

LED Recessed Ground light TERARACE Micro-830-18



Light Output Ratio:	100.0%	
Luminaire Power:	1.574 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason Long  
Test Date: 2018-06-23

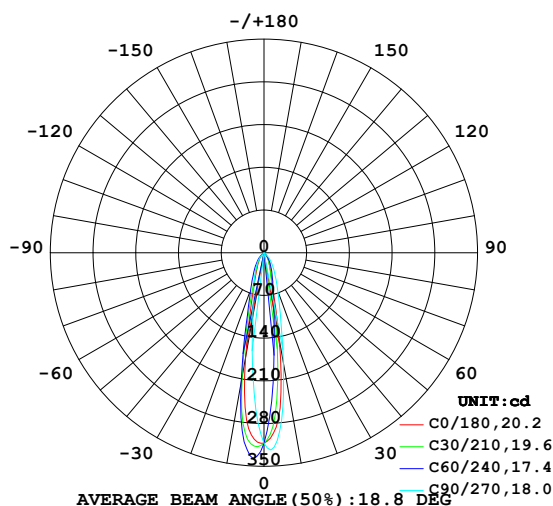
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

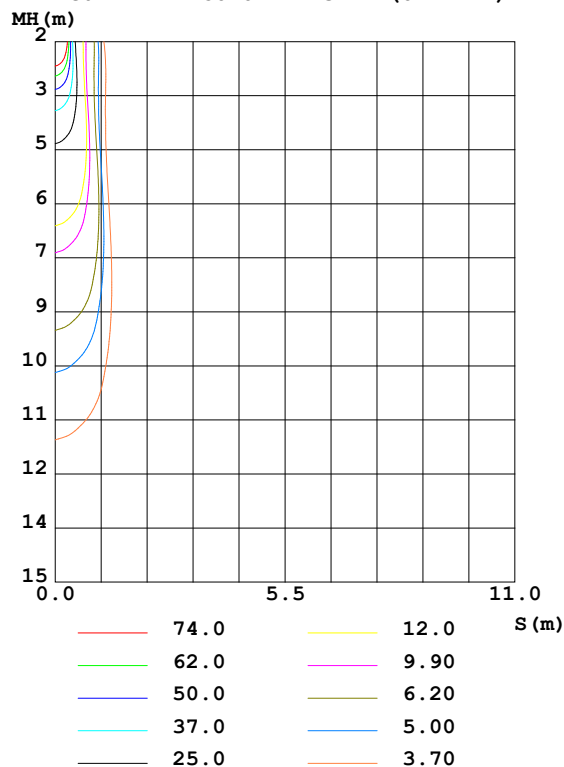
Test:U:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:101.767x1 lm		
NAME: TERARACE Micro-1.5W-830-18	TYPE: Recessed Ground light	SERIAL No.:
SPEC.: 3000K	DIM.: $\varnothing 28\text{mm} \times \text{H}70\text{mm}$	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.64 lm/W
MODEL	CREE-3000K	I <sub>max</sub> (cd)	764.2	S/MH (C0/180)	0.36	
NOMINAL POWER (W)	1.5	LOR (%)	100.0	S/MH (C90/270)	0.25	
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	101.77	$\eta$ UP, DN (C0-180)	0.0, 64.1	
NOMINAL FLUX (lm)	101.767	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 35.9	
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE (V)	24	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.00	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	143.8	76.30	183.3	608.2	174.1	283.8	106.8	71.54	0- 10	24.61	24.61	24.2,24.2
20	30.77	32.35	66.37	237.5	40.78	74.65	46.37	34.84	10- 20	35.33	59.94	58.9,58.9
30	14.71	16.28	32.59	73.61	18.42	31.96	24.72	15.91	20- 30	20.62	80.56	79.2,79.2
40	6.661	7.205	16.22	36.01	9.345	16.45	11.70	3.620	30- 40	12.19	92.75	91.1,91.1
50	1.426	1.365	2.987	17.93	1.562	5.357	2.315	1.128	40- 50	6.175	98.93	97.2,97.2
60	0.4667	0.5080	1.094	2.617	0.4960	1.170	0.8038	0.4838	50- 60	1.874	100.8	99.1,99.1
70	0.1996	0.2088	0.5296	0.8686	0.2308	0.5267	0.3437	0.2114	60- 70	0.6021	101.4	99.6,99.6
80	0.0744	0.0562	0.2172	0.4619	0.0851	0.2413	0.1162	0.0123	70- 80	0.2672	101.7	99.9,99.9
90	0.0069	0.0080	0.0291	0.1622	0.0041	0.0723	0.0079	0.0122	80- 90	0.0951	101.8	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): 96.599 lm

%lum = 94.9%

%lamp = 94.9%

Conical surface Flux(120deg): 100.8 lm

%lum = 99.1%

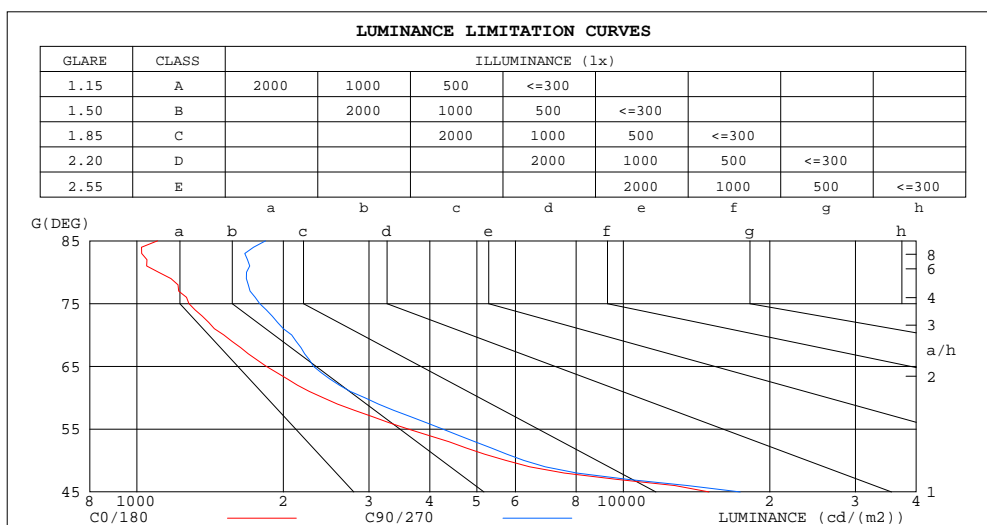
%lamp = 99.1%

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 $\gamma$  Interval: 1.0DEG  
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:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:101.767x1 lm		
NAME: TERARACE Micro-1.5W-830-18	TYPE: Recessed Ground light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi 28\text{mm} \times H70\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1103	1839
80	1108	1681
75	1279	1788
70	1509	2080
65	1844	2307
60	2413	2940
55	3613	4251
50	5735	6243
45	14996	17382

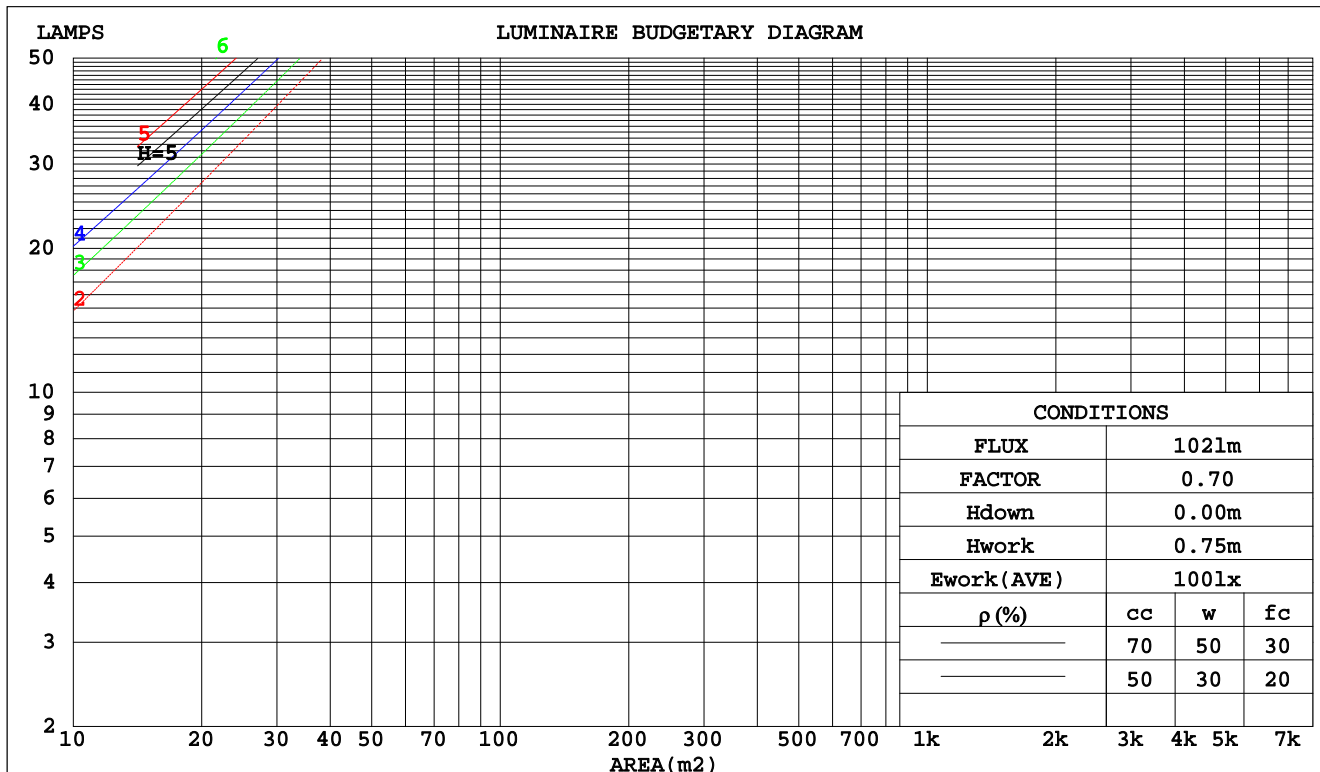
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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			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	1.12	1.09	1.07	1.09	1.07	1.06	1.05	1.04	1.02	1.02	1.00	.99	.98	.97	.96	.95
2.0	1.05	1.01	.98	1.03	.90	.97	.90	.97	.95	.97	.95	.93	.94	.92	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.89	.92	.90	.87	.90	.88	.86	.84
4.0	.93	.89	.85	.92	.88	.84	.90	.86	.83	.88	.85	.82	.87	.84	.81	.80
5.0	.89	.84	.80	.88	.83	.79	.86	.82	.79	.84	.81	.78	.83	.80	.77	.76
6.0	.84	.79	.75	.84	.79	.75	.82	.78	.75	.81	.77	.74	.80	.76	.74	.72
7.0	.81	.75	.72	.80	.75	.71	.79	.74	.71	.78	.74	.71	.77	.73	.70	.69
8.0	.77	.72	.68	.77	.72	.68	.75	.71	.68	.75	.71	.68	.74	.70	.67	.66
9.0	.74	.69	.65	.73	.69	.65	.73	.68	.65	.72	.68	.65	.71	.67	.65	.63
10.0	.71	.66	.63	.71	.66	.63	.70	.65	.62	.69	.65	.62	.68	.65	.62	.61



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Humidity: 56%  
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Remarks:

## WEC AND CCEC

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SPEC.: 3000K	DIM.: $\varnothing$ 28mm*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	.163	.093	.029	.156	.089	.028	.144	.083	.026	.132	.076	.024	.122	.071	.023		
2.0	.154	.085	.026	.149	.082	.025	.138	.077	.024	.129	.072	.023	.120	.068	.021		
3.0	.146	.078	.023	.141	.075	.023	.132	.072	.022	.124	.068	.021	.116	.064	.020		
4.0	.138	.072	.021	.134	.070	.021	.126	.067	.020	.119	.064	.019	.112	.061	.019		
5.0	.130	.066	.019	.127	.065	.019	.120	.063	.018	.114	.060	.018	.109	.058	.017		
6.0	.124	.062	.018	.121	.061	.018	.115	.059	.017	.110	.057	.017	.105	.055	.016		
7.0	.118	.058	.016	.115	.057	.016	.110	.056	.016	.105	.054	.016	.101	.052	.015		
8.0	.112	.055	.015	.110	.054	.015	.105	.053	.015	.101	.051	.015	.097	.050	.015		
9.0	.107	.052	.014	.105	.051	.014	.101	.050	.014	.097	.049	.014	.094	.048	.014		
10.0	.103	.049	.014	.101	.049	.014	.097	.048	.013	.094	.047	.013	.091	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.170	.157	.146	.146	.135	.126	.100	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.154	.133	.115	.132	.114	.099	.090	.079	.069	.052	.046	.041	.017	.015	.013	
3.0	.141	.113	.092	.120	.098	.080	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.129	.098	.075	.111	.085	.065	.076	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.120	.087	.062	.103	.075	.054	.071	.052	.038	.041	.031	.023	.013	.010	.007	
6.0	.112	.077	.052	.096	.067	.045	.066	.047	.032	.038	.027	.019	.012	.009	.006	
7.0	.105	.069	.044	.090	.060	.039	.062	.042	.027	.036	.025	.016	.012	.008	.005	
8.0	.099	.063	.038	.085	.054	.033	.059	.038	.024	.034	.023	.014	.011	.007	.005	
9.0	.093	.057	.033	.080	.050	.029	.056	.035	.020	.032	.021	.012	.010	.007	.004	
10.0	.088	.053	.029	.076	.046	.025	.053	.032	.018	.031	.019	.011	.010	.006	.004	

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 $\gamma$  Interval: 1.0DEG  
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:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:101.767x1 lm										
NAME: TERARACE Micro-1.5W-830-18					TYPE: Recessed Ground light			SERIAL No.:		
SPEC.: 3000K					DIM.: $\phi$ 28mm*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	22.1	22.9	22.3	23.1	23.2	21.6	22.5	21.8	22.6	22.8
3H	22.0	22.8	22.3	23.0	23.2	21.6	22.4	21.9	22.6	22.8
4H	22.0	22.7	22.2	22.9	23.1	21.6	22.3	21.9	22.5	22.8
6H	21.9	22.6	22.2	22.8	23.1	21.6	22.3	21.9	22.5	22.7
8H	21.9	22.5	22.2	22.8	23.0	21.6	22.2	21.9	22.5	22.7
12H	21.8	22.5	22.2	22.7	23.0	21.5	22.2	21.8	22.4	22.7
4H 2H	21.9	22.6	22.2	22.8	23.0	21.4	22.2	21.7	22.4	22.6
3H	21.8	22.5	22.1	22.7	23.0	21.4	22.1	21.8	22.3	22.6
4H	21.8	22.4	22.1	22.7	23.0	21.4	22.0	21.8	22.3	22.6
6H	21.8	22.3	22.1	22.6	22.9	21.4	21.9	21.8	22.3	22.6
8H	21.7	22.2	22.1	22.5	22.9	21.4	21.9	21.8	22.2	22.6
12H	21.7	22.1	22.1	22.5	22.9	21.4	21.8	21.8	22.2	22.6
8H 4H	21.7	22.1	22.1	22.5	22.9	21.3	21.8	21.7	22.1	22.5
6H	21.6	22.0	22.1	22.4	22.8	21.3	21.7	21.7	22.1	22.5
8H	21.6	21.9	22.1	22.4	22.8	21.3	21.6	21.7	22.1	22.5
12H	21.6	21.9	22.0	22.3	22.8	21.3	21.6	21.8	22.0	22.5
12H 4H	21.6	22.1	22.0	22.4	22.8	21.3	21.7	21.7	22.1	22.4
6H	21.6	21.9	22.0	22.3	22.8	21.2	21.6	21.7	22.0	22.4
8H	21.6	21.8	22.0	22.3	22.8	21.2	21.5	21.7	22.0	22.4
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 6.0					+ 3.9 / - 5.6				
1.5H	+ 3.8 / - 5.9					+ 5.7 / - 6.0				
2.0H	+ 6.1 / - 4.5					+ 7.9 / - 3.9				

CIE Pub.117, 101.8 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -7.9$ )

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### UTILIZATION FACTORS TABLE

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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) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	71
0.80	94	88	84	93	87	84	92	87	83	79
1.00	98	93	89	98	92	89	96	92	88	84
1.25	103	97	94	101	97	93	100	95	92	88
1.50	105	100	97	104	100	97	102	98	95	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	112	108	105	110	107	104	106	104	102	96
4.00	114	111	108	112	109	107	108	106	104	97
5.00	115	112	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

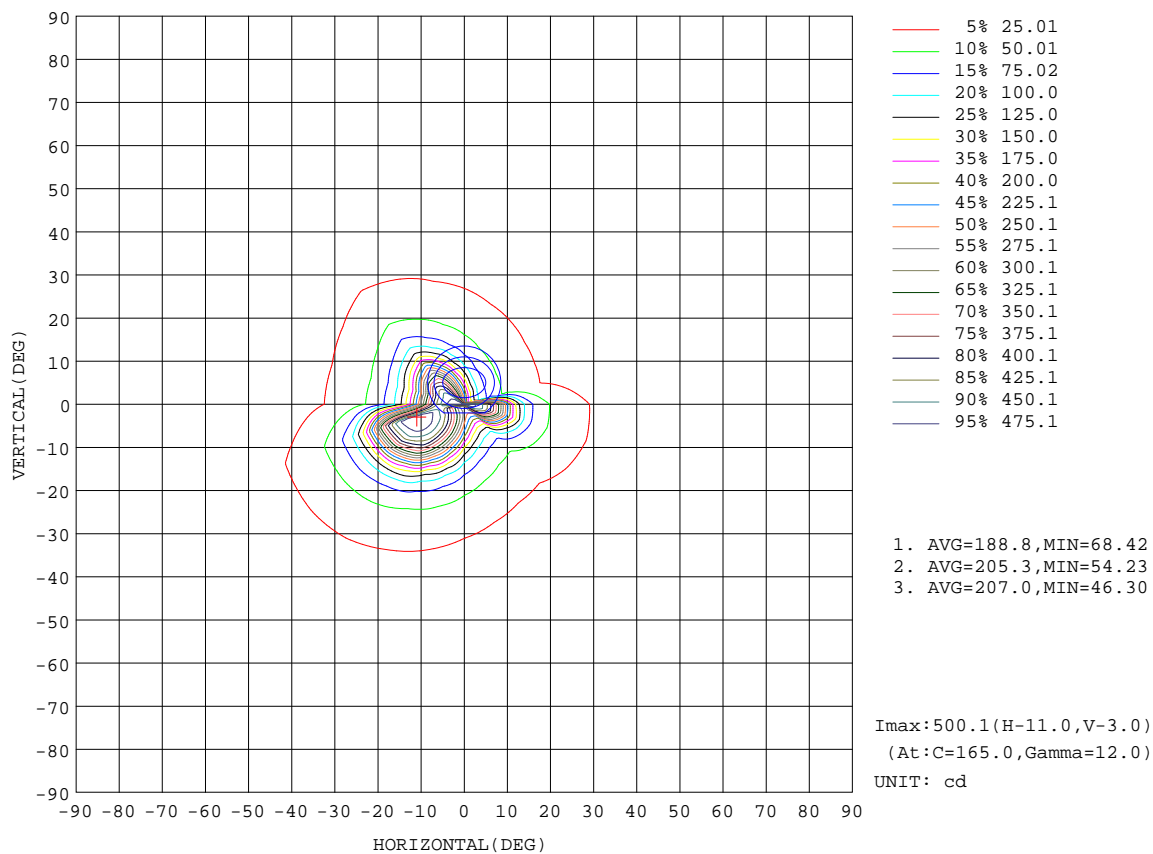
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ISOCANDELA DIAGRAM

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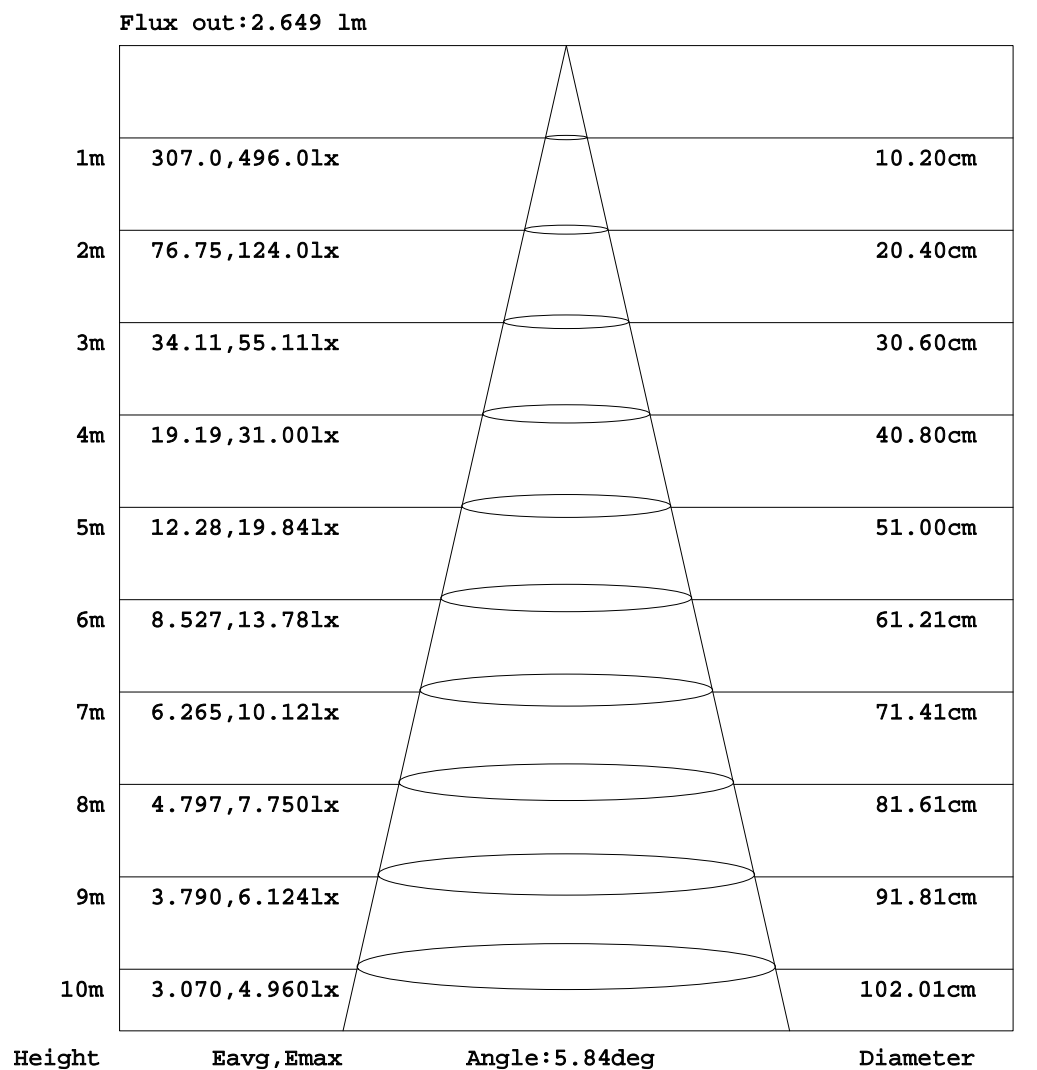


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**AAI Figure**

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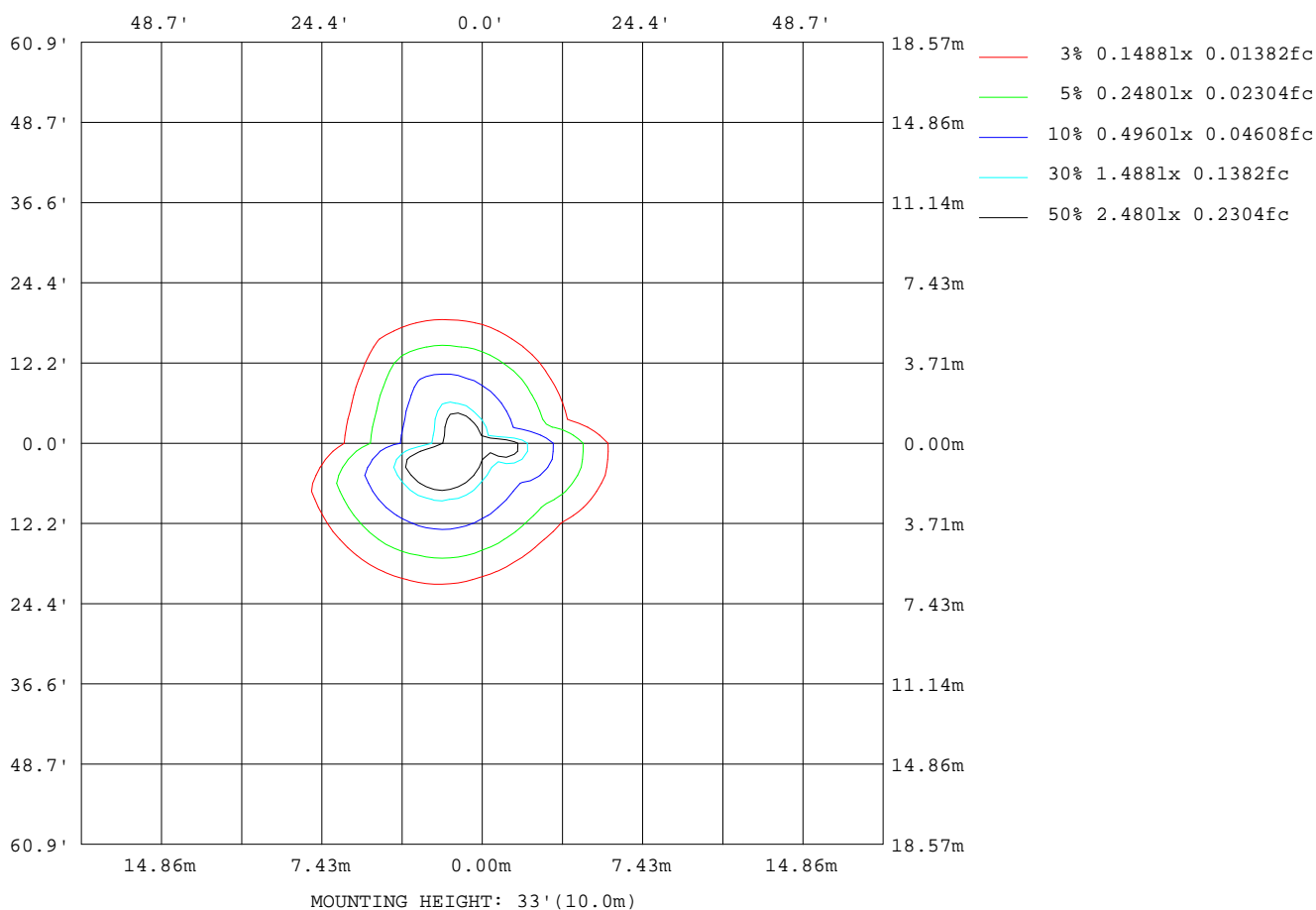
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:101.767x1 lm		
NAME: TERARACE Micro-1.5W-830-18	TYPE: Recessed Ground light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 28mm*H70mm	
MFR.: NEKO LIGHTING AG		

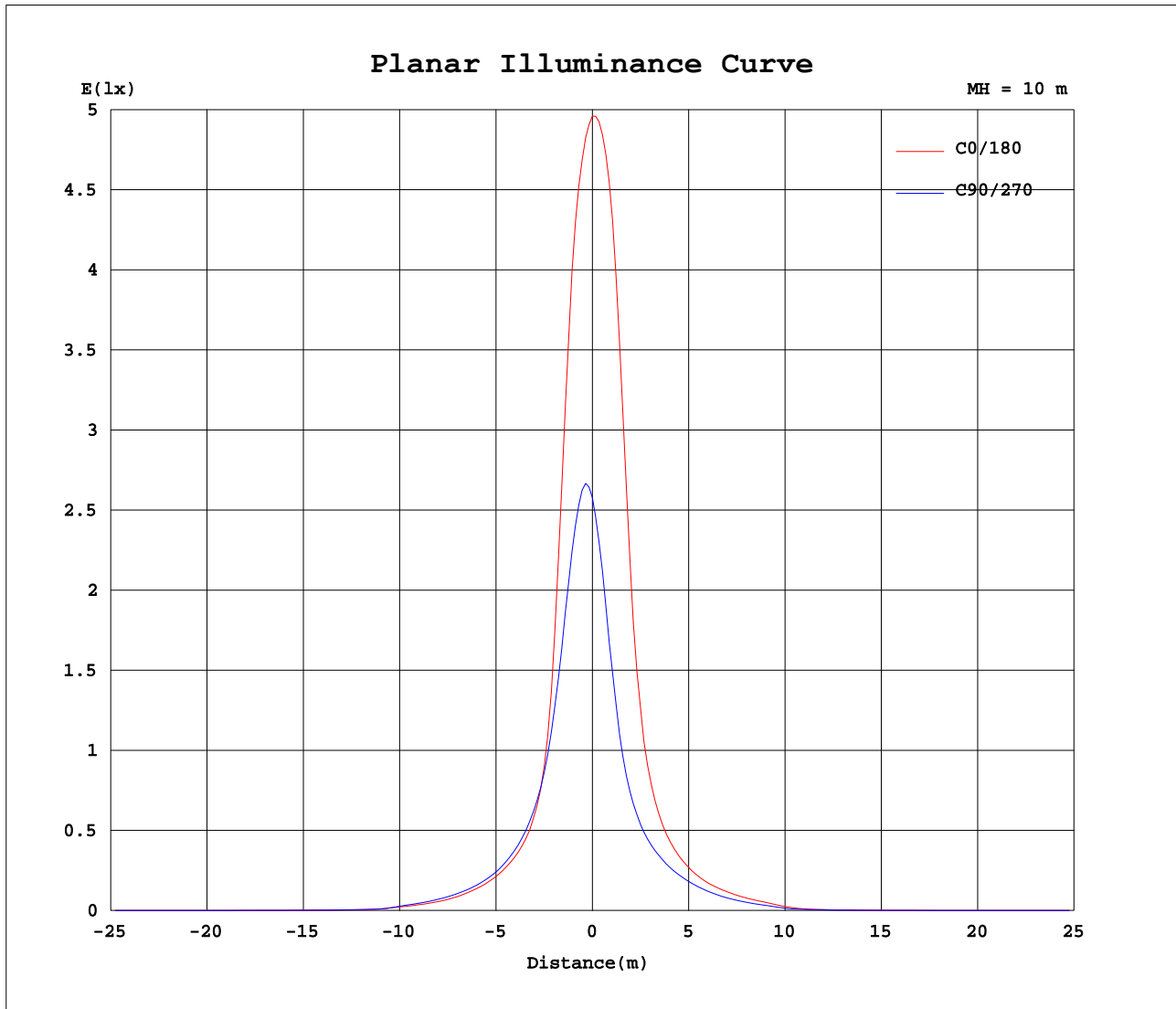
AvgL	cd/m2
L_0~180 (65) av	1225
L_0~180 (75) av	860
L_0~180 (85) av	692
L_90~270 (65) av	2429
L_90~270 (75) av	1755
L_90~270 (85) av	1309
L_45 (65) av	2756
L_45 (75) av	1928
L_45 (85) av	2220

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason Long  
Test Date: 2018-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason Long  
Test Date: 2018-06-23

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

```