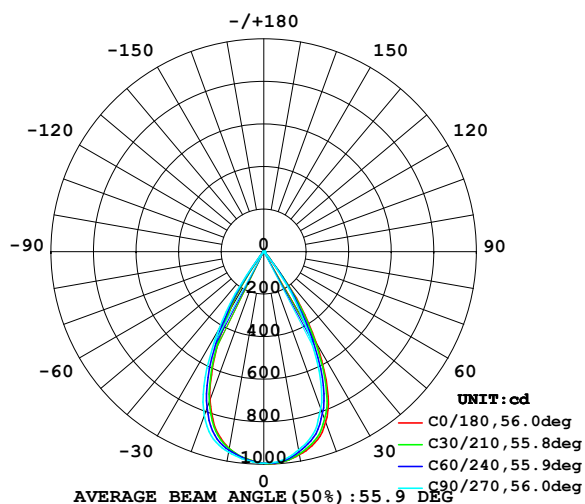


LUMINAIRE PHOTOMETRIC TEST REPORT

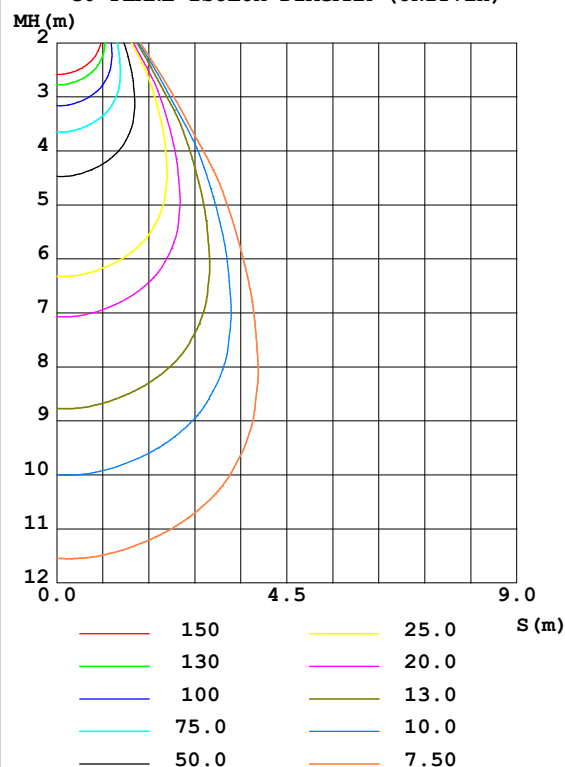
NAME: MCR-3 (8W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 97.64 lm/W
MCR-3 (8W, 60°)		Imax(cd)	997.5	S/MH(C0/180)	0.78	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.84	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	769.87	η UP,DN(C0-180)	0.7,49.1	
NOMINAL FLUX(lm)	769.873	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,49.7	
LAMPS INSIDE	1	η up(%)	1.2	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	120	η down(%)	98.8	CIBSE SHR MAX	0.85	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



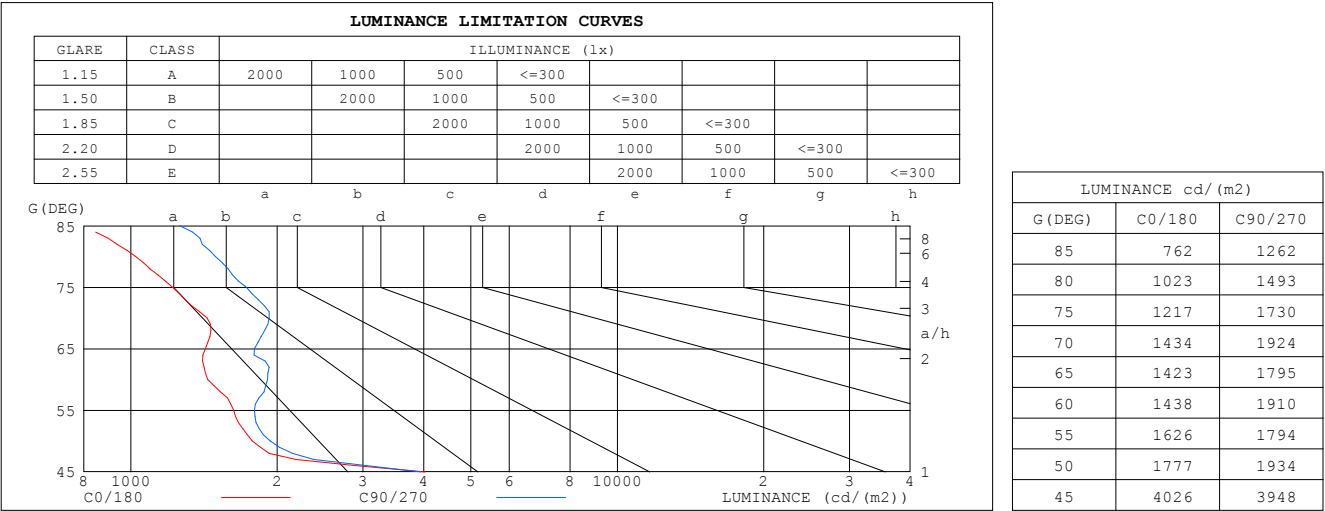
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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	969.4	961.4	946.4	939.0	939.2	943.4	956.0	969.0	0- 10	92.94	92.94	12.1,12.1
20	851.9	823.3	785.2	748.3	741.4	763.6	818.8	854.2	10- 20	250.3	343.2	44.6,44.6
30	492.3	449.7	381.9	326.2	323.5	353.4	424.6	485.0	20- 30	281.1	624.3	81.1,81.1
40	49.99	53.08	36.97	24.36	22.77	24.62	31.68	43.35	30- 40	116.9	741.2	96.3,96.3
50	5.118	5.573	5.599	5.453	5.306	4.984	4.688	4.983	40- 50	10.37	751.5	97.6,97.6
60	3.222	3.866	4.300	4.037	3.717	3.221	2.831	2.900	50- 60	3.838	755.4	98.1,98.1
70	2.197	2.621	2.964	2.912	2.489	1.996	1.771	1.877	60- 70	2.870	758.3	98.5,98.5
80	0.7960	0.9826	1.168	1.053	0.8427	0.6960	0.6371	0.6436	70- 80	1.630	759.9	98.7,98.7
90	0	0	0	0	0	0	0	0	80- 90	0.3681	760.3	98.8,98.8
100	0	0.0001	0.0272	0.0226	0	0	0	0	90-100	0.0009	760.3	98.8,98.8
110	0.2015	0.2479	0.3615	0.3884	0.1305	0.0970	0.0675	0.0497	100-110	0.0783	760.3	98.8,98.8
120	0.8656	0.9417	1.084	1.190	0.6833	0.6085	0.5004	0.4315	110-120	0.4573	760.8	98.8,98.8
130	1.871	1.981	2.150	2.302	1.627	1.562	1.421	1.261	120-130	1.120	761.9	99,99
140	3.106	3.217	3.409	3.553	2.817	2.699	2.495	2.365	130-140	1.817	763.7	99.2,99.2
150	4.300	4.335	4.496	4.590	3.894	3.745	3.610	3.483	140-150	2.203	765.9	99.5,99.5
160	5.029	4.980	5.033	5.042	4.590	4.441	4.360	4.287	150-160	2.038	768.0	99.8,99.8
170	5.330	5.291	5.313	5.295	5.173	5.068	4.992	4.967	160-170	1.393	769.4	99.9,99.9
180	5.550	5.561	5.511	5.566	5.568	5.554	5.507	5.559	170-180	0.5081	769.9	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



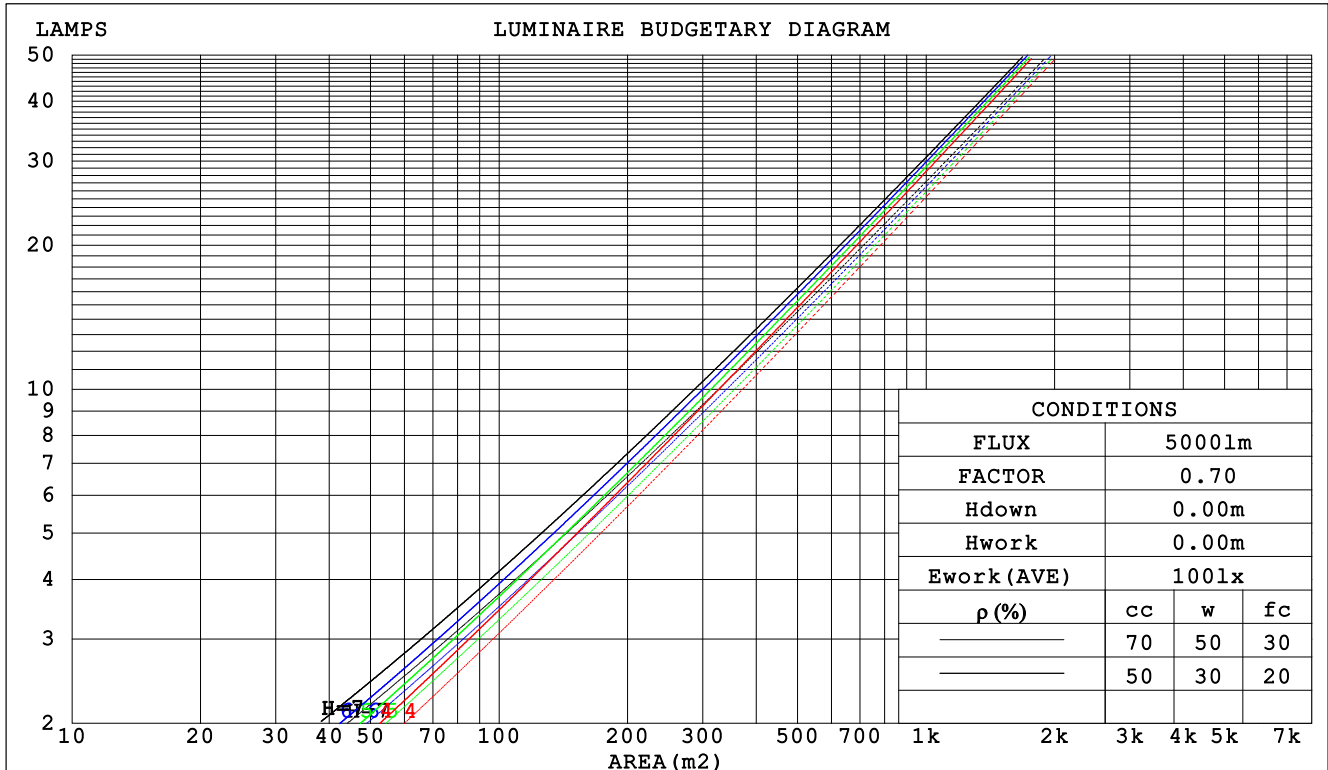
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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, 60°)	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	1.11	1.09	1.06	1.09	1.06	1.05	1.04	1.03	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.04	.90	.97	1.02	.98	.96	.99	.96	.93	.95	.93	.91	.92	.91	.89	.87
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.85	.88	.86	.84	.82
4.0	.92	.86	.82	.90	.86	.82	.88	.84	.81	.86	.83	.80	.84	.81	.79	.77
5.0	.86	.81	.77	.85	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.81	.76	.72	.81	.75	.72	.79	.74	.71	.78	.74	.70	.76	.73	.70	.69
7.0	.77	.71	.68	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.65
8.0	.73	.67	.64	.72	.67	.63	.71	.67	.63	.70	.66	.63	.69	.65	.62	.61
9.0	.69	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.59	.66	.62	.59	.58
10.0	.66	.61	.57	.65	.60	.57	.65	.60	.57	.64	.59	.56	.63	.59	.56	.55



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, 60°)	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	.170 .097 .031	.163 .093 .029	.150 .086 .027	.137 .079 .025	.126 .073 .024	
2.0	.161 .088 .027	.155 .086 .026	.144 .080 .025	.134 .075 .023	.124 .070 .022	
3.0	.153 .081 .024	.148 .079 .024	.138 .075 .023	.129 .071 .022	.121 .067 .021	
4.0	.145 .075 .022	.141 .074 .022	.133 .070 .021	.125 .067 .020	.118 .064 .020	
5.0	.138 .071 .020	.135 .069 .020	.127 .066 .020	.121 .064 .019	.114 .061 .018	
6.0	.132 .066 .019	.129 .065 .019	.122 .063 .018	.116 .061 .018	.111 .058 .017	
7.0	.126 .062 .018	.123 .061 .018	.118 .060 .017	.112 .058 .017	.107 .056 .016	
8.0	.121 .059 .017	.118 .058 .016	.113 .057 .016	.109 .055 .016	.104 .053 .016	
9.0	.116 .056 .016	.114 .055 .016	.109 .054 .015	.105 .053 .015	.101 .051 .015	
10.0	.112 .054 .015	.110 .053 .015	.105 .052 .015	.102 .050 .014	.098 .049 .014	

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	.180 .167 .155	.154 .143 .133	.105 .099 .092	.061 .057 .054	.019 .018 .017	
2.0	.164 .142 .123	.141 .122 .107	.097 .085 .074	.056 .049 .044	.018 .016 .014	
3.0	.152 .123 .101	.130 .106 .087	.089 .074 .061	.052 .043 .036	.017 .014 .012	
4.0	.141 .108 .084	.121 .094 .073	.083 .065 .051	.048 .038 .030	.015 .012 .010	
5.0	.132 .097 .071	.113 .084 .061	.078 .058 .043	.045 .034 .026	.015 .011 .008	
6.0	.124 .087 .061	.107 .076 .053	.074 .053 .037	.043 .031 .022	.014 .010 .007	
7.0	.118 .080 .053	.101 .069 .046	.070 .048 .033	.041 .029 .019	.013 .009 .006	
8.0	.112 .073 .047	.097 .064 .041	.067 .045 .029	.039 .026 .017	.013 .009 .006	
9.0	.107 .068 .042	.092 .059 .037	.064 .042 .026	.037 .025 .015	.012 .008 .005	
10.0	.103 .064 .038	.088 .055 .033	.061 .039 .024	.036 .023 .014	.012 .008 .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, 60°)					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					17.6	18.5	17.9	18.7	18.9	16.1	17.0	16.3	17.2	17.4
3H					17.5	18.3	17.8	18.5	18.7	16.0	16.8	16.3	17.0	17.3
4H					17.4	18.2	17.7	18.4	18.7	16.0	16.7	16.3	17.0	17.2
6H					17.3	18.1	17.7	18.3	18.6	15.9	16.6	16.2	16.9	17.1
8H					17.3	18.0	17.6	18.3	18.5	15.9	16.6	16.2	16.8	17.1
12H					17.3	17.9	17.6	18.2	18.5	15.8	16.5	16.2	16.8	17.1
4H 2H					17.4	18.2	17.7	18.4	18.6	15.9	16.6	16.2	16.9	17.1
3H					17.3	17.9	17.6	18.2	18.5	15.8	16.4	16.1	16.7	17.0
4H					17.2	17.8	17.5	18.1	18.4	15.8	16.4	16.1	16.7	17.0
6H					17.1	17.6	17.5	18.0	18.3	15.7	16.2	16.1	16.6	17.0
8H					17.1	17.5	17.5	17.9	18.3	15.7	16.2	16.1	16.5	16.9
12H					17.0	17.5	17.4	17.8	18.3	15.7	16.1	16.1	16.5	16.9
8H 4H					17.0	17.5	17.5	17.9	18.3	15.6	16.1	16.0	16.5	16.9
6H					17.0	17.4	17.4	17.8	18.2	15.6	16.0	16.1	16.4	16.9
8H					16.9	17.3	17.4	17.7	18.2	15.6	15.9	16.0	16.4	16.8
12H					16.9	17.2	17.4	17.6	18.1	15.6	15.9	16.0	16.3	16.8
12H 4H					17.0	17.4	17.4	17.8	18.2	15.6	16.0	16.0	16.4	16.8
6H					16.9	17.3	17.4	17.7	18.2	15.6	15.9	16.0	16.3	16.8
8H					16.9	17.2	17.4	17.6	18.1	15.5	15.8	16.0	16.3	16.8
Variations with the observer position at spacings:														
S = 1.0H					+ 4.9 / - 7.0					+ 3.5 / - 4.4				
1.5H					+ 7.5 / - 6.9					+ 6.0 / - 4.2				
2.0H					+ 2.3 / - 0.8					+ 1.7 / - 0.4				

CIE Pub.117 Corrected 769.9 lm Total Lamp Luminous Flux. (8log(F/F0) = -0.9)

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, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

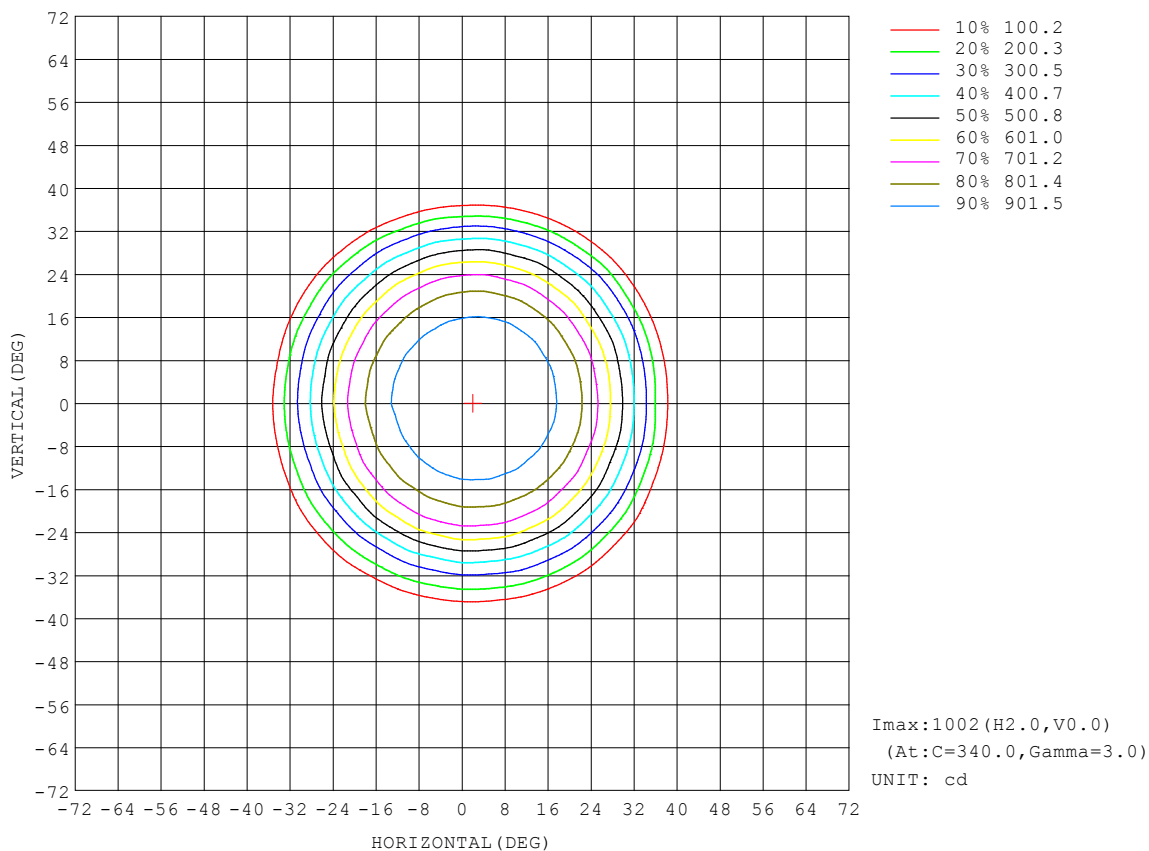
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	96	91	87	96	91	87	94	90	87	83
1.00	100	95	92	99	95	91	98	94	91	87
1.25	104	99	96	103	98	95	101	97	95	90
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	106	103	106	103	101	95
3.00	112	109	106	110	107	105	106	104	103	96
4.00	114	111	109	112	110	108	108	106	105	97
5.00	115	113	111	113	111	110	109	107	106	98
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, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

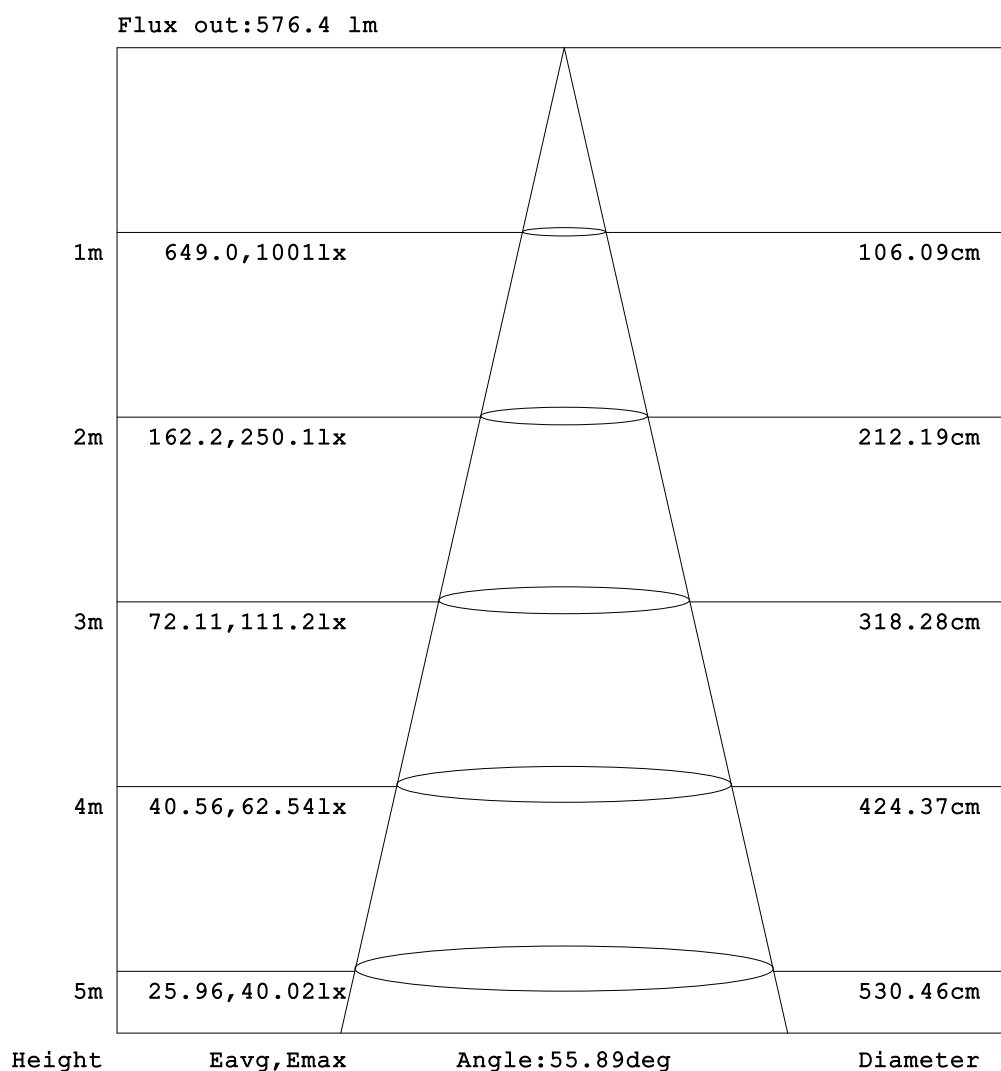


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



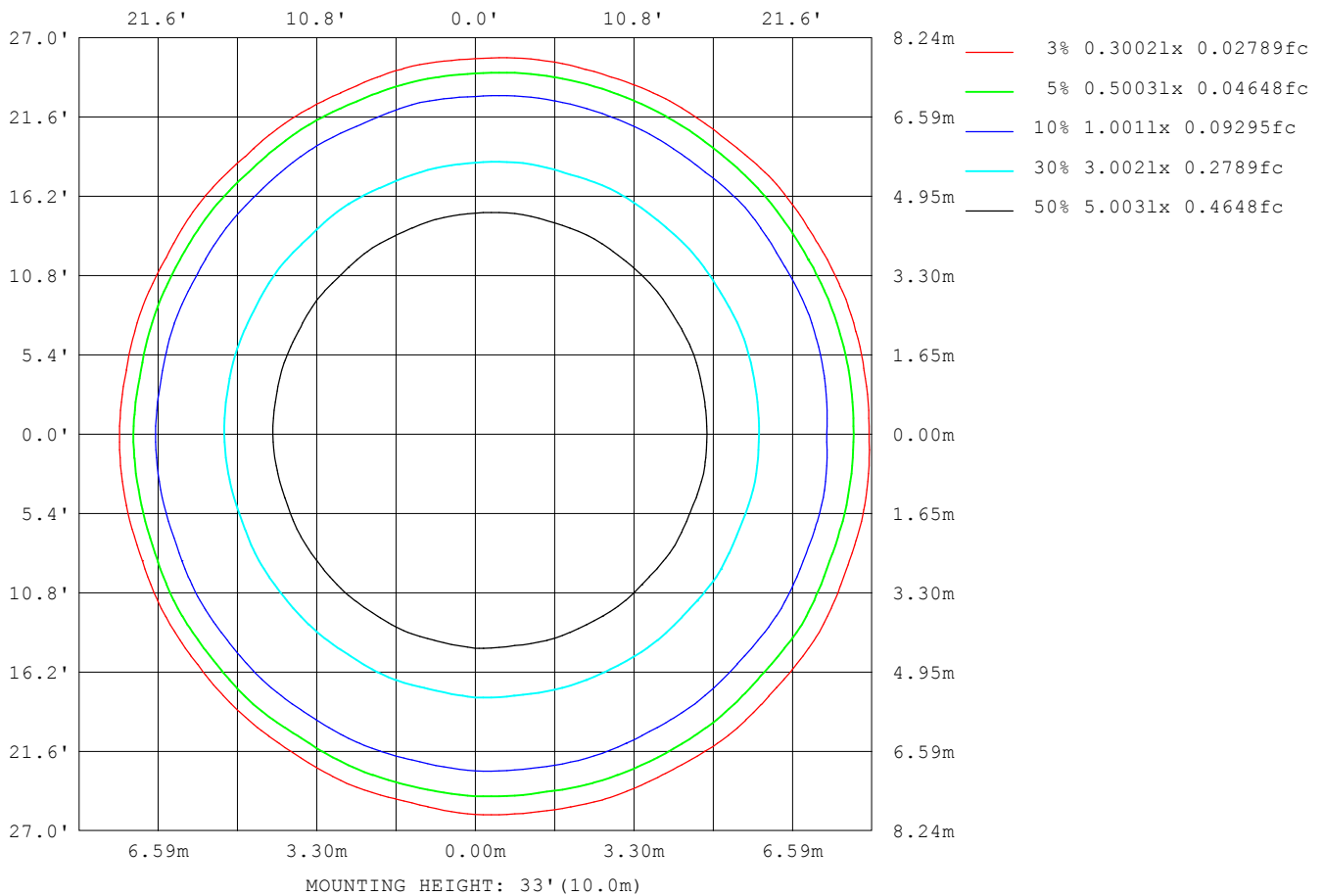
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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, 60°)	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, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

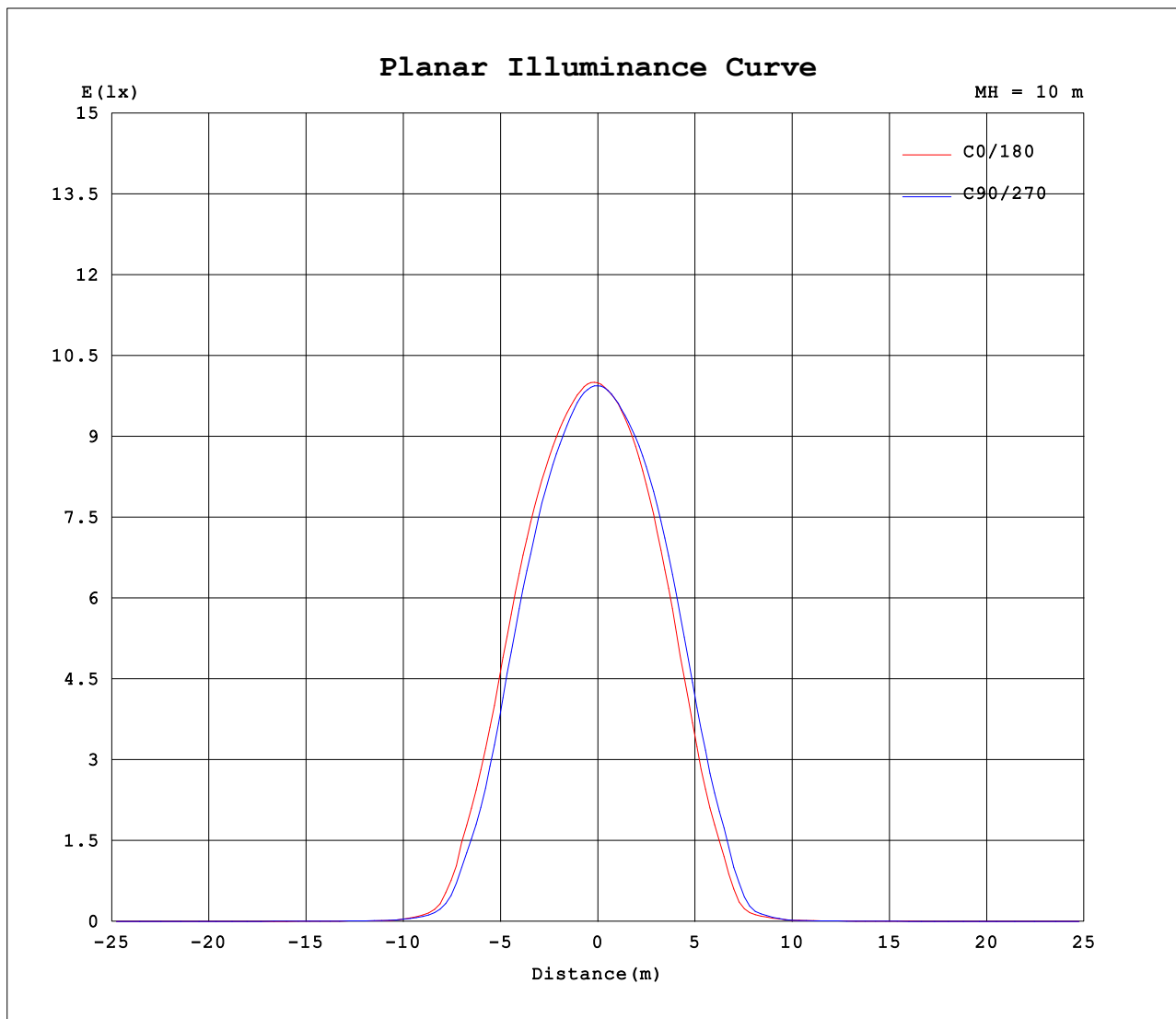
AvgL	cd/m2
L_0~180 (65) av	1516
L_0~180 (75) av	1274
L_0~180 (85) av	732
L_90~270 (65) av	1499
L_90~270 (75) av	1356
L_90~270 (85) av	937
L_45 (65) av	1503
L_45 (75) av	1295
L_45 (85) av	686

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, 60°)	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	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995
5	992	992	992	993	992	991	990	988	986	985	983	982	979	978	977	977	977	977	977
10	969	969	967	966	962	961	956	953	948	946	943	942	939	940	938	937	936	937	939
15	929	929	923	921	914	911	904	901	894	890	883	880	871	869	864	864	861	864	867
20	852	851	841	837	826	821	808	802	789	785	771	768	756	753	744	744	736	739	741
25	708	708	691	693	673	670	652	644	622	619	595	591	571	568	549	551	539	544	550
30	492	494	474	477	453	446	425	411	390	382	362	355	336	333	319	322	312	318	323
35	268	263	258	250	239	237	222	210	192	183	162	156	140	135	125	119	106	105	109
40	50.0	54.4	53.8	55.6	53.5	52.7	46.4	45.5	40.0	37.0	32.1	29.7	26.8	25.3	23.4	23.3	22.5	22.6	22.8
45	12.8	14.6	14.4	15.0	14.5	14.8	13.8	14.1	12.8	12.6	11.5	10.9	9.77	9.57	8.52	8.17	7.63	7.51	7.23
50	5.12	5.45	5.48	5.42	5.42	5.73	5.75	5.76	5.63	5.60	5.57	5.55	5.54	5.47	5.43	5.34	5.28	5.33	5.31
55	4.18	4.25	4.37	4.33	4.39	4.53	4.66	4.68	4.70	4.63	4.67	4.69	4.71	4.64	4.64	4.55	4.54	4.45	4.46
60	3.22	3.35	3.55	3.69	3.86	3.88	3.92	4.04	4.23	4.30	4.27	4.06	4.02	3.98	4.09	4.16	4.18	3.97	3.72
65	2.69	2.76	2.88	2.94	3.07	3.11	3.23	3.30	3.41	3.42	3.50	3.48	3.51	3.45	3.43	3.33	3.29	3.18	3.07
70	2.20	2.28	2.41	2.49	2.59	2.65	2.77	2.84	2.94	2.96	3.01	2.98	2.99	2.95	2.88	2.79	2.67	2.58	2.49
75	1.41	1.46	1.55	1.60	1.70	1.77	1.86	1.92	1.99	2.02	2.01	1.98	1.95	1.88	1.84	1.75	1.70	1.61	1.56
80	0.80	0.80	0.87	0.90	0.97	1.00	1.07	1.10	1.16	1.17	1.19	1.14	1.12	1.06	1.04	0.96	0.94	0.87	0.84
85	0.30	0.28	0.33	0.33	0.38	0.38	0.44	0.44	0.50	0.50	0.53	0.45	0.44	0.38	0.37	0.31	0.32	0.27	0.28
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	0.01	0.00	0.03	0.01	0.04	0.00	0.05	0.00	0.03	0.00	0.03	0.00
105	0.08	0.08	0.06	0.08	0.04	0.09	0.06	0.10	0.08	0.14	0.13	0.16	0.14	0.18	0.14	0.17	0.14	0.18	0.03
110	0.20	0.24	0.21	0.25	0.22	0.28	0.25	0.32	0.30	0.36	0.35	0.39	0.37	0.40	0.37	0.42	0.41	0.43	0.13
115	0.49	0.52	0.49	0.53	0.51	0.56	0.56	0.63	0.63	0.68	0.68	0.73	0.73	0.75	0.74	0.78	0.77	0.80	0.35
120	0.87	0.90	0.88	0.93	0.92	0.97	0.96	1.02	1.02	1.08	1.09	1.14	1.15	1.19	1.19	1.23	1.22	1.25	0.68
125	1.35	1.36	1.35	1.40	1.42	1.47	1.45	1.51	1.52	1.58	1.59	1.65	1.66	1.71	1.71	1.76	1.74	1.77	1.12
130	1.87	1.91	1.91	1.95	1.95	2.01	2.03	2.09	2.10	2.15	2.18	2.24	2.24	2.30	2.31	2.35	2.36	2.36	1.63
135	2.51	2.51	2.51	2.55	2.58	2.63	2.65	2.70	2.74	2.78	2.79	2.86	2.87	2.92	2.95	2.98	2.97	3.00	2.22
140	3.11	3.14	3.16	3.18	3.18	3.25	3.26	3.33	3.34	3.41	3.44	3.48	3.49	3.55	3.55	3.61	3.60	3.63	2.82
145	3.73	3.76	3.74	3.79	3.78	3.84	3.88	3.92	3.93	4.00	4.05	4.06	4.06	4.12	4.12	4.17	4.17	4.19	3.39
150	4.30	4.31	4.32	4.32	4.31	4.36	4.36	4.42	4.42	4.50	4.48	4.53	4.53	4.59	4.59	4.63	4.62	4.66	3.89
155	4.75	4.77	4.73	4.74	4.76	4.75	4.74	4.80	4.79	4.85	4.83	4.86	4.84	4.90	4.89	4.95	4.93	5.00	4.31
160	5.03	5.05	4.98	5.00	4.96	5.00	4.97	5.02	4.99	5.03	4.98	5.02	4.99	5.05	5.04	5.10	5.11	5.16	4.59
165	5.21	5.22	5.16	5.16	5.11	5.15	5.12	5.15	5.11	5.16	5.12	5.15	5.14	5.16	5.14	5.22	5.23	5.28	4.89
170	5.33	5.36	5.31	5.33	5.27	5.32	5.27	5.31	5.27	5.31	5.27	5.30	5.25	5.30	5.29	5.35	5.34	5.38	5.17
175	5.45	5.47	5.43	5.46	5.42	5.47	5.44	5.47	5.41	5.45	5.40	5.45	5.42	5.47	5.44	5.50	5.45	5.47	5.42
180	5.55	5.56	5.54	5.55	5.56	5.56	5.56	5.54	5.51	5.51	5.51	5.51	5.51	5.56	5.57	5.56	5.54	5.56	5.57

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, 60°)	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	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995	995		
5	976	976	977	978	978	979	979	981	983	985	987	989	990	992	993	994	993		
10	938	940	940	944	943	947	950	954	956	960	963	966	968	970	969	970	969		
15	868	872	874	883	885	893	898	908	913	920	924	930	932	937	935	937	935		
20	742	747	750	761	766	781	792	809	819	831	837	848	850	858	857	860	858		
25	545	557	559	577	584	607	616	640	654	672	678	695	696	708	707	717	710		
30	325	334	333	353	354	379	388	414	425	449	455	477	479	490	491	505	495		
35	101	107	114	120	130	142	147	178	183	206	219	236	239	260	261	271	268		
40	22.2	22.8	23.0	24.5	24.7	26.6	28.2	30.9	31.7	34.4	35.6	38.9	40.8	45.9	46.9	50.0	49.0		
45	7.02	6.99	6.59	6.85	6.54	13.3	8.01	6.97	7.28	7.98	8.23	8.81	9.50	10.7	10.7	12.2	12.6		
50	5.30	5.15	5.02	5.02	4.95	5.13	5.17	4.71	4.69	4.76	4.89	5.00	4.98	4.98	4.99	4.91	4.96		
55	4.38	4.22	4.17	4.10	4.02	3.89	3.87	3.80	3.91	3.89	3.94	3.88	3.91	3.92	3.97	3.93	4.00		
60	3.61	3.57	3.46	3.31	3.13	2.88	2.83	2.80	2.83	2.79	2.79	2.75	2.85	2.95	3.03	3.13	3.15		
65	2.98	2.82	2.75	2.59	2.54	2.42	2.38	2.30	2.28	2.23	2.26	2.24	2.32	2.33	2.43	2.47	2.58		
70	2.36	2.23	2.12	2.02	1.98	1.87	1.83	1.79	1.77	1.79	1.80	1.79	1.86	1.90	1.96	2.01	2.10		
75	1.51	1.42	1.37	1.28	1.26	1.18	1.18	1.12	1.14	1.11	1.13	1.16	1.17	1.17	1.24	1.27	1.34		
80	0.83	0.76	0.75	0.70	0.70	0.64	0.65	0.61	0.64	0.60	0.63	0.60	0.64	0.65	0.69	0.71	0.76		
85	0.28	0.23	0.26	0.13	0.08	0.17	0.24	0.20	0.24	0.20	0.23	0.20	0.24	0.21	0.26	0.26	0.29		
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	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105	0.00	0.03	0.00	0.02	0.00	0.02	0.01	0.03	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00		
110	0.09	0.13	0.08	0.12	0.07	0.11	0.08	0.12	0.07	0.11	0.06	0.10	0.04	0.06	0.01	0.06	0.01		
115	0.31	0.34	0.29	0.33	0.28	0.29	0.28	0.30	0.26	0.26	0.22	0.22	0.16	0.20	0.16	0.19	0.14		
120	0.64	0.67	0.64	0.64	0.58	0.60	0.55	0.55	0.50	0.51	0.45	0.47	0.42	0.44	0.41	0.43	0.40		
125	1.08	1.10	1.06	1.06	1.03	1.04	0.95	0.95	0.89	0.89	0.84	0.85	0.79	0.81	0.77	0.78	0.74		
130	1.63	1.61	1.57	1.56	1.56	1.57	1.50	1.47	1.42	1.40	1.32	1.31	1.26	1.26	1.22	1.23	1.21		
135	2.18	2.21	2.15	2.13	2.14	2.13	2.04	2.01	1.94	1.92	1.86	1.83	1.79	1.79	1.74	1.75	1.72		
140	2.79	2.80	2.72	2.71	2.69	2.68	2.62	2.60	2.49	2.48	2.43	2.41	2.37	2.36	2.32	2.34	2.31		
145	3.34	3.36	3.29	3.28	3.24	3.26	3.18	3.16	3.10	3.08	3.04	3.00	2.95	2.94	2.90	2.92	2.90		
150	3.84	3.83	3.77	3.78	3.71	3.71	3.66	3.67	3.61	3.60	3.53	3.52	3.47	3.49	3.45	3.48	3.46		
155	4.24	4.24	4.16	4.17	4.12	4.12	4.06	4.08	4.03	4.03	3.97	3.97	3.92	3.95	3.91	3.97	3.99		
160	4.54	4.54	4.47	4.48	4.40	4.42	4.38	4.40	4.36	4.38	4.34	4.32	4.27	4.30	4.29	4.33	4.32		
165	4.82	4.84	4.76	4.77	4.71	4.73	4.69	4.71	4.70	4.68	4.62	4.65	4.62	4.63	4.62	4.66	4.65		
170	5.12	5.14	5.10	5.10	5.04	5.04	5.01	5.04	4.99	5.03	4.99	5.00	4.95	4.98	4.95	5.00	5.00		
175	5.39	5.43	5.39	5.42	5.36	5.37	5.34	5.34	5.29	5.34	5.31	5.35	5.30	5.33	5.28	5.32	5.29		
180	5.55	5.55	5.54	5.55	5.56	5.56	5.51	5.52	5.51	5.51	5.51	5.55	5.54	5.58	5.51	5.53	5.56		

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: