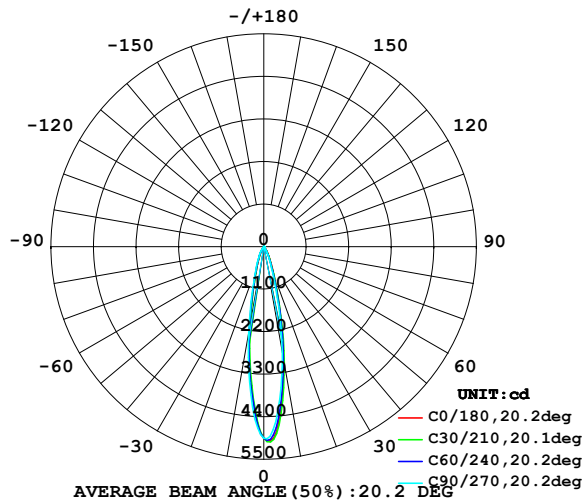


LUMINAIRE PHOTOMETRIC TEST REPORT

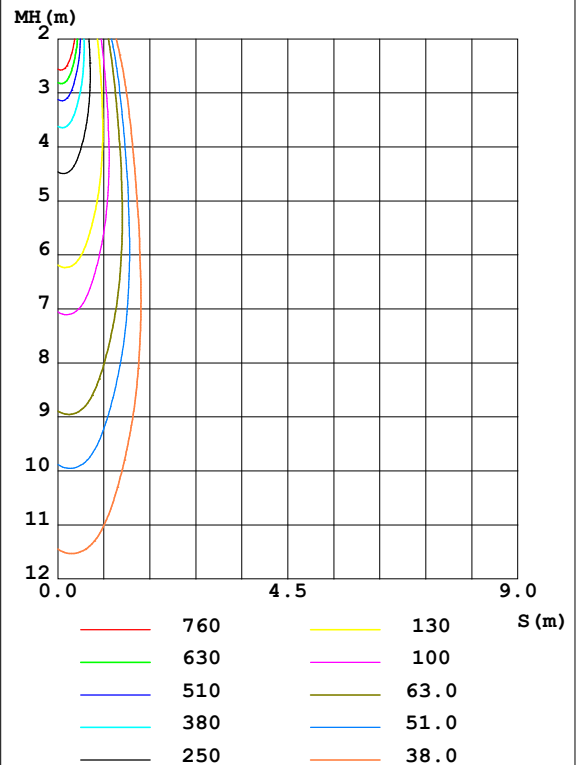
NAME: MCR-3 (8W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 116.53 lm/W			
MCR-3 (8W, 15°)		I _{max} (cd)	5053	S/MH(C0/180)	0.31
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.32
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	918.83	η UP,DN(C0-180)	0.7,51.2
NOMINAL FLUX(lm)	918.831	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.6,47.5
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)



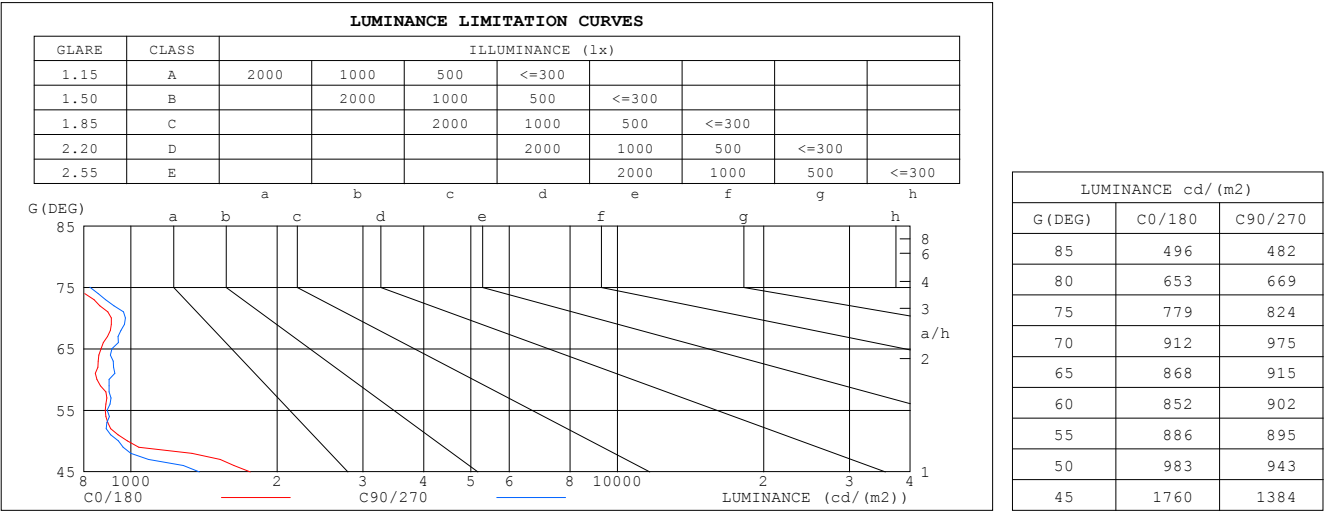
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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	2949	3008	2774	2365	2144	2082	2258	2671	0- 10	338.6	338.6	36.8,36.8
20	739.4	726.0	625.6	517.1	494.0	512.9	585.4	695.3	10- 20	356.7	695.2	75.7,75.7
30	222.2	191.7	153.9	128.8	127.6	144.7	181.2	224.7	20- 30	155.7	850.9	92.6,92.6
40	27.90	17.35	8.089	6.290	5.464	5.920	8.525	17.45	30- 40	47.79	898.7	97.8,97.8
50	2.830	2.883	2.732	2.484	2.293	2.231	2.401	2.728	40- 50	3.746	902.5	98.2,98.2
60	1.908	2.112	2.033	1.924	1.750	1.684	1.676	1.813	50- 60	1.960	904.4	98.4,98.4
70	1.396	1.461	1.504	1.356	1.161	1.108	1.189	1.254	60- 70	1.580	906.0	98.6,98.6
80	0.5079	0.5270	0.5236	0.4431	0.3449	0.3645	0.4252	0.4497	70- 80	0.8957	906.9	98.7,98.7
90	0	0	0	0	0	0	0	0.0000	80- 90	0.1823	907.1	98.7,98.7
100	0	0	0	0.0023	0	0	0	0	90-100	0.0000	907.1	98.7,98.7
110	0.0356	0.0764	0.1313	0.1673	0.0675	0.0315	0	0.0068	100-110	0.0219	907.1	98.7,98.7
120	0.4255	0.4796	0.6105	0.7299	0.3506	0.2837	0.2074	0.1651	110-120	0.2038	907.3	98.7,98.7
130	1.779	1.819	2.063	2.398	1.254	1.176	0.9926	0.8230	120-130	0.7815	908.1	98.8,98.8
140	4.382	4.433	4.710	5.058	3.540	3.470	3.178	2.817	130-140	2.047	910.1	99.1,99.1
150	6.327	6.406	6.579	6.713	6.002	5.918	5.732	5.462	140-150	3.196	913.3	99.4,99.4
160	7.095	7.042	7.093	7.072	6.795	6.665	6.723	6.697	150-160	3.063	916.4	99.7,99.7
170	6.451	6.406	6.319	6.119	5.846	5.721	5.938	6.123	160-170	1.893	918.3	99.9,99.9
180	5.336	5.354	5.250	5.296	5.318	5.334	5.209	5.298	170-180	0.5431	918.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



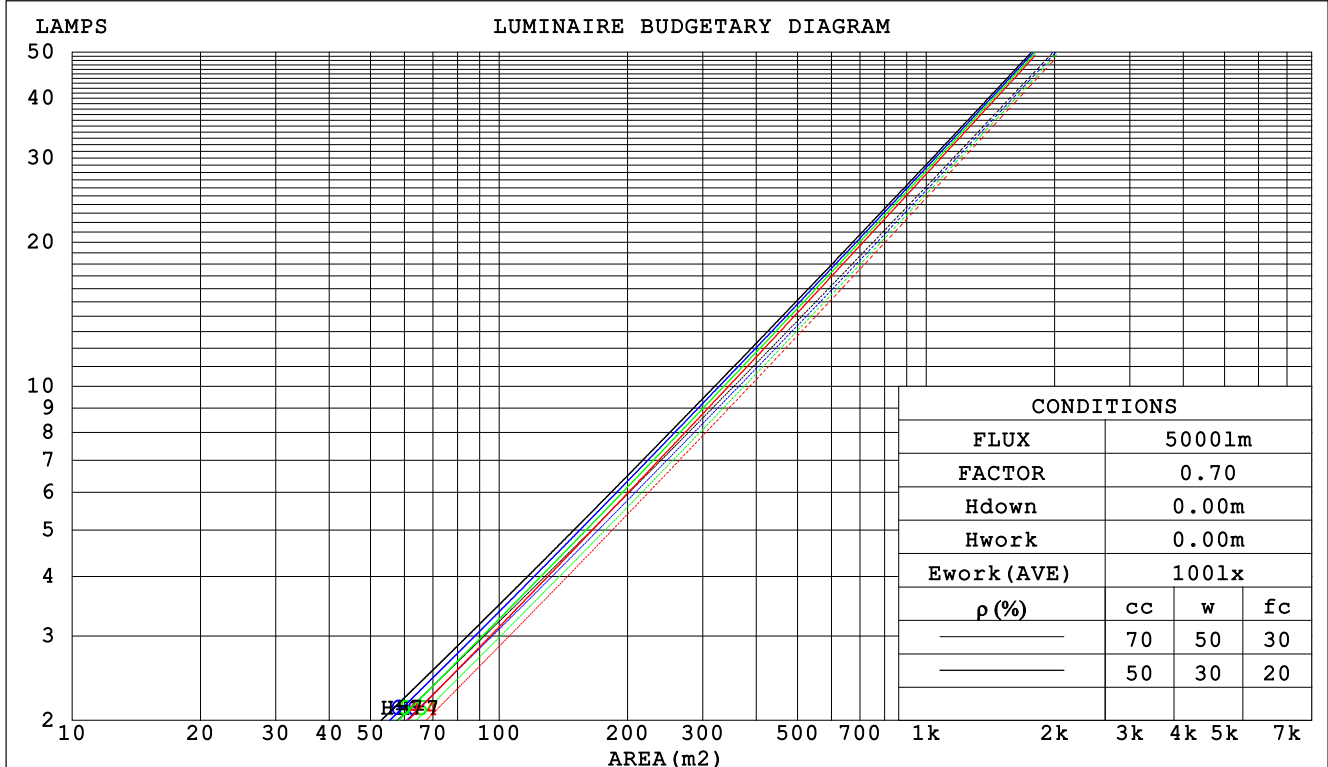
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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, 15°)	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	1.11	1.09	1.10	1.09	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.95
2.0	1.07	1.04	1.02	1.05	1.03	1.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.99	.96	1.01	.98	.95	.98	.96	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.94	.91	.95	.92	.90	.93	.90	.88	.91	.89	.87	.86
5.0	.95	.90	.87	.94	.90	.87	.92	.89	.86	.90	.88	.85	.89	.86	.85	.83
6.0	.91	.87	.84	.91	.87	.84	.89	.86	.83	.88	.85	.83	.86	.84	.82	.81
7.0	.88	.84	.81	.88	.84	.81	.86	.83	.80	.85	.82	.80	.84	.82	.80	.78
8.0	.86	.81	.79	.85	.81	.78	.84	.80	.78	.83	.80	.78	.82	.79	.77	.76
9.0	.83	.79	.76	.83	.79	.76	.82	.78	.76	.81	.78	.75	.80	.77	.75	.74
10.0	.81	.77	.74	.80	.76	.74	.80	.76	.74	.79	.76	.73	.78	.75	.73	.72



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, 15°)	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	.139	.079	.025	.132	.075	.024	.119	.068	.022	.107	.062	.020	.096	.055	.018		
2.0	.129	.071	.022	.123	.068	.021	.112	.062	.019	.102	.057	.018	.093	.053	.017		
3.0	.120	.064	.019	.115	.062	.019	.106	.058	.017	.098	.054	.016	.090	.050	.015		
4.0	.113	.059	.017	.108	.057	.017	.101	.053	.016	.093	.050	.015	.087	.047	.014		
5.0	.106	.054	.016	.103	.053	.015	.096	.050	.015	.090	.047	.014	.084	.045	.013		
6.0	.100	.050	.014	.097	.049	.014	.091	.047	.014	.086	.045	.013	.081	.043	.013		
7.0	.095	.047	.013	.093	.046	.013	.088	.044	.013	.083	.042	.012	.078	.041	.012		
8.0	.091	.044	.012	.088	.044	.012	.084	.042	.012	.080	.040	.012	.076	.039	.011		
9.0	.087	.042	.012	.085	.041	.012	.081	.040	.011	.077	.039	.011	.073	.037	.011		
10.0	.083	.040	.011	.081	.039	.011	.078	.038	.011	.074	.037	.010	.071	.036	.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	.178	.167	.158	.153	.144	.136	.104	.099	.094	.060	.057	.055	.019	.018	.018	
2.0	.160	.143	.128	.137	.123	.110	.094	.085	.077	.054	.049	.045	.017	.016	.015	
3.0	.146	.123	.105	.125	.106	.091	.086	.074	.064	.049	.043	.038	.016	.014	.012	
4.0	.133	.108	.089	.114	.093	.077	.079	.065	.054	.045	.038	.032	.015	.012	.011	
5.0	.123	.096	.076	.105	.083	.066	.073	.058	.046	.042	.034	.028	.014	.011	.009	
6.0	.114	.086	.066	.098	.074	.057	.068	.052	.040	.039	.031	.024	.013	.010	.008	
7.0	.106	.078	.057	.092	.067	.050	.063	.047	.035	.037	.028	.021	.012	.009	.007	
8.0	.100	.071	.051	.086	.061	.044	.060	.043	.031	.035	.025	.019	.011	.008	.006	
9.0	.094	.065	.046	.081	.057	.040	.056	.040	.028	.033	.024	.017	.011	.008	.006	
10.0	.089	.060	.041	.077	.053	.036	.053	.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, 15°)					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					11.4	12.0	11.6	12.2	12.4	9.3	9.9	9.5	10.1	10.3
3H					11.3	11.9	11.5	12.1	12.3	9.2	9.8	9.5	10.0	10.3
4H					11.2	11.8	11.5	12.0	12.3	9.2	9.8	9.5	10.0	10.2
6H					11.2	11.7	11.5	12.0	12.2	9.2	9.7	9.5	10.0	10.2
8H					11.1	11.7	11.4	11.9	12.2	9.1	9.7	9.5	9.9	10.2
12H					11.1	11.6	11.4	11.9	12.2	9.1	9.6	9.4	9.9	10.2
4H 2H					11.2	11.8	11.5	12.0	12.2	9.1	9.7	9.4	9.9	10.1
3H					11.1	11.6	11.4	11.9	12.2	9.1	9.6	9.4	9.9	10.1
4H					11.0	11.5	11.4	11.8	12.1	9.1	9.5	9.4	9.8	10.2
6H					11.0	11.4	11.4	11.7	12.1	9.0	9.5	9.4	9.8	10.2
8H					10.9	11.3	11.3	11.7	12.1	9.0	9.4	9.4	9.8	10.2
12H					10.9	11.2	11.3	11.6	12.0	9.0	9.3	9.4	9.7	10.1
8H 4H					10.9	11.3	11.3	11.7	12.0	9.0	9.3	9.4	9.7	10.1
6H					10.8	11.2	11.3	11.6	12.0	9.0	9.3	9.4	9.7	10.1
8H					10.8	11.1	11.3	11.5	12.0	8.9	9.2	9.4	9.7	10.1
12H					10.7	11.0	11.2	11.4	11.9	8.9	9.1	9.4	9.6	10.1
12H 4H					10.8	11.2	11.3	11.6	12.0	8.9	9.3	9.3	9.7	10.1
6H					10.8	11.1	11.2	11.5	12.0	8.9	9.2	9.4	9.6	10.1
8H					10.7	11.0	11.2	11.4	11.9	8.9	9.1	9.4	9.6	10.1
Variations with the observer position at spacings:														
S = 1.0H					+ 5.0 / - 7.0					+ 3.3 / - 2.6				
1.5H					+ 7.7 / - 6.9					+ 5.6 / - 2.5				
2.0H					+ 1.4 / - 0.6					+ 0.8 / - 0.4				

CIE Pub.117 Corrected 918.8 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.3)

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, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

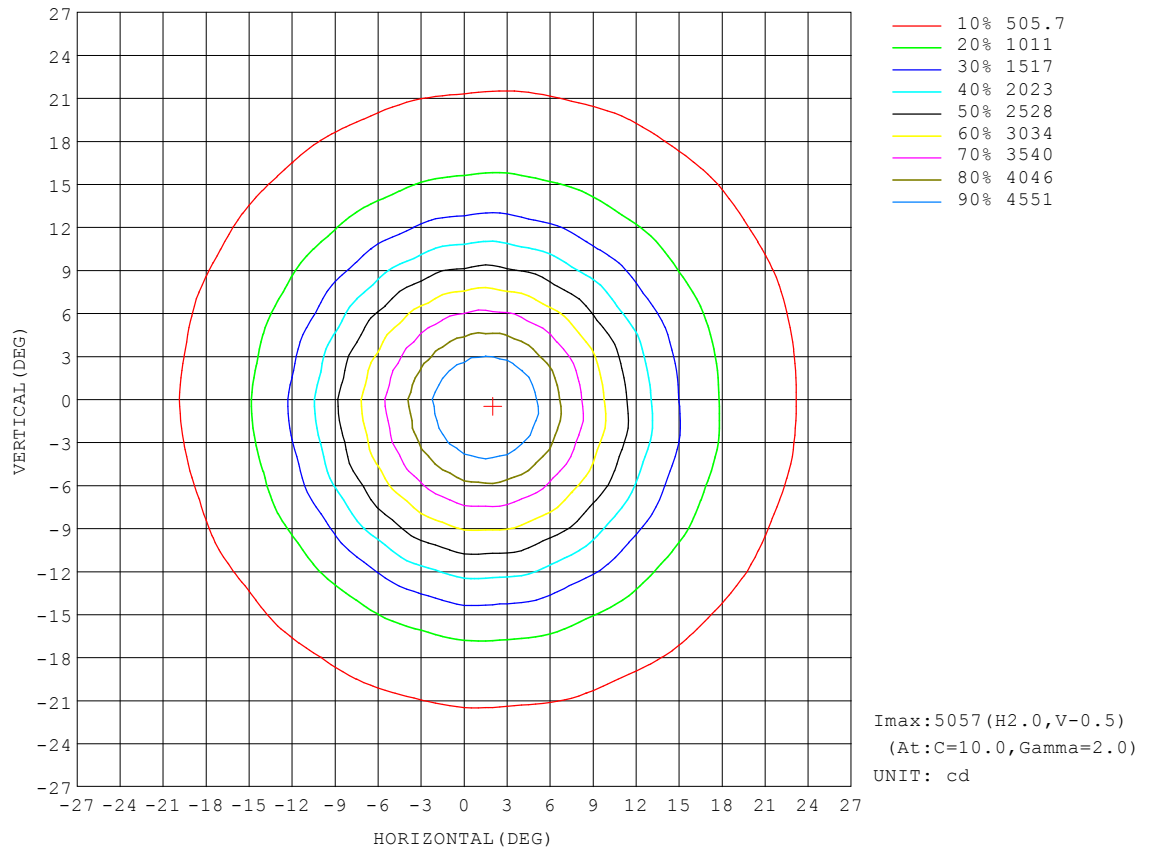
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	85	81	90	84	81	89	84	81	78
0.80	97	92	89	96	92	88	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	104	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, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

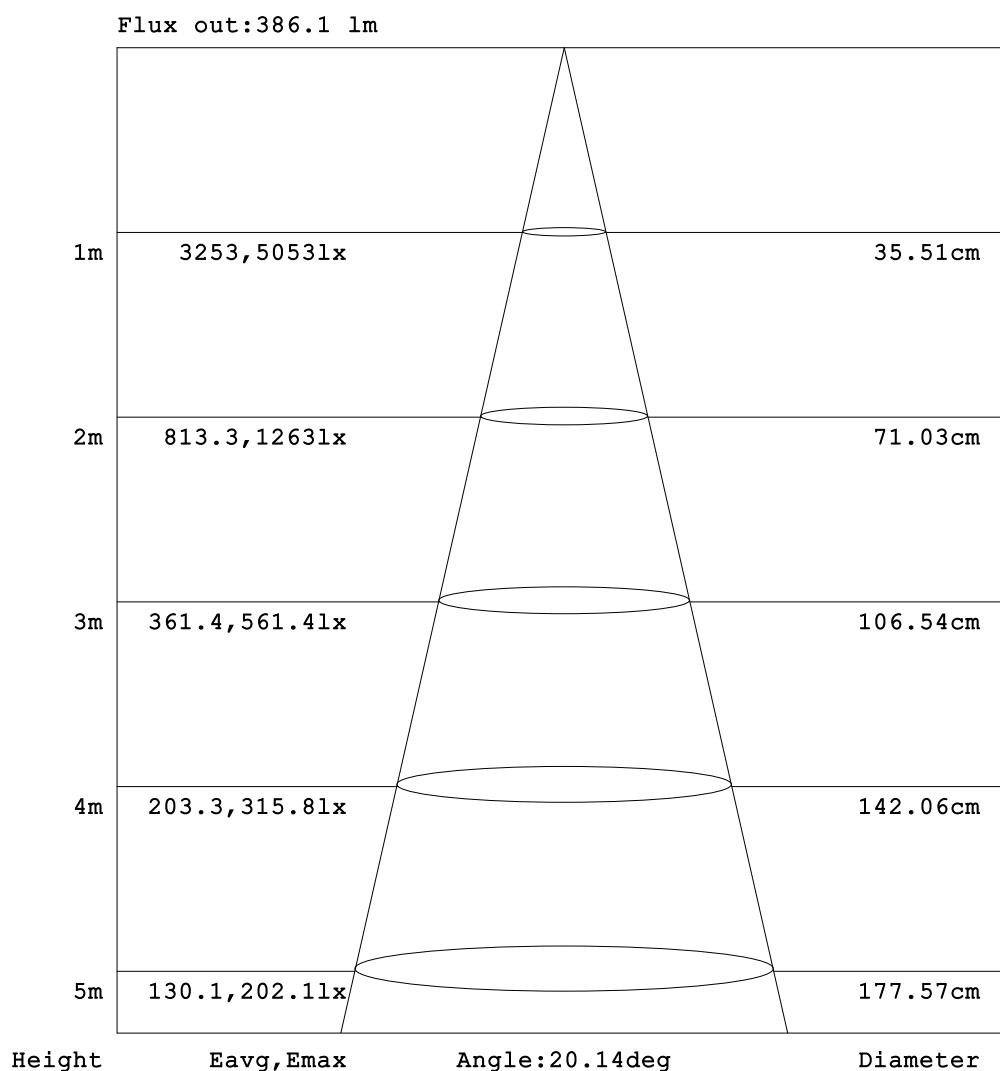


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



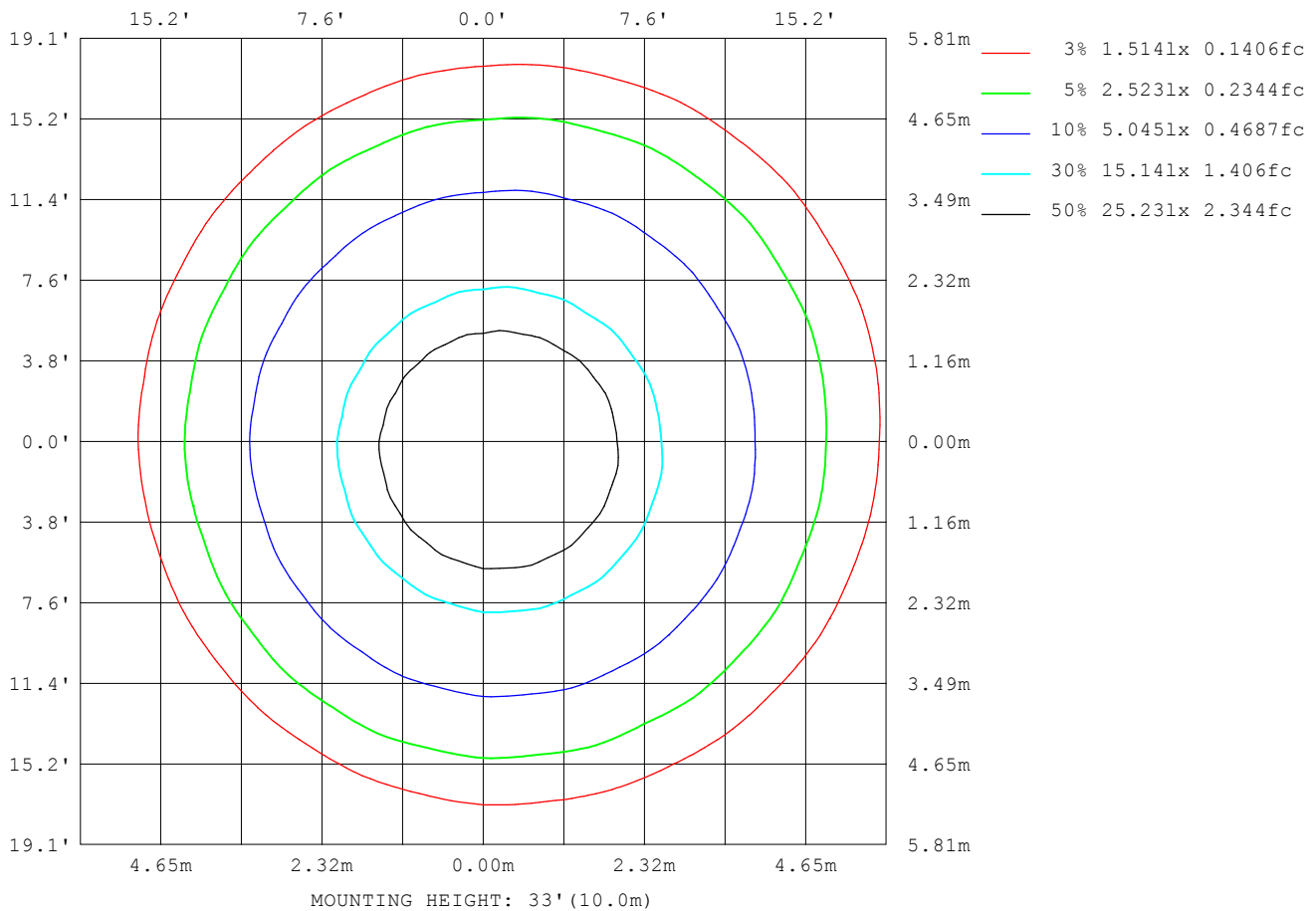
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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, 15°)	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, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

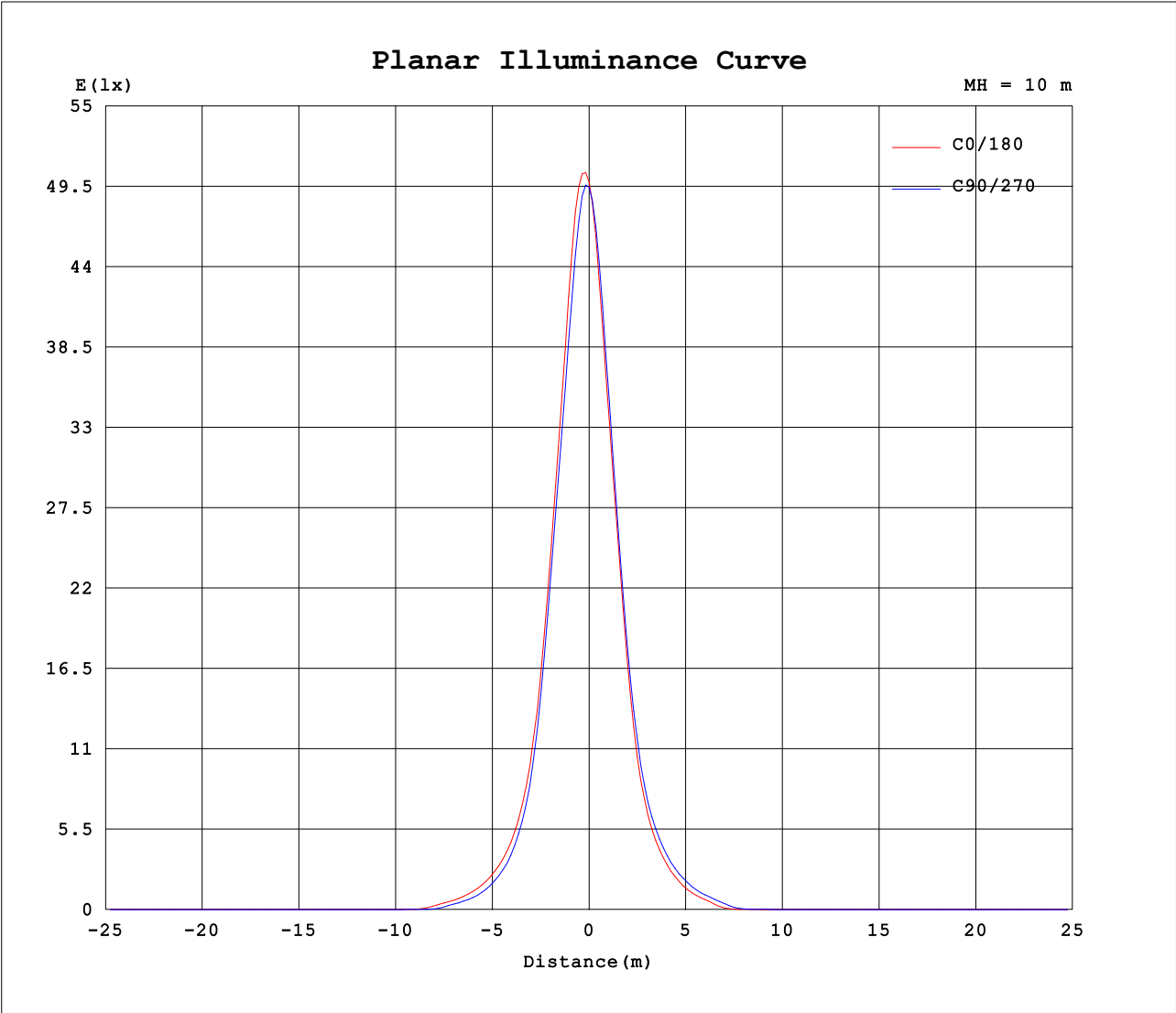
AvgL	cd/m2
L_0~180 (65) av	832
L_0~180 (75) av	690
L_0~180 (85) av	326
L_90~270 (65) av	839
L_90~270 (75) av	739
L_90~270 (85) av	449
L_45 (65) av	836
L_45 (75) av	713
L_45 (85) av	312

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, 15°)	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	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954
5	4545	4629	4587	4619	4543	4547	4443	4418	4299	4255	4124	4080	3970	3931	3825	3794	3709	3695	3682
10	2949	3042	3002	3056	2995	3022	2927	2919	2802	2774	2643	2610	2472	2429	2301	2280	2172	2156	2144
15	1505	1578	1546	1590	1548	1567	1485	1486	1385	1365	1286	1232	1167	1119	1053	1041	990	986	979
20	739	762	741	754	726	726	682	679	634	626	586	578	540	531	503	504	486	490	494
25	403	407	387	393	372	369	342	341	317	315	296	294	276	275	259	261	250	257	260
30	222	219	210	206	195	189	176	170	159	154	146	141	135	132	126	126	123	125	128
35	119	117	110	107	99.6	94.6	85.8	82.4	73.5	69.8	62.5	57.8	46.4	40.9	32.7	29.7	24.5	23.4	22.5
40	27.9	23.7	21.3	23.8	18.5	16.2	12.1	10.6	8.67	8.09	7.34	7.07	6.58	6.51	6.07	5.94	5.69	5.53	5.46
45	5.57	5.37	5.21	5.28	5.07	4.92	4.71	4.74	4.54	4.41	4.51	4.19	3.63	3.51	3.22	3.12	3.07	2.98	2.95
50	2.83	2.82	2.88	2.88	2.91	2.86	2.82	2.83	2.80	2.73	2.69	2.59	2.55	2.48	2.49	2.42	2.43	2.33	2.29
55	2.28	2.32	2.35	2.32	2.38	2.34	2.37	2.34	2.37	2.31	2.37	2.32	2.29	2.22	2.23	2.16	2.15	2.08	2.02
60	1.91	1.89	1.99	2.08	2.13	2.10	2.05	2.01	2.07	2.03	2.09	2.01	1.98	1.90	1.95	1.90	1.91	1.83	1.75
65	1.64	1.67	1.68	1.66	1.74	1.71	1.75	1.72	1.79	1.74	1.78	1.73	1.75	1.68	1.70	1.62	1.64	1.55	1.52
70	1.40	1.39	1.46	1.43	1.48	1.45	1.50	1.49	1.55	1.50	1.52	1.44	1.44	1.36	1.35	1.29	1.26	1.20	1.16
75	0.90	0.88	0.94	0.92	0.98	0.96	1.01	1.00	1.01	0.96	0.97	0.94	0.91	0.85	0.85	0.78	0.79	0.72	0.70
80	0.51	0.48	0.52	0.49	0.54	0.51	0.57	0.53	0.57	0.52	0.55	0.50	0.49	0.43	0.45	0.38	0.41	0.35	0.34
85	0.19	0.15	0.20	0.16	0.21	0.18	0.22	0.18	0.23	0.19	0.21	0.15	0.17	0.12	0.13	0.08	0.10	0.06	0.06
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	0.01	0.00
105	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.04	0.00	0.05	0.02	0.06	0.08	0.08	0.05	0.08	0.01
110	0.04	0.08	0.06	0.08	0.06	0.09	0.06	0.11	0.08	0.13	0.12	0.15	0.14	0.18	0.16	0.19	0.16	0.20	0.07
115	0.17	0.21	0.18	0.22	0.21	0.24	0.22	0.27	0.26	0.32	0.29	0.34	0.33	0.39	0.36	0.40	0.38	0.42	0.17
120	0.43	0.46	0.43	0.47	0.45	0.51	0.49	0.55	0.56	0.61	0.61	0.67	0.67	0.73	0.73	0.77	0.80	0.80	0.35
125	0.92	0.93	0.91	0.95	0.95	0.99	1.01	1.07	1.09	1.15	1.23	1.25	1.30	1.35	1.40	1.43	1.48	1.50	0.67
130	1.78	1.77	1.77	1.78	1.80	1.84	1.88	1.94	2.00	2.06	2.15	2.20	2.29	2.35	2.44	2.49	2.56	2.58	1.25
135	3.01	2.99	3.01	3.00	3.04	3.07	3.14	3.19	3.28	3.36	3.45	3.52	3.62	3.70	3.79	3.84	3.92	3.95	2.22
140	4.38	4.37	4.37	4.39	4.42	4.45	4.51	4.57	4.63	4.71	4.79	4.86	4.95	5.02	5.10	5.15	5.20	5.23	3.54
145	5.54	5.54	5.53	5.57	5.57	5.62	5.65	5.71	5.76	5.83	5.89	5.96	6.00	6.06	6.10	6.14	6.16	6.20	4.91
150	6.33	6.35	6.33	6.37	6.39	6.43	6.43	6.49	6.51	6.58	6.59	6.64	6.66	6.71	6.72	6.76	6.78	6.80	6.00
155	6.84	6.89	6.83	6.89	6.84	6.91	6.89	6.96	6.94	7.01	6.99	7.01	7.01	7.06	7.06	7.10	7.10	7.11	6.63
160	7.10	7.06	7.05	7.04	7.04	7.05	7.05	7.08	7.04	7.09	7.06	7.08	7.06	7.08	7.07	7.08	7.16	7.13	6.79
165	7.00	6.98	6.97	6.92	6.93	6.91	6.93	6.89	6.92	6.89	6.90	6.81	6.83	6.78	6.80	6.80	6.82	6.77	6.52
170	6.45	6.46	6.45	6.43	6.43	6.38	6.38	6.35	6.37	6.32	6.30	6.21	6.18	6.11	6.13	6.08	6.07	6.00	5.85
175	5.67	5.67	5.70	5.68	5.72	5.72	5.74	5.69	5.67	5.61	5.60	5.53	5.52	5.48	5.48	5.40	5.37	5.24	5.22
180	5.34	5.31	5.29	5.31	5.35	5.36	5.32	5.29	5.26	5.25	5.24	5.23	5.27	5.29	5.31	5.23	5.22	5.21	5.32

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, 15°)	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	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954	4954		
5	3623	3641	3605	3647	3636	3709	3724	3817	3848	3963	4006	4148	4203	4343	4378	4506	4528		
10	2065	2089	2038	2095	2068	2148	2140	2244	2258	2381	2411	2553	2591	2752	2784	2915	2921		
15	957	966	955	980	977	1014	1024	1077	1102	1170	1210	1271	1313	1388	1404	1491	1492		
20	487	497	495	509	517	538	549	575	585	618	633	667	679	712	718	748	747		
25	255	266	267	279	281	300	307	325	331	352	363	385	392	409	406	419	413		
30	126	132	135	143	147	158	165	175	181	194	202	215	220	229	228	234	231		
35	21.6	25.1	26.1	32.1	35.2	47.6	55.1	70.5	77.7	93.1	102	114	118	125	124	128	125		
40	5.31	5.47	5.35	5.77	6.07	6.67	7.10	8.02	8.53	9.63	10.5	12.3	15.2	19.7	22.0	27.0	27.6		
45	2.93	2.92	2.85	2.87	2.91	3.02	3.28	4.93	4.31	4.66	5.16	5.12	5.28	5.65	5.68	5.88	5.74		
50	2.32	2.25	2.28	2.22	2.24	2.17	2.27	2.38	2.40	2.43	2.56	2.58	2.67	2.78	2.79	2.81	2.83		
55	2.04	1.99	2.00	1.95	1.99	1.93	1.99	2.04	2.05	2.04	2.17	2.11	2.21	2.23	2.28	2.23	2.29		
60	1.77	1.71	1.74	1.67	1.70	1.59	1.63	1.59	1.68	1.67	1.75	1.72	1.80	1.83	1.96	1.93	1.96		
65	1.55	1.47	1.50	1.42	1.46	1.39	1.44	1.39	1.45	1.43	1.47	1.46	1.50	1.50	1.56	1.53	1.62		
70	1.18	1.16	1.14	1.09	1.12	1.09	1.14	1.15	1.19	1.17	1.24	1.21	1.27	1.24	1.32	1.31	1.38		
75	0.73	0.68	0.70	0.66	0.70	0.67	0.72	0.70	0.76	0.74	0.81	0.78	0.83	0.81	0.86	0.87	0.90		
80	0.38	0.33	0.37	0.35	0.38	0.36	0.39	0.36	0.43	0.40	0.45	0.42	0.47	0.43	0.48	0.45	0.51		
85	0.11	0.07	0.10	0.01	0.03	0.07	0.14	0.09	0.16	0.13	0.17	0.13	0.18	0.14	0.19	0.15	0.20		
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
110	0.02	0.05	0.01	0.05	0.01	0.05	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.01	0.00	0.01	0.00		
115	0.15	0.16	0.11	0.14	0.09	0.12	0.07	0.11	0.07	0.09	0.06	0.08	0.04	0.07	0.03	0.06	0.02		
120	0.31	0.33	0.28	0.31	0.26	0.28	0.23	0.25	0.21	0.21	0.16	0.19	0.15	0.18	0.14	0.17	0.14		
125	0.63	0.65	0.61	0.61	0.56	0.57	0.51	0.52	0.49	0.47	0.42	0.43	0.37	0.39	0.35	0.38	0.35		
130	1.24	1.24	1.21	1.19	1.16	1.13	1.08	1.05	0.99	0.96	0.91	0.89	0.83	0.82	0.77	0.77	0.75		
135	2.24	2.21	2.21	2.16	2.14	2.07	2.02	1.96	1.89	1.82	1.75	1.69	1.63	1.59	1.54	1.52	1.49		
140	3.58	3.54	3.55	3.48	3.46	3.38	3.33	3.24	3.18	3.07	3.02	2.91	2.85	2.79	2.72	2.65	2.63		
145	4.96	4.90	4.90	4.85	4.83	4.76	4.72	4.62	4.58	4.48	4.42	4.32	4.26	4.17	4.12	4.06	4.03		
150	6.00	5.98	5.96	5.93	5.90	5.87	5.84	5.78	5.73	5.67	5.62	5.55	5.49	5.44	5.38	5.35	5.32		
155	6.62	6.60	6.56	6.55	6.52	6.52	6.49	6.49	6.45	6.44	6.38	6.36	6.30	6.31	6.27	6.27	6.25		
160	6.74	6.73	6.72	6.63	6.69	6.67	6.70	6.72	6.72	6.66	6.71	6.73	6.67	6.73	6.72	6.76	6.72		
165	6.52	6.42	6.43	6.35	6.39	6.39	6.44	6.47	6.53	6.52	6.59	6.57	6.64	6.63	6.69	6.72	6.72		
170	5.85	5.76	5.80	5.71	5.73	5.70	5.82	5.84	5.94	5.99	6.03	6.03	6.10	6.14	6.21	6.23	6.29		
175	5.25	5.19	5.27	5.25	5.27	5.20	5.25	5.22	5.30	5.30	5.42	5.42	5.48	5.45	5.46	5.49	5.56		
180	5.29	5.28	5.31	5.33	5.34	5.32	5.28	5.25	5.21	5.22	5.23	5.27	5.30	5.29	5.22	5.21	5.23		

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: