

**LED Recessed Ground Light TERARACE Maxi-10W-830-50**



Light Output Ratio:	100.0%	
Luminaire Power:	10.62 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.75	fine grid method.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Myles  
Test Date: 2019-04-09

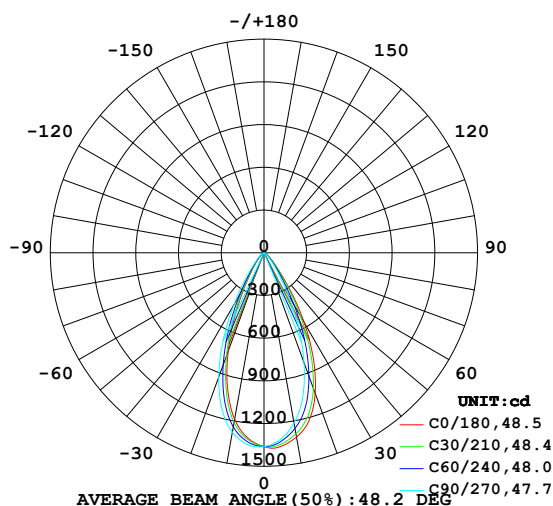
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 56%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

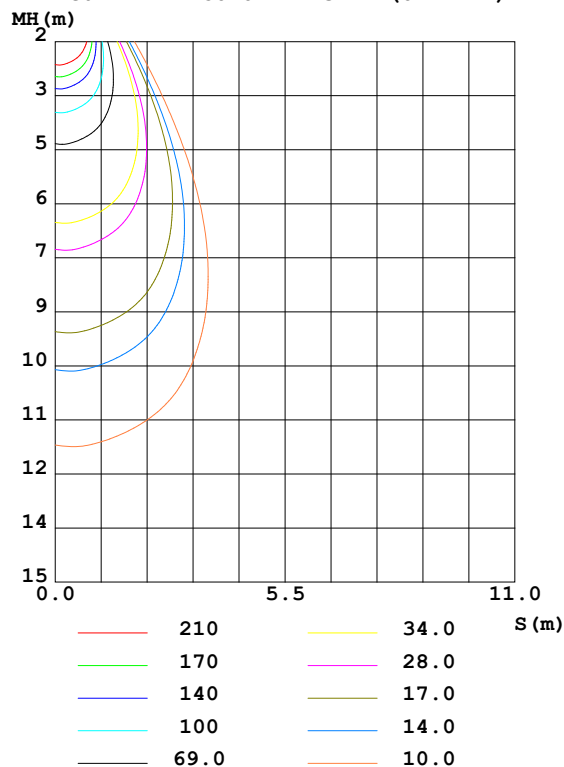
Test:U:24.00V I:0.4425A P:10.62W PF:1.000 Freq:0Hz Lamp Flux:941.874x1 lm		
NAME: TERARACE Maxi-10W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.69 lm/W			
MODEL	CITIZEN-3000K	I <sub>max</sub> (cd)	1380	S/MH (C0/180)	0.67
NOMINAL POWER (W)	10	LOR (%)	100.0	S/MH (C90/270)	0.77
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	941.87	$\eta$ UP, DN (C0-180)	0.0, 48.7
NOMINAL FLUX (lm)	941.874	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 51.3
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	24	$\eta$ down (%)	100.0	CIBSE SHR MAX	0.75

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	1315	1275	1216	1183	1188	1221	1280	1326	0- 10	124.8	124.8	13.2,13.2
20	1051	977.6	822.9	730.6	736.7	792.2	932.2	1045	10- 20	303.4	428.2	45.5,45.5
30	562.5	476.6	335.2	263.5	260.9	307.0	424.1	546.3	20- 30	288.6	716.8	76.1,76.1
40	163.4	138.0	99.29	80.65	82.86	93.56	117.5	156.8	30- 40	142.2	858.9	91.2,91.2
50	52.12	47.49	34.79	26.71	29.30	35.94	44.13	50.81	40- 50	53.88	912.8	96.9,96.9
60	17.29	14.15	9.144	7.122	7.446	9.961	13.74	17.60	50- 60	21.39	934.2	99.2,99.2
70	4.151	3.113	2.026	1.549	1.477	2.055	3.263	4.241	60- 70	6.354	940.6	99.9,99.9
80	0.5061	0.3157	0.1098	0.0505	0.0326	0.1095	0.2588	0.5106	70- 80	1.229	941.8	100,100
90	0.0500	0.0481	0.0503	0.0505	0.0326	0.0306	0.0284	0.0351	80- 90	0.0823	941.9	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): 891.72 lm

%lum = 94.7%

%lamp = 94.7%

Conical surface Flux(120deg): 934.21 lm

%lum = 99.2%

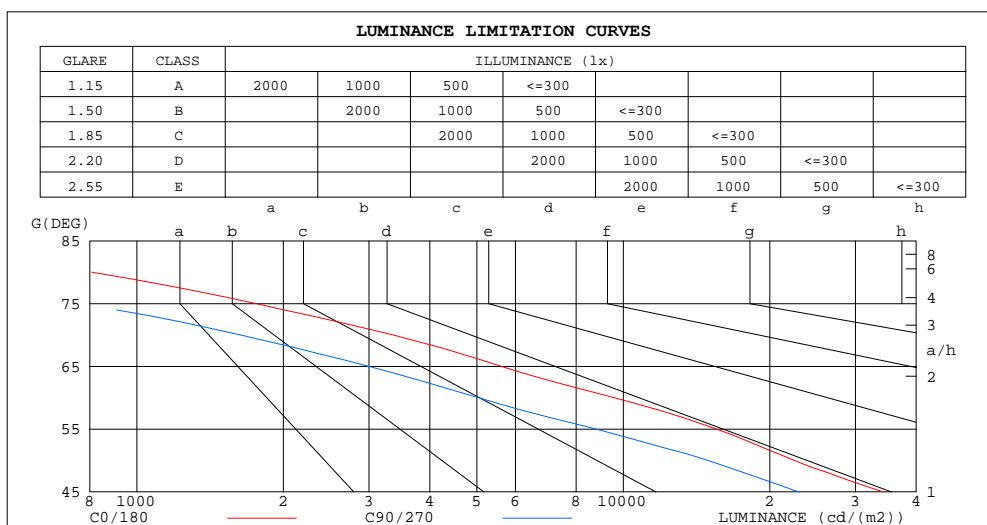
%lamp = 99.2%

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Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-09

$\gamma$  Range: 0 - 90DEG  
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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:0.4425A P:10.62W PF:1.000 Freq:0Hz Lamp Flux:941.874x1 lm		
NAME: TERARACE Maxi-10W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	188	180
80	807	174
75	1757	757
70	3363	1632
65	5608	2993
60	9581	5040
55	15536	8783
50	22467	14920
45	34215	22931

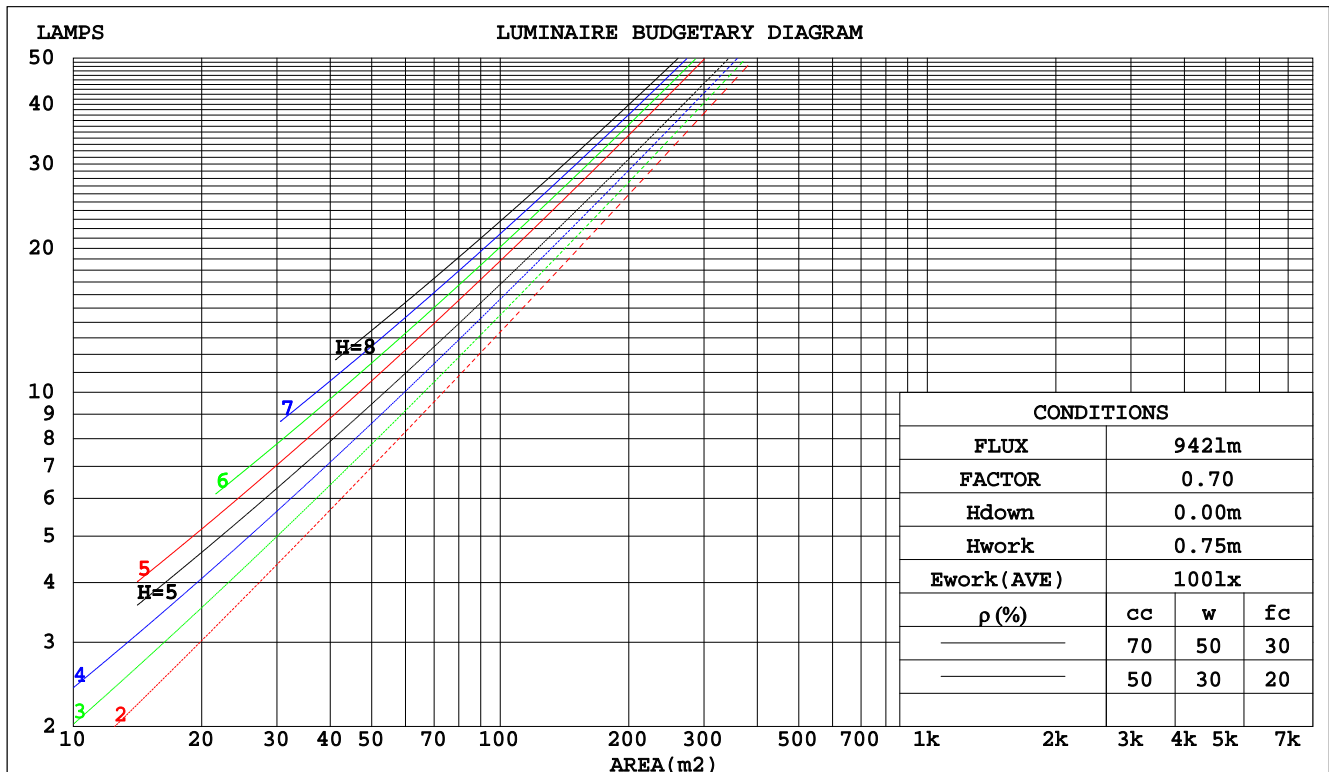
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**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

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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	1.06	1.09	1.07	1.05	1.05	1.03	1.01	1.01	.00	.98	.98	.97	.96	.94
2.0	1.04	.00	.96	1.02	.98	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.88
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.85	.88	.86	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.88	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.84	.79	.75	.83	.78	.75	.81	.77	.74	.79	.76	.73	.72
6.0	.80	.75	.71	.80	.74	.70	.78	.73	.70	.77	.73	.69	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.62	.68	.64	.61	.60
9.0	.68	.63	.59	.68	.62	.59	.67	.62	.59	.66	.62	.58	.65	.61	.58	.57
10.0	.65	.59	.56	.65	.59	.56	.64	.59	.55	.63	.58	.55	.62	.58	.55	.54



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## WEC AND CCEC

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SPEC.:3000K	DIM.: $\phi$ 68mm*H124mm	
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	.174	.099	.031	.167	.095	.030	.155	.089	.028	.143	.082	.026	.132	.077	.025		
2.0	.166	.091	.028	.161	.089	.027	.150	.083	.026	.140	.079	.025	.131	.074	.023		
3.0	.158	.084	.025	.153	.082	.025	.144	.078	.024	.136	.075	.023	.128	.071	.022		
4.0	.150	.078	.023	.146	.077	.023	.139	.073	.022	.131	.071	.021	.125	.068	.021		
5.0	.143	.073	.021	.140	.072	.021	.133	.069	.020	.127	.067	.020	.121	.064	.019		
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.122	.063	.019	.117	.061	.018		
7.0	.130	.064	.018	.127	.063	.018	.122	.062	.018	.117	.060	.018	.113	.059	.017		
8.0	.124	.061	.017	.122	.060	.017	.117	.059	.017	.113	.057	.017	.109	.056	.016		
9.0	.119	.058	.016	.117	.057	.016	.113	.056	.016	.109	.055	.016	.105	.053	.015		
10.0	.114	.055	.015	.112	.054	.015	.109	.053	.015	.105	.052	.015	.102	.051	.015		

$\rho_{cc}$	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	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.123	.098	.078	.084	.068	.055	.049	.040	.032	.016	.013	.011	
4.0	.133	.099	.073	.114	.085	.063	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.037	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

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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:0.4425A P:10.62W PF:1.000 Freq:0Hz Lamp Flux:941.874x1 lm										
NAME: TERARACE Maxi-10W-830-50					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: $\phi$ 68mm*H124mm					
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	20.9	21.8	21.1	22.0	22.1	18.7	19.6	18.9	19.8	19.9
3H	20.8	21.6	21.0	21.8	22.0	18.5	19.4	18.8	19.6	19.8
4H	20.7	21.5	21.0	21.7	21.9	18.5	19.3	18.7	19.5	19.7
6H	20.6	21.3	20.9	21.6	21.8	18.4	19.1	18.7	19.4	19.6
8H	20.6	21.3	20.9	21.5	21.8	18.3	19.0	18.6	19.3	19.6
12H	20.5	21.2	20.8	21.5	21.7	18.3	19.0	18.6	19.2	19.5
4H 2H	20.7	21.5	21.0	21.7	21.9	18.5	19.3	18.8	19.6	19.8
3H	20.6	21.3	20.9	21.5	21.8	18.4	19.1	18.7	19.4	19.6
4H	20.5	21.1	20.8	21.4	21.7	18.3	19.0	18.7	19.3	19.6
6H	20.4	20.9	20.8	21.3	21.6	18.2	18.8	18.6	19.1	19.5
8H	20.3	20.9	20.7	21.2	21.6	18.2	18.7	18.6	19.0	19.4
12H	20.3	20.8	20.7	21.1	21.5	18.1	18.6	18.5	19.0	19.4
8H 4H	20.3	20.9	20.7	21.2	21.6	18.2	18.7	18.6	19.1	19.4
6H	20.2	20.7	20.7	21.1	21.5	18.1	18.5	18.5	18.9	19.3
8H	20.2	20.6	20.6	21.0	21.4	18.0	18.4	18.5	18.8	19.3
12H	20.1	20.5	20.6	20.9	21.4	18.0	18.3	18.4	18.7	19.2
12H 4H	20.3	20.8	20.7	21.1	21.5	18.1	18.6	18.5	19.0	19.4
6H	20.2	20.6	20.6	21.0	21.4	18.0	18.4	18.5	18.8	19.3
8H	20.1	20.5	20.6	20.9	21.4	18.0	18.3	18.4	18.7	19.2
Variations with the observer position at spacings:										
S = 1.0H	+ 3.0 / - 5.2					+ 2.3 / - 6.1				
1.5H	+ 4.5 / - 3.8					+ 3.0 / - 3.5				
2.0H	+ 4.2 / - 5.4					+ 4.0 / - 5.5				

CIE Pub.117, 941.9 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -0.2$ )

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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	102	97	93	100	95	92	88
1.50	105	101	97	104	100	97	102	98	96	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	109	112	109	107	108	106	104	97
5.00	115	113	111	113	111	109	109	107	106	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

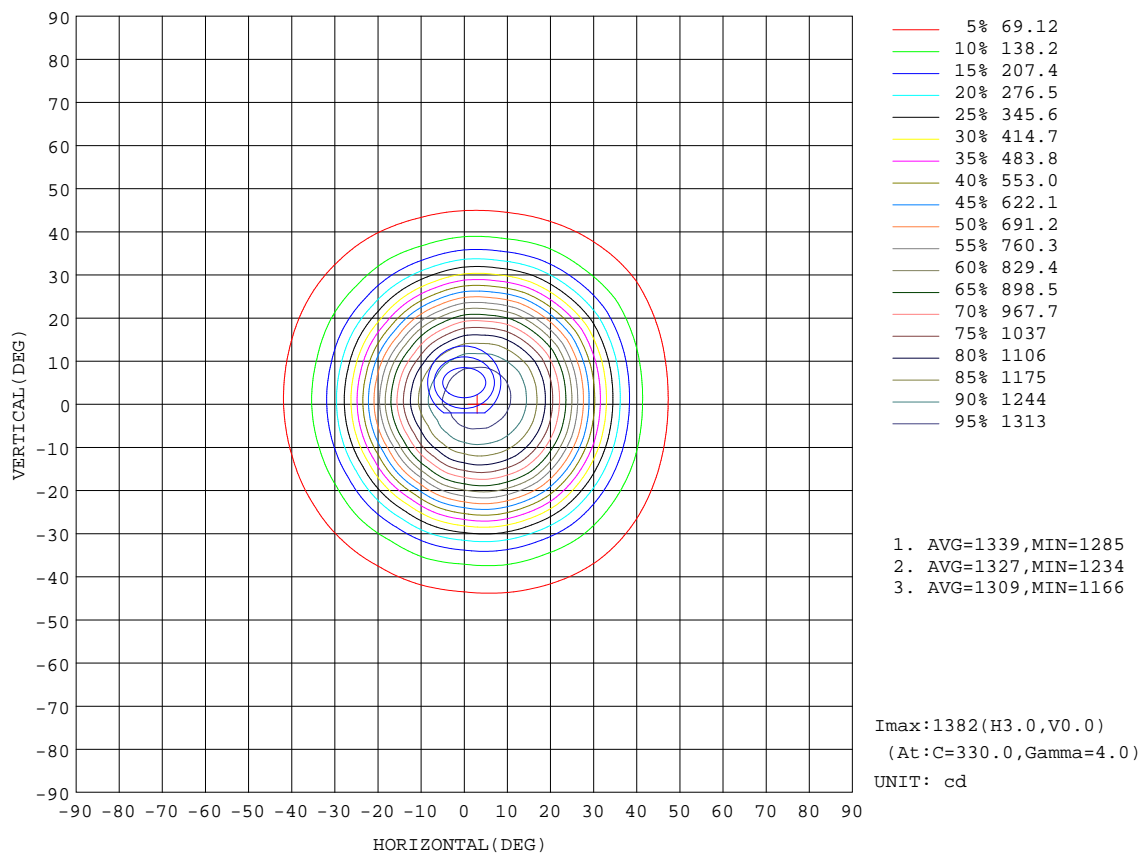
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ISOCANDELA DIAGRAM

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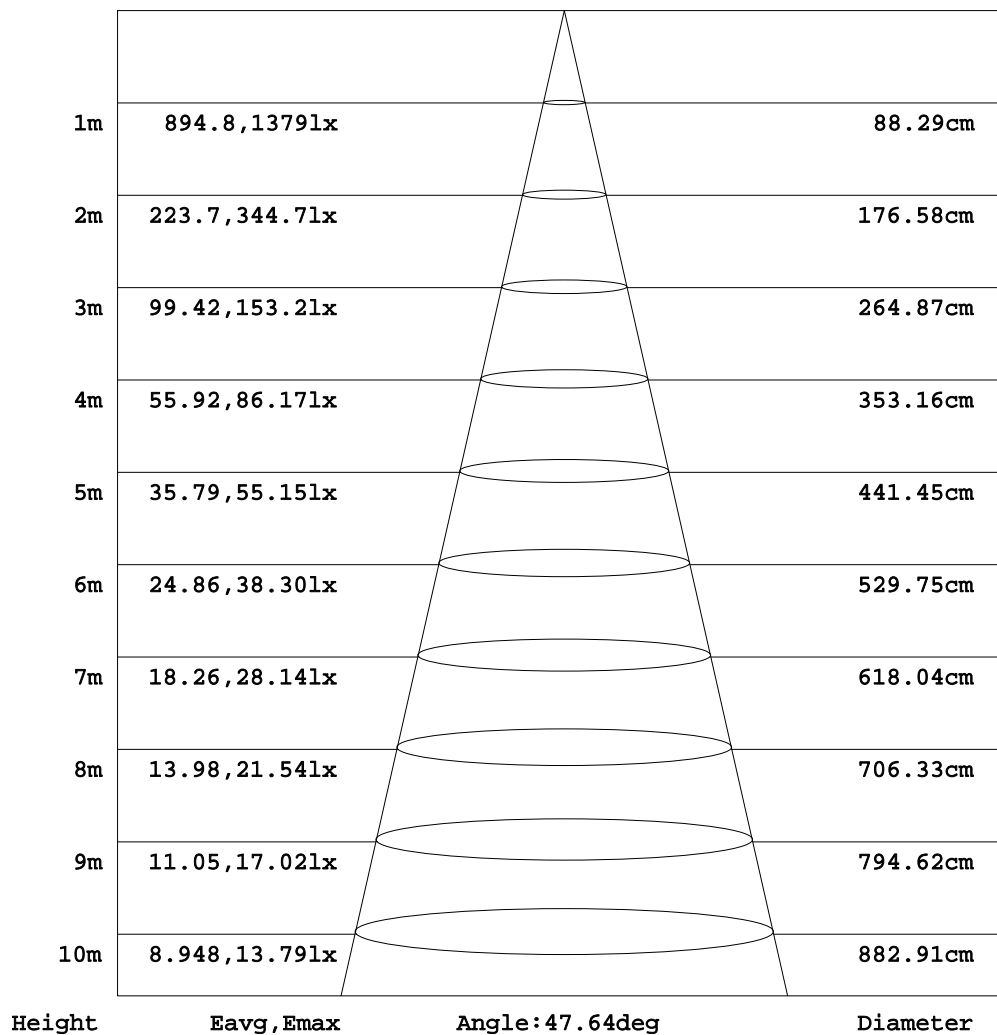
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**AAI Figure**

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Flux out:557.2 lm



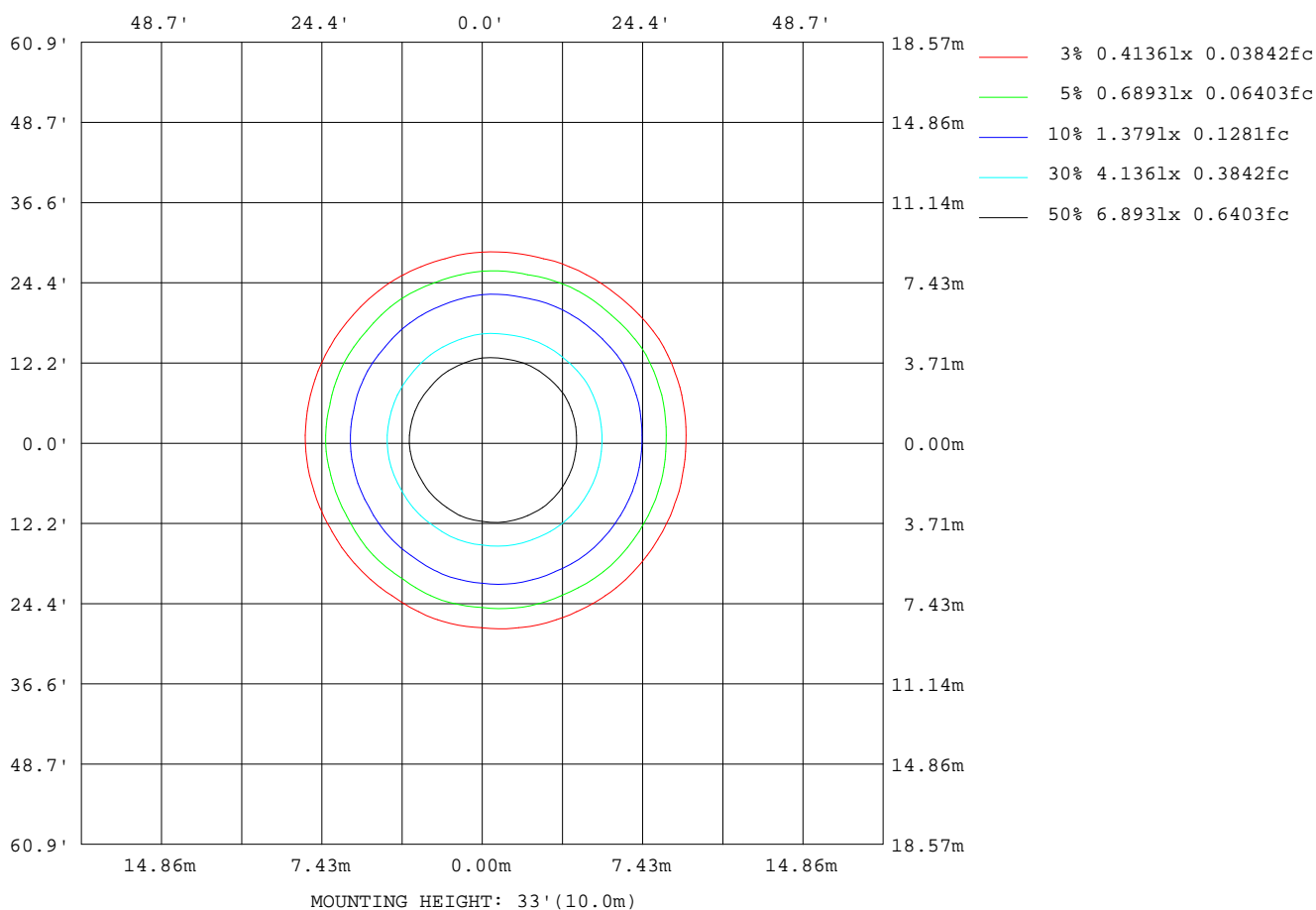
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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**ISOLUX DIAGRAM**

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Remarks:

### LED Avg.L Report

Test:U:24.00V I:0.4425A P:10.62W PF:1.000 Freq:0Hz Lamp Flux:941.874x1 lm		
NAME: TERARACE Maxi-10W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

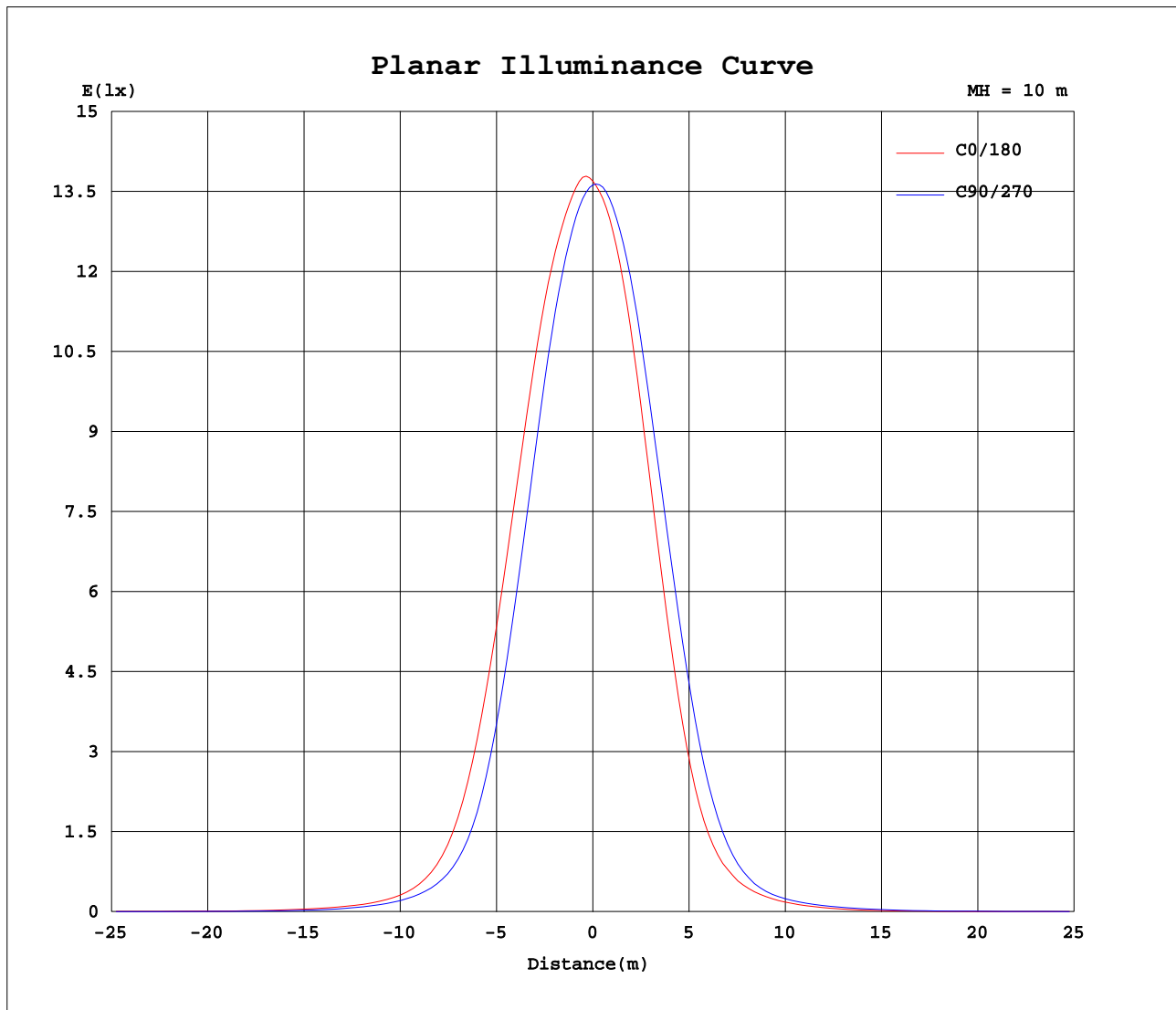
AvgL	cd/m2
L_0~180 (65) av	3960
L_0~180 (75) av	1096
L_0~180 (85) av	142
L_90~270 (65) av	3733
L_90~270 (75) av	1043
L_90~270 (85) av	138
L_45 (65) av	3936
L_45 (75) av	1072
L_45 (85) av	149

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-09

$\gamma$  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: Myles  
Test Date: 2019-04-09

$\gamma$  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:

```