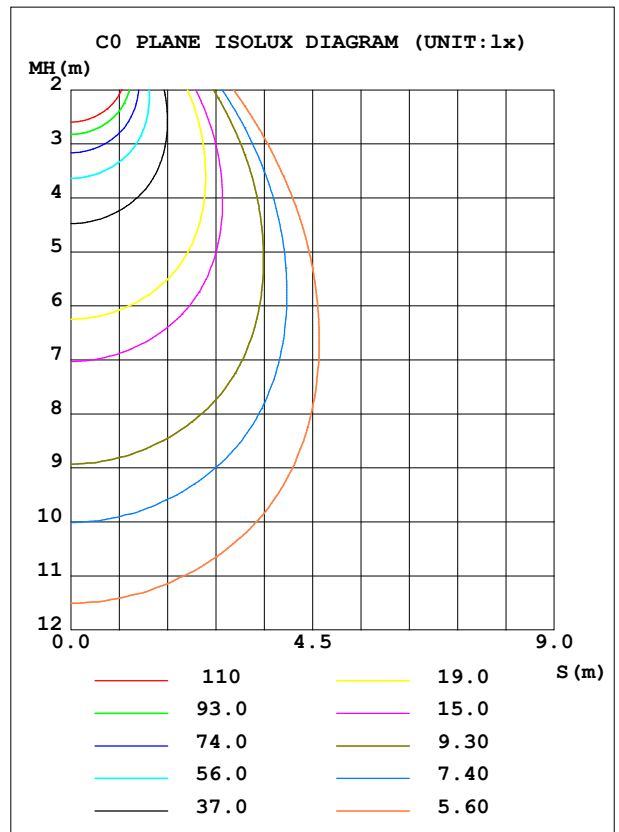
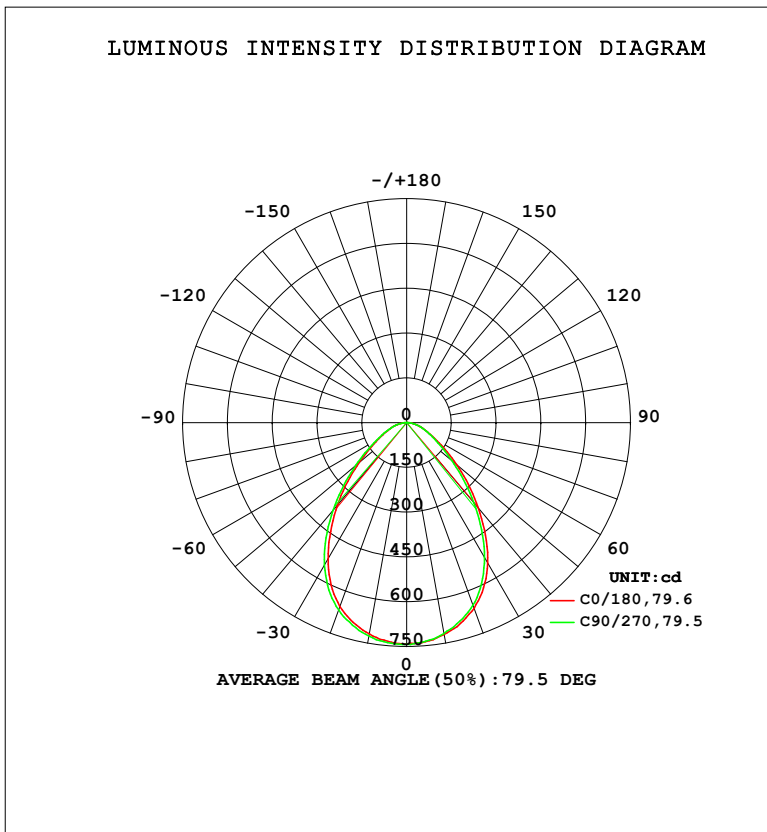


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	DL254-4-16W-M-A5C5	Imax (cd)	743.6	S/MH (C0/180)	1.09
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.09
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1319.4	<input type="checkbox"/> UP, DN (C0-180)	0.0,51.0
NOMINAL FLUX (lm)	1319.41	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0,49.0
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	1.15



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity: 65.0%
 Test Distance: 9.680m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	718.2	724.1	726.7	726.8	720.8	719.3	717.4	716.6	0- 10	69.85	69.85	5.29,5.29
20	655.5	661.1	667.1	668.6	661.5	657.4	650.8	651.4	10- 20	195.7	265.6	20.1,20.1
30	526.5	539.1	550.8	557.3	543.8	533.2	521.7	522.6	20- 30	277.6	543.1	41.2,41.2
40	360.7	376.3	384.6	390.2	373.9	363.6	351.1	343.4	30- 40	283.1	826.2	62.6,62.6
50	207.6	218.3	223.0	218.9	219.5	210.6	198.1	193.1	40- 50	219.9	1046	79.3,79.3
60	108.1	112.7	114.5	112.4	111.9	112.7	104.9	105.8	50- 60	138.7	1185	89.8,89.8
70	57.83	58.89	59.54	59.54	58.27	58.21	57.66	57.24	60- 70	80.90	1266	95.9,95.9
80	24.38	25.00	24.60	25.78	25.53	23.76	22.41	24.12	70- 80	43.68	1309	99.2,99.2
90	0.3933	0.3736	0.3343	0.3343	0.6675	0.6162	0.6425	0.6162	80- 90	10.02	1319	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): 946.57 lm

%lum = 71.7%

%lamp = 71.7%

Conical surface Flux(130deg): 1230.9 lm

%lum = 93.3%

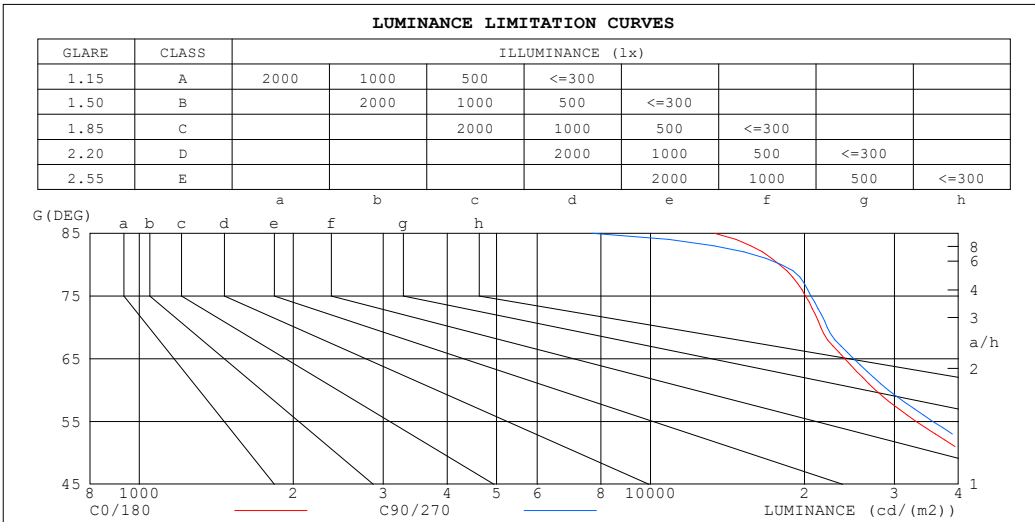
%lamp = 93.3%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13347	7691
80	17889	18045
75	20089	20604
70	21538	22177
65	24000	24974
60	27546	29182
55	33093	35689
50	41142	44198
45	50463	53948

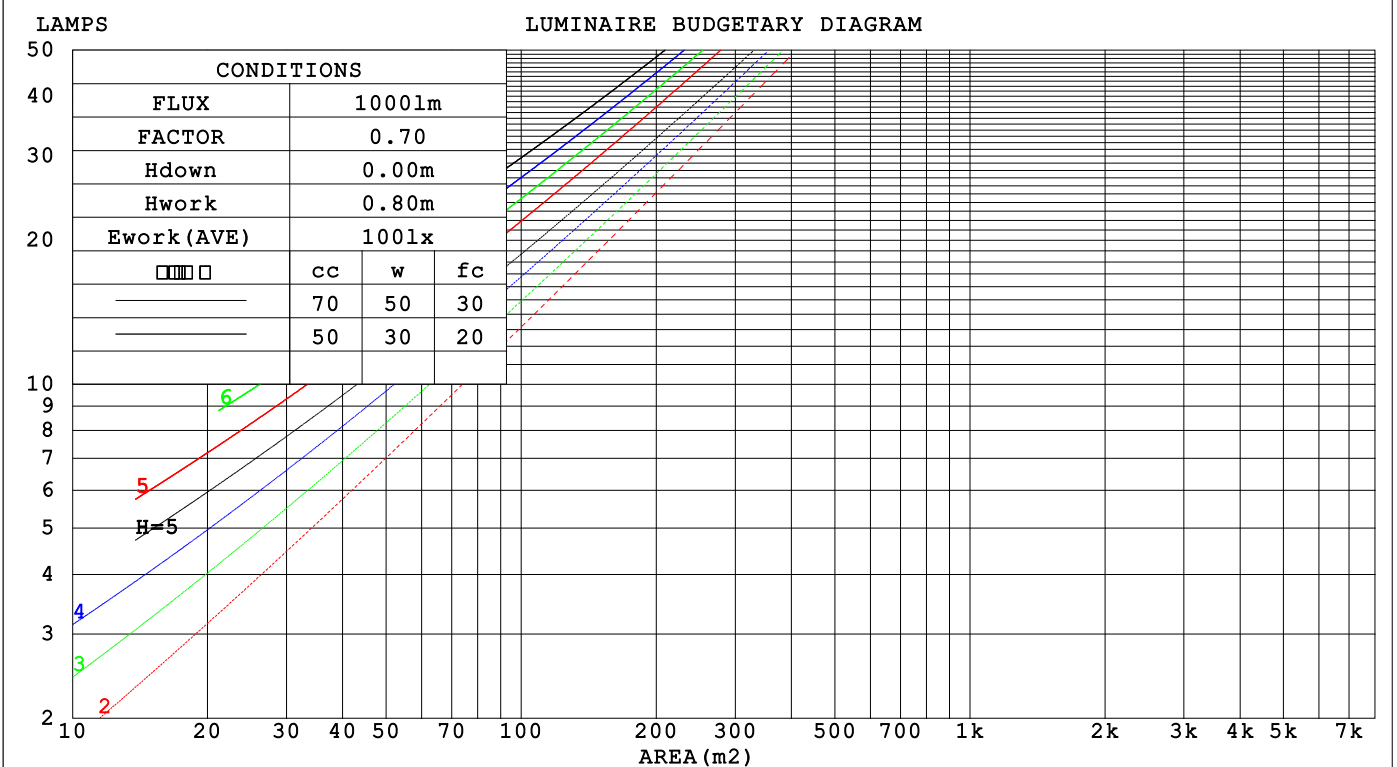
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz		
UTHdi:0.00% ITHdi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□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	1.07	1.04	1.00	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.90	.86	.94	.89	.85	.91	.86	.83	.88	.84	.81	.85	.82	.79	.77
3.0	.86	.79	.74	.85	.78	.73	.82	.77	.72	.79	.75	.71	.77	.73	.70	.68
4.0	.78	.71	.65	.77	.70	.64	.74	.68	.64	.72	.67	.63	.70	.66	.62	.60
5.0	.71	.63	.57	.70	.63	.57	.68	.62	.57	.66	.60	.56	.64	.59	.55	.54
6.0	.65	.57	.51	.64	.57	.51	.62	.56	.51	.61	.55	.50	.59	.54	.50	.48
7.0	.60	.52	.46	.59	.52	.46	.57	.51	.46	.56	.50	.46	.55	.49	.45	.44
8.0	.55	.47	.42	.54	.47	.42	.53	.47	.42	.52	.46	.42	.51	.45	.41	.40
9.0	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.47	.42	.38	.36
10.0	.47	.40	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

□ Range: 0 - 90DEG
 □ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.250	.142	.045	.243	.139	.044	.230	.132	.042	.218	.126	.040	.207	.120	.039	
2.0	.239	.131	.040	.233	.129	.040	.222	.124	.038	.212	.119	.037	.202	.114	.036	
3.0	.225	.120	.036	.220	.118	.036	.210	.114	.035	.201	.110	.034	.193	.107	.033	
4.0	.212	.110	.032	.207	.108	.032	.198	.105	.031	.190	.102	.031	.183	.099	.030	
5.0	.198	.101	.029	.194	.100	.029	.187	.097	.029	.180	.095	.028	.173	.092	.028	
6.0	.186	.093	.027	.183	.092	.027	.176	.090	.026	.170	.088	.026	.164	.086	.026	
7.0	.175	.087	.025	.172	.086	.024	.166	.084	.024	.161	.082	.024	.155	.081	.024	
8.0	.166	.081	.023	.163	.080	.023	.157	.079	.022	.152	.077	.022	.147	.076	.022	
9.0	.156	.076	.021	.154	.075	.021	.149	.074	.021	.144	.072	.021	.140	.071	.021	
10.0	.148	.071	.020	.146	.071	.020	.142	.069	.020	.137	.068	.019	.133	.067	.019	

<input type="checkbox"/> cc	80%			70%			50%			30%			10%			0
<input type="checkbox"/> w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
<input type="checkbox"/> fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
2.0	.176	.157	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
3.0	.165	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
4.0	.156	.114	.081	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
5.0	.148	.100	.064	.127	.087	.056	.087	.060	.039	.050	.035	.023	.016	.012	.008	
6.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
7.0	.133	.081	.043	.114	.070	.038	.079	.049	.027	.046	.029	.016	.015	.009	.005	
8.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004	
9.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
10.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

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	24.3	25.6	24.5	25.8	26.0	24.5	25.8	24.8	26.0	26.2
3H	24.9	26.1	25.2	26.4	26.6	25.2	26.4	25.5	26.6	26.8
4H	25.3	26.4	25.6	26.6	26.9	25.5	26.6	25.8	26.9	27.1
6H	25.5	26.6	25.8	26.8	27.1	25.7	26.8	26.0	27.0	27.3
8H	25.6	26.6	25.9	26.9	27.1	25.8	26.8	26.1	27.1	27.3
12H	25.6	26.6	25.9	26.9	27.1	25.8	26.7	26.1	27.0	27.3
4H 2H	24.5	25.7	24.8	25.9	26.1	24.7	25.9	25.0	26.1	26.4
3H	25.4	26.4	25.7	26.7	27.0	25.6	26.6	25.9	26.9	27.2
4H	25.8	26.7	26.2	27.0	27.4	26.0	26.9	26.4	27.2	27.6
6H	26.2	27.0	26.6	27.3	27.7	26.4	27.2	26.8	27.5	27.9
8H	26.3	27.1	26.7	27.4	27.8	26.5	27.2	26.9	27.6	27.9
12H	26.4	27.1	26.8	27.4	27.8	26.5	27.2	26.9	27.5	27.9
8H 4H	26.0	26.7	26.4	27.1	27.5	26.2	26.9	26.6	27.3	27.6
6H	26.5	27.1	26.9	27.5	27.9	26.6	27.2	27.1	27.6	28.1
8H	26.7	27.2	27.1	27.6	28.1	26.8	27.3	27.2	27.7	28.2
12H	26.8	27.2	27.3	27.7	28.2	26.8	27.3	27.3	27.7	28.2
12H 4H	26.0	26.7	26.4	27.0	27.4	26.2	26.8	26.6	27.2	27.6
6H	26.5	27.0	27.0	27.5	27.9	26.7	27.2	27.1	27.6	28.1
8H	26.7	27.2	27.2	27.6	28.1	26.8	27.3	27.3	27.7	28.2

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.5 / - 0.6	+ 0.5 / - 0.6
1.5H	+ 0.3 / - 0.4	+ 0.3 / - 0.3
2.0H	+ 1.1 / - 0.8	+ 1.2 / - 0.8

CIE Pub.117, 1319 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.0)
 Area: 0.00785 m2

C Range: 0 - 360DEG	<input type="checkbox"/> Range: 0 - 90DEG
C Interval: 22.5DEG	<input type="checkbox"/> Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
Temperature:25.3°C	Humidity:65.0%
Operators:DAMIN	Test Distance:9.680m [K=1.0000]
Test Date:2023-07-06	Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

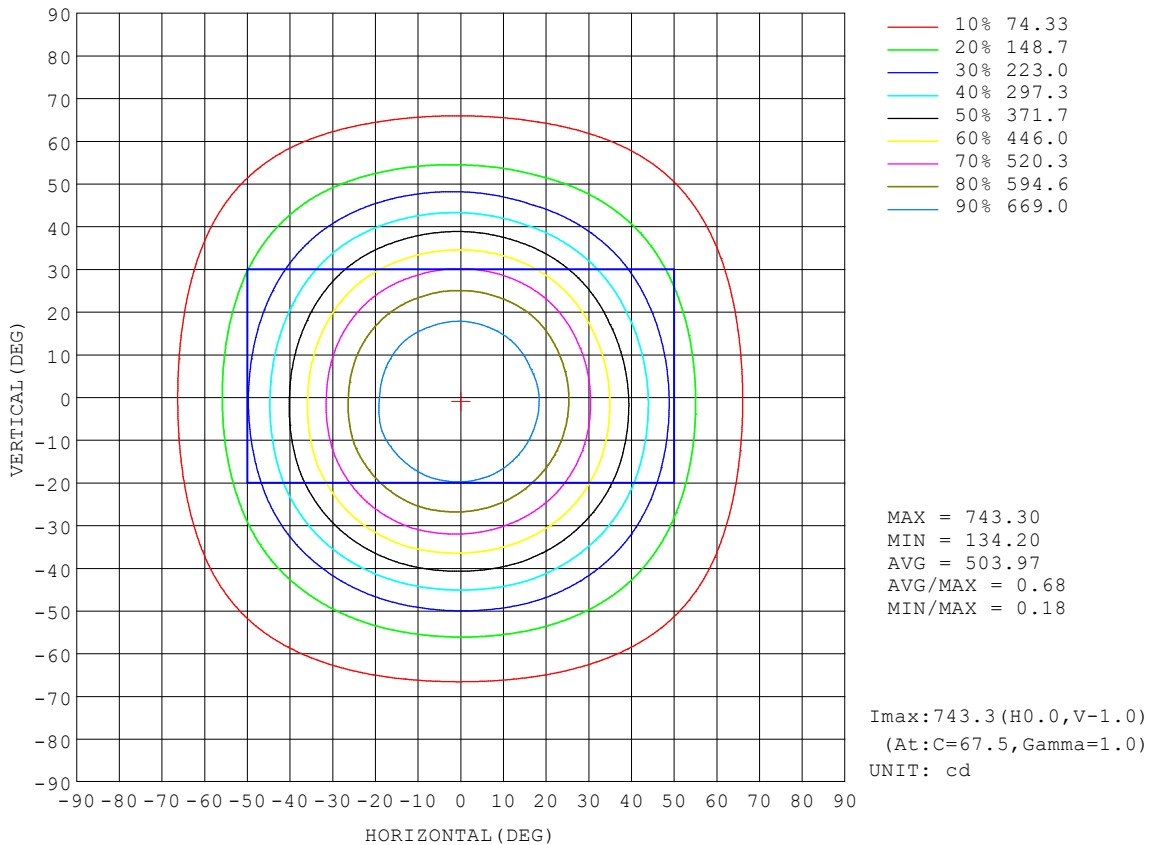
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	58	53	68	58	52	66	58	52	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	85	76	70	84	76	70	82	77	70	64
1.25	91	83	77	90	82	77	88	81	76	70
1.50	96	88	82	94	87	82	91	85	81	75
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	100	96	101	97	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	108	104	109	106	103	105	102	100	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:



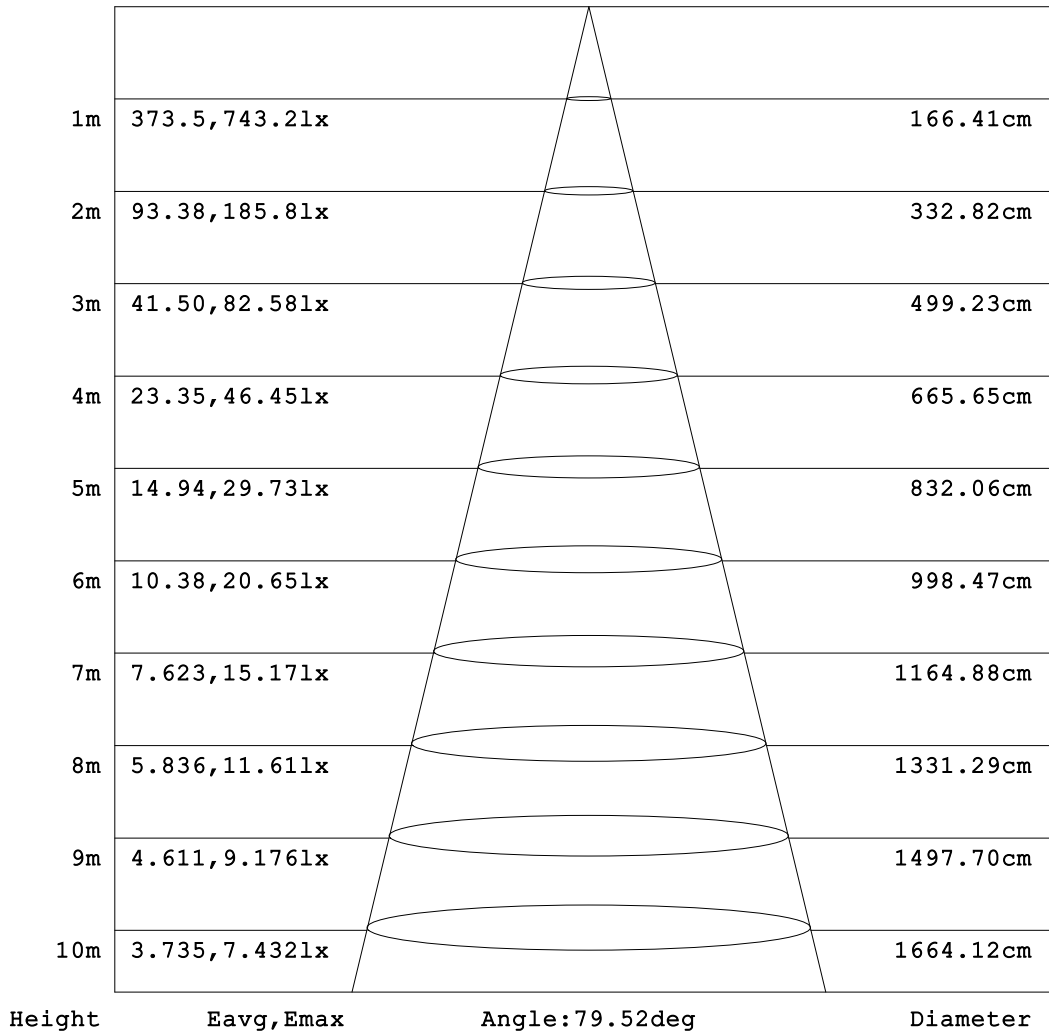
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity: 65.0%
 Test Distance: 9.680m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

Flux out:826.2 lm



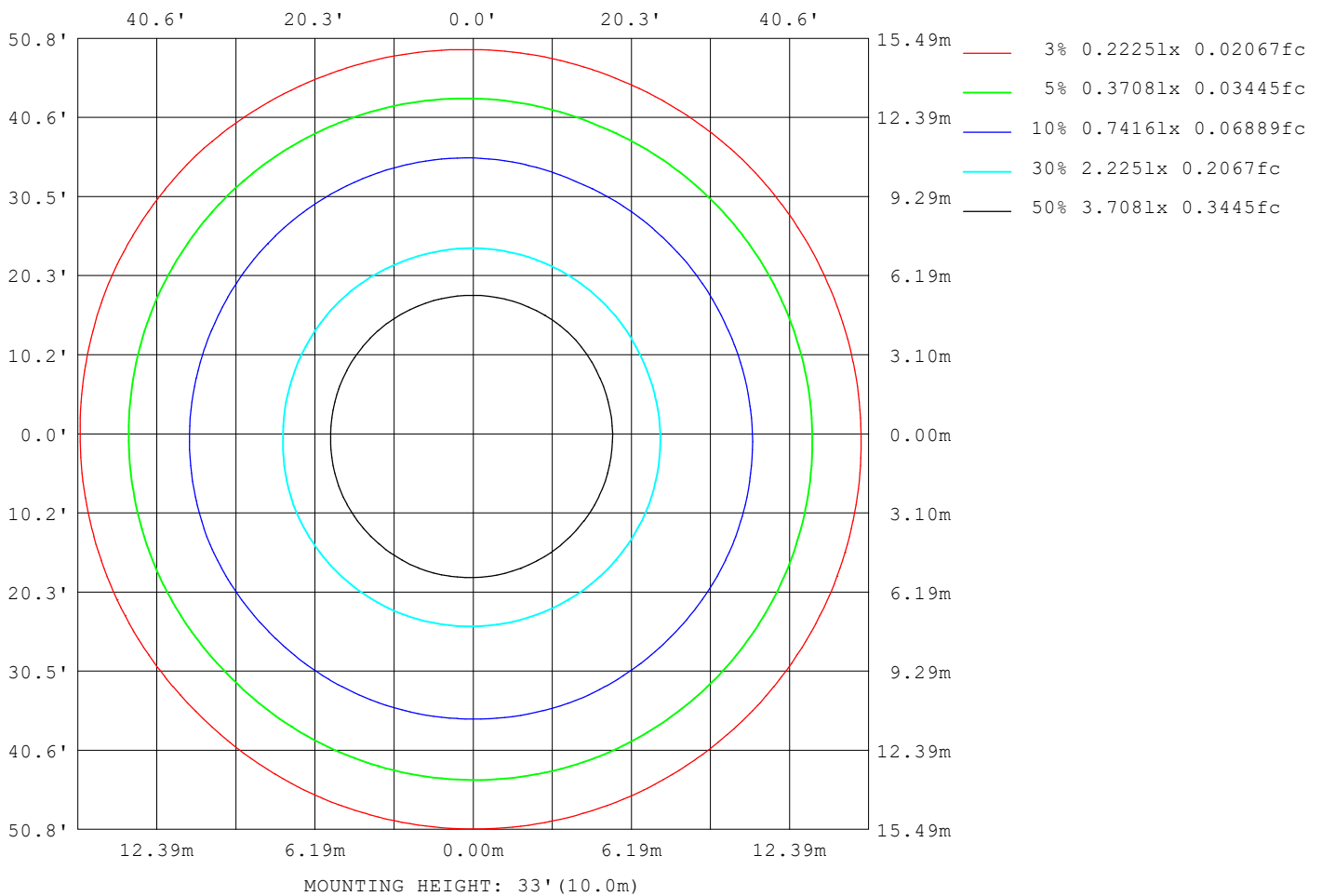
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity: 65.0%
 Test Distance: 9.680m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.48V I:0.1097A P:11.710W PF:0.8932 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1319.41x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 5000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

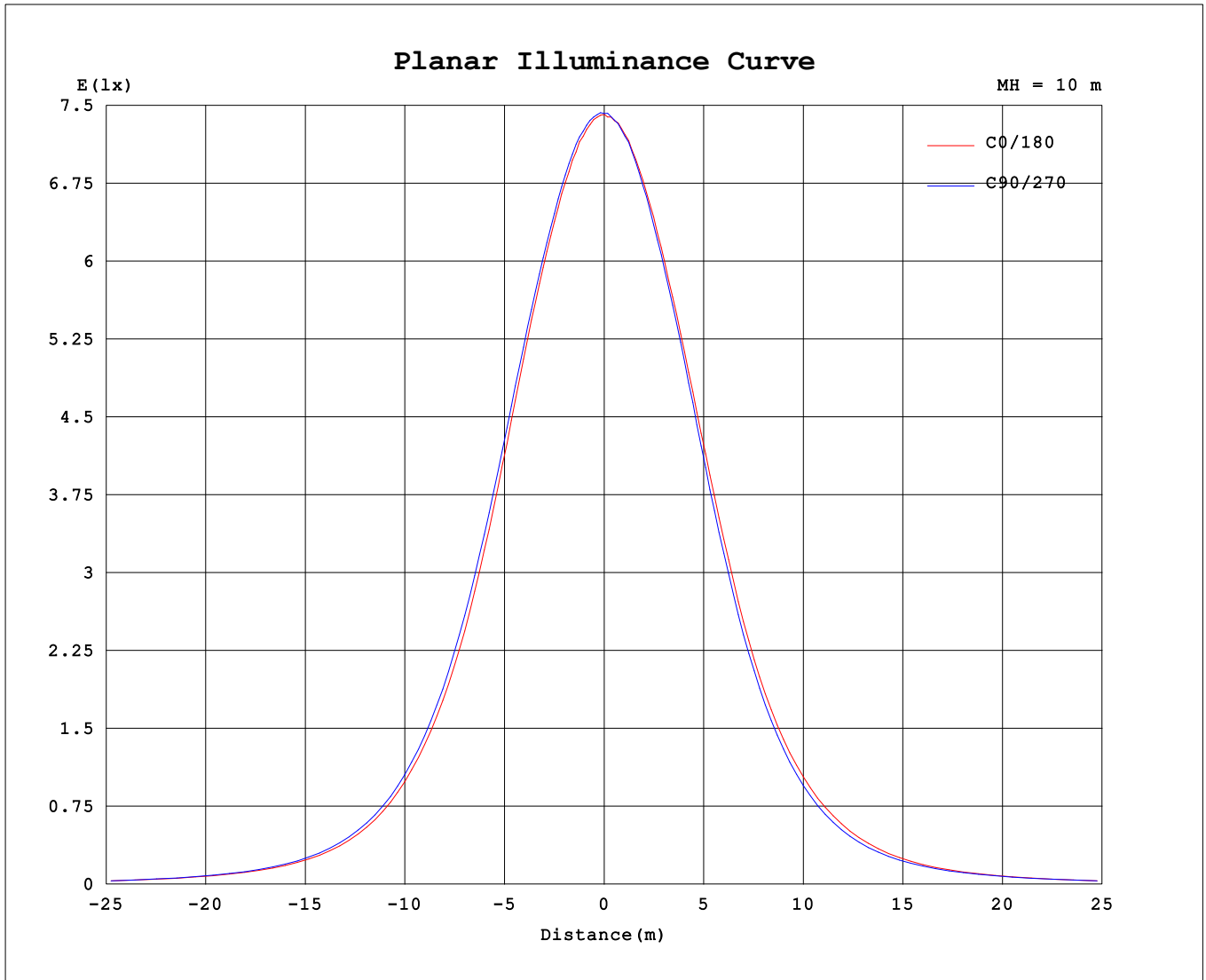
AvgL	cd/m2
L_0~180 (65) av	24229
L_0~180 (75) av	20260
L_0~180 (85) av	14385
L_90~270 (65) av	24323
L_90~270 (75) av	20316
L_90~270 (85) av	7010
L_45 (65) av	24383
L_45 (75) av	20358
L_45 (85) av	10401

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity:65.0%
 Test Distance:9.680m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-07-06

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.461
 Humidity: 65.0%
 Test Distance: 9.680m [K=1.0000]
 Remarks:

