

LED Downlight Start Series T75-11W-840-25



Light Output Ratio:	100.0%	
Luminaire Power:	13.22 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

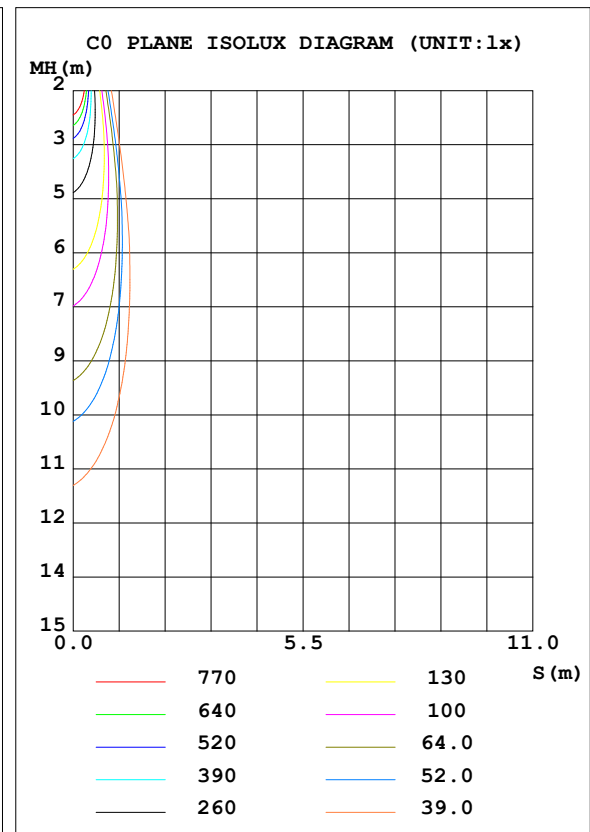
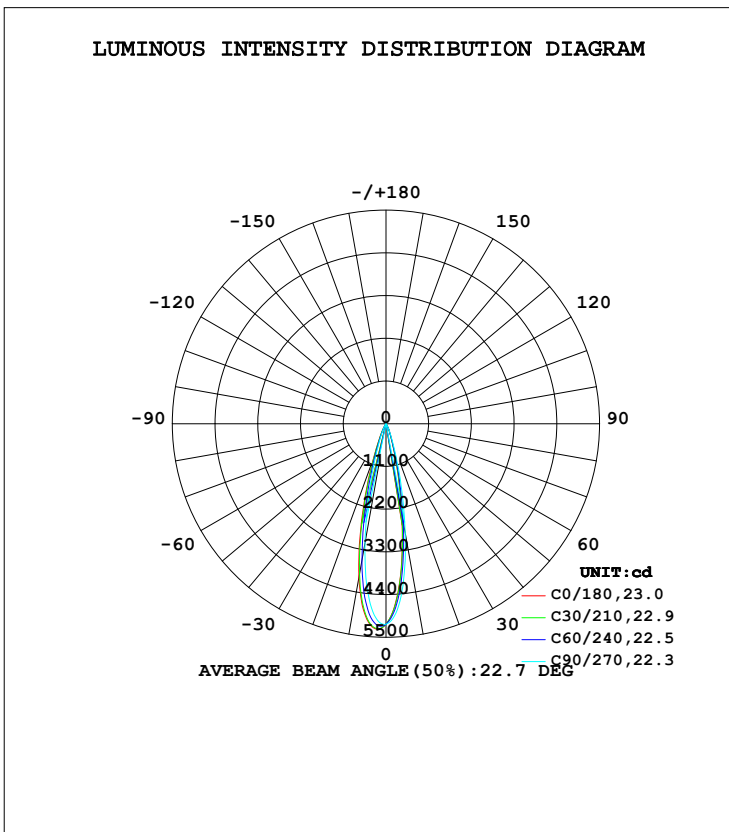
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jason
 Test Date: 2021-03-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 8.967m [K=1.0000]
 Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.2V I:0.0673A P:13.22W PF:0.8684 Freq:49.90Hz Lamp Flux:971.084x1 lm		
NAME: T75-11W-840-25	TYPE:Downlight	SERIAL No.:
SPEC.:4000K	DIM.: φ85mm*H75mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.43 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	5293	S/MH (C0/180)	0.45
NOMINAL POWER (W)	13	LOR (%)	100.0	S/MH (C90/270)	0.39
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	971.08	η UP, DN (C0-180)	0.0, 48.0
NOMINAL FLUX (lm)	971.084	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00



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ZONAL FLUX DIAGRAM

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γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2326	2505	2862	3541	4018	3696	3121	2533	0- 10	387.9	387.9	39.9,39.9
20	390.5	412.6	496.6	734.4	948.1	757.9	558.2	424.9	10- 20	421.6	809.5	83.4,83.4
30	73.50	85.91	100.3	126.7	148.5	109.7	92.56	77.48	20- 30	121.7	931.2	95.9,95.9
40	14.27	16.80	21.07	24.35	24.32	21.06	18.32	14.75	30- 40	28.16	959.4	98.8,98.8
50	3.804	4.052	4.475	4.826	4.824	4.253	4.066	3.701	40- 50	7.201	966.6	99.5,99.5
60	1.645	1.690	1.899	2.018	2.024	1.901	1.744	1.659	50- 60	2.536	969.1	99.8,99.8
70	0.7334	0.7300	0.8579	0.9144	0.9257	0.8772	0.7364	0.7327	60- 70	1.254	970.4	99.9,99.9
80	0.2777	0.2294	0.3139	0.3242	0.3293	0.3292	0.2403	0.2671	70- 80	0.5474	970.9	100,100
90	0.0419	0.0417	0.0575	0.0575	0.0681	0.0626	0.0418	0.0418	80- 90	0.1628	971.1	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): 964.1 lm

%lum = 99.3%
%lamp = 99.3%

Conical surface Flux(120deg): 969.12 lm

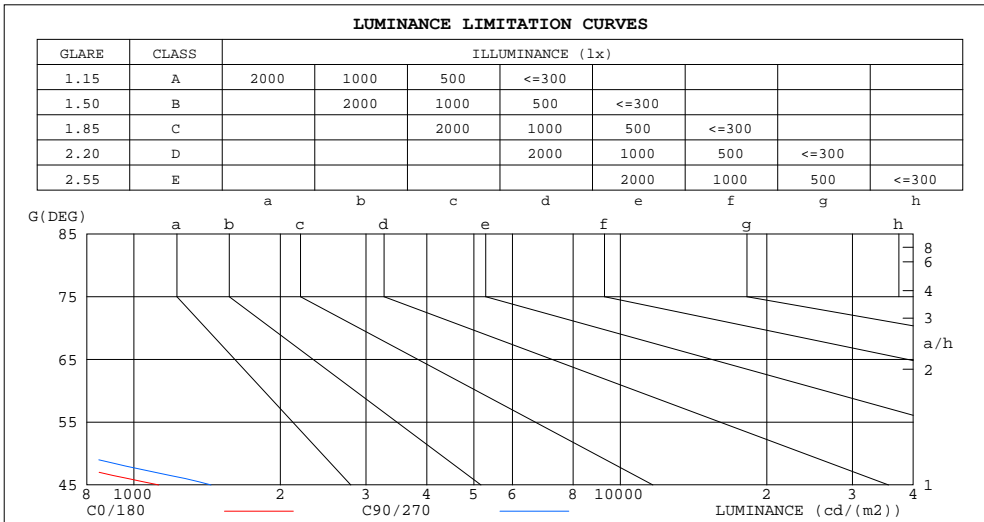
%lum = 99.8%
%lamp = 99.8%

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LUMINANCE LIMITATION CURVES

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SPEC.:4000K	DIM.: φ85mm*H75mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	158	197
80	174	197
75	194	223
70	234	274
65	288	337
60	359	415
55	483	597
50	645	760
45	1124	1440

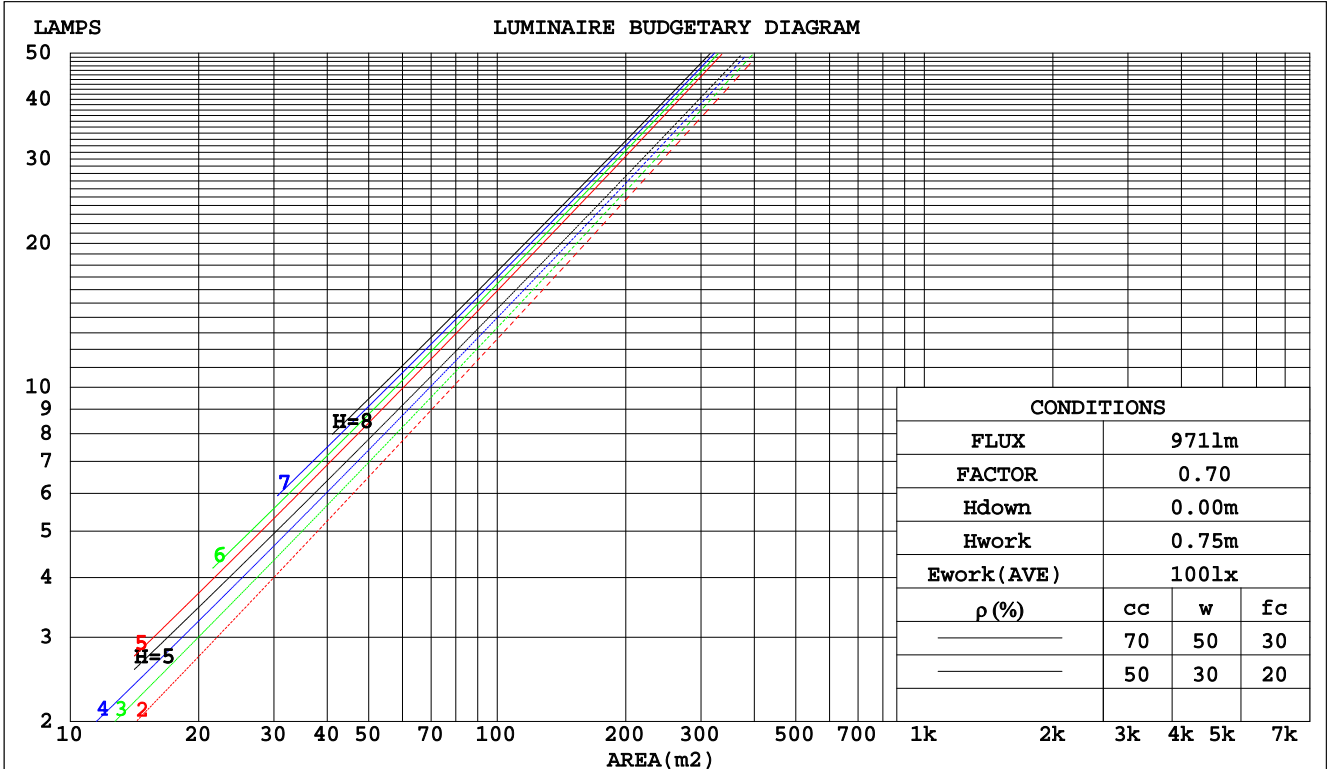
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																0
ρfc	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	1.13	1.11	1.10	1.11	1.09	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.99	.97
2.0	1.08	1.05	1.03	1.06	1.04	1.02	1.03	1.01	.99	1.00	.99	.97	.98	.97	.95	.94
3.0	1.04	1.00	.98	1.02	.99	.97	.97	.94	.95	.98	.96	.94	.96	.94	.92	.91
4.0	.97	.96	.93	.99	.95	.93	.97	.94	.92	.95	.93	.91	.93	.91	.90	.89
5.0	.97	.93	.90	.96	.92	.89	.94	.91	.89	.93	.90	.88	.91	.89	.87	.86
6.0	.93	.90	.87	.93	.89	.86	.92	.88	.86	.90	.87	.85	.89	.87	.85	.84
7.0	.91	.87	.84	.90	.86	.84	.89	.86	.83	.88	.85	.83	.87	.85	.83	.82
8.0	.88	.84	.82	.88	.84	.81	.87	.83	.81	.86	.83	.81	.85	.83	.81	.80
9.0	.86	.82	.79	.85	.82	.79	.85	.81	.79	.84	.81	.79	.83	.81	.79	.78
10.0	.84	.80	.77	.83	.80	.77	.83	.79	.77	.82	.79	.77	.81	.79	.77	.76



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WEC AND CCEC

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ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.133	.075	.024	.126	.072	.023	.114	.065	.021	.102	.059	.019	.092	.053	.017	
2.0	.122	.067	.021	.117	.064	.020	.107	.059	.018	.098	.055	.017	.089	.050	.016	
3.0	.114	.061	.018	.109	.059	.018	.101	.055	.017	.093	.051	.016	.086	.047	.015	
4.0	.106	.055	.016	.103	.054	.016	.095	.051	.015	.089	.048	.014	.083	.045	.014	
5.0	.100	.051	.015	.097	.050	.014	.091	.047	.014	.085	.045	.013	.080	.043	.013	
6.0	.094	.047	.014	.092	.046	.013	.086	.044	.013	.082	.042	.012	.077	.041	.012	
7.0	.090	.044	.013	.087	.043	.012	.083	.042	.012	.078	.040	.012	.074	.039	.011	
8.0	.085	.042	.012	.083	.041	.012	.079	.040	.011	.076	.038	.011	.072	.037	.011	
9.0	.081	.039	.011	.080	.039	.011	.076	.038	.011	.073	.036	.010	.070	.035	.010	
10.0	.078	.037	.010	.076	.037	.010	.073	.036	.010	.070	.035	.010	.068	.034	.010	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.168	.158	.148	.144	.135	.128	.098	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.128	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.134	.113	.096	.115	.098	.084	.079	.068	.059	.046	.040	.035	.015	.013	.011	
4.0	.122	.098	.080	.104	.085	.069	.072	.059	.049	.042	.034	.029	.013	.011	.009	
5.0	.111	.085	.067	.095	.074	.058	.066	.052	.041	.038	.030	.024	.012	.010	.008	
6.0	.102	.075	.056	.088	.065	.049	.060	.046	.035	.035	.027	.021	.011	.009	.007	
7.0	.094	.067	.048	.081	.058	.042	.056	.041	.030	.033	.024	.018	.011	.008	.006	
8.0	.088	.060	.042	.075	.052	.036	.052	.037	.026	.030	.022	.015	.010	.007	.005	
9.0	.082	.055	.036	.070	.047	.032	.049	.033	.022	.028	.020	.013	.009	.006	.004	
10.0	.077	.050	.032	.066	.043	.028	.046	.030	.020	.027	.018	.012	.009	.006	.004	

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γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.2V I:0.0673A P:13.22W PF:0.8684 Freq:49.90Hz Lamp Flux:971.084x1 lm		
NAME: T75-11W-840-25	TYPE:Downlight	SERIAL No.:
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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	1.6	2.2	1.8	2.4	2.5	2.9	3.5	3.1	3.7	3.8
3H	1.6	2.2	1.8	2.4	2.6	2.9	3.5	3.1	3.7	3.8
4H	1.6	2.1	1.8	2.3	2.6	2.9	3.4	3.1	3.6	3.8
6H	1.5	2.1	1.8	2.3	2.5	2.8	3.3	3.1	3.6	3.8
8H	1.5	2.0	1.8	2.3	2.5	2.8	3.3	3.1	3.5	3.8
12H	1.5	2.0	1.8	2.2	2.5	2.8	3.3	3.1	3.5	3.8
4H 2H	1.5	2.1	1.8	2.3	2.5	2.8	3.3	3.0	3.5	3.7
3H	1.5	2.0	1.8	2.3	2.5	2.8	3.3	3.1	3.5	3.8
4H	1.5	2.0	1.9	2.3	2.6	2.7	3.2	3.1	3.5	3.8
6H	1.5	1.9	1.8	2.2	2.5	2.7	3.1	3.1	3.4	3.8
8H	1.5	1.8	1.8	2.2	2.5	2.7	3.0	3.1	3.4	3.7
12H	1.4	1.8	1.8	2.1	2.5	2.6	3.0	3.0	3.3	3.7
8H 4H	1.4	1.8	1.8	2.1	2.5	2.6	3.0	3.0	3.3	3.7
6H	1.4	1.7	1.8	2.1	2.5	2.6	2.9	3.0	3.3	3.7
8H	1.4	1.6	1.8	2.1	2.5	2.6	2.8	3.0	3.3	3.7
12H	1.3	1.6	1.8	2.0	2.5	2.5	2.8	3.0	3.2	3.7
12H 4H	1.4	1.7	1.8	2.1	2.5	2.6	2.9	3.0	3.3	3.7
6H	1.3	1.6	1.8	2.0	2.5	2.5	2.8	3.0	3.2	3.7
8H	1.3	1.6	1.8	2.0	2.5	2.5	2.8	3.0	3.2	3.7
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / - 4.5					+ 3.2 / - 5.0				
1.5H	+ 4.6 / - 3.8					+ 5.3 / - 4.3				
2.0H	+ 3.4 / - 1.9					+ 4.2 / - 2.3				

CIE Pub.117, 971.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.1)

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UTILIZATION FACTORS TABLE

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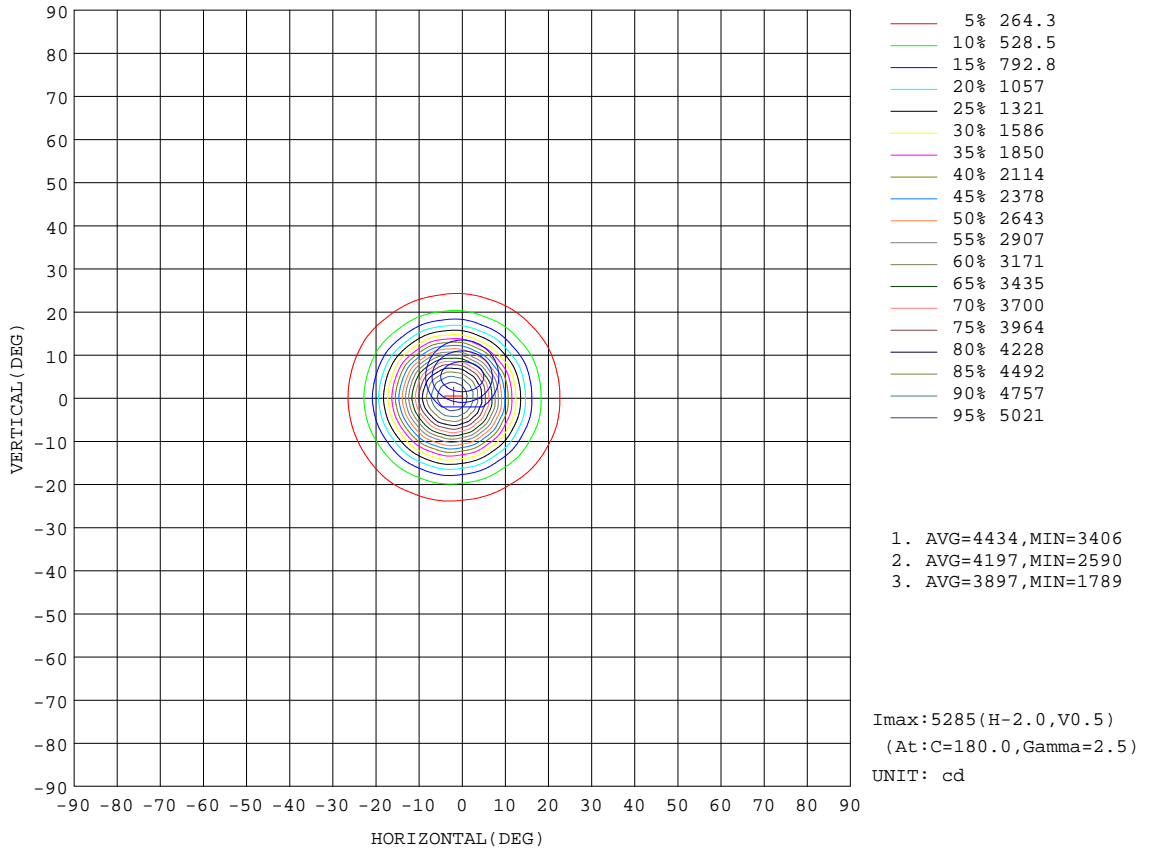
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	85	82	90	85	82	90	85	81	78
0.80	98	93	89	97	92	89	96	92	89	85
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	100	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	105	104	98
4.00	114	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	100
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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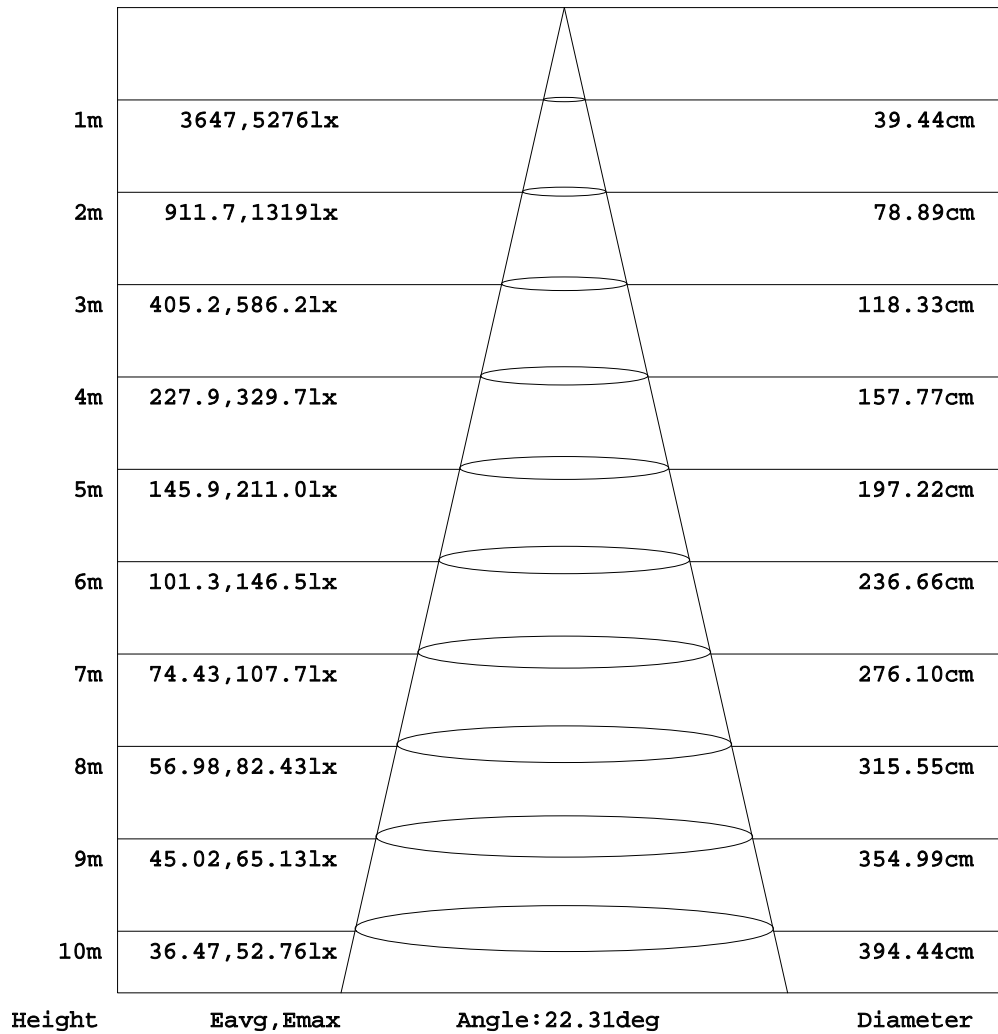
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AAI Figure

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Flux out:474.2 lm



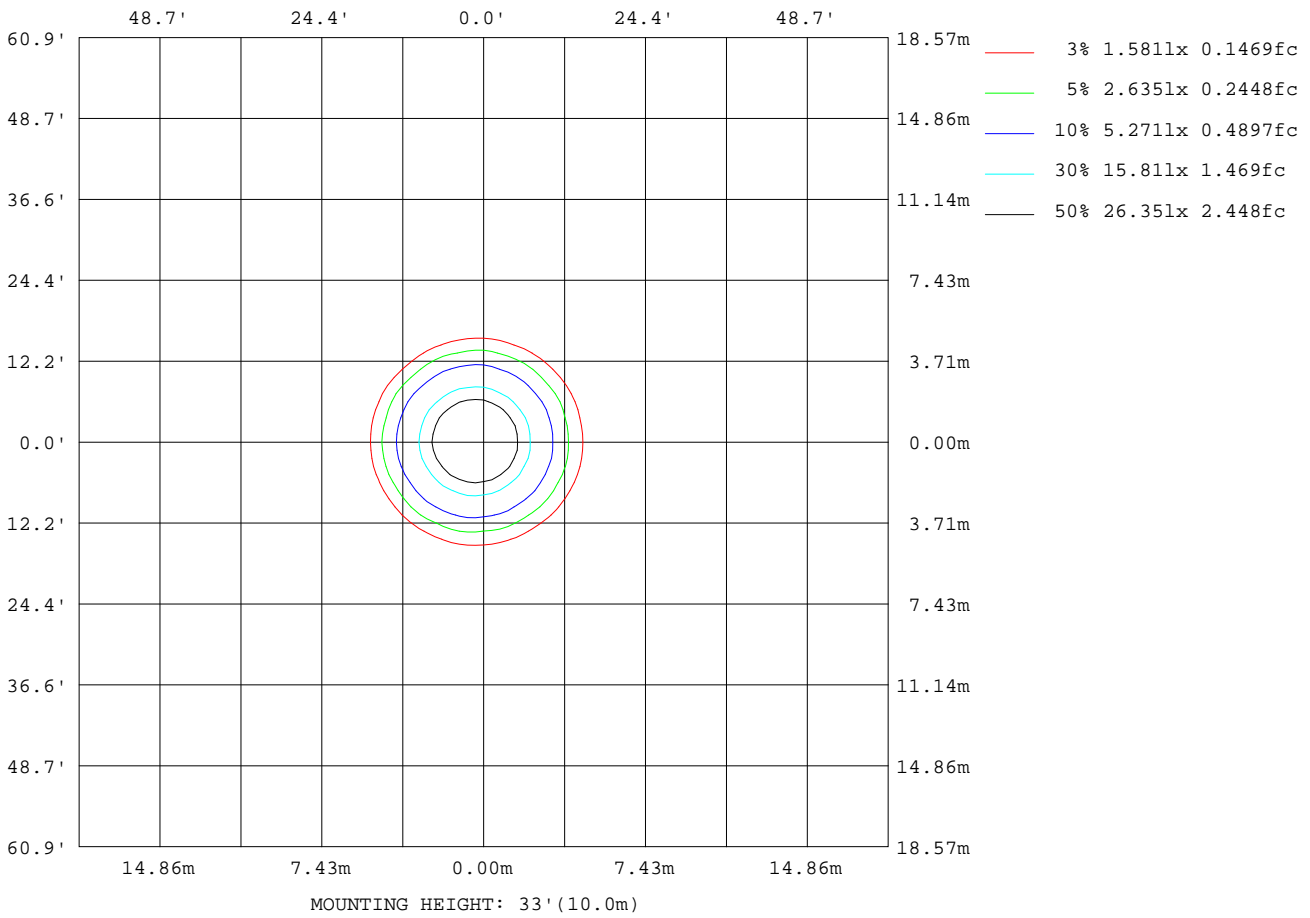
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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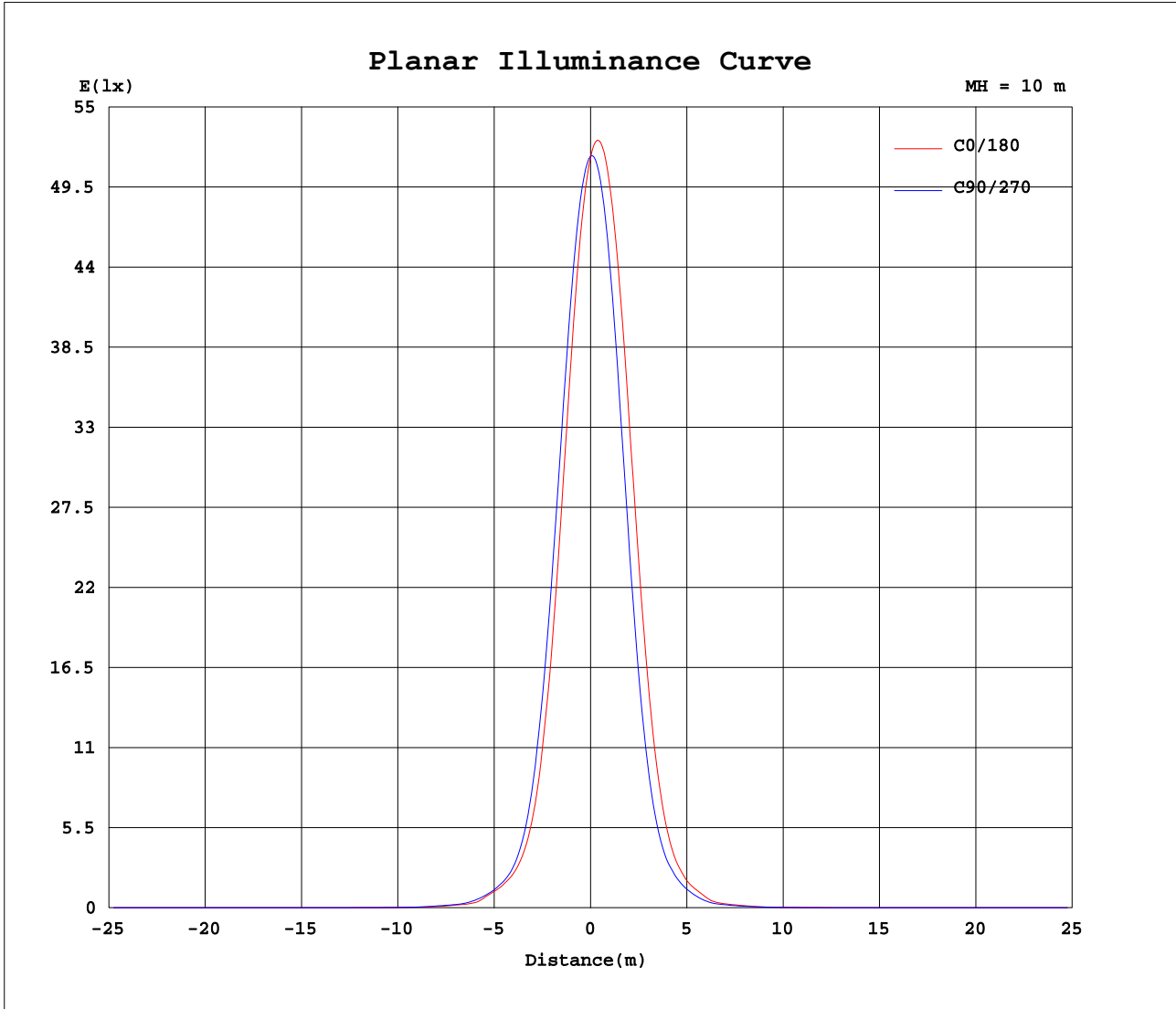
AvgL	cd/m2
L_0~180 (65) av	325
L_0~180 (75) av	220
L_0~180 (85) av	181
L_90~270 (65) av	319
L_90~270 (75) av	206
L_90~270 (85) av	164
L_45 (65) av	322
L_45 (75) av	212
L_45 (85) av	174

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2021-03-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Jason
 Test Date: 2021-03-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 58%
 Test Distance: 8.967m [K=1.0000]
 Remarks:

