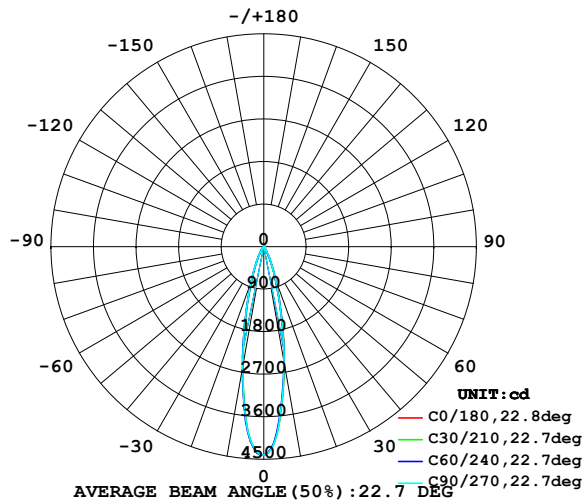


LUMINAIRE PHOTOMETRIC TEST REPORT

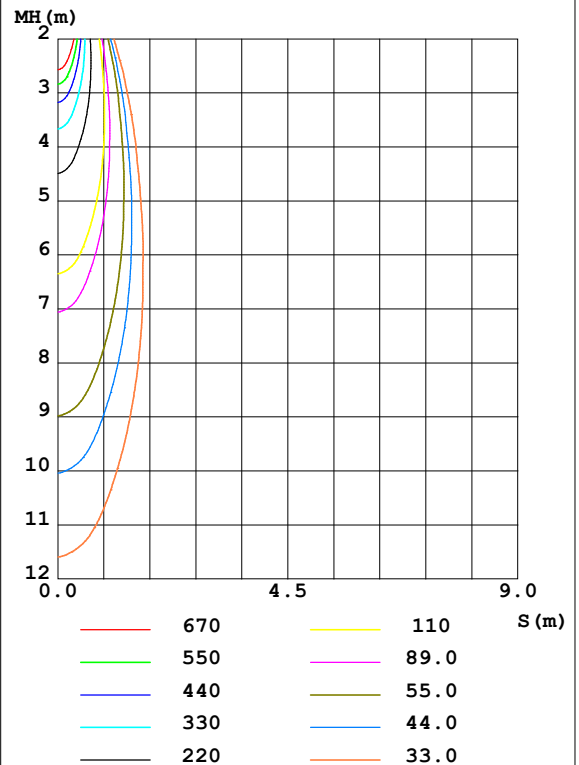
NAME: MCR-3 (8W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 121.68 lm/W			
MCR-3 (8W, 24°)		I _{max} (cd)	4412	S/MH(C0/180)	0.39
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.39
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	960.00	η UP,DN(C0-180)	0.7,47.2
NOMINAL FLUX(lm)	960.002	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,51.5
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)



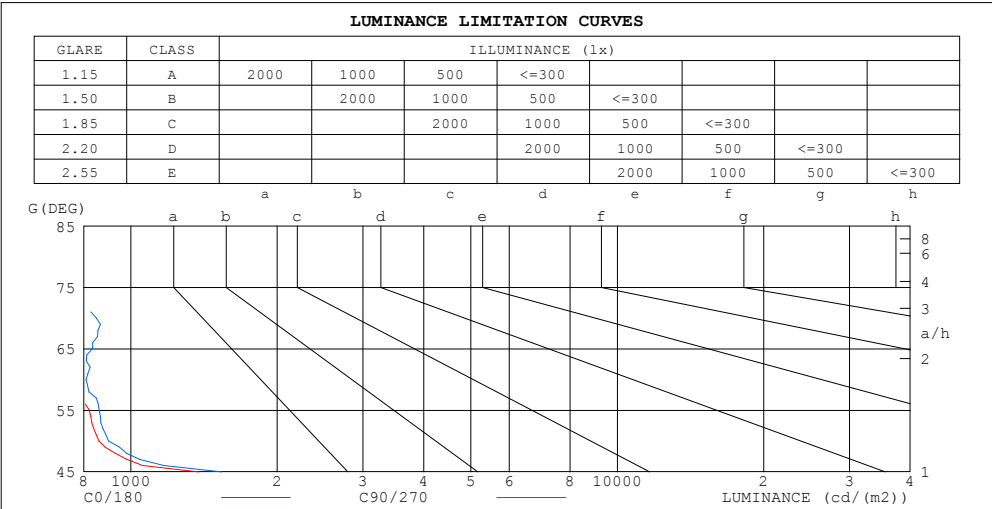
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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	2493	2493	2481	2459	2610	2586	2585	2611	0- 10	321.5	321.5	33.5,33.5
20	720.5	703.2	694.9	681.3	743.7	763.4	780.9	784.3	10- 20	398.8	720.3	75,75
30	154.5	142.1	141.9	149.8	184.7	202.1	203.3	184.8	20- 30	177.0	897.2	93.5,93.5
40	9.454	8.917	8.928	10.02	11.16	13.94	14.06	10.86	30- 40	41.67	938.9	97.8,97.8
50	2.473	2.529	2.604	2.693	2.627	2.599	2.565	2.485	40- 50	4.406	943.3	98.3,98.3
60	1.696	1.803	1.823	1.783	1.713	1.710	1.635	1.586	50- 60	1.923	945.2	98.5,98.5
70	1.140	1.249	1.308	1.285	1.205	1.167	1.151	1.102	60- 70	1.461	946.7	98.6,98.6
80	0.3550	0.3900	0.4283	0.4112	0.3761	0.4011	0.4203	0.3523	70- 80	0.8035	947.5	98.7,98.7
90	0	0	0	0	0	0	0.0001	0	80- 90	0.1521	947.6	98.7,98.7
100	0	0	0.0046	0	0	0	0	0	90-100	0.0000	947.6	98.7,98.7
110	0.1072	0.1419	0.1718	0.1174	0.0270	0.0113	0	0.0204	100-110	0.0242	947.6	98.7,98.7
120	0.6939	0.7369	0.7726	0.7270	0.2427	0.2141	0.2071	0.2259	110-120	0.2266	947.9	98.7,98.7
130	2.370	2.443	2.462	2.439	1.087	1.044	1.019	1.042	120-130	0.8936	948.8	98.8,98.8
140	5.002	5.079	5.112	5.073	3.192	3.140	3.103	3.136	130-140	2.191	951.0	99.1,99.1
150	6.887	6.925	6.952	6.912	5.824	5.741	5.726	5.749	140-150	3.301	954.3	99.4,99.4
160	7.458	7.387	7.424	7.354	7.010	6.921	6.960	6.991	150-160	3.183	957.4	99.7,99.7
170	6.545	6.491	6.489	6.451	6.385	6.310	6.406	6.426	160-170	1.977	959.4	99.9,99.9
180	5.768	5.853	5.791	5.837	5.759	5.846	5.786	5.832	170-180	0.5807	960.0	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	243	355
80	457	548
75	597	704
70	745	849
65	790	835
60	758	810
55	822	861
50	860	899
45	1378	1537

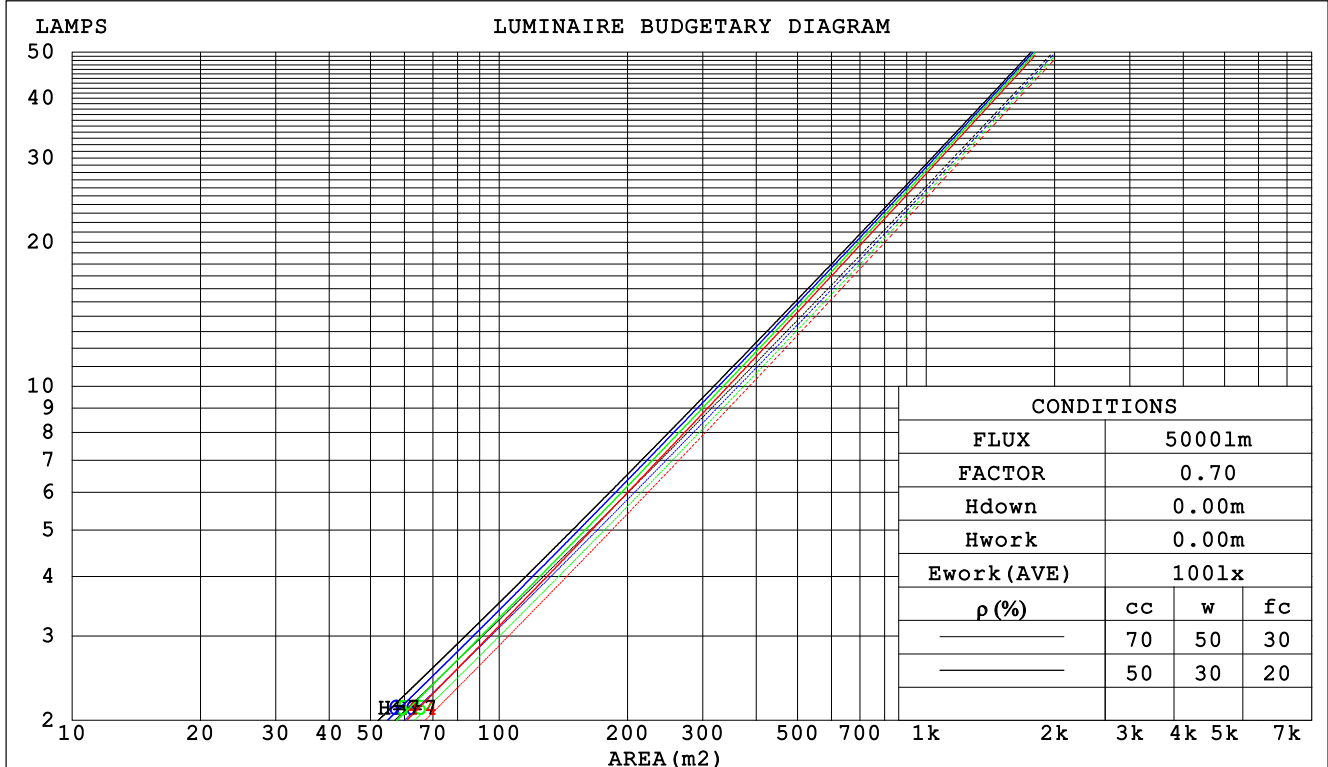
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (8W, 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	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
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	.00	.98	.99	.97	.95	.96	.95	.93	.92
3.0	1.02	.98	.96	1.01	.97	.95	.98	.95	.93	.96	.93	.91	.93	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.86	.92	.88	.86	.90	.87	.85	.88	.86	.84	.83
6.0	.91	.87	.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	.82	.79	.84	.81	.79	.78
8.0	.85	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.77	.81	.79	.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	.73	.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 (8W, 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	.120 .069 .022	.108 .063 .020	.097 .056 .018	
2.0	.131 .072 .022	.125 .069 .021	.114 .063 .020	.104 .058 .018	.094 .053 .017	
3.0	.122 .065 .019	.117 .063 .019	.108 .058 .018	.099 .054 .017	.091 .051 .016	
4.0	.114 .059 .017	.110 .058 .017	.102 .054 .016	.095 .051 .015	.088 .048 .015	
5.0	.108 .055 .016	.104 .053 .016	.097 .051 .015	.091 .048 .014	.085 .046 .014	
6.0	.102 .051 .015	.099 .050 .014	.093 .048 .014	.088 .046 .013	.083 .043 .013	
7.0	.097 .048 .014	.094 .047 .013	.089 .045 .013	.084 .043 .013	.080 .041 .012	
8.0	.092 .045 .013	.090 .044 .013	.086 .043 .012	.081 .041 .012	.077 .040 .012	
9.0	.088 .043 .012	.086 .042 .012	.082 .041 .012	.078 .039 .011	.075 .038 .011	
10.0	.085 .041 .011	.083 .040 .011	.079 .039 .011	.076 .038 .011	.073 .037 .010	

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 .127	.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	.098 .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 .045	.082 .057 .040	.057 .040 .028	.033 .024 .017	.011 .008 .006	
10.0	.090 .061 .041	.078 .053 .036	.054 .037 .026	.031 .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 (8W, 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					6.7	7.4	6.9	7.5	7.7	6.0	6.7	6.2	6.8	7.0
3H					6.7	7.3	7.0	7.5	7.7	6.1	6.7	6.3	6.9	7.1
4H					6.7	7.3	7.0	7.5	7.7	6.1	6.7	6.4	6.9	7.1
6H					6.6	7.2	6.9	7.4	7.7	6.1	6.6	6.4	6.9	7.1
8H					6.6	7.1	6.9	7.4	7.7	6.1	6.6	6.4	6.9	7.1
12H					6.6	7.1	6.9	7.4	7.6	6.0	6.5	6.3	6.8	7.1
4H 2H					6.5	7.1	6.8	7.4	7.6	5.8	6.4	6.1	6.7	6.9
3H					6.6	7.1	6.9	7.4	7.7	6.0	6.5	6.3	6.8	7.1
4H					6.6	7.0	6.9	7.4	7.7	6.0	6.5	6.4	6.8	7.1
6H					6.5	7.0	6.9	7.3	7.7	6.1	6.5	6.4	6.8	7.2
8H					6.5	6.9	6.9	7.3	7.6	6.0	6.4	6.4	6.8	7.2
12H					6.5	6.8	6.9	7.2	7.6	6.0	6.4	6.4	6.8	7.2
8H 4H					6.5	6.9	6.9	7.2	7.6	5.9	6.3	6.4	6.7	7.1
6H					6.5	6.8	6.9	7.2	7.6	6.0	6.3	6.4	6.7	7.2
8H					6.4	6.7	6.9	7.1	7.6	6.0	6.3	6.5	6.7	7.2
12H					6.4	6.6	6.9	7.1	7.6	6.0	6.2	6.4	6.7	7.2
12H 4H					6.4	6.8	6.9	7.2	7.6	5.9	6.3	6.3	6.6	7.1
6H					6.4	6.7	6.9	7.1	7.6	5.9	6.2	6.4	6.7	7.1
8H					6.4	6.6	6.9	7.1	7.6	5.9	6.2	6.4	6.6	7.1
Variations with the observer position at spacings:														
S = 1.0H					+ 2.0 / - 1.4					+ 1.7 / - 1.2				
1.5H					+ 3.8 / - 1.5					+ 3.3 / - 1.2				
2.0H					+ 1.2 / - 0.4					+ 1.3 / - 0.4				

CIE Pub.117 Corrected 960.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.1)

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 (8W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

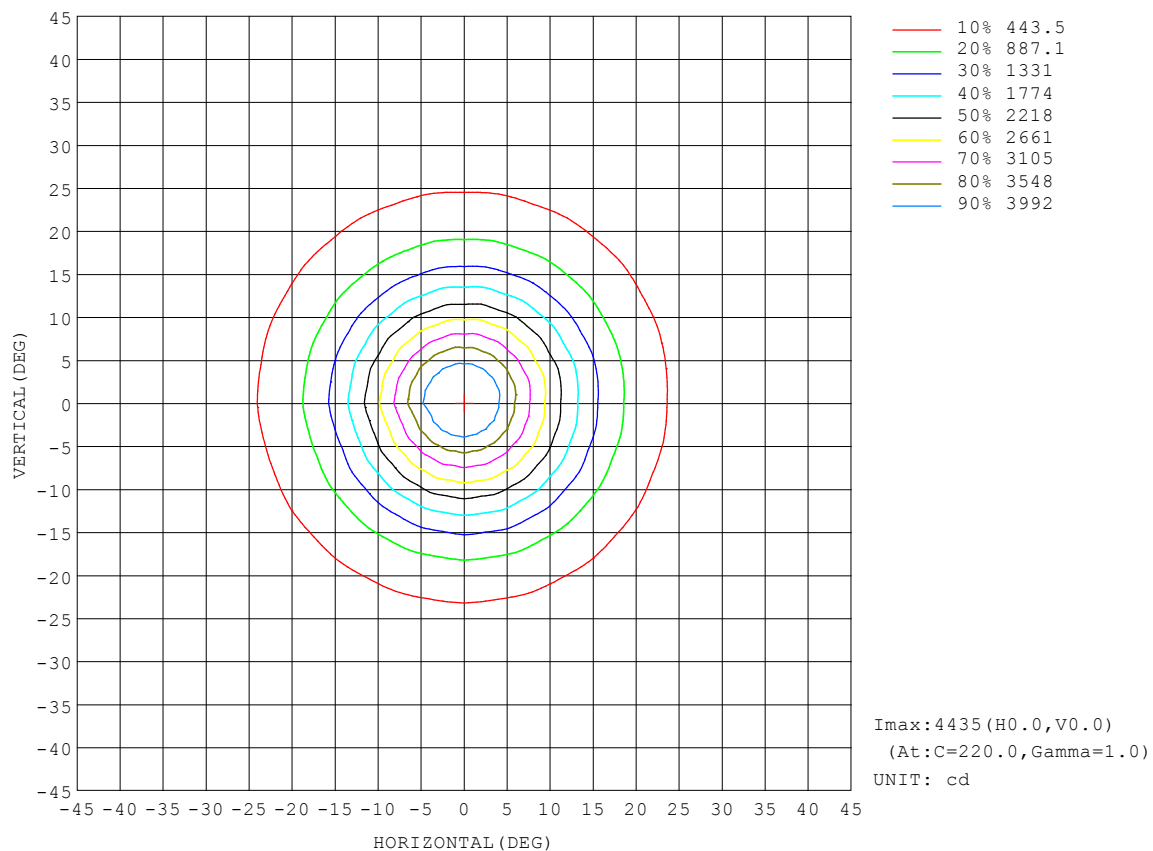
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	77
0.80	97	92	89	96	92	88	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 (8W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

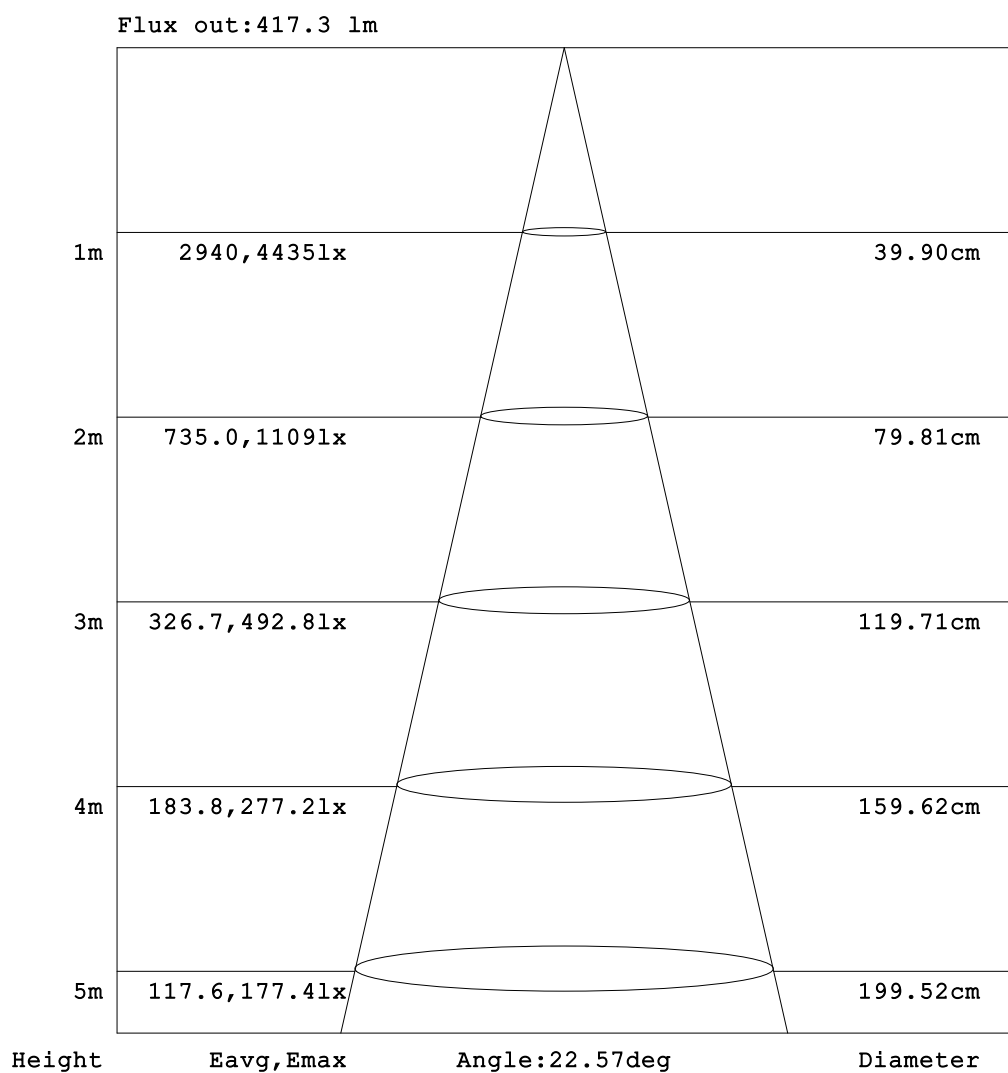


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (8W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



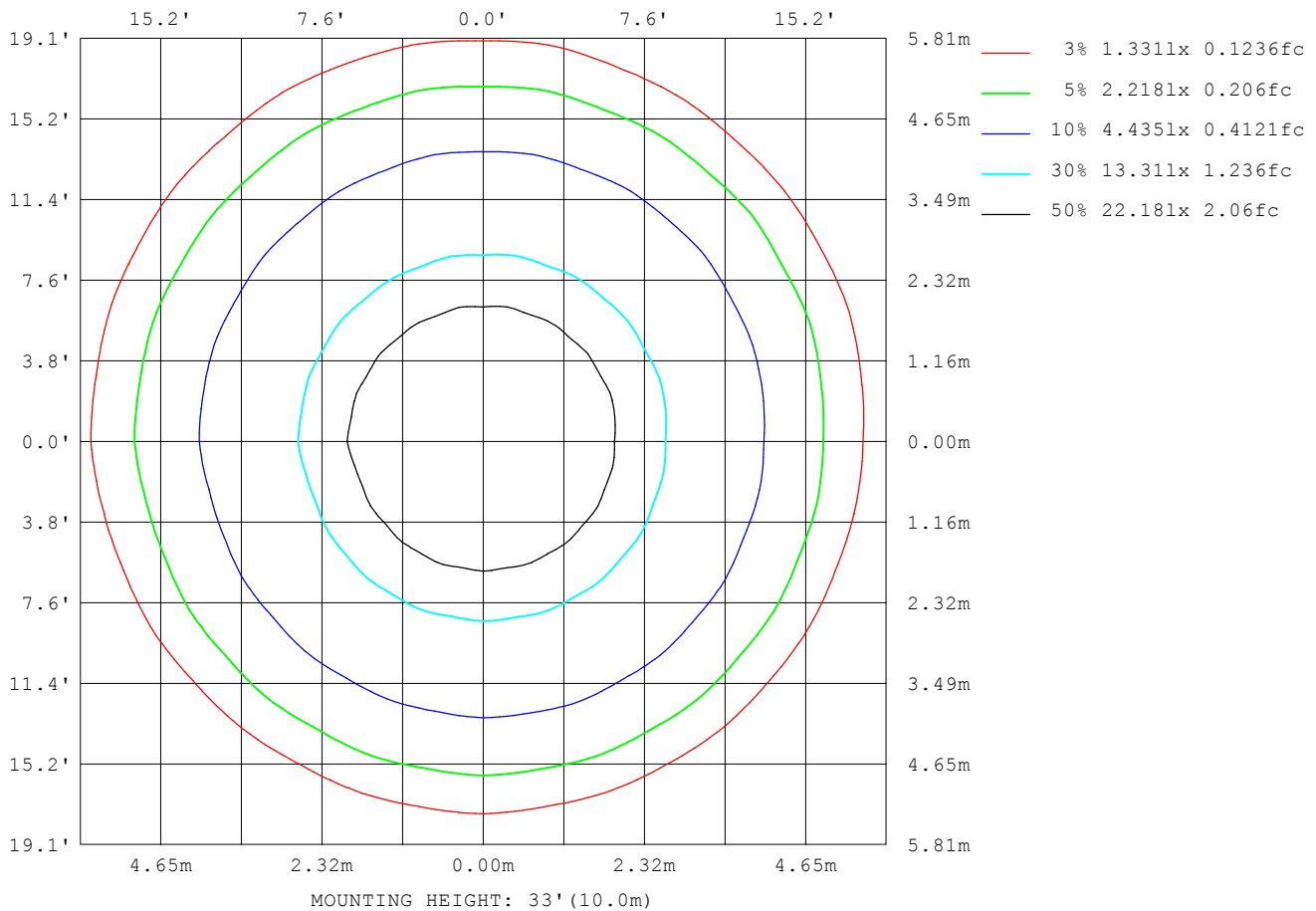
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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 (8W, 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 (8W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

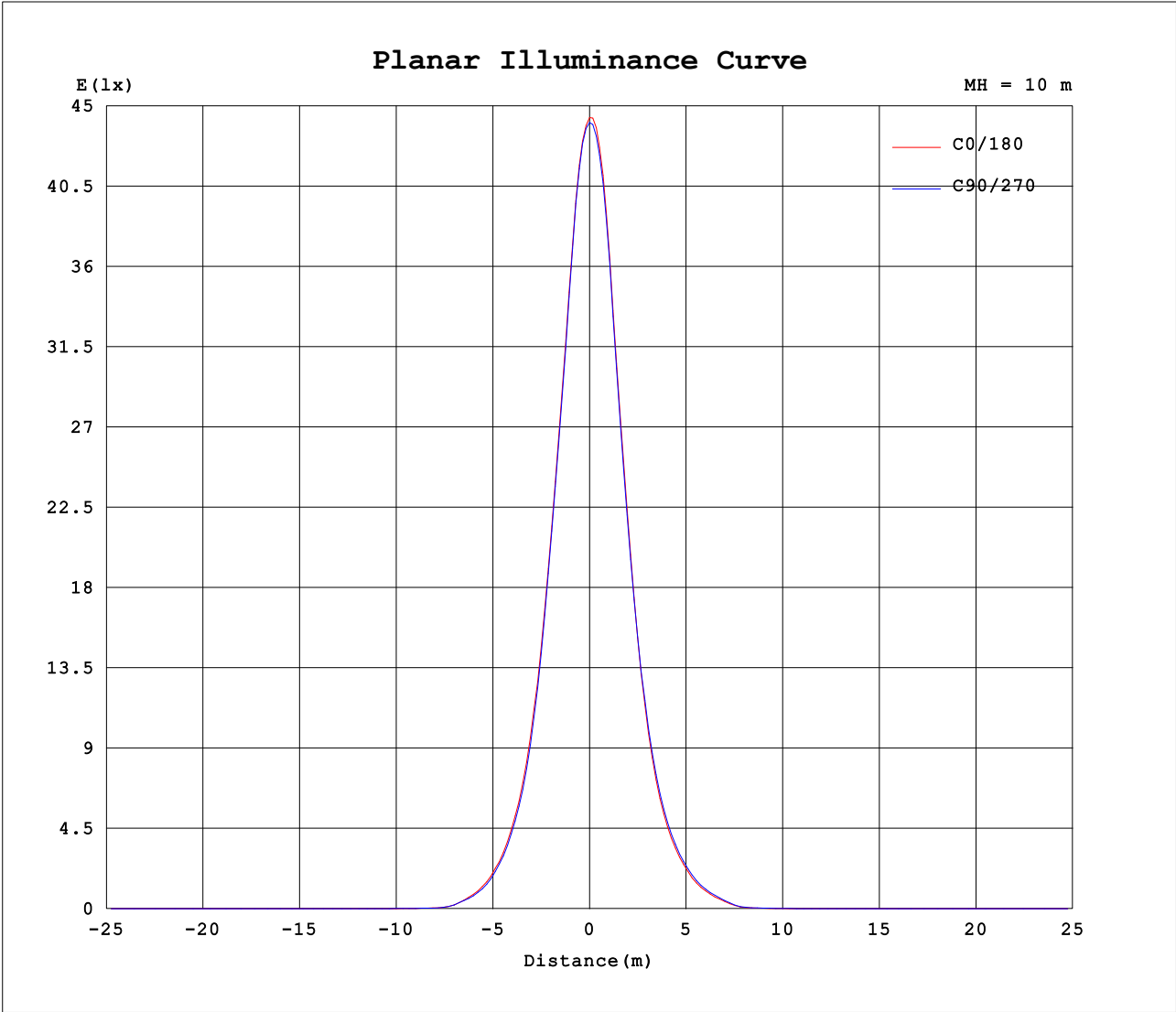
AvgL	cd/m2
L_0~180 (65) av	789
L_0~180 (75) av	612
L_0~180 (85) av	235
L_90~270 (65) av	781
L_90~270 (75) av	672
L_90~270 (85) av	402
L_45 (65) av	773
L_45 (75) av	640
L_45 (85) av	232

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 (8W, 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	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411
5	3746	3759	3732	3757	3721	3744	3715	3743	3713	3748	3723	3767	3744	3783	3763	3812	3798	3843	3925
10	2493	2517	2479	2517	2475	2511	2470	2493	2447	2481	2438	2484	2441	2477	2440	2493	2463	2516	2610
15	1406	1425	1389	1424	1390	1417	1380	1402	1357	1379	1341	1374	1349	1371	1357	1376	1342	1390	1456
20	721	726	701	714	697	710	691	705	686	695	672	683	672	688	674	696	688	708	744
25	355	357	342	349	336	344	334	342	329	338	326	335	329	340	337	355	355	368	387
30	154	151	145	144	142	142	140	140	139	142	140	143	142	148	152	160	166	175	185
35	40.2	40.2	36.3	36.8	34.8	35.8	33.4	36.3	35.4	41.2	42.2	48.4	48.0	54.0	56.9	63.8	65.5	72.3	76.2
40	9.45	9.28	9.02	9.14	8.90	8.93	8.78	8.98	8.77	8.93	8.96	9.33	9.44	9.95	10.1	10.4	10.5	11.0	11.2
45	4.36	4.40	4.18	4.53	4.32	4.46	4.28	4.74	4.62	4.90	4.93	5.24	5.30	5.76	5.77	5.97	5.57	5.85	6.17
50	2.47	2.46	2.52	2.49	2.54	2.52	2.63	2.61	2.62	2.60	2.64	2.64	2.67	2.67	2.72	2.70	2.69	2.63	2.63
55	2.11	2.09	2.14	2.11	2.18	2.14	2.20	2.17	2.26	2.22	2.27	2.22	2.26	2.24	2.29	2.24	2.29	2.24	2.23
60	1.70	1.72	1.76	1.75	1.83	1.78	1.82	1.80	1.86	1.82	1.87	1.79	1.81	1.75	1.81	1.80	1.80	1.73	1.71
65	1.49	1.47	1.53	1.51	1.57	1.53	1.59	1.57	1.62	1.59	1.61	1.58	1.59	1.53	1.58	1.52	1.55	1.50	1.51
70	1.14	1.13	1.18	1.19	1.25	1.25	1.30	1.28	1.34	1.31	1.36	1.30	1.33	1.28	1.29	1.24	1.25	1.21	1.21
75	0.69	0.67	0.73	0.71	0.78	0.77	0.81	0.79	0.85	0.82	0.85	0.81	0.84	0.78	0.80	0.74	0.77	0.72	0.73
80	0.35	0.37	0.37	0.36	0.40	0.38	0.43	0.42	0.47	0.43	0.47	0.45	0.45	0.40	0.42	0.37	0.41	0.36	0.38
85	0.09	0.06	0.10	0.06	0.11	0.09	0.14	0.12	0.17	0.14	0.17	0.11	0.15	0.09	0.14	0.08	0.13	0.08	0.09
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.04	0.01	0.05	0.00	0.05	0.01	0.05	0.01	0.05	0.02	0.05	0.02	0.04	0.00	0.03	0.00	0.02	0.00
110	0.11	0.14	0.12	0.15	0.13	0.15	0.13	0.18	0.13	0.17	0.14	0.16	0.12	0.14	0.09	0.13	0.08	0.12	0.03
115	0.30	0.35	0.32	0.36	0.36	0.37	0.35	0.38	0.36	0.39	0.37	0.37	0.33	0.35	0.31	0.33	0.29	0.32	0.09
120	0.69	0.72	0.71	0.74	0.72	0.75	0.73	0.76	0.74	0.77	0.74	0.76	0.73	0.75	0.71	0.72	0.69	0.70	0.24
125	1.35	1.38	1.38	1.40	1.43	1.43	1.42	1.43	1.43	1.44	1.43	1.43	1.42	1.41	1.40	1.38	1.36	1.36	0.54
130	2.37	2.39	2.41	2.42	2.44	2.45	2.47	2.45	2.48	2.46	2.48	2.46	2.45	2.43	2.45	2.40	2.39	2.37	1.09
135	3.68	3.70	3.73	3.72	3.76	3.76	3.78	3.77	3.79	3.78	3.80	3.78	3.77	3.74	3.75	3.72	3.70	3.66	1.96
140	5.00	5.03	5.04	5.05	5.08	5.08	5.10	5.10	5.11	5.11	5.11	5.10	5.10	5.08	5.07	5.04	5.03	5.00	3.19
145	6.10	6.14	6.13	6.15	6.15	6.17	6.17	6.19	6.18	6.20	6.19	6.19	6.17	6.18	6.15	6.14	6.13	6.11	4.58
150	6.89	6.91	6.90	6.92	6.93	6.92	6.93	6.94	6.93	6.95	6.93	6.94	6.92	6.93	6.90	6.90	6.87	6.89	5.82
155	7.35	7.38	7.33	7.36	7.34	7.36	7.34	7.37	7.35	7.38	7.36	7.37	7.32	7.35	7.31	7.34	7.31	7.34	6.69
160	7.46	7.46	7.43	7.41	7.38	7.40	7.44	7.41	7.42	7.42	7.44	7.38	7.40	7.36	7.35	7.38	7.43	7.42	7.01
165	7.20	7.18	7.16	7.11	7.12	7.09	7.13	7.08	7.13	7.09	7.12	7.08	7.09	7.06	7.09	7.08	7.14	7.12	6.89
170	6.55	6.52	6.52	6.49	6.51	6.47	6.51	6.48	6.54	6.49	6.51	6.44	6.45	6.42	6.49	6.49	6.51	6.49	6.38
175	5.88	5.84	5.89	5.86	5.95	5.94	6.01	5.97	5.97	5.91	5.95	5.92	5.94	5.92	5.95	5.90	5.89	5.81	5.82
180	5.77	5.76	5.76	5.77	5.85	5.86	5.83	5.80	5.79	5.79	5.78	5.79	5.82	5.84	5.83	5.77	5.74	5.74	5.76

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
γ 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 (8W, 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	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411		
5	3910	3939	3908	3938	3917	3944	3918	3946	3913	3942	3900	3920	3876	3893	3846	3868	3827		
10	2568	2608	2557	2607	2564	2606	2564	2626	2585	2636	2589	2642	2591	2632	2574	2615	2568		
15	1435	1470	1445	1485	1456	1486	1461	1504	1477	1515	1481	1522	1487	1515	1469	1500	1463		
20	739	756	749	768	758	775	770	791	781	796	780	797	780	789	766	771	753		
25	386	397	393	405	402	416	410	423	414	422	407	413	401	404	389	390	375		
30	186	194	196	203	201	209	206	209	203	207	196	194	186	184	177	175	165		
35	74.4	80.2	83.0	90.7	90.1	95.1	90.9	91.0	85.1	86.4	74.1	70.4	61.4	58.7	52.2	51.6	44.0		
40	11.3	12.0	12.4	13.7	14.2	15.2	15.2	15.0	14.1	13.6	12.3	11.8	11.0	10.7	10.2	10.1	9.74		
45	5.71	6.10	6.73	7.15	7.18	7.36	7.16	7.17	6.82	6.79	6.31	6.19	5.66	5.59	5.02	4.98	4.48		
50	2.62	2.58	2.62	2.59	2.60	2.76	2.81	2.61	2.57	2.55	2.56	2.50	2.50	2.47	2.48	2.41	2.43		
55	2.26	2.22	2.24	2.19	2.20	2.14	2.23	2.14	2.14	2.08	2.12	2.06	2.09	2.04	2.07	2.03	2.07		
60	1.74	1.70	1.70	1.72	1.70	1.65	1.65	1.63	1.63	1.60	1.59	1.54	1.60	1.58	1.64	1.61	1.67		
65	1.51	1.44	1.46	1.39	1.42	1.38	1.40	1.35	1.38	1.33	1.37	1.33	1.38	1.36	1.42	1.39	1.46		
70	1.23	1.20	1.21	1.15	1.18	1.14	1.17	1.15	1.15	1.11	1.12	1.08	1.12	1.08	1.11	1.08	1.13		
75	0.76	0.73	0.76	0.72	0.76	0.72	0.75	0.71	0.75	0.71	0.71	0.66	0.70	0.65	0.68	0.66	0.69		
80	0.41	0.37	0.42	0.38	0.42	0.39	0.43	0.38	0.42	0.37	0.40	0.37	0.38	0.33	0.36	0.32	0.37		
85	0.14	0.10	0.14	0.07	0.05	0.11	0.17	0.14	0.18	0.13	0.15	0.09	0.13	0.08	0.10	0.06	0.10		
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	0.00	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		
105	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		
110	0.01	0.02	0.00	0.02	0.00	0.03	0.00	0.03	0.00	0.04	0.00	0.03	0.01	0.03	0.00	0.03	0.01		
115	0.07	0.09	0.06	0.08	0.08	0.08	0.07	0.10	0.06	0.10	0.07	0.09	0.06	0.10	0.07	0.10	0.07		
120	0.20	0.23	0.23	0.22	0.21	0.22	0.19	0.22	0.21	0.23	0.23	0.23	0.21	0.24	0.23	0.26	0.22		
125	0.50	0.52	0.49	0.51	0.49	0.52	0.49	0.49	0.48	0.50	0.49	0.52	0.49	0.53	0.50	0.55	0.53		
130	1.06	1.07	1.04	1.04	1.04	1.05	1.02	1.04	1.02	1.04	1.02	1.05	1.03	1.05	1.06	1.08	1.08		
135	1.94	1.94	1.92	1.91	1.93	1.92	1.90	1.90	1.89	1.89	1.89	1.90	1.90	1.92	1.93	1.95	1.96		
140	3.20	3.17	3.15	3.13	3.15	3.14	3.12	3.12	3.10	3.10	3.12	3.12	3.14	3.13	3.17	3.18	3.21		
145	4.57	4.55	4.55	4.51	4.51	4.52	4.52	4.49	4.51	4.49	4.50	4.50	4.52	4.52	4.55	4.55	4.59		
150	5.79	5.78	5.75	5.74	5.74	5.74	5.72	5.73	5.73	5.72	5.73	5.73	5.74	5.76	5.77	5.79	5.81		
155	6.62	6.63	6.58	6.60	6.55	6.58	6.56	6.59	6.57	6.59	6.58	6.60	6.58	6.62	6.63	6.67	6.67		
160	6.99	6.95	6.92	6.93	6.91	6.90	6.93	6.96	6.96	7.00	6.96	6.93	6.96	7.02	7.01	7.08	7.08		
165	6.91	6.85	6.84	6.79	6.81	6.79	6.83	6.84	6.88	6.86	6.90	6.88	6.94	6.89	6.96	6.93	7.01		
170	6.39	6.35	6.36	6.33	6.29	6.27	6.33	6.35	6.41	6.41	6.44	6.39	6.43	6.42	6.45	6.43	6.48		
175	5.83	5.82	5.89	5.85	5.89	5.83	5.87	5.85	5.89	5.87	5.96	5.93	5.96	5.88	5.88	5.84	5.89		
180	5.76	5.77	5.80	5.85	5.85	5.82	5.78	5.79	5.79	5.79	5.79	5.80	5.84	5.82	5.76	5.73	5.74		

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: