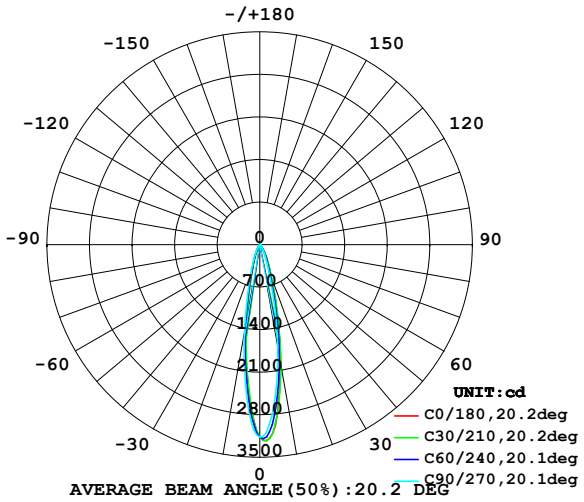
LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: MCR-3 (5W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

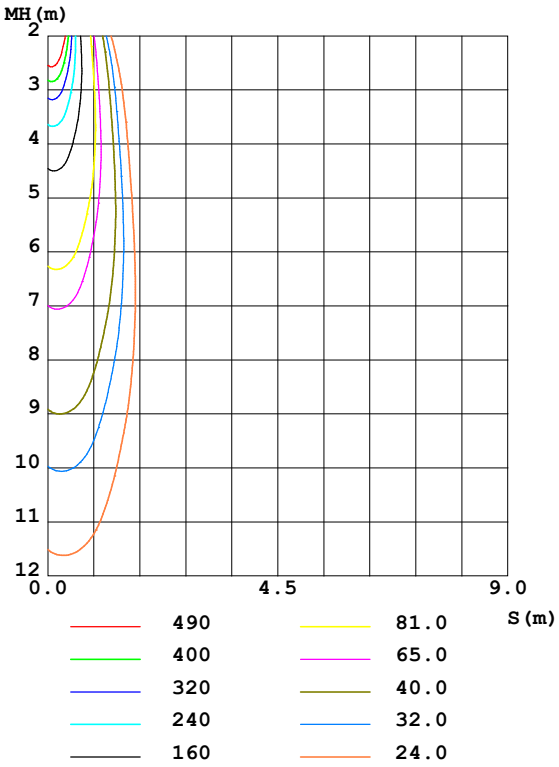
DATA OF LAMP		PHOTOMETRIC DATA Eff: 115.71 lm/W			
MCR-3 (5W, 15°)		Imax(cd)	3241	S/MH(C0/180)	0.30
NOMINAL POWER(W)	5	LOR(%)	100.0	S/MH(C90/270)	0.32
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	595.77	η UP,DN(C0-180)	0.7,51.7
NOMINAL FLUX(lm)	595.768	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,47.1
LAMPS INSIDE	1	η up(%)	1.2	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	η down(%)	98.8	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):20.2 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:

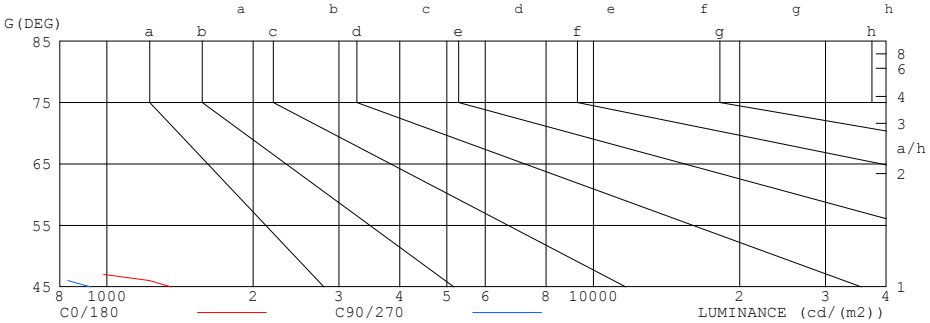
ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1976	1945	1715	1430	1311	1314	1470	1792	0- 10	216.1	216.1	36.3,36.3
20	553.5	512.4	406.0	307.4	262.6	279.3	349.7	474.5	10- 20	228.4	444.5	74.6,74.6
30	188.0	161.9	117.8	77.94	60.75	69.51	107.5	165.4	20- 30	103.2	547.7	91.9,91.9
40	16.68	12.27	5.824	3.900	3.492	3.979	6.267	16.64	30- 40	34.90	582.6	97.8,97.8
50	1.689	1.611	1.575	1.699	1.777	1.794	1.889	1.778	40- 50	2.649	585.2	98.2,98.2
60	1.114	1.095	1.169	1.333	1.489	1.500	1.315	1.188	50- 60	1.323	586.5	98.5,98.5
70	0.8218	0.7436	0.7986	0.8722	0.9281	1.005	0.9759	0.8606	60- 70	1.073	587.6	98.6,98.6
80	0.3146	0.2547	0.2074	0.2486	0.2551	0.3086	0.3526	0.3208	70- 80	0.5916	588.2	98.7,98.7
90	0	0	0	0	0	0	0	0	80- 90	0.1080	588.3	98.8,98.8
100	0	0	0	0	0	0	0	0	90-100	0	588.3	98.8,98.8
110	0	0.0136	0.0544	0.0904	0.0315	0.0113	0	0	100-110	0.0071	588.3	98.8,98.8
120	0.2058	0.2297	0.3526	0.4923	0.2562	0.1917	0.1528	0.0678	110-120	0.1082	588.4	98.8,98.8
130	1.004	1.052	1.302	1.606	0.9125	0.8159	0.6135	0.4588	120-130	0.4864	588.9	98.9,98.9
140	2.641	2.706	2.987	3.305	2.421	2.317	2.012	1.690	130-140	1.299	590.2	99.1,99.1
150	3.962	4.011	4.183	4.331	3.959	3.865	3.662	3.389	140-150	2.034	592.3	99.4,99.4
160	4.524	4.495	4.543	4.505	4.340	4.315	4.304	4.240	150-160	1.954	594.2	99.7,99.7
170	4.224	4.146	4.023	3.852	3.728	3.666	3.817	3.946	160-170	1.210	595.4	99.9,99.9
180	3.433	3.409	3.329	3.389	3.402	3.396	3.333	3.393	170-180	0.3478	595.8	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	300	125
80	405	265
75	477	383
70	537	518
65	512	498
60	497	519
55	528	522
50	587	544
45	1357	926

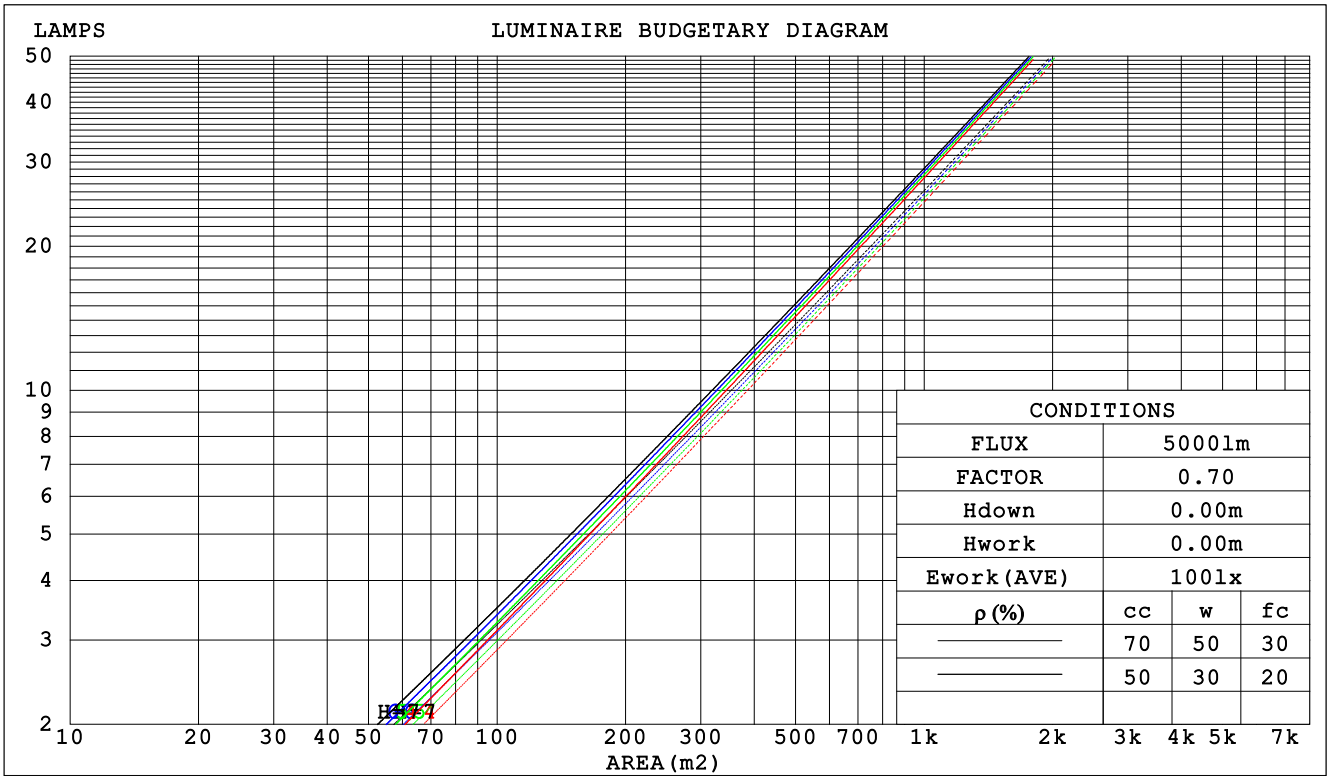
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (5W, 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	1.10	1.09	1.10	1.08	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	1.02	1.00	1.02	.00	.98	.99	.97	.96	.96	.95	.93	.92
3.0	1.02	.99	.96	1.01	.98	.95	.98	.95	.93	.96	.94	.92	.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	.90	.87	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.87	.84	.90	.86	.83	.89	.85	.83	.87	.84	.82	.86	.84	.82	.80
7.0	.88	.84	.81	.87	.83	.80	.86	.83	.80	.85	.82	.80	.84	.81	.79	.78
8.0	.85	.81	.78	.85	.81	.78	.84	.80	.77	.83	.79	.77	.82	.79	.77	.76
9.0	.83	.78	.76	.82	.78	.75	.81	.78	.75	.80	.77	.75	.80	.77	.75	.74
10.0	.80	.76	.73	.80	.76	.73	.79	.76	.73	.78	.75	.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 (5W, 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	.140	.080	.025	.133	.076	.024	.120	.069	.022	.108	.062	.020	.097	.056	.018	
2.0	.130	.071	.022	.124	.068	.021	.113	.063	.020	.103	.058	.018	.094	.053	.017	
3.0	.121	.065	.019	.116	.062	.019	.107	.058	.018	.099	.054	.017	.091	.050	.016	
4.0	.114	.059	.017	.110	.057	.017	.102	.054	.016	.095	.051	.015	.088	.048	.015	
5.0	.107	.055	.016	.104	.053	.015	.097	.050	.015	.091	.048	.014	.085	.045	.014	
6.0	.101	.051	.015	.098	.050	.014	.093	.047	.014	.087	.045	.013	.082	.043	.013	
7.0	.096	.048	.013	.094	.047	.013	.089	.045	.013	.084	.043	.012	.079	.041	.012	
8.0	.092	.045	.013	.089	.044	.012	.085	.042	.012	.081	.041	.012	.077	.039	.011	
9.0	.088	.042	.012	.086	.042	.012	.082	.040	.011	.078	.039	.011	.074	.038	.011	
10.0	.084	.040	.011	.082	.040	.011	.078	.038	.011	.075	.037	.011	.072	.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	.167	.157	.152	.144	.135	.104	.099	.094	.060	.057	.054	.019	.018	.018	
2.0	.160	.142	.127	.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	.088	.114	.093	.077	.079	.065	.054	.045	.038	.032	.015	.012	.011	
5.0	.123	.095	.075	.106	.083	.065	.073	.058	.046	.042	.034	.027	.014	.011	.009	
6.0	.114	.086	.065	.098	.074	.057	.068	.052	.040	.039	.031	.024	.013	.010	.008	
7.0	.107	.077	.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	.045	.081	.057	.039	.056	.040	.028	.033	.023	.017	.011	.008	.006	
10.0	.090	.060	.041	.077	.052	.036	.054	.037	.025	.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 (5W, 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	12.0	12.6	12.2	12.8	13.0	9.3	9.9	9.5	10.1	10.3
	3H	11.8	12.4	12.1	12.6	12.9	9.2	9.8	9.4	10.0	10.2
	4H	11.8	12.3	12.0	12.6	12.8	9.1	9.7	9.4	9.9	10.1
	6H	11.7	12.2	12.0	12.5	12.7	9.0	9.6	9.3	9.8	10.1
	8H	11.6	12.2	11.9	12.4	12.7	9.0	9.5	9.3	9.8	10.1
	12H	11.6	12.1	11.9	12.4	12.7	8.9	9.5	9.3	9.7	10.0
4H	2H	11.7	12.3	12.0	12.5	12.8	9.0	9.6	9.3	9.9	10.1
	3H	11.6	12.1	11.9	12.4	12.7	8.9	9.5	9.3	9.7	10.0
	4H	11.5	12.0	11.9	12.3	12.6	8.9	9.3	9.2	9.7	10.0
	6H	11.4	11.8	11.8	12.2	12.5	8.8	9.2	9.2	9.6	9.9
	8H	11.4	11.8	11.8	12.1	12.5	8.8	9.1	9.2	9.5	9.9
	12H	11.3	11.7	11.7	12.1	12.5	8.7	9.1	9.1	9.4	9.9
8H	4H	11.4	11.7	11.8	12.1	12.5	8.7	9.1	9.1	9.5	9.9
	6H	11.3	11.6	11.7	12.0	12.4	8.7	9.0	9.1	9.4	9.8
	8H	11.2	11.5	11.7	11.9	12.4	8.6	8.9	9.1	9.3	9.8
	12H	11.1	11.4	11.6	11.9	12.3	8.6	8.8	9.0	9.3	9.8
12H	4H	11.3	11.7	11.7	12.0	12.5	8.7	9.0	9.1	9.4	9.8
	6H	11.2	11.5	11.7	11.9	12.4	8.6	8.9	9.1	9.3	9.8
	8H	11.1	11.4	11.6	11.8	12.3	8.6	8.8	9.0	9.3	9.8

Variations with the observer position at spacings:		
S = 1.0H	+ 5.5 / - 8.9	+ 4.2 / - 5.0
1.5H	+ 8.3 / - 8.7	+ 6.8 / - 4.8
2.0H	+ 2.7 / - 0.8	+ 1.8 / - 0.4

CIE Pub.117 Corrected 595.8 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.8)

C Range: 0 - 360DEG
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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 (5W, 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
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
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Remarks:

ISOCANDELA DIAGRAM

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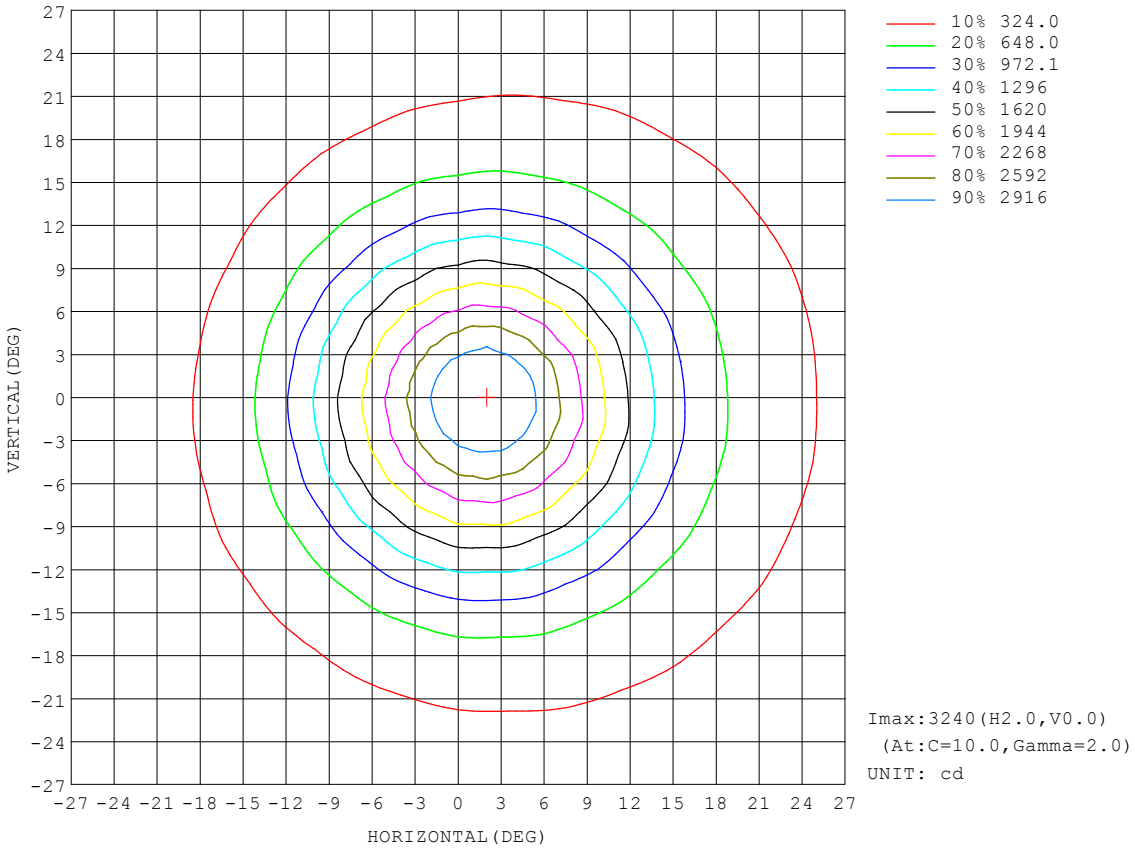
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



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AAI Figure

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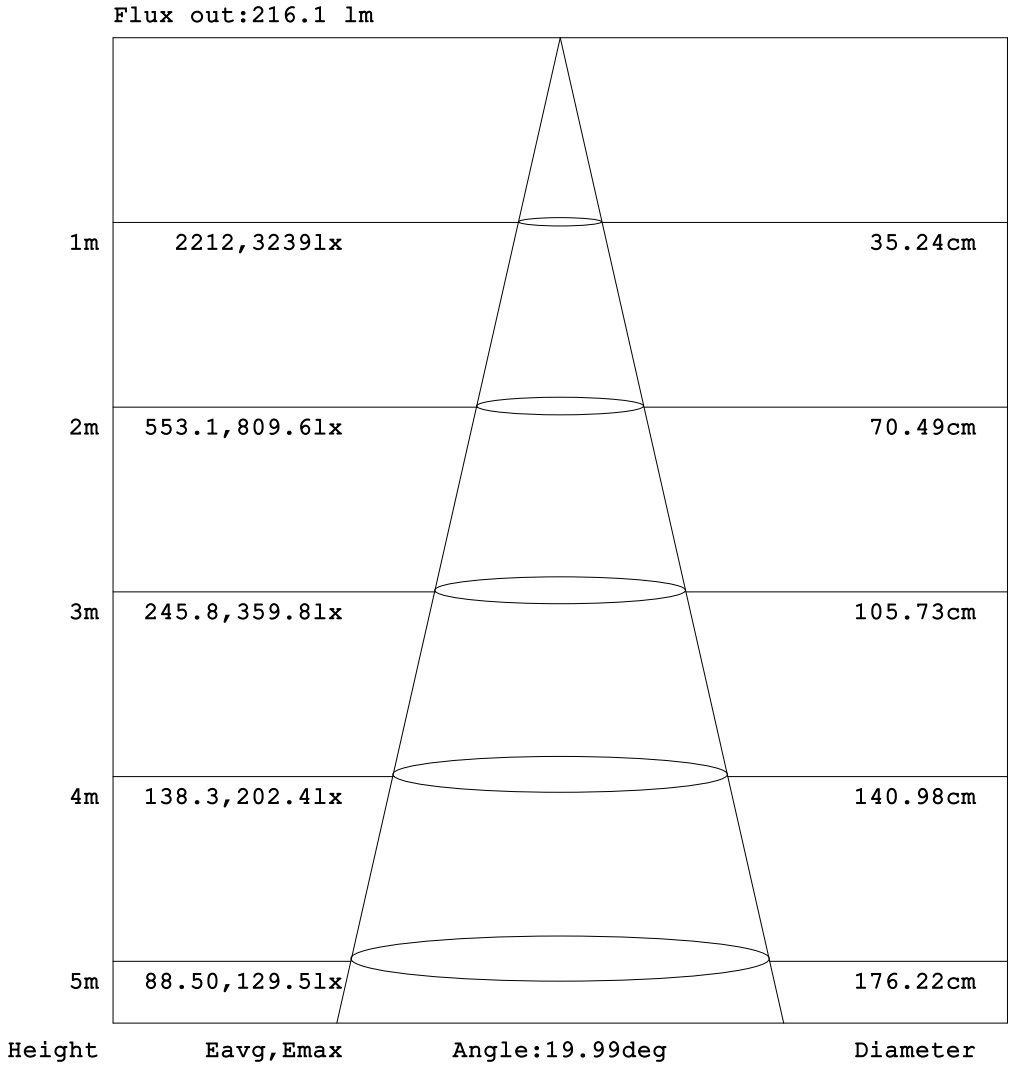

Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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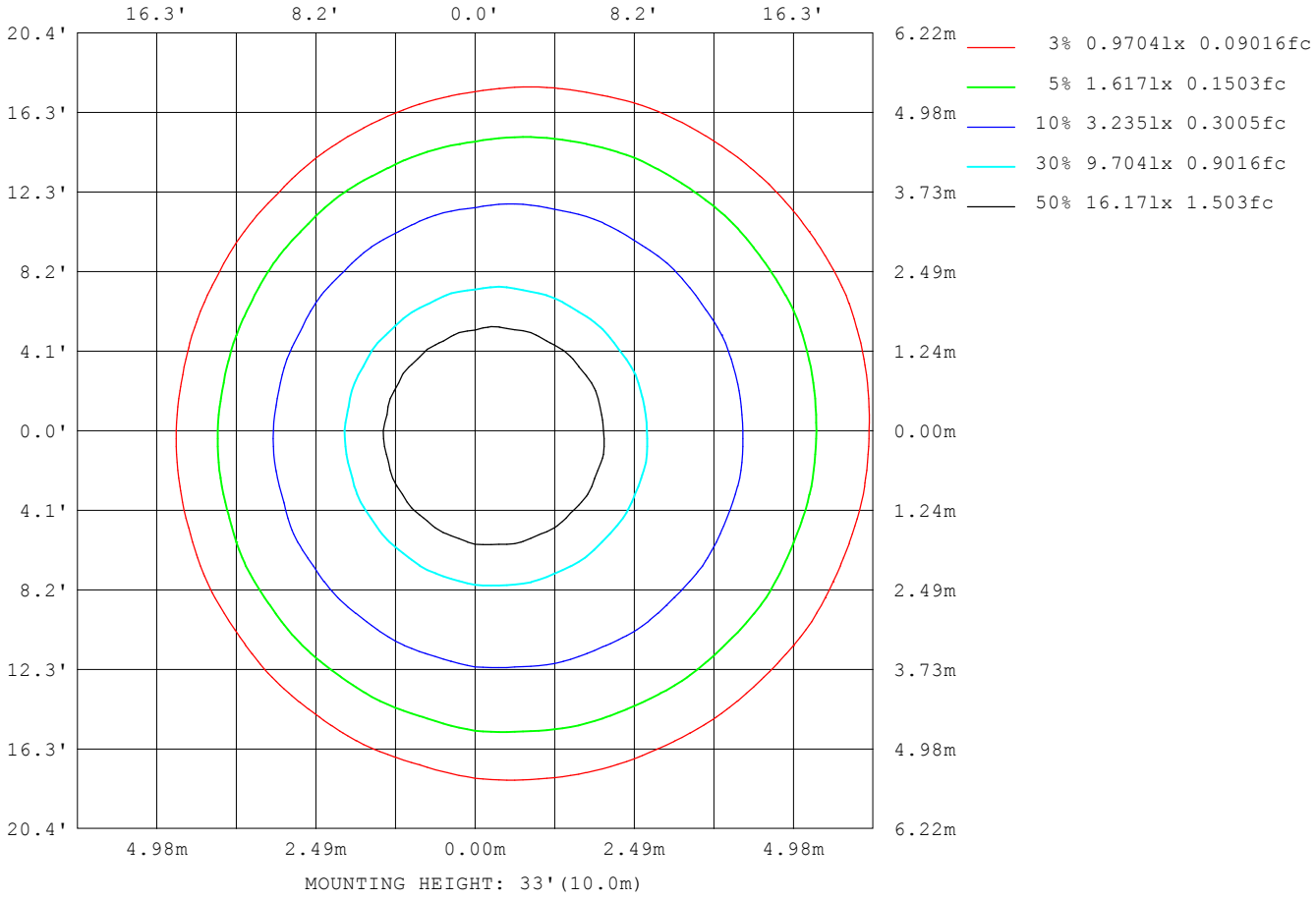
ISOLUX DIAGRAM

NAME: MCR-3 (5W, 15°)	**TYPE:LED**	**WEIGHT:**
SPEC.:	**DIM.:**	**SERIAL No.:1**
MFR.: Utopia Lighting	**SUR.:**	**PROTECTION ANGLE:**



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Humidity:65.0%
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Remarks:

LED Avg.L Report

NAME: MCR-3 (5W, 15°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

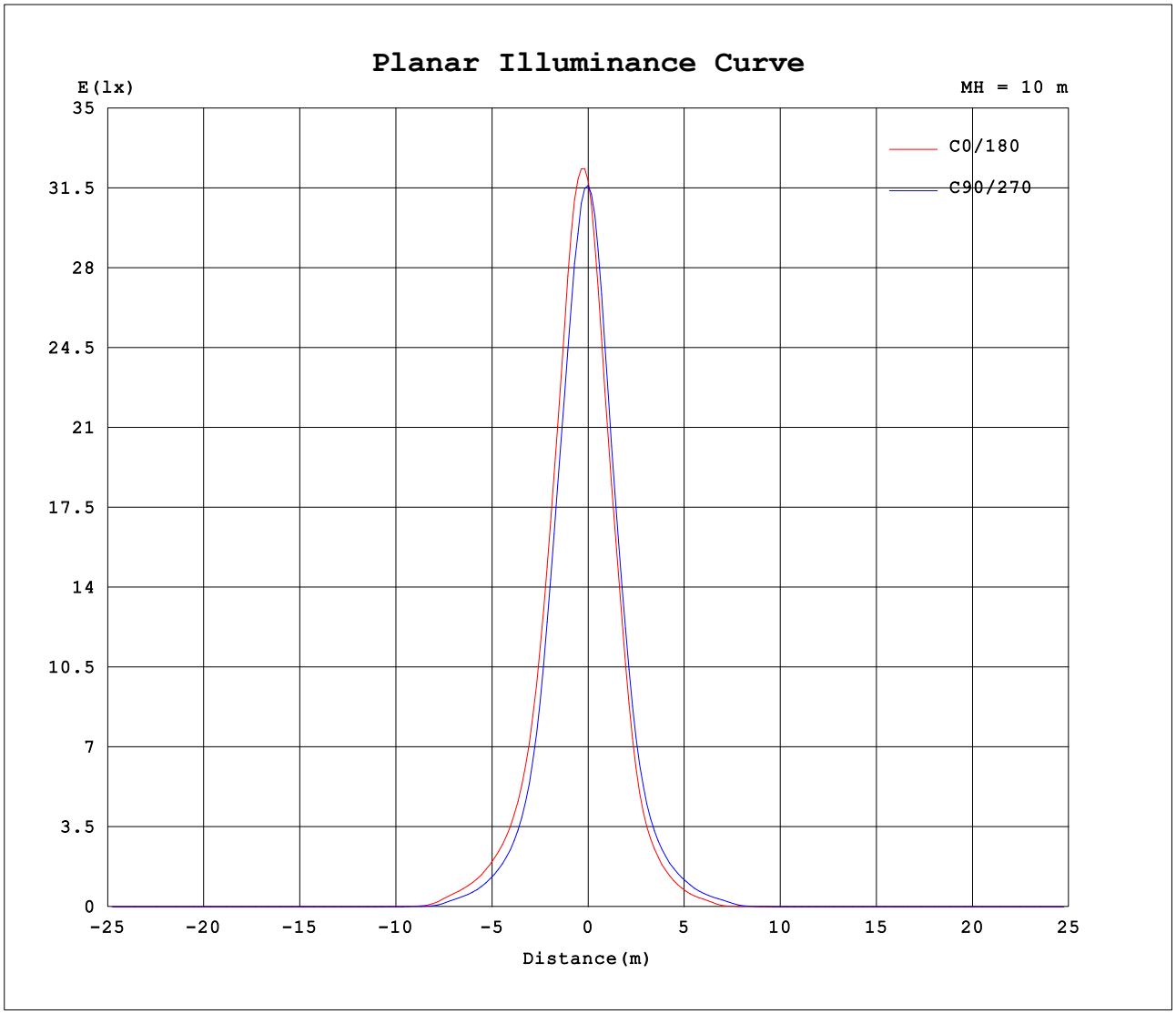
AvgL	cd/m2
L_0~180(65)av	590
L_0~180(75)av	478
L_0~180(85)av	183
L_90~270(65)av	551
L_90~270(75)av	464
L_90~270(85)av	236
L_45(65)av	571
L_45(75)av	473
L_45(85)av	193

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:

MCR-3 (5W, 15°).GOS

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: MCR-3 (5W, 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	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165
5	2976	2989	2966	2958	2909	2903	2814	2793	2697	2672	2576	2547	2461	2439	2362	2351	2285	2283	2278
10	1976	2030	1988	2014	1946	1944	1858	1838	1743	1715	1618	1580	1489	1466	1395	1382	1322	1314	1311
15	1076	1107	1083	1088	1038	1032	968	945	876	845	783	753	696	669	625	613	570	563	555
20	553	566	551	549	516	509	477	457	421	406	373	357	330	319	296	291	270	269	263
25	323	328	318	315	295	287	266	254	233	222	202	191	176	167	153	148	139	133	130
30	188	188	182	178	166	158	146	137	125	118	105	98.4	87.2	81.7	74.2	69.7	64.0	62.5	60.7
35	105	105	99.5	96.7	88.6	84.3	75.2	69.3	61.0	56.9	47.5	42.0	31.7	26.2	18.9	15.4	12.4	11.1	10.8
40	16.7	16.3	14.5	15.2	12.6	12.0	9.34	8.29	6.48	5.82	5.05	4.70	4.21	4.03	3.77	3.65	3.49	3.49	3.49
45	4.30	4.26	4.02	4.02	3.86	3.73	3.53	3.34	3.21	2.95	2.71	2.87	2.47	2.30	2.21	2.18	2.21	2.20	2.21
50	1.69	1.66	1.65	1.60	1.63	1.59	1.60	1.58	1.61	1.58	1.62	1.64	1.69	1.66	1.74	1.74	1.79	1.76	1.78
55	1.36	1.30	1.33	1.29	1.31	1.27	1.31	1.29	1.35	1.35	1.43	1.44	1.51	1.52	1.57	1.55	1.62	1.59	1.61
60	1.11	1.06	1.07	1.03	1.11	1.08	1.10	1.06	1.12	1.17	1.22	1.24	1.33	1.29	1.38	1.38	1.47	1.45	1.49
65	0.97	0.95	0.94	0.89	0.91	0.86	0.92	0.89	0.97	0.95	1.03	1.02	1.12	1.12	1.20	1.20	1.27	1.26	1.27
70	0.82	0.78	0.80	0.74	0.77	0.71	0.77	0.73	0.79	0.80	0.82	0.79	0.86	0.85	0.90	0.87	0.93	0.92	0.93
75	0.55	0.50	0.53	0.51	0.51	0.47	0.50	0.45	0.49	0.45	0.50	0.46	0.52	0.49	0.55	0.52	0.57	0.53	0.56
80	0.31	0.28	0.30	0.25	0.28	0.23	0.26	0.22	0.26	0.21	0.25	0.21	0.26	0.22	0.28	0.23	0.28	0.24	0.26
85	0.12	0.07	0.11	0.08	0.10	0.05	0.08	0.08	0.07	0.05	0.07	0.01	0.06	0.01	0.06	0.00	0.05	0.01	0.03
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.03	0.01	0.04	0.00
110	0.00	0.01	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.05	0.04	0.09	0.06	0.11	0.07	0.13	0.09	0.14	0.03
115	0.05	0.08	0.05	0.08	0.08	0.11	0.07	0.13	0.12	0.18	0.14	0.20	0.20	0.25	0.23	0.28	0.27	0.30	0.11
120	0.21	0.22	0.19	0.23	0.21	0.25	0.23	0.30	0.28	0.35	0.35	0.42	0.42	0.49	0.50	0.55	0.53	0.58	0.26
125	0.49	0.50	0.51	0.51	0.49	0.55	0.56	0.62	0.62	0.70	0.72	0.81	0.84	0.91	0.94	1.00	1.02	1.07	0.49
130	1.00	1.02	0.99	1.03	1.02	1.08	1.10	1.18	1.22	1.30	1.37	1.44	1.51	1.58	1.63	1.69	1.73	1.78	0.91
135	1.77	1.77	1.75	1.79	1.80	1.85	1.90	1.98	2.03	2.12	2.19	2.28	2.36	2.43	2.51	2.57	2.62	2.66	1.57
140	2.64	2.66	2.64	2.67	2.68	2.74	2.78	2.85	2.90	2.99	3.05	3.14	3.20	3.28	3.33	3.39	3.43	3.47	2.42
145	3.40	3.42	3.40	3.44	3.44	3.50	3.51	3.59	3.63	3.70	3.74	3.82	3.86	3.92	3.95	4.00	4.05	4.06	3.29
150	3.96	3.99	3.94	4.00	3.98	4.04	4.04	4.11	4.11	4.18	4.20	4.25	4.27	4.32	4.34	4.38	4.41	4.42	3.96
155	4.32	4.36	4.31	4.37	4.32	4.38	4.36	4.43	4.41	4.47	4.47	4.50	4.48	4.53	4.55	4.54	4.55	4.59	4.30
160	4.52	4.52	4.48	4.55	4.49	4.50	4.52	4.57	4.56	4.54	4.54	4.51	4.55	4.49	4.52	4.51	4.52	4.52	4.34
165	4.54	4.50	4.48	4.48	4.49	4.45	4.46	4.41	4.44	4.41	4.40	4.32	4.35	4.29	4.31	4.27	4.31	4.27	4.15
170	4.22	4.19	4.21	4.18	4.17	4.12	4.13	4.07	4.09	4.02	4.01	3.92	3.91	3.83	3.87	3.81	3.83	3.77	3.73
175	3.70	3.68	3.70	3.67	3.70	3.67	3.69	3.63	3.62	3.55	3.55	3.47	3.49	3.43	3.46	3.40	3.39	3.31	3.33
180	3.43	3.41	3.40	3.41	3.41	3.40	3.40	3.35	3.35	3.33	3.33	3.33	3.36	3.39	3.39	3.36	3.33	3.33	3.40

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 (5W, 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	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165	3165		
5	2237	2268	2248	2298	2290	2363	2378	2472	2497	2610	2640	2751	2770	2876	2888	2948	2972		
10	1275	1297	1281	1316	1312	1363	1368	1450	1470	1568	1598	1702	1736	1849	1872	1970	1964		
15	543	551	550	577	580	615	629	676	696	757	788	854	887	961	988	1054	1064		
20	256	261	262	276	282	300	310	334	350	379	400	435	455	493	510	541	549		
25	129	131	134	141	148	160	170	184	198	217	235	256	272	293	304	320	324		
30	59.7	60.8	62.5	67.3	71.7	79.9	87.3	98.1	107	121	133	148	159	172	180	191	191		
35	10.2	12.2	13.6	19.2	23.9	32.4	37.8	46.3	53.5	64.0	71.1	81.2	87.9	98.0	102	109	108		
40	3.42	3.57	3.65	3.89	4.06	4.46	4.82	5.53	6.27	8.66	10.3	13.7	14.9	18.4	18.1	18.4	16.2		
45	2.22	2.21	2.27	2.29	2.41	2.59	2.74	2.96	3.15	3.32	3.47	3.81	3.78	4.02	4.01	4.12	4.16		
50	1.83	1.79	1.84	1.78	1.81	1.80	1.84	1.83	1.89	1.82	1.87	1.93	1.80	1.76	1.76	1.70	1.70		
55	1.65	1.63	1.69	1.64	1.66	1.58	1.59	1.60	1.58	1.52	1.55	1.46	1.48	1.41	1.42	1.36	1.39		
60	1.51	1.46	1.52	1.48	1.52	1.42	1.40	1.30	1.31	1.28	1.29	1.24	1.22	1.16	1.17	1.11	1.13		
65	1.33	1.28	1.32	1.26	1.28	1.24	1.22	1.15	1.15	1.07	1.08	1.04	1.05	1.00	1.00	0.94	0.98		
70	0.99	0.96	1.01	0.99	1.02	0.99	1.01	0.95	0.98	0.93	0.93	0.85	0.88	0.84	0.87	0.81	0.83		
75	0.60	0.57	0.62	0.58	0.64	0.59	0.64	0.60	0.63	0.58	0.63	0.58	0.61	0.56	0.59	0.53	0.56		
80	0.31	0.27	0.33	0.28	0.33	0.30	0.35	0.31	0.35	0.30	0.35	0.30	0.34	0.30	0.33	0.30	0.32		
85	0.07	0.04	0.09	0.07	0.10	0.07	0.12	0.08	0.14	0.09	0.13	0.08	0.13	0.08	0.13	0.08	0.12		
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	0.03	0.00	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
115	0.07	0.10	0.06	0.08	0.05	0.08	0.03	0.05	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.01	0.01		
120	0.21	0.25	0.20	0.22	0.16	0.19	0.14	0.16	0.15	0.13	0.07	0.10	0.06	0.08	0.05	0.06	0.02		
125	0.46	0.48	0.43	0.45	0.39	0.39	0.34	0.35	0.29	0.29	0.23	0.25	0.20	0.21	0.15	0.18	0.14		
130	0.89	0.90	0.85	0.85	0.78	0.77	0.70	0.69	0.61	0.61	0.54	0.52	0.46	0.46	0.42	0.41	0.36		
135	1.56	1.55	1.51	1.49	1.43	1.39	1.32	1.27	1.20	1.15	1.06	1.04	0.95	0.93	0.87	0.86	0.81		
140	2.43	2.41	2.38	2.34	2.29	2.22	2.16	2.09	2.01	1.93	1.86	1.78	1.72	1.66	1.59	1.57	1.52		
145	3.30	3.28	3.25	3.21	3.17	3.12	3.05	2.99	2.90	2.83	2.74	2.68	2.60	2.55	2.49	2.45	2.41		
150	3.98	3.94	3.91	3.89	3.84	3.82	3.76	3.73	3.66	3.61	3.52	3.48	3.40	3.38	3.31	3.29	3.25		
155	4.31	4.27	4.26	4.27	4.23	4.23	4.18	4.18	4.12	4.11	4.04	4.03	3.97	3.96	3.90	3.92	3.88		
160	4.33	4.32	4.30	4.30	4.33	4.27	4.27	4.28	4.30	4.24	4.21	4.24	4.22	4.27	4.23	4.27	4.24		
165	4.18	4.10	4.13	4.07	4.11	4.09	4.14	4.11	4.20	4.18	4.22	4.19	4.25	4.24	4.25	4.25	4.30		
170	3.73	3.66	3.71	3.66	3.67	3.66	3.74	3.76	3.82	3.83	3.89	3.88	3.94	3.95	4.00	4.01	4.05		
175	3.35	3.32	3.36	3.34	3.35	3.33	3.36	3.33	3.41	3.41	3.50	3.49	3.55	3.54	3.55	3.53	3.57		
180	3.40	3.39	3.40	3.39	3.40	3.39	3.32	3.33	3.33	3.33	3.33	3.34	3.39	3.40	3.36	3.35	3.35		

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: