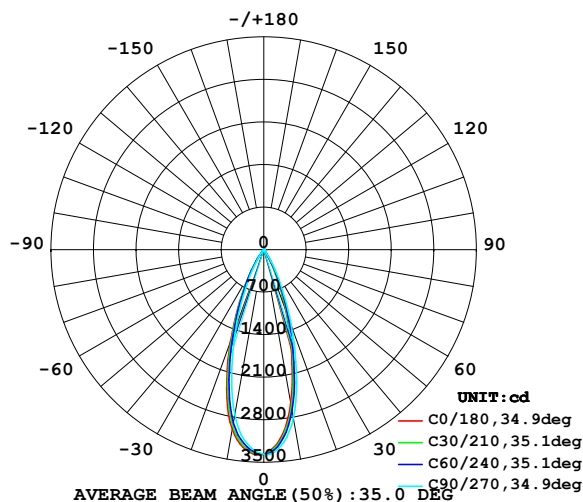


LUMINAIRE PHOTOMETRIC TEST REPORT

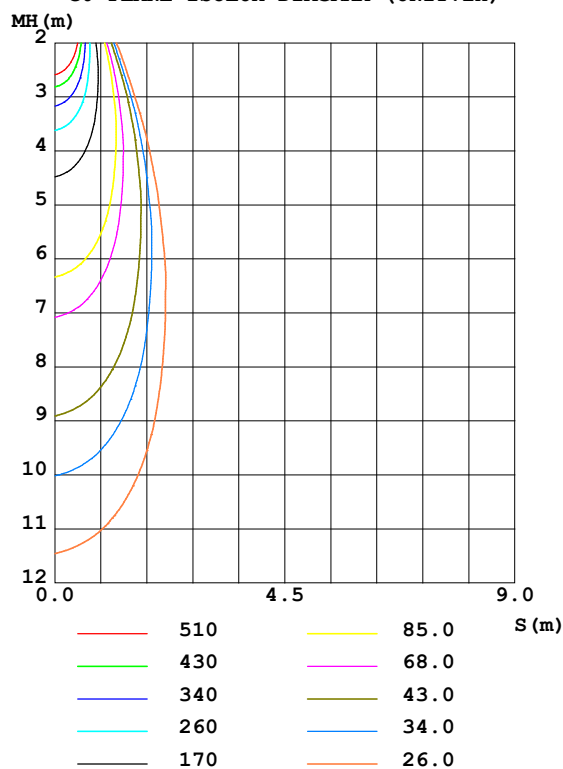
NAME: MCR-3 (13W, 36°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105.32 lm/W			
MCR-3 (13W, 36°)		I _{max} (cd)	3383	S/MH (C0/180)	0.62
NOMINAL POWER(W)	13	LOR(%)	100.0	S/MH (C90/270)	0.57
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1318.1	η UP,DN (C0-180)	0.7,48.7
NOMINAL FLUX(lm)	1318.11	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.6,50.0
LAMPS INSIDE	1	η up (%)	1.3	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	η down (%)	98.7	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



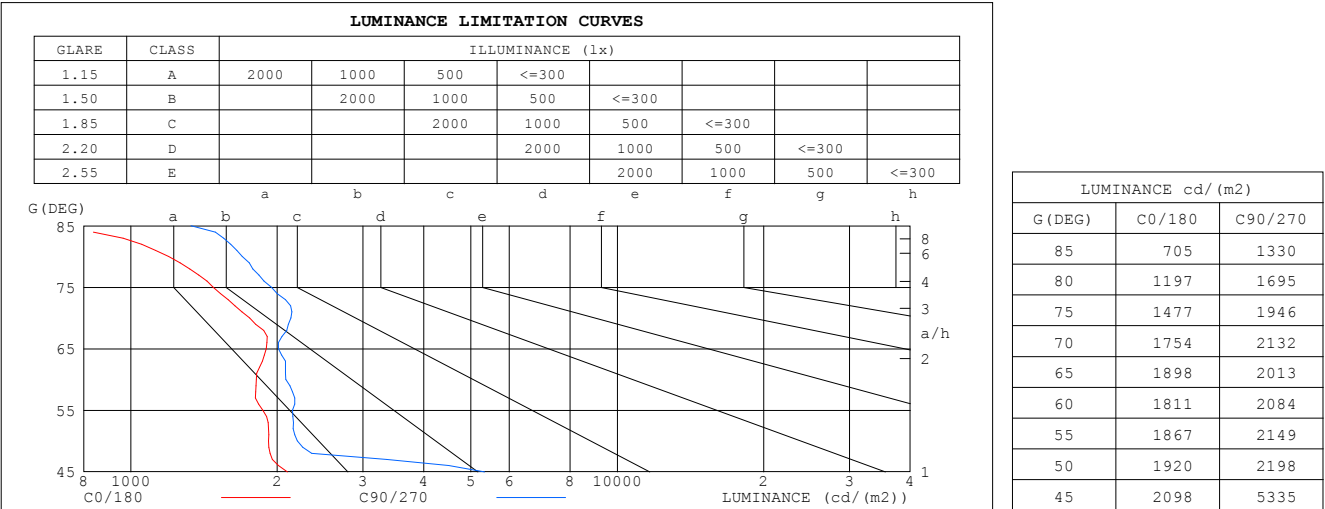
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2025-11-25

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	2565	2650	2815	2942	3001	2921	2757	2630	0- 10	293.8	293.8	22.3,22.3
20	1071	1156	1326	1489	1603	1521	1310	1158	10- 20	562.8	856.6	65,65
30	207.7	249.6	339.5	414.7	473.4	454.7	353.6	258.6	20- 30	342.3	1199	91,91
40	18.42	21.14	26.40	31.56	33.20	35.80	30.69	23.04	30- 40	81.55	1280	97.1,97.1
50	5.481	5.896	6.372	6.893	6.359	5.669	5.418	5.308	40- 50	10.43	1291	97.9,97.9
60	4.021	4.439	4.700	4.545	4.129	3.573	3.242	3.442	50- 60	4.447	1295	98.3,98.3
70	2.664	3.188	3.290	3.073	2.739	2.316	1.945	2.149	60- 70	3.304	1299	98.5,98.5
80	0.9231	1.144	1.328	1.151	0.9956	0.8282	0.6427	0.7200	70- 80	1.857	1301	98.7,98.7
90	0	0	0.0538	0.0023	0.0089	0.0068	0.0091	0.0046	80- 90	0.4122	1301	98.7,98.7
100	0.0044	0.0225	0.0362	0.0114	0.0223	0.0158	0.0090	0.0227	90-100	0.0112	1301	98.7,98.7
110	0.4220	0.3781	0.3214	0.2240	0.0625	0.0765	0.0812	0.1155	100-110	0.0873	1301	98.7,98.7
120	1.623	1.557	1.348	1.109	0.3879	0.4233	0.5551	0.6637	110-120	0.4931	1302	98.7,98.7
130	4.030	3.887	3.529	3.152	1.565	1.675	1.991	2.240	120-130	1.552	1303	98.9,98.9
140	6.977	6.830	6.449	6.045	3.952	4.142	4.567	4.935	130-140	3.121	1306	99.1,99.1
150	9.275	9.160	8.943	8.666	6.894	7.035	7.438	7.733	140-150	4.291	1311	99.4,99.4
160	9.839	9.741	9.782	9.739	8.904	8.874	9.031	9.091	150-160	4.118	1315	99.7,99.7
170	8.953	9.052	9.194	9.237	8.965	8.924	8.996	8.865	160-170	2.634	1317	99.9,99.9
180	8.832	9.007	8.950	8.990	8.908	8.993	8.910	8.985	170-180	0.8516	1318	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



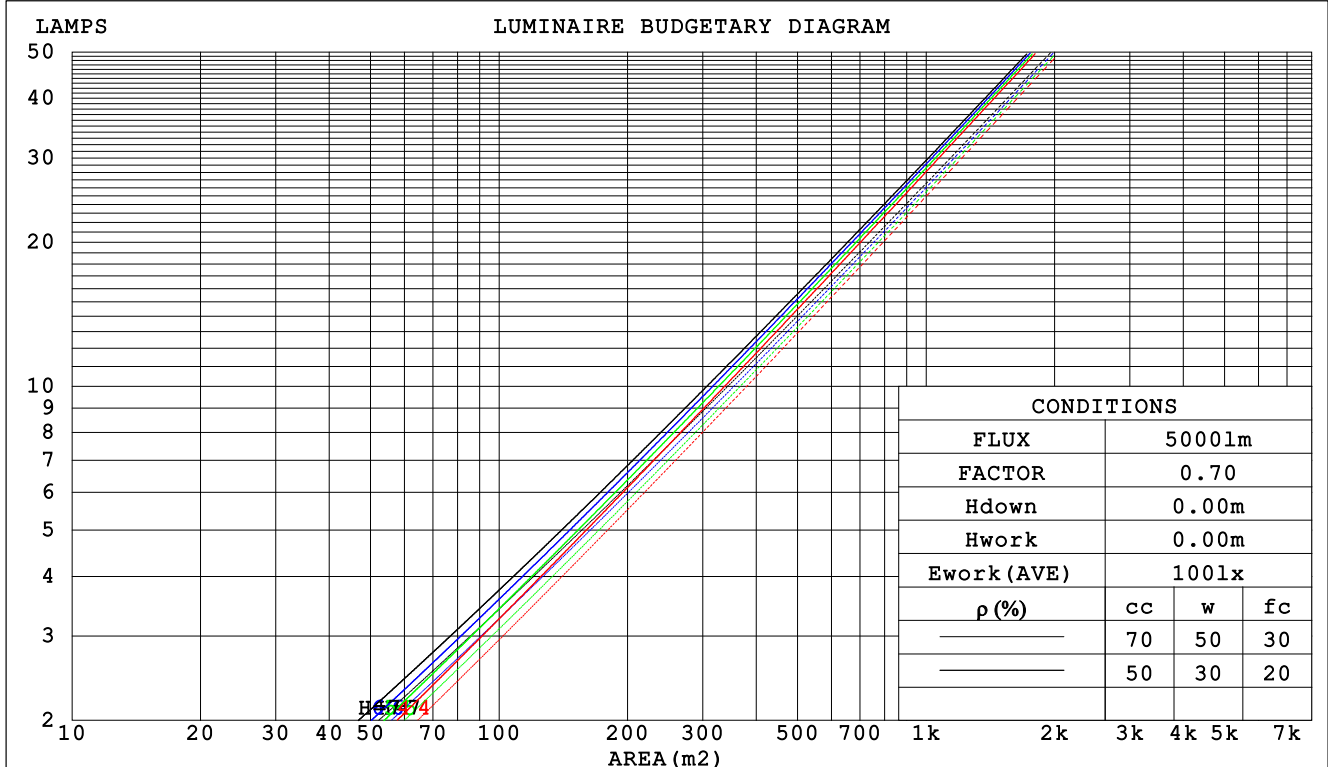
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (13W, 36°)	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	1.08	1.10	1.08	1.06	1.05	1.04	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.06	1.02	.90	1.04	1.01	.98	1.01	.98	.96	.97	.95	.94	.95	.93	.92	.90
3.0	1.00	.96	.93	.99	.95	.92	.96	.93	.91	.94	.91	.89	.91	.89	.88	.86
4.0	.95	.91	.88	.94	.90	.87	.92	.89	.86	.90	.87	.85	.88	.86	.84	.82
5.0	.91	.86	.83	.90	.86	.83	.88	.85	.82	.87	.83	.81	.85	.82	.80	.79
6.0	.87	.82	.79	.86	.82	.79	.85	.81	.78	.83	.80	.77	.82	.79	.77	.76
7.0	.84	.79	.75	.83	.78	.75	.82	.78	.75	.80	.77	.74	.79	.76	.74	.73
8.0	.80	.75	.72	.80	.75	.72	.79	.75	.72	.78	.74	.71	.77	.73	.71	.70
9.0	.77	.72	.69	.77	.72	.69	.76	.72	.69	.75	.71	.69	.74	.71	.68	.67
10.0	.74	.70	.67	.74	.69	.66	.73	.69	.66	.72	.69	.66	.72	.68	.66	.65



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 (13W, 36°)	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	.152	.087	.027	.145	.083	.026	.132	.076	.024	.120	.069	.022	.109	.063	.020		
2.0	.142	.078	.024	.137	.075	.023	.126	.070	.022	.115	.065	.020	.106	.060	.019		
3.0	.134	.071	.021	.129	.069	.021	.119	.065	.020	.111	.061	.019	.103	.057	.018		
4.0	.126	.066	.019	.122	.064	.019	.114	.060	.018	.107	.057	.017	.100	.054	.016		
5.0	.120	.061	.018	.116	.059	.017	.109	.057	.017	.103	.054	.016	.097	.052	.015		
6.0	.114	.057	.016	.110	.056	.016	.104	.054	.016	.099	.051	.015	.093	.049	.015		
7.0	.108	.054	.015	.106	.053	.015	.100	.051	.015	.095	.049	.014	.091	.047	.014		
8.0	.104	.051	.014	.101	.050	.014	.096	.048	.014	.092	.047	.013	.088	.045	.013		
9.0	.099	.048	.013	.097	.047	.013	.093	.046	.013	.089	.045	.013	.085	.043	.012		
10.0	.095	.046	.013	.093	.045	.013	.090	.044	.012	.086	.043	.012	.083	.042	.012		

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	.157	.154	.144	.135	.105	.099	.093	.060	.057	.054	.019	.018	.018	
2.0	.162	.143	.126	.139	.123	.109	.095	.085	.076	.055	.049	.045	.018	.016	.015	
3.0	.148	.123	.104	.127	.107	.090	.087	.074	.063	.050	.043	.037	.016	.014	.012	
4.0	.137	.108	.087	.117	.094	.075	.081	.065	.053	.047	.038	.031	.015	.012	.010	
5.0	.127	.096	.074	.109	.083	.064	.075	.058	.045	.043	.034	.027	.014	.011	.009	
6.0	.119	.087	.064	.102	.075	.056	.070	.053	.039	.041	.031	.023	.013	.010	.008	
7.0	.112	.079	.056	.096	.068	.049	.066	.048	.034	.039	.028	.021	.012	.009	.007	
8.0	.105	.072	.049	.091	.063	.043	.063	.044	.031	.037	.026	.018	.012	.009	.006	
9.0	.100	.067	.044	.086	.058	.039	.060	.041	.027	.035	.024	.016	.011	.008	.005	
10.0	.095	.062	.040	.082	.054	.035	.057	.038	.025	.033	.022	.015	.011	.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 (13W, 36°)					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					6.8	7.5	7.0	7.7	7.9	10.6	11.3	10.8	11.5	11.7
3H					7.2	7.9	7.5	8.1	8.3	10.7	11.4	10.9	11.6	11.8
4H					7.4	8.0	7.6	8.2	8.5	10.7	11.4	11.0	11.6	11.9
6H					7.4	8.1	7.7	8.3	8.6	10.8	11.4	11.1	11.6	11.9
8H					7.4	8.0	7.8	8.3	8.6	10.8	11.4	11.1	11.6	11.9
12H					7.4	8.0	7.8	8.3	8.6	10.8	11.3	11.1	11.6	11.9
4H 2H					6.8	7.5	7.1	7.7	8.0	10.4	11.1	10.7	11.3	11.6
3H					7.4	8.0	7.8	8.3	8.6	10.6	11.2	11.0	11.5	11.8
4H					7.7	8.2	8.1	8.5	8.9	10.7	11.3	11.1	11.6	11.9
6H					7.9	8.3	8.2	8.7	9.0	10.8	11.3	11.2	11.6	12.0
8H					7.9	8.3	8.3	8.7	9.1	10.9	11.3	11.3	11.6	12.0
12H					7.9	8.3	8.3	8.6	9.1	10.9	11.2	11.3	11.6	12.0
8H 4H					7.8	8.2	8.2	8.6	9.0	10.7	11.1	11.1	11.5	11.9
6H					8.0	8.4	8.5	8.8	9.2	10.8	11.2	11.3	11.6	12.0
8H					8.1	8.4	8.5	8.8	9.3	10.9	11.2	11.3	11.6	12.1
12H					8.1	8.3	8.6	8.8	9.3	10.9	11.2	11.4	11.6	12.1
12H 4H					7.8	8.1	8.2	8.5	9.0	10.6	11.0	11.1	11.4	11.8
6H					8.0	8.3	8.5	8.8	9.2	10.8	11.1	11.2	11.5	12.0
8H					8.1	8.3	8.6	8.8	9.3	10.8	11.1	11.3	11.6	12.1
Variations with the observer position at spacings:														
S = 1.0H					+ 0.7 / - 0.9					+ 3.6 / - 1.9				
1.5H					+ 1.7 / - 1.0					+ 5.7 / - 2.0				
2.0H					+ 0.2 / - 0.3					+ 2.4 / - 0.4				

CIE Pub.117 Corrected 1318 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.0)

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 (13W, 36°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

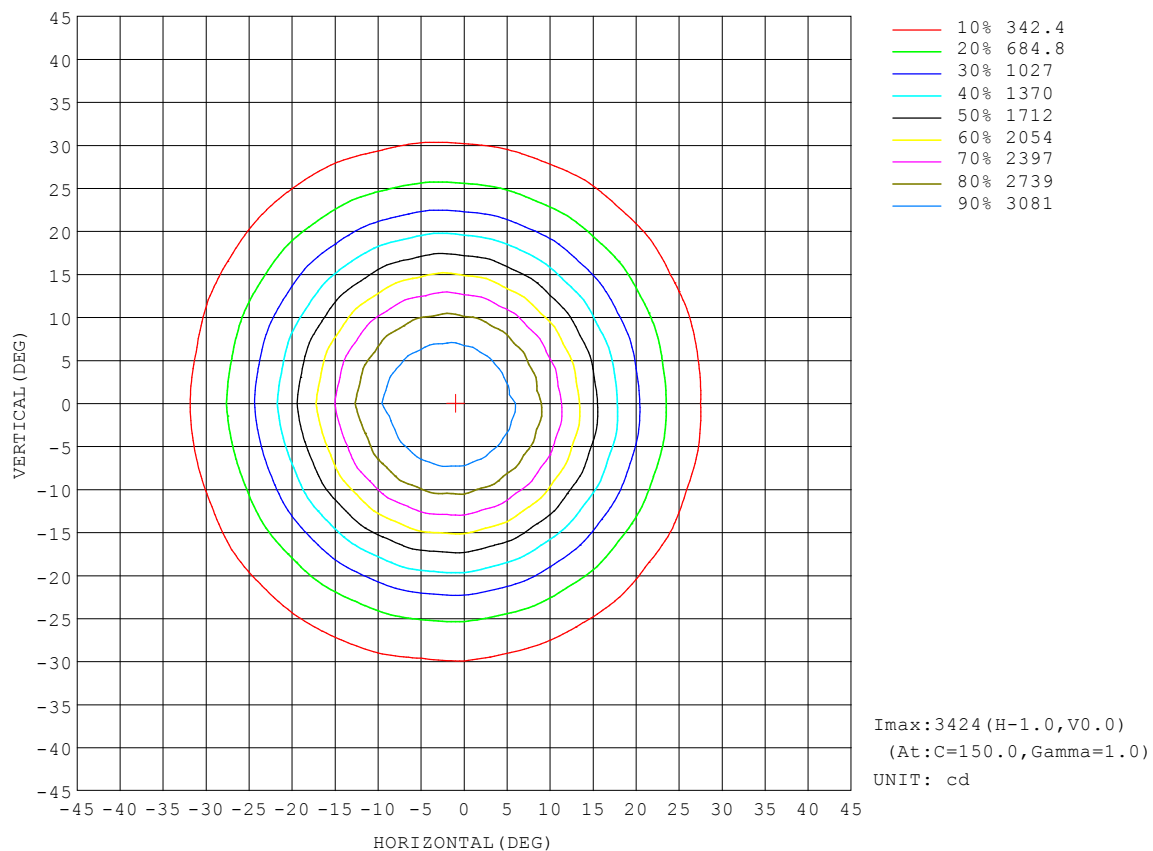
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	89	84	80	88	83	80	77
0.80	97	92	88	96	91	88	95	90	87	84
1.00	101	96	92	100	95	92	98	95	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	105	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	94
2.50	111	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	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 (13W, 36°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

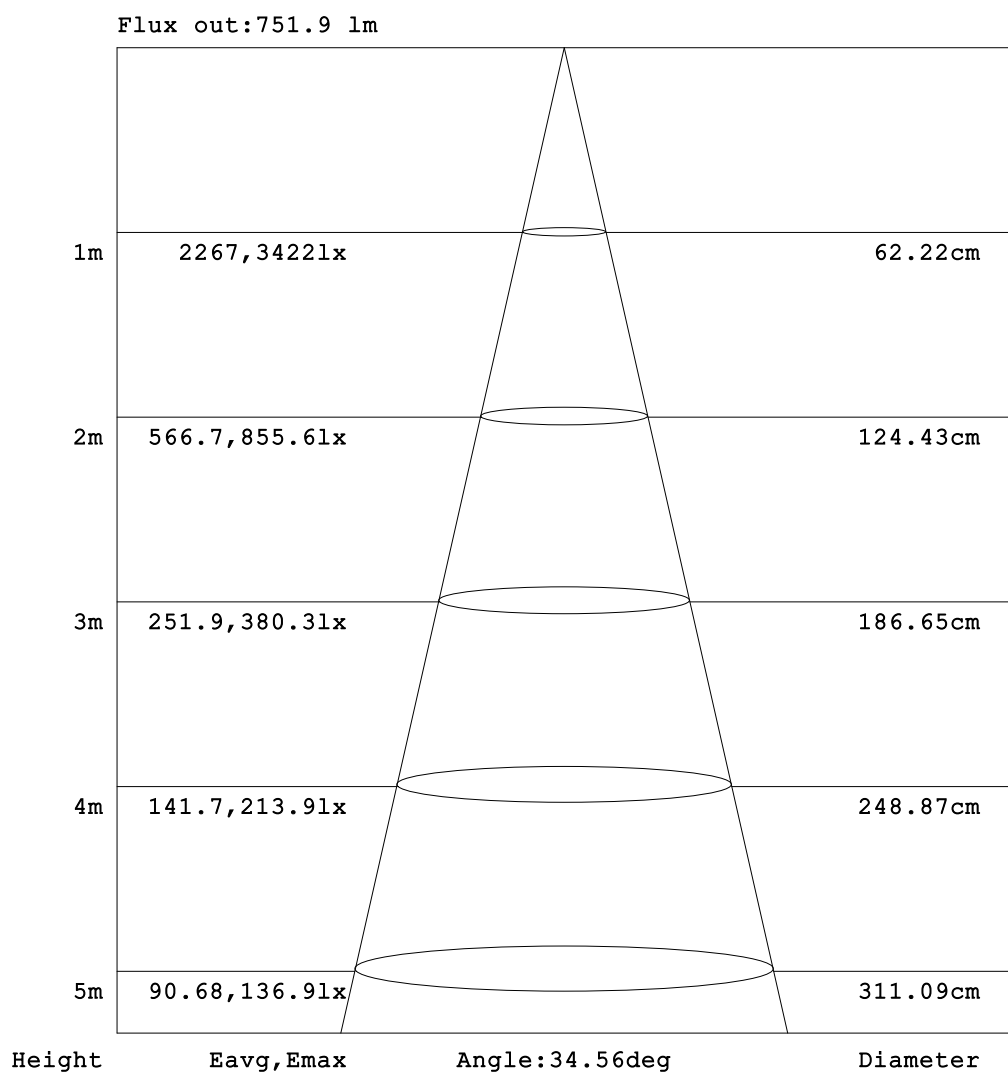


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (13W, 36°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



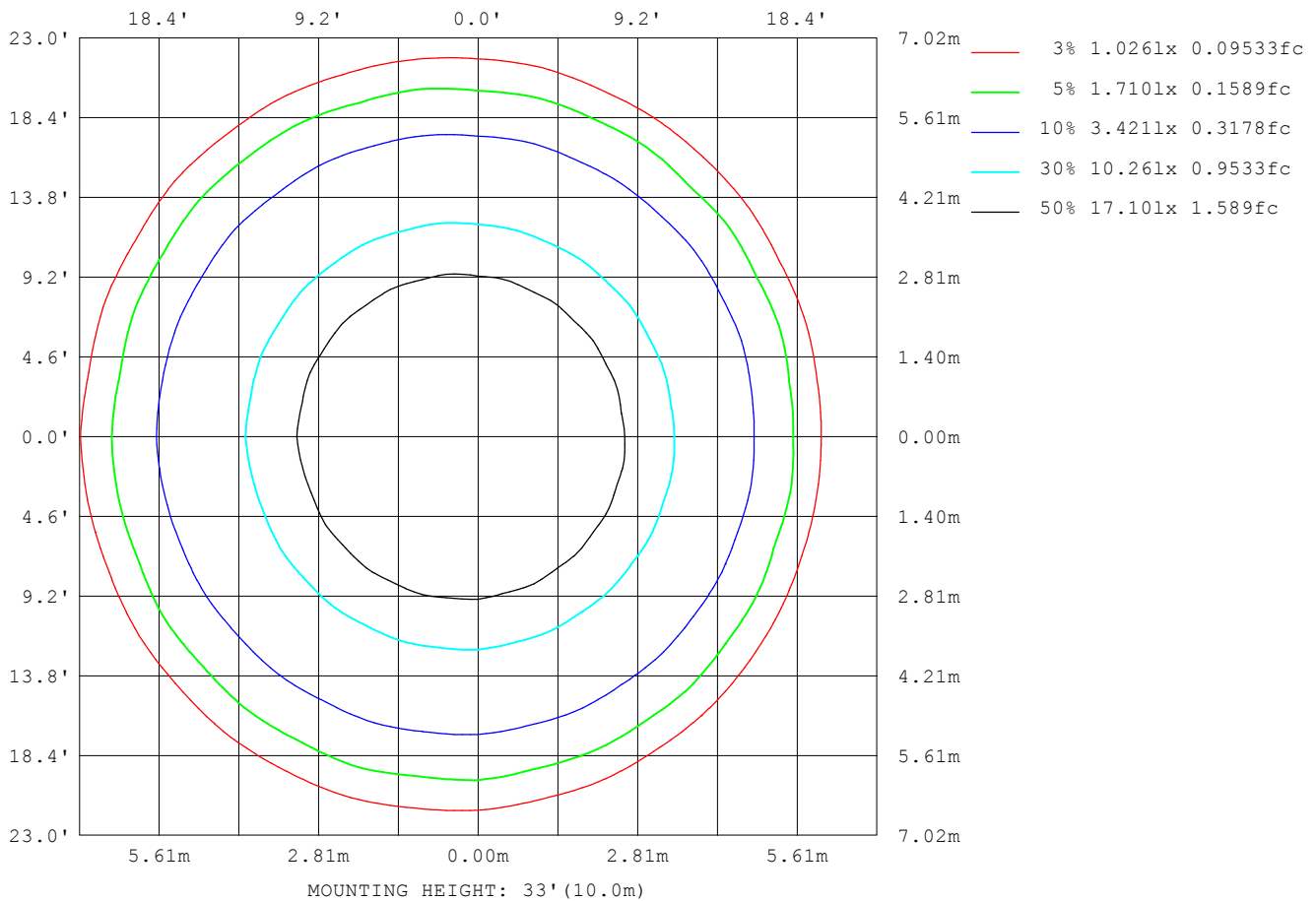
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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 (13W, 36°)	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 (13W, 36°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

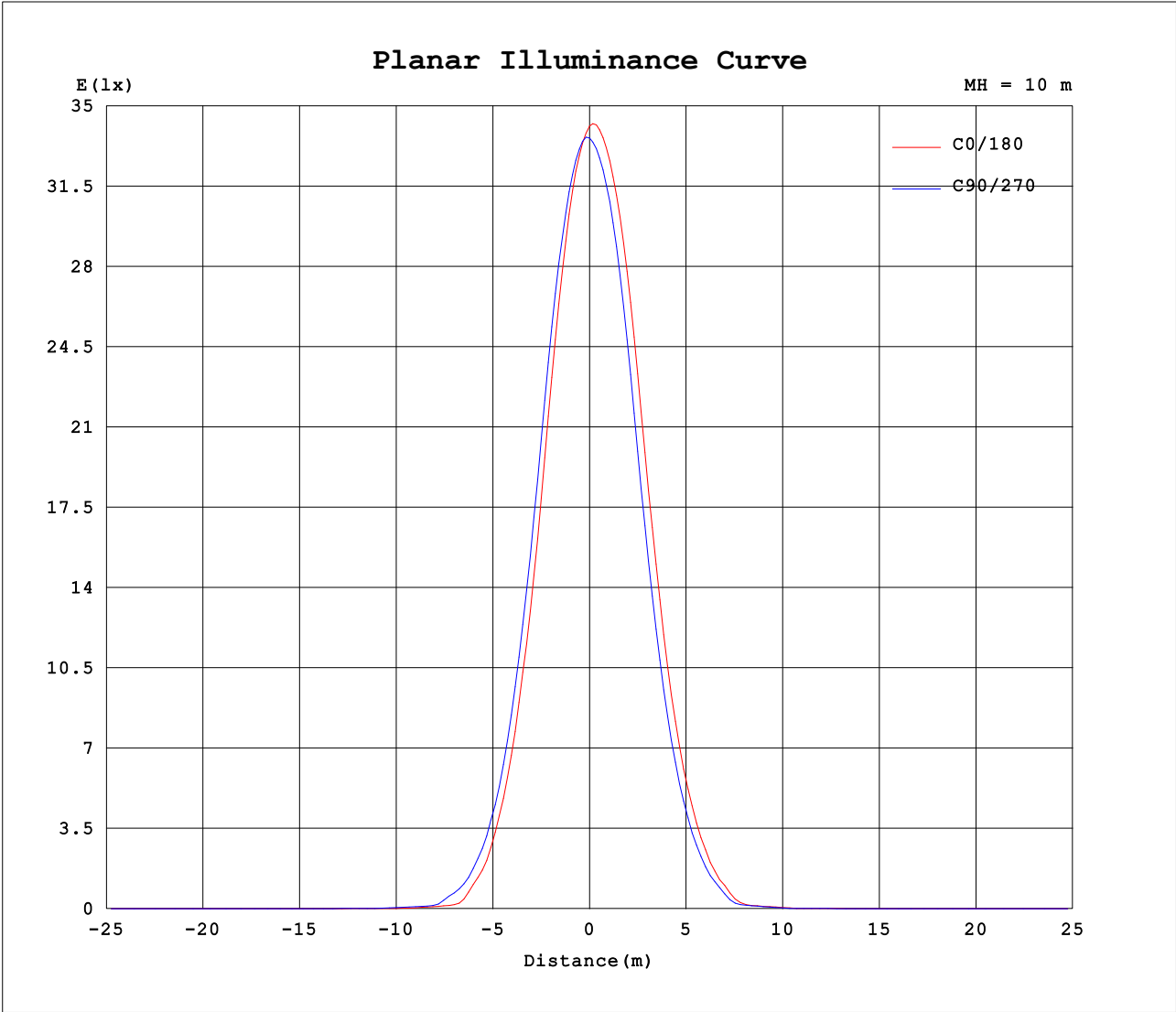
AvgL	cd/m2
L_0~180 (65) av	1822
L_0~180 (75) av	1479
L_0~180 (85) av	829
L_90~270 (65) av	1702
L_90~270 (75) av	1496
L_90~270 (85) av	938
L_45 (65) av	1749
L_45 (75) av	1489
L_45 (85) av	770

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 (13W, 36°)	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	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368
5	3126	3139	3138	3158	3161	3183	3191	3216	3222	3246	3254	3275	3279	3296	3294	3308	3304	3313	3312
10	2565	2599	2581	2625	2621	2680	2685	2747	2752	2815	2821	2881	2886	2943	2941	2974	2970	2992	3001
15	1770	1804	1789	1840	1845	1911	1921	1995	2008	2084	2102	2180	2190	2268	2274	2332	2319	2360	2371
20	1071	1090	1086	1123	1134	1179	1195	1247	1269	1326	1349	1411	1421	1486	1492	1548	1539	1586	1603
25	540	541	544	562	578	619	633	669	680	719	737	783	801	848	861	897	901	929	939
30	208	210	209	225	236	263	270	297	309	339	343	375	384	412	418	440	450	464	473
35	32.8	34.2	34.5	42.6	49.2	64.0	83.1	108	113	126	138	147	152	164	165	173	171	180	184
40	18.4	18.9	19.2	20.1	20.7	21.6	22.5	23.8	25.0	26.4	28.4	29.9	30.8	31.5	31.6	31.5	30.5	31.4	33.2
45	6.59	6.77	6.92	7.16	7.50	9.21	11.1	13.9	15.3	17.0	18.1	19.0	18.7	19.2	18.7	17.0	14.1	15.3	16.5
50	5.48	5.51	5.64	5.71	5.90	5.89	6.03	6.07	6.19	6.37	6.46	6.50	6.54	6.93	6.85	6.60	6.39	6.45	6.36
55	4.76	4.88	5.03	5.13	5.25	5.31	5.42	5.54	5.51	5.56	5.72	5.57	5.59	5.51	5.44	5.39	5.42	5.43	5.40
60	4.02	4.09	4.24	4.35	4.46	4.42	4.49	4.62	4.64	4.70	4.67	4.70	4.68	4.68	4.41	4.28	4.21	4.21	4.13
65	3.56	3.63	3.76	3.78	3.84	3.81	3.85	3.81	3.84	3.84	3.84	3.77	3.73	3.66	3.64	3.54	3.53	3.42	3.37
70	2.66	2.77	2.87	3.00	3.14	3.24	3.28	3.28	3.31	3.29	3.30	3.24	3.17	3.08	3.06	3.00	2.92	2.80	2.74
75	1.70	1.76	1.84	1.91	2.02	2.09	2.18	2.23	2.27	2.27	2.26	2.21	2.15	2.06	2.00	1.91	1.86	1.79	1.75
80	0.92	0.94	1.01	1.04	1.12	1.17	1.25	1.29	1.36	1.33	1.33	1.26	1.23	1.16	1.14	1.08	1.06	1.01	0.9956
85	0.27	0.27	0.30	0.29	0.35	0.37	0.47	0.50	0.54	0.52	0.53	0.50	0.48	0.42	0.45	0.40	0.42	0.38	0.38
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
95	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
100	0.00	0.04	0.00	0.05	0.00	0.05	0.00	0.04	0.01	0.04	0.02	0.04	0.01	0.02	0.00	0.02	0.00	0.01	0.02
105	0.15	0.16	0.15	0.15	0.14	0.16	0.12	0.14	0.09	0.12	0.09	0.10	0.06	0.08	0.08	0.07	0.02	0.06	0.04
110	0.42	0.42	0.38	0.40	0.37	0.39	0.36	0.36	0.30	0.32	0.30	0.27	0.23	0.24	0.20	0.21	0.16	0.19	0.06
115	0.86	0.89	0.85	0.87	0.84	0.83	0.78	0.77	0.72	0.71	0.65	0.63	0.56	0.56	0.52	0.52	0.47	0.48	0.16
120	1.62	1.63	1.62	1.60	1.57	1.55	1.50	1.47	1.39	1.35	1.28	1.23	1.17	1.13	1.09	1.06	1.02	1.01	0.39
125	2.70	2.69	2.70	2.65	2.62	2.56	2.51	2.43	2.37	2.28	2.24	2.12	2.07	1.99	1.95	1.90	1.85	1.84	0.82
130	4.03	4.01	4.01	3.95	3.93	3.85	3.80	3.70	3.64	3.53	3.45	3.36	3.30	3.18	3.12	3.05	3.01	2.97	1.56
135	5.50	5.49	5.49	5.43	5.39	5.30	5.25	5.15	5.08	4.96	4.88	4.77	4.70	4.57	4.52	4.43	4.41	4.35	2.62
140	6.98	6.97	6.96	6.91	6.87	6.79	6.74	6.65	6.56	6.45	6.36	6.23	6.16	6.08	6.01	5.93	5.89	5.85	3.95
145	8.31	8.30	8.27	8.24	8.19	8.14	8.08	8.01	7.94	7.85	7.77	7.66	7.59	7.50	7.45	7.37	7.34	7.31	5.44
150	9.28	9.29	9.24	9.22	9.18	9.14	9.09	9.06	9.01	8.94	8.88	8.81	8.75	8.69	8.64	8.59	8.57	8.56	6.89
155	9.81	9.85	9.76	9.77	9.73	9.70	9.66	9.68	9.63	9.65	9.57	9.55	9.48	9.48	9.44	9.44	9.43	9.43	8.14
160	9.84	9.80	9.80	9.75	9.76	9.72	9.78	9.76	9.78	9.78	9.74	9.77	9.76	9.74	9.74	9.78	9.77	9.79	8.90
165	9.43	9.42	9.42	9.39	9.42	9.43	9.51	9.50	9.57	9.56	9.61	9.56	9.61	9.59	9.63	9.63	9.69	9.65	9.11
170	8.95	8.95	8.98	8.98	9.03	9.07	9.12	9.13	9.22	9.19	9.24	9.19	9.21	9.19	9.28	9.27	9.28	9.24	8.96
175	8.70	8.75	8.75	8.81	8.87	8.94	8.97	8.97	8.97	8.97	8.97	8.95	8.97	9.02	9.01	8.96	8.94	8.86	8.79
180	8.83	8.88	8.90	8.94	9.00	9.01	8.97	8.96	8.96	8.95	8.93	8.94	8.97	8.99	8.99	8.93	8.88	8.87	8.91

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 (13W, 36°)	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	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368	3368		
5	3302	3300	3284	3280	3260	3252	3231	3223	3200	3194	3174	3171	3151	3149	3135	3140	3129		
10	2979	2981	2948	2944	2898	2896	2832	2822	2757	2748	2687	2685	2627	2634	2587	2605	2570		
15	2332	2352	2299	2303	2232	2217	2134	2117	2036	2019	1943	1929	1865	1863	1810	1819	1782		
20	1572	1593	1553	1554	1487	1475	1397	1376	1310	1277	1225	1208	1162	1153	1113	1111	1081		
25	921	937	908	916	869	856	802	781	734	715	674	663	621	612	572	573	542		
30	465	472	459	469	440	436	392	388	354	336	303	299	259	259	230	227	212		
35	170	183	174	183	172	166	144	145	120	108	77.5	70.3	51.7	48.8	38.1	37.6	33.3		
40	33.1	34.9	35.3	36.2	35.4	34.5	32.9	32.4	30.7	29.5	29.1	26.0	23.8	22.3	20.6	19.5	18.7		
45	13.7	14.1	14.9	15.4	14.4	14.5	13.0	12.7	11.1	10.2	7.54	6.76	6.58	6.60	6.50	6.50	6.48		
50	6.08	5.91	5.92	5.75	5.58	5.49	5.38	5.26	5.42	5.39	5.25	5.25	5.31	5.31	5.38	5.34	5.39		
55	5.32	5.09	4.97	4.81	4.66	4.54	4.58	4.47	4.52	4.45	4.41	4.45	4.53	4.56	4.58	4.56	4.64		
60	3.99	3.88	3.78	3.63	3.52	3.34	3.27	3.22	3.24	3.22	3.27	3.27	3.40	3.49	3.64	3.76	3.90		
65	3.30	3.17	3.08	2.91	2.83	2.69	2.67	2.61	2.64	2.62	2.71	2.76	2.92	3.00	3.17	3.26	3.43		
70	2.65	2.58	2.49	2.36	2.27	2.17	2.08	2.01	1.95	1.91	1.96	2.02	2.11	2.19	2.32	2.42	2.55		
75	1.70	1.63	1.58	1.51	1.46	1.34	1.30	1.22	1.21	1.19	1.23	1.25	1.34	1.38	1.48	1.53	1.63		
80	0.99	0.92	0.91	0.84	0.82	0.72	0.70	0.63	0.64	0.62	0.67	0.65	0.72	0.72	0.80	0.81	0.89		
85	0.39	0.36	0.36	0.20	0.24	0.25	0.25	0.21	0.21	0.23	0.21	0.18	0.22	0.20	0.25	0.23	0.27		
90	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01		
95	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.01	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.01		
100	0.01	0.02	0.01	0.02	0.01	0.03	0.01	0.03	0.01	0.06	0.01	0.04	0.02	0.03	0.01	0.03	0.01		
105	0.01	0.04	0.01	0.04	0.01	0.05	0.01	0.05	0.03	0.08	0.02	0.06	0.02	0.06	0.02	0.05	0.01		
110	0.02	0.07	0.04	0.08	0.08	0.09	0.07	0.11	0.08	0.14	0.09	0.13	0.10	0.13	0.09	0.14	0.10		
115	0.13	0.16	0.13	0.18	0.16	0.21	0.20	0.25	0.23	0.28	0.27	0.30	0.31	0.32	0.29	0.33	0.29		
120	0.35	0.40	0.38	0.43	0.42	0.48	0.49	0.54	0.56	0.60	0.59	0.64	0.64	0.68	0.67	0.71	0.71		
125	0.81	0.84	0.84	0.90	0.91	0.98	1.01	1.08	1.11	1.17	1.19	1.26	1.30	1.32	1.35	1.36	1.36		
130	1.55	1.58	1.60	1.65	1.70	1.77	1.84	1.93	1.99	2.05	2.12	2.17	2.22	2.26	2.30	2.32	2.37		
135	2.62	2.65	2.72	2.74	2.81	2.89	3.00	3.07	3.16	3.23	3.32	3.39	3.46	3.51	3.57	3.59	3.64		
140	3.99	3.99	4.05	4.10	4.19	4.27	4.39	4.46	4.57	4.64	4.75	4.82	4.92	4.95	5.03	5.05	5.10		
145	5.45	5.48	5.53	5.57	5.67	5.75	5.88	5.95	6.05	6.12	6.23	6.29	6.38	6.43	6.51	6.53	6.58		
150	6.90	6.92	6.96	7.01	7.06	7.14	7.23	7.32	7.44	7.49	7.58	7.64	7.70	7.76	7.83	7.86	7.89		
155	8.12	8.13	8.12	8.17	8.20	8.27	8.33	8.41	8.47	8.53	8.57	8.61	8.64	8.70	8.74	8.79	8.83		
160	8.86	8.89	8.83	8.89	8.86	8.93	8.95	9.00	9.03	9.07	9.04	9.10	9.06	9.12	9.08	9.10	9.18		
165	9.07	9.10	9.04	9.07	9.02	9.00	9.02	9.07	9.10	9.10	9.08	9.07	9.11	9.04	9.08	9.07	9.12		
170	8.98	8.95	8.98	8.93	8.92	8.87	8.94	8.95	9.00	8.96	8.97	8.91	8.90	8.83	8.84	8.78	8.83		
175	8.80	8.86	8.87	8.90	8.90	8.87	8.85	8.87	8.86	8.87	8.90	8.88	8.84	8.78	8.69	8.68	8.66		
180	8.87	8.90	8.92	9.01	8.98	8.98	8.96	8.96	8.91	8.93	8.91	8.98	9.00	8.97	8.92	8.87	8.85		

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: