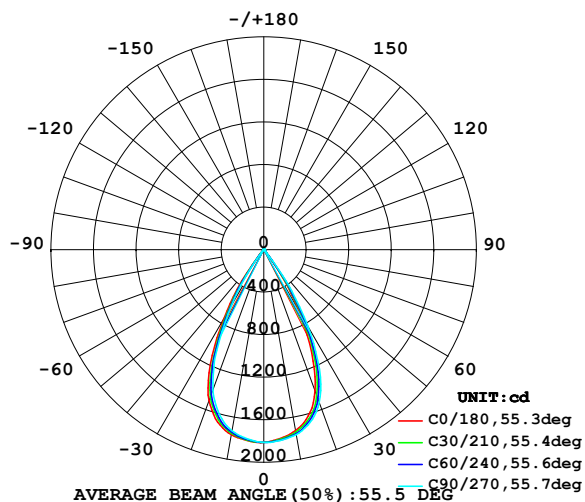


LUMINAIRE PHOTOMETRIC TEST REPORT

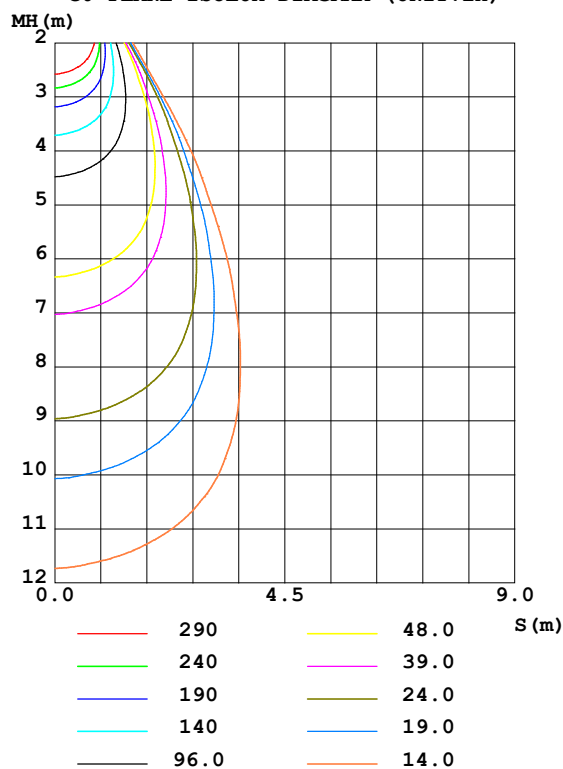
NAME: MCR-3 (16W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.00 lm/W			
MCR-3 (16W, 60°)		Imax(cd)	1816	S/MH(C0/180)	0.84
NOMINAL POWER(W)	16	LOR(%)	100.0	S/MH(C90/270)	0.79
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1384.4	η UP,DN(C0-180)	0.7,51.3
NOMINAL FLUX(lm)	1384.41	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.6,47.4
LAMPS INSIDE	1	η up(%)	1.3	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	120	η down(%)	98.7	CIBSE SHR MAX	0.85

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



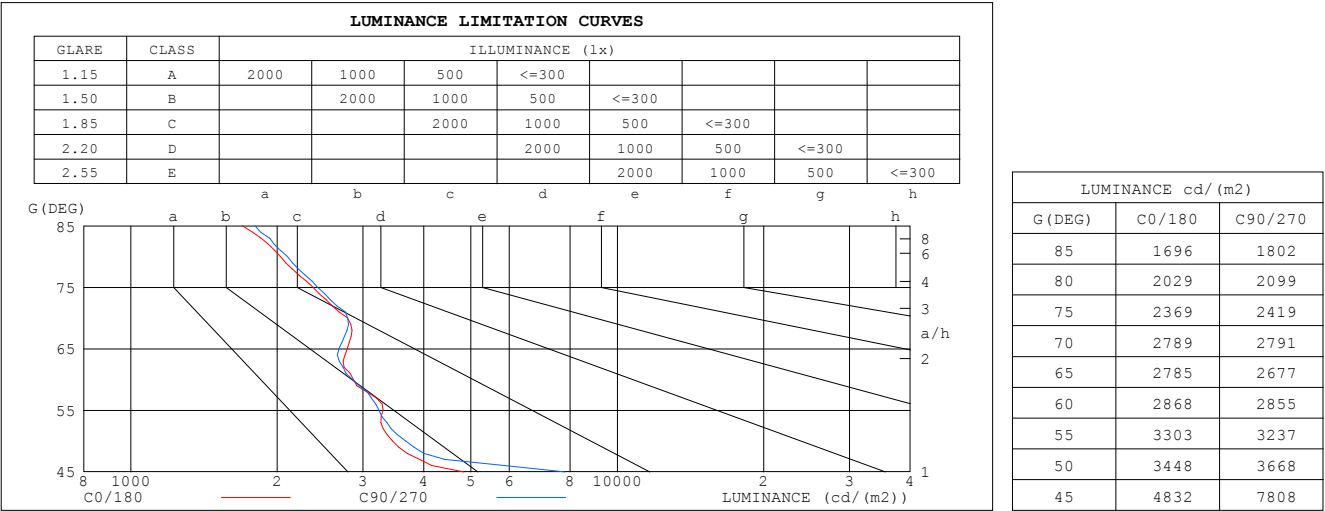
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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	1726	1751	1766	1774	1766	1747	1729	1724	0- 10	169.8	169.8	12.3,12.3
20	1410	1474	1529	1536	1511	1462	1406	1383	10- 20	458.9	628.7	45.4,45.4
30	656.3	753.4	830.4	836.8	756.1	670.4	608.3	598.6	20- 30	506.9	1136	82,82
40	46.85	53.15	63.62	70.11	67.28	54.29	42.38	40.74	30- 40	197.1	1333	96.3,96.3
50	9.381	9.629	10.04	10.36	9.852	9.669	10.20	9.951	40- 50	17.23	1350	97.5,97.5
60	6.069	5.973	6.077	6.421	6.665	6.647	6.722	6.404	50- 60	7.207	1357	98,98
70	4.037	3.947	4.065	4.316	4.544	4.647	4.530	4.308	60- 70	5.204	1362	98.4,98.4
80	1.491	1.476	1.552	1.651	1.779	1.785	1.692	3.143	70- 80	3.059	1365	98.6,98.6
90	0.0130	0.0110	0.0128	0.0128	0.0170	0.0153	0.0132	0.0386	80- 90	0.8230	1366	98.7,98.7
100	0.0721	0.0744	0.0727	0.0642	0.0382	0.0298	0.0128	0.0641	90-100	0.0258	1366	98.7,98.7
110	0.6822	0.6027	0.5554	0.5261	0.1786	0.2065	0.2130	0.4745	100-110	0.1853	1366	98.7,98.7
120	2.068	1.917	1.789	1.744	0.9345	1.046	1.142	2.315	110-120	0.8724	1367	98.8,98.8
130	4.061	3.859	3.676	3.620	2.475	2.654	2.836	5.694	120-130	2.107	1369	98.9,98.9
140	6.343	6.129	5.929	5.875	4.558	4.763	4.965	9.952	130-140	3.418	1373	99.2,99.2
150	8.367	8.164	8.037	7.959	6.628	6.771	6.954	13.86	140-150	4.162	1377	99.5,99.5
160	9.391	9.256	9.248	9.158	8.171	8.173	8.265	16.38	150-160	3.872	1381	99.7,99.7
170	9.760	9.757	9.789	9.670	9.295	9.306	9.340	18.56	160-170	2.647	1383	99.9,99.9
180	10.07	10.16	10.11	10.13	10.10	10.16	10.10	20.23	170-180	0.9580	1384	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



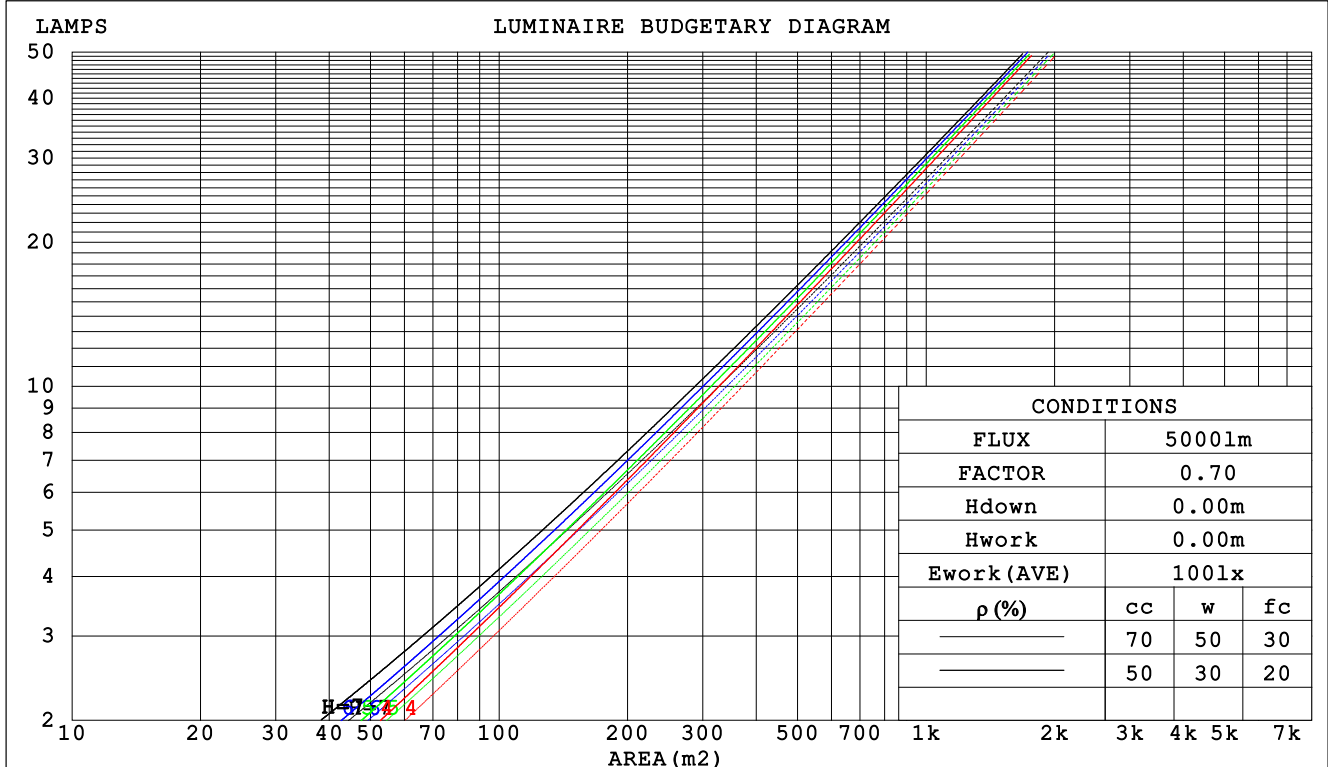
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (16W, 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	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	1.11	1.09	1.06	1.09	1.07	1.05	1.04	1.03	1.01	1.00	.99	.98	.97	.96	.95	.93
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.93	.89	.96	.92	.88	.93	.90	.87	.91	.88	.85	.88	.86	.84	.82
4.0	.92	.87	.83	.90	.86	.82	.88	.84	.81	.86	.83	.80	.84	.81	.79	.77
5.0	.86	.81	.77	.85	.80	.77	.84	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.82	.76	.72	.81	.76	.72	.79	.75	.71	.78	.74	.71	.76	.73	.70	.69
7.0	.77	.72	.68	.77	.71	.68	.75	.71	.67	.74	.70	.67	.73	.69	.66	.65
8.0	.73	.68	.64	.73	.68	.64	.72	.67	.64	.71	.66	.63	.69	.66	.63	.62
9.0	.70	.64	.61	.69	.64	.60	.68	.63	.60	.67	.63	.60	.66	.62	.60	.58
10.0	.66	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.63	.59	.57	.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 (16W, 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	.169 .096 .030	.162 .093 .029	.149 .085 .027	.137 .079 .025	.125 .073 .023	
2.0	.160 .088 .027	.155 .085 .026	.143 .080 .025	.133 .075 .023	.123 .070 .022	
3.0	.152 .081 .024	.147 .079 .024	.137 .074 .023	.129 .070 .022	.120 .067 .021	
4.0	.144 .075 .022	.140 .073 .022	.132 .070 .021	.124 .067 .020	.117 .064 .019	
5.0	.138 .070 .020	.134 .069 .020	.127 .066 .019	.120 .063 .019	.114 .061 .018	
6.0	.131 .066 .019	.128 .065 .019	.122 .062 .018	.116 .060 .018	.110 .058 .017	
7.0	.126 .062 .018	.123 .061 .017	.117 .059 .017	.112 .057 .017	.107 .055 .016	
8.0	.120 .059 .017	.118 .058 .016	.113 .056 .016	.108 .055 .016	.103 .053 .015	
9.0	.115 .056 .016	.113 .055 .015	.109 .054 .015	.104 .052 .015	.100 .051 .015	
10.0	.111 .053 .015	.109 .053 .015	.105 .051 .014	.101 .050 .014	.097 .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	.201 .201 .201	.171 .171 .171	.117 .117 .117	.067 .067 .067	.021 .021 .021	
1.0	.181 .168 .156	.155 .144 .134	.106 .099 .093	.061 .057 .054	.019 .018 .017	
2.0	.165 .143 .124	.141 .123 .107	.097 .085 .075	.056 .049 .044	.018 .016 .014	
3.0	.152 .124 .101	.130 .107 .088	.089 .074 .062	.052 .043 .036	.017 .014 .012	
4.0	.141 .109 .084	.121 .094 .073	.083 .066 .052	.048 .038 .030	.016 .013 .010	
5.0	.132 .097 .071	.114 .084 .062	.078 .059 .044	.045 .035 .026	.015 .011 .009	
6.0	.125 .088 .061	.107 .076 .053	.074 .053 .038	.043 .031 .022	.014 .010 .007	
7.0	.118 .080 .054	.102 .070 .047	.070 .049 .033	.041 .029 .020	.013 .009 .007	
8.0	.112 .074 .047	.097 .064 .041	.067 .045 .029	.039 .027 .017	.013 .009 .006	
9.0	.107 .069 .043	.092 .060 .037	.064 .042 .026	.037 .025 .016	.012 .008 .005	
10.0	.103 .064 .039	.089 .056 .034	.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 (16W, 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					17.4	18.3	17.6	18.5	18.6	18.6	19.4	18.8	19.6	19.8
3H					17.3	18.1	17.6	18.3	18.5	18.4	19.2	18.7	19.5	19.7
4H					17.2	18.0	17.5	18.2	18.5	18.4	19.1	18.7	19.4	19.6
6H					17.2	17.9	17.5	18.1	18.4	18.3	19.0	18.6	19.3	19.5
8H					17.1	17.8	17.5	18.1	18.4	18.3	18.9	18.6	19.2	19.5
12H					17.1	17.7	17.4	18.0	18.3	18.2	18.9	18.6	19.2	19.5
4H 2H					17.2	17.9	17.5	18.2	18.4	18.3	19.1	18.6	19.3	19.6
3H					17.1	17.7	17.4	18.0	18.3	18.2	18.9	18.5	19.2	19.4
4H					17.0	17.6	17.4	17.9	18.3	18.1	18.7	18.5	19.1	19.4
6H					17.0	17.5	17.4	17.8	18.2	18.1	18.6	18.5	19.0	19.3
8H					16.9	17.4	17.3	17.8	18.2	18.0	18.5	18.5	18.9	19.3
12H					16.9	17.3	17.3	17.7	18.1	18.0	18.4	18.4	18.8	19.2
8H 4H					16.9	17.4	17.3	17.8	18.2	18.0	18.5	18.4	18.9	19.3
6H					16.8	17.2	17.3	17.7	18.1	17.9	18.3	18.4	18.8	19.2
8H					16.8	17.2	17.3	17.6	18.1	17.9	18.3	18.4	18.7	19.2
12H					16.8	17.1	17.3	17.5	18.0	17.9	18.2	18.4	18.6	19.1
12H 4H					16.9	17.3	17.3	17.7	18.1	18.0	18.4	18.4	18.8	19.2
6H					16.8	17.2	17.3	17.6	18.1	17.9	18.2	18.4	18.7	19.2
8H					16.8	17.1	17.3	17.5	18.0	17.9	18.2	18.3	18.6	19.1
Variations with the observer position at spacings:														
S = 1.0H					+ 3.9 / - 3.2					+ 5.1 / - 5.6				
1.5H					+ 6.3 / - 3.1					+ 7.8 / - 5.4				
2.0H					+ 0.8 / - 0.4					+ 2.7 / - 0.7				

CIE Pub.117 Corrected 1384 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.1)

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 (16W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

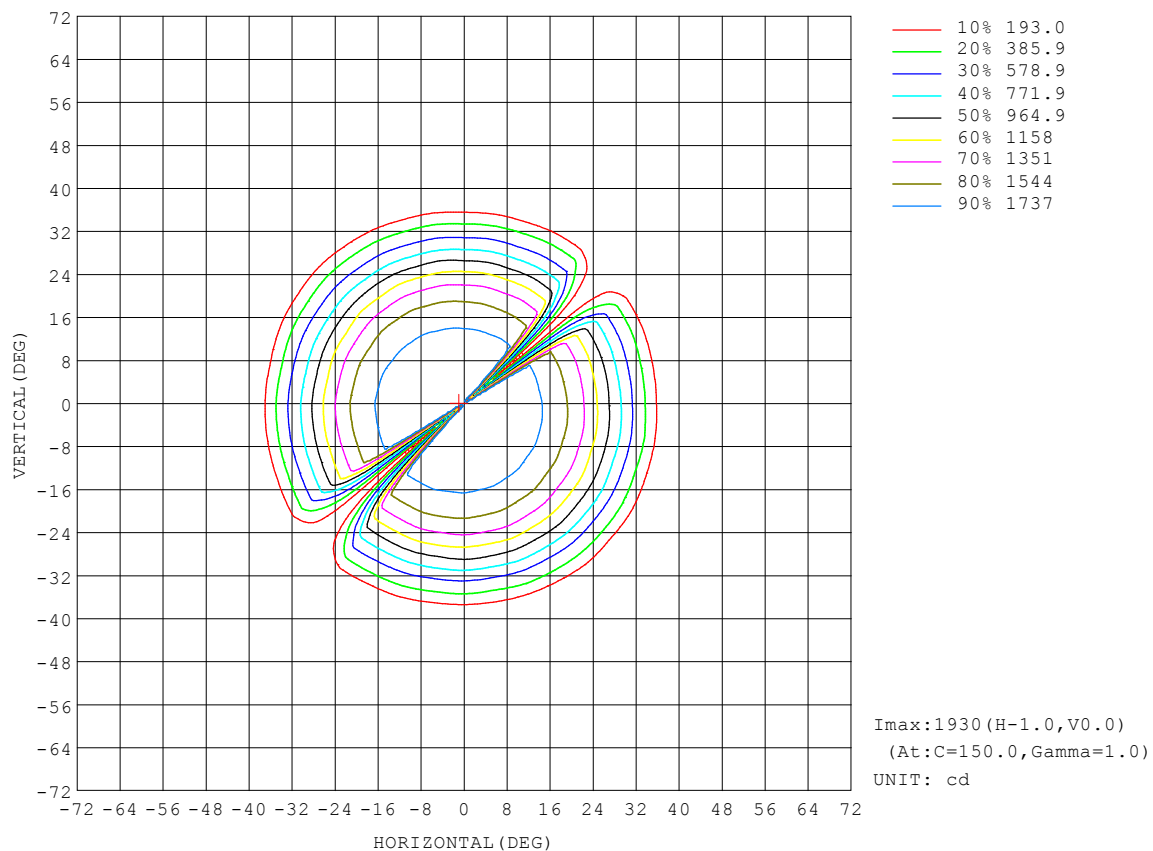
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	80	88	83	80	76
0.80	96	91	87	96	91	87	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	94	90
1.50	106	102	99	105	101	98	103	100	97	93
2.00	109	105	102	107	104	101	104	102	99	94
2.50	110	107	104	109	105	103	105	103	101	95
3.00	112	109	106	110	107	105	106	104	102	96
4.00	114	111	109	112	109	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 (16W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

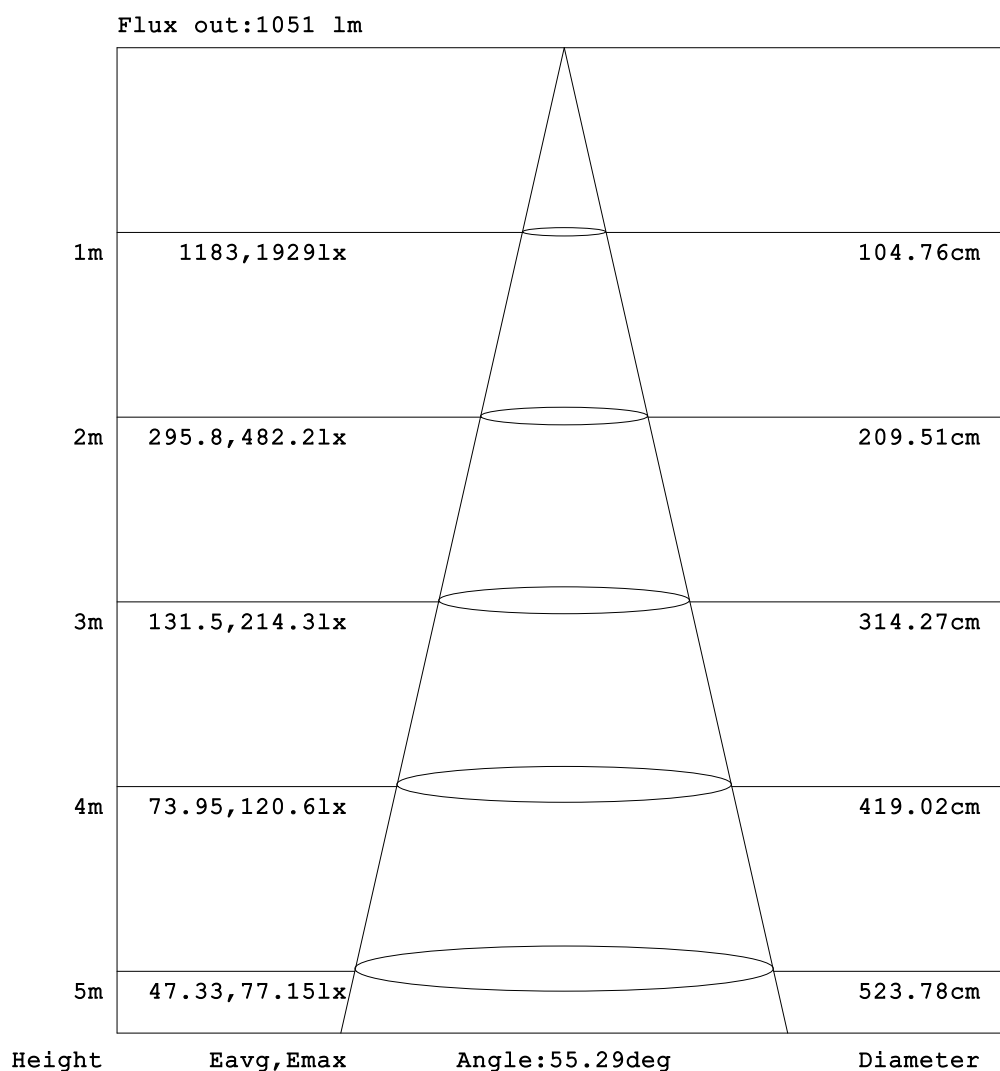


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-11-25

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 (16W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



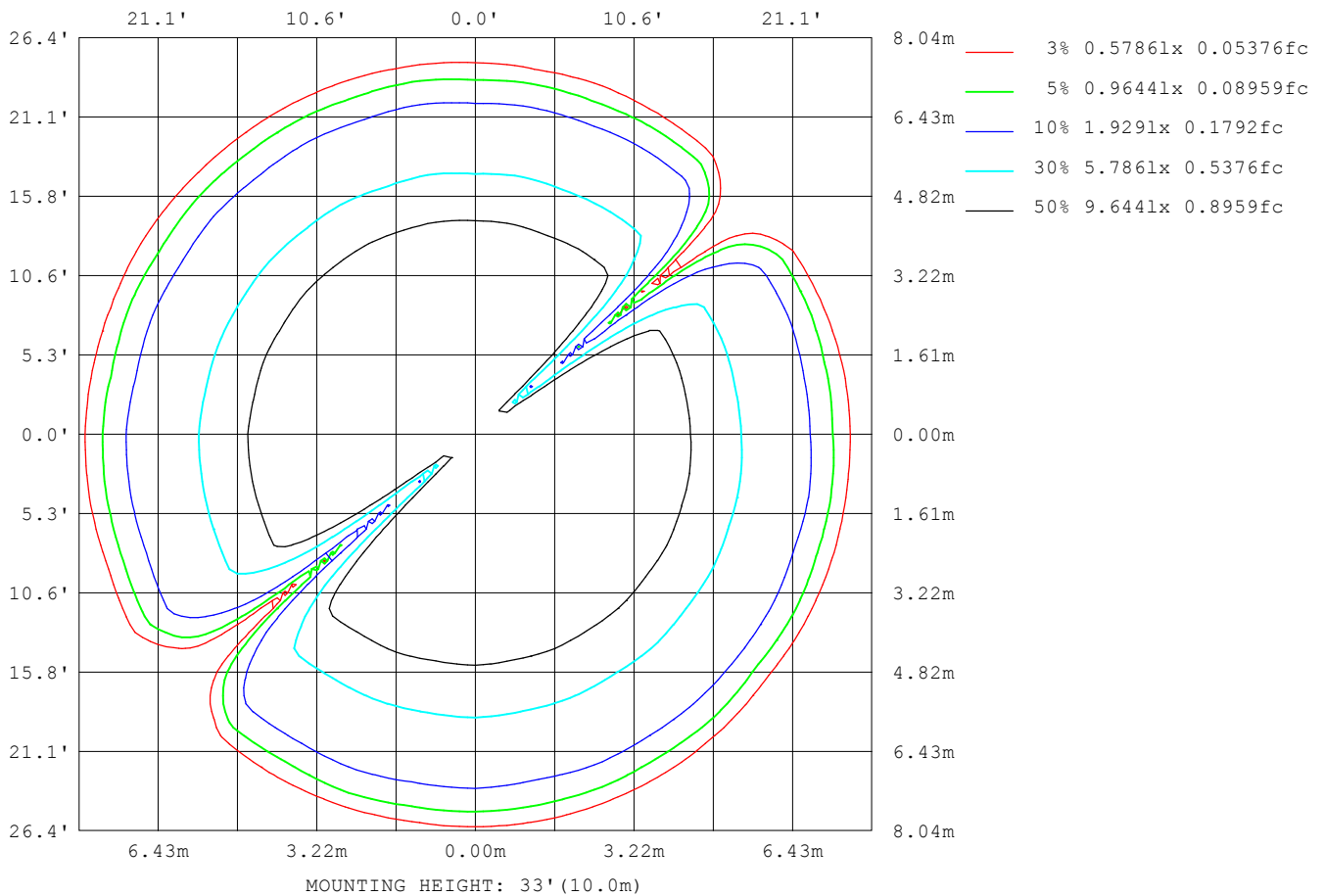
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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 (16W, 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 (16W, 60°)	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

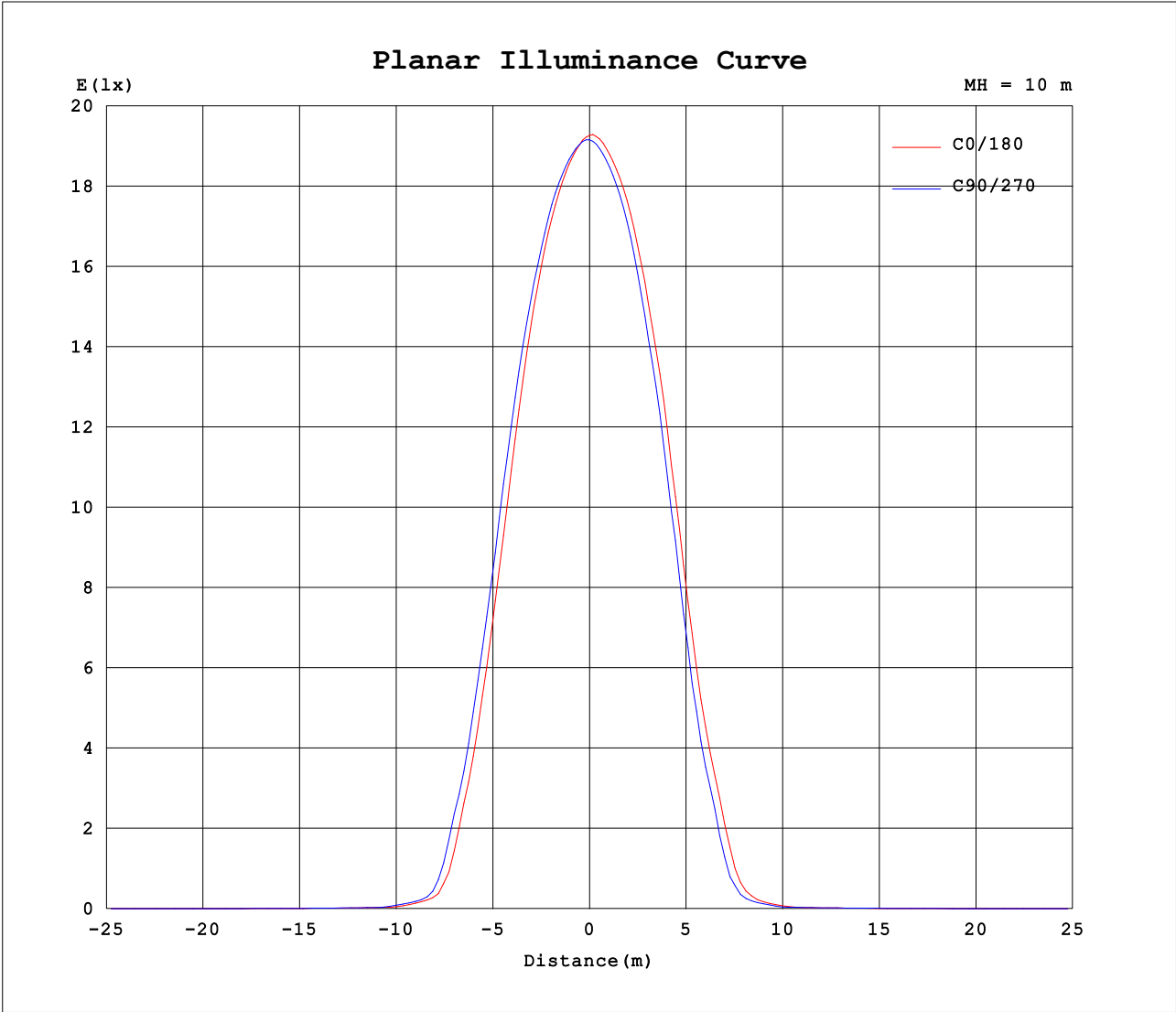
AvgL	cd/m2
L_0~180 (65) av	2721
L_0~180 (75) av	2417
L_0~180 (85) av	1817
L_90~270 (65) av	2723
L_90~270 (75) av	2400
L_90~270 (85) av	1763
L_45 (65) av	2727
L_45 (75) av	2758
L_45 (85) av	2303

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 (16W, 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	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	0.00	1812	1812	1812	1812
5	1782	1785	1787	1790	1792	1795	1797	1798	1798	1801	1800	1803	1802	1804	0.00	1803	1802	1802	1802
10	1726	1732	1735	1743	1746	1755	1757	1760	1761	1766	1768	1770	1770	1774	0.00	1774	1768	1769	1766
15	1619	1630	1636	1646	1649	1661	1665	1676	1674	1683	1683	1691	1689	1695	0.00	1688	1681	1681	1678
20	1410	1428	1432	1456	1460	1487	1493	1512	1516	1529	1527	1538	1531	1536	0.00	1525	1512	1512	1511
25	1072	1098	1102	1138	1141	1176	1183	1212	1216	1239	1227	1249	1229	1244	0.00	1226	1205	1204	1194
30	656	686	688	730	740	767	774	800	807	830	826	836	822	837	0.00	800	775	769	756
35	247	279	284	309	323	343	358	386	376	407	405	423	418	426	0.00	408	372	368	362
40	46.9	47.2	47.5	50.3	51.0	55.3	56.1	60.3	60.1	63.6	64.3	68.2	67.2	70.1	0.00	71.1	67.3	68.3	67.3
45	14.5	15.3	15.4	16.9	16.9	19.1	19.7	21.3	21.6	23.5	22.7	23.3	23.2	24.1	0.00	23.2	21.3	20.9	20.0
50	9.38	9.50	9.57	9.81	9.61	9.65	9.54	9.71	9.76	10.0	9.96	9.97	10.1	10.4	0.00	10.2	10.0	9.96	9.85
55	8.02	7.97	7.78	7.82	7.87	7.83	7.80	7.74	7.77	7.90	7.88	7.85	7.88	8.03	0.00	8.10	8.03	7.98	8.04
60	6.07	5.96	5.83	5.83	5.96	5.99	6.07	6.05	5.89	6.08	6.29	6.52	6.57	6.42	0.00	6.52	6.62	6.71	6.67
65	4.98	4.90	4.87	4.80	4.81	4.75	4.78	4.76	4.81	4.82	4.89	4.92	5.01	5.05	0.00	5.18	5.26	5.29	5.37
70	4.04	4.01	3.98	3.97	3.95	3.95	3.96	4.01	4.03	4.06	4.13	4.19	4.26	4.32	0.00	4.41	4.43	4.48	4.54
75	2.59	2.57	2.56	2.56	2.55	2.59	2.58	2.60	2.63	2.67	2.70	2.74	2.79	2.85	0.00	2.91	2.94	2.98	3.03
80	1.49	1.47	1.48	1.46	1.48	1.47	1.49	1.50	1.52	1.55	1.57	1.60	1.63	1.65	0.00	1.71	1.74	1.75	1.78
85	0.63	0.61	0.62	0.61	0.64	0.62	0.65	0.63	0.67	0.67	0.70	0.69	0.74	0.73	0.00	0.76	0.78	0.79	0.80
90	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.01	0.04	0.01	0.02
95	0.01	0.03	0.01	0.02	0.01	0.03	0.02	0.03	0.01	0.03	0.01	0.02	0.01	0.02	0.00	0.03	0.01	0.01	0.03
100	0.07	0.10	0.06	0.09	0.06	0.09	0.06	0.07	0.05	0.07	0.03	0.06	0.03	0.06	0.00	0.06	0.04	0.07	0.04
105	0.27	0.29	0.26	0.27	0.24	0.26	0.21	0.24	0.20	0.23	0.19	0.22	0.19	0.21	0.00	0.21	0.20	0.23	0.07
110	0.68	0.68	0.64	0.64	0.60	0.61	0.57	0.58	0.54	0.56	0.52	0.53	0.51	0.53	0.00	0.53	0.53	0.56	0.18
115	1.28	1.27	1.22	1.22	1.17	1.17	1.13	1.12	1.08	1.08	1.05	1.06	1.03	1.04	0.00	1.06	1.06	1.09	0.46
120	2.07	2.04	2.01	1.97	1.93	1.91	1.87	1.84	1.82	1.79	1.77	1.76	1.74	1.74	0.00	1.76	1.77	1.79	0.93
125	3.01	2.97	2.92	2.89	2.85	2.82	2.77	2.73	2.72	2.67	2.65	2.63	2.62	2.61	0.00	2.63	2.65	2.68	1.61
130	4.06	4.01	3.97	3.93	3.89	3.83	3.80	3.74	3.72	3.68	3.66	3.64	3.63	3.62	0.00	3.63	3.65	3.69	2.48
135	5.22	5.15	5.11	5.05	5.03	4.96	4.91	4.86	4.82	4.79	4.76	4.75	4.76	4.75	0.00	4.75	4.76	4.80	3.48
140	6.34	6.30	6.26	6.20	6.16	6.10	6.06	5.99	5.96	5.93	5.90	5.88	5.87	5.87	0.00	5.89	5.90	5.94	4.56
145	7.43	7.39	7.34	7.29	7.26	7.20	7.16	7.11	7.07	7.05	7.02	7.00	6.98	6.98	0.00	7.00	7.01	7.05	5.63
150	8.37	8.34	8.27	8.23	8.18	8.15	8.11	8.07	8.04	8.04	7.99	7.97	7.98	7.96	0.00	7.98	7.97	8.01	6.63
155	9.08	9.06	8.96	8.93	8.86	8.85	8.80	8.82	8.79	8.80	8.74	8.73	8.69	8.70	0.00	8.75	8.74	8.81	7.52
160	9.39	9.41	9.33	9.31	9.25	9.27	9.25	9.26	9.22	9.25	9.18	9.19	9.14	9.16	0.00	9.20	9.17	9.25	8.17
165	9.58	9.61	9.53	9.55	9.48	9.54	9.50	9.54	9.50	9.53	9.47	9.47	9.43	9.43	0.00	9.48	9.47	9.50	8.74
170	9.76	9.79	9.72	9.77	9.74	9.78	9.74	9.80	9.77	9.79	9.73	9.72	9.65	9.67	0.00	9.73	9.67	9.71	9.30
175	9.90	9.94	9.94	9.97	9.96	10.0	10.0	10.0	9.98	9.97	9.92	9.95	9.90	9.94	0.00	9.95	9.87	9.86	9.76
180	10.1	10.1	10.1	10.1	10.1	10.2	10.2	10.1	10.1	10.1	10.1	10.1	10.1	10.1	0.00	10.1	10.0	10.0	10.1

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 (16W, 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	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	0.00	1812	1812	1812		
5	1801	1802	1799	1798	1794	1793	1789	1788	1785	1782	1780	1780	1780	0.00	1779	1780	1781		
10	1761	1759	1753	1751	1744	1743	1736	1734	1729	1728	1723	1723	1724	0.00	1722	1725	1726		
15	1670	1669	1655	1650	1639	1636	1621	1617	1608	1606	1602	1604	1602	0.00	1606	1614	1615		
20	1495	1492	1472	1472	1452	1449	1426	1422	1406	1405	1394	1394	1383	0.00	1385	1398	1400		
25	1158	1159	1119	1133	1093	1100	1068	1068	1048	1046	1025	1039	1017	0.00	1031	1062	1058		
30	720	718	687	685	656	654	627	633	608	615	596	608	599	0.00	614	639	642		
35	321	318	289	294	259	266	241	247	223	228	207	221	206	0.00	217	245	240		
40	62.4	64.2	57.0	56.2	52.4	51.3	46.4	44.9	42.4	42.7	41.6	41.9	40.7	0.00	41.9	43.8	46.1		
45	18.6	18.4	16.5	16.7	15.3	15.0	14.0	14.0	13.0	13.3	12.8	12.8	12.5	0.00	12.5	13.5	13.8		
50	9.70	9.60	9.48	9.68	9.65	9.85	9.92	10.1	10.2	10.2	10.4	10.0	9.95	0.00	9.59	9.45	9.31		
55	8.05	8.07	8.08	8.20	8.27	8.41	8.62	8.78	8.74	8.65	8.56	8.47	8.25	0.00	7.98	7.96	8.02		
60	6.42	6.41	6.46	6.57	6.72	6.74	6.65	6.70	6.72	6.95	6.91	6.75	6.40	0.00	6.02	6.12	6.18		
65	5.44	5.46	5.52	5.52	5.56	5.53	5.55	5.51	5.54	5.50	5.49	5.41	5.38	0.00	5.22	5.11	5.07		
70	4.59	4.62	4.63	4.65	4.64	4.64	4.61	4.59	4.53	4.49	4.42	4.41	4.30	0.01	4.16	4.15	4.09		
75	3.04	3.06	3.06	3.06	3.04	3.04	3.00	2.97	2.93	2.89	2.83	2.80	2.75	1.33	2.68	2.66	2.64		
80	1.80	1.82	1.80	1.79	1.78	1.76	1.74	1.70	1.69	1.65	1.63	1.60	1.59	1.64	1.54	1.52	1.51		
85	0.82	0.80	0.81	0.80	0.79	0.75	0.75	0.74	0.71	0.68	0.68	0.65	0.66	0.66	0.64	0.62	0.64		
90	0.04	0.01	0.03	0.00	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.01	0.03	0.01	0.02	0.01	0.03		
95	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.03	0.01	0.03	0.02	0.02	0.02	0.03	0.02	0.03	0.02		
100	0.02	0.04	0.02	0.04	0.02	0.04	0.02	0.04	0.01	0.04	0.02	0.04	0.02	0.05	0.02	0.04	0.02		
105	0.04	0.07	0.05	0.07	0.04	0.08	0.07	0.09	0.06	0.09	0.06	0.09	0.06	0.09	0.07	0.09	0.07		
110	0.15	0.20	0.17	0.22	0.19	0.23	0.20	0.24	0.21	0.25	0.22	0.26	0.22	0.27	0.22	0.24	0.20		
115	0.46	0.49	0.48	0.52	0.51	0.56	0.55	0.58	0.56	0.60	0.59	0.61	0.59	0.64	0.60	0.58	0.54		
120	0.9417	0.9836	1.02	1.03	1.06	1.08	1.10	1.13	1.14	1.17	1.16	1.17	1.16	1.22	1.14	1.13	1.10		
125	1.63	1.67	1.69	1.74	1.77	1.81	1.84	1.87	1.91	1.92	1.92	1.94	1.92	2.02	1.90	1.87	1.83		
130	2.50	2.55	2.59	2.63	2.67	2.71	2.77	2.79	2.84	2.84	2.86	2.85	2.86	3.00	2.82	2.79	2.77		
135	3.53	3.56	3.61	3.66	3.70	3.74	3.82	3.83	3.87	3.89	3.91	3.91	3.89	4.09	3.86	3.83	3.81		
140	4.60	4.65	4.69	4.74	4.79	4.84	4.89	4.92	4.96	4.97	4.99	4.99	4.98	5.25	4.95	4.92	4.89		
145	5.66	5.71	5.74	5.80	5.84	5.88	5.93	5.97	6.01	6.02	6.03	6.02	6.02	6.34	5.98	5.96	5.93		
150	6.65	6.68	6.70	6.75	6.79	6.84	6.87	6.92	6.95	6.96	6.96	6.94	6.93	7.32	6.91	6.91	6.88		
155	7.54	7.54	7.54	7.55	7.55	7.61	7.64	7.70	7.72	7.73	7.70	7.69	7.65	8.09	7.64	7.67	7.66		
160	8.15	8.20	8.16	8.18	8.16	8.20	8.19	8.25	8.26	8.29	8.25	8.25	8.19	8.66	8.17	8.20	8.18		
165	8.73	8.77	8.73	8.75	8.71	8.75	8.74	8.78	8.79	8.81	8.78	8.78	8.73	9.20	8.66	8.70	8.68		
170	9.28	9.33	9.32	9.34	9.27	9.30	9.28	9.35	9.34	9.40	9.34	9.34	9.28	9.80	9.24	9.24	9.19		
175	9.73	9.82	9.81	9.86	9.82	9.85	9.81	9.84	9.84	9.87	9.85	9.87	9.83	10.4	9.72	9.73	9.67		
180	10.1	10.1	10.1	10.2	10.2	10.2	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.7	10.1	10.1	10.0		

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: