

LED Recessed Ground Light EYE R-3040



Light Output Ratio:	100.0%	
Luminaire Power:	1.948 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.65	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Cao Chengpei  
Test Date: 2019-01-12

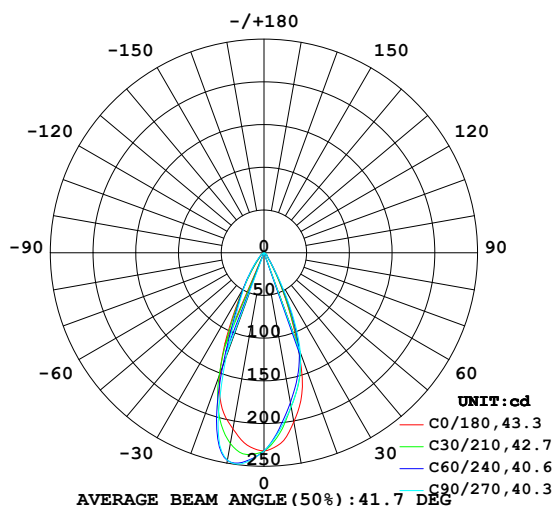
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 53.0%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

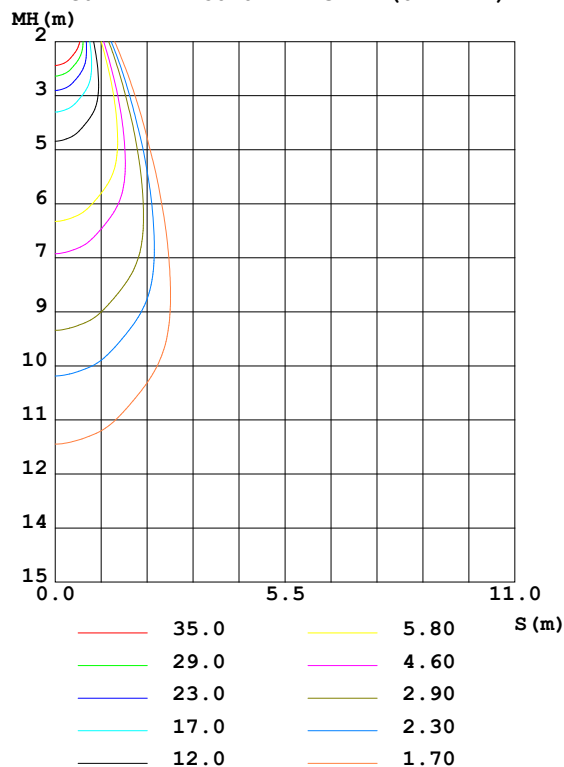
Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm		
NAME: EYE R-3040	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\varnothing 55\text{mm} \times \text{H}70\text{mm}$	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 67.04 lm/W
MODEL	CREE-3000K	I <sub>max</sub> (cd)	249.4	S/MH (C0/180)	0.70	
NOMINAL POWER (W)	2.0	LOR (%)	100.0	S/MH (C90/270)	0.65	
RATED VOLTAGE (V)	24.0	TOTAL FLUX (lm)	130.57	$\eta$ UP, DN (C0-180)	0.0, 48.0	
NOMINAL FLUX (lm)	130.568	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 52.0	
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	24.0	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.65	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	201.0	181.9	183.1	223.9	209.4	232.5	246.5	206.8	0- 10	21.24	21.24	16.3,16.3
20	116.4	121.2	124.5	152.7	150.7	147.4	130.1	123.3	10- 20	50.10	71.34	54.6,54.6
30	28.91	28.77	32.36	48.14	47.97	46.54	45.78	31.69	20- 30	35.86	107.2	82.1,82.1
40	7.862	6.920	7.137	11.74	12.90	11.20	15.71	7.953	30- 40	13.06	120.3	92.1,92.1
50	4.706	4.502	4.413	5.547	5.224	5.480	5.880	4.746	40- 50	5.499	125.8	96.3,96.3
60	2.141	2.113	2.154	2.590	2.604	2.750	2.465	2.029	50- 60	3.294	129.1	98.8,98.8
70	0.6293	0.5450	0.4538	0.6553	0.8146	0.6838	0.4391	0.5049	60- 70	1.280	130.3	99.8,99.8
80	0.0769	0.0124	0.0272	0.0130	0.1187	0.0188	0	0.0196	70- 80	0.2257	130.6	100,100
90	0.0043	0.0042	0.0021	0.0022	0.0021	0	0	0	80- 90	0.0089	130.6	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): 123.38 lm

%lum = 94.5%

%lamp = 94.5%

Conical surface Flux(120deg): 129.05 lm

%lum = 98.8%

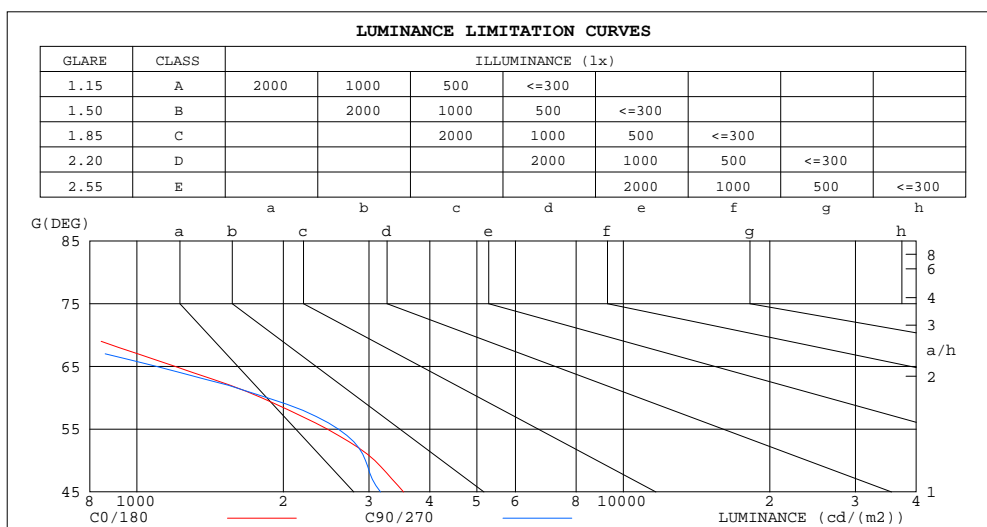
%lamp = 98.8%

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γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity:53.0%  
Test Distance:5.850m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm		
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SPEC.: 3000K	DIM.: $\phi 55\text{mm} \times H70\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	155	31
80	186	67
75	479	108
70	775	570
65	1197	1095
60	1803	1852
55	2461	2594
50	3084	2952
45	3534	3170

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Interval: 1.0DEG
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## WEC AND CCEC

Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm		
NAME: EYE R-3040	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 55mm*H70mm	
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	.167	.095	.030	.161	.092	.029	.148	.085	.027	.136	.079	.025	.126	.073	.024		
2.0	.159	.087	.027	.153	.084	.026	.143	.079	.025	.133	.075	.023	.124	.070	.022		
3.0	.151	.080	.024	.146	.078	.024	.137	.074	.023	.129	.071	.022	.121	.067	.021		
4.0	.143	.074	.022	.139	.073	.021	.131	.069	.021	.124	.066	.020	.117	.064	.019		
5.0	.135	.069	.020	.132	.068	.020	.125	.065	.019	.119	.063	.019	.113	.061	.018		
6.0	.129	.064	.018	.126	.063	.018	.120	.061	.018	.114	.059	.017	.109	.058	.017		
7.0	.123	.061	.017	.120	.060	.017	.115	.058	.017	.110	.056	.016	.106	.055	.016		
8.0	.117	.057	.016	.115	.056	.016	.110	.055	.016	.106	.054	.015	.102	.052	.015		
9.0	.112	.054	.015	.110	.054	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014		
10.0	.107	.051	.014	.105	.051	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014		

$\rho_{cc}$	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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.113	.077	.051	.098	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.044	.092	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.033	.060	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.095	.058	.033	.082	.050	.028	.057	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.091	.053	.029	.078	.046	.025	.054	.033	.018	.032	.019	.011	.010	.006	.003	

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 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.288  
Humidity: 53.0%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm										
NAME: EYE R-3040					TYPE: Recessed Ground Light			SERIAL No.:		
SPEC.: 3000K					DIM.: $\phi$ 55mm*H70mm					
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	16.9	17.7	17.1	17.9	18.0	17.3	18.1	17.5	18.3	18.5
3H	17.0	17.8	17.3	18.0	18.2	17.3	18.1	17.5	18.3	18.5
4H	17.0	17.8	17.3	18.0	18.2	17.2	18.0	17.5	18.2	18.4
6H	16.9	17.6	17.2	17.9	18.1	17.1	17.8	17.4	18.1	18.3
8H	16.9	17.6	17.2	17.8	18.1	17.1	17.8	17.4	18.0	18.3
12H	16.8	17.5	17.2	17.8	18.0	17.0	17.7	17.4	18.0	18.2
4H 2H	17.0	17.7	17.2	17.9	18.2	17.3	18.1	17.6	18.3	18.5
3H	17.2	17.8	17.5	18.1	18.4	17.4	18.0	17.7	18.3	18.6
4H	17.2	17.8	17.5	18.1	18.4	17.3	17.9	17.6	18.2	18.5
6H	17.1	17.6	17.5	17.9	18.3	17.2	17.7	17.6	18.0	18.4
8H	17.0	17.5	17.4	17.9	18.2	17.1	17.6	17.5	18.0	18.3
12H	17.0	17.4	17.4	17.8	18.2	17.1	17.5	17.5	17.9	18.3
8H 4H	17.0	17.5	17.4	17.9	18.2	17.2	17.6	17.6	18.0	18.4
6H	17.0	17.4	17.4	17.7	18.2	17.1	17.5	17.5	17.8	18.3
8H	16.9	17.3	17.4	17.7	18.1	17.0	17.4	17.4	17.8	18.2
12H	16.8	17.2	17.3	17.6	18.1	16.9	17.2	17.4	17.7	18.2
12H 4H	17.0	17.4	17.4	17.8	18.2	17.1	17.6	17.5	17.9	18.3
6H	16.9	17.3	17.3	17.7	18.1	17.0	17.4	17.4	17.8	18.2
8H	16.8	17.2	17.3	17.6	18.1	16.9	17.2	17.4	17.7	18.2
Variations with the observer position at spacings:										
S = 1.0H	+ 1.3 / - 1.3					+ 1.1 / - 1.3				
1.5H	+ 1.4 / - 0.9					+ 1.1 / - 1.1				
2.0H	+ 1.7 / - 2.6					+ 1.7 / - 3.0				

CIE Pub.117, 130.6 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -7.1$ )

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### UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm		
NAME: EYE R-3040	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\varnothing 55\text{mm} \times H70\text{mm}$	
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) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	76	86	80	76	85	79	76	72
0.80	94	88	84	93	88	84	92	87	84	80
1.00	99	93	89	98	93	89	96	92	88	84
1.25	103	97	94	102	97	94	100	96	93	89
1.50	106	101	97	104	100	97	102	98	96	91
2.00	108	104	101	107	103	100	104	101	99	93
2.50	110	106	103	108	105	102	105	103	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	109	112	109	107	108	106	105	97
5.00	115	113	111	113	111	109	109	107	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

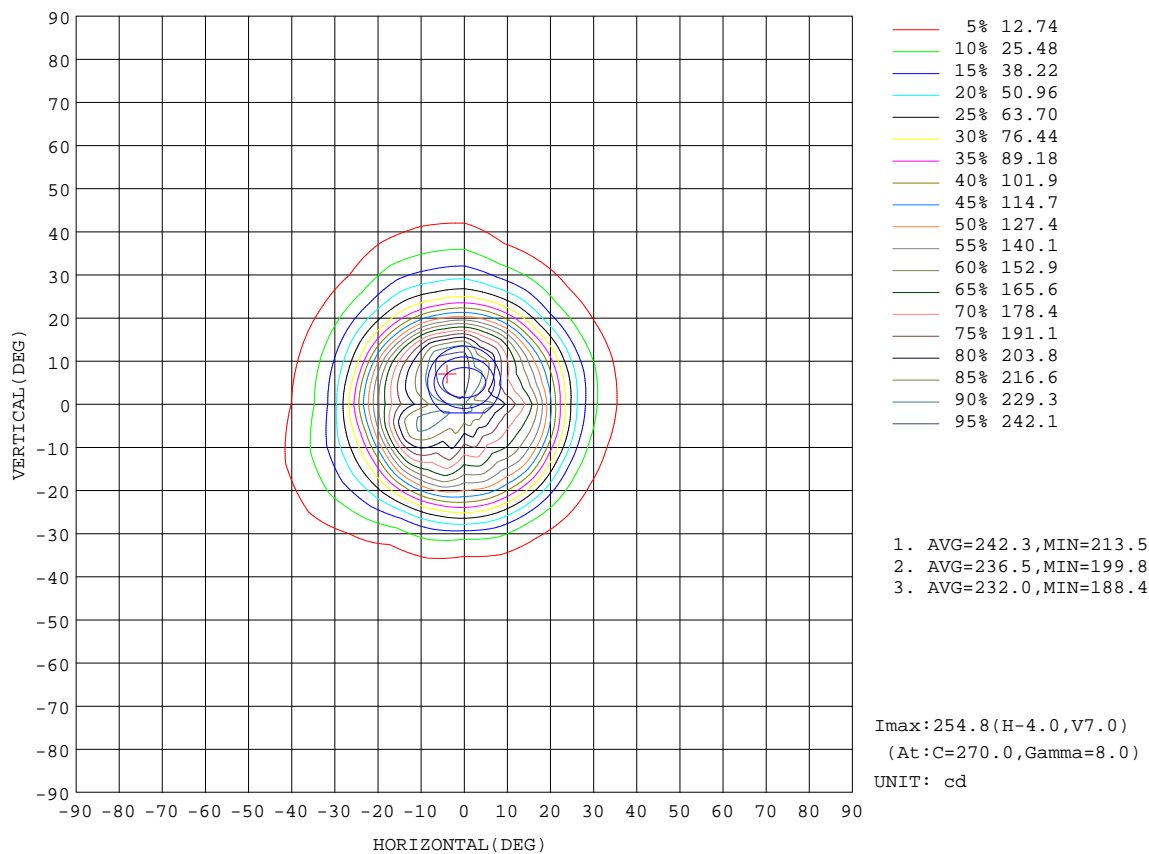
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ISOCANDELA DIAGRAM

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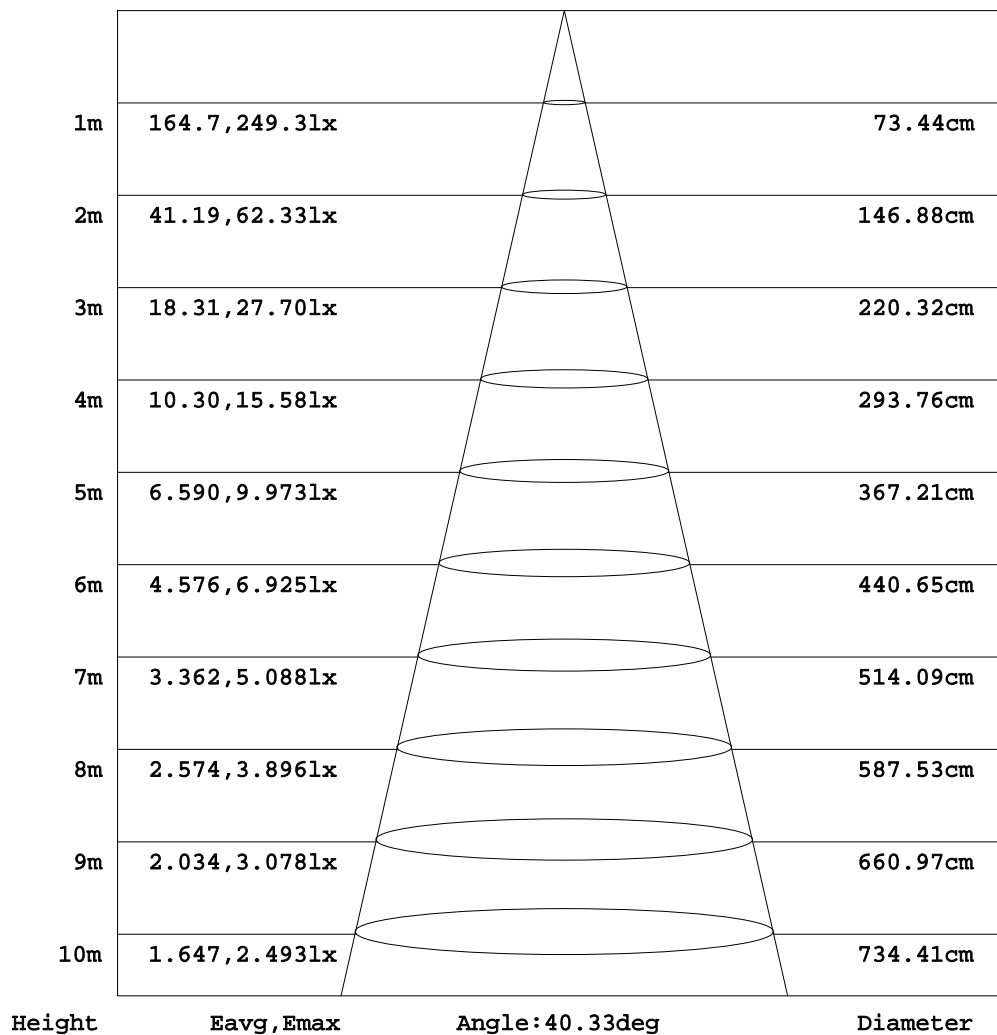
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**AAI Figure**

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MFR.: NEKO LIGHTING AG		

Flux out: 76.26 lm



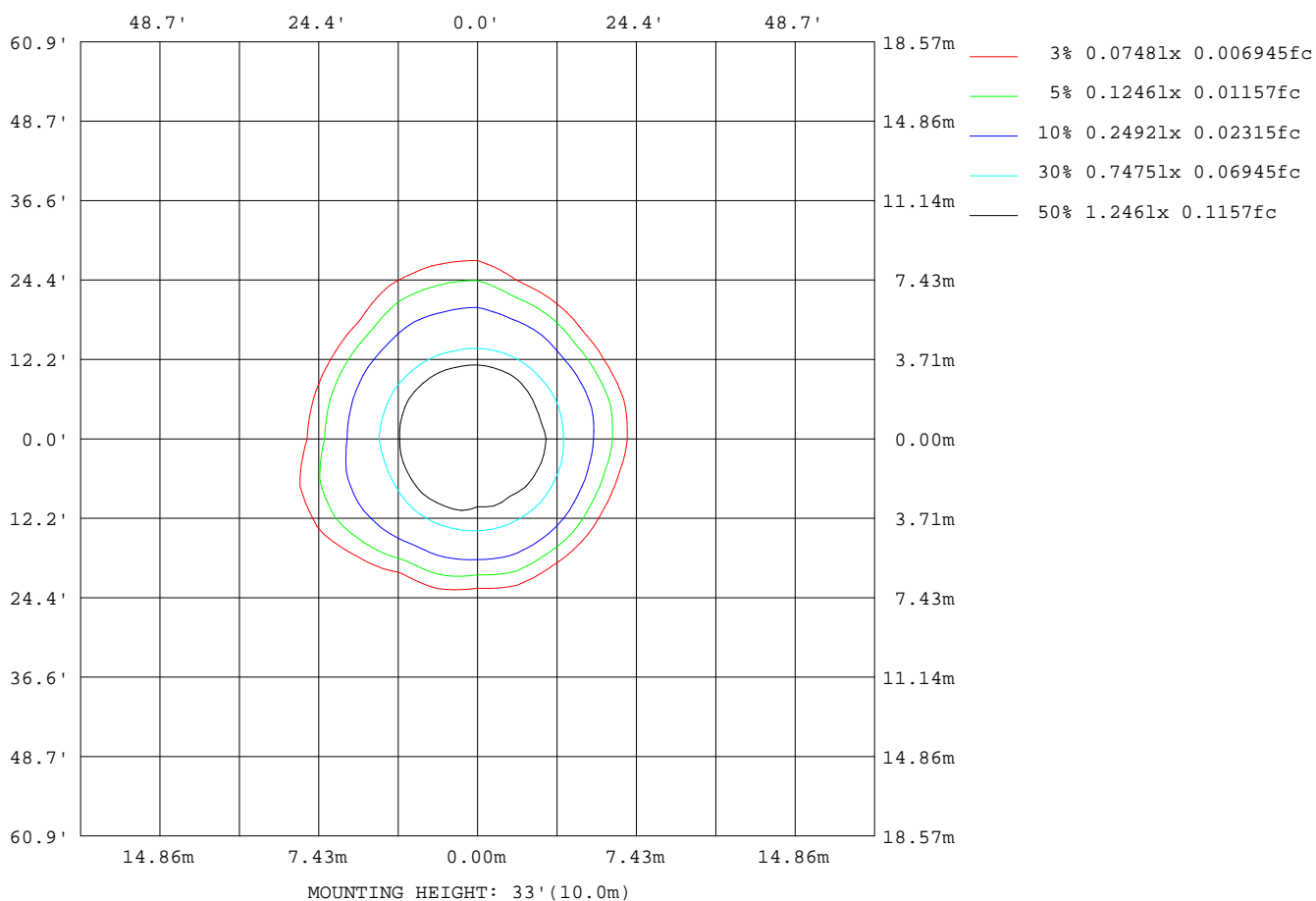
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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### LED Avg.L Report

Test:U:24.00V I:0.0812A P:1.948W PF:1.000 Freq:0Hz Lamp Flux:130.568x1 lm		
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SPEC.: 3000K	DIM.: $\phi$ 55mm*H70mm	
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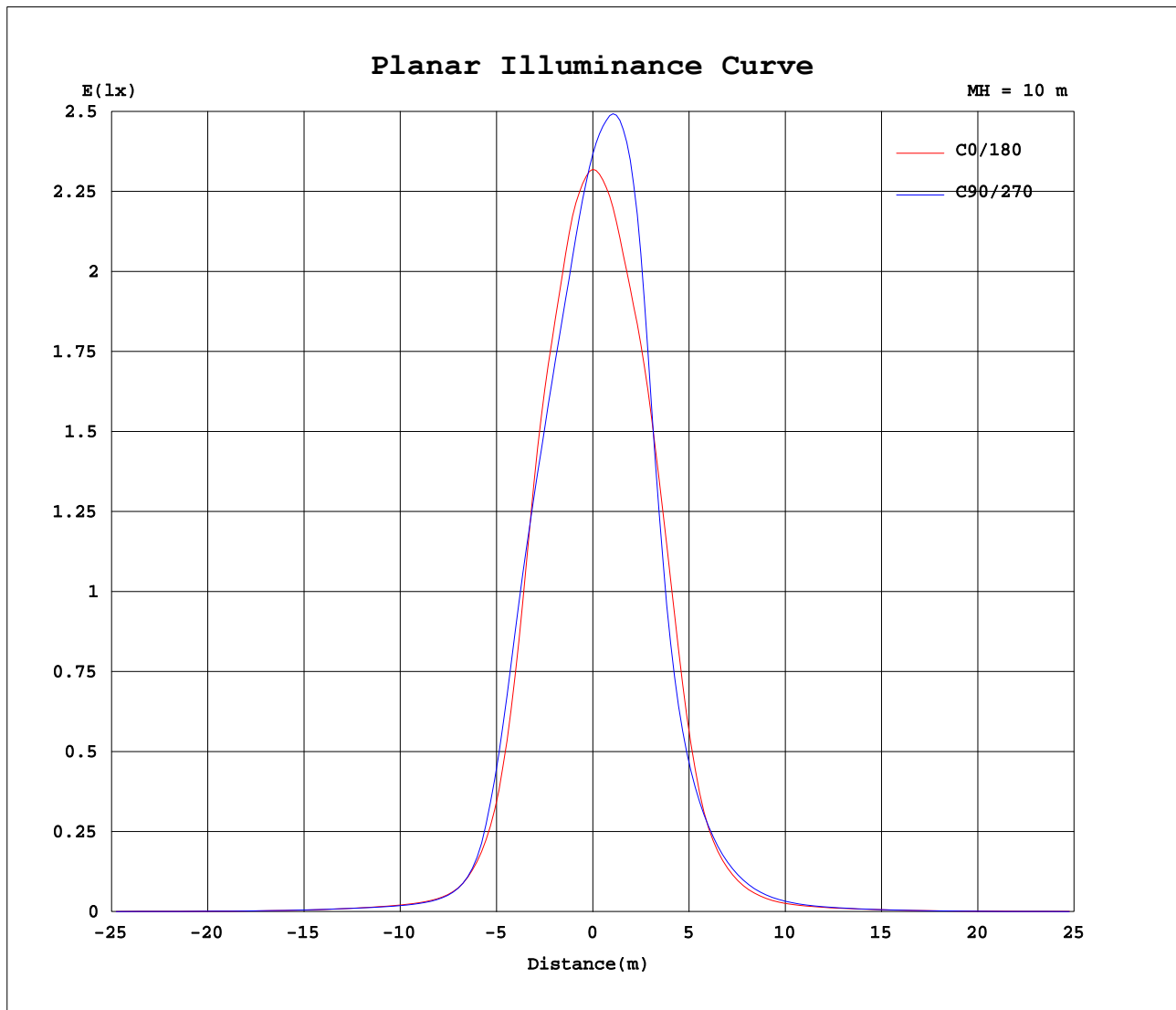
AvgL	cd/m2
L_0~180 (65) av	1354
L_0~180 (75) av	549
L_0~180 (85) av	103
L_90~270 (65) av	1107
L_90~270 (75) av	83
L_90~270 (85) av	15
L_45 (65) av	1277
L_45 (75) av	137
L_45 (85) av	13

Standard: GB/T 29293-2012

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### Planar Illuminance Curve



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