

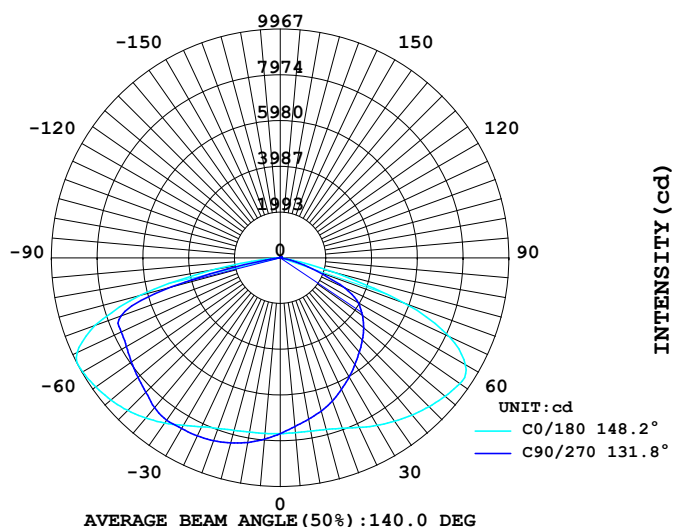
## LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

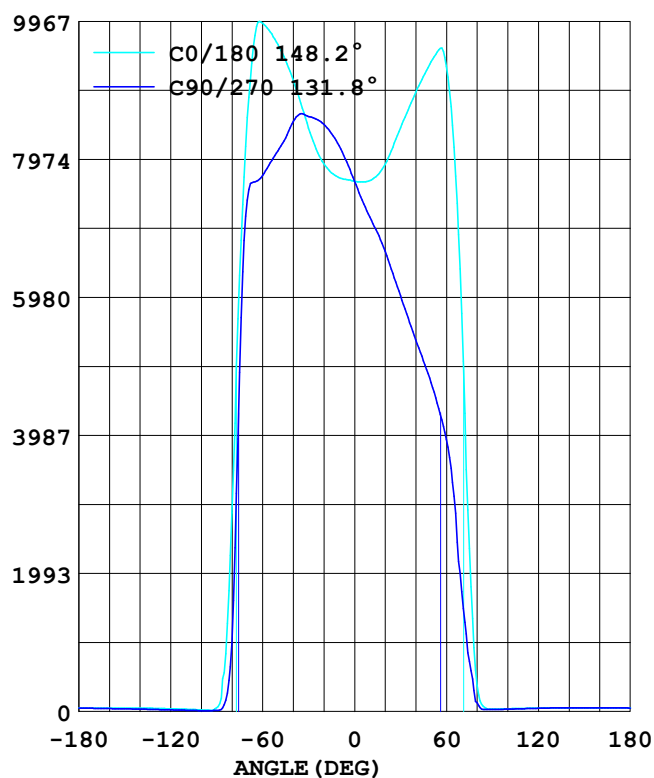
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D24040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	10646	S/MH (C0/180)	1.79
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.68
NOMINAL POWER(W)	240	TOTAL FLUX(lm)	36125	Voltage(V)	230.8
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	150.4	Current(A)	1.048
NOMINAL FLUX(lm)	36125.1	$\eta$ up (%)	0.7	Power(W)	240.1
LAMPS QUANTITY	1	$\eta$ down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.8	Effective Flux(lm)	36125.1	EEL	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



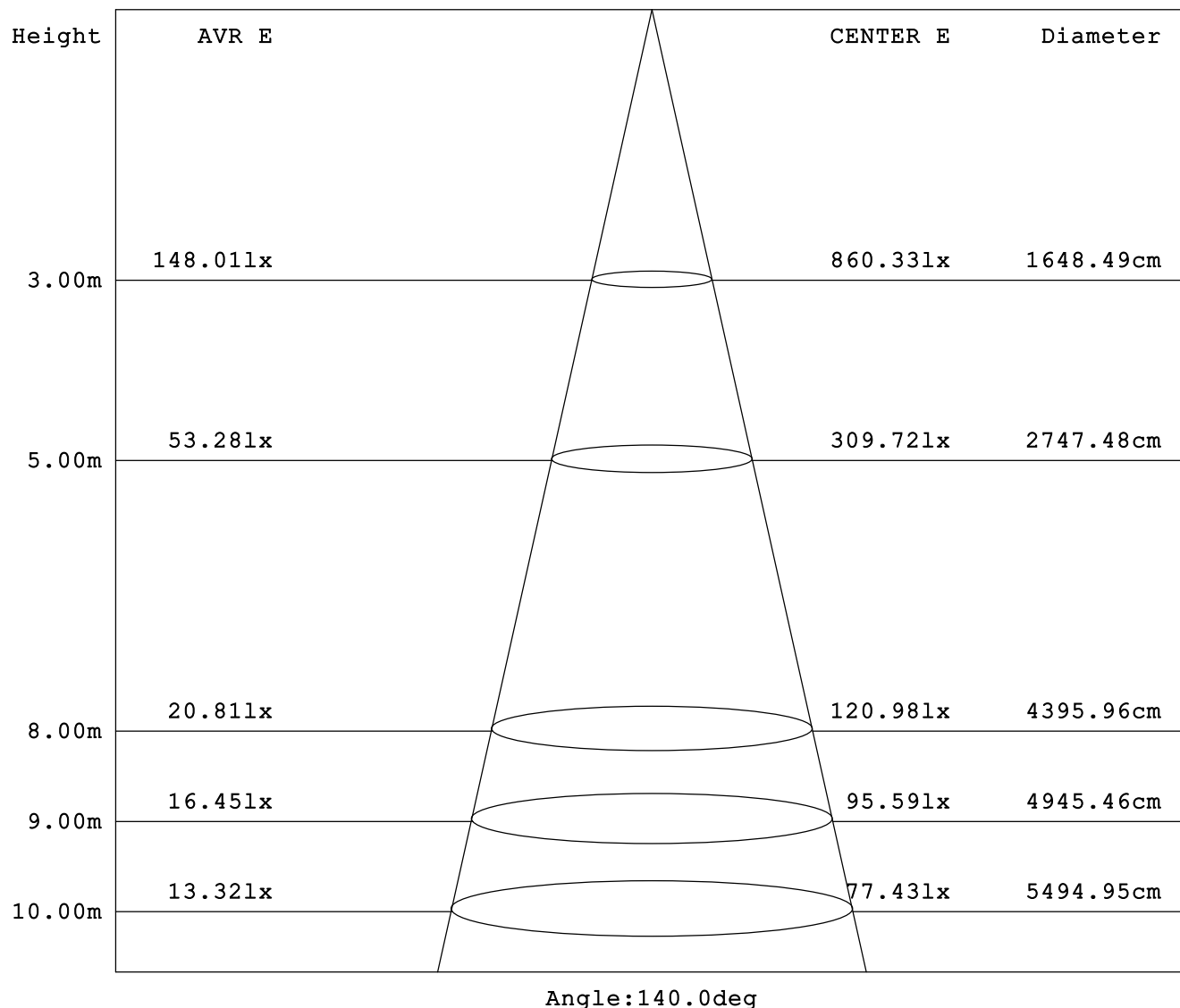
Test System:  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2025.03.24

Test Set: 5.0 deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 10.000 m  
Remarks:

## AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D24040-TY4	WEIGHT:
SPECIFICATION:5050LED 4000K Type IV	DIMENSION:	SERIAL No.:



Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.24

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D24040-TY4	WEIGHT:
SPECIFICATION:5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	768.1	786.9	793.3	783.7	764.8	744.0	738.3	746.2	0- 5	183.0	183.0
10.0	771.0	806.1	817.0	799.1	766.7	724.9	714.2	729.0	5- 10	547.8	730.9
15.0	777.9	825.2	834.7	813.7	774.6	708.3	691.2	714.2	10- 15	909.4	1640
20.0	791.3	846.6	848.0	829.3	790.2	689.1	664.6	696.4	15- 20	1266	2907
25.0	812.3	870.2	855.6	846.8	814.8	673.6	632.8	681.7	20- 25	1617	4524
30.0	842.5	895.5	859.2	865.1	843.0	657.0	600.2	665.7	25- 30	1963	6487
35.0	878.7	922.1	863.1	882.4	868.7	640.4	568.3	649.8	30- 35	2303	8790
40.0	911.4	947.6	852.1	897.9	893.9	623.4	536.9	633.9	35- 40	2625	11415
45.0	940.2	971.0	828.3	912.1	917.1	604.3	506.3	617.0	40- 45	2919	14334
50.0	963.4	989.9	809.6	922.6	938.0	584.1	475.1	597.5	45- 50	3180	17513
55.0	981.4	1001	792.6	925.7	955.4	561.5	437.4	574.5	50- 55	3403	20917
60.0	993.7	1003	774.2	924.5	931.3	531.8	392.8	545.2	55- 60	3576	24493
65.0	976.2	992.7	764.9	911.6	814.8	486.2	310.8	503.0	60- 65	3644	28137
70.0	857.9	947.8	738.5	871.7	575.0	371.9	173.1	399.5	65- 70	3453	31590
75.0	629.7	711.9	489.7	625.0	235.5	161.5	72.18	187.1	70- 75	2702	34292
80.0	286.8	232.8	98.07	142.5	37.68	28.17	12.64	44.68	75- 80	1308	35601
85.0	56.38	27.59	9.877	15.66	5.914	4.725	2.947	6.688	80- 85	242.8	35843
90.0	5.173	4.510	1.614	3.919	3.480	2.094	2.893	1.979	85- 90	36.41	35880
95.0	1.918	3.060	1.090	2.929	3.678	2.631	3.108	2.474	90- 95	15.35	35895
100.0	2.381	2.913	1.264	2.809	3.982	3.127	3.431	2.969	95-100	14.88	35910
105.0	2.871	2.993	1.547	2.902	4.287	3.517	3.754	3.371	100-105	16.09	35926
110.0	3.308	3.141	1.830	3.036	4.525	3.866	4.064	3.719	105-110	17.20	35943
115.0	3.638	3.302	2.099	3.183	4.750	4.161	4.346	4.026	110-115	17.99	35961
120.0	3.930	3.503	2.355	3.357	4.975	4.470	4.629	4.347	115-120	18.46	35980
125.0	4.234	3.718	2.624	3.558	5.226	4.819	4.938	4.708	120-125	18.77	35999
130.0	4.538	3.960	2.906	3.799	5.412	5.141	5.248	5.043	125-130	18.91	36018
135.0	4.816	4.188	3.202	4.013	5.504	5.289	5.409	5.217	130-135	18.56	36036
140.0	4.988	4.349	3.458	4.173	5.478	5.302	5.436	5.244	135-140	17.54	36054
145.0	5.041	4.456	3.673	4.280	5.412	5.262	5.436	5.203	140-145	16.04	36070
150.0	5.028	4.537	3.875	4.374	5.319	5.208	5.409	5.150	145-150	14.25	36084
155.0	4.988	4.617	4.064	4.454	5.253	5.154	5.396	5.096	150-155	12.29	36096
160.0	4.975	4.684	4.225	4.548	5.200	5.114	5.382	5.056	155-160	10.22	36106
165.0	4.975	4.778	4.413	4.642	5.187	5.074	5.355	5.016	160-165	8.077	36115
170.0	5.015	4.859	4.602	4.749	5.160	5.033	5.302	4.976	165-170	5.842	36120
175.0	5.028	4.940	4.763	4.829	5.120	4.966	5.154	4.882	170-175	3.534	36124
180.0	5.094	5.007	4.952	4.909	5.094	4.913	5.006	4.816	175-180	1.179	36125
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm	

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.24

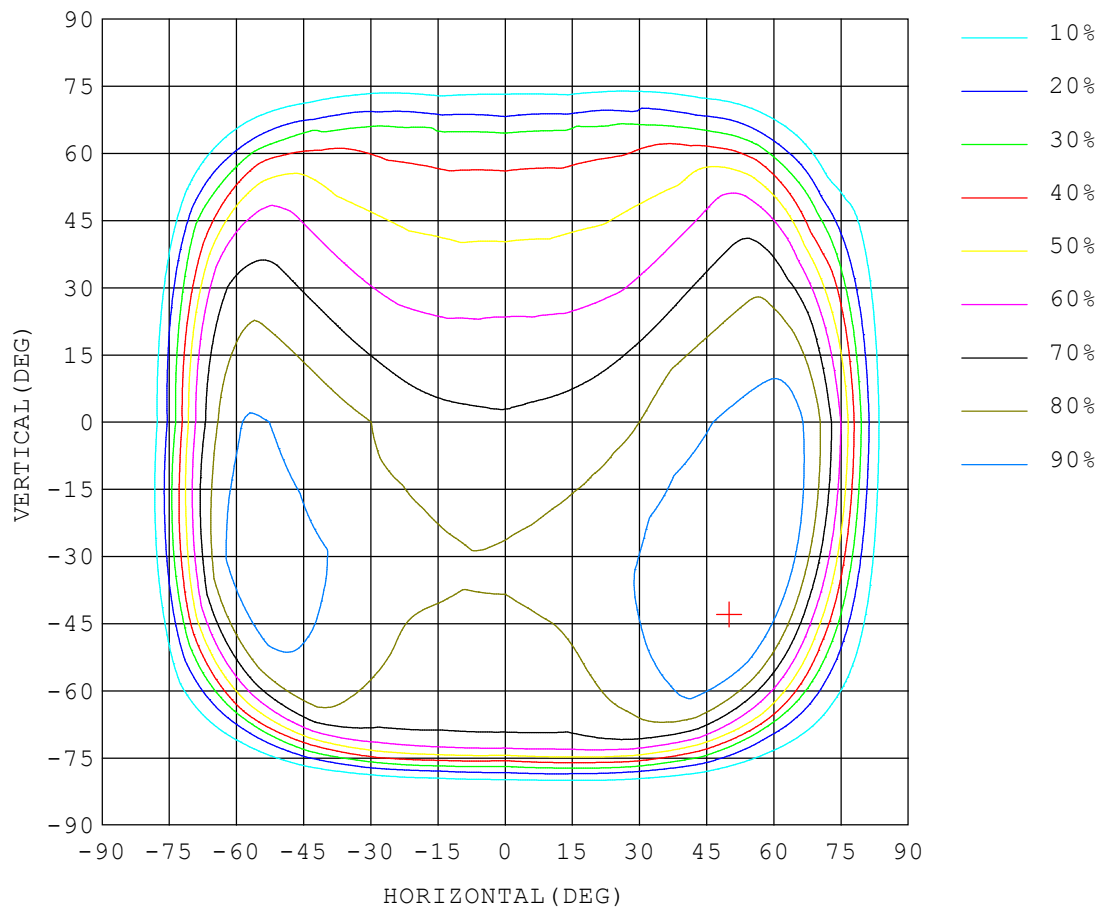
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D24040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

UNIT: cd



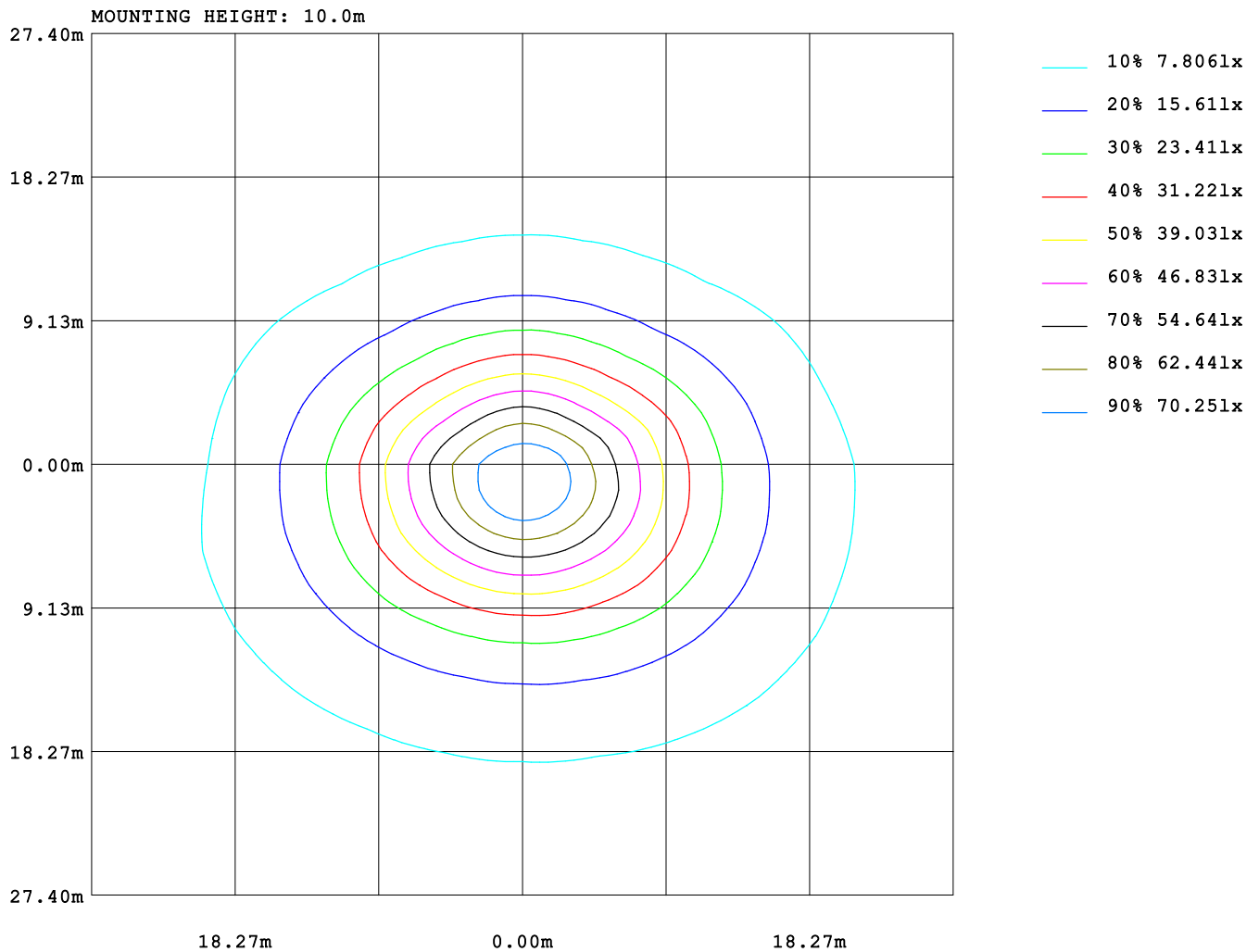
Test System:  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2025.03.24

Test Set: 5.0 deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 10.000 m  
Remarks:

## ISOLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D24040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:



Test System:  
Temperature: 25.3DEG  
Operators:  
Test Date: 2025.03.24

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 10.000 m  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

<b>MANUFACTURER: ILUMEN GMBH</b>	<b>Address:</b>	
<b>NAME: Muller</b>	<b>TYPE:IL-ST11-D24040-TY4</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type IV</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: ×10cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	766	766	766	766	766	766	766	766	766	766	766	766	766	766	766
5.0	768	775	782	787	791	793	793	792	788	784	778	771	765	757	751
10.0	771	785	797	806	813	816	817	813	808	799	789	777	767	752	737
15.0	778	798	815	825	831	835	835	830	823	814	801	785	775	750	726
20.0	791	819	837	847	849	850	848	843	836	829	818	800	790	754	718
25.0	812	847	866	870	866	859	856	851	849	847	840	823	815	765	712
30.0	843	883	900	896	881	867	859	857	860	865	866	852	843	783	709
35.0	879	924	937	922	895	876	863	862	867	882	895	884	869	801	709
40.0	911	958	971	948	905	873	852	852	870	898	920	910	894	817	709
45.0	940	990	1002	971	906	861	828	836	861	912	944	936	917	832	710
50.0	963	1017	1030	990	905	843	810	815	853	923	965	962	938	842	707
55.0	981	1039	1051	1001	905	826	793	797	848	926	980	986	955	847	701
60.0	994	1054	1063	1003	899	806	774	781	836	925	991	1004	931	836	690
65.0	976	1035	1058	993	879	783	765	769	810	912	982	978	815	762	654
70.0	858	903	947	948	832	749	739	741	764	872	879	836	575	601	524
75.0	630	615	675	712	654	560	490	521	579	625	594	523	236	328	251
80.0	287	236	208	233	177	122	98.0	102	122	143	132	144	37.6	54.6	39.9
85.0	56.3	37.6	42.9	27.5	14.7	13.9	9.87	13.1	11.0	15.6	17.7	16.0	5.91	4.59	7.66
90.0	5.17	6.73	3.70	4.51	1.90	3.55	1.61	3.48	1.91	3.91	2.34	4.27	3.48	2.56	4.02
95.0	1.91	3.39	1.91	3.06	1.42	2.50	1.09	2.42	1.34	2.92	1.91	3.32	3.67	2.71	3.78
100.0	2.38	3.34	2.12	2.91	1.51	2.32	1.26	2.28	1.46	2.80	2.13	3.37	3.98	3.24	4.10
105.0	2.87	3.52	2.43	2.99	1.82	2.43	1.54	2.37	1.75	2.90	2.43	3.55	4.28	3.70	4.38
110.0	3.30	3.74	2.75	3.14	2.11	2.57	1.83	2.52	2.03	3.03	2.73	3.75	4.52	4.06	4.61
115.0	3.63	3.94	3.03	3.30	2.37	2.74	2.09	2.68	2.28	3.18	2.98	3.94	4.75	4.35	4.82
120.0	3.93	4.15	3.31	3.50	2.64	2.92	2.35	2.85	2.53	3.35	3.23	4.13	4.97	4.63	5.05
125.0	4.23	4.37	3.62	3.71	2.94	3.12	2.62	3.03	2.80	3.55	3.51	4.34	5.22	4.92	5.32
130.0	4.53	4.64	3.94	3.96	3.22	3.35	2.90	3.28	3.09	3.79	3.79	4.58	5.41	5.16	5.57
135.0	4.81	4.89	4.22	4.18	3.49	3.58	3.20	3.50	3.37	4.01	4.05	4.78	5.50	5.28	5.67
140.0	4.98	5.03	4.40	4.34	3.73	3.79	3.45	3.73	3.60	4.17	4.21	4.88	5.47	5.29	5.64
145.0	5.04	5.08	4.49	4.45	3.89	3.97	3.67	3.92	3.79	4.28	4.30	4.91	5.41	5.23	5.56
150.0	5.02	5.08	4.57	4.53	4.06	4.13	3.87	4.11	3.95	4.37	4.38	4.91	5.31	5.16	5.45
155.0	4.98	5.07	4.62	4.61	4.20	4.29	4.06	4.27	4.11	4.45	4.43	4.90	5.25	5.08	5.37
160.0	4.97	5.07	4.68	4.68	4.35	4.42	4.22	4.43	4.27	4.54	4.50	4.88	5.20	5.03	5.29
165.0	4.97	5.07	4.73	4.77	4.50	4.57	4.41	4.58	4.43	4.64	4.57	4.88	5.18	5.00	5.22
170.0	5.01	5.07	4.81	4.85	4.63	4.72	4.60	4.71	4.58	4.74	4.66	4.90	5.16	4.99	5.17
175.0	5.02	5.07	4.86	4.94	4.77	4.84	4.76	4.84	4.69	4.82	4.73	4.91	5.12	4.96	5.10
180.0	5.09	5.05	4.96	5.00	4.90	4.95	4.95	4.93	4.85	4.90	4.83	4.91	5.09	4.96	5.04

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.24

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

<b>MANUFACTURER: ILUMEN GMBH</b>	<b>Address:</b>	
<b>NAME: Muller</b>	<b>TYPE:IL-ST11-D24040-TY4</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type IV</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: ×10cd

C (DEG) γ (DEG)	225	240	255	270	285	300	315	330	345
0.0	766	766	766	766	766	766	766	766	766
5.0	744	741	738	738	738	742	746	754	761
10.0	725	718	714	714	716	721	729	743	759
15.0	708	696	691	691	693	700	714	735	761
20.0	689	674	665	665	667	678	696	730	769
25.0	674	649	635	633	637	653	682	727	784
30.0	657	622	604	600	606	627	666	727	807
35.0	640	596	572	568	575	601	650	729	831
40.0	623	570	542	537	546	576	634	733	851
45.0	604	544	512	506	516	550	617	736	866
50.0	584	517	480	475	484	523	598	736	876
55.0	562	484	445	437	449	492	575	730	880
60.0	532	445	401	393	406	454	545	718	874
65.0	486	396	332	311	337	406	503	695	795
70.0	372	280	191	173	196	291	400	559	655
75.0	162	122	70.3	72.1	73.0	133	187	312	368
80.0	28.1	26.2	11.6	12.6	13.2	30.9	44.6	68.1	88.2
85.0	4.72	6.35	1.88	2.94	1.78	6.19	6.68	10.2	6.89
90.0	2.09	3.38	1.85	2.89	1.80	3.32	1.97	3.93	2.56
95.0	2.63	3.45	2.32	3.10	2.27	3.36	2.47	3.66	2.52
100.0	3.12	3.73	2.78	3.43	2.74	3.64	2.96	3.94	3.02
105.0	3.51	3.99	3.21	3.75	3.15	3.91	3.37	4.21	3.46
110.0	3.86	4.24	3.59	4.06	3.54	4.18	3.71	4.42	3.81
115.0	4.16	4.49	3.91	4.34	3.89	4.45	4.02	4.62	4.09
120.0	4.47	4.75	4.24	4.62	4.23	4.72	4.34	4.83	4.32
125.0	4.81	5.08	4.60	4.93	4.59	5.02	4.70	5.11	4.60
130.0	5.14	5.40	4.94	5.24	4.92	5.35	5.04	5.41	4.88
135.0	5.28	5.51	5.12	5.40	5.09	5.48	5.21	5.54	5.06
140.0	5.30	5.51	5.19	5.43	5.14	5.47	5.24	5.54	5.11
145.0	5.26	5.48	5.23	5.43	5.16	5.44	5.20	5.46	5.09
150.0	5.20	5.44	5.23	5.40	5.14	5.39	5.15	5.37	5.04
155.0	5.15	5.39	5.22	5.39	5.13	5.33	5.09	5.29	4.98
160.0	5.11	5.35	5.21	5.38	5.12	5.29	5.05	5.22	4.94
165.0	5.07	5.29	5.16	5.35	5.09	5.24	5.01	5.15	4.90
170.0	5.03	5.21	5.08	5.30	5.05	5.17	4.97	5.09	4.86
175.0	4.96	5.09	4.96	5.15	4.93	5.05	4.88	4.99	4.82
180.0	4.91	4.97	4.87	5.00	4.85	4.92	4.81	4.91	4.82

Test System:  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025.03.24

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks: