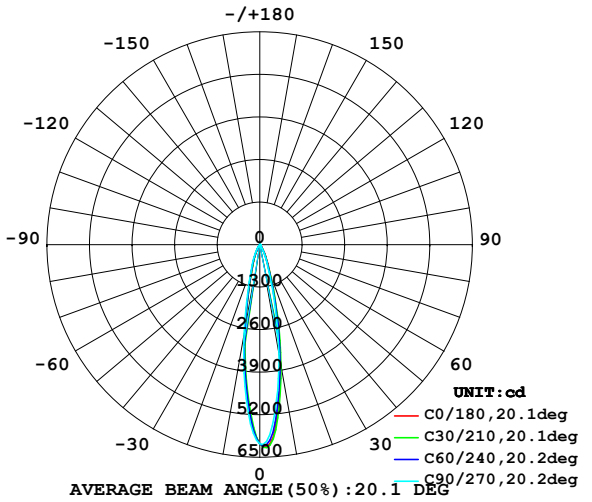
LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

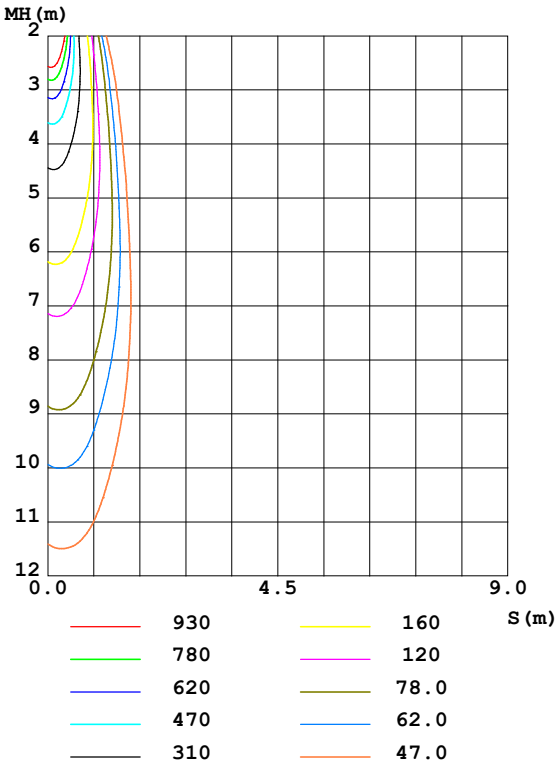
DATA OF LAMP		PHOTOMETRIC DATA Eff: 115.45 lm/W			
MCR-3 (10W, 15°)		Imax(cd)	6213	S/MH(C0/180)	0.31
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.32
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1128.8	η UP,DN(C0-180)	0.7,51.2
NOMINAL FLUX(lm)	1128.81	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.6,47.6
LAMPS INSIDE	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



AVERAGE BEAM ANGLE(50%):20.1 DEG

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:

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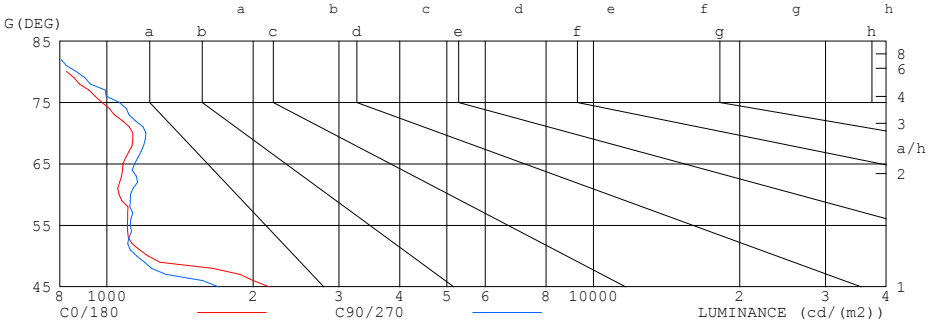
ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	3633	3693	3392	2901	2625	2560	2783	3284	0- 10	416.0	416.0	36.8,36.8
20	914.1	891.6	765.1	634.7	605.5	630.6	720.5	855.8	10- 20	437.9	853.8	75.6,75.6
30	273.7	234.1	187.9	158.2	156.1	179.4	226.3	279.0	20- 30	191.3	1045	92.6,92.6
40	33.75	20.28	9.826	7.697	6.695	7.305	10.57	21.72	30- 40	58.80	1104	97.8,97.8
50	3.494	3.553	3.337	3.077	2.857	2.758	2.975	3.384	40- 50	4.610	1108	98.2,98.2
60	2.370	2.609	2.521	2.394	2.198	2.093	2.088	2.269	50- 60	2.431	1111	98.4,98.4
70	1.733	1.810	1.856	1.673	1.448	1.384	1.478	1.584	60- 70	1.962	1113	98.6,98.6
80	0.6426	0.6755	0.6769	0.5653	0.4523	0.4457	0.5382	0.5808	70- 80	1.123	1114	98.7,98.7
90	0.0002	0.0000	0	0	0	0	0.0047	0.0001	80- 90	0.2443	1114	98.7,98.7
100	0	0	0.0136	0.0069	0.0045	0.0045	0.0090	0	90-100	0.0011	1114	98.7,98.7
110	0.0628	0.1081	0.1855	0.2260	0.0989	0.0787	0.0180	0.0204	100-110	0.0412	1114	98.7,98.7
120	0.5599	0.6167	0.7643	0.9266	0.4448	0.3671	0.2751	0.2352	110-120	0.2731	1115	98.7,98.7
130	2.213	2.260	2.560	2.979	1.564	1.466	1.250	1.031	120-130	0.9809	1116	98.8,98.8
140	5.416	5.470	5.813	6.236	4.375	4.280	3.932	3.477	130-140	2.533	1118	99.1,99.1
150	7.810	7.884	8.102	8.298	7.384	7.279	7.064	6.723	140-150	3.939	1122	99.4,99.4
160	8.740	8.704	8.756	8.713	8.408	8.233	8.322	8.258	150-160	3.775	1126	99.7,99.7
170	7.953	7.896	7.787	7.532	7.200	7.040	7.307	7.541	160-170	2.333	1128	99.9,99.9
180	6.556	6.588	6.456	6.517	6.542	6.565	6.434	6.522	170-180	0.6685	1129	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	669	665
80	827	865
75	977	1060
70	1132	1204
65	1079	1140
60	1059	1118
55	1103	1118
50	1214	1152
45	2159	1701

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:

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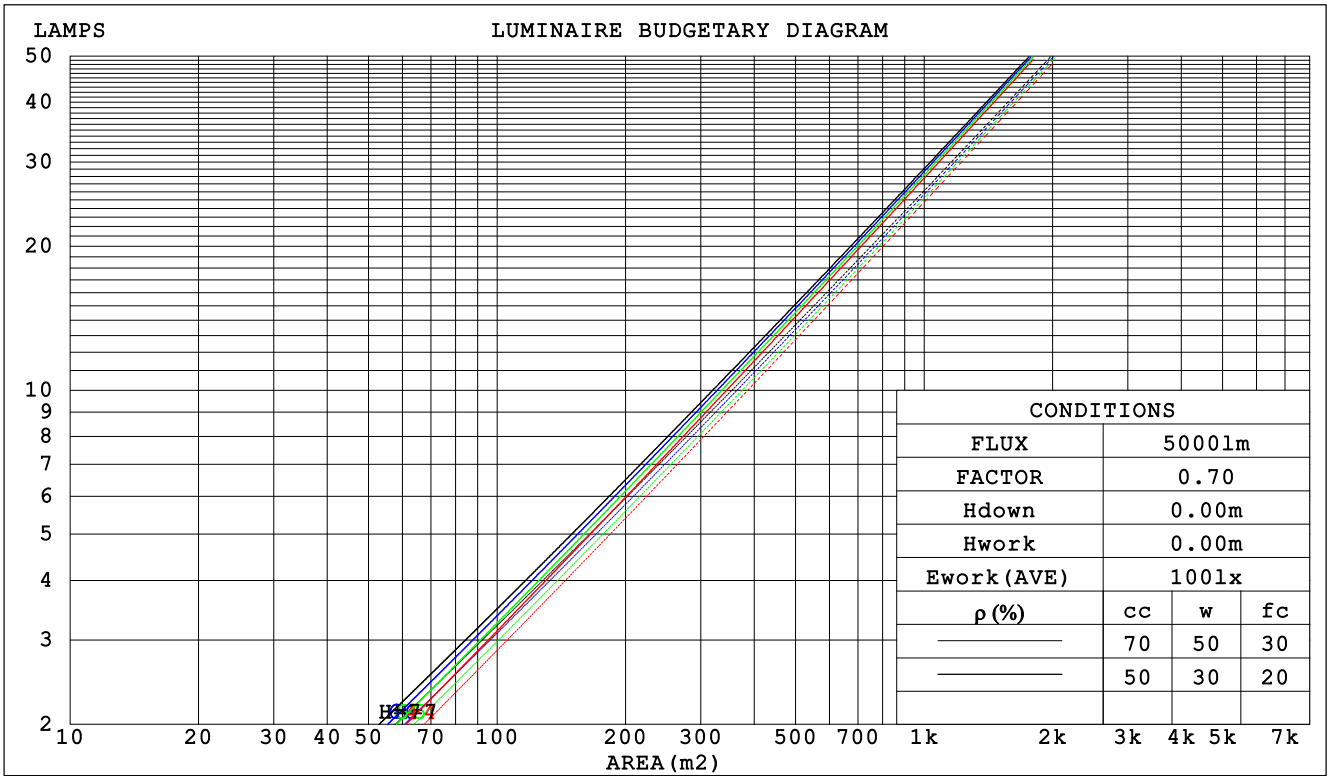
CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.01	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	.93	.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	.84	.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	.79	.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:

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WEC AND CCEC

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.139	.079	.025	.132	.075	.024	.119	.068	.022	.107	.062	.020	.096	.056	.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	.109	.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	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.168	.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	.050	.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	.106	.083	.066	.073	.058	.047	.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	.062	.044	.060	.043	.032	.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	.061	.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 (10W, 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	12.1	12.8	12.3	12.9	13.1	10.0	10.6	10.2	10.8	10.9
	3H	12.0	12.6	12.3	12.8	13.0	9.9	10.5	10.2	10.7	10.9
	4H	12.0	12.5	12.2	12.8	13.0	9.9	10.5	10.2	10.7	10.9
	6H	11.9	12.4	12.2	12.7	12.9	9.9	10.4	10.2	10.7	10.9
	8H	11.8	12.4	12.2	12.6	12.9	9.8	10.4	10.2	10.6	10.9
	12H	11.8	12.3	12.1	12.6	12.9	9.8	10.3	10.1	10.6	10.9
4H	2H	11.9	12.5	12.2	12.7	12.9	9.8	10.3	10.0	10.6	10.8
	3H	11.8	12.3	12.1	12.6	12.9	9.8	10.3	10.1	10.6	10.8
	4H	11.7	12.2	12.1	12.5	12.8	9.8	10.2	10.1	10.5	10.9
	6H	11.7	12.1	12.1	12.4	12.8	9.7	10.2	10.1	10.5	10.9
	8H	11.6	12.0	12.0	12.4	12.8	9.7	10.1	10.1	10.5	10.9
	12H	11.6	11.9	12.0	12.3	12.7	9.7	10.0	10.1	10.4	10.8
8H	4H	11.6	12.0	12.0	12.4	12.8	9.7	10.0	10.1	10.4	10.8
	6H	11.6	11.9	12.0	12.3	12.7	9.7	10.0	10.1	10.4	10.8
	8H	11.5	11.8	12.0	12.2	12.7	9.6	9.9	10.1	10.4	10.8
	12H	11.5	11.7	12.0	12.2	12.7	9.6	9.9	10.1	10.3	10.8
12H	4H	11.6	11.9	12.0	12.3	12.7	9.6	10.0	10.0	10.4	10.8
	6H	11.5	11.8	12.0	12.2	12.7	9.6	9.9	10.1	10.3	10.8
	8H	11.5	11.7	11.9	12.2	12.7	9.6	9.8	10.1	10.3	10.8

Variations with the observer position at spacings:		
S = 1.0H	+ 5.0 / - 6.8	+ 3.1 / - 2.3
1.5H	+ 7.7 / - 6.7	+ 5.4 / - 2.4
2.0H	+ 1.3 / - 0.5	+ 0.7 / - 0.4

CIE Pub.117 Corrected 1129 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.4)

C Range: 0 - 360DEG
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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, 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) x 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	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
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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%
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Remarks:

ISOCANDELA DIAGRAM

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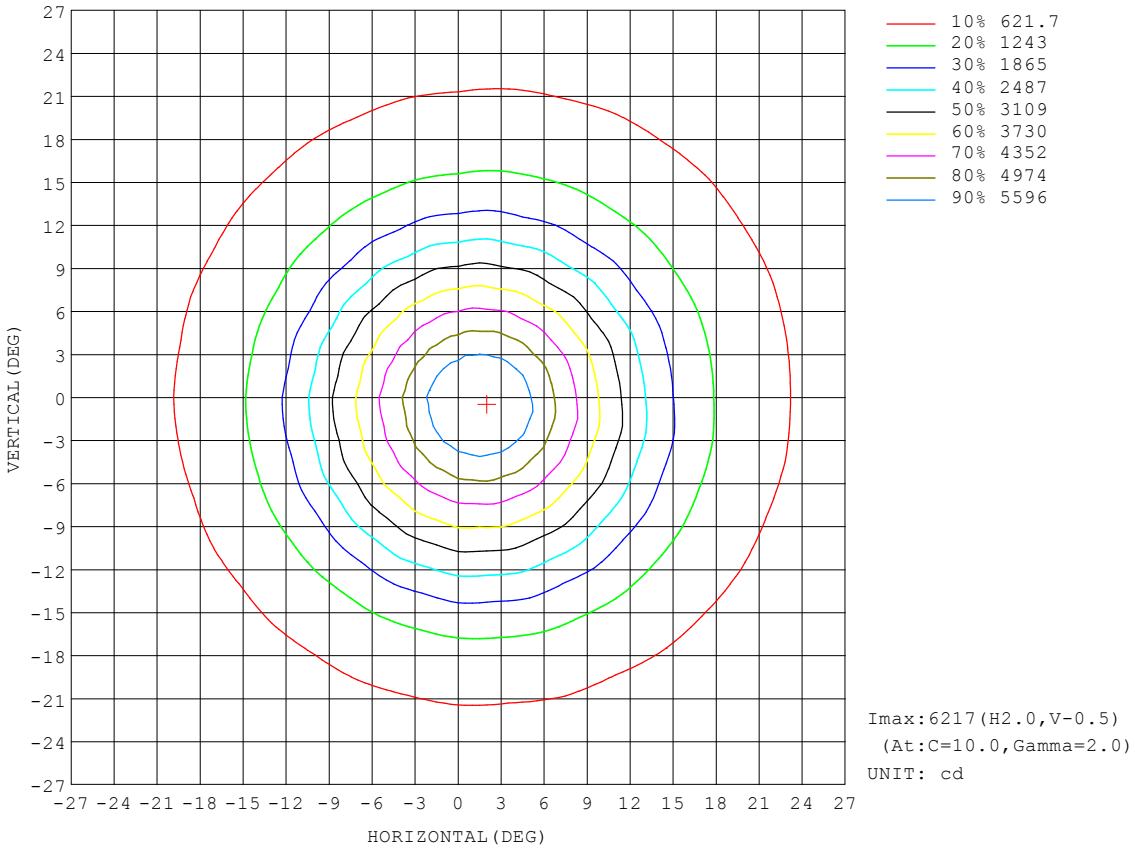
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



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Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.050m [K=1.0000]
Remarks:

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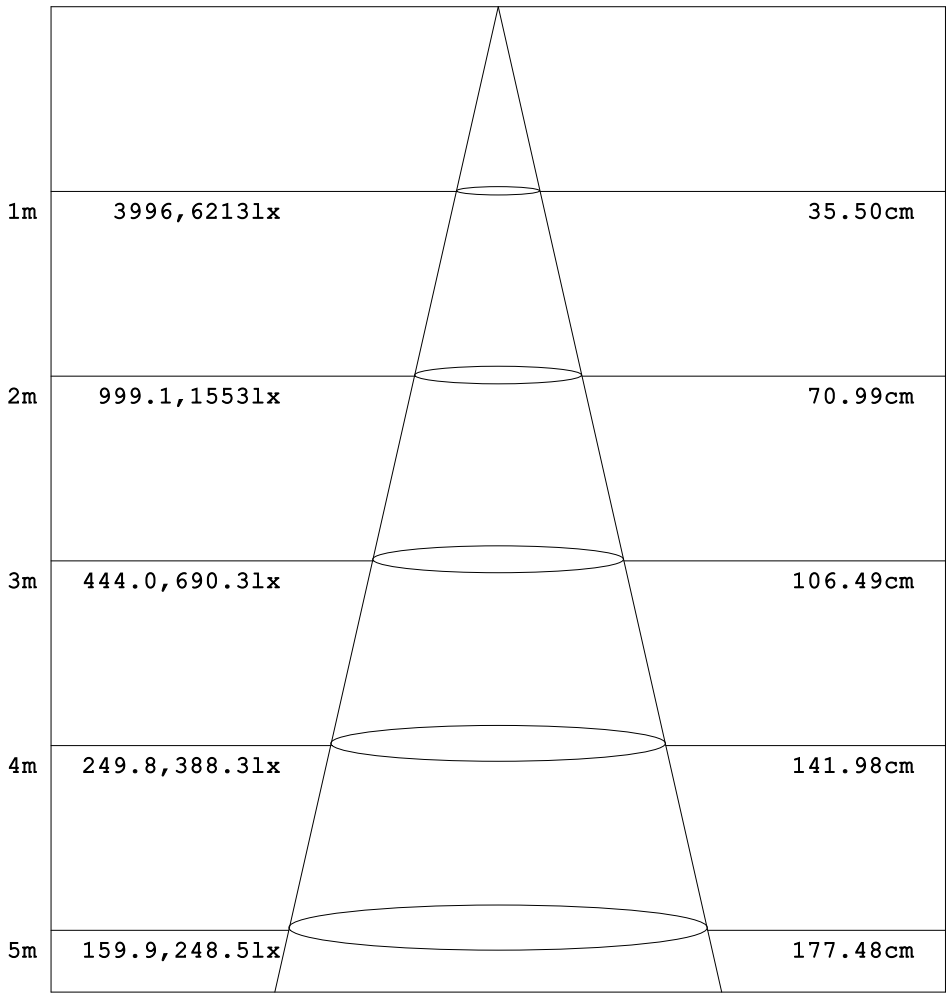
AAI Figure

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

Flux out:474.4 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: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
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γ Range: 0 - 180DEG
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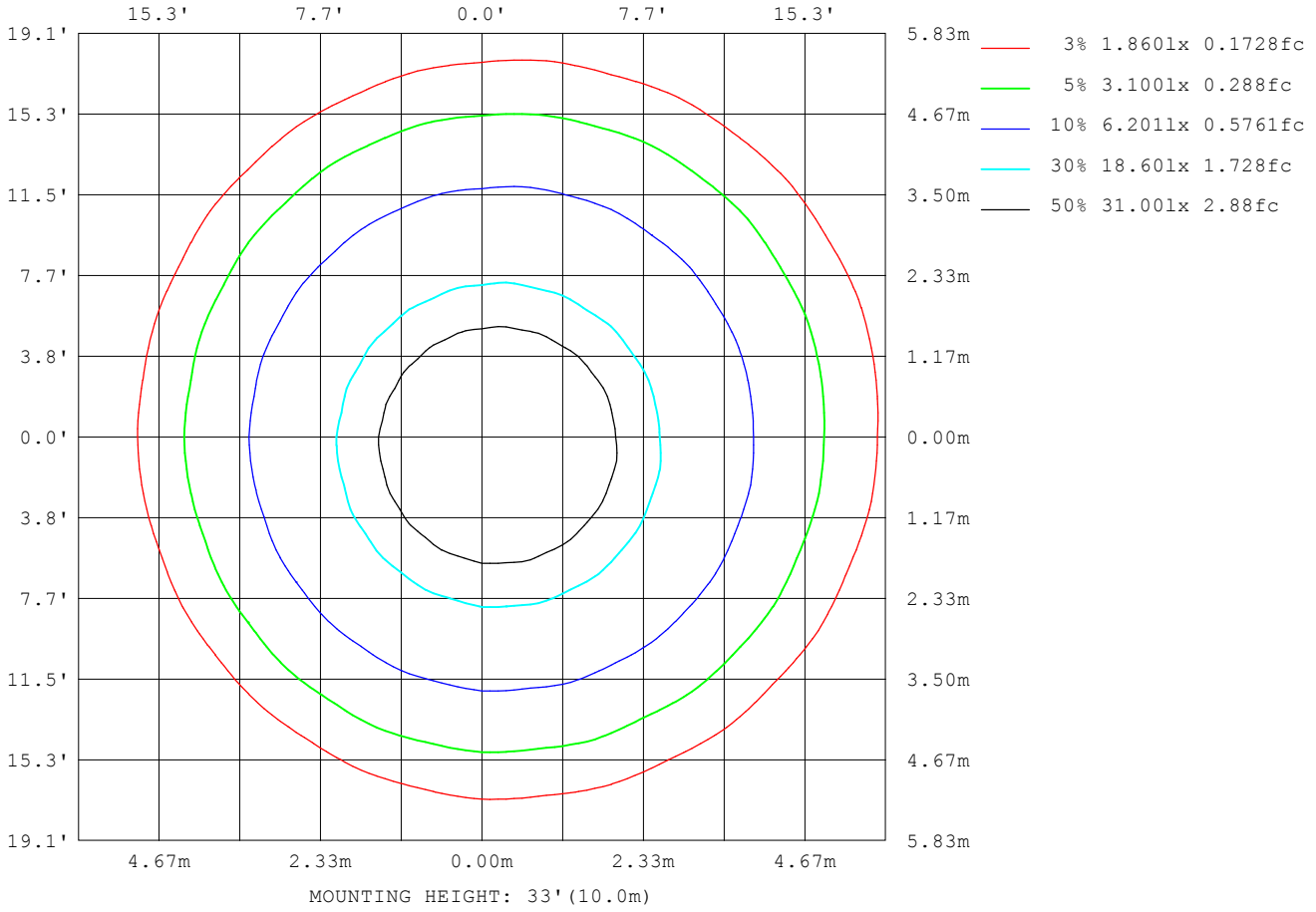
ISOLUX DIAGRAM

NAME: MCR-3 (10W, 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:

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LED Avg.L Report

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

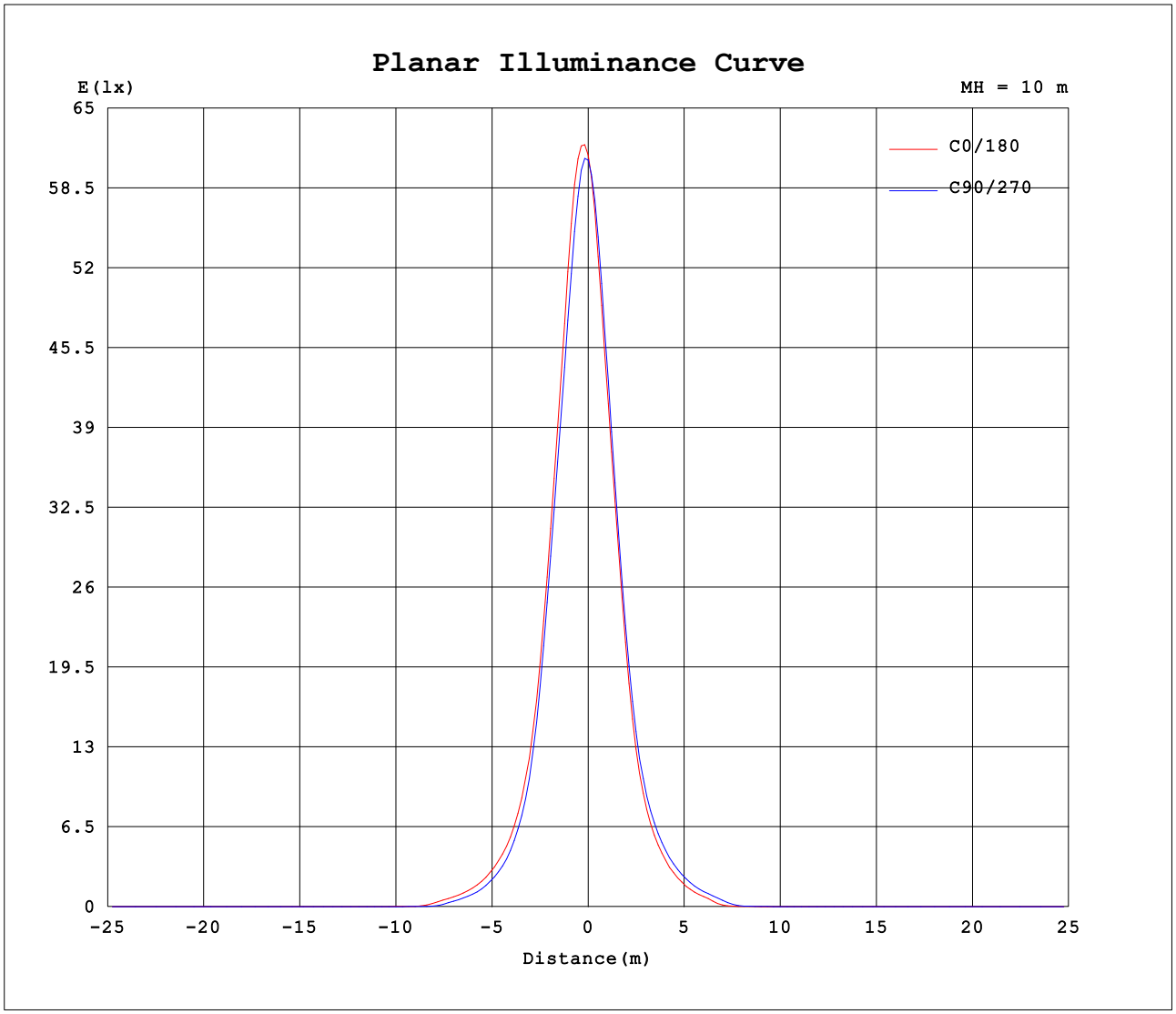
AvgL	cd/m2
L_0~180(65)av	1033
L_0~180(75)av	871
L_0~180(85)av	464
L_90~270(65)av	1042
L_90~270(75)av	937
L_90~270(85)av	610
L_45(65)av	1040
L_45(75)av	900
L_45(85)av	442

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:

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LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087
5	5596	5698	5644	5681	5584	5580	5453	5419	5274	5221	5059	5008	4872	4825	4697	4657	4552	4537	4518
10	3633	3739	3693	3752	3680	3706	3590	3572	3435	3392	3242	3192	3031	2979	2823	2795	2664	2647	2625
15	1859	1946	1904	1957	1903	1922	1821	1820	1693	1671	1543	1509	1394	1369	1312	1275	1234	1209	1199
20	914	939	913	928	893	890	835	832	775	765	720	707	659	650	620	617	597	601	605
25	502	501	477	482	458	452	419	417	388	385	366	359	336	335	320	320	307	315	316
30	274	273	257	253	237	231	215	207	194	188	177	172	163	161	156	155	152	153	156
35	147	144	135	132	122	116	105	100	89.4	84.7	76.0	69.1	56.3	49.4	39.1	36.1	30.0	28.9	27.6
40	33.7	28.4	25.5	28.5	21.7	18.8	14.5	12.7	10.5	9.83	8.89	8.64	8.05	7.97	7.42	7.23	7.01	6.80	6.70
45	6.83	6.58	6.37	6.47	6.17	6.03	5.76	5.83	5.56	5.42	5.55	5.18	4.44	4.30	3.95	3.84	3.79	3.69	3.65
50	3.49	3.51	3.55	3.58	3.58	3.53	3.48	3.52	3.46	3.34	3.30	3.19	3.15	3.07	3.08	3.00	3.00	2.90	2.86
55	2.83	2.83	2.91	2.89	2.95	2.90	2.93	2.90	2.93	2.89	2.93	2.89	2.83	2.75	2.76	2.67	2.66	2.59	2.52
60	2.37	2.36	2.48	2.60	2.63	2.59	2.55	2.51	2.56	2.52	2.58	2.54	2.46	2.38	2.41	2.37	2.37	2.30	2.20
65	2.04	2.03	2.10	2.08	2.15	2.15	2.17	2.15	2.21	2.17	2.21	2.15	2.18	2.09	2.11	2.01	2.02	1.93	1.89
70	1.73	1.73	1.80	1.78	1.83	1.79	1.86	1.89	1.90	1.86	1.86	1.79	1.76	1.68	1.67	1.57	1.57	1.49	1.45
75	1.13	1.12	1.17	1.16	1.22	1.22	1.26	1.24	1.26	1.24	1.20	1.14	1.13	1.07	1.06	1.00	0.98	0.94	0.90
80	0.64	0.62	0.65	0.63	0.69	0.66	0.71	0.68	0.72	0.68	0.69	0.62	0.63	0.56	0.57	0.50	0.52	0.46	0.45
85	0.26	0.22	0.26	0.22	0.27	0.23	0.28	0.24	0.29	0.26	0.29	0.21	0.24	0.16	0.18	0.12	0.15	0.11	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	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	0.00	0.01	0.00	0.03	0.01	0.03	0.00
105	0.00	0.02	0.01	0.03	0.00	0.03	0.00	0.05	0.02	0.07	0.07	0.09	0.06	0.10	0.08	0.11	0.06	0.11	0.03
110	0.06	0.11	0.08	0.12	0.09	0.13	0.13	0.17	0.13	0.19	0.16	0.21	0.20	0.24	0.21	0.26	0.23	0.26	0.10
115	0.23	0.27	0.25	0.29	0.27	0.32	0.30	0.35	0.35	0.39	0.41	0.45	0.44	0.48	0.48	0.52	0.49	0.53	0.22
120	0.56	0.58	0.56	0.61	0.59	0.65	0.64	0.70	0.70	0.76	0.78	0.85	0.87	0.92	0.94	0.97	0.98	1.01	0.44
125	1.16	1.16	1.16	1.18	1.21	1.24	1.29	1.32	1.37	1.44	1.51	1.56	1.61	1.67	1.73	1.78	1.82	1.84	0.84
130	2.21	2.19	2.20	2.20	2.24	2.28	2.35	2.40	2.49	2.56	2.66	2.73	2.88	2.92	3.04	3.07	3.17	3.19	1.56
135	3.73	3.70	3.72	3.71	3.77	3.80	3.89	3.94	4.07	4.14	4.27	4.36	4.49	4.56	4.69	4.74	4.86	4.87	2.75
140	5.42	5.38	5.39	5.40	5.45	5.49	5.58	5.64	5.75	5.81	5.92	6.00	6.13	6.19	6.28	6.33	6.42	6.44	4.37
145	6.82	6.82	6.81	6.84	6.87	6.92	6.97	7.04	7.10	7.18	7.25	7.33	7.39	7.45	7.52	7.56	7.61	7.63	6.06
150	7.81	7.83	7.81	7.86	7.86	7.91	7.93	8.00	8.03	8.10	8.13	8.19	8.25	8.27	8.33	8.33	8.36	8.38	7.38
155	8.46	8.49	8.43	8.48	8.45	8.51	8.49	8.57	8.56	8.63	8.62	8.67	8.67	8.65	8.69	8.73	8.77	8.79	8.18
160	8.74	8.74	8.69	8.71	8.70	8.71	8.66	8.73	8.69	8.76	8.70	8.70	8.67	8.72	8.70	8.73	8.83	8.80	8.41
165	8.62	8.60	8.59	8.55	8.54	8.51	8.53	8.51	8.53	8.50	8.49	8.40	8.42	8.38	8.37	8.33	8.39	8.37	8.04
170	7.95	7.96	7.95	7.94	7.91	7.88	7.86	7.83	7.84	7.79	7.76	7.65	7.59	7.51	7.55	7.49	7.47	7.38	7.20
175	6.98	6.99	7.01	7.00	7.04	7.07	7.06	7.01	6.98	6.92	6.89	6.79	6.79	6.73	6.75	6.63	6.59	6.44	6.42
180	6.56	6.55	6.51	6.55	6.58	6.60	6.54	6.50	6.47	6.46	6.45	6.44	6.50	6.51	6.52	6.44	6.40	6.43	6.54

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:

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LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: MCR-3 (10W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

Table--2 UNIT: cd

γ (DEG) \ C(DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350
0	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087	6087
5	4446	4469	4428	4481	4470	4560	4579	4696	4736	4876	4930	5105	5174	5345	5386	5545	5569
10	2531	2559	2502	2574	2545	2642	2633	2765	2783	2936	2971	3145	3190	3379	3428	3579	3595
15	1185	1184	1182	1205	1215	1247	1274	1325	1341	1441	1468	1565	1595	1710	1728	1835	1836
20	597	609	607	626	636	661	675	707	721	760	780	821	835	876	883	919	918
25	313	323	327	343	348	369	379	400	410	433	448	474	484	504	501	515	509
30	156	162	167	176	183	195	203	216	226	239	250	268	273	285	283	291	284
35	26.7	31.2	32.6	40.5	45.8	61.1	69.8	89.2	98.8	116	124	140	148	154	154	157	154
40	6.56	6.75	6.63	7.12	7.50	8.30	8.84	9.99	10.6	12.0	13.1	15.5	18.9	24.6	27.0	33.2	33.7
45	3.62	3.62	3.53	3.55	3.61	3.76	4.14	6.32	5.40	5.80	6.45	6.33	6.53	6.96	6.98	7.22	7.06
50	2.87	2.79	2.82	2.74	2.77	2.70	2.79	2.96	2.97	3.03	3.15	3.20	3.32	3.45	3.45	3.48	3.50
55	2.51	2.46	2.48	2.43	2.46	2.40	2.48	2.54	2.56	2.55	2.68	2.62	2.75	2.75	2.83	2.79	2.83
60	2.19	2.13	2.17	2.09	2.10	2.00	2.02	2.01	2.09	2.11	2.17	2.16	2.22	2.31	2.43	2.40	2.44
65	1.91	1.82	1.85	1.78	1.80	1.73	1.77	1.73	1.79	1.75	1.82	1.82	1.85	1.89	1.92	1.91	2.01
70	1.46	1.39	1.42	1.37	1.40	1.37	1.42	1.42	1.48	1.48	1.54	1.51	1.58	1.59	1.63	1.65	1.71
75	0.91	0.85	0.88	0.84	0.88	0.85	0.90	0.88	0.95	0.94	1.00	1.00	1.05	1.04	1.08	1.07	1.12
80	0.48	0.43	0.47	0.42	0.47	0.44	0.50	0.51	0.54	0.51	0.57	0.54	0.60	0.56	0.62	0.59	0.64
85	0.14	0.10	0.14	0.05	0.07	0.13	0.18	0.16	0.22	0.21	0.23	0.21	0.24	0.20	0.25	0.21	0.26
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.01	0.03	0.01	0.03	0.00	0.02	0.00	0.03	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00
110	0.08	0.09	0.06	0.09	0.07	0.07	0.02	0.06	0.02	0.05	0.01	0.04	0.00	0.04	0.00	0.04	0.00
115	0.23	0.21	0.16	0.18	0.14	0.17	0.15	0.15	0.11	0.13	0.09	0.11	0.06	0.10	0.06	0.10	0.07
120	0.40	0.42	0.37	0.39	0.34	0.36	0.31	0.32	0.28	0.28	0.23	0.26	0.23	0.24	0.21	0.23	0.23
125	0.81	0.82	0.78	0.77	0.73	0.71	0.66	0.65	0.59	0.59	0.55	0.55	0.50	0.51	0.46	0.48	0.45
130	1.56	1.54	1.52	1.48	1.45	1.40	1.35	1.30	1.25	1.19	1.14	1.10	1.05	1.02	0.98	0.97	0.93
135	2.78	2.74	2.73	2.67	2.65	2.55	2.51	2.41	2.36	2.25	2.18	2.10	2.03	1.97	1.93	1.87	1.85
140	4.43	4.37	4.39	4.29	4.27	4.16	4.11	3.99	3.93	3.79	3.72	3.59	3.52	3.43	3.37	3.28	3.25
145	6.11	6.05	6.06	5.98	5.96	5.86	5.83	5.69	5.64	5.52	5.45	5.32	5.27	5.14	5.09	5.00	4.97
150	7.40	7.36	7.35	7.29	7.27	7.21	7.17	7.11	7.06	6.97	6.91	6.82	6.76	6.69	6.64	6.59	6.55
155	8.16	8.13	8.09	8.09	8.08	8.03	8.00	7.99	7.95	7.92	7.88	7.84	7.78	7.77	7.72	7.73	7.71
160	8.37	8.32	8.28	8.22	8.24	8.16	8.26	8.21	8.32	8.27	8.26	8.26	8.24	8.28	8.25	8.32	8.31
165	8.04	7.93	7.92	7.84	7.88	7.87	7.95	7.98	8.05	8.06	8.11	8.12	8.18	8.17	8.19	8.28	8.34
170	7.19	7.10	7.13	7.03	7.05	7.03	7.15	7.20	7.31	7.35	7.42	7.44	7.51	7.57	7.64	7.69	7.75
175	6.44	6.40	6.50	6.46	6.49	6.40	6.47	6.43	6.51	6.52	6.66	6.68	6.73	6.72	6.72	6.79	6.84
180	6.52	6.51	6.52	6.55	6.58	6.53	6.50	6.45	6.43	6.44	6.43	6.46	6.52	6.52	6.43	6.42	6.44

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:

C:\Users\Administrator\Desktop\KAI\CY3\CP3R-TW-10W-DT1-9030-B15-HA-RW.GOS