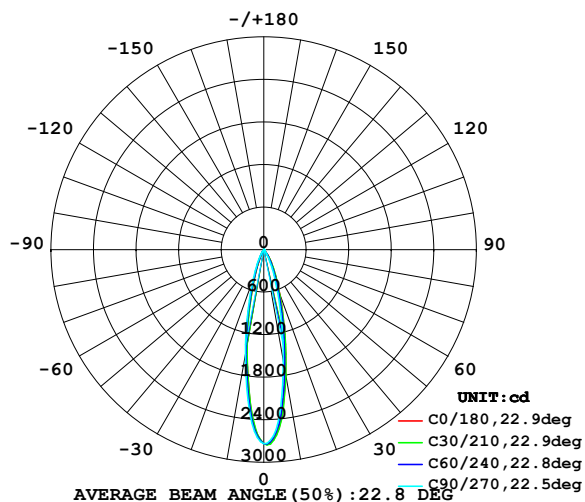


LUMINAIRE PHOTOMETRIC TEST REPORT

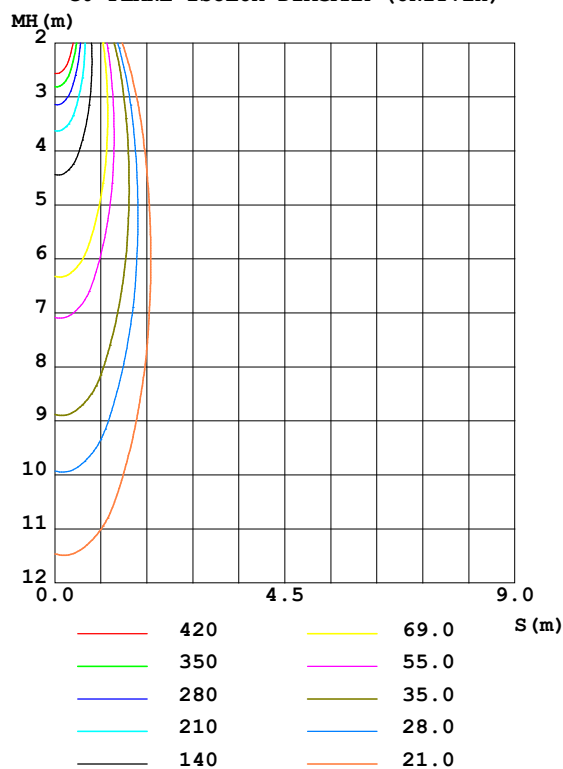
NAME: MCR-3 (5W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.85 lm/W			
MCR-3 (5W, 24°)		I _{max} (cd)	2755	S/MH(C0/180)	0.35
NOMINAL POWER(W)	5	LOR(%)	100.0	S/MH(C90/270)	0.37
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	617.58	η UP,DN(C0-180)	0.7,51.7
NOMINAL FLUX(lm)	617.581	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



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)

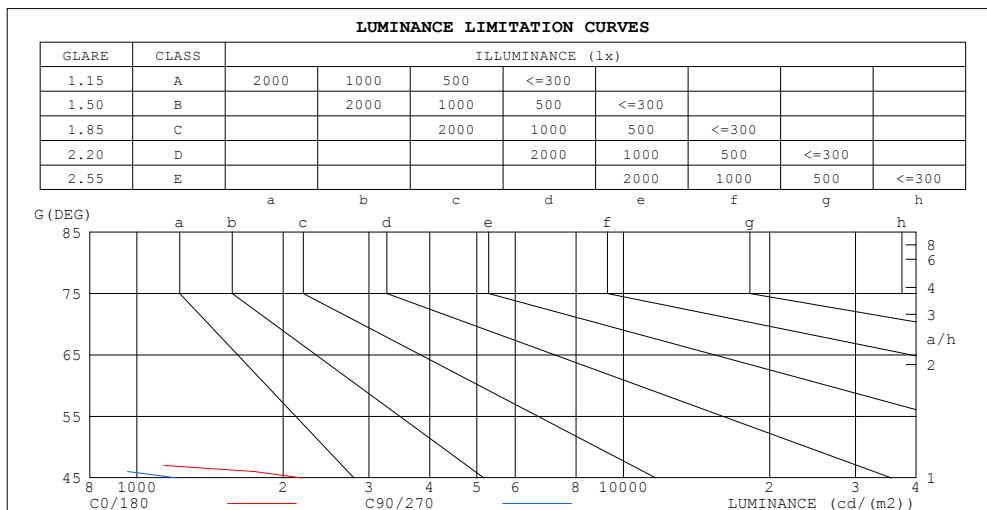


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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	1773	1753	1599	1434	1389	1404	1507	1677	0- 10	198.0	198.0	32.1,32.1
20	649.8	627.1	499.7	372.2	327.2	339.3	427.3	571.4	10- 20	251.5	449.5	72.8,72.8
30	217.8	206.7	136.7	73.02	47.60	57.67	100.4	167.8	20- 30	119.2	568.7	92.1,92.1
40	20.61	16.85	7.230	4.886	4.537	4.874	6.545	12.16	30- 40	34.76	603.4	97.7,97.7
50	1.696	1.628	1.680	1.837	1.993	1.972	1.895	1.762	40- 50	3.350	606.8	98.2,98.2
60	0.9620	0.9636	1.075	1.371	1.591	1.589	1.365	1.084	50- 60	1.375	608.1	98.5,98.5
70	0.6442	0.6459	0.7317	0.9187	1.054	1.110	0.9902	0.7374	60- 70	1.053	609.2	98.6,98.6
80	0.2106	0.2026	0.2167	0.2783	0.3126	0.3579	0.3439	0.2330	70- 80	0.5683	609.8	98.7,98.7
90	0	0	0	0	0	0	0	0	80- 90	0.0986	609.9	98.8,98.8
100	0	0	0	0	0	0	0	0	90-100	0	609.9	98.8,98.8
110	0	0.0091	0.0589	0.0883	0.0403	0.0136	0	0	100-110	0.0076	609.9	98.8,98.8
120	0.2277	0.2588	0.3846	0.5496	0.3044	0.2500	0.1399	0.0770	110-120	0.1233	610.0	98.8,98.8
130	1.138	1.175	1.393	1.672	1.016	0.9614	0.7223	0.5475	120-130	0.5500	610.5	98.9,98.9
140	2.712	2.771	3.030	3.332	2.488	2.386	2.087	1.774	130-140	1.368	611.9	99.1,99.1
150	4.036	4.072	4.258	4.425	4.016	3.908	3.692	3.444	140-150	2.068	614.0	99.4,99.4
160	4.654	4.606	4.623	4.631	4.494	4.362	4.384	4.301	150-160	1.993	616.0	99.7,99.7
170	4.346	4.250	4.135	4.009	3.965	3.897	3.996	4.061	160-170	1.241	617.2	99.9,99.9
180	3.733	3.728	3.643	3.683	3.733	3.701	3.620	3.688	170-180	0.3684	617.6	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	173	137
80	272	277
75	349	379
70	422	474
65	422	500
60	431	477
55	523	540
50	592	580
45	2181	1208

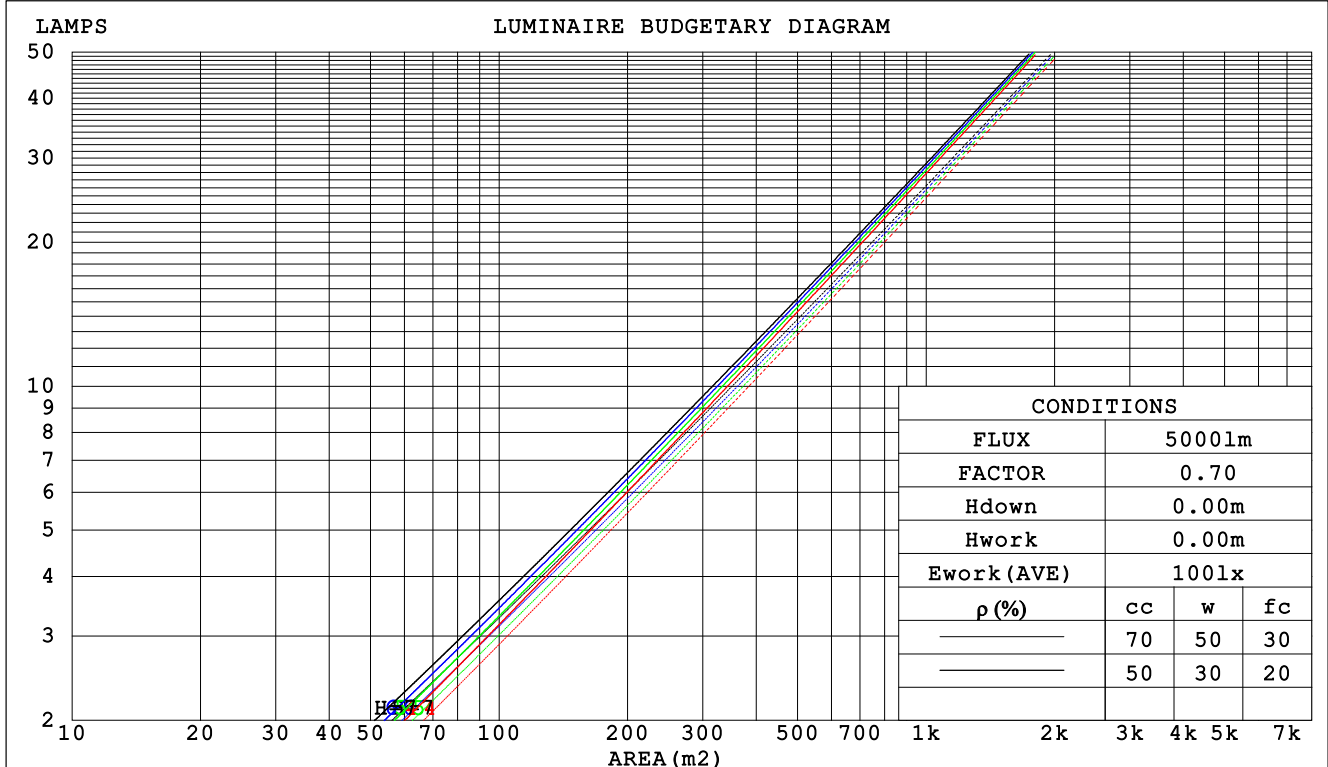
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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, 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	1.04	1.03	1.02	1.01	.00	.98	.98	.97	.95
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.99	.97	.99	.97	.95	.96	.94	.93	.91
3.0	1.02	.98	.95	1.00	.97	.94	.98	.95	.93	.95	.93	.91	.93	.91	.90	.88
4.0	.97	.93	.90	.96	.93	.90	.94	.91	.88	.92	.89	.87	.90	.88	.86	.85
5.0	.94	.89	.86	.93	.89	.86	.91	.87	.85	.89	.86	.84	.88	.85	.83	.82
6.0	.90	.86	.83	.89	.85	.82	.88	.84	.82	.86	.83	.81	.85	.83	.80	.79
7.0	.87	.82	.79	.86	.82	.79	.85	.81	.79	.84	.81	.78	.83	.80	.78	.77
8.0	.84	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.76	.80	.78	.75	.74
9.0	.81	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.78	.75	.73	.72
10.0	.79	.75	.72	.78	.74	.72	.78	.74	.71	.77	.74	.71	.76	.73	.71	.70



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, 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	.143	.081	.026	.136	.077	.025	.123	.070	.022	.111	.064	.020	.100	.058	.019		
2.0	.133	.073	.022	.127	.070	.022	.116	.065	.020	.106	.060	.019	.097	.055	.017		
3.0	.124	.066	.020	.119	.064	.019	.110	.060	.018	.102	.056	.017	.094	.052	.016		
4.0	.117	.061	.018	.113	.059	.017	.105	.056	.017	.097	.052	.016	.091	.049	.015		
5.0	.110	.056	.016	.107	.055	.016	.100	.052	.015	.094	.049	.015	.088	.047	.014		
6.0	.104	.052	.015	.101	.051	.015	.095	.049	.014	.090	.047	.014	.085	.045	.013		
7.0	.099	.049	.014	.097	.048	.014	.091	.046	.013	.087	.044	.013	.082	.043	.013		
8.0	.095	.046	.013	.092	.045	.013	.088	.044	.013	.083	.042	.012	.079	.041	.012		
9.0	.091	.044	.012	.088	.043	.012	.084	.042	.012	.081	.040	.012	.077	.039	.011		
10.0	.087	.042	.012	.085	.041	.011	.081	.040	.011	.078	.039	.011	.075	.038	.011		

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	.157	.153	.144	.135	.104	.099	.094	.060	.057	.054	.019	.018	.018		
2.0	.161	.142	.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	.076	.079	.065	.054	.046	.038	.032	.015	.012	.010		
5.0	.124	.096	.075	.106	.083	.065	.073	.058	.046	.042	.034	.027	.014	.011	.009		
6.0	.115	.086	.065	.099	.074	.056	.068	.052	.040	.040	.031	.024	.013	.010	.008		
7.0	.108	.078	.057	.093	.067	.049	.064	.047	.035	.037	.028	.021	.012	.009	.007		
8.0	.101	.071	.050	.087	.062	.044	.060	.043	.031	.035	.026	.018	.011	.008	.006		
9.0	.096	.065	.045	.083	.057	.039	.057	.040	.028	.033	.024	.017	.011	.008	.005		
10.0	.091	.061	.041	.078	.053	.035	.054	.037	.025	.032	.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, 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					13.0	13.7	13.2	13.8	14.0	10.1	10.8	10.4	11.0	11.2
3H					12.8	13.5	13.1	13.7	13.9	10.0	10.7	10.3	10.9	11.1
4H					12.8	13.4	13.0	13.6	13.8	10.0	10.6	10.2	10.8	11.0
6H					12.7	13.2	13.0	13.5	13.8	9.9	10.4	10.2	10.7	11.0
8H					12.6	13.2	13.0	13.5	13.7	9.8	10.4	10.1	10.6	10.9
12H					12.6	13.1	12.9	13.4	13.7	9.8	10.3	10.1	10.6	10.9
4H 2H					12.8	13.4	13.0	13.6	13.8	9.9	10.5	10.2	10.7	11.0
3H					12.6	13.1	12.9	13.4	13.7	9.8	10.3	10.1	10.6	10.9
4H					12.5	13.0	12.9	13.3	13.6	9.7	10.2	10.1	10.5	10.8
6H					12.4	12.8	12.8	13.2	13.5	9.6	10.0	10.0	10.4	10.8
8H					12.3	12.7	12.8	13.1	13.5	9.6	10.0	10.0	10.3	10.7
12H					12.3	12.7	12.7	13.0	13.5	9.5	9.9	9.9	10.3	10.7
8H 4H					12.3	12.7	12.8	13.1	13.5	9.6	10.0	10.0	10.3	10.7
6H					12.2	12.6	12.7	13.0	13.4	9.5	9.8	9.9	10.2	10.6
8H					12.2	12.5	12.6	12.9	13.4	9.4	9.7	9.9	10.1	10.6
12H					12.1	12.4	12.6	12.8	13.3	9.3	9.6	9.8	10.1	10.6
12H 4H					12.3	12.7	12.7	13.0	13.5	9.5	9.9	9.9	10.3	10.7
6H					12.2	12.5	12.6	12.9	13.4	9.4	9.7	9.9	10.1	10.6
8H					12.1	12.4	12.6	12.8	13.3	9.3	9.6	9.8	10.1	10.6
Variations with the observer position at spacings:														
S = 1.0H					+ 5.2 / -11.0					+ 3.4 / - 5.4				
1.5H					+ 7.9 / -10.5					+ 5.7 / - 5.3				
2.0H					+ 5.7 / - 1.8					+ 3.4 / - 1.4				

CIE Pub.117 Corrected 617.6 lm Total Lamp Luminous Flux. (8log(F/F0) = -1.7)

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 (5W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

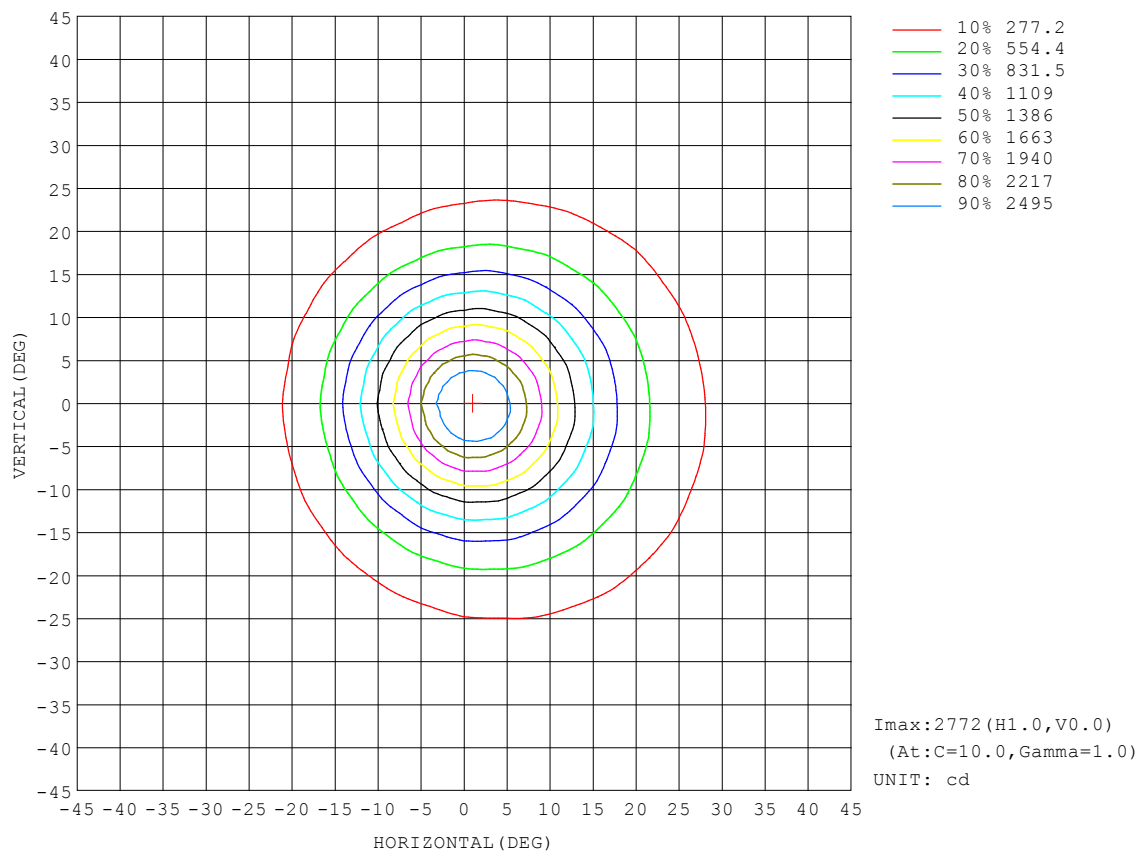
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	81	90	84	81	89	84	81	77
0.80	97	92	89	96	92	88	95	91	88	84
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 (5W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

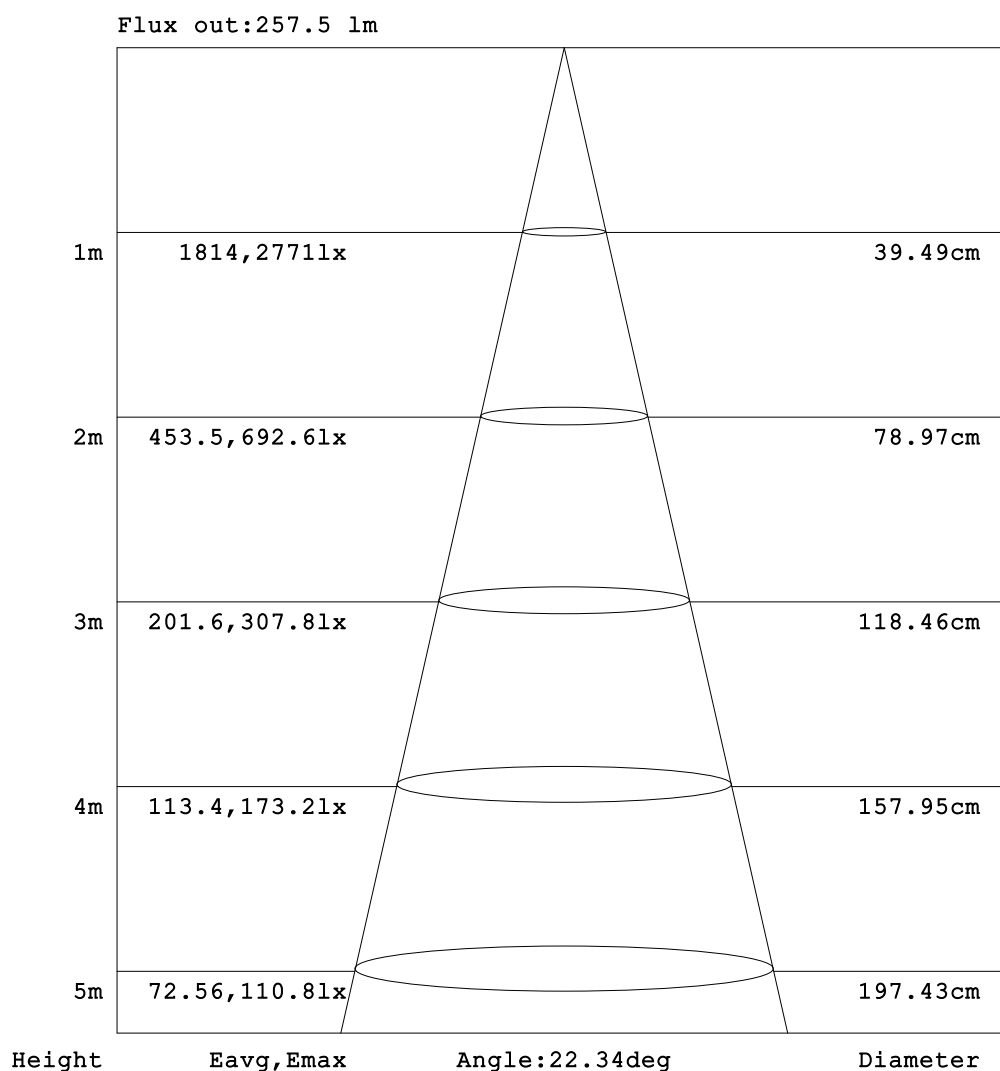


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (5W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



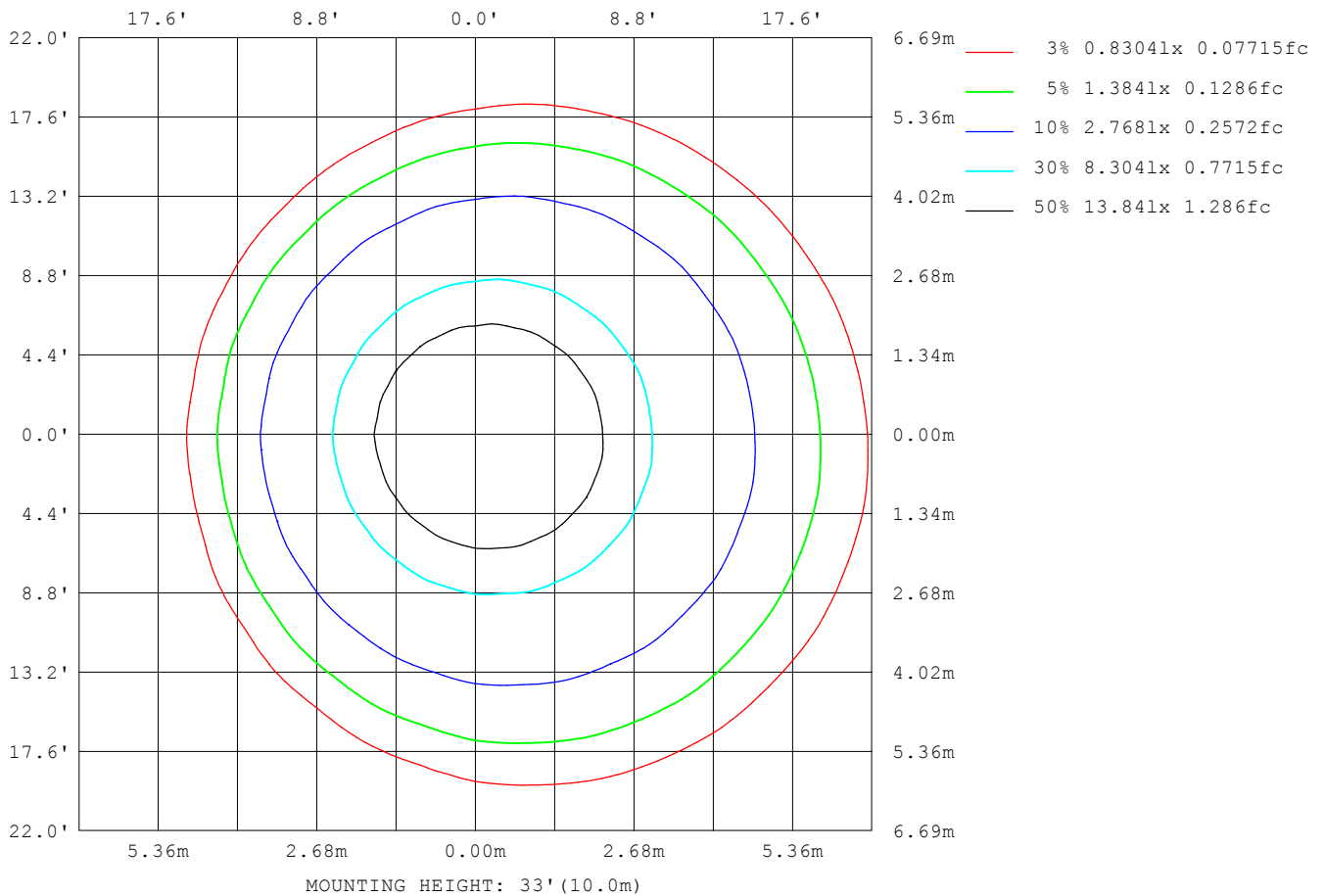
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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 (5W, 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 (5W, 24°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

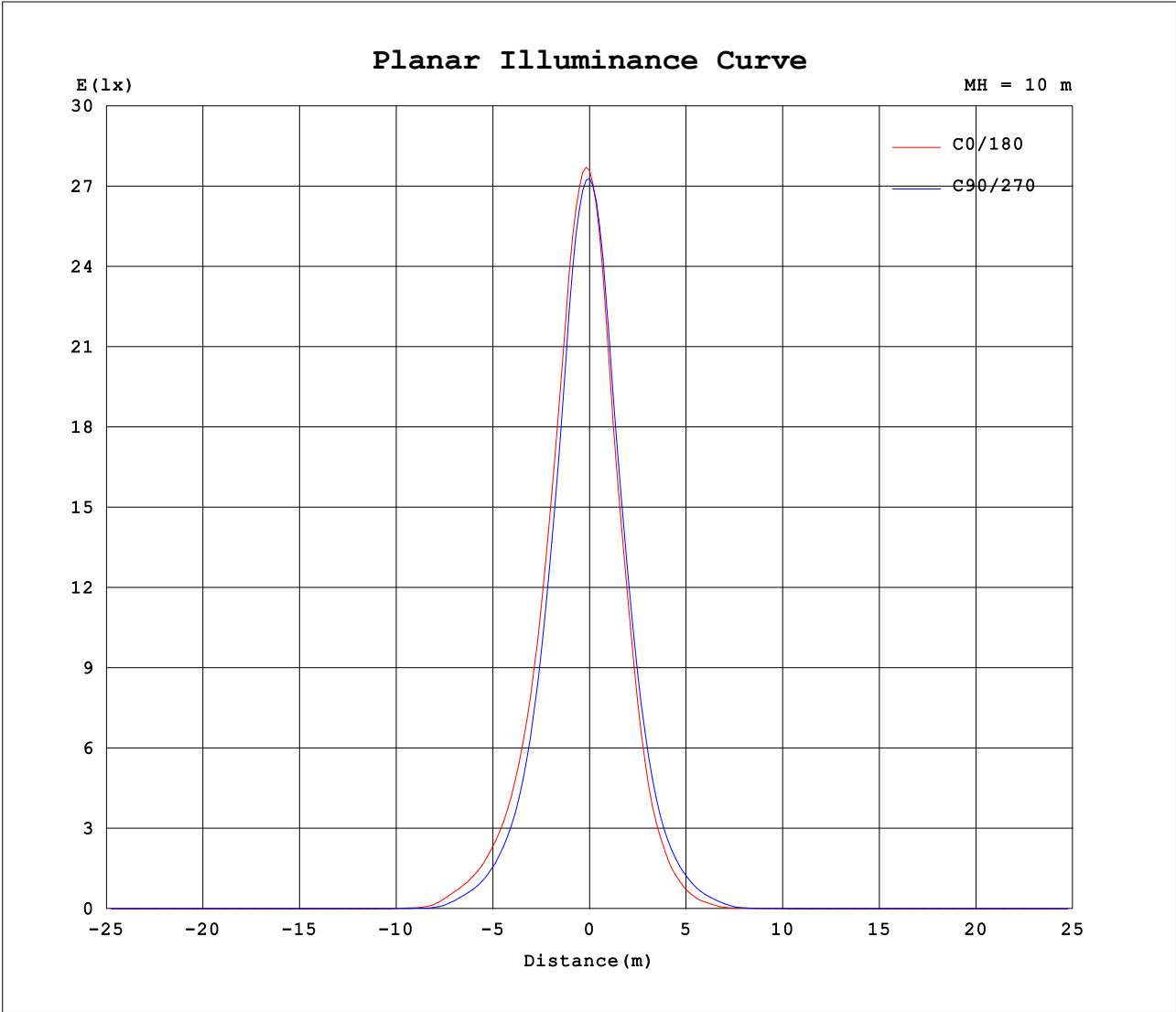
AvgL	cd/m2
L_0~180 (65) av	578
L_0~180 (75) av	445
L_0~180 (85) av	148
L_90~270 (65) av	562
L_90~270 (75) av	462
L_90~270 (85) av	230
L_45 (65) av	560
L_45 (75) av	448
L_45 (85) av	174

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 (5W, 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	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735
5	2517	2538	2523	2532	2508	2512	2473	2466	2430	2421	2374	2355	2306	2294	2247	2241	2202	2200	2200
10	1773	1809	1784	1793	1755	1751	1700	1681	1622	1599	1545	1523	1468	1455	1413	1410	1384	1386	1389
15	1103	1129	1105	1114	1081	1075	1029	1011	955	937	885	864	810	792	750	746	718	718	724
20	650	670	652	658	629	625	586	566	523	500	459	437	405	386	359	351	332	328	327
25	381	393	383	386	367	361	334	318	286	271	239	222	198	186	167	158	146	140	139
30	218	225	221	220	211	203	185	171	151	137	115	104	89.5	79.3	66.7	61.5	52.3	49.1	47.6
35	115	122	118	117	110	103	88.4	81.6	66.3	55.4	40.7	34.2	25.0	20.4	15.0	13.3	11.0	10.6	10.5
40	20.6	22.3	21.2	21.7	17.7	16.0	13.0	11.1	8.43	7.23	6.18	5.71	5.17	5.01	4.76	4.68	4.44	4.44	4.54
45	6.88	6.66	6.32	6.64	6.07	5.69	5.36	5.19	4.62	3.85	3.34	3.13	2.89	2.78	2.58	2.58	2.54	2.54	2.60
50	1.70	1.63	1.63	1.63	1.62	1.64	2.28	2.27	1.90	1.68	1.70	1.71	1.79	1.79	1.88	1.88	1.97	1.95	1.99
55	1.34	1.28	1.32	1.31	1.30	1.27	1.33	1.71	1.61	1.40	1.47	1.47	1.57	1.60	1.67	1.67	1.77	1.75	1.78
60	0.96	0.91	0.93	0.93	0.99	0.94	0.98	0.99	1.07	1.08	1.19	1.22	1.31	1.31	1.43	1.45	1.55	1.54	1.59
65	0.80	0.74	0.78	0.73	0.79	0.76	0.82	0.81	0.90	0.95	1.00	1.00	1.12	1.15	1.24	1.24	1.35	1.36	1.40
70	0.64	0.59	0.64	0.59	0.65	0.64	0.69	0.66	0.75	0.73	0.81	0.81	0.89	0.88	0.96	0.96	1.03	1.02	1.05
75	0.40	0.35	0.40	0.36	0.41	0.37	0.43	0.41	0.47	0.44	0.51	0.49	0.54	0.52	0.59	0.58	0.63	0.61	0.63
80	0.21	0.16	0.21	0.17	0.22	0.19	0.23	0.21	0.24	0.22	0.27	0.23	0.28	0.25	0.30	0.28	0.32	0.29	0.31
85	0.07	0.02	0.07	0.01	0.06	0.03	0.06	0.03	0.08	0.05	0.09	0.04	0.08	0.04	0.08	0.04	0.07	0.08	0.05
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.04	0.00	0.06	0.04	0.09	0.08	0.10	0.07	0.13	0.10	0.15	0.04
115	0.07	0.09	0.06	0.09	0.06	0.10	0.09	0.14	0.12	0.18	0.16	0.22	0.20	0.26	0.28	0.31	0.29	0.34	0.13
120	0.23	0.25	0.22	0.25	0.23	0.28	0.29	0.33	0.32	0.38	0.38	0.47	0.47	0.54	0.56	0.61	0.61	0.66	0.30
125	0.56	0.58	0.56	0.60	0.58	0.64	0.63	0.69	0.71	0.78	0.80	0.88	0.92	0.99	1.02	1.09	1.10	1.16	0.57
130	1.14	1.13	1.13	1.15	1.15	1.20	1.23	1.29	1.31	1.39	1.44	1.53	1.57	1.65	1.70	1.77	1.80	1.85	1.02
135	1.87	1.88	1.86	1.90	1.93	1.97	2.00	2.07	2.11	2.19	2.25	2.35	2.40	2.49	2.53	2.61	2.66	2.70	1.67
140	2.71	2.72	2.71	2.73	2.75	2.80	2.84	2.91	2.95	3.03	3.09	3.17	3.23	3.30	3.37	3.43	3.46	3.51	2.49
145	3.45	3.47	3.44	3.49	3.48	3.53	3.57	3.64	3.67	3.74	3.77	3.86	3.89	3.97	4.01	4.07	4.10	4.15	3.33
150	4.04	4.06	4.03	4.07	4.04	4.10	4.10	4.17	4.18	4.26	4.27	4.34	4.35	4.42	4.43	4.50	4.49	4.55	4.02
155	4.44	4.48	4.46	4.47	4.44	4.49	4.45	4.52	4.50	4.57	4.55	4.58	4.60	4.62	4.63	4.69	4.69	4.67	4.44
160	4.65	4.64	4.63	4.61	4.59	4.62	4.58	4.57	4.60	4.62	4.62	4.63	4.59	4.61	4.65	4.62	4.66	4.65	4.49
165	4.61	4.60	4.62	4.58	4.54	4.55	4.56	4.50	4.53	4.47	4.49	4.41	4.43	4.43	4.41	4.42	4.44	4.41	4.33
170	4.35	4.30	4.31	4.27	4.27	4.23	4.23	4.18	4.20	4.13	4.15	4.05	4.05	3.98	4.03	3.99	4.03	3.98	3.96
175	3.90	3.87	3.89	3.86	3.89	3.89	3.88	3.82	3.83	3.76	3.77	3.71	3.73	3.70	3.72	3.69	3.69	3.63	3.66
180	3.73	3.72	3.70	3.71	3.74	3.72	3.70	3.67	3.66	3.64	3.64	3.64	3.65	3.68	3.69	3.66	3.64	3.64	3.73

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, 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	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735	2735		
5	2175	2190	2177	2208	2206	2244	2250	2294	2302	2352	2361	2410	2419	2466	2478	2518	2516		
10	1365	1386	1375	1406	1403	1442	1449	1496	1507	1564	1577	1637	1650	1704	1717	1768	1769		
15	707	721	711	740	744	780	790	832	852	904	928	976	996	1044	1060	1101	1104		
20	317	326	323	337	342	365	376	410	427	467	490	531	551	591	608	641	649		
25	134	141	141	149	154	166	178	197	215	238	258	285	304	330	343	366	375		
30	46.2	48.8	49.9	55.5	59.8	68.7	76.1	89.9	100	117	130	146	160	176	188	203	212		
35	9.85	10.6	10.9	12.7	13.9	18.2	21.3	29.1	35.4	46.4	52.5	64.5	73.4	85.4	93.7	106	111		
40	4.39	4.55	4.58	4.83	4.92	5.32	5.58	6.16	6.54	7.22	7.81	9.35	10.6	13.7	15.7	18.8	20.0		
45	2.58	2.60	2.62	2.75	2.78	3.09	3.21	3.59	3.72	4.16	4.37	5.01	5.25	5.81	6.13	6.31	6.53		
50	2.04	2.01	2.04	1.96	1.99	1.94	1.95	1.89	1.89	1.85	1.85	1.82	1.80	1.73	1.71	1.67	1.71		
55	1.83	1.78	1.83	1.78	1.80	1.72	1.72	1.65	1.62	1.52	1.53	1.45	1.47	1.37	1.38	1.31	1.35		
60	1.62	1.57	1.61	1.59	1.59	1.51	1.50	1.38	1.37	1.26	1.24	1.14	1.13	1.04	1.03	0.95	0.97		
65	1.45	1.41	1.45	1.38	1.40	1.30	1.30	1.24	1.18	1.08	1.05	0.94	0.94	0.86	0.86	0.79	0.81		
70	1.11	1.09	1.14	1.10	1.12	1.08	1.08	1.01	0.99	0.89	0.88	0.78	0.77	0.71	0.71	0.64	0.66		
75	0.69	0.65	0.70	0.66	0.70	0.65	0.68	0.63	0.63	0.56	0.56	0.49	0.49	0.42	0.44	0.38	0.41		
80	0.36	0.32	0.37	0.34	0.37	0.36	0.37	0.32	0.34	0.28	0.30	0.24	0.26	0.21	0.23	0.20	0.23		
85	0.09	0.06	0.10	0.07	0.12	0.08	0.13	0.08	0.13	0.06	0.10	0.08	0.09	0.06	0.08	0.02	0.07		
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	0.00	0.04	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
115	0.09	0.13	0.09	0.12	0.07	0.10	0.07	0.07	0.02	0.05	0.00	0.03	0.00	0.01	0.00	0.01	0.00		
120	0.28	0.31	0.26	0.27	0.23	0.24	0.19	0.19	0.14	0.15	0.09	0.11	0.07	0.09	0.04	0.07	0.02		
125	0.57	0.57	0.54	0.54	0.49	0.49	0.42	0.42	0.35	0.34	0.28	0.28	0.22	0.23	0.19	0.20	0.15		
130	1.00	1.02	0.98	0.97	0.95	0.90	0.86	0.80	0.72	0.70	0.62	0.60	0.57	0.53	0.48	0.48	0.43		
135	1.65	1.66	1.62	1.61	1.54	1.52	1.43	1.39	1.30	1.26	1.17	1.13	1.06	1.03	0.98	0.97	0.93		
140	2.51	2.48	2.44	2.42	2.36	2.30	2.23	2.17	2.09	2.02	1.93	1.87	1.79	1.75	1.69	1.66	1.63		
145	3.34	3.32	3.28	3.25	3.20	3.16	3.09	3.03	2.95	2.89	2.80	2.74	2.66	2.62	2.56	2.52	2.50		
150	4.00	3.99	3.94	3.93	3.88	3.86	3.80	3.77	3.69	3.65	3.57	3.53	3.45	3.43	3.36	3.34	3.31		
155	4.39	4.40	4.34	4.34	4.30	4.30	4.25	4.24	4.19	4.18	4.10	4.09	4.02	4.02	3.97	3.97	3.93		
160	4.51	4.45	4.44	4.33	4.40	4.36	4.40	4.34	4.38	4.36	4.33	4.31	4.30	4.30	4.28	4.33	4.29		
165	4.35	4.30	4.29	4.22	4.26	4.23	4.25	4.24	4.31	4.27	4.32	4.28	4.29	4.30	4.33	4.34	4.33		
170	3.99	3.93	3.95	3.89	3.90	3.88	3.94	3.93	4.00	3.99	4.04	4.00	4.07	4.05	4.11	4.12	4.14		
175	3.67	3.66	3.70	3.72	3.68	3.63	3.67	3.63	3.69	3.67	3.75	3.75	3.79	3.75	3.76	3.76	3.77		
180	3.69	3.69	3.68	3.72	3.68	3.68	3.63	3.64	3.62	3.62	3.64	3.65	3.69	3.69	3.67	3.66	3.66		

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: