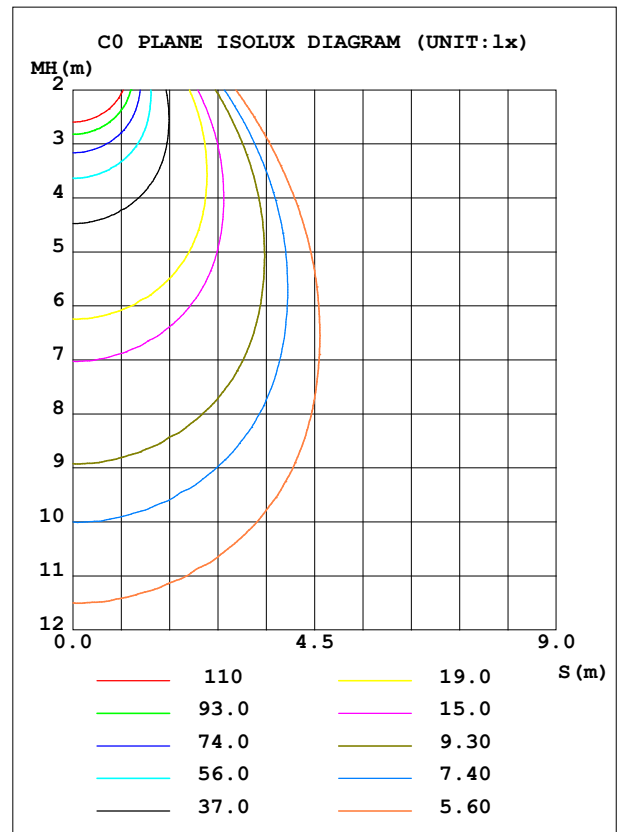
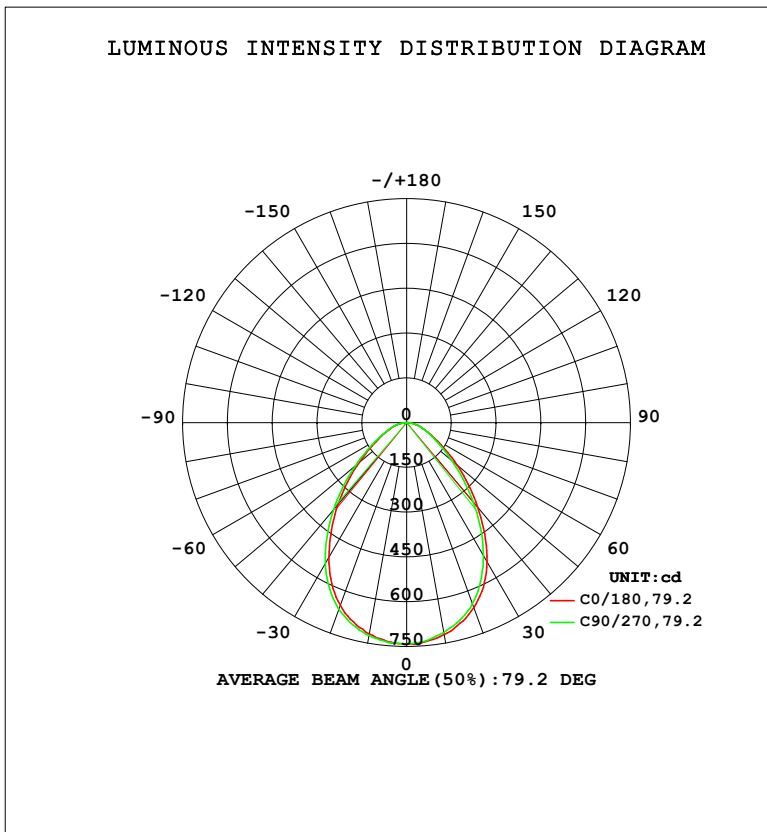


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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)	742.8	S/MH (C0/180)	1.09
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.08
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	1310.6	<input type="checkbox"/> UP, DN (C0-180)	0.0,51.0
NOMINAL FLUX (lm)	1310.61	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	719.0	722.0	724.2	724.9	721.0	716.6	714.0	712.9	0- 10	69.68	69.68	5.32,5.32
20	650.7	656.9	665.1	665.6	659.0	652.0	645.1	644.9	10- 20	194.9	264.6	20.2,20.2
30	521.1	534.7	546.4	553.3	539.7	525.9	514.6	514.5	20- 30	275.0	539.6	41.2,41.2
40	358.8	373.7	380.8	386.1	370.8	358.5	347.5	338.3	30- 40	279.8	819.4	62.5,62.5
50	208.3	219.1	223.7	219.0	220.8	210.7	197.8	192.6	40- 50	218.8	1038	79.2,79.2
60	107.9	112.9	114.6	112.4	112.3	112.7	104.4	105.6	50- 60	139.1	1177	89.8,89.8
70	57.21	57.99	58.66	58.72	57.67	57.43	56.86	56.50	60- 70	80.22	1258	96,96
80	24.08	24.68	24.20	25.43	25.42	24.19	22.17	23.74	70- 80	43.09	1301	99.2,99.2
90	0.3868	0.3671	0.3212	0.3278	0.6649	0.6162	0.6424	0.6096	80- 90	9.904	1311	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): 938.84 lm

%lum = 71.6%

%lamp = 71.6%

Conical surface Flux(130deg): 1223.2 lm

%lum = 93.3%

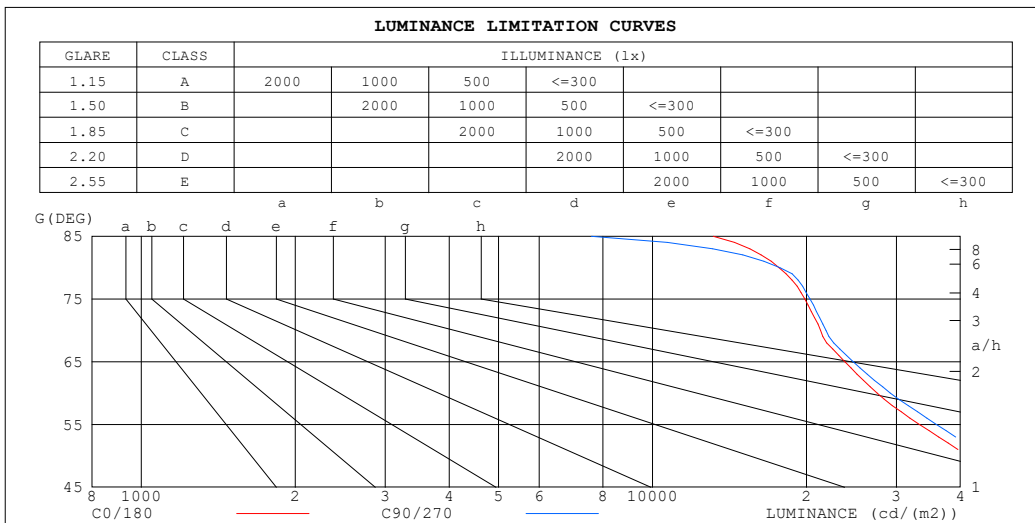
%lamp = 93.3%

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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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	13144	7590
80	17663	17752
75	19862	20316
70	21310	21847
65	23786	24695
60	27501	29194
55	33296	35952
50	41272	44334
45	50443	53777

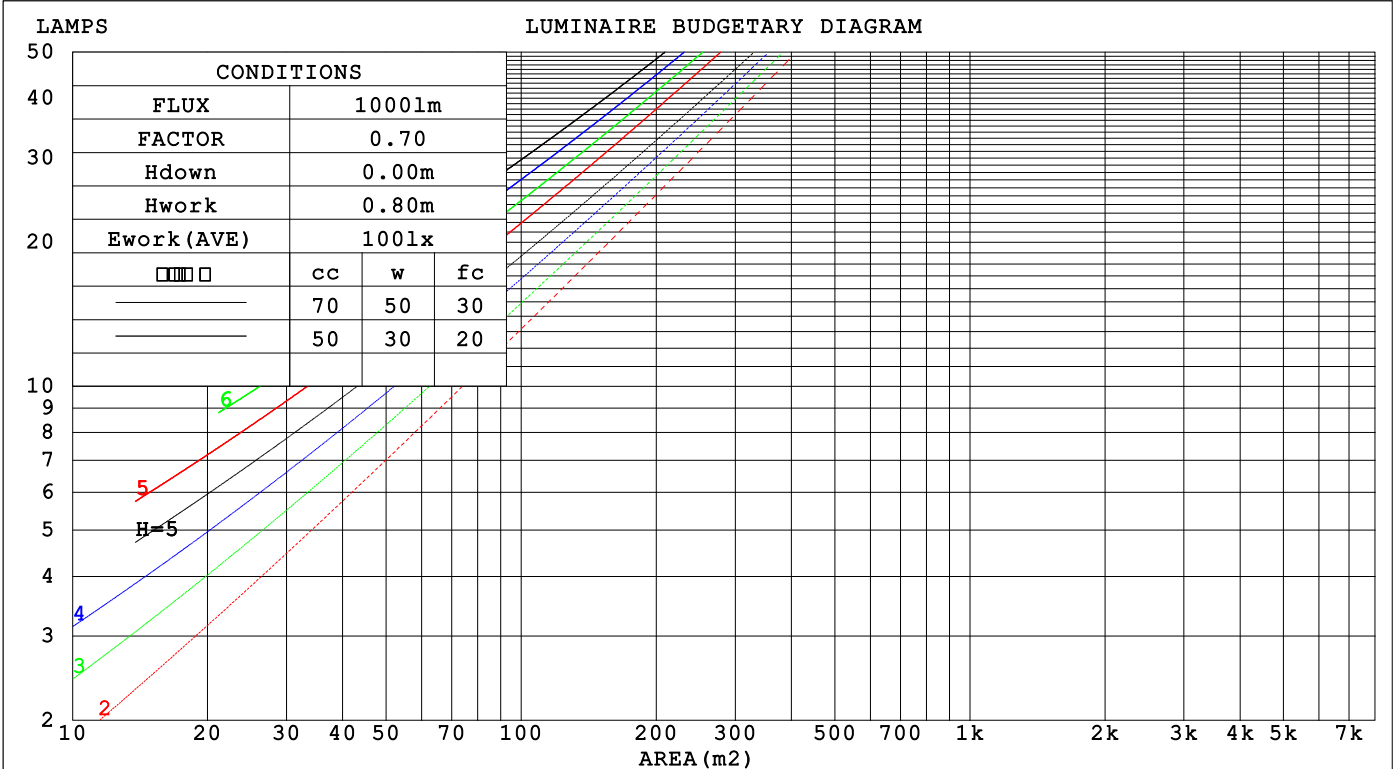
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-07-06

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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz		
UTHdi:0.00% ITHdi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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	.51	.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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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	.037	.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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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	24.6	25.9	24.8	26.0	26.2
3H	25.0	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	26.8	27.1	25.8	26.8	26.1	27.1	27.3
12H	25.6	26.6	25.9	26.8	27.1	25.7	26.7	26.1	27.0	27.3
4H 2H	24.5	25.7	24.8	25.9	26.2	24.8	25.9	25.1	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	27.5
6H	26.2	27.0	26.6	27.3	27.7	26.4	27.2	26.8	27.5	27.9
8H	26.3	27.0	26.7	27.4	27.8	26.4	27.2	26.9	27.5	27.9
12H	26.4	27.0	26.8	27.4	27.8	26.5	27.1	26.9	27.5	27.9
8H 4H	26.0	26.7	26.4	27.1	27.4	26.1	26.9	26.5	27.2	27.6
6H	26.5	27.1	26.9	27.5	27.9	26.6	27.2	27.0	27.6	28.0
8H	26.6	27.2	27.1	27.6	28.0	26.7	27.3	27.2	27.7	28.1
12H	26.8	27.2	27.2	27.7	28.1	26.8	27.2	27.3	27.7	28.2
12H 4H	26.0	26.6	26.4	27.0	27.4	26.1	26.8	26.6	27.2	27.6
6H	26.5	27.0	26.9	27.4	27.9	26.6	27.2	27.1	27.6	28.0
8H	26.7	27.2	27.2	27.6	28.1	26.8	27.2	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 / - 0.9

CIE Pub.117, 1311 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.9)
 Area: 0.00785 m2

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:

UTILIZATION FACTORS TABLE

Test:U:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

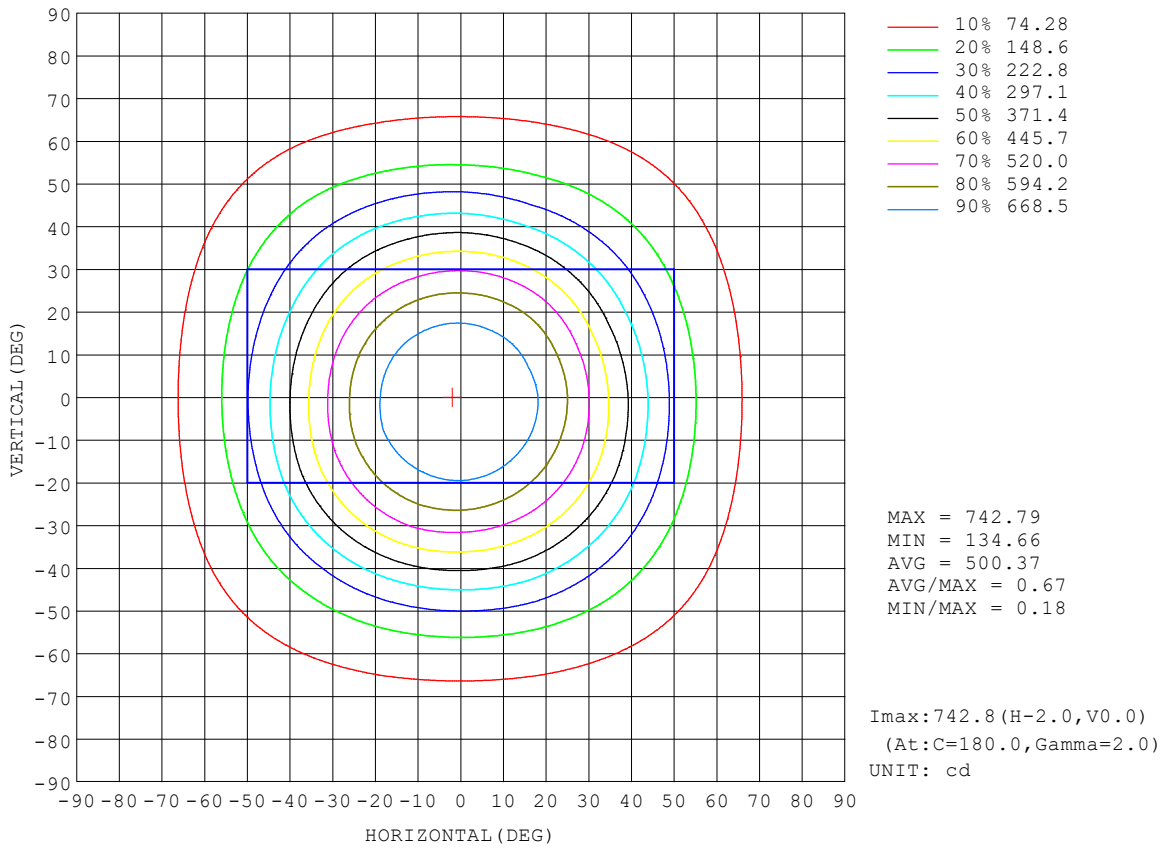
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	58	52	67	58	52	66	58	52	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	85	76	70	84	76	70	82	76	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	74
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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

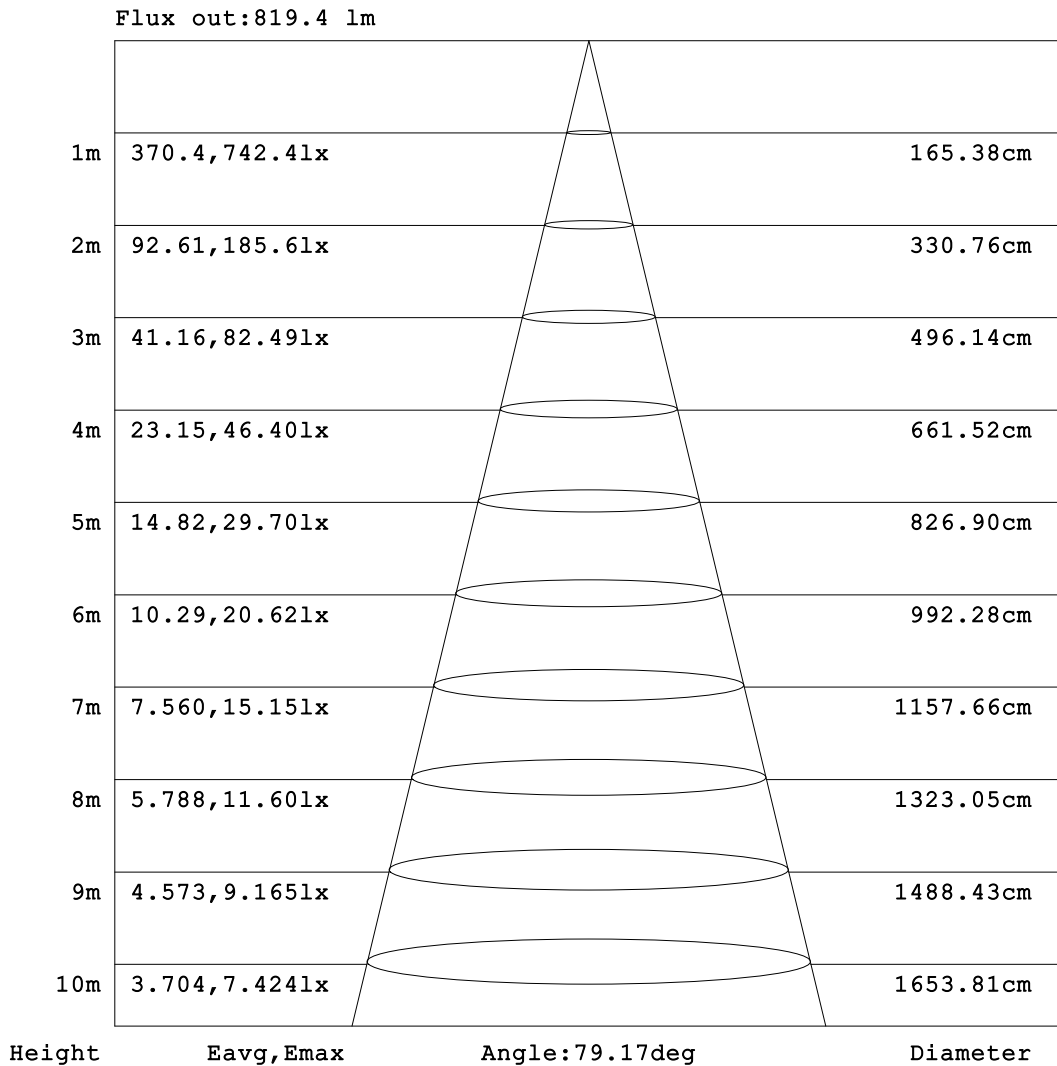


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-07-06

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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:



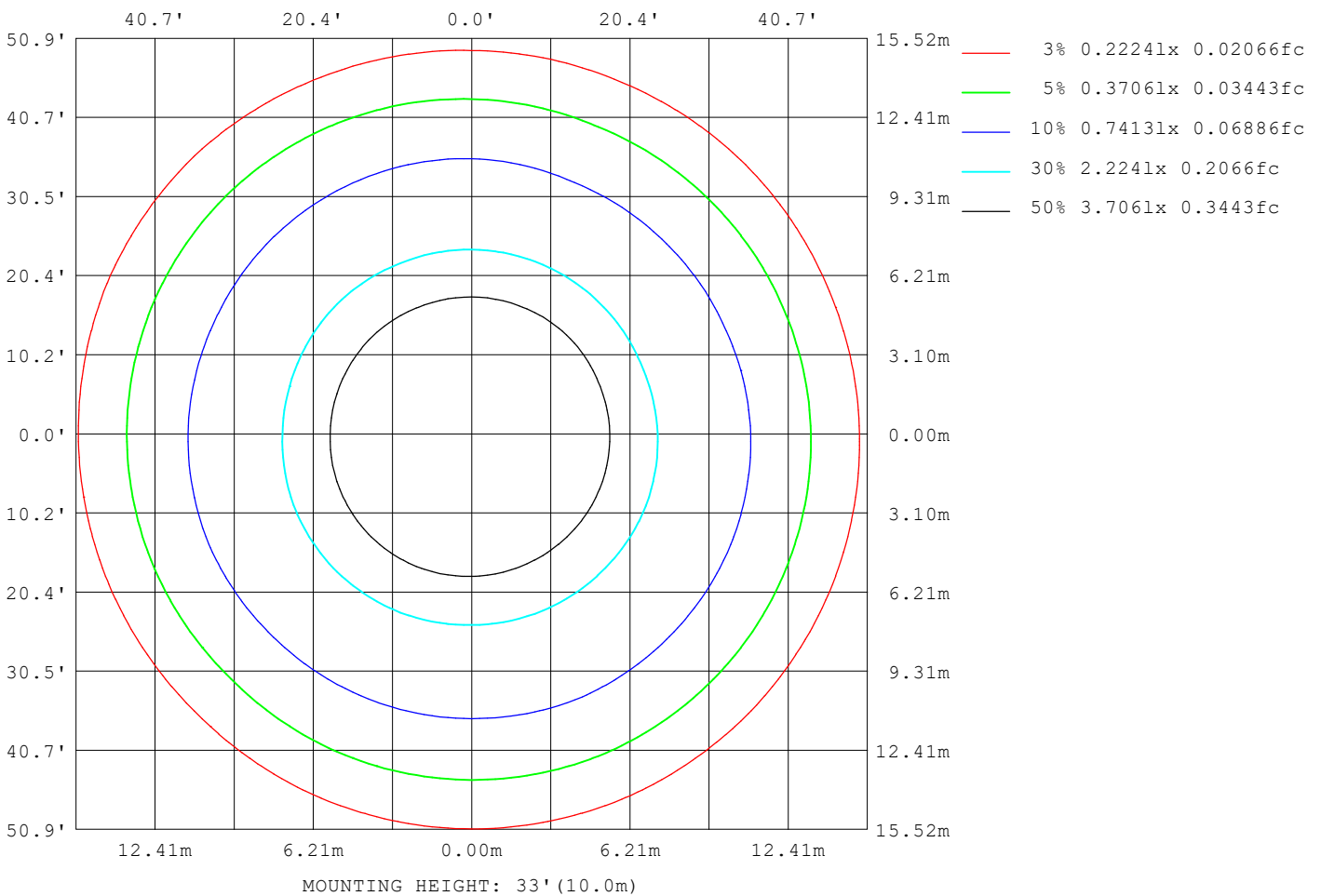
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	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:119.49V I:0.1096A P:11.701W PF:0.8935 Freq:60.01Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1310.61x1 lm		
NAME: DL254-4-16W-M-A5C5	TYPE: 12W	WEIGHT:
SPEC.: 4000K	DIM.: 0.295	SERIAL No.: 1
MFR.: Lotus LED Lights	SUR.: 0.10	Shielding Angle:

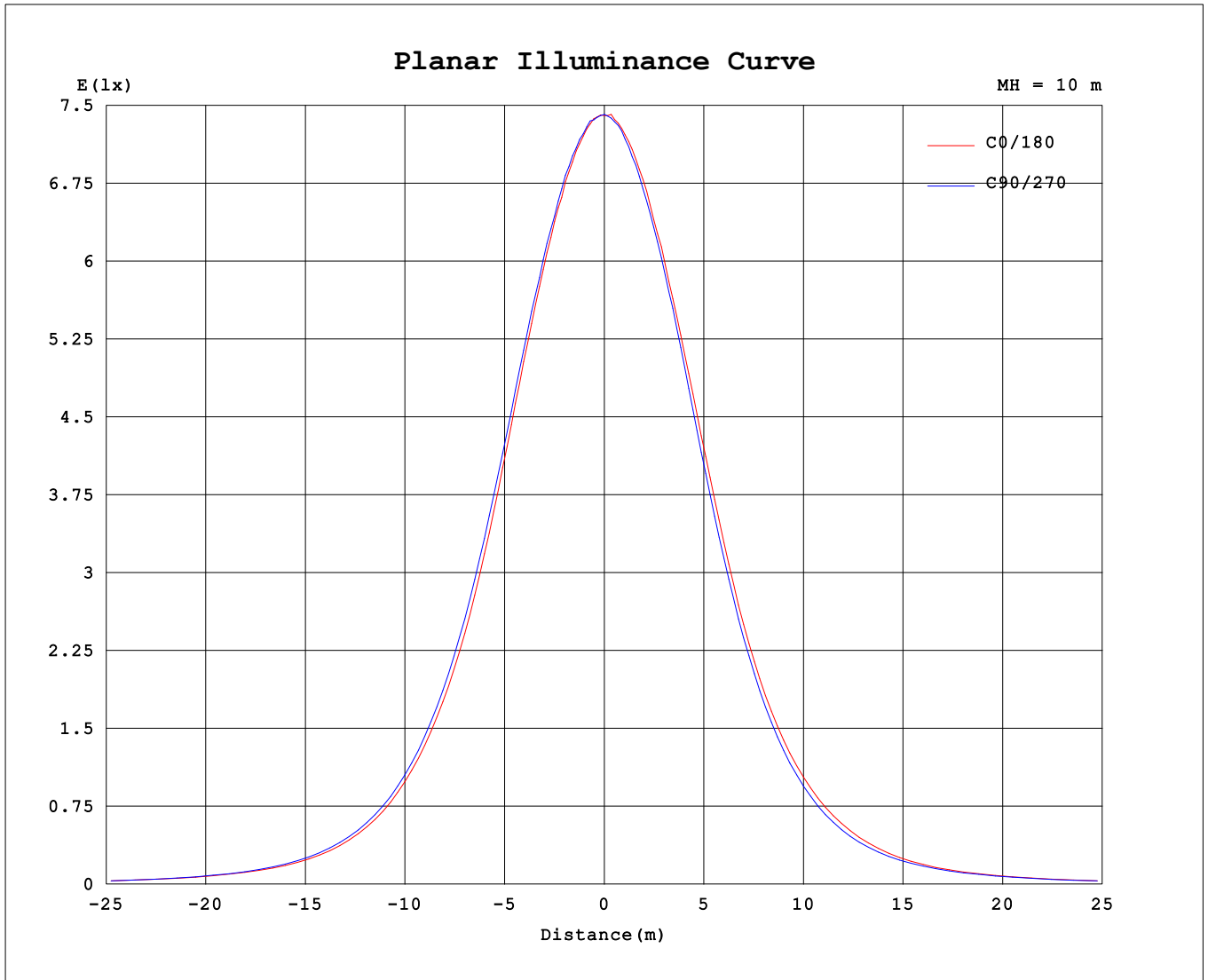
AvgL	cd/m2
L_0~180 (65) av	24033
L_0~180 (75) av	20043
L_0~180 (85) av	14253
L_90~270 (65) av	24048
L_90~270 (75) av	20025
L_90~270 (85) av	6936
L_45 (65) av	24142
L_45 (75) av	20069
L_45 (85) av	10284

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3℃
 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:

