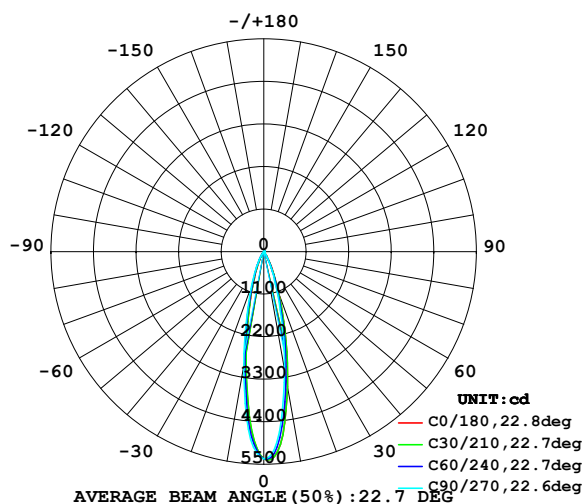


LUMINAIRE PHOTOMETRIC TEST REPORT

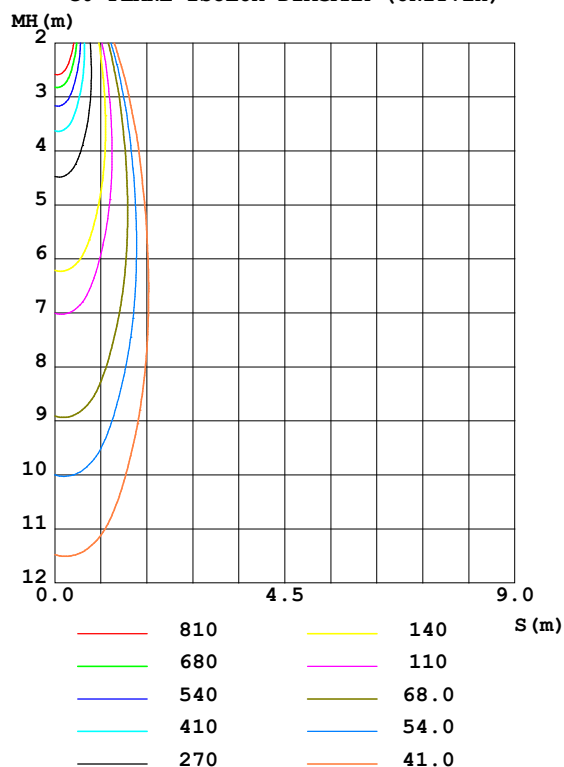
NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.94 lm/W			
MCR-3 (10W, 24°)		Imax(cd)	5395	S/MH(C0/180)	0.34
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.37
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1173.2	η UP,DN(C0-180)	0.7,49.5
NOMINAL FLUX(lm)	1173.24	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.6,49.2
LAMPS INSIDE	1	η up(%)	1.3	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	η down(%)	98.7	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



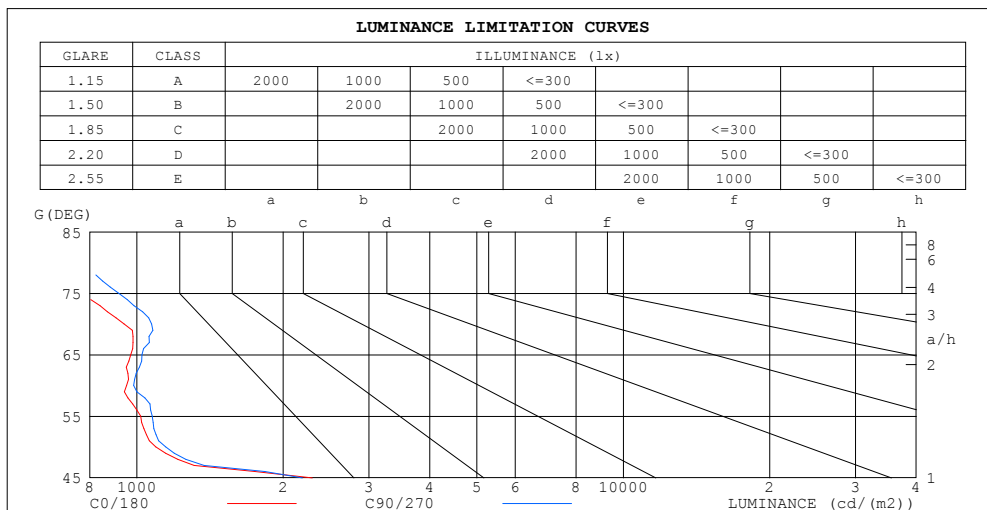
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

**ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES**

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	3538	3443	3138	2790	2688	2731	2995	3381	0- 10	389.9	389.9	33.2,33.2
20	1109	1043	892.4	748.2	724.9	772.8	897.2	1058	10- 20	488.2	878.1	74.8,74.8
30	259.7	228.2	187.8	153.8	165.8	196.1	234.6	261.2	20- 30	218.8	1097	93.5,93.5
40	13.88	13.07	11.87	10.90	10.83	12.94	15.69	15.25	30- 40	50.63	1148	97.8,97.8
50	3.140	3.346	3.324	3.273	3.149	2.992	3.034	3.198	40- 50	5.277	1153	98.3,98.3
60	2.126	2.233	2.223	2.240	2.124	1.958	1.899	1.953	50- 60	2.350	1155	98.5,98.5
70	1.438	1.589	1.653	1.526	1.363	1.345	1.334	1.322	60- 70	1.772	1157	98.6,98.6
80	0.4796	0.5318	0.5821	0.4883	0.4109	0.4504	0.4659	0.4406	70- 80	0.9745	1158	98.7,98.7
90	0	0	0	0	0	0	0.0001	0	80- 90	0.1864	1158	98.7,98.7
100	0	0.0023	0.0091	0.0091	0	0.0023	0	0.0045	90-100	0.0011	1158	98.7,98.7
110	0.1069	0.1419	0.1992	0.2010	0.0629	0.0383	0.0090	0.0226	100-110	0.0373	1158	98.7,98.7
120	0.6611	0.7434	0.9045	1.015	0.4168	0.3650	0.2752	0.2487	110-120	0.2880	1158	98.7,98.7
130	2.440	2.564	2.868	3.214	1.667	1.553	1.354	1.151	120-130	1.093	1159	98.8,98.8
140	5.603	5.743	6.075	6.439	4.519	4.344	3.964	3.581	130-140	2.675	1162	99.1,99.1
150	8.151	8.222	8.424	8.589	7.556	7.391	7.150	6.820	140-150	4.044	1166	99.4,99.4
160	9.146	9.073	9.109	9.045	8.605	8.503	8.540	8.539	150-160	3.902	1170	99.7,99.7
170	8.325	8.195	8.028	7.776	7.579	7.489	7.777	7.978	160-170	2.422	1173	99.9,99.9
180	7.115	7.160	7.026	7.109	7.097	7.142	7.013	7.118	170-180	0.7108	1173	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	381	516
80	619	744
75	779	917
70	942	1072
65	973	1024
60	952	986
55	1019	1076
50	1094	1147
45	2294	2191

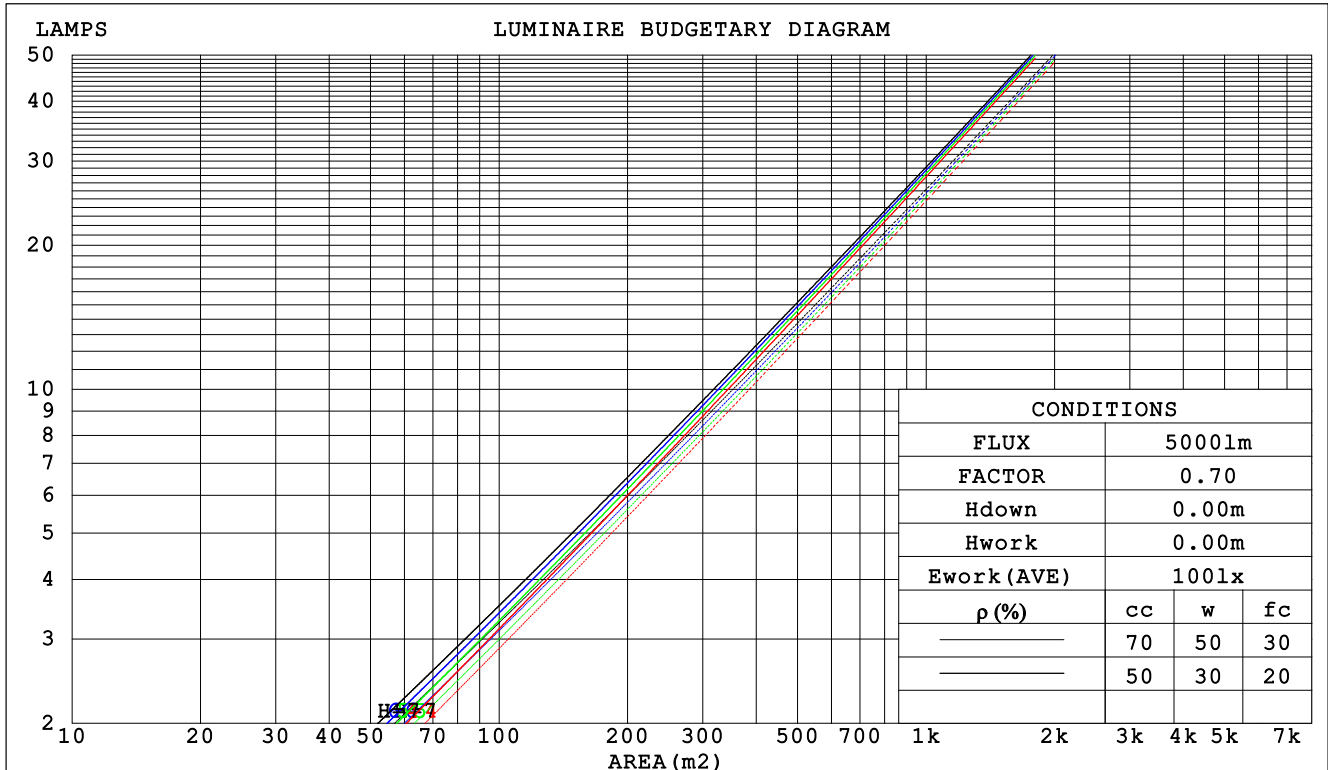
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.12	1.10	1.09	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.98	.98	.97	.95
2.0	1.07	1.04	1.01	1.05	1.02	1.00	1.02	.99	.98	.99	.97	.95	.96	.95	.93	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.93	.91	.93	.91	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.91	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.86	.91	.88	.86	.90	.87	.85	.88	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.89	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.88	.83	.80	.87	.83	.80	.86	.82	.80	.85	.81	.79	.84	.81	.79	.78
8.0	.85	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.77	.81	.78	.76	.75
9.0	.82	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.74	.79	.76	.74	.73
10.0	.80	.76	.73	.79	.75	.73	.79	.75	.72	.78	.75	.72	.77	.74	.72	.71



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.050m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

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					Wall Exitance Coefficients (WEC)
0.0						
1.0	.141 .080 .025	.134 .076 .024	.121 .069 .022	.109 .063 .020	.097 .056 .018	
2.0	.131 .072 .022	.125 .069 .021	.114 .063 .020	.104 .058 .018	.095 .053 .017	
3.0	.122 .065 .019	.117 .063 .019	.108 .058 .018	.099 .054 .017	.092 .051 .016	
4.0	.114 .059 .017	.110 .058 .017	.103 .054 .016	.095 .051 .015	.088 .048 .015	
5.0	.108 .055 .016	.104 .054 .016	.098 .051 .015	.091 .048 .014	.086 .046 .014	
6.0	.102 .051 .015	.099 .050 .014	.093 .048 .014	.088 .046 .013	.083 .044 .013	
7.0	.097 .048 .014	.094 .047 .013	.089 .045 .013	.085 .043 .013	.080 .042 .012	
8.0	.093 .045 .013	.090 .044 .013	.086 .043 .012	.082 .041 .012	.078 .040 .012	
9.0	.089 .043 .012	.087 .042 .012	.082 .041 .012	.079 .039 .011	.075 .038 .011	
10.0	.085 .041 .011	.083 .040 .011	.079 .039 .011	.076 .038 .011	.073 .037 .011	

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					Ceiling Cavity Exitance Coefficients (CCEC)
0.0	.200 .200 .200	.171 .171 .171	.117 .117 .117	.067 .067 .067	.021 .021 .021	
1.0	.179 .168 .158	.153 .144 .136	.104 .099 .094	.060 .057 .055	.019 .018 .018	
2.0	.161 .143 .128	.138 .123 .110	.094 .085 .077	.054 .049 .045	.017 .016 .015	
3.0	.146 .123 .105	.125 .106 .091	.086 .074 .064	.050 .043 .038	.016 .014 .012	
4.0	.134 .108 .088	.115 .093 .077	.079 .065 .054	.046 .038 .032	.015 .012 .011	
5.0	.123 .096 .076	.106 .083 .066	.073 .058 .046	.042 .034 .028	.014 .011 .009	
6.0	.115 .086 .065	.099 .074 .057	.068 .052 .040	.039 .031 .024	.013 .010 .008	
7.0	.107 .078 .057	.092 .067 .050	.064 .047 .035	.037 .028 .021	.012 .009 .007	
8.0	.101 .071 .051	.087 .062 .044	.060 .043 .031	.035 .026 .019	.011 .008 .006	
9.0	.095 .066 .046	.082 .057 .040	.057 .040 .028	.033 .024 .017	.011 .008 .006	
10.0	.090 .061 .041	.078 .053 .036	.054 .037 .026	.032 .022 .015	.010 .007 .005	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.050m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

NAME: MCR-3 (10W, 24°)					TYPE:LED					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:1				
MFR.: Utopia Lighting					SUR.:					PROTECTION 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					9.8	10.5	10.0	10.6	10.8	8.0	8.6	8.2	8.8	9.0
3H					9.7	10.3	10.0	10.5	10.7	8.0	8.6	8.2	8.8	9.0
4H					9.7	10.3	9.9	10.5	10.7	8.0	8.6	8.3	8.8	9.0
6H					9.6	10.2	9.9	10.4	10.7	8.0	8.5	8.3	8.8	9.0
8H					9.6	10.1	9.9	10.4	10.6	7.9	8.5	8.3	8.7	9.0
12H					9.5	10.0	9.8	10.3	10.6	7.9	8.4	8.2	8.7	9.0
4H 2H					9.6	10.2	9.9	10.4	10.6	7.8	8.4	8.1	8.6	8.9
3H					9.5	10.0	9.9	10.3	10.6	7.9	8.4	8.2	8.7	8.9
4H					9.5	10.0	9.8	10.3	10.6	7.9	8.4	8.2	8.7	9.0
6H					9.4	9.8	9.8	10.2	10.6	7.9	8.3	8.3	8.7	9.0
8H					9.4	9.8	9.8	10.1	10.5	7.9	8.3	8.3	8.6	9.0
12H					9.3	9.7	9.8	10.1	10.5	7.8	8.2	8.3	8.6	9.0
8H 4H					9.4	9.8	9.8	10.1	10.5	7.8	8.2	8.2	8.5	8.9
6H					9.3	9.6	9.8	10.0	10.5	7.8	8.1	8.3	8.5	9.0
8H					9.3	9.6	9.7	10.0	10.5	7.8	8.1	8.3	8.5	9.0
12H					9.2	9.5	9.7	9.9	10.4	7.8	8.0	8.3	8.5	9.0
12H 4H					9.3	9.7	9.7	10.1	10.5	7.7	8.1	8.2	8.5	8.9
6H					9.3	9.5	9.7	10.0	10.4	7.8	8.0	8.2	8.5	9.0
8H					9.2	9.5	9.7	9.9	10.4	7.8	8.0	8.2	8.5	9.0
Variations with the observer position at spacings:														
S = 1.0H					+ 4.0 / - 2.6					+ 2.4 / - 1.6				
1.5H					+ 6.3 / - 2.7					+ 4.2 / - 1.7				
2.0H					+ 2.2 / - 0.5					+ 1.6 / - 0.6				

CIE Pub.117 Corrected 1173 lm Total Lamp Luminous Flux. (8log(F/F0) = 0.6)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.050m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

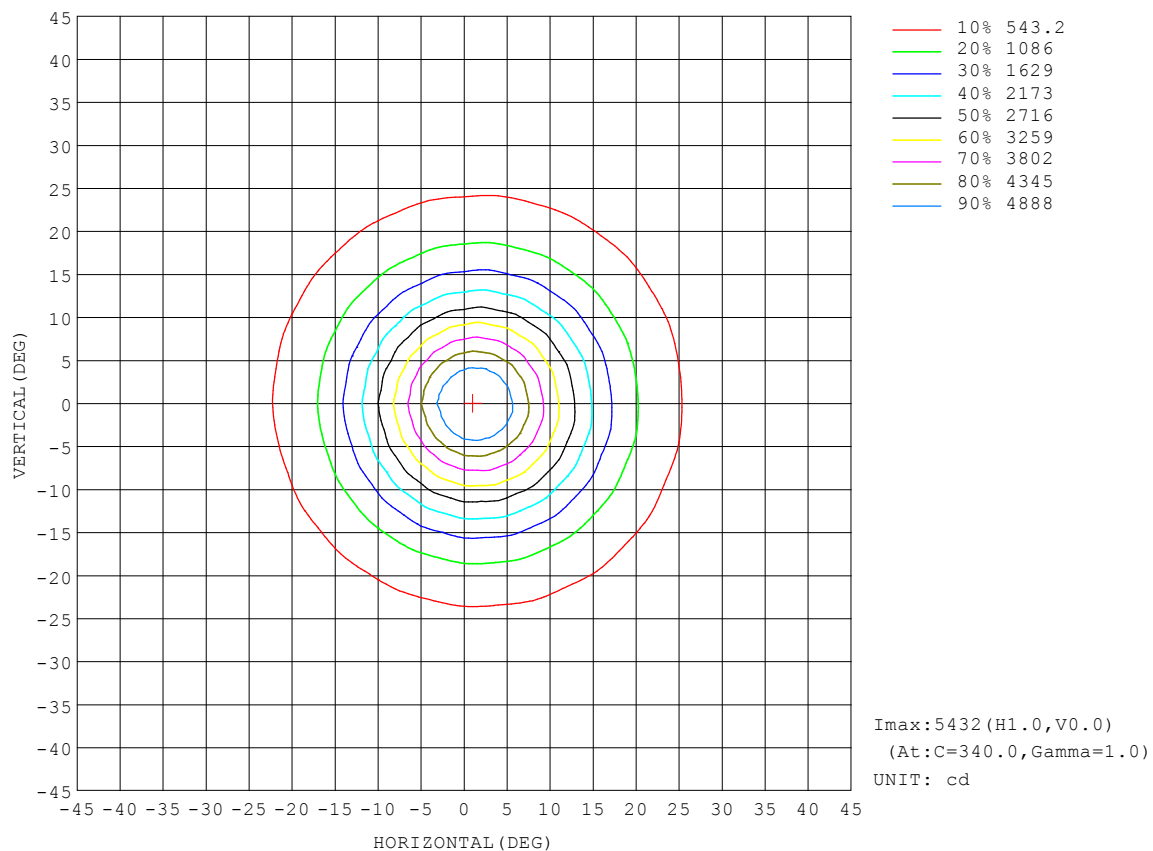
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	78
0.80	97	92	89	96	92	88	95	91	88	85
1.00	101	96	93	100	95	92	98	95	92	88
1.25	105	100	97	103	99	96	101	98	95	91
1.50	107	103	100	106	102	99	103	100	98	93
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	103	101	95
3.00	112	109	106	110	107	105	107	105	103	96
4.00	114	112	110	112	110	108	108	106	105	98
5.00	115	113	112	113	111	110	109	108	107	99
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 8.050m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

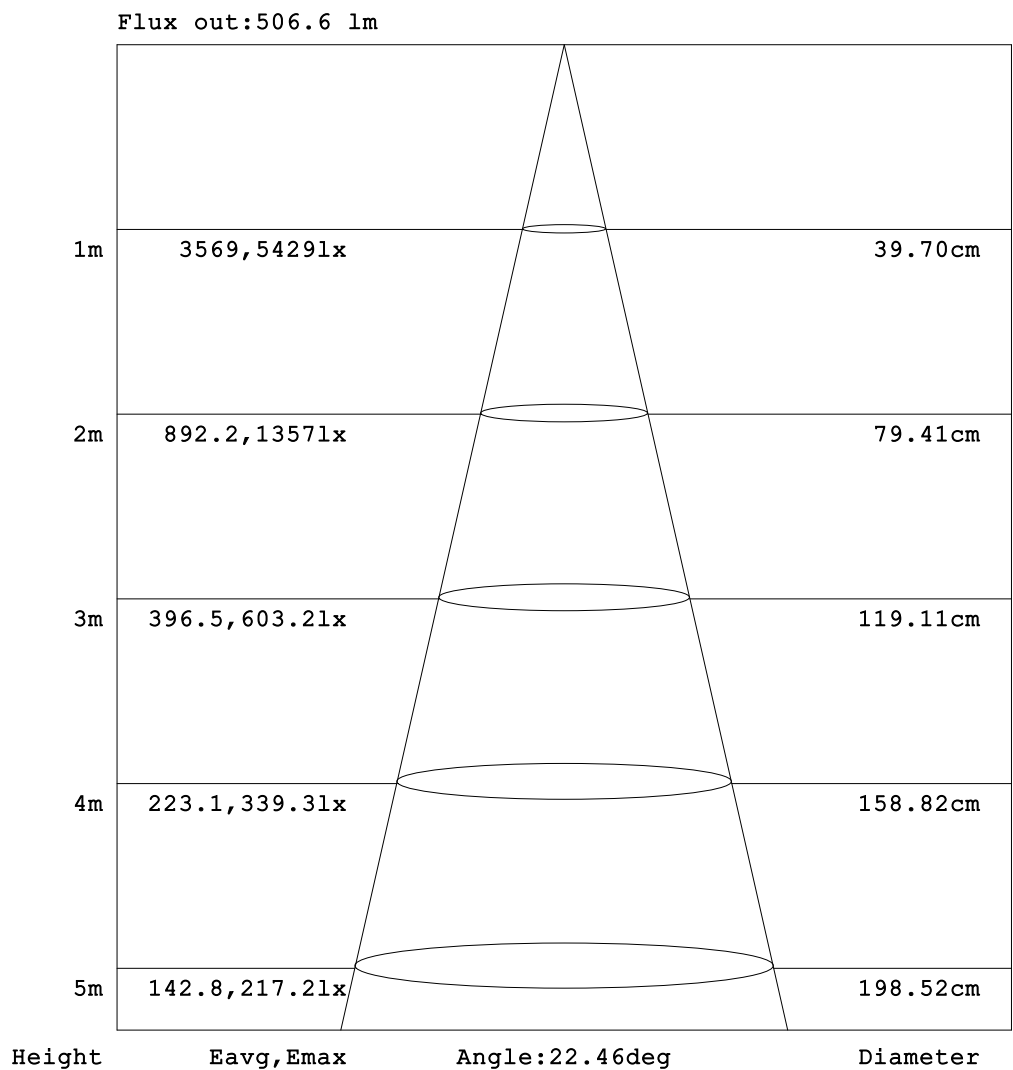


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

AAI Figure

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



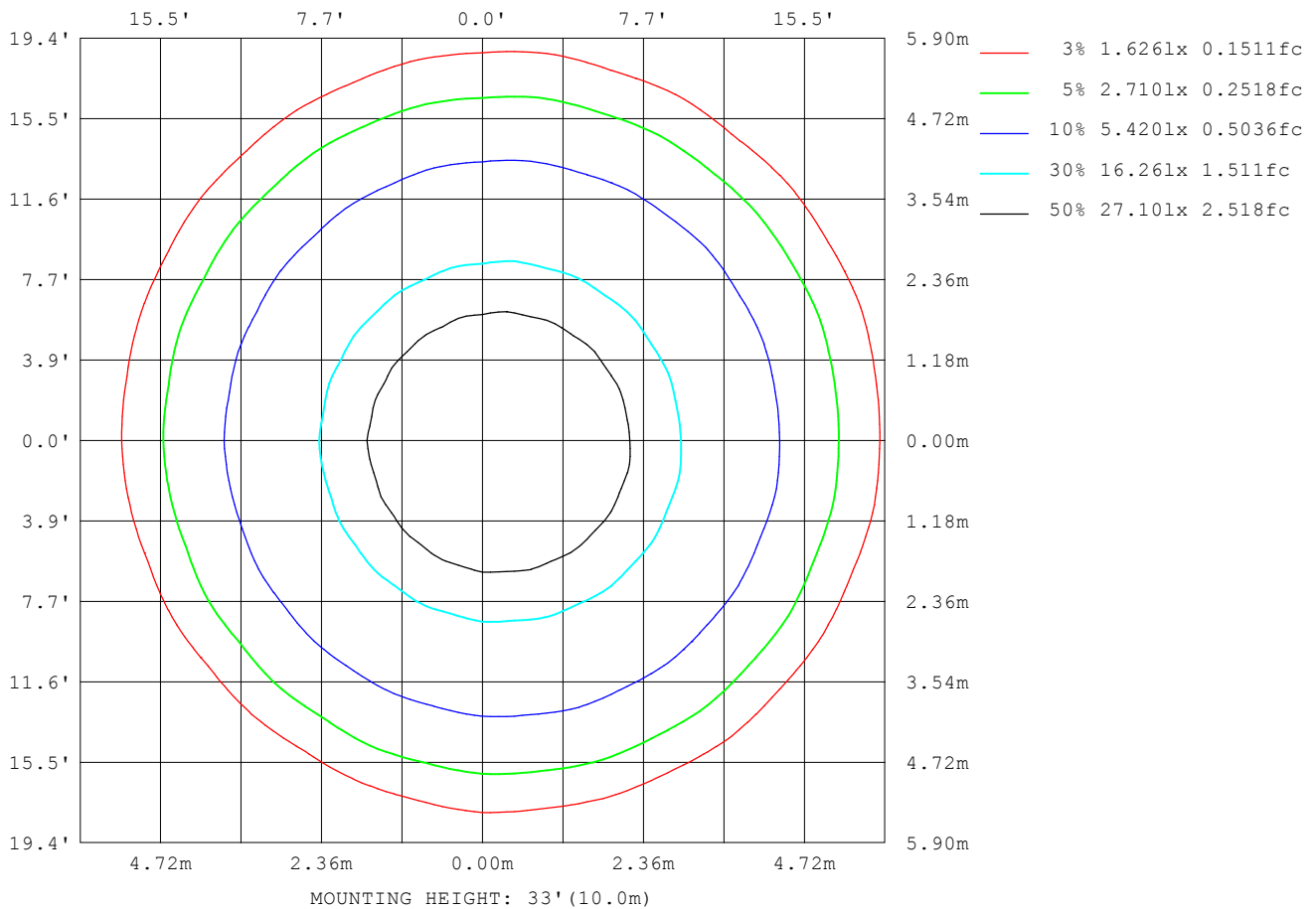
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 8.050m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2025-11-25

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.291
 Humidity: 65.0%
 Test Distance: 8.050m [K=1.0000]
 Remarks:

LED Avg.L Report

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

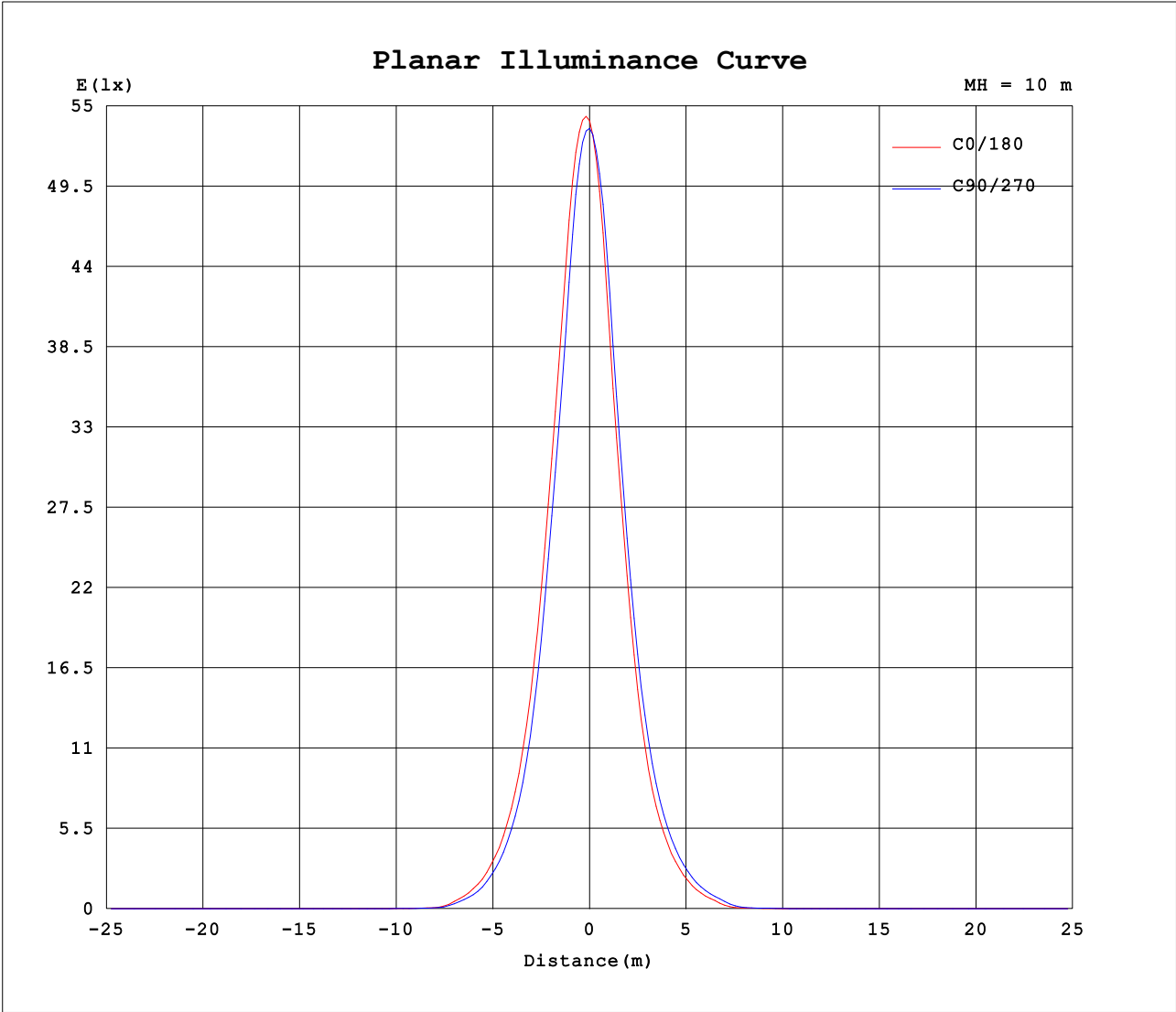
AvgL	cd/m2
L_0~180 (65) av	955
L_0~180 (75) av	747
L_0~180 (85) av	297
L_90~270 (65) av	941
L_90~270 (75) av	819
L_90~270 (85) av	484
L_45 (65) av	939
L_45 (75) av	772
L_45 (85) av	297

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357
5	5005	5045	4995	5003	4927	4910	4825	4807	4704	4681	4574	4542	4437	4414	4335	4339	4274	4291	4301
10	3538	3584	3521	3532	3449	3436	3320	3292	3170	3138	3024	2989	2867	2840	2740	2739	2658	2680	2688
15	2111	2161	2095	2119	2038	2043	1934	1916	1803	1776	1670	1652	1555	1537	1459	1460	1404	1421	1428
20	1109	1129	1081	1091	1045	1041	982	975	916	892	834	818	774	766	730	732	709	716	725
25	561	570	539	547	516	518	484	483	446	439	406	399	372	373	356	364	352	362	367
30	260	261	245	243	230	227	213	203	192	188	174	167	156	156	152	157	154	160	166
35	91.1	85.3	80.5	86.1	79.6	80.3	71.8	70.8	66.2	65.8	58.8	57.8	49.4	48.6	43.2	43.7	40.7	42.6	44.8
40	13.9	13.2	12.9	13.5	13.1	13.1	12.6	12.7	12.0	11.9	11.4	11.4	11.0	11.1	10.7	10.6	10.4	10.6	10.8
45	7.24	6.75	6.65	7.48	7.43	7.45	7.18	7.51	7.04	6.98	7.20	6.49	6.05	6.06	5.36	5.18	4.32	4.46	4.55
50	3.14	3.16	3.19	3.24	3.32	3.37	3.36	3.39	3.34	3.32	3.39	3.29	3.29	3.26	3.29	3.22	3.25	3.16	3.15
55	2.61	2.59	2.66	2.64	2.71	2.72	2.76	2.74	2.80	2.78	2.96	2.79	2.83	2.81	2.81	2.75	2.78	2.73	2.71
60	2.13	2.11	2.18	2.15	2.23	2.23	2.27	2.24	2.26	2.22	2.27	2.23	2.29	2.23	2.25	2.15	2.17	2.12	2.12
65	1.84	1.82	1.90	1.87	1.94	1.90	1.95	1.95	1.99	1.95	1.99	1.93	1.94	1.88	1.91	1.85	1.87	1.80	1.80
70	1.44	1.44	1.52	1.54	1.59	1.58	1.66	1.65	1.69	1.65	1.67	1.60	1.61	1.53	1.53	1.44	1.44	1.37	1.36
75	0.90	0.88	0.94	0.94	1.01	1.02	1.08	1.07	1.11	1.07	1.08	1.01	1.01	0.94	0.94	0.87	0.88	0.85	0.84
80	0.48	0.44	0.49	0.48	0.54	0.52	0.59	0.58	0.62	0.58	0.61	0.54	0.54	0.49	0.49	0.43	0.46	0.44	0.41
85	0.15	0.14	0.16	0.14	0.17	0.14	0.20	0.18	0.25	0.20	0.22	0.15	0.17	0.10	0.13	0.07	0.12	0.07	0.08
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.02	0.01
105	0.00	0.04	0.00	0.04	0.02	0.05	0.02	0.06	0.03	0.06	0.04	0.07	0.05	0.07	0.04	0.07	0.05	0.07	0.02
110	0.11	0.13	0.10	0.14	0.13	0.16	0.13	0.18	0.14	0.20	0.17	0.19	0.18	0.21	0.19	0.22	0.23	0.22	0.06
115	0.29	0.33	0.30	0.34	0.35	0.37	0.36	0.40	0.40	0.44	0.42	0.47	0.46	0.49	0.49	0.51	0.49	0.52	0.18
120	0.66	0.70	0.69	0.72	0.72	0.77	0.78	0.82	0.85	0.90	0.92	0.96	0.98	1.01	1.02	1.05	1.05	1.06	0.42
125	1.35	1.36	1.37	1.40	1.43	1.46	1.51	1.56	1.60	1.65	1.72	1.77	1.83	1.86	1.92	1.94	1.97	1.98	0.87
130	2.44	2.43	2.47	2.48	2.54	2.58	2.67	2.72	2.81	2.87	2.98	3.03	3.15	3.17	3.26	3.29	3.35	3.35	1.67
135	3.95	3.93	3.98	3.99	4.06	4.11	4.21	4.27	4.39	4.45	4.57	4.63	4.75	4.80	4.90	4.91	4.99	4.97	2.91
140	5.60	5.59	5.63	5.65	5.73	5.76	5.85	5.91	6.01	6.08	6.18	6.24	6.34	6.40	6.48	6.49	6.57	6.55	4.52
145	7.06	7.06	7.08	7.11	7.14	7.19	7.25	7.32	7.39	7.46	7.52	7.58	7.65	7.70	7.74	7.77	7.81	7.82	6.19
150	8.15	8.16	8.16	8.19	8.20	8.24	8.27	8.33	8.37	8.42	8.46	8.50	8.54	8.58	8.60	8.61	8.63	8.64	7.56
155	8.88	8.89	8.83	8.88	8.84	8.89	8.88	8.94	8.94	9.00	8.98	9.01	9.03	9.04	9.04	9.07	9.07	9.06	8.44
160	9.15	9.14	9.10	9.00	9.07	9.08	9.08	9.06	9.09	9.11	9.11	9.04	9.08	9.02	9.07	9.02	9.06	9.05	8.60
165	8.98	8.98	8.94	8.88	8.87	8.85	8.83	8.78	8.80	8.74	8.73	8.65	8.64	8.58	8.58	8.58	8.61	8.58	8.31
170	8.32	8.34	8.28	8.26	8.22	8.17	8.15	8.10	8.10	8.03	7.99	7.89	7.82	7.76	7.79	7.74	7.75	7.73	7.58
175	7.45	7.47	7.44	7.42	7.47	7.46	7.46	7.40	7.36	7.28	7.25	7.21	7.19	7.15	7.17	7.08	7.06	6.94	6.95
180	7.11	7.12	7.09	7.14	7.16	7.16	7.11	7.07	7.04	7.03	7.03	7.03	7.09	7.10	7.12	7.04	7.02	7.02	7.10

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: MCR-3 (10W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C (DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357	5357		
5	4255	4306	4286	4360	4366	4461	4483	4587	4612	4714	4737	4838	4854	4940	4945	5016	5005		
10	2628	2684	2655	2736	2725	2826	2836	2964	2995	3130	3156	3286	3319	3442	3445	3532	3521		
15	1402	1446	1436	1494	1498	1567	1579	1669	1689	1792	1815	1918	1942	2043	2039	2118	2104		
20	717	736	739	769	777	816	833	881	897	946	963	1015	1033	1083	1085	1117	1112		
25	365	380	380	398	407	431	440	468	475	503	507	533	538	563	561	578	567		
30	165	175	181	193	199	212	213	227	235	247	245	260	253	269	265	275	264		
35	42.9	50.0	52.8	62.0	67.7	77.9	78.3	88.3	92.4	101	96.2	104	96.3	101	98.3	101	93.6		
40	11.2	11.7	11.8	12.5	13.3	14.4	15.1	15.7	15.7	16.1	15.5	15.6	15.2	15.3	14.5	14.5	14.0		
45	4.47	4.62	4.75	5.38	5.59	6.34	6.56	7.17	7.39	8.11	8.14	8.32	8.33	8.41	7.81	7.31	7.00		
50	3.13	3.03	3.04	2.97	3.01	2.96	3.00	2.98	3.03	3.08	3.11	3.13	3.20	3.19	3.09	3.04	3.07		
55	2.73	2.64	2.64	2.57	2.63	2.56	2.59	2.52	2.55	2.53	2.55	2.54	2.56	2.49	2.52	2.52	2.56		
60	2.13	2.01	2.01	1.94	1.98	1.92	1.94	1.86	1.90	1.85	1.91	1.88	1.94	1.96	1.97	1.95	2.06		
65	1.82	1.73	1.76	1.67	1.70	1.64	1.65	1.59	1.63	1.58	1.62	1.58	1.64	1.65	1.70	1.71	1.79		
70	1.38	1.35	1.36	1.34	1.35	1.32	1.34	1.29	1.33	1.29	1.33	1.30	1.34	1.31	1.36	1.36	1.40		
75	0.86	0.81	0.85	0.80	0.84	0.80	0.84	0.79	0.84	0.79	0.83	0.79	0.83	0.80	0.85	0.82	0.88		
80	0.45	0.42	0.46	0.44	0.47	0.42	0.47	0.42	0.47	0.42	0.46	0.42	0.46	0.42	0.46	0.42	0.47		
85	0.13	0.08	0.14	0.07	0.06	0.11	0.17	0.13	0.18	0.14	0.16	0.13	0.16	0.12	0.16	0.12	0.15		
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
100	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00		
105	0.01	0.02	0.00	0.03	0.00	0.02	0.01	0.02	0.00	0.02	0.00	0.02	0.00	0.02	0.00	0.01	0.00		
110	0.02	0.05	0.02	0.06	0.01	0.06	0.02	0.05	0.01	0.05	0.01	0.05	0.00	0.04	0.00	0.04	0.00		
115	0.13	0.17	0.13	0.16	0.14	0.14	0.12	0.14	0.12	0.12	0.08	0.11	0.07	0.11	0.07	0.11	0.07		
120	0.40	0.40	0.36	0.38	0.35	0.36	0.31	0.33	0.28	0.29	0.30	0.28	0.23	0.27	0.22	0.25	0.22		
125	0.85	0.85	0.81	0.81	0.77	0.76	0.71	0.70	0.65	0.65	0.59	0.59	0.56	0.57	0.53	0.56	0.54		
130	1.65	1.63	1.61	1.58	1.53	1.49	1.44	1.40	1.35	1.29	1.24	1.20	1.16	1.14	1.11	1.11	1.10		
135	2.91	2.87	2.88	2.78	2.73	2.65	2.59	2.50	2.44	2.35	2.29	2.21	2.16	2.11	2.08	2.06	2.04		
140	4.54	4.47	4.46	4.37	4.32	4.22	4.16	4.03	3.96	3.85	3.78	3.67	3.62	3.54	3.51	3.46	3.46		
145	6.19	6.15	6.13	6.03	5.99	5.89	5.84	5.72	5.65	5.53	5.47	5.36	5.31	5.22	5.20	5.14	5.15		
150	7.54	7.50	7.47	7.42	7.36	7.30	7.26	7.18	7.15	7.04	6.97	6.89	6.85	6.79	6.77	6.72	6.72		
155	8.41	8.37	8.31	8.29	8.24	8.23	8.19	8.18	8.14	8.11	8.04	8.01	7.96	7.96	7.93	7.94	7.93		
160	8.62	8.56	8.56	8.50	8.50	8.50	8.51	8.48	8.54	8.57	8.53	8.56	8.52	8.56	8.54	8.60	8.59		
165	8.29	8.25	8.22	8.17	8.21	8.22	8.28	8.31	8.40	8.40	8.47	8.47	8.52	8.55	8.52	8.60	8.66		
170	7.56	7.51	7.54	7.48	7.49	7.49	7.62	7.66	7.78	7.83	7.88	7.88	7.97	7.99	8.05	8.08	8.14		
175	6.96	6.97	7.03	7.03	7.05	7.00	7.05	7.03	7.12	7.15	7.26	7.27	7.32	7.31	7.28	7.30	7.36		
180	7.11	7.09	7.08	7.13	7.15	7.11	7.04	7.04	7.01	7.01	7.04	7.09	7.13	7.11	7.05	7.03	7.04		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks: