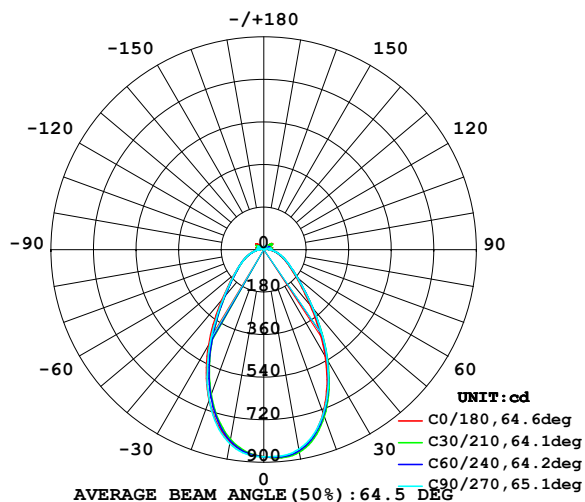


LUMINAIRE PHOTOMETRIC TEST REPORT

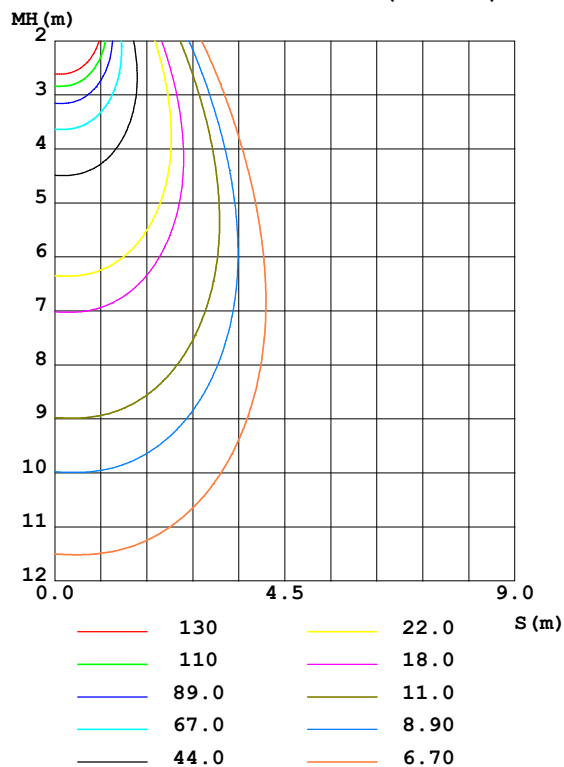
NAME: MCR-3 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 72.46 lm/W
MCR-3 (19W, 60° Drop Lens)		I _{max} (cd)	883.5	S/MH(C0/180)	0.92	
NOMINAL POWER(W)	19	LOR(%)	100.0	S/MH(C90/270)	0.91	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1418.5	η UP,DN(C0-180)	4.0,48.3	
NOMINAL FLUX(lm)	1418.49	CIE CLASS	DIRECT	η UP,DN(C180-360)	3.7,43.9	
LAMPS INSIDE	1	η up(%)	7.7	CIBSE SHR NOM	1.00	
TEST VOLTAGE(V)	120	η down(%)	92.3	CIBSE SHR MAX	1.00	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



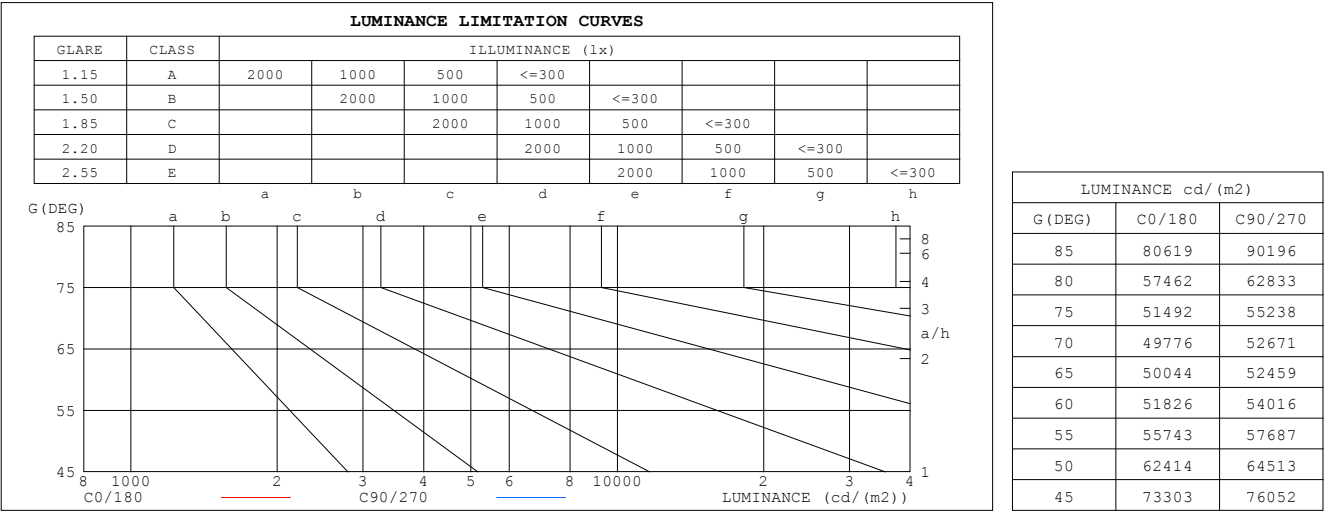
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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	864.9	867.3	857.4	842.3	825.3	816.5	832.9	852.8	0- 10	82.37	82.37	5.81,5.81
20	735.2	746.6	738.1	712.6	676.8	651.8	676.2	713.3	10- 20	220.2	302.6	21.3,21.3
30	520.3	539.2	538.6	513.6	467.5	435.4	452.5	491.2	20- 30	276.3	578.9	40.8,40.8
40	306.2	323.6	324.1	308.6	274.7	255.6	264.2	286.1	30- 40	241.5	820.4	57.8,57.8
50	178.5	187.7	186.9	178.9	163.6	157.2	161.3	170.3	40- 50	173.4	993.8	70.1,70.1
60	115.3	121.3	121.8	117.4	108.8	105.8	107.4	111.4	50- 60	125.5	1119	78.9,78.9
70	75.74	80.39	81.21	78.17	71.88	69.61	71.30	72.18	60- 70	92.55	1212	85.4,85.4
80	44.39	48.32	49.19	46.73	41.79	39.73	40.87	40.81	70- 80	62.34	1274	89.8,89.8
90	22.69	23.77	24.09	22.77	20.71	22.41	22.85	22.51	80- 90	34.42	1309	92.3,92.3
100	32.15	26.68	30.33	26.33	30.12	22.65	28.62	23.11	90-100	28.46	1337	94.3,94.3
110	23.53	9.063	8.689	8.538	21.58	11.51	7.111	11.92	100-110	23.21	1360	95.9,95.9
120	24.01	28.61	10.30	28.49	23.55	18.42	27.83	24.04	110-120	16.44	1377	97.1,97.1
130	38.54	14.28	5.163	14.76	38.83	4.373	14.32	11.32	120-130	20.55	1397	98.5,98.5
140	12.41	14.47	4.594	14.97	9.805	4.697	4.340	12.50	130-140	9.599	1407	99.2,99.2
150	5.416	8.497	19.96	8.375	4.884	5.261	5.651	5.111	140-150	5.778	1413	99.6,99.6
160	6.264	6.010	6.218	6.180	5.932	5.828	5.566	5.771	150-160	3.142	1416	99.8,99.8
170	6.618	7.417	9.721	7.341	6.332	6.360	8.086	6.224	160-170	2.066	1418	100,100
180	7.001	7.034	6.953	6.958	7.014	7.036	6.940	6.940	170-180	0.6411	1418	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



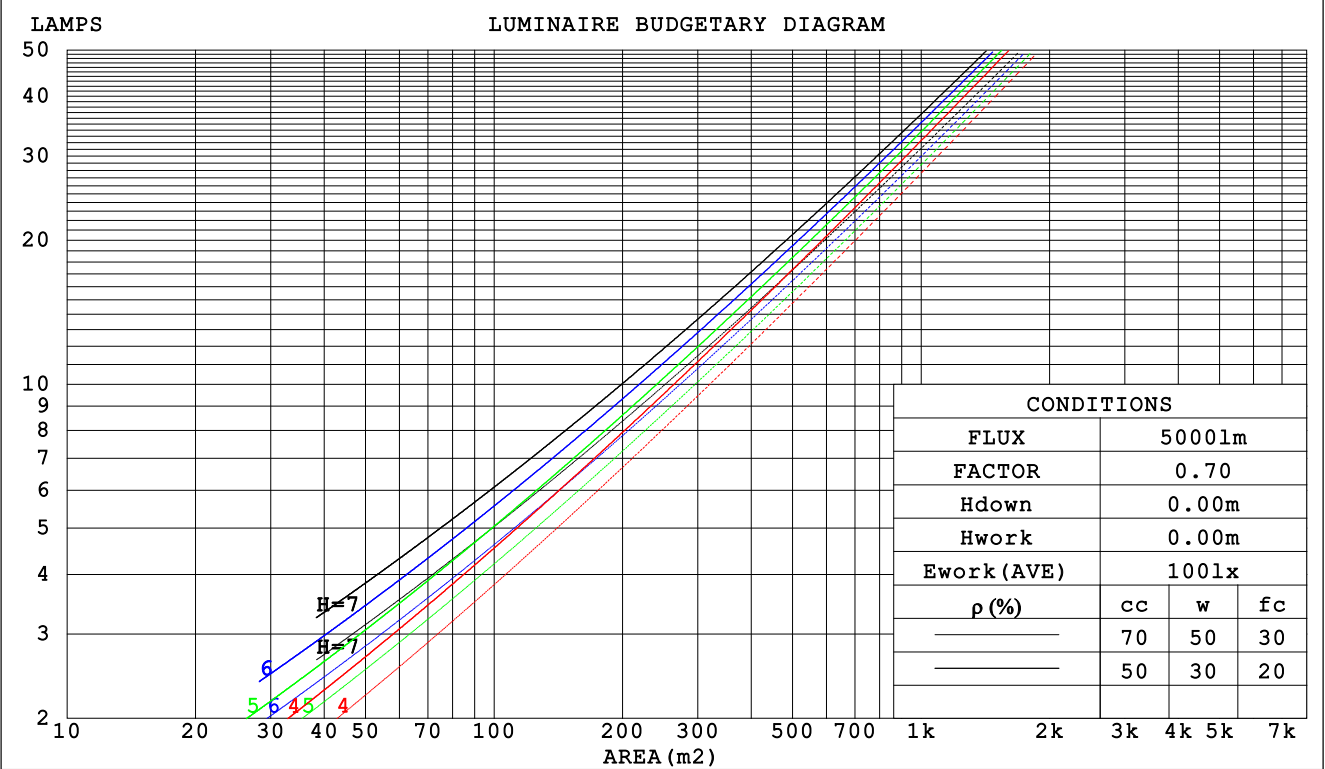
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	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	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	.95	.95	.95	.92	
1.0	1.04	1.00	.97	1.01	.98	.94	.95	.93	.90	.90	.88	.86	.85	.84	.82	.80	
2.0	.93	.87	.82	.90	.85	.80	.86	.81	.77	.81	.78	.75	.77	.74	.72	.69	
3.0	.84	.76	.71	.81	.75	.70	.77	.72	.68	.74	.69	.66	.70	.67	.64	.61	
4.0	.76	.68	.62	.74	.67	.61	.71	.65	.60	.67	.62	.58	.65	.60	.57	.55	
5.0	.69	.61	.55	.67	.60	.55	.65	.58	.54	.62	.57	.52	.59	.55	.51	.49	
6.0	.63	.55	.50	.62	.55	.49	.59	.53	.48	.57	.52	.47	.55	.50	.46	.44	
7.0	.58	.51	.45	.57	.50	.45	.55	.49	.44	.53	.47	.43	.51	.46	.42	.41	
8.0	.54	.46	.41	.53	.46	.41	.51	.45	.40	.49	.44	.40	.48	.43	.39	.37	
9.0	.50	.43	.38	.49	.42	.38	.48	.41	.37	.46	.41	.37	.45	.40	.36	.34	
10.0	.47	.40	.35	.46	.39	.35	.45	.39	.34	.43	.38	.34	.42	.37	.33	.32	



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	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	.272	.155	.049	.263	.150	.048	.246	.141	.045	.230	.132	.042	.215	.124	.040		
2.0	.251	.137	.042	.243	.134	.041	.227	.126	.039	.213	.119	.037	.200	.113	.036		
3.0	.231	.123	.037	.224	.120	.036	.210	.114	.035	.198	.108	.033	.186	.103	.032		
4.0	.214	.111	.033	.208	.109	.032	.195	.104	.031	.184	.099	.030	.173	.094	.029		
5.0	.199	.101	.029	.193	.099	.029	.182	.095	.028	.172	.091	.027	.162	.087	.026		
6.0	.186	.093	.027	.180	.091	.026	.171	.087	.025	.161	.084	.025	.153	.080	.024		
7.0	.174	.086	.024	.169	.084	.024	.160	.081	.023	.152	.078	.023	.144	.075	.022		
8.0	.163	.080	.022	.159	.078	.022	.151	.075	.022	.143	.073	.021	.136	.070	.020		
9.0	.154	.075	.021	.150	.073	.021	.143	.071	.020	.136	.068	.019	.129	.066	.019		
10.0	.146	.070	.019	.142	.069	.019	.135	.066	.019	.129	.064	.018	.123	.062	.018		

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	.249	.249	.249	.213	.213	.213	.146	.146	.146	.084	.084	.084	.027	.027	.027	
1.0	.237	.216	.197	.203	.185	.169	.139	.128	.117	.080	.074	.068	.026	.024	.022	
2.0	.227	.192	.163	.194	.165	.141	.133	.114	.098	.077	.067	.058	.025	.022	.019	
3.0	.217	.174	.140	.186	.150	.121	.128	.104	.085	.074	.061	.050	.024	.020	.016	
4.0	.209	.161	.124	.179	.139	.108	.123	.097	.076	.071	.057	.045	.023	.018	.015	
5.0	.201	.150	.113	.172	.130	.098	.119	.091	.069	.069	.053	.041	.022	.017	.014	
6.0	.194	.141	.104	.166	.123	.091	.115	.086	.064	.067	.050	.038	.021	.016	.013	
7.0	.187	.134	.098	.161	.117	.085	.111	.082	.060	.065	.048	.036	.021	.016	.012	
8.0	.181	.129	.093	.156	.112	.081	.108	.078	.057	.063	.046	.034	.020	.015	.011	
9.0	.175	.124	.089	.151	.107	.077	.105	.075	.055	.061	.045	.033	.020	.015	.011	
10.0	.170	.119	.086	.147	.104	.075	.102	.073	.053	.059	.043	.032	.019	.014	.011	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2025-12-11

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 (19W, 60° Drop Lens)					TYPE:LED					WEIGHT:				
SPEC.:					DIM.: 3inch					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					25.4	26.6	25.8	26.9	27.3	25.6	26.8	26.0	27.1	27.5
3H					26.7	27.8	27.0	28.1	28.5	26.9	28.0	27.3	28.4	28.7
4H					27.3	28.4	27.7	28.7	29.1	27.6	28.6	28.0	29.0	29.4
6H					27.9	28.9	28.4	29.3	29.8	28.3	29.3	28.7	29.7	30.1
8H					28.3	29.2	28.7	29.6	30.1	28.6	29.6	29.1	30.0	30.4
12H					28.6	29.5	29.1	30.0	30.4	29.0	30.0	29.5	30.4	30.8
4H 2H					25.9	26.9	26.3	27.3	27.7	26.0	27.1	26.4	27.5	27.9
3H					27.4	28.3	27.8	28.7	29.2	27.6	28.5	28.0	28.9	29.4
4H					28.2	29.0	28.7	29.5	30.0	28.4	29.3	28.9	29.7	30.2
6H					29.0	29.8	29.5	30.2	30.8	29.3	30.1	29.8	30.6	31.1
8H					29.4	30.1	30.0	30.6	31.2	29.8	30.5	30.3	31.0	31.5
12H					29.9	30.5	30.4	31.0	31.6	30.3	30.9	30.8	31.4	32.0
8H 4H					28.5	29.2	29.1	29.7	30.3	28.8	29.4	29.3	29.9	30.5
6H					29.6	30.2	30.2	30.7	31.3	29.9	30.5	30.4	31.0	31.6
8H					30.2	30.7	30.7	31.2	31.8	30.5	31.0	31.1	31.6	32.2
12H					30.8	31.2	31.4	31.8	32.4	31.2	31.6	31.8	32.2	32.8
12H 4H					28.6	29.2	29.1	29.7	30.3	28.8	29.4	29.3	29.9	30.5
6H					29.7	30.3	30.3	30.8	31.4	30.0	30.5	30.6	31.1	31.7
8H					30.4	30.8	31.0	31.4	32.0	30.7	31.1	31.3	31.7	32.3
Variations with the observer position at spacings:														
S = 1.0H					+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H					+ 0.1 / - 0.2					+ 0.1 / - 0.2				
2.0H					+ 0.2 / - 0.2					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 1418 lm Total Lamp Luminous Flux. (8log(F/F0) = 1.2)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

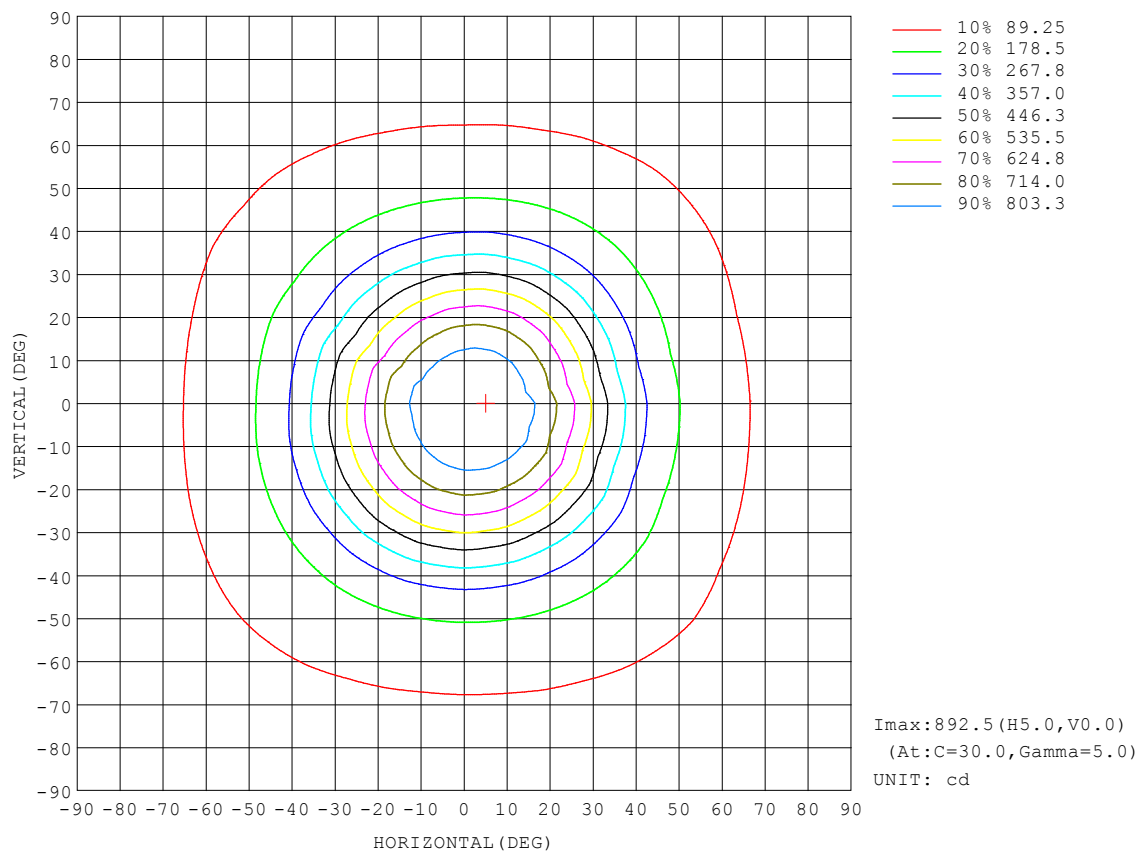
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	65	56	50	65	55	50	63	55	49	44
0.80	74	65	58	73	64	58	71	63	58	52
1.00	81	72	66	80	71	65	77	71	64	58
1.25	87	78	72	85	77	71	82	75	70	63
1.50	91	83	77	89	82	76	86	79	74	67
2.00	97	89	83	94	88	82	90	85	80	72
2.50	100	93	88	97	91	86	93	88	84	75
3.00	103	96	91	100	94	90	95	91	87	77
4.00	106	101	97	103	98	95	98	94	91	81
5.00	108	104	100	105	101	98	99	96	94	83
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: 2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

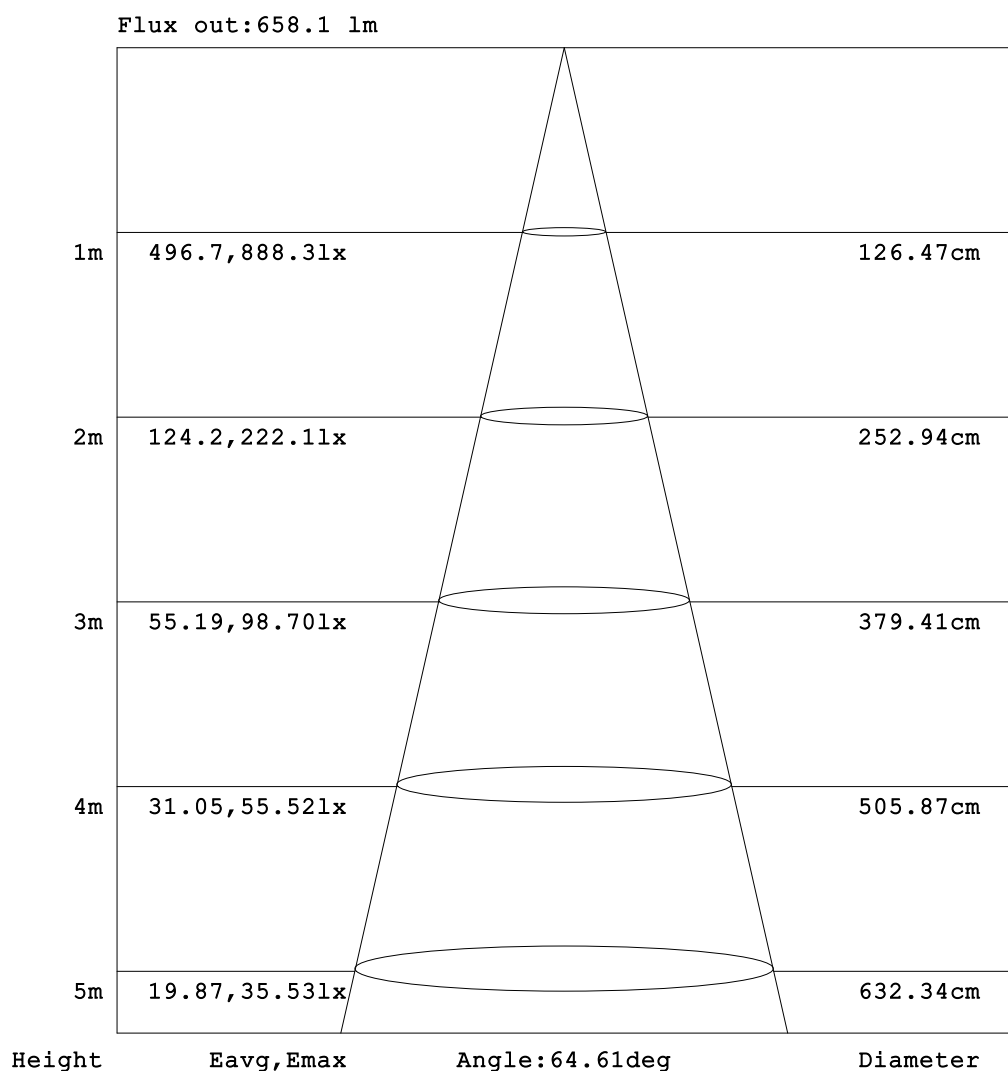


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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:

AAI Figure

NAME: MCR-3 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:



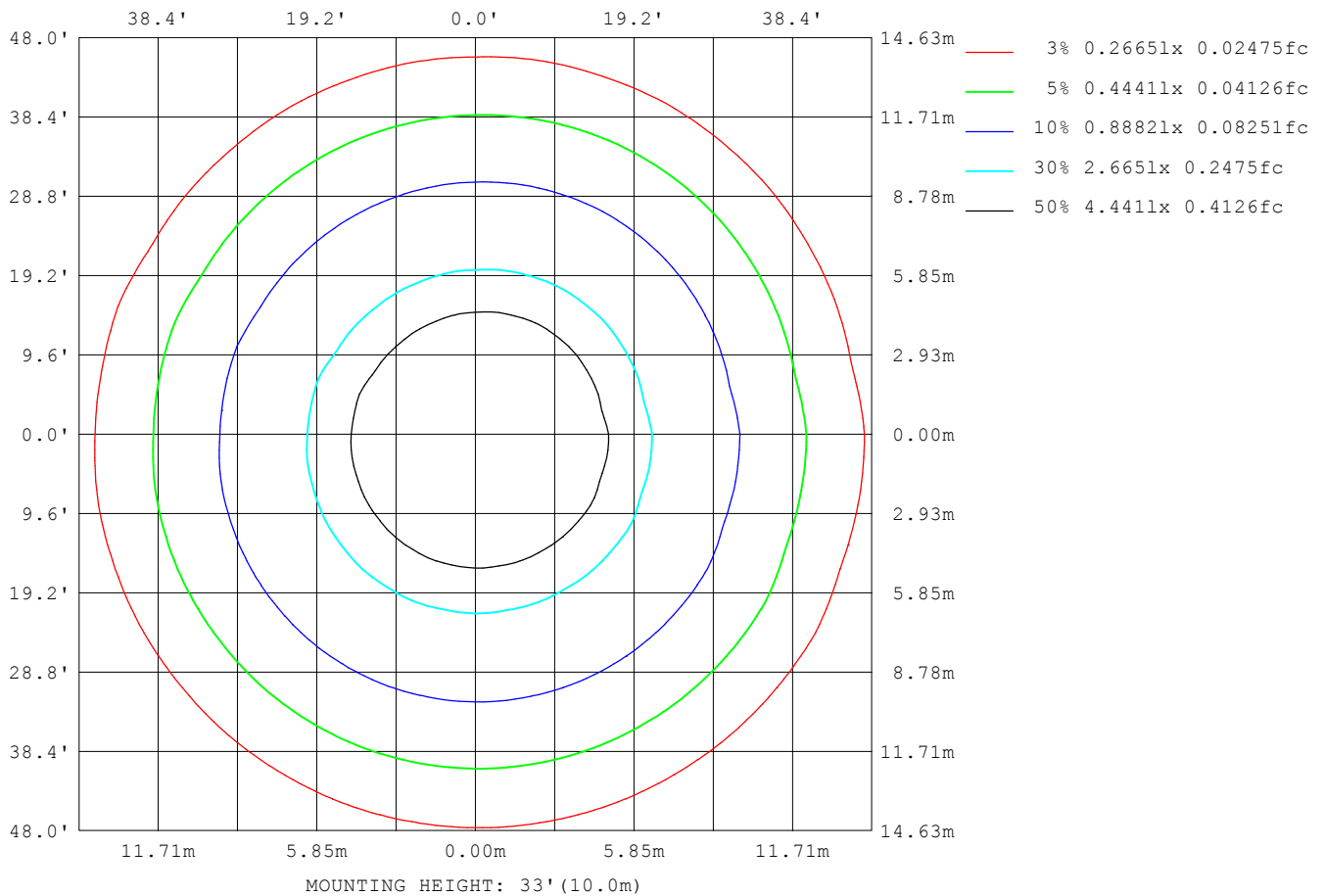
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	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: 2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	SERIAL No.:1
MFR.: Utopia Lighting	SUR.:	PROTECTION ANGLE:

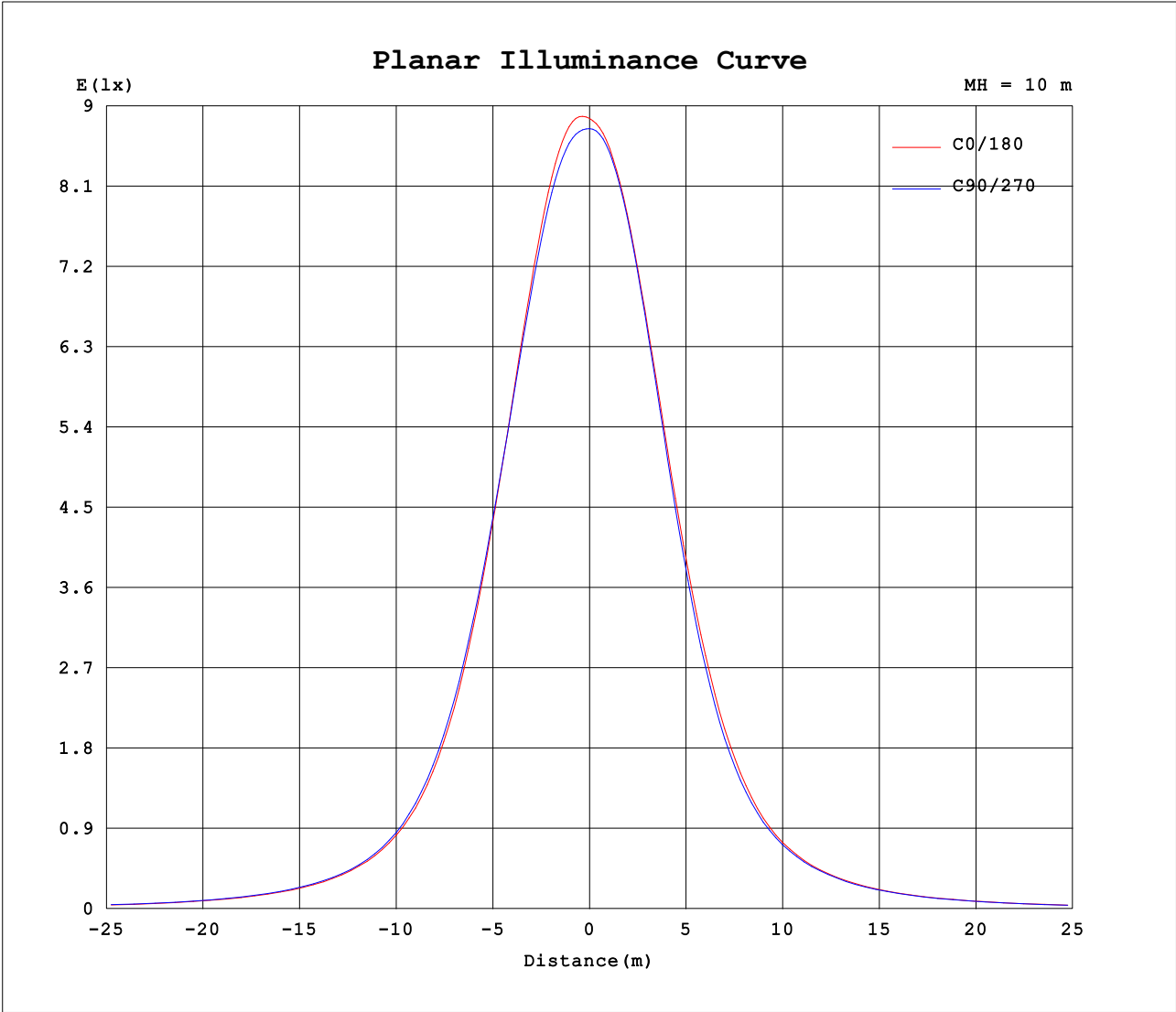
AvgL	cd/m2
L_0~180 (65) av	48172
L_0~180 (75) av	49565
L_0~180 (85) av	76837
L_90~270 (65) av	49450
L_90~270 (75) av	51476
L_90~270 (85) av	80644
L_45 (65) av	49012
L_45 (75) av	50403
L_45 (85) av	78494

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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:2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	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	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876
5	882	883	882	883	882	881	880	879	877	876	874	872	870	869	867	866	865	864	862
10	865	865	863	870	868	867	864	863	859	857	854	851	847	844	840	838	834	833	825
15	815	816	812	826	822	821	818	817	813	811	806	803	797	793	787	783	777	775	762
20	735	737	732	750	746	747	743	743	739	738	732	729	721	717	708	703	696	693	677
25	634	636	632	653	648	650	646	649	644	645	639	636	628	623	612	607	598	595	575
30	520	523	519	543	538	540	537	540	537	539	533	532	523	519	508	503	492	489	468
35	406	409	405	428	424	427	424	428	424	427	422	422	414	411	401	397	386	383	363
40	306	309	306	325	322	325	322	325	322	324	320	320	315	313	304	302	294	290	275
45	231	231	230	243	243	244	243	244	243	242	241	239	237	234	229	226	223	220	208
50	178	178	178	187	187	188	188	188	187	187	186	185	183	181	177	175	173	171	164
55	142	142	142	149	149	150	150	150	150	149	148	147	146	144	142	141	139	138	132
60	115	116	115	121	121	122	121	122	121	122	121	120	119	118	117	116	114	113	109
65	94.1	94.7	94.4	99.0	98.8	99.7	99.3	100	99.8	99.9	98.9	98.6	97.2	97.1	95.8	95.2	93.7	93.1	89.1
70	75.7	76.3	76.2	80.4	80.0	80.8	80.6	81.7	81.3	81.2	80.3	80.1	78.7	78.7	77.6	77.3	76.0	75.6	71.9
75	59.3	59.9	59.8	63.6	63.2	63.8	63.8	65.0	64.5	64.5	63.5	63.5	62.1	62.2	61.3	61.1	60.0	59.6	56.2
80	44.4	45.0	44.9	48.2	48.1	48.6	48.6	49.6	49.2	49.2	48.4	48.2	47.1	47.0	46.4	46.3	45.3	44.9	41.8
85	31.3	31.9	31.8	34.7	34.5	35.0	34.9	35.7	35.3	35.4	34.8	34.7	33.7	33.7	33.1	33.0	32.0	31.7	29.0
90	22.7	22.8	22.8	23.7	23.6	24.0	23.9	24.3	24.0	24.1	23.6	23.5	23.0	22.9	22.6	22.4	21.8	21.5	20.7
95	26.7	26.8	26.9	26.0	26.0	26.0	26.2	26.2	26.3	26.1	26.1	25.8	25.8	25.6	25.7	25.3	24.9	24.5	24.8
100	32.2	32.2	32.4	31.4	27.1	26.3	30.2	30.2	30.9	30.3	30.8	30.1	30.0	26.0	26.7	30.8	30.4	29.8	30.1
105	36.0	35.6	33.6	31.9	16.4	11.8	21.8	23.4	25.0	25.9	25.0	23.3	21.7	10.9	17.1	31.2	33.7	34.4	34.0
110	23.5	22.0	14.7	10.7	3.24	14.9	14.2	7.05	4.88	8.69	4.78	7.29	14.6	14.5	2.60	10.9	19.1	24.8	21.6
115	4.13	4.80	8.76	13.0	17.1	26.3	28.6	15.9	6.16	5.36	6.89	16.4	28.6	25.3	17.3	12.9	6.24	3.81	3.83
120	24.0	26.2	34.2	39.1	32.8	24.4	23.4	13.4	8.83	10.3	9.12	14.2	23.8	23.7	33.3	38.0	29.0	21.5	23.5
125	44.5	44.2	42.8	41.1	26.4	12.3	14.8	9.09	7.20	9.12	7.43	9.79	14.2	10.3	26.8	40.1	42.0	42.7	42.1
130	38.5	40.3	35.9	36.3	24.7	3.79	4.08	4.16	4.75	5.16	4.96	4.21	4.34	4.21	25.3	35.8	38.3	39.8	38.8
135	28.5	20.2	20.2	23.0	5.67	9.19	7.03	4.08	4.12	4.17	4.18	4.27	7.96	10.5	5.52	20.9	25.0	30.0	26.8
140	12.4	6.85	4.96	7.20	18.8	10.1	11.7	5.95	4.97	4.59	5.16	6.35	12.6	10.5	19.4	9.01	5.82	8.03	9.80
145	14.9	10.5	8.61	14.2	14.6	9.37	12.5	16.6	19.7	19.2	19.9	16.3	12.7	9.79	14.5	14.3	9.29	8.26	9.63
150	5.42	5.39	5.70	8.21	8.70	8.30	12.2	15.8	19.2	20.0	19.0	15.5	12.0	7.59	9.16	8.64	6.24	5.48	4.88
155	5.71	5.79	5.80	5.72	5.78	5.92	5.97	11.0	15.9	17.6	15.6	10.3	6.00	5.98	5.87	5.82	5.80	5.80	5.29
160	6.26	6.12	6.13	6.10	5.96	6.06	6.14	6.27	6.20	6.22	6.17	6.25	6.20	6.09	6.27	6.20	6.15	6.14	5.93
165	6.67	6.48	6.76	7.62	8.35	6.77	6.68	8.17	10.4	13.3	10.4	8.14	6.67	6.86	8.27	7.56	6.90	6.35	6.26
170	6.62	6.49	6.38	6.92	7.43	7.40	7.41	8.10	9.17	9.72	9.15	8.08	7.32	7.30	7.38	6.90	6.34	6.42	6.33
175	6.73	6.78	6.74	6.74	6.71	6.77	6.72	6.77	6.72	6.76	6.73	6.76	6.72	6.75	6.73	6.72	6.59	6.47	6.66
180	7.00	7.02	7.03	7.05	7.03	7.04	7.00	7.01	6.94	6.95	6.94	6.95	6.96	7.00	6.92	6.74	6.60	6.58	7.01

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2025-12-11

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 (19W, 60° Drop Lens)	TYPE:LED	WEIGHT:
SPEC.:	DIM.: 3inch	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	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876	876		
5	861	861	858	859	860	862	863	866	868	870	872	875	876	878	879	880	880		
10	823	824	814	816	817	821	823	829	833	839	843	848	851	855	855	858	857		
15	759	759	743	746	745	751	754	763	768	778	783	791	794	800	800	804	802		
20	671	672	651	653	650	658	660	671	676	689	694	706	710	717	717	721	718		
25	568	569	545	547	543	550	551	563	567	581	586	600	603	613	612	618	613		
30	461	461	436	438	433	438	439	448	453	465	471	484	486	496	495	502	499		
35	357	357	337	338	335	338	338	345	348	358	362	372	375	383	383	388	386		
40	271	271	256	256	255	256	257	260	264	271	274	281	283	289	289	292	290		
45	207	206	197	198	198	198	199	201	204	207	210	214	216	218	219	220	220		
50	163	163	157	157	157	158	159	160	161	163	166	168	170	171	172	172	172		
55	131	132	127	128	128	129	129	130	131	133	133	136	136	137	137	138	137		
60	108	109	105	106	106	107	106	107	107	109	109	111	111	112	111	112	111		
65	88.4	88.9	85.7	86.8	86.5	87.5	87.4	88.3	88.1	89.5	89.2	90.2	89.9	90.9	90.6	91.2	90.5		
70	71.0	71.7	69.0	69.7	69.5	70.3	70.5	71.2	71.3	72.2	71.8	72.1	71.7	72.6	72.5	73.1	72.7		
75	55.4	56.0	53.4	54.0	53.8	54.6	54.9	55.5	55.5	56.2	55.7	55.7	55.3	56.0	56.0	56.6	56.4		
80	41.2	41.7	39.3	39.8	39.6	40.3	40.5	41.0	40.9	41.3	40.8	40.8	40.5	41.1	41.2	41.7	41.7		
85	28.5	28.9	26.9	27.3	27.1	27.6	27.6	28.0	27.8	28.1	27.7	27.9	27.6	28.1	28.2	28.8	28.9		
90	20.9	21.1	22.1	22.2	22.6	22.6	22.8	22.8	22.9	22.7	22.7	22.6	22.6	22.4	22.7	22.7	22.9		
95	24.9	25.1	26.4	26.5	26.6	26.9	27.0	26.9	27.0	26.8	26.8	26.7	26.6	26.6	27.0	27.1	27.3		
100	30.2	30.4	31.6	32.0	31.3	27.9	27.7	29.2	28.6	29.0	27.6	27.6	21.1	25.2	32.3	32.5	32.7		
105	33.4	32.0	25.4	12.7	5.37	15.2	13.9	15.1	18.4	14.6	14.1	14.6	4.55	15.4	27.8	32.6	34.3		
110	19.2	14.0	3.70	3.42	19.6	17.8	9.67	7.54	7.11	7.38	11.2	22.2	20.9	2.89	3.93	11.7	16.5		
115	4.77	7.90	20.8	22.5	26.0	23.1	15.6	19.8	26.0	18.4	17.7	27.8	26.1	25.4	19.7	9.94	6.26		
120	26.6	32.2	37.5	19.9	16.9	19.4	14.8	20.8	27.8	19.3	15.3	20.2	16.2	31.9	42.4	35.9	30.3		
125	41.6	40.5	24.1	3.41	2.91	6.27	7.74	17.4	22.2	16.4	9.34	5.97	4.47	25.5	33.1	42.0	43.0		
130	38.2	36.5	22.7	3.54	5.21	5.62	4.11	10.1	14.3	10.4	3.87	6.09	5.79	16.9	32.7	28.0	34.6		
135	25.3	18.4	7.13	4.20	6.82	7.77	4.04	3.67	3.65	3.62	4.15	8.59	9.70	11.3	9.80	12.1	16.7		
140	5.56	6.37	12.4	4.87	4.52	6.05	4.33	4.36	4.34	4.35	4.48	7.12	7.76	17.3	12.4	6.46	5.54		
145	7.56	7.95	9.04	4.78	5.17	5.48	5.13	5.14	5.08	5.24	5.21	5.60	5.28	10.6	8.99	6.81	11.4		
150	4.85	5.23	6.06	5.25	5.27	5.46	5.81	5.89	5.65	6.10	5.85	5.25	5.17	5.05	5.52	4.69	4.69		
155	5.34	5.36	5.38	5.48	5.35	5.36	5.49	5.62	5.58	5.52	5.44	5.19	5.22	5.29	5.16	5.24	5.21		
160	6.07	6.17	7.04	6.12	5.54	5.67	6.26	6.62	5.57	6.67	6.14	5.54	5.40	6.14	6.72	6.08	5.90		
165	6.43	6.44	7.59	8.12	7.62	7.09	8.51	10.7	12.0	10.4	8.16	7.05	7.76	7.95	7.09	6.29	6.32		
170	6.37	6.37	6.33	6.34	6.38	6.42	6.82	7.93	8.09	7.83	6.55	6.30	6.25	6.19	6.16	6.18	6.24		
175	6.60	6.62	6.66	6.68	6.62	6.61	6.55	6.56	6.53	6.80	6.49	6.51	6.44	6.45	6.37	6.40	6.35		
180	7.01	7.02	7.03	7.05	7.02	7.04	6.97	6.98	6.94	6.95	6.94	6.96	6.96	6.92	6.72	6.60	6.54		

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:DAMIN

Test Date:2025-12-11

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: