	0.00	0.00	54.9	54.1	53.7	53.3	52.9	52.4	51.9	51.4	51.1	50.8	50.6	50.7	50.8	50.9	50.4
95	74.6	74.2	73.8	73.5	73.3	73.0	72.7	72.3	71.9	71.5	71.1	70.7	70.3	70.0	69.7	69.5	69.3	69.0	68.5
100	93.4	93.3	93.2	93.0	92.7	92.4	92.0	91.7	91.3	90.9	90.5	90.1	89.8	89.4	89.1	88.8	88.5	88.2	87.7
105	114	114	114	114	113	113	113	112	112	112	111	111	110	110	110	109	109	109	108
110	137	137	136	136	136	136	136	135	134	134	134	134	133	133	132	132	132	131	130
115	163	163	162	162	162	162	161	160	159	159	159	159	158	157	156	156	156	156	155
120	189	189	188	188	188	188	187	187	186	186	185	185	184	183	183	182	182	181	181
125	216	215	215	215	215	214	214	213	212	212	212	211	211	210	209	208	208	207	207
130	241	241	240	240	240	240	239	239	238	238	237	237	236	235	234	234	233	233	232
135	265	265	265	265	264	264	264	263	262	262	262	261	261	260	259	258	258	257	257
140	288	288	287	287	287	287	286	286	285	285	284	284	283	282	282	281	281	280	279
145	308	308	308	308	307	307	307	306	306	305	305	305	304	303	302	302	302	301	300
150	326	326	326	326	326	325	325	324	324	324	323	323	322	322	321	321	320	320	319
155	342	341	341	341	341	341	341	340	340	339	339	339	338	338	337	337	336	336	335
160	354	354	354	354	354	354	353	353	353	352	352	352	351	351	350	350	350	350	349
165	364	364	363	363	363	363	363	363	362	362	362	362	361	361	361	361	360	360	360
170	370	370	370	370	370	370	370	369	369	369	369	369	369	368	368	368	368	368	368
175	373	373	373	373	373	373	373	373	373	373	373	373	372	372	372	372	372	372	372
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm																	
NAME: GAME 450-U-36W-840									TYPE:Ceiling light						WEIGHT:		
SPEC.:4000K									DIM.: φ450mm*H78mm						SERIAL No.:		
MFR.: NEKO LIGHTING AG									SUR.:φ450mm						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	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456
5	1448	1446	1445	1443	1442	1441	1440	1440	1439	1439	1438	1438	1438	1438	1438	1438	1438	1439	1439
10	1426	1423	1420	1418	1417	1417	1417	1417	1418	1418	1419	1419	1420	1420	1420	1421	1421	1421	1421
15	1389	1384	1381	1382	1384	1386	1389	1385	1380	1377	1374	1373	1372	1371	1371	1371	1371	1371	1372
20	1332	1327	1330	1335	1337	1328	1322	1317	1316	1318	1319	1320	1321	1322	1322	1322	1321	1320	1319
25	1257	1260	1267	1263	1252	1244	1247	1251	1255	1252	1248	1245	1243	1241	1240	1239	1238	1238	1238
30	1173	1183	1182	1166	1161	1167	1171	1160	1154	1152	1156	1159	1161	1161	1159	1157	1154	1152	1150
35	1079	1093	1072	1068	1077	1064	1050	1050	1057	1065	1053	1043	1039	1039	1039	1039	1037	1035	1034
40	958	948	937	966	939	925	935	936	912	896	891	895	903	912	919	921	918	913	907
45	743	688	736	738	743	778	746	729	737	740	732	716	702	693	695	702	703	692	678
50	488	477	495	508	542	517	514	531	544	543	535	510	480	466	472	487	483	450	420
55	375	375	366	388	365	353	345	339	356	367	374	364	351	346	348	357	362	345	314
60	277	277	283	263	264	253	245	234	240	249	257	264	265	260	245	236	237	228	214
65	200	207	192	181	176	181	182	181	177	172	176	189	199	200	192	187	185	178	165
70	146	150	151	147	135	134	136	139	137	135	141	146	148	144	141	138	133	124	118
75	110	111	110	104	105	99.3	101	105	101	99.3	105	108	106	105	104	100	96.5	90.9	86.7
80	77.7	75.6	76.1	71.7	67.7	63.8	62.8	62.7	62.5	62.9	67.0	69.3	67.4	68.8	67.9	62.1	58.5	55.4	56.0
85	35.8	35.7	32.1	31.5	29.5	25.4	20.4	16.1	13.5	11.1	8.82	6.39	4.01	2.32	1.03	0.23	0.00	0.21	0.85
90	49.9	49.4	49.0	48.8	48.6	48.4	48.3	48.2	48.1	48.0	48.0	48.0	48.0	48.2	48.4	48.6	48.4	48.1	
95	68.0	67.4	67.0	66.5	66.2	66.0	65.8	65.7	65.4	65.1	64.9	64.8	64.8	64.8	64.7	64.5	64.4	64.4	64.3
100	87.1	86.6	86.2	85.8	85.5	85.1	84.8	84.5	84.2	83.9	83.6	83.4	83.2	83.0	82.6	82.3	82.1	82.0	81.9
105	108	107	107	106	106	106	105	105	104	104	104	103	103	102	102	102	101	101	101
110	130	129	129	128	128	127	127	126	126	125	125	124	123	123	122	122	122	122	122
115	154	153	153	152	151	151	150	150	149	148	147	147	147	147	146	145	145	145	145
120	180	179	178	177	176	176	176	175	174	174	173	173	172	172	172	171	171	171	171
125	206	205	204	203	202	202	201	201	200	199	199	199	198	198	198	197	197	197	197
130	231	230	229	228	228	227	227	227	226	225	224	224	224	224	223	223	223	223	223
135	256	255	254	253	252	252	252	251	250	250	249	249	249	249	248	248	247	248	248
140	279	278	277	276	275	275	275	274	274	273	272	272	272	272	271	271	271	271	271
145	300	299	298	297	297	296	296	296	295	294	294	294	294	294	293	293	292	293	293
150	319	318	317	316	316	316	315	315	314	314	313	313	313	313	313	312	312	312	312
155	335	334	334	333	333	332	332	332	331	331	330	330	330	330	330	330	329	329	330
160	349	348	348	347	347	346	346	346	345	345	345	345	345	345	344	344	344	344	344
165	359	359	359	358	358	358	357	357	357	357	356	356	356	356	356	356	356	356	356
170	367	367	367	366	366	366	366	366	365	365	365	365	365	365	365	365	365	365	365
175	372	372	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371	371
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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:220.4V I:0.1776A P:39.16W PF:0 Freq:0Hz Lamp Flux:4271.5x1 lm																	
NAME: GAME 450-U-36W-840									TYPE:Ceiling light						WEIGHT:		
SPEC.:4000K									DIM.: φ450mm*H78mm						SERIAL No.:		
MFR.: NEKO LIGHTING AG									SUR.:φ450mm						Shielding Angle:		

Table--4

UNIT: cd

C (DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456	1456				
5	1439	1439	1440	1440	1440	1441	1441	1442	1442	1443	1443	1444	1445	1446	1447				
10	1421	1420	1420	1420	1420	1420	1420	1420	1421	1422	1422	1423	1424	1425	1426				
15	1373	1374	1375	1377	1379	1381	1384	1386	1385	1386	1387	1390	1390	1390	1392				
20	1318	1317	1317	1318	1319	1322	1325	1327	1328	1331	1332	1334	1339	1339	1338				
25	1238	1239	1240	1242	1245	1247	1249	1253	1259	1257	1257	1258	1263	1269	1266				
30	1148	1148	1149	1152	1157	1160	1161	1162	1165	1171	1172	1170	1173	1182	1181				
35	1033	1034	1037	1043	1055	1057	1060	1062	1059	1062	1070	1072	1067	1078	1084				
40	902	899	895	890	887	890	911	915	919	922	938	950	949	953	970				
45	677	691	701	679	634	636	672	684	665	700	734	743	775	759	803				
50	422	453	490	501	476	440	412	460	485	486	521	497	496	504	541				
55	304	320	339	346	349	341	336	345	364	372	336	325	274	311	341				
60	221	238	239	238	244	251	254	256	258	234	237	233	222	231	257				
65	169	179	168	149	151	185	202	185	147	161	175	184	182	186	190				
70	124	133	134	128	129	142	147	142	137	135	142	137	133	132	140				
75	89.6	93.5	98.3	99.5	99.8	94.4	101	108	111	99.8	97.8	100	103	102	103				
80	56.2	56.6	61.6	63.5	67.5	65.3	65.4	70.9	71.9	71.6	65.9	61.2	65.8	67.2	68.2				
85	1.89	3.34	5.63	8.31	12.3	15.2	18.3	23.2	26.3	29.4	30.4	30.0	29.7	31.7	36.2				
90	47.8	47.6	47.5	47.4	47.4	47.6	47.8	48.2	48.6	49.1	49.7	50.4	51.1	51.8	52.4				
95	64.2	64.0	63.8	63.7	63.9	64.2	64.6	64.9	65.3	65.8	66.5	67.3	68.2	68.9	69.6				
100	81.9	81.9	82.0	82.1	82.3	82.6	83.0	83.5	84.1	84.7	85.4	86.1	86.9	87.6	88.4				
105	101	101	101	102	102	103	103	104	104	105	106	106	107	108	109				
110	122	122	122	123	123	124	124	125	126	127	127	128	129	130	130				
115	146	146	146	146	147	148	149	149	150	150	151	153	154	154	155				
120	172	172	172	172	173	174	175	175	176	176	177	178	179	180	181				
125	198	198	198	198	199	200	200	201	202	202	203	204	205	206	207				
130	223	224	224	224	225	225	226	227	227	228	229	230	231	232	232				
135	248	248	248	249	249	250	251	251	252	252	253	254	255	256	257				
140	271	272	272	272	272	273	274	274	275	275	276	277	278	279	280				
145	293	293	293	293	294	295	295	296	296	297	298	298	299	300	301				
150	313	313	313	313	313	314	315	315	315	316	317	317	318	319	319				
155	330	330	330	330	330	331	331	332	332	333	333	334	334	335	335				
160	344	344	344	345	345	345	346	346	346	347	347	348	348	349	349				
165	356	356	356	356	357	357	357	357	358	358	358	359	359	359	360				
170	365	365	365	365	365	366	366	366	366	366	366	367	367	367	367				
175	371	371	371	371	371	371	371	371	371	371	371	371	371	372	372				
180	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:Jason
Test Date:2019-11-15

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: