

LED Recessed Ground Light TERARACE Mini-5.5W-830-45



Light Output Ratio:	100.0%	
Luminaire Power:	5.568 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: Jason Long
Test Date: 2019-05-18

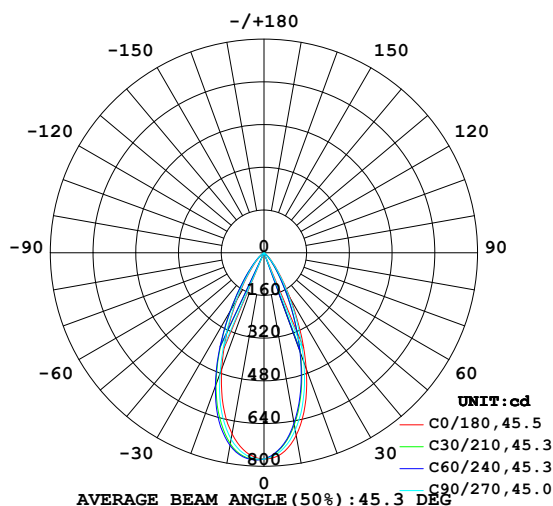
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 56%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

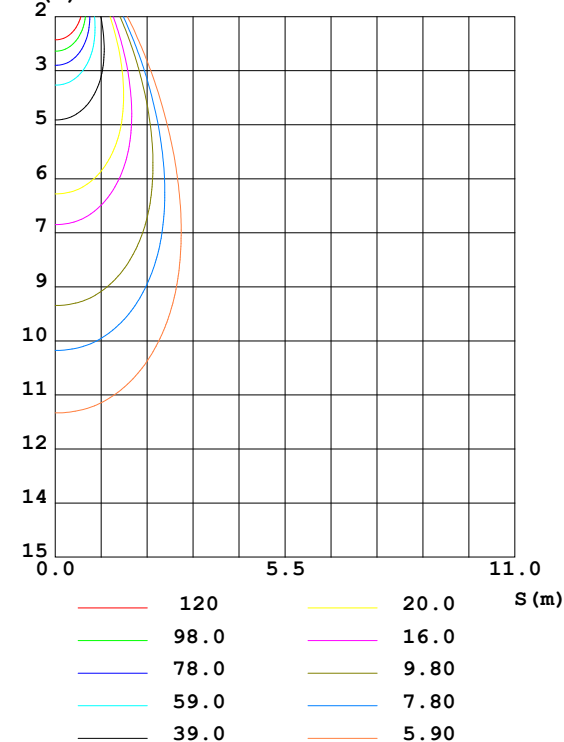
Test:U:24.00V I:0.2320A P:5.568W PF:1.000 Freq:0Hz Lamp Flux:491.042x1 lm		
NAME: TERARACE Mini-5.5W-830-45	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 40mm*H102mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 88.19 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	783.5	S/MH (C0/180)	0.72
NOMINAL POWER (W)	5.5	LOR (%)	100.0	S/MH (C90/270)	0.73
RATED VOLTAGE (V)	24	TOTAL FLUX (lm)	491.04	η UP, DN (C0-180)	0.0, 50.8
NOMINAL FLUX (lm)	491.042	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	24	η down (%)	100.0	CIBSE SHR MAX	0.75

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	694.8	648.7	674.4	731.4	688.8	731.6	709.4	648.1	0- 10	69.84	69.84	14.2,14.2
20	462.9	393.9	436.8	534.3	463.7	532.6	482.4	381.8	10- 20	162.5	232.4	47.3,47.3
30	195.7	153.5	185.4	265.5	202.9	257.2	211.4	144.8	20- 30	147.2	379.6	77.3,77.3
40	59.73	43.77	55.21	88.07	61.93	82.83	68.91	44.31	30- 40	75.42	455.0	92.7,92.7
50	13.80	9.754	12.84	23.03	14.95	21.17	17.36	9.846	40- 50	26.82	481.8	98.1,98.1
60	2.893	2.089	2.859	5.259	3.307	4.546	3.750	2.067	50- 60	7.118	488.9	99.6,99.6
70	0.5891	0.3511	0.5910	1.201	0.7221	1.050	0.7730	0.3532	60- 70	1.743	490.7	99.9,99.9
80	0.0777	0.0325	0.0728	0.1231	0.0622	0.1370	0.0701	0.0507	70- 80	0.3195	491.0	100,100
90	0.0280	0.0282	0.0286	0.0308	0.0151	0.0239	0.0176	0.0176	80- 90	0.0441	491.0	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): 472.36 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 488.94 lm

%lum = 99.6%

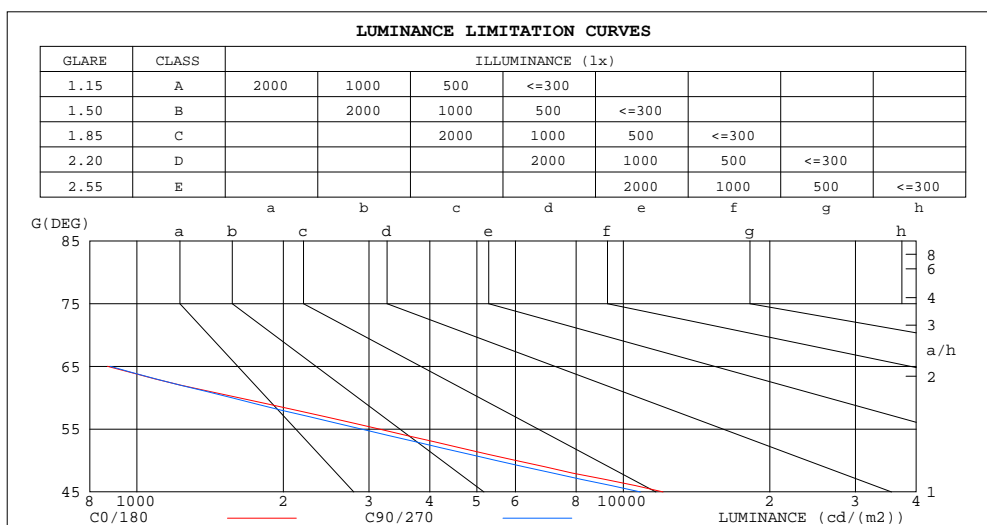
%lamp = 99.6%

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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:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.2320A P:5.568W PF:1.000 Freq:0Hz Lamp Flux:491.042x1 lm		
NAME: TERARACE Mini-5.5W-830-45	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 40\text{mm} \times \text{H}102\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	145	138
80	125	115
75	210	208
70	482	473
65	870	881
60	1619	1565
55	3150	2893
50	6007	5466
45	12071	10836

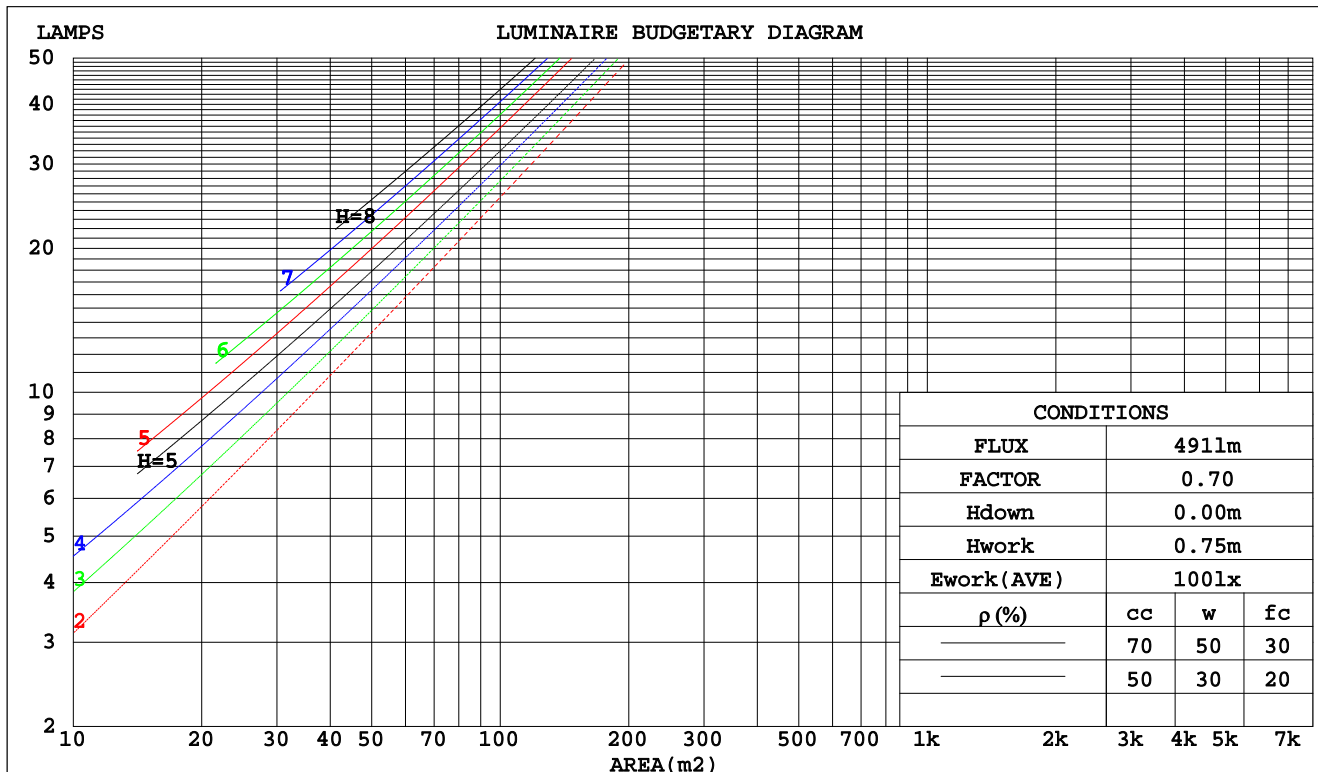
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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						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	.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.91	.90	.88
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.85	.89	.86	.84	.83
4.0	.91	.86	.82	.90	.86	.82	.88	.84	.81	.86	.83	.80	.84	.81	.79	.78
5.0	.86	.81	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.81	.76	.72	.81	.75	.71	.79	.74	.71	.78	.74	.71	.76	.73	.70	.69
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.65
8.0	.73	.67	.64	.72	.67	.63	.71	.67	.63	.70	.66	.63	.69	.66	.63	.61
9.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.66	.62	.59	.58
10.0	.66	.61	.57	.66	.60	.57	.65	.60	.57	.64	.60	.57	.63	.59	.56	.55



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WEC AND CCEC

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SPEC.:3000K	DIM.: ϕ 40mm*H102mm	
MFR.: NEKO LIGHTING AG		

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	.170	.097	.031	.163	.093	.030	.151	.087	.028	.139	.080	.026	.129	.075	.024		
2.0	.162	.089	.027	.157	.086	.027	.146	.081	.025	.137	.077	.024	.128	.072	.023		
3.0	.154	.082	.025	.150	.080	.024	.141	.076	.023	.133	.073	.022	.125	.069	.021		
4.0	.147	.076	.022	.143	.075	.022	.135	.072	.021	.128	.069	.021	.121	.066	.020		
5.0	.140	.071	.021	.136	.070	.020	.130	.068	.020	.123	.065	.019	.118	.063	.019		
6.0	.133	.067	.019	.130	.066	.019	.124	.064	.019	.119	.062	.018	.114	.060	.018		
7.0	.128	.063	.018	.125	.062	.018	.120	.060	.017	.115	.059	.017	.110	.057	.017		
8.0	.122	.060	.017	.120	.059	.017	.115	.057	.016	.111	.056	.016	.107	.055	.016		
9.0	.117	.057	.016	.115	.056	.016	.111	.055	.015	.107	.053	.015	.103	.052	.015		
10.0	.112	.054	.015	.110	.053	.015	.106	.052	.015	.103	.051	.015	.100	.050	.014		

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	.171	.157	.145	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.074	.113	.085	.064	.078	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.123	.087	.061	.105	.075	.053	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.115	.078	.051	.099	.067	.044	.068	.047	.031	.040	.028	.019	.013	.009	.006	
7.0	.108	.070	.043	.093	.061	.037	.064	.043	.027	.037	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.012	.007	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.080	.047	.024	.056	.033	.017	.032	.019	.010	.011	.006	.003	

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 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:0.2320A P:5.568W PF:1.000 Freq:0Hz Lamp Flux:491.042x1 lm										
NAME: TERARACE Mini-5.5W-830-45					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 40mm*H102mm					
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	17.6	18.5	17.8	18.6	18.8	16.5	17.4	16.8	17.6	17.8
3H	17.4	18.2	17.7	18.4	18.6	16.4	17.2	16.6	17.4	17.6
4H	17.3	18.1	17.6	18.3	18.6	16.3	17.1	16.6	17.3	17.5
6H	17.2	18.0	17.5	18.2	18.5	16.2	16.9	16.5	17.2	17.4
8H	17.2	17.9	17.5	18.2	18.4	16.2	16.9	16.5	17.1	17.4
12H	17.2	17.8	17.5	18.1	18.4	16.1	16.8	16.4	17.1	17.3
4H 2H	17.3	18.1	17.6	18.3	18.6	16.3	17.1	16.6	17.3	17.5
3H	17.2	17.8	17.5	18.1	18.4	16.1	16.8	16.5	17.1	17.4
4H	17.1	17.7	17.4	18.0	18.3	16.1	16.7	16.4	17.0	17.3
6H	17.0	17.5	17.4	17.8	18.2	16.0	16.5	16.3	16.8	17.2
8H	16.9	17.4	17.3	17.8	18.1	15.9	16.4	16.3	16.8	17.1
12H	16.9	17.3	17.3	17.7	18.1	15.9	16.3	16.3	16.7	17.1
8H 4H	16.9	17.4	17.3	17.8	18.1	15.9	16.4	16.3	16.8	17.1
6H	16.8	17.2	17.3	17.6	18.0	15.8	16.2	16.2	16.6	17.0
8H	16.8	17.1	17.2	17.5	18.0	15.7	16.1	16.2	16.5	17.0
12H	16.7	17.0	17.2	17.5	17.9	15.7	16.0	16.2	16.4	16.9
12H 4H	16.9	17.3	17.3	17.7	18.1	15.9	16.3	16.3	16.7	17.1
6H	16.8	17.1	17.2	17.5	18.0	15.7	16.1	16.2	16.5	17.0
8H	16.7	17.0	17.2	17.5	17.9	15.7	16.0	16.2	16.4	16.9
Variations with the observer position at spacings:										
S = 1.0H	+ 3.5 / - 9.5					+ 3.8 / - 9.7				
1.5H	+ 5.2 / - 8.7					+ 5.6 / - 8.1				
2.0H	+ 6.4 / - 9.9					+ 6.9 / - 8.7				

CIE Pub.117, 491.0 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -2.5$)

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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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Humidity:56%
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Remarks:

UTILIZATION FACTORS TABLE

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SPEC.:3000K	DIM.: $\varnothing 40\text{mm} \times H102\text{mm}$	
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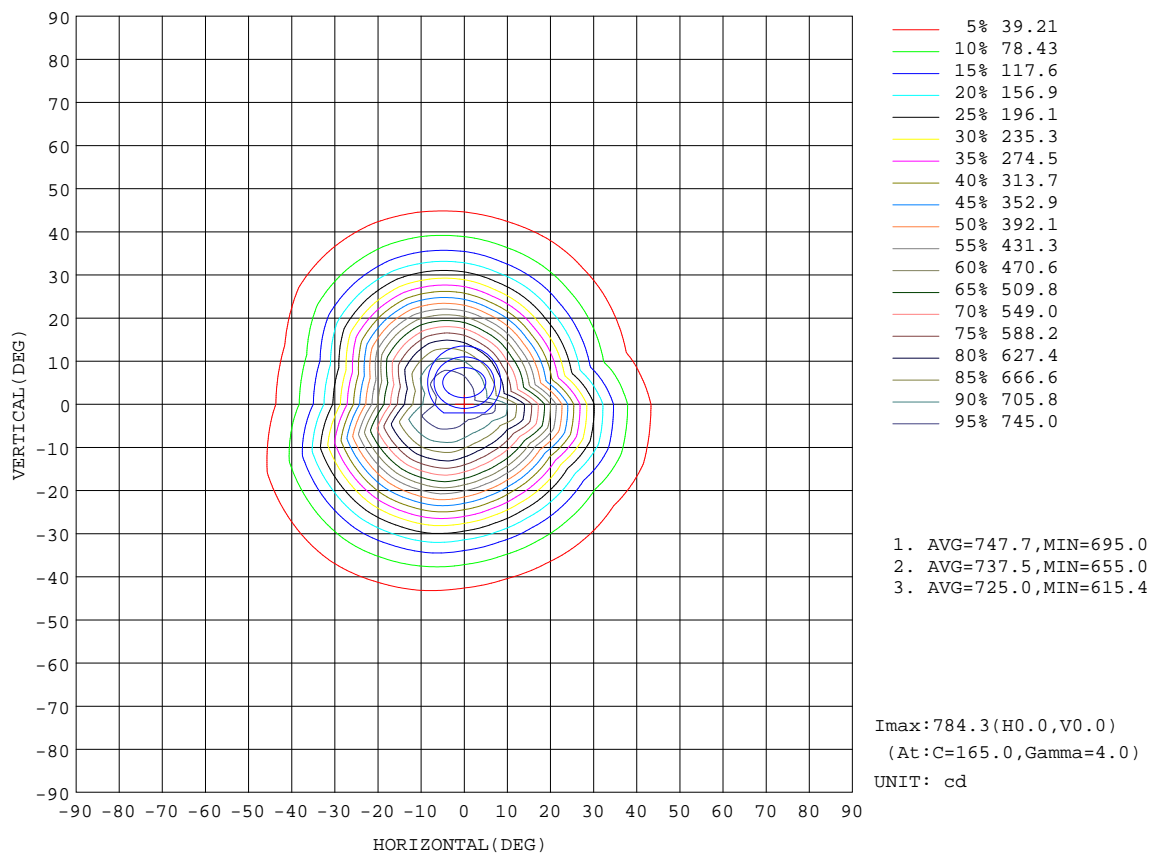
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	77	86	80	76	73
0.80	94	89	85	94	88	85	93	88	84	81
1.00	99	93	90	98	93	90	97	93	89	85
1.25	103	98	95	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	109	104	101	107	103	101	104	101	99	94
2.50	110	106	104	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	107	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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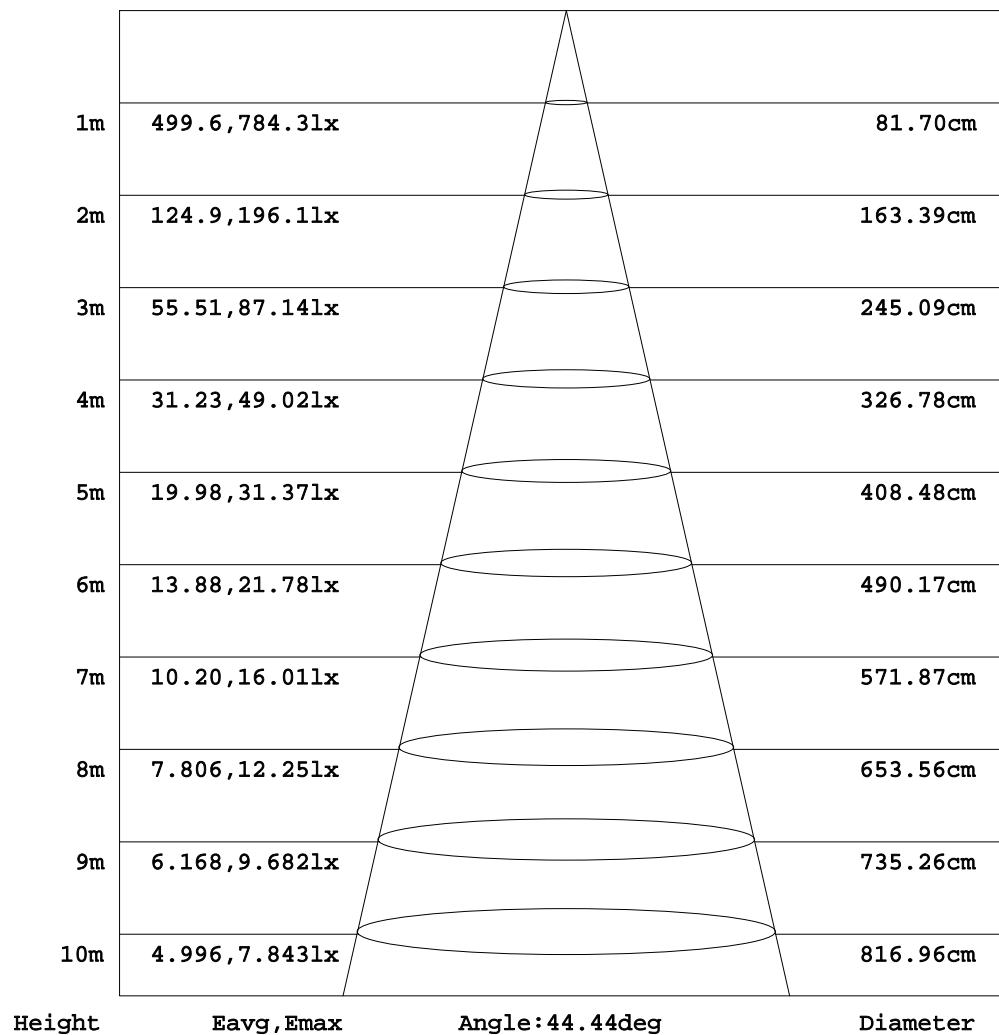
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AAI Figure

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Flux out:282.8 lm



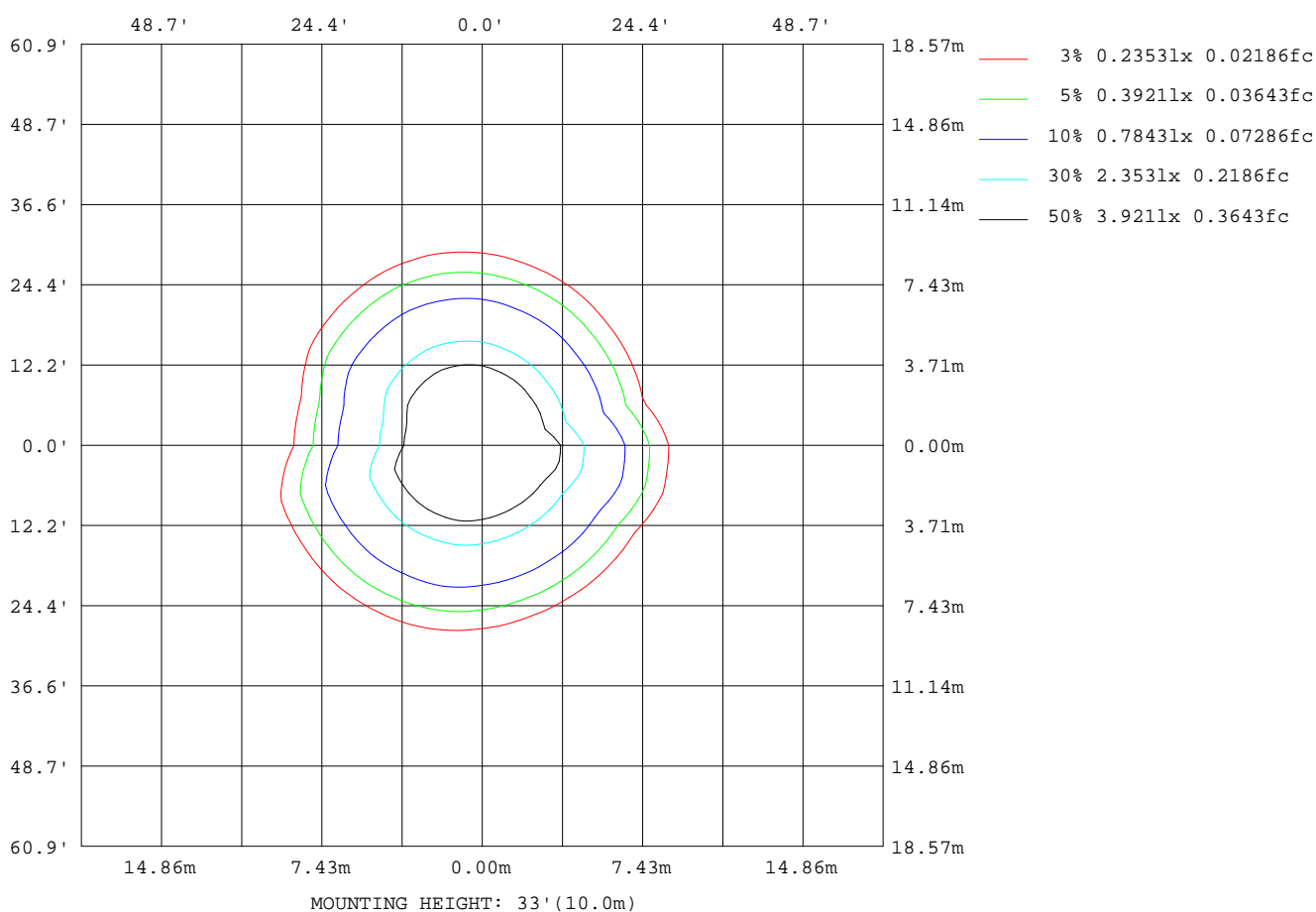
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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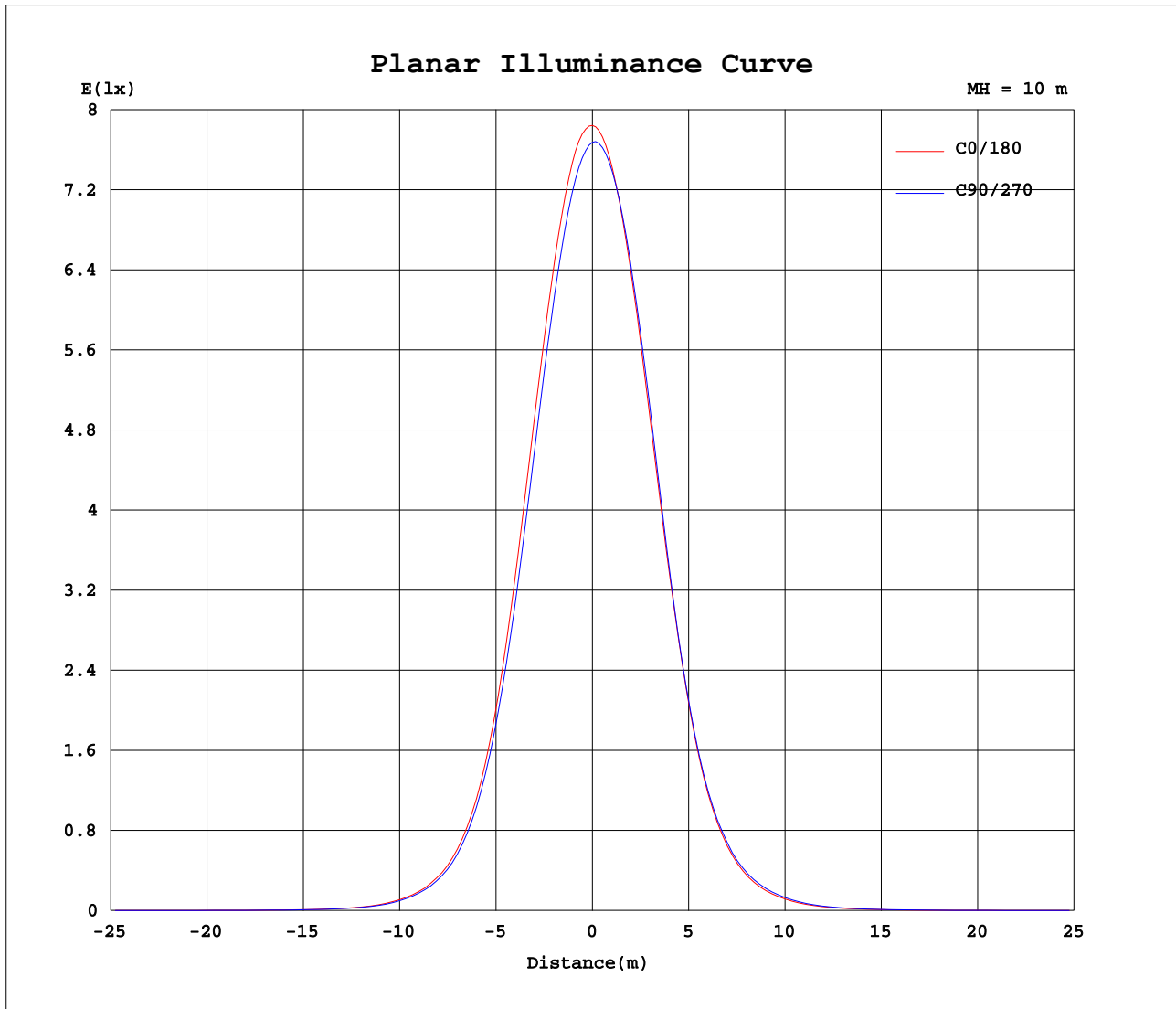
AvgL	cd/m2
L_0~180 (65) av	951
L_0~180 (75) av	222
L_0~180 (85) av	109
L_90~270 (65) av	1024
L_90~270 (75) av	234
L_90~270 (85) av	111
L_45 (65) av	1085
L_45 (75) av	285
L_45 (85) av	111

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Long
Test Date:2019-05-18

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: Jason Long
Test Date: 2019-05-18

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:

```