

LED Recessed Ground light TERARACE Micro-830-40



Light Output Ratio:	100.0%	
Luminaire Power:	1.574 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.60	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

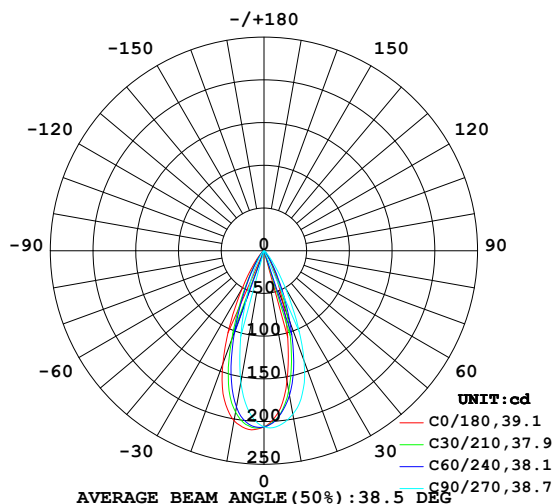
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

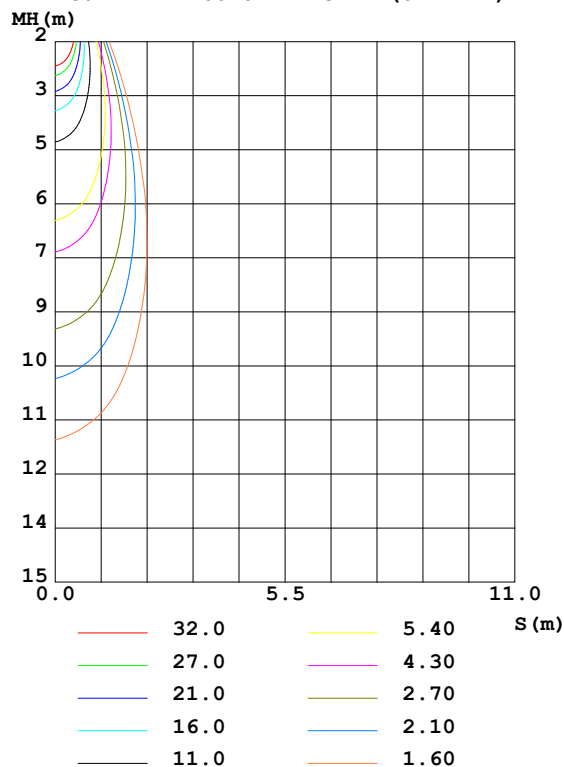
Test:U:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:107.077x1 lm		
NAME: TERARACE Micro-1.5W-830-40	TYPE: Recessed Ground light	SERIAL No.:
SPEC.: 3000K	DIM.: $\varnothing 28\text{mm} \times H70\text{mm}$	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.01 lm/W			
MODEL	CREE-3000K	I <sub>max</sub> (cd)	228.5	S/MH (C0/180)	0.73
NOMINAL POWER (W)	1.5	LOR (%)	100.0	S/MH (C90/270)	0.51
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	107.08	$\eta$ UP, DN (C0-180)	0.0, 61.9
NOMINAL FLUX (lm)	107.077	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 38.1
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	24	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
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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	155.2	174.8	194.3	221.7	202.0	181.9	156.4	117.1	0- 10	18.17	18.17	17,17
20	65.90	91.21	137.3	193.3	141.2	94.95	62.41	33.78	10- 20	38.77	56.94	53.2,53.2
30	15.95	24.91	49.82	102.1	51.47	27.07	16.71	7.466	20- 30	30.50	87.44	81.7,81.7
40	3.876	5.511	11.61	27.66	13.16	6.717	4.563	2.369	30- 40	12.97	100.4	93.8,93.8
50	1.505	1.902	3.096	6.208	3.702	2.326	1.731	1.024	40- 50	4.161	104.6	97.7,97.7
60	0.6103	0.8669	1.327	2.141	1.472	0.9537	0.6051	0.3171	50- 60	1.580	106.2	99.1,99.1
70	0.1622	0.2768	0.5173	0.9020	0.5017	0.2753	0.1262	0.0680	60- 70	0.6622	106.8	99.8,99.8
80	0.0295	0.0447	0.1376	0.2757	0.1133	0.0619	0.0065	0.0091	70- 80	0.2140	107.0	100,100
90	0.0105	0.0064	0.0262	0.0543	0.0210	0.0085	0.0065	0.0091	80- 90	0.0488	107.1	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): 103.05 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 106.15 lm

%lum = 99.1%

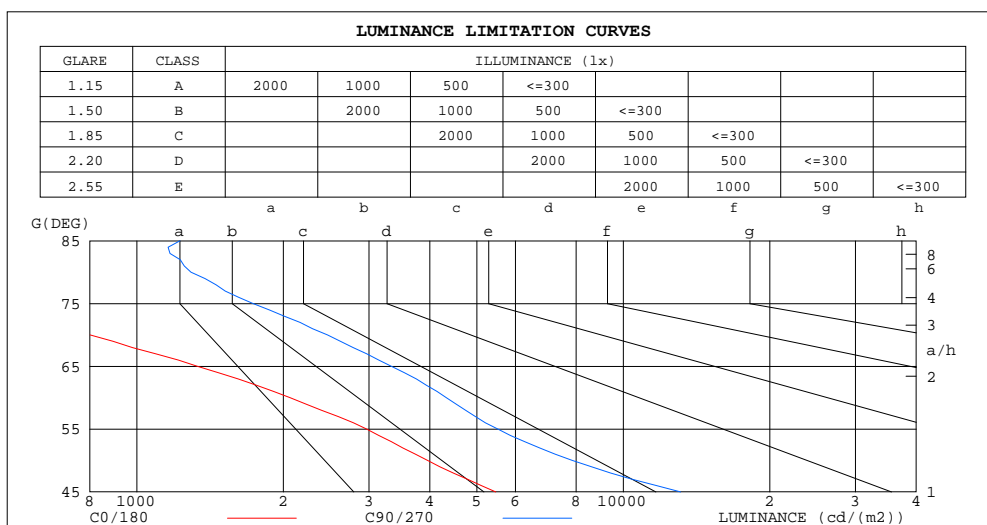
%lamp = 99.1%

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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:

### LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.0656A P:1.574W PF:1.000 Freq:0Hz Lamp Flux:107.077x1 lm		
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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	205	1226
80	287	1292
75	468	1734
70	802	2466
65	1331	3335
60	2064	4327
55	2966	5522
50	3959	7854
45	5467	13113

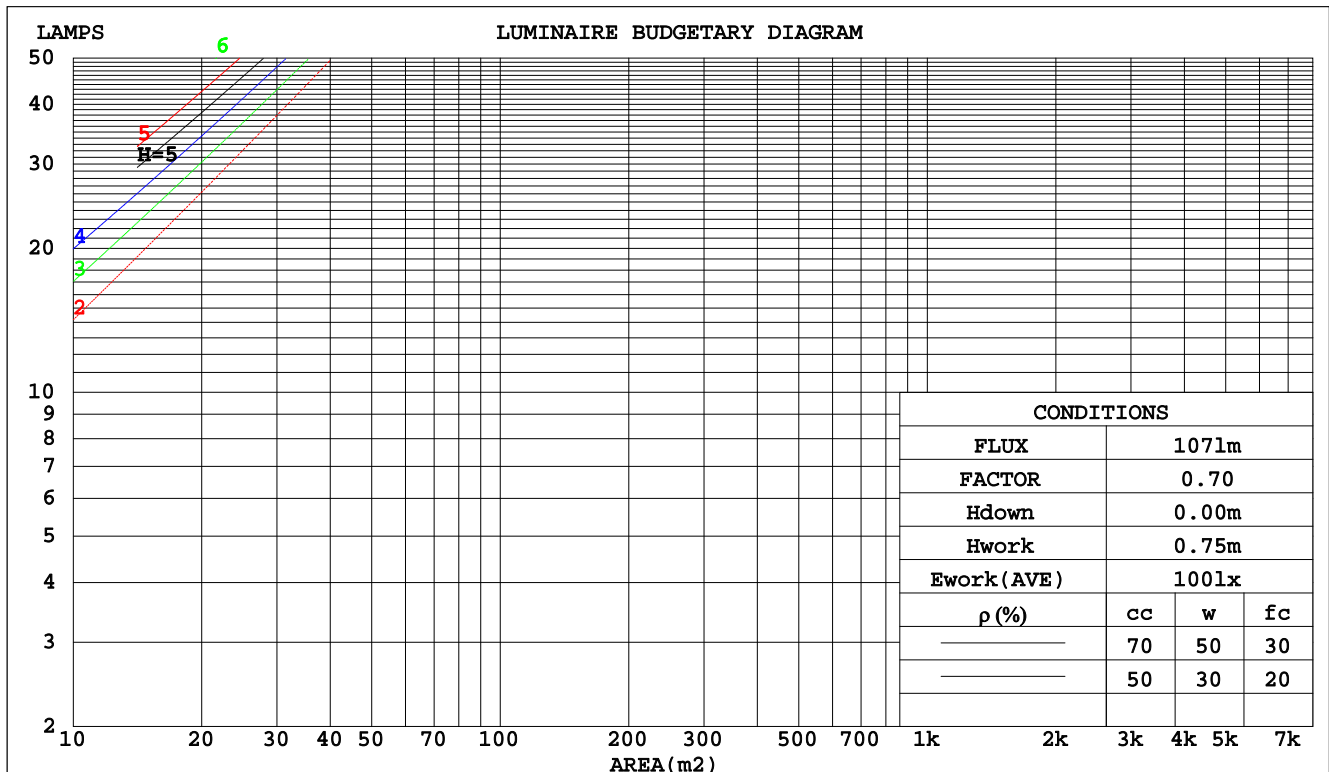
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.97	.90	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.98	.94	.90	.97	.93	.89	.94	.91	.88	.92	.89	.87	.90	.87	.85	.84
4.0	.93	.88	.84	.92	.87	.83	.89	.85	.82	.88	.84	.81	.86	.83	.80	.79
5.0	.88	.82	.78	.87	.82	.78	.85	.81	.77	.83	.80	.77	.82	.79	.76	.75
6.0	.83	.78	.74	.82	.77	.74	.81	.76	.73	.80	.76	.73	.78	.75	.72	.71
7.0	.79	.74	.70	.78	.73	.70	.77	.73	.69	.76	.72	.69	.75	.71	.69	.67
8.0	.75	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.64
9.0	.72	.67	.63	.71	.66	.63	.70	.66	.63	.70	.65	.62	.69	.65	.62	.61
10.0	.69	.63	.60	.68	.63	.60	.67	.63	.60	.67	.63	.60	.66	.62	.59	.58



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Humidity: 56%  
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## WEC AND CCEC

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SPEC.: 3000K	DIM.: $\varnothing$ 28mm*H70mm	
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	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.166	.094	.030	.159	.091	.029	.147	.084	.027	.135	.078	.025	.125	.072	.023		
2.0	.157	.086	.026	.152	.084	.026	.141	.079	.024	.132	.074	.023	.123	.069	.022		
3.0	.149	.079	.024	.144	.077	.023	.135	.073	.022	.127	.070	.021	.120	.066	.020		
4.0	.141	.073	.022	.137	.072	.021	.130	.069	.021	.123	.066	.020	.116	.063	.019		
5.0	.134	.068	.020	.131	.067	.020	.124	.065	.019	.118	.062	.019	.112	.060	.018		
6.0	.128	.064	.018	.125	.063	.018	.119	.061	.018	.114	.059	.017	.109	.057	.017		
7.0	.122	.060	.017	.119	.059	.017	.114	.058	.017	.109	.056	.016	.105	.055	.016		
8.0	.117	.057	.016	.114	.056	.016	.110	.055	.016	.105	.053	.015	.101	.052	.015		
9.0	.112	.054	.015	.109	.053	.015	.105	.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		

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	.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	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013		
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011		
4.0	.130	.099	.074	.112	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.121	.087	.061	.104	.075	.053	.072	.052	.038	.041	.031	.022	.013	.010	.007		
6.0	.113	.077	.051	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006		
7.0	.106	.070	.044	.092	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005		
8.0	.100	.063	.038	.086	.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	.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:107.077x1 lm										
NAME: TERARACE Micro-1.5W-830-40					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	18.2	19.0	18.4	19.2	19.4	22.0	22.9	22.2	23.0	23.2
3H	18.1	18.9	18.4	19.1	19.3	22.0	22.8	22.3	23.0	23.2
4H	18.1	18.8	18.3	19.0	19.3	22.0	22.7	22.3	23.0	23.2
6H	18.0	18.7	18.3	18.9	19.2	21.9	22.6	22.2	22.9	23.1
8H	17.9	18.6	18.3	18.9	19.1	21.9	22.6	22.2	22.8	23.1
12H	17.9	18.6	18.2	18.8	19.1	21.9	22.5	22.2	22.8	23.1
4H 2H	18.2	18.9	18.5	19.1	19.4	21.8	22.6	22.1	22.8	23.0
3H	18.2	18.8	18.5	19.1	19.4	21.9	22.5	22.2	22.8	23.1
4H	18.1	18.7	18.5	19.0	19.3	21.8	22.4	22.2	22.7	23.0
6H	18.0	18.5	18.4	18.9	19.2	21.8	22.3	22.2	22.6	23.0
8H	18.0	18.5	18.4	18.8	19.2	21.8	22.2	22.1	22.6	22.9
12H	17.9	18.4	18.3	18.7	19.1	21.7	22.2	22.1	22.5	22.9
8H 4H	18.0	18.5	18.4	18.8	19.2	21.7	22.2	22.1	22.5	22.9
6H	17.9	18.3	18.4	18.7	19.1	21.6	22.0	22.1	22.4	22.9
8H	17.9	18.2	18.3	18.6	19.1	21.6	22.0	22.1	22.4	22.8
12H	17.8	18.1	18.3	18.6	19.0	21.6	21.9	22.0	22.3	22.8
12H 4H	18.0	18.4	18.4	18.8	19.2	21.7	22.1	22.1	22.5	22.9
6H	17.9	18.2	18.3	18.6	19.1	21.6	21.9	22.0	22.4	22.8
8H	17.8	18.1	18.3	18.6	19.0	21.6	21.9	22.0	22.3	22.8
Variations with the observer position at spacings:										
S = 1.0H	+ 1.8 / - 3.2					+ 4.5 / - 4.2				
1.5H	+ 2.7 / - 2.1					+ 6.4 / - 4.4				
2.0H	+ 2.4 / - 2.5					+ 5.2 / - 3.6				

CIE Pub.117, 107.1 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -7.8$ )

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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) $k(RI) \times RCR = 5$									
$k = 0.60$	88	81	78	87	81	77	86	81	77	74
0.80	95	89	86	94	89	85	93	88	85	81
1.00	99	94	90	99	93	90	97	93	90	86
1.25	103	98	95	102	98	94	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

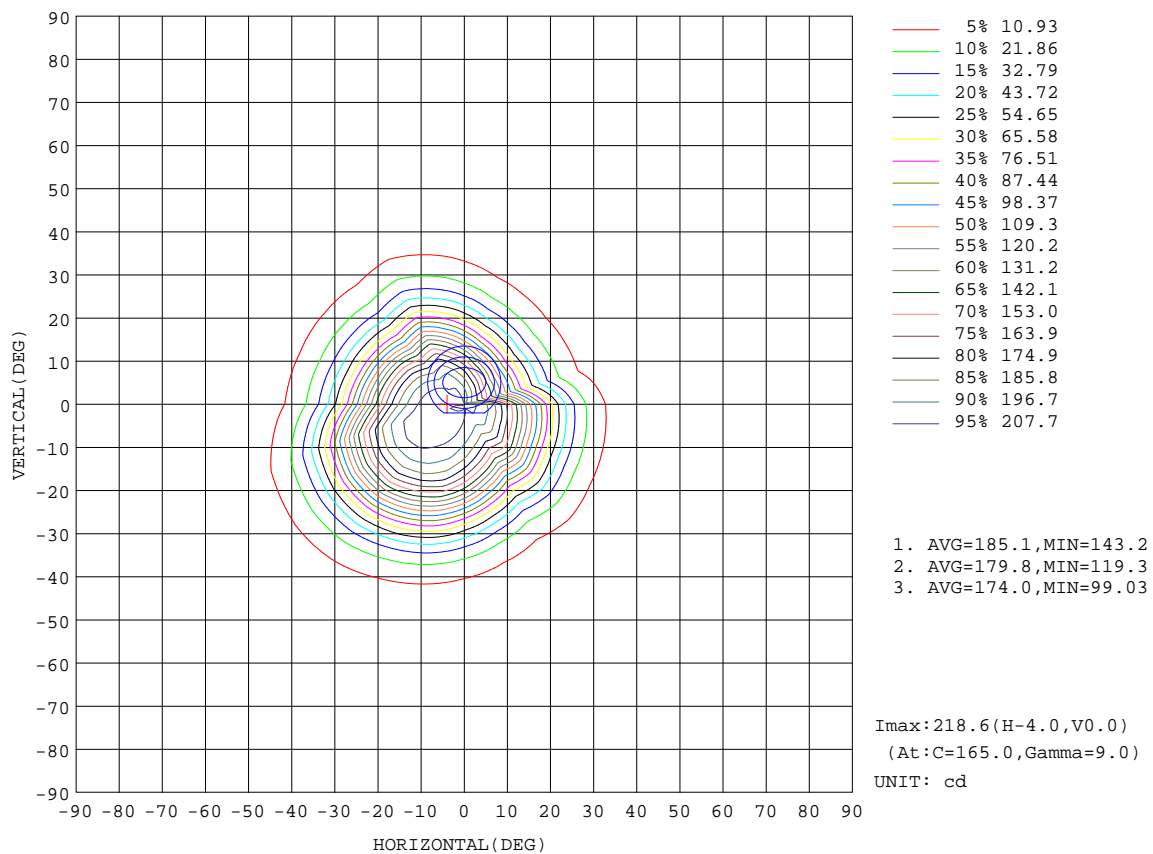
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ISOCANDELA DIAGRAM

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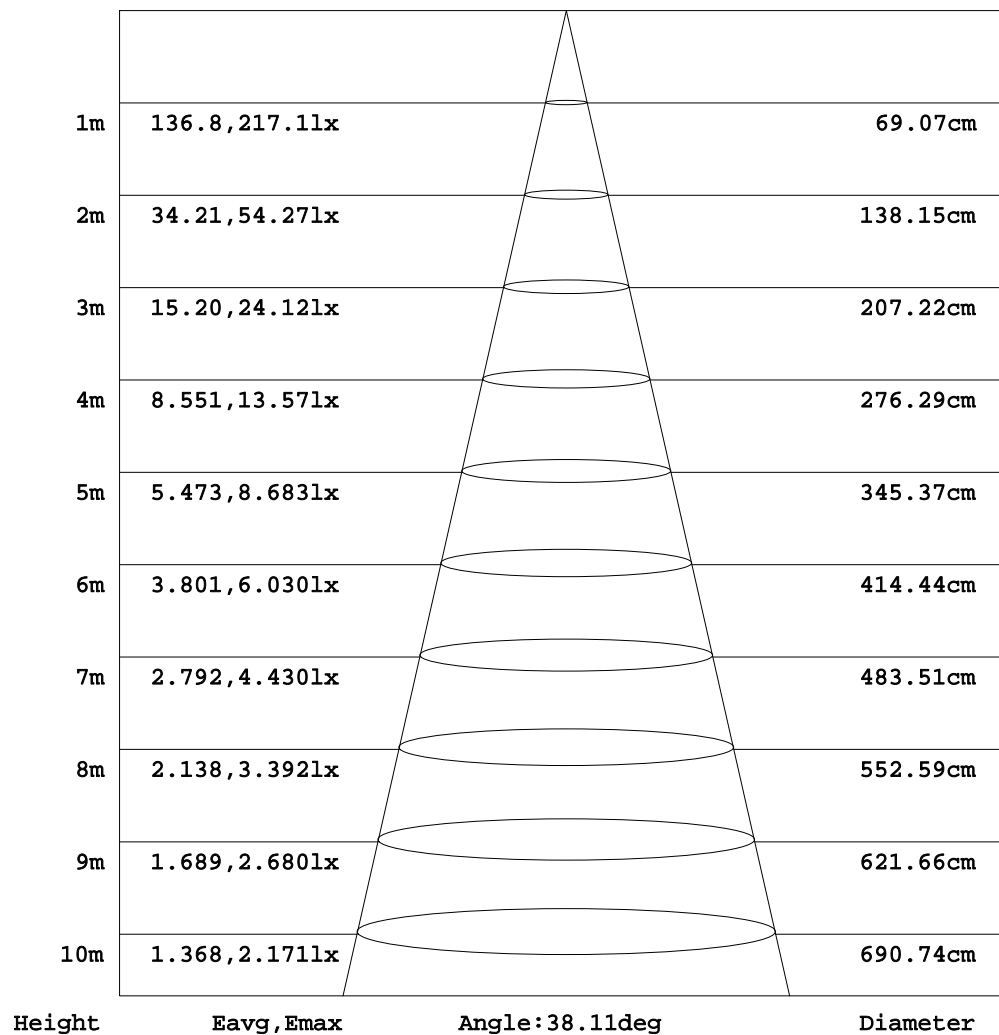
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**AAI Figure**

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Flux out: 56.94 lm



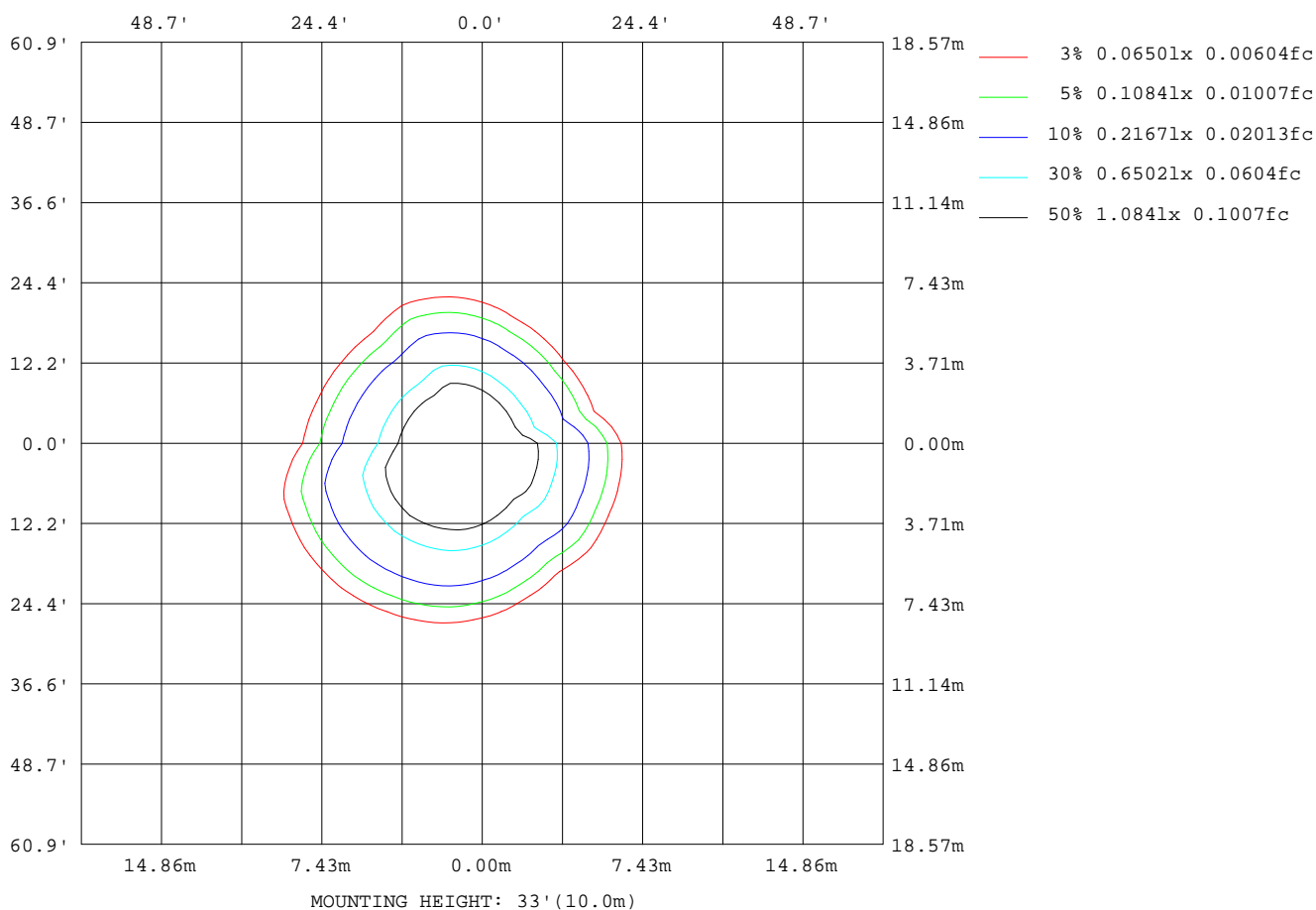
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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 $\gamma$  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:107.077x1 lm		
NAME: TERARACE Micro-1.5W-830-40	TYPE: Recessed Ground light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 28mm*H70mm	
MFR.: NEKO LIGHTING AG		

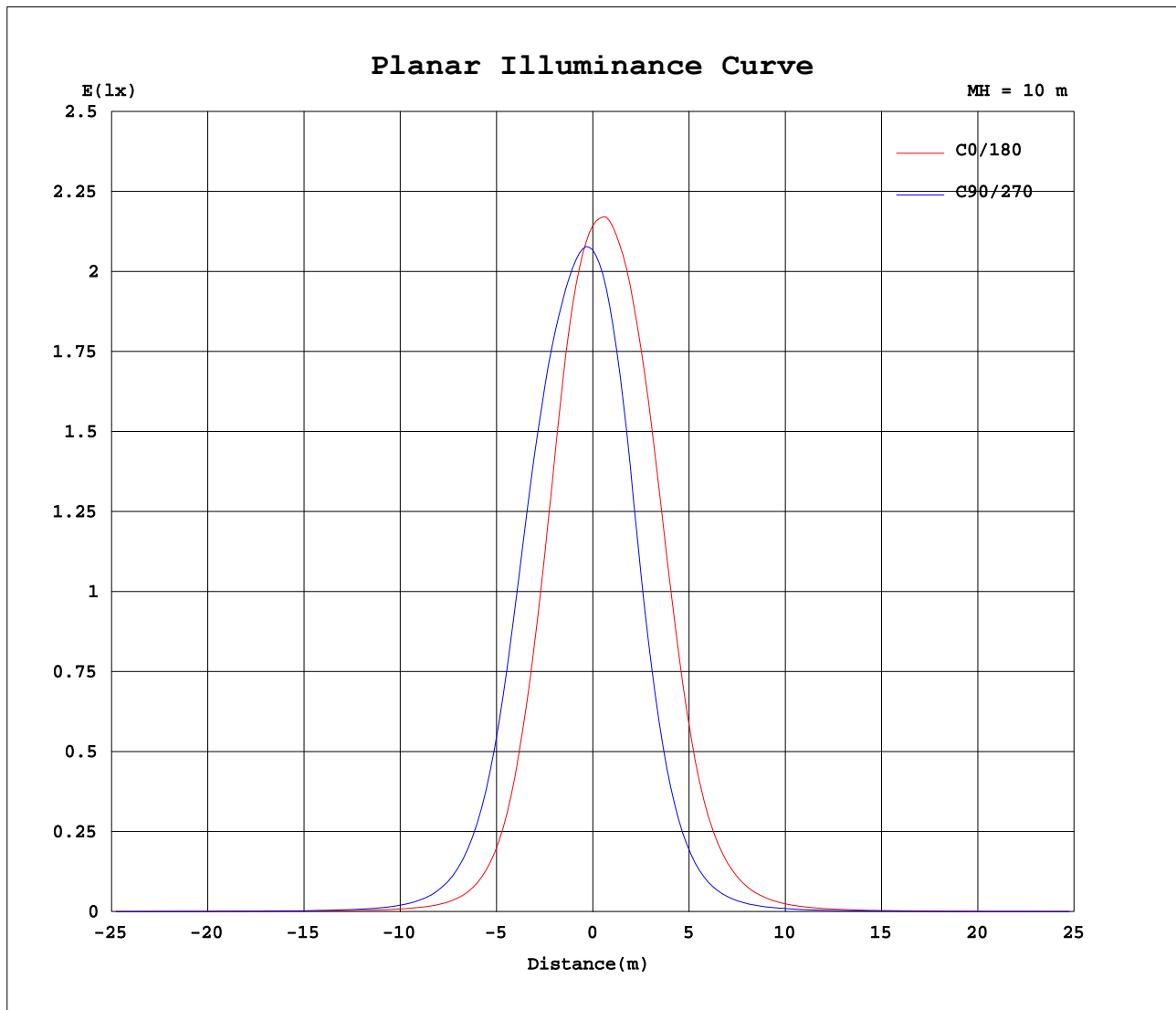
AvgL	cd/m2
L_0~180 (65) av	2381
L_0~180 (75) av	1003
L_0~180 (85) av	451
L_90~270 (65) av	2220
L_90~270 (75) av	994
L_90~270 (85) av	672
L_45 (65) av	2540
L_45 (75) av	1279
L_45 (85) av	792

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:

```