

LED Recessed Ground Light TERARACE Maxi-10W-830-30



Light Output Ratio:	100.0%	
Luminaire Power:	10.68 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.55	fine grid method.

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

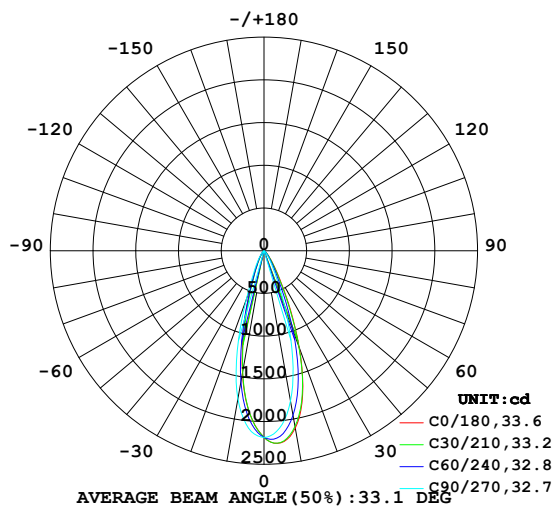
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

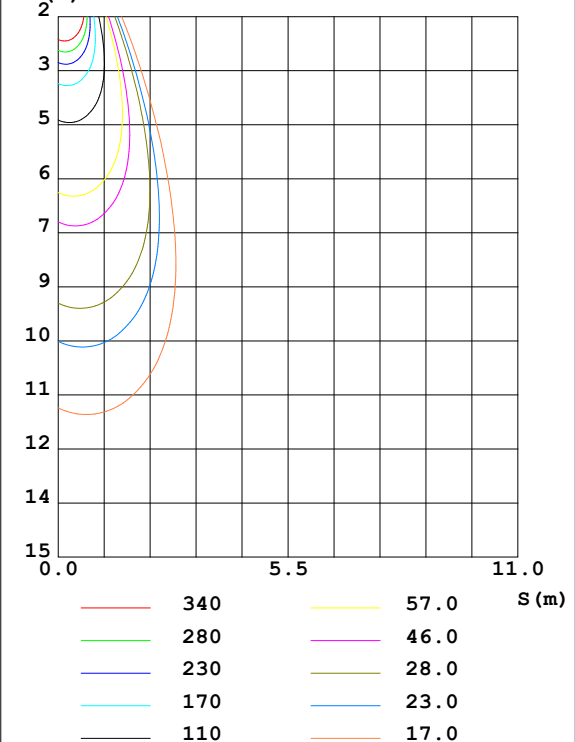
Test:U:24.00V I:0.4451A P:10.68W PF:1.000 Freq:0Hz Lamp Flux:837.689x1 lm		
NAME: TERARACE Maxi-10W-830-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 78.41 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	2306	S/MH (C0/180)	0.45
NOMINAL POWER (W)	11	LOR (%)	100.0	S/MH (C90/270)	0.50
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	837.69	η UP, DN (C0-180)	0.0, 52.0
NOMINAL FLUX (lm)	837.689	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	24	η down (%)	100.0	CIBSE SHR MAX	0.55

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	2107	2045	1788	1499	1456	1467	1760	2054	0- 10	189.0	189.0	22.6,22.6
20	1209	1130	739.5	483.9	453.0	407.1	612.4	1071	10- 20	347.4	536.4	64,64
30	335.1	273.6	169.8	124.1	118.5	115.4	160.3	282.3	20- 30	187.7	724.2	86.4,86.4
40	94.62	82.88	51.35	39.01	37.75	38.28	52.59	82.70	30- 40	70.17	794.3	94.8,94.8
50	31.00	26.90	17.77	13.81	12.71	12.92	18.23	27.56	40- 50	27.67	822.0	98.1,98.1
60	10.12	8.593	5.820	4.495	4.068	4.254	6.015	9.155	50- 60	10.83	832.8	99.4,99.4
70	3.150	2.529	1.610	1.122	0.9601	1.117	1.848	2.906	60- 70	3.808	836.7	99.9,99.9
80	0.6726	0.3856	0.1023	0.0368	0.0259	0.0356	0.1297	0.5229	70- 80	0.9502	837.6	100,100
90	0.0367	0.0353	0.0353	0.0368	0.0259	0.0265	0.0243	0.0260	80- 90	0.0833	837.7	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): 811.28 lm

%lum = 96.8%

%lamp = 96.8%

Conical surface Flux(120deg): 832.85 lm

%lum = 99.4%

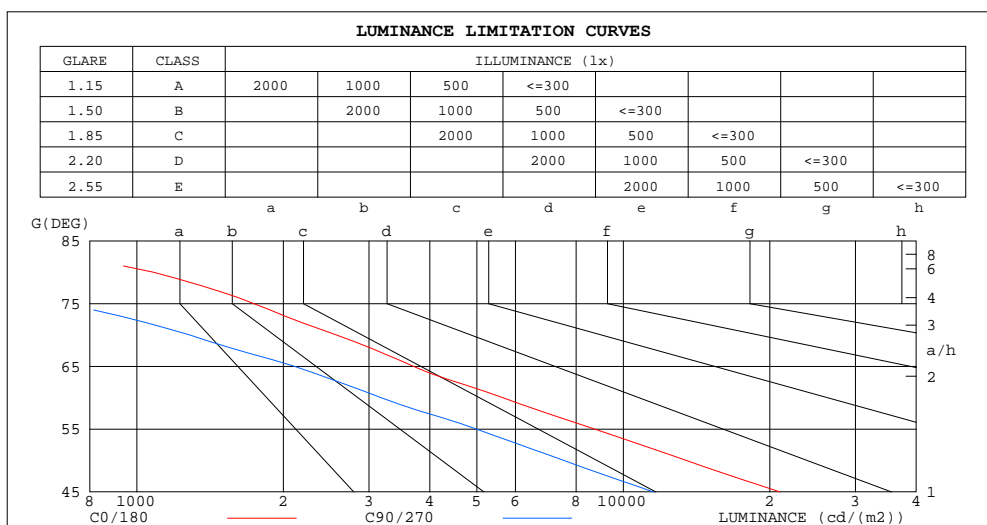
%lamp = 99.4%

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γ Range: 0 - 90DEG
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Humidity:56%
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Remarks:

LUMINANCE LIMITATION CURVES

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SPEC.:3000K	DIM.: ϕ 68mm*H124mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	354	118
80	1081	161
75	1739	702
70	2571	1284
65	3701	2107
60	5653	3175
55	8723	4988
50	13466	7542
45	20983	11528

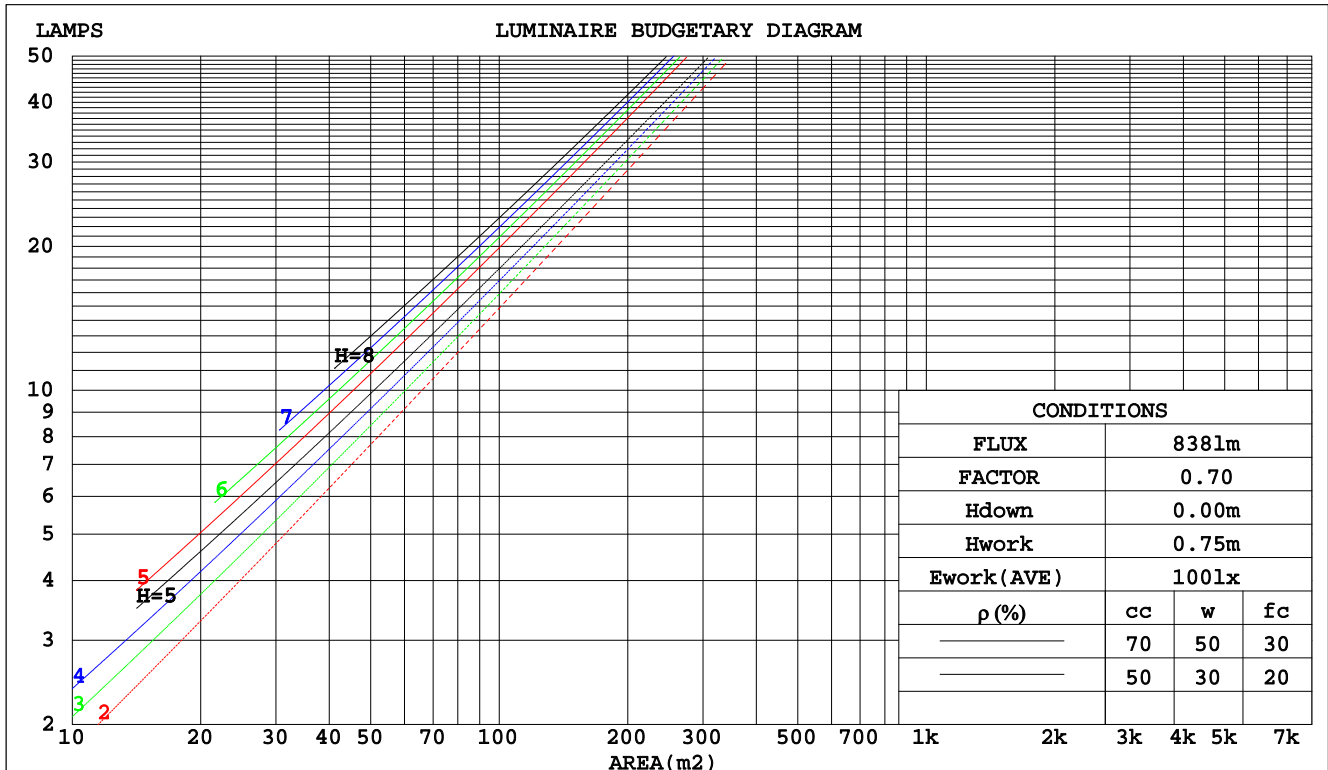
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	1.19	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	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.06	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.93	.92	.90
3.0	.00	.96	.92	.99	.95	.92	.96	.93	.90	.94	.91	.89	.92	.89	.87	.86
4.0	.95	.90	.87	.94	.89	.86	.92	.88	.85	.90	.87	.84	.88	.85	.83	.82
5.0	.90	.85	.82	.89	.85	.82	.88	.84	.81	.86	.83	.80	.85	.82	.79	.78
6.0	.86	.81	.78	.86	.81	.77	.84	.80	.77	.83	.79	.76	.82	.78	.76	.75
7.0	.83	.78	.74	.82	.77	.74	.81	.77	.74	.80	.76	.73	.79	.75	.73	.72
8.0	.79	.74	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.69
9.0	.76	.71	.68	.76	.71	.68	.75	.71	.68	.74	.70	.67	.73	.70	.67	.66
10.0	.73	.68	.65	.73	.68	.65	.72	.68	.65	.71	.68	.65	.71	.67	.65	.64



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WEC AND CCEC

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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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.156	.089	.028	.149	.085	.027	.137	.078	.025	.125	.072	.023	.114	.066	.021		
2.0	.147	.080	.025	.141	.078	.024	.131	.073	.023	.121	.068	.021	.112	.064	.020		
3.0	.138	.074	.022	.134	.072	.022	.125	.068	.021	.117	.064	.020	.109	.061	.019		
4.0	.131	.068	.020	.127	.066	.020	.119	.063	.019	.112	.060	.018	.106	.058	.018		
5.0	.124	.063	.018	.120	.062	.018	.114	.059	.017	.108	.057	.017	.102	.055	.016		
6.0	.118	.059	.017	.115	.058	.017	.109	.056	.016	.104	.054	.016	.099	.052	.015		
7.0	.112	.055	.016	.110	.055	.016	.105	.053	.015	.100	.051	.015	.096	.050	.015		
8.0	.107	.052	.015	.105	.052	.015	.100	.050	.014	.096	.049	.014	.093	.048	.014		
9.0	.102	.050	.014	.100	.049	.014	.097	.048	.014	.093	.047	.013	.090	.045	.013		
10.0	.098	.047	.013	.096	.047	.013	.093	.046	.013	.090	.045	.013	.087	.044	.013		

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						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	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016	
2.0	.153	.133	.116	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013	
3.0	.139	.113	.093	.119	.098	.081	.082	.068	.057	.047	.040	.033	.015	.013	.011	
4.0	.128	.098	.076	.110	.085	.066	.075	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.118	.086	.063	.101	.075	.055	.070	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.110	.077	.053	.094	.066	.046	.065	.046	.033	.038	.027	.019	.012	.009	.006	
7.0	.103	.069	.045	.088	.060	.039	.061	.042	.028	.035	.025	.017	.011	.008	.005	
8.0	.097	.062	.039	.083	.054	.034	.058	.038	.024	.033	.022	.014	.011	.007	.005	
9.0	.091	.057	.034	.079	.049	.029	.054	.035	.021	.032	.020	.012	.010	.007	.004	
10.0	.086	.052	.030	.074	.045	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004	

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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:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.4451A P:10.68W PF:1.000 Freq:0Hz Lamp Flux:837.689x1 lm										
NAME: TERARACE Maxi-10W-830-30					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 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	17.9	18.7	18.1	18.9	19.0	15.2	16.0	15.4	16.2	16.3
3H	17.9	18.6	18.1	18.8	19.0	15.1	15.9	15.4	16.1	16.2
4H	17.8	18.5	18.1	18.7	18.9	15.1	15.8	15.3	16.0	16.2
6H	17.7	18.4	18.0	18.6	18.9	15.0	15.6	15.3	15.9	16.1
8H	17.7	18.3	18.0	18.6	18.8	14.9	15.6	15.2	15.8	16.1
12H	17.6	18.2	18.0	18.5	18.8	14.9	15.5	15.2	15.8	16.0
4H 2H	17.8	18.4	18.0	18.7	18.9	15.2	15.8	15.4	16.1	16.3
3H	17.7	18.3	18.0	18.6	18.8	15.1	15.7	15.4	15.9	16.2
4H	17.6	18.2	18.0	18.5	18.8	15.0	15.5	15.3	15.8	16.1
6H	17.6	18.0	17.9	18.4	18.7	14.9	15.4	15.3	15.7	16.1
8H	17.5	18.0	17.9	18.3	18.7	14.9	15.3	15.2	15.7	16.0
12H	17.5	17.9	17.9	18.2	18.6	14.8	15.2	15.2	15.6	16.0
8H 4H	17.5	17.9	17.9	18.3	18.7	14.9	15.3	15.3	15.7	16.0
6H	17.4	17.8	17.8	18.2	18.6	14.8	15.1	15.2	15.5	15.9
8H	17.4	17.7	17.8	18.1	18.5	14.7	15.0	15.2	15.5	15.9
12H	17.3	17.6	17.8	18.0	18.5	14.7	14.9	15.1	15.4	15.8
12H 4H	17.4	17.9	17.8	18.2	18.6	14.8	15.2	15.2	15.6	16.0
6H	17.4	17.7	17.8	18.1	18.5	14.7	15.0	15.2	15.5	15.9
8H	17.3	17.6	17.8	18.0	18.5	14.7	14.9	15.1	15.4	15.8
Variations with the observer position at spacings:										
S = 1.0H	+ 2.6 / - 5.0					+ 2.2 / - 5.2				
1.5H	+ 4.0 / - 3.8					+ 3.0 / - 3.5				
2.0H	+ 4.3 / - 4.6					+ 3.6 / - 4.1				

CIE Pub.117, 837.7 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -0.6$)

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UTILIZATION FACTORS TABLE

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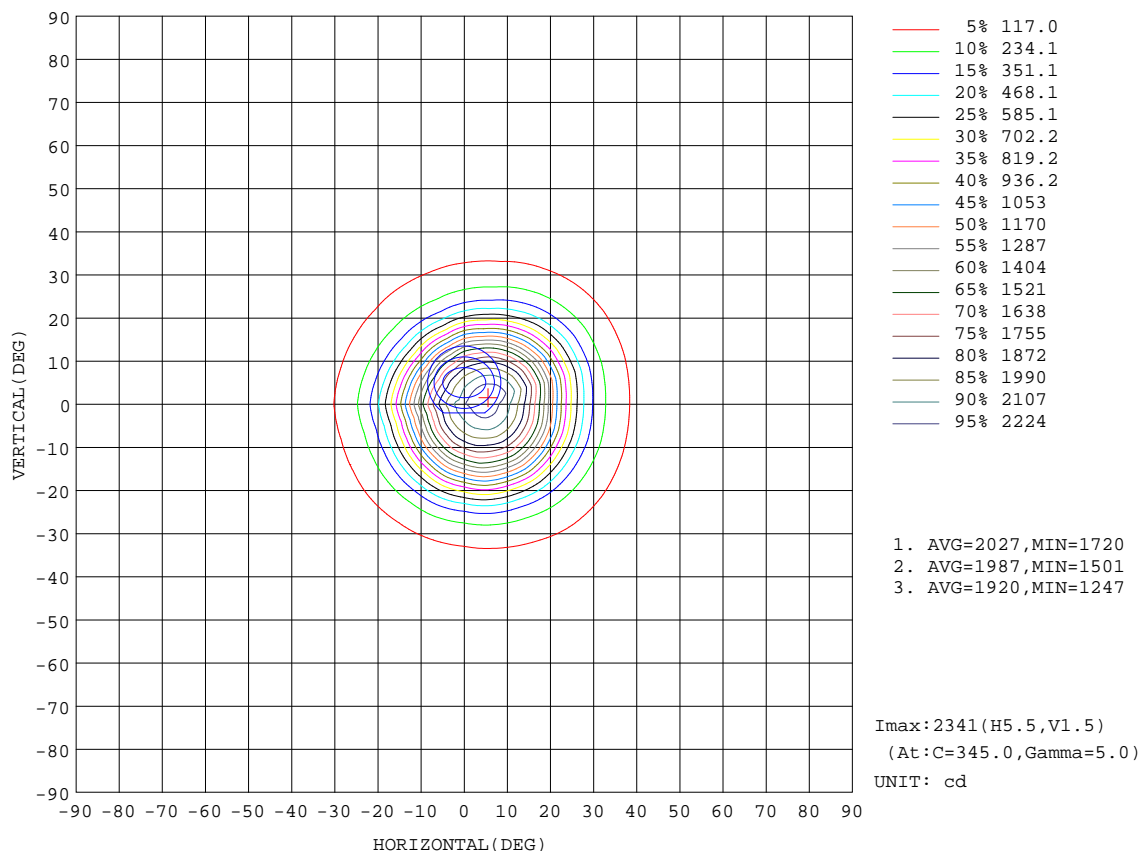
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	82	78	75
0.80	96	90	86	95	90	86	94	89	86	82
1.00	100	94	91	99	94	91	98	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	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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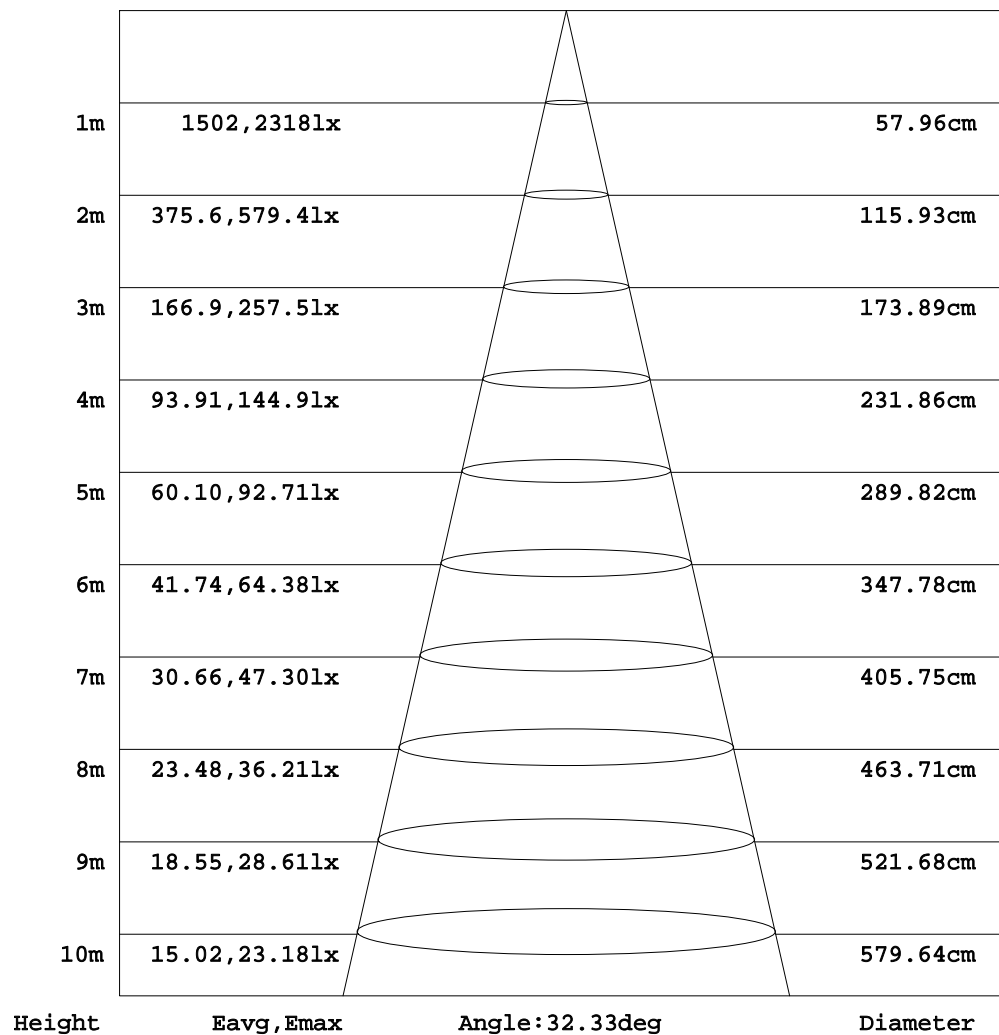
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AAI Figure

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Flux out:441.2 lm



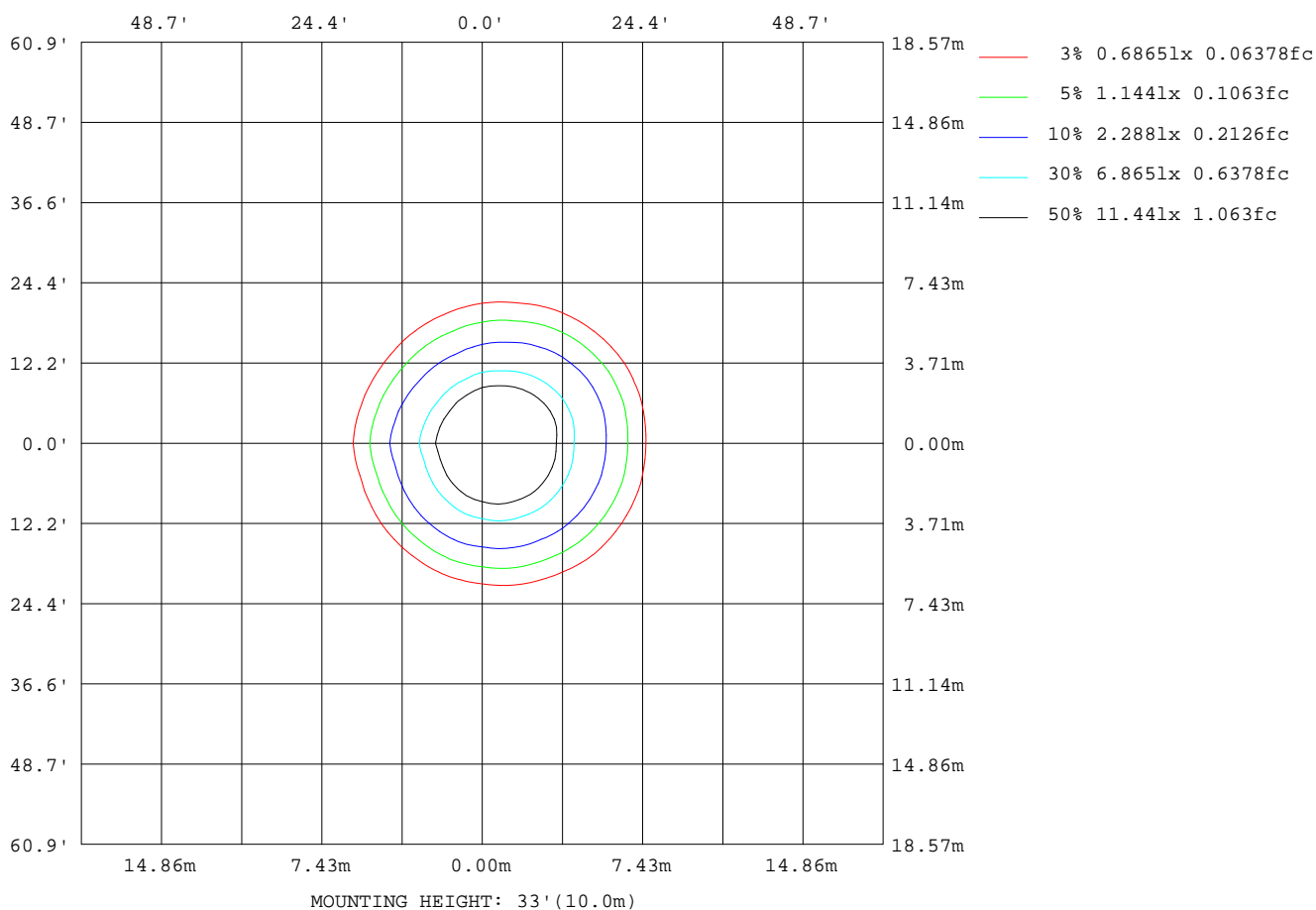
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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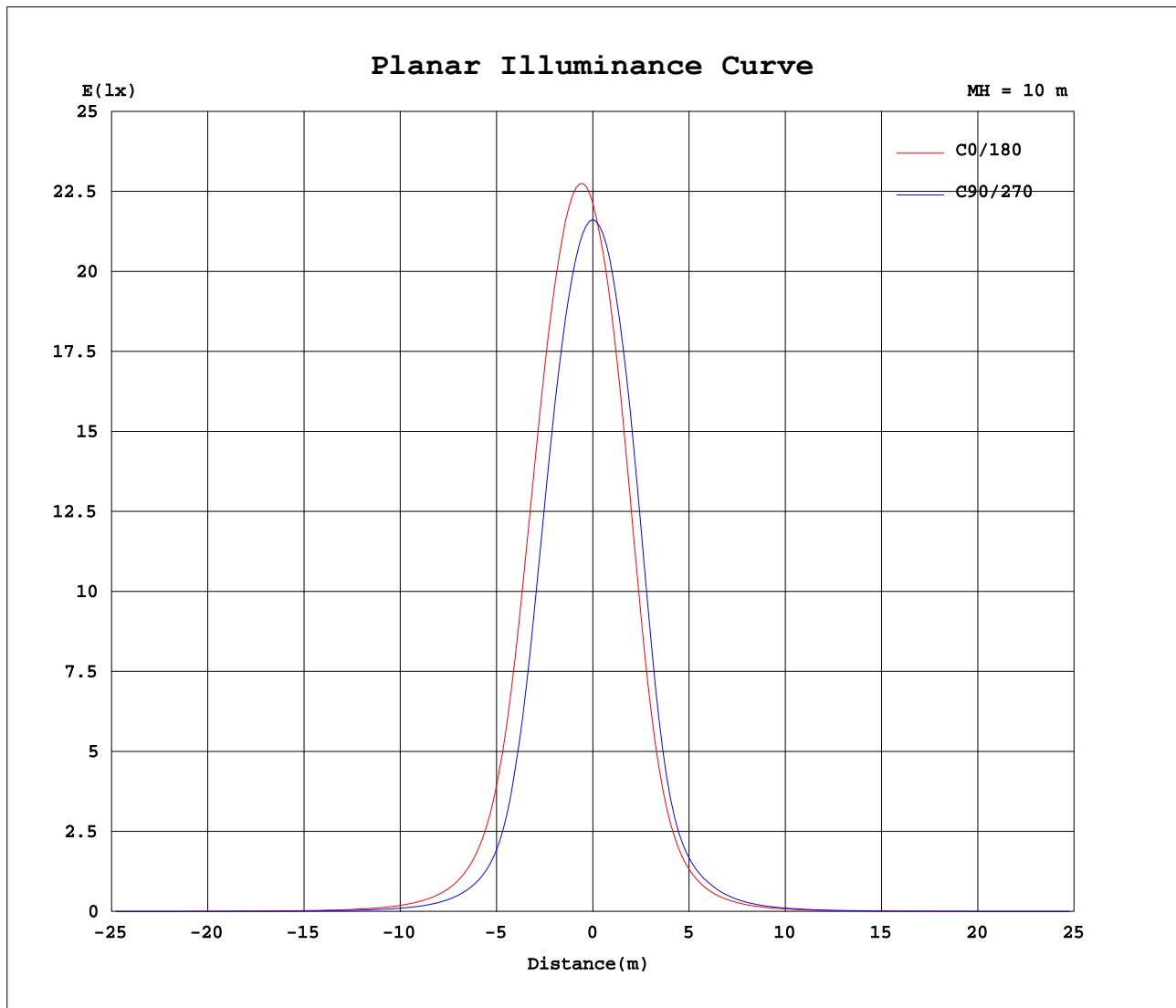
AvgL	cd/m2
L_0~180 (65) av	2520
L_0~180 (75) av	971
L_0~180 (85) av	216
L_90~270 (65) av	2210
L_90~270 (75) av	776
L_90~270 (85) av	98
L_45 (65) av	2385
L_45 (75) av	870
L_45 (85) av	125

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

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:

Planar Illuminance Curve



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:

```

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:

```