

LED Downlight Start Series T75-11W-830-50



Light Output Ratio:	100.0%	
Luminaire Power:	13.16 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.80	fine grid method.

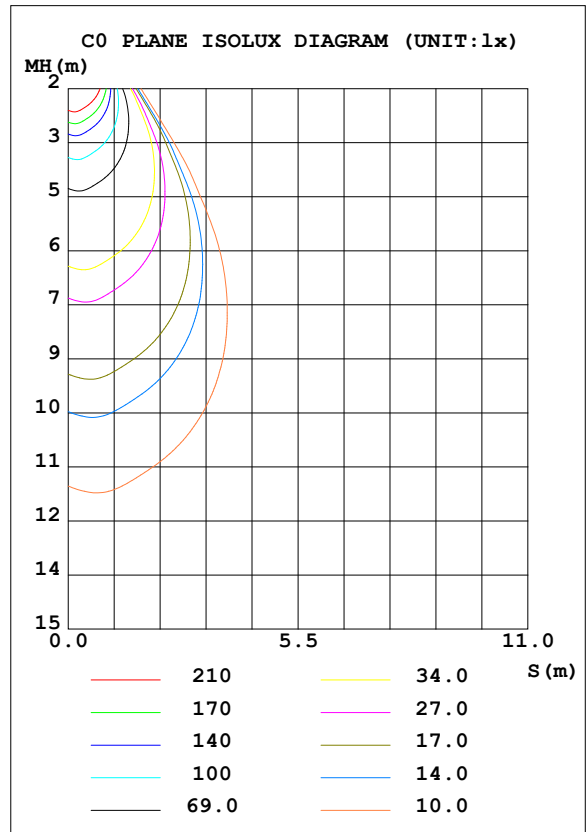
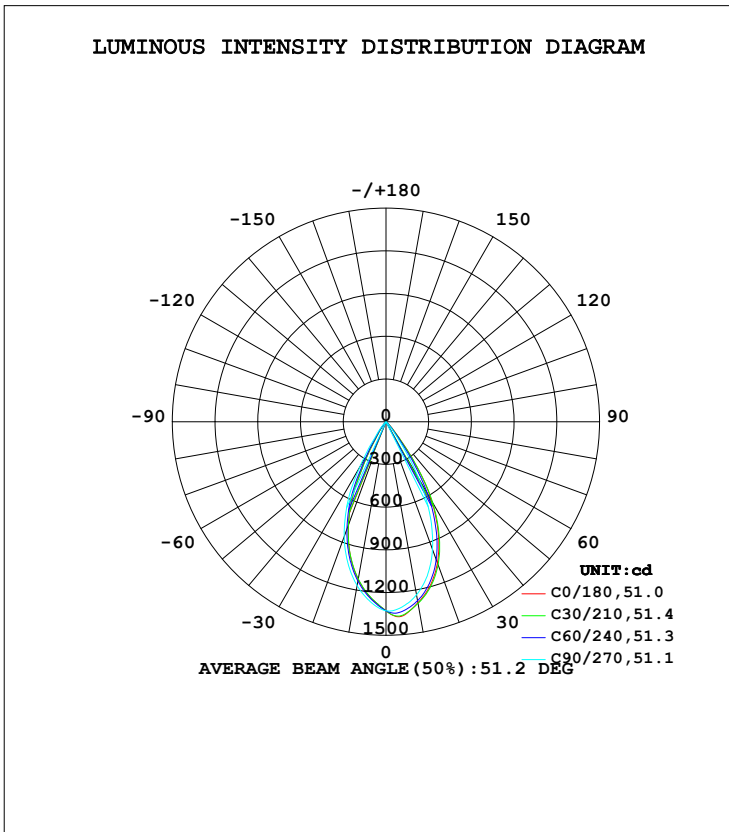
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2021-03-17

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:220.3V I:0.0674A P:13.16W PF:0.8696 Freq:49.90Hz Lamp Flux:883.868x1 lm		
NAME: T75-11W-830-50	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ85mm*H75mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 67.15 lm/W			
MODEL	CITIZEN-3000K	I _{max} (cd)	1376	S/MH (C0/180)	0.69
NOMINAL POWER (W)	13	LOR (%)	100.0	S/MH (C90/270)	0.76
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	883.87	η UP, DN (C0-180)	0.0, 53.0
NOMINAL FLUX (lm)	883.868	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.80



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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	1291	1294	1235	1167	1124	1124	1169	1234	0- 10	120.6	120.6	13.6,13.6
20	1056	1063	955.0	834.7	771.4	777.6	859.1	969.4	10- 20	299.4	420.1	47.5,47.5
30	642.5	637.0	461.1	293.0	212.4	235.8	372.2	538.4	20- 30	309.1	729.2	82.5,82.5
40	114.0	98.02	51.18	30.89	25.44	29.99	56.02	88.01	30- 40	125.3	854.4	96.7,96.7
50	13.42	11.15	7.898	6.701	6.618	7.140	8.528	11.09	40- 50	19.23	873.7	98.8,98.8
60	5.476	4.726	3.847	3.321	3.272	3.567	4.223	4.926	50- 60	5.506	879.2	99.5,99.5
70	2.561	2.243	1.837	1.530	1.477	1.640	1.970	2.423	60- 70	2.910	882.1	99.8,99.8
80	1.086	0.8813	0.7175	0.5132	0.4557	0.5748	0.7523	1.028	70- 80	1.365	883.5	100,100
90	0.2751	0.1827	0.0471	0.0367	0.0467	0.0470	0.0471	0.2254	80- 90	0.4116	883.9	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): 868.22 lm

%lum = 98.2%

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Conical surface Flux(120deg): 879.18 lm

%lum = 99.5%

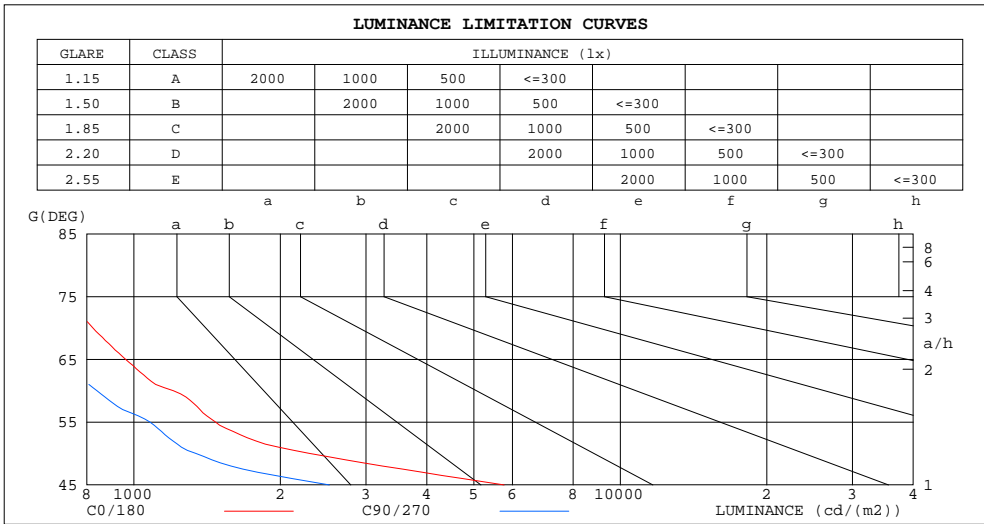
%lamp = 99.5%

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LUMINANCE LIMITATION CURVES

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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	787	434
80	688	451
75	731	506
70	823	586
65	961	696
60	1205	840
55	1472	1079
50	2296	1341
45	5767	2522

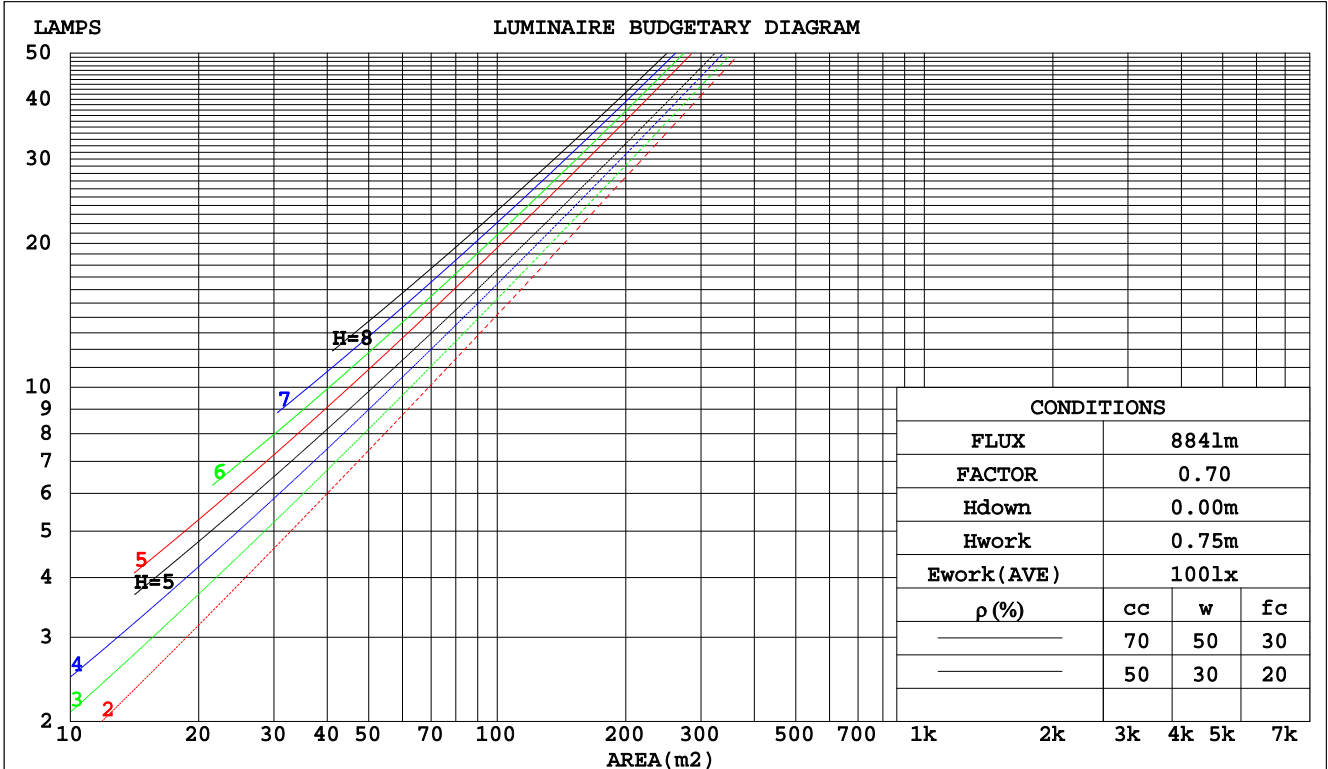
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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



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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	.167	.095	.030	.160	.091	.029	.148	.085	.027	.136	.079	.025	.126	.073	.023	
2.0	.159	.087	.027	.153	.084	.026	.142	.079	.025	.133	.074	.023	.124	.070	.022	
3.0	.150	.080	.024	.146	.078	.023	.137	.074	.023	.129	.070	.022	.121	.067	.021	
4.0	.143	.074	.022	.139	.073	.021	.131	.070	.021	.124	.067	.020	.117	.064	.019	
5.0	.136	.069	.020	.133	.068	.020	.126	.066	.019	.120	.063	.019	.114	.061	.018	
6.0	.130	.065	.019	.127	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017	
7.0	.124	.061	.017	.122	.061	.017	.116	.059	.017	.112	.057	.017	.107	.056	.016	
8.0	.119	.058	.016	.117	.057	.016	.112	.056	.016	.108	.055	.016	.104	.053	.016	
9.0	.114	.055	.015	.112	.055	.015	.108	.053	.015	.104	.052	.015	.101	.051	.015	
10.0	.110	.053	.015	.108	.052	.015	.104	.051	.014	.101	.050	.014	.097	.049	.014	

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	.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	.055	.048	.040	.033	.015	.013	.011	
4.0	.131	.099	.074	.112	.085	.064	.077	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.122	.087	.061	.104	.075	.053	.072	.052	.038	.042	.031	.022	.013	.010	.007	
6.0	.114	.077	.051	.098	.067	.045	.068	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.107	.070	.043	.092	.060	.038	.064	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.101	.063	.037	.087	.055	.032	.060	.039	.023	.035	.023	.014	.011	.007	.005	
9.0	.096	.058	.032	.083	.050	.028	.058	.035	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.018	.032	.019	.010	.010	.006	.003	

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UGR(Unified Glare Rating) Table

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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	18.0	18.9	18.2	19.0	19.2	15.4	16.3	15.6	16.5	16.6
3H	17.8	18.6	18.1	18.8	19.0	15.3	16.1	15.5	16.3	16.5
4H	17.8	18.5	18.0	18.7	19.0	15.2	16.0	15.5	16.2	16.4
6H	17.7	18.4	18.0	18.6	18.9	15.1	15.8	15.4	16.1	16.3
8H	17.6	18.3	17.9	18.6	18.8	15.1	15.8	15.4	16.0	16.3
12H	17.6	18.3	17.9	18.5	18.8	15.0	15.7	15.4	16.0	16.2
4H 2H	17.7	18.5	18.0	18.7	18.9	15.2	16.0	15.5	16.2	16.4
3H	17.6	18.2	17.9	18.5	18.8	15.0	15.7	15.4	16.0	16.2
4H	17.5	18.1	17.9	18.4	18.7	15.0	15.6	15.3	15.9	16.2
6H	17.4	18.0	17.8	18.3	18.6	14.9	15.4	15.3	15.7	16.1
8H	17.4	17.9	17.8	18.2	18.6	14.8	15.3	15.2	15.7	16.0
12H	17.3	17.8	17.7	18.2	18.5	14.8	15.2	15.2	15.6	16.0
8H 4H	17.4	17.9	17.8	18.2	18.6	14.8	15.3	15.2	15.7	16.0
6H	17.3	17.7	17.7	18.1	18.5	14.7	15.1	15.2	15.5	16.0
8H	17.2	17.6	17.7	18.0	18.4	14.7	15.1	15.1	15.5	15.9
12H	17.2	17.5	17.7	17.9	18.4	14.7	15.0	15.1	15.4	15.9
12H 4H	17.3	17.8	17.7	18.1	18.5	14.8	15.2	15.2	15.6	16.0
6H	17.2	17.6	17.7	18.0	18.4	14.7	15.1	15.1	15.5	15.9
8H	17.2	17.5	17.7	17.9	18.4	14.7	15.0	15.1	15.4	15.9
Variations with the observer position at spacings:										
S = 1.0H	+ 4.2 / - 9.8					+ 2.8 / - 7.2				
1.5H	+ 6.8 / - 9.1					+ 5.1 / - 6.6				
2.0H	+ 5.4 / - 2.6					+ 3.1 / - 1.8				

CIE Pub.117, 883.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)

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UTILIZATION FACTORS TABLE

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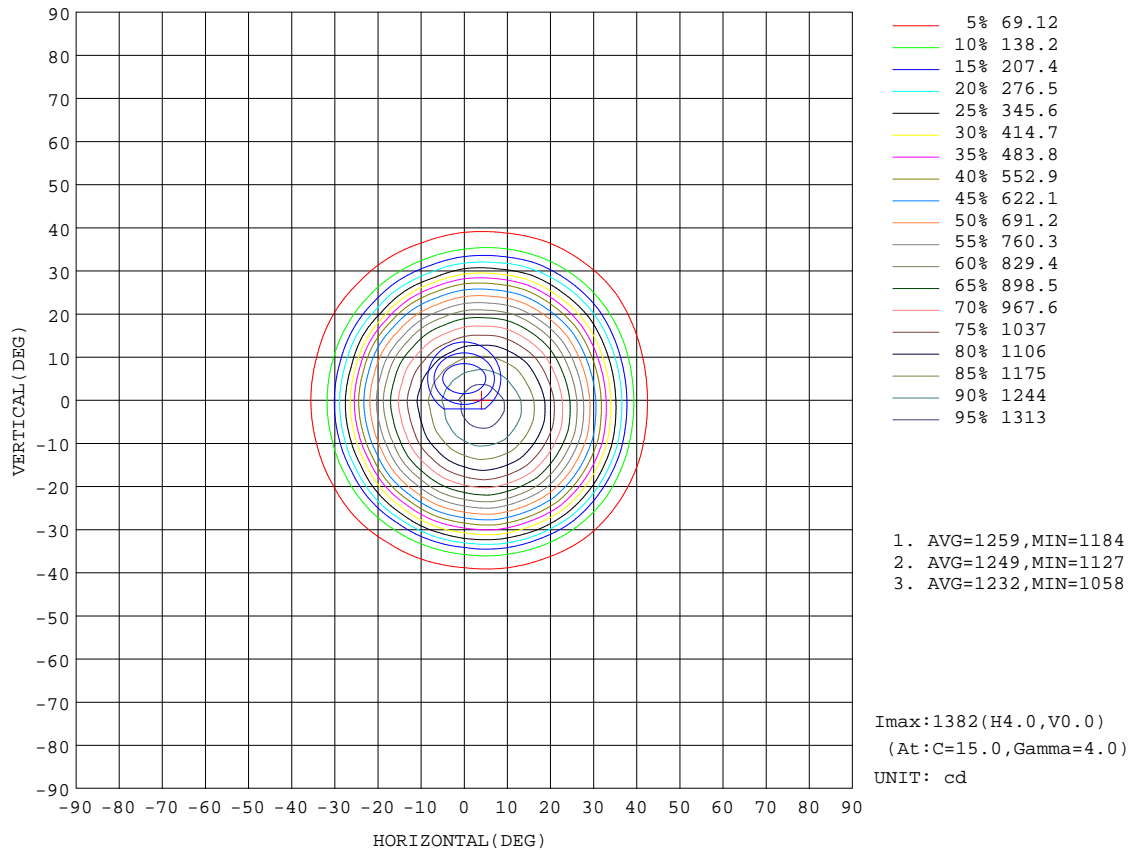
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	90	84	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	88	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	88
1.25	104	100	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	104	100	98	94
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	104	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	112	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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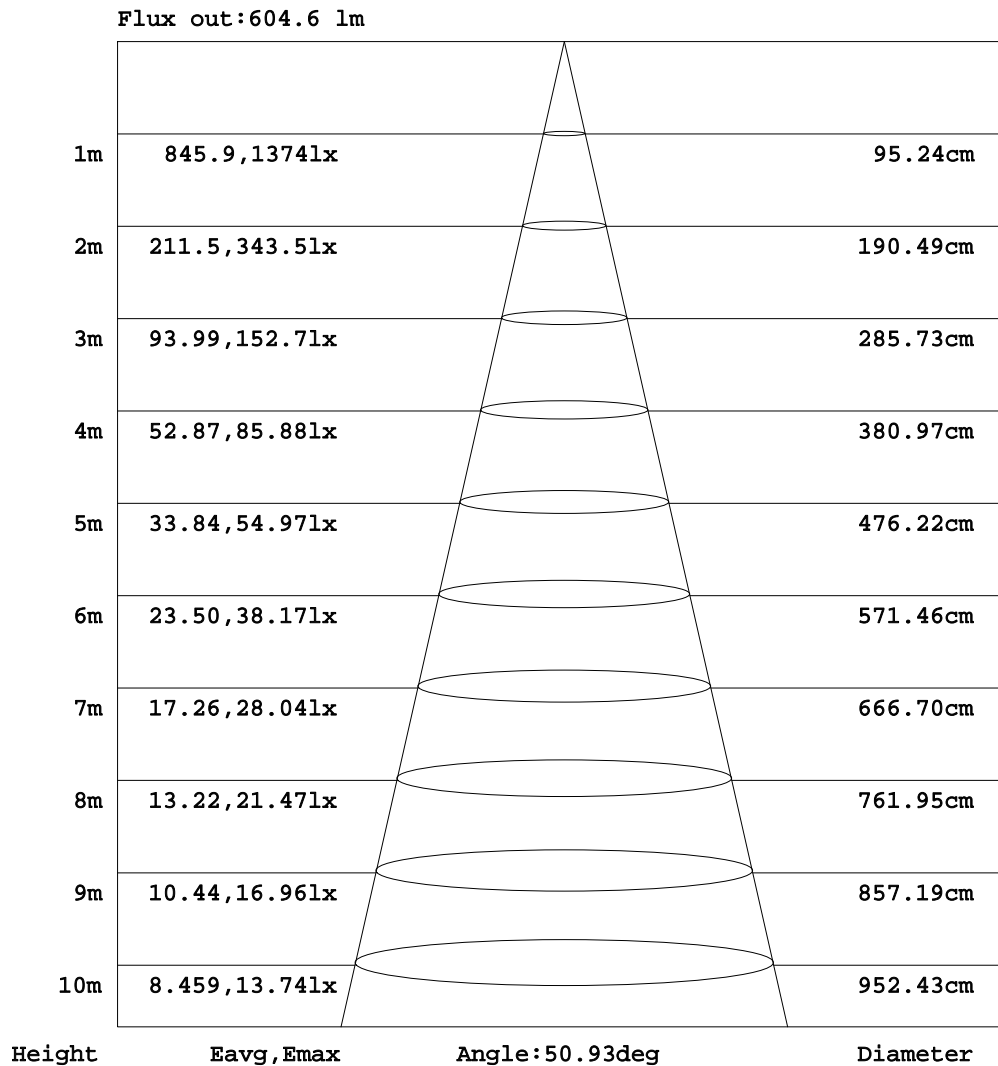


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AAI Figure

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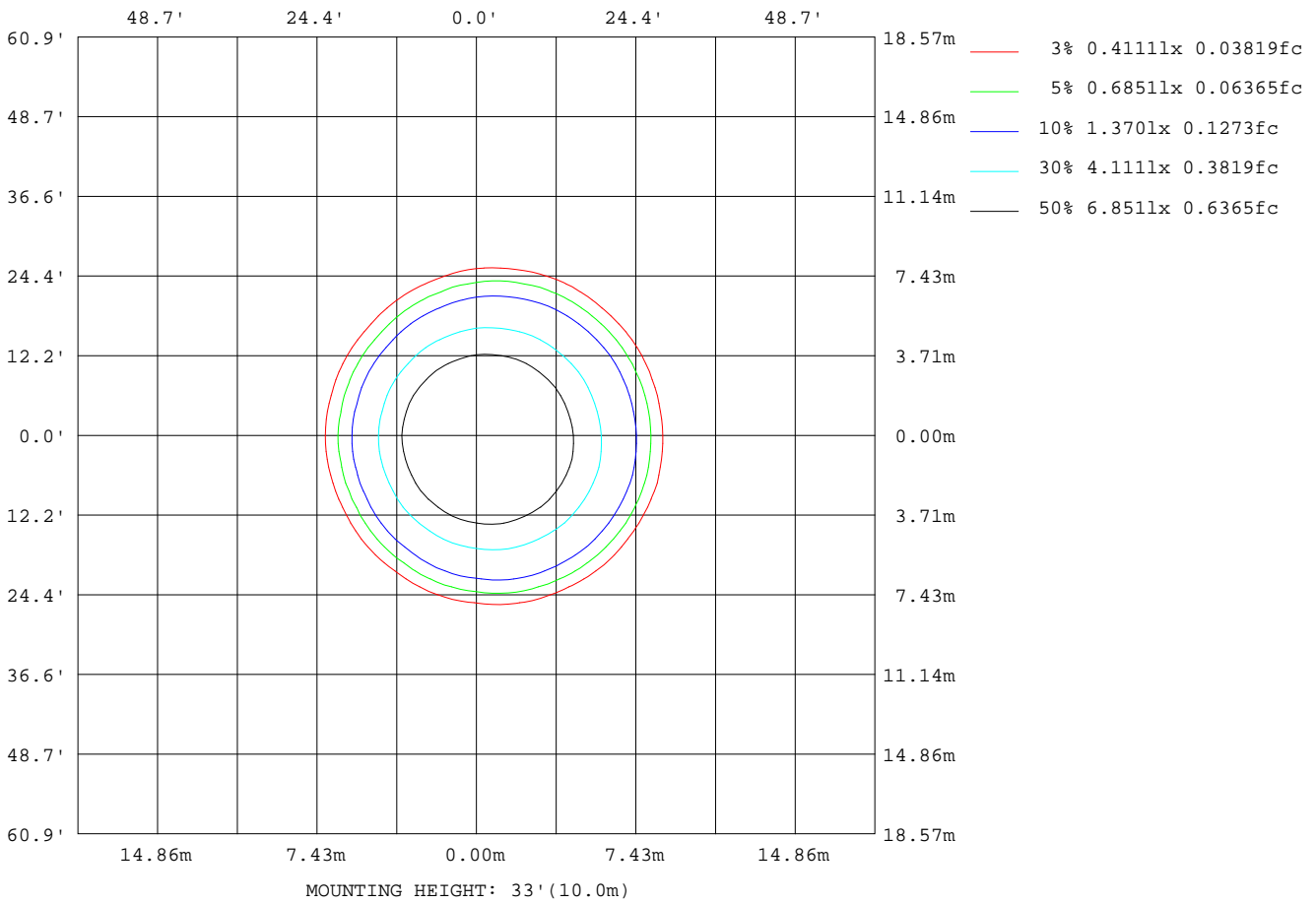
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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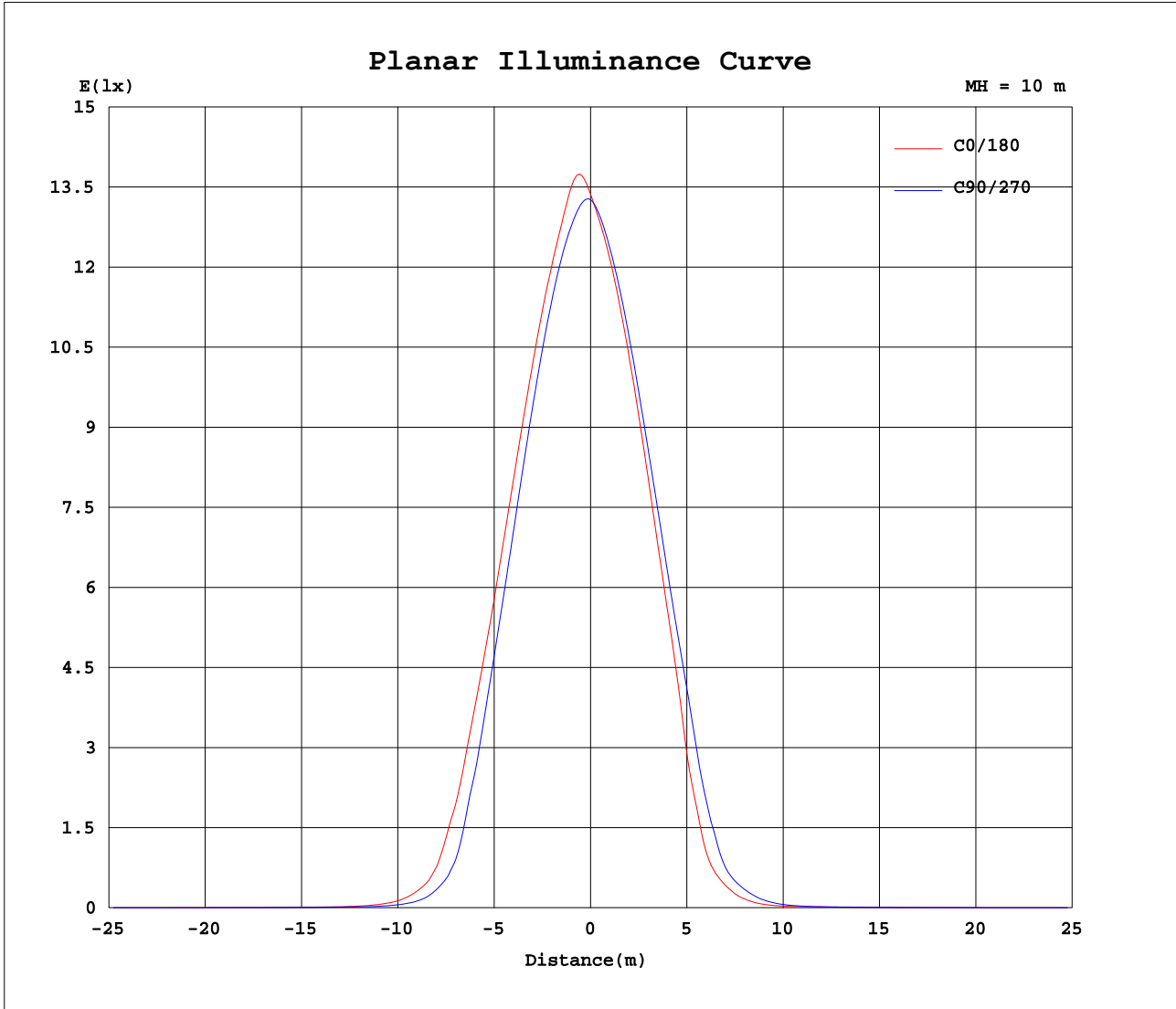
AvgL	cd/m2
L_0~180 (65) av	766
L_0~180 (75) av	550
L_0~180 (85) av	449
L_90~270 (65) av	729
L_90~270 (75) av	521
L_90~270 (85) av	436
L_45 (65) av	747
L_45 (75) av	533
L_45 (85) av	438

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:

