

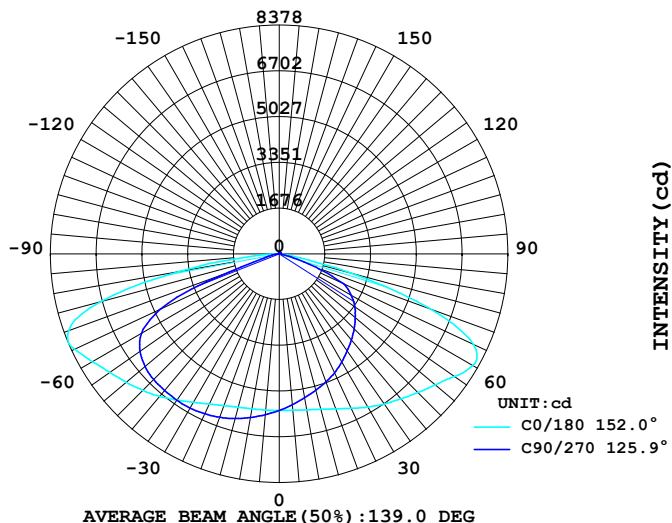
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

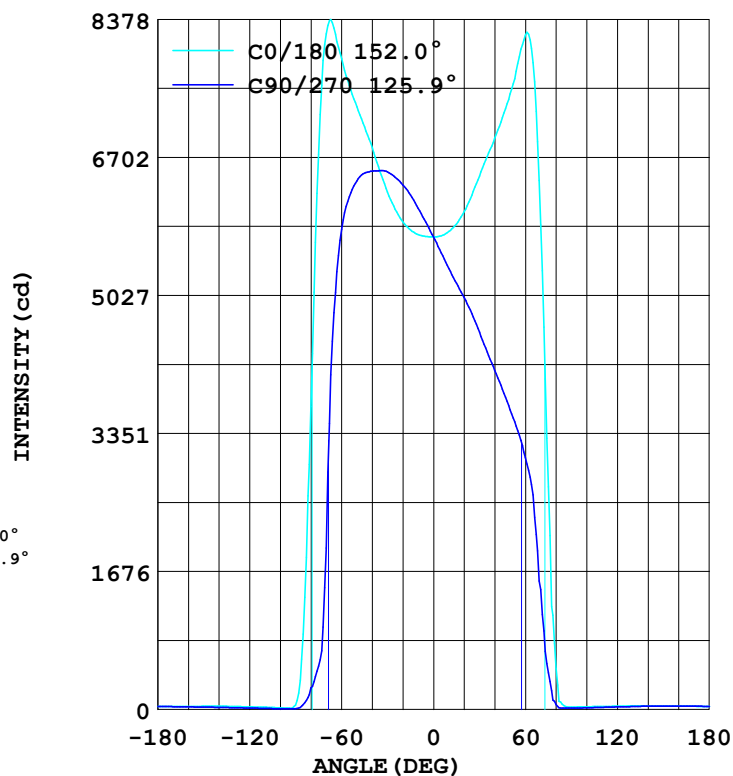
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	9442	S/MH (C0/180)	1.79
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.71
NOMINAL POWER(W)	180	TOTAL FLUX(lm)	26937	Voltage(V)	230.6
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	149.3	Current(A)	0.785
NOMINAL FLUX(lm)	26937.2	$\eta$ up (%)	0.7	Power(W)	180.3
LAMPS QUANTITY	1	$\eta$ down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.7	Effective Flux(lm)	26937.2	EEI	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



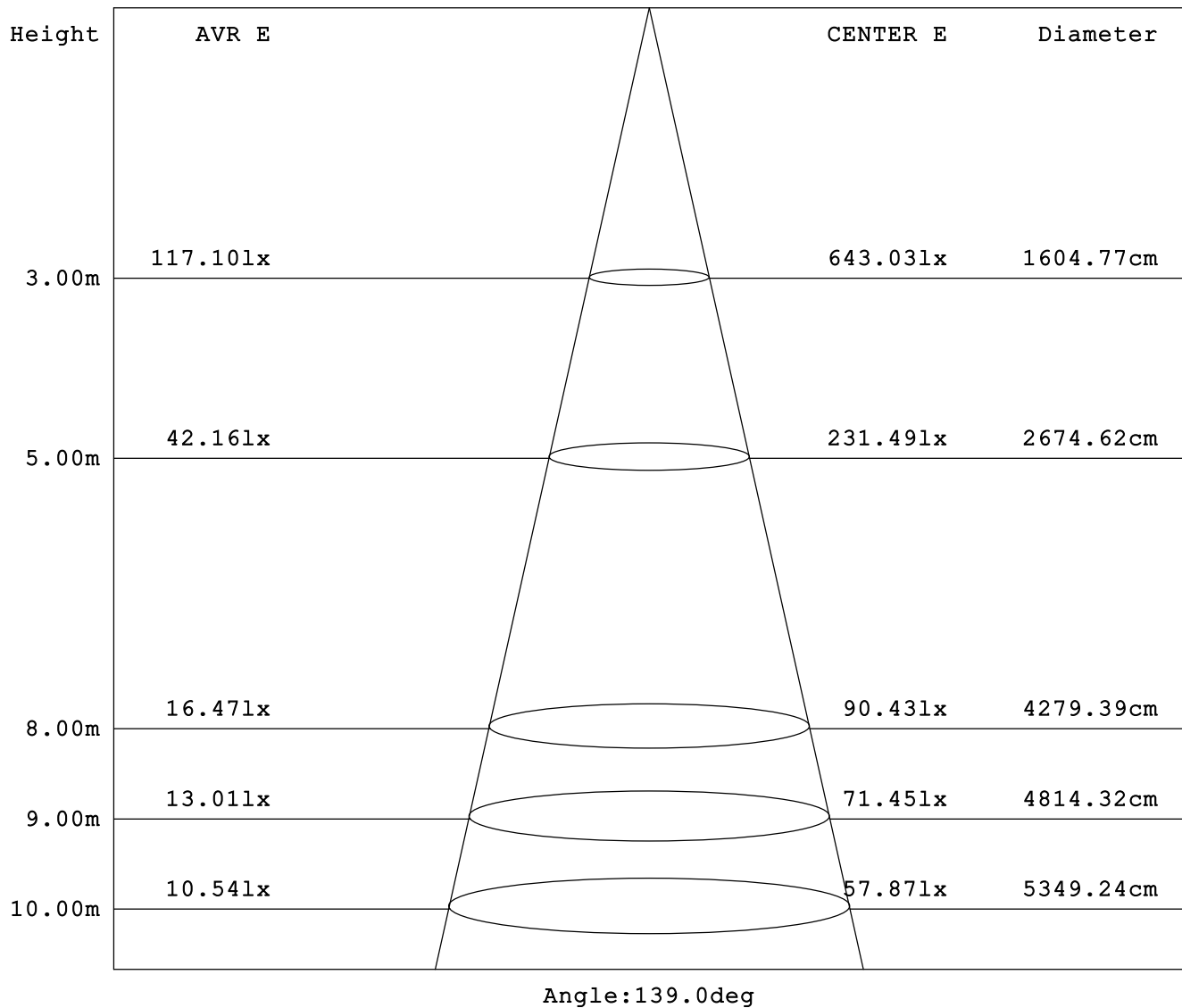
Test System:  
 Temperature: 25.3 DEG  
 Operators:  
 Test Date: 2025.03.23

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-D18040-TY3	WEIGHT:
SPECIFICATION:5050LED 4000K Type III	DIMENSION:	SERIAL No.:



Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.23

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-D18040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	5741	5869	5914	5865	5750	5604	5543	5608	0- 5	137.1	137.1
10.0	5765	6005	6081	5992	5802	5473	5353	5476	5- 10	410.6	547.7
15.0	5821	6153	6246	6136	5894	5349	5173	5348	10- 15	682.5	1230
20.0	5919	6330	6368	6298	6044	5216	4998	5215	15- 20	952.6	2183
25.0	6071	6527	6461	6475	6244	5082	4806	5076	20- 25	1220	3403
30.0	6280	6749	6525	6668	6474	4951	4581	4948	25- 30	1485	4888
35.0	6535	6986	6540	6862	6713	4800	4340	4804	30- 35	1743	6631
40.0	6819	7191	6535	7022	6935	4631	4116	4650	35- 40	1988	8619
45.0	7071	7350	6509	7145	7182	4436	3888	4471	40- 45	2216	10834
50.0	7315	7474	6418	7235	7471	4192	3638	4246	45- 50	2420	13254
55.0	7577	7568	6223	7269	7840	3884	3386	3955	50- 55	2593	15847
60.0	7902	7587	5826	7193	8185	3535	3057	3619	55- 60	2724	18570
65.0	8270	7466	4815	6803	7852	3033	2604	3171	60- 65	2776	21347
70.0	8202	6912	1961	5172	5880	1975	1455	2336	65- 70	2561	23908
75.0	6742	3917	526.3	1175	2704	754.6	446.0	1070	70- 75	1750	25658
80.0	3680	708.0	263.1	336.1	495.4	141.6	60.01	317.4	75- 80	818.3	26477
85.0	915.1	194.5	58.79	111.3	49.43	27.94	17.68	46.85	80- 85	236.1	26713
90.0	54.21	40.96	11.51	26.94	30.09	14.93	17.07	13.47	85- 90	40.78	26754
95.0	16.74	21.48	8.587	19.80	31.49	18.76	18.58	17.39	90- 95	11.41	26765
100.0	20.82	20.27	9.496	19.20	33.58	22.49	20.91	21.61	95-100	10.87	26776
105.0	24.61	20.88	11.61	19.91	35.47	25.52	23.84	25.13	100-105	11.82	26788
110.0	27.70	22.19	13.74	21.11	36.97	28.24	26.57	28.15	105-110	12.71	26801
115.0	30.09	23.60	15.76	22.42	38.36	30.57	29.19	30.97	110-115	13.37	26814
120.0	32.29	25.22	17.68	23.73	40.16	32.78	31.52	33.38	115-120	13.79	26828
125.0	34.58	26.93	19.70	25.44	42.15	35.21	33.64	35.59	120-125	14.04	26842
130.0	37.07	28.85	21.92	27.15	43.25	37.83	35.86	37.80	125-130	14.13	26856
135.0	39.06	30.67	24.14	28.85	43.05	39.65	38.39	39.82	130-135	13.92	26870
140.0	39.96	32.08	26.16	30.26	42.15	40.05	40.31	40.52	135-140	13.26	26883
145.0	39.66	33.09	27.78	31.27	41.06	39.75	41.11	40.22	140-145	12.16	26895
150.0	38.96	33.89	29.29	32.17	40.16	39.34	41.11	39.61	145-150	10.80	26906
155.0	38.36	34.60	30.61	33.08	39.46	38.84	41.01	39.11	150-155	9.308	26915
160.0	38.07	35.31	32.02	33.88	39.16	38.54	40.91	38.61	155-160	7.735	26923
165.0	37.97	36.01	33.44	34.69	38.96	38.23	40.51	38.21	160-165	6.103	26929
170.0	38.16	36.72	34.75	35.69	38.86	37.93	40.00	37.70	165-170	4.412	26934
175.0	38.16	37.32	36.06	36.40	38.76	37.43	38.99	37.00	170-175	2.669	26936
180.0	38.56	37.73	37.48	37.10	38.56	37.12	37.88	36.40	175-180	0.891	26937
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.23

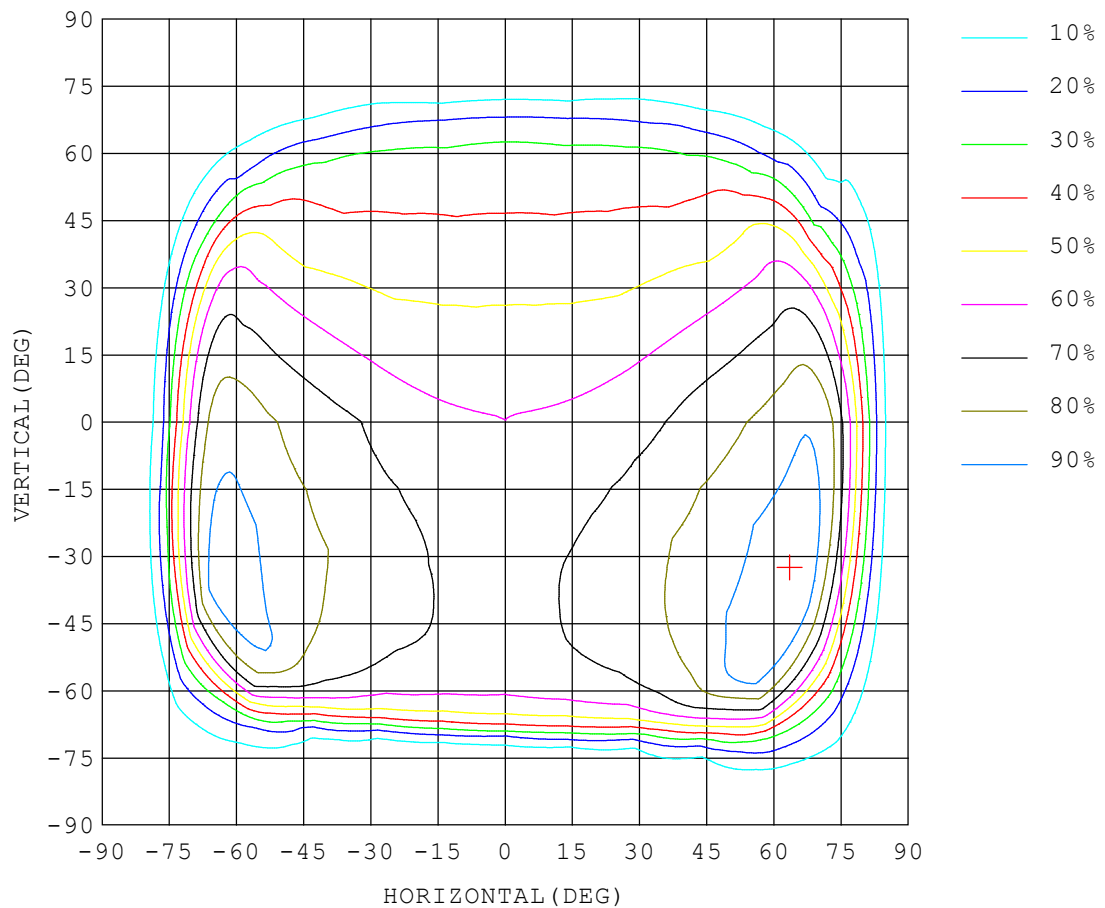
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

UNIT: cd



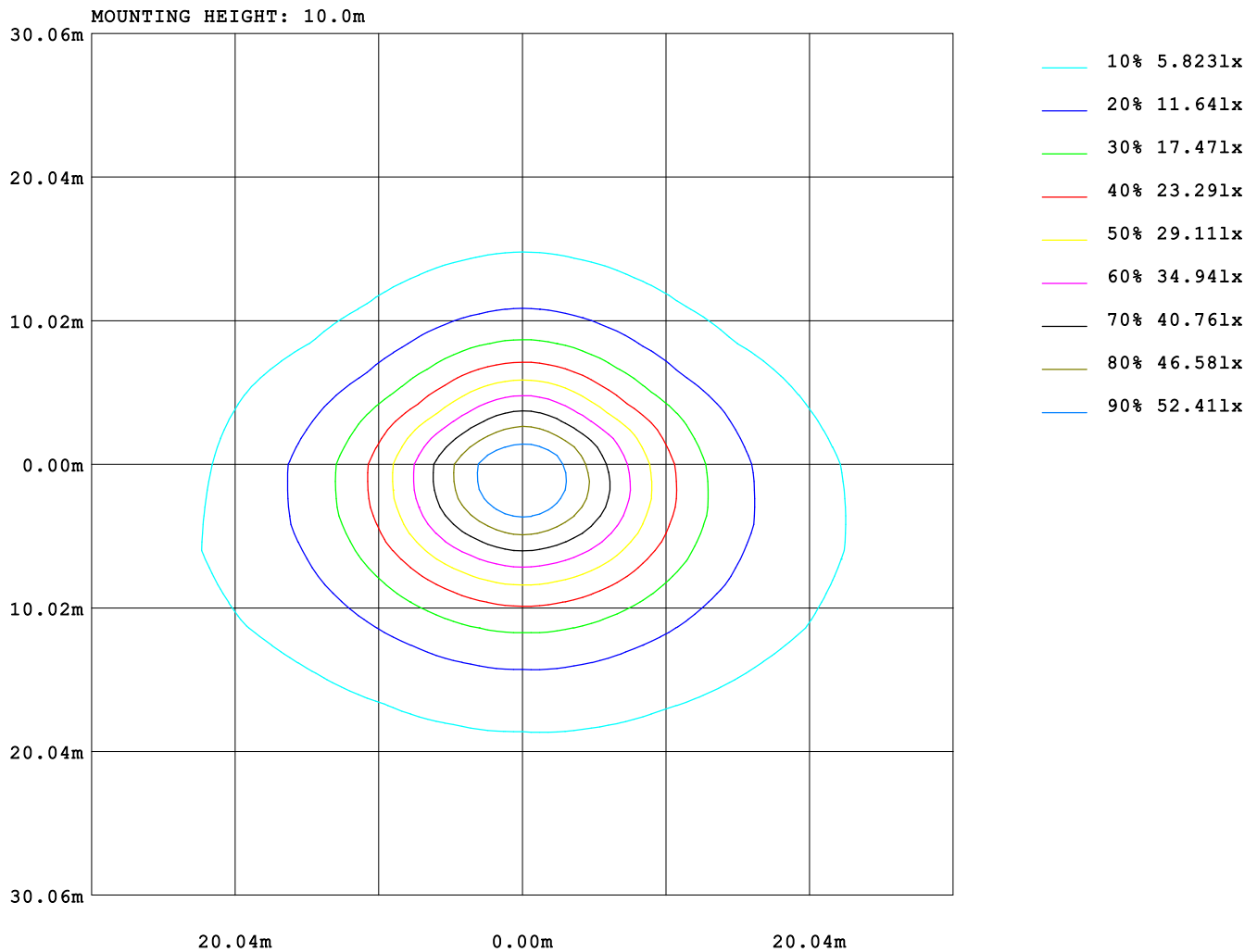
Test System:  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2025.03.23

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-D18040-TY3	WEIGHT:
SPECIFICATION:5050LED 4000K Type III	DIMENSION:	SERIAL No.:



Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.23

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

# LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D18040-TY3	WEIGHT:
SPECIFICATION:5050LED 4000K Type III	DIMENSION:	SERIAL No.:

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735	5735
5.0	5741	5785	5828	5869	5893	5916	5914	5913	5891	5865	5825	5784	5750	5699	5647
10.0	5765	5854	5935	6005	6047	6079	6081	6074	6038	5992	5926	5851	5802	5694	5573
15.0	5821	5955	6070	6153	6208	6243	6246	6234	6192	6136	6059	5956	5894	5713	5508
20.0	5919	6108	6243	6330	6358	6377	6368	6360	6327	6298	6232	6121	6044	5761	5453
25.0	6071	6330	6482	6527	6493	6478	6461	6453	6444	6475	6462	6348	6244	5836	5403
30.0	6280	6603	6771	6749	6629	6552	6525	6521	6550	6668	6726	6618	6474	5943	5340
35.0	6535	6916	7063	6986	6751	6596	6540	6546	6636	6862	6987	6902	6713	6072	5264
40.0	6819	7227	7348	7191	6856	6614	6535	6556	6701	7022	7227	7179	6935	6170	5183
45.0	7071	7520	7614	7350	6920	6630	6509	6551	6754	7145	7455	7449	7182	6243	5072
50.0	7315	7847	7890	7474	6957	6609	6418	6504	6769	7235	7660	7778	7471	6303	4904
55.0	7577	8213	8120	7568	6881	6449	6223	6319	6645	7269	7855	8138	7840	6361	4687
60.0	7902	8636	8429	7587	6638	6123	5826	5954	6330	7193	8098	8642	8185	6350	4430
65.0	8270	9209	8826	7466	6036	5186	4815	4871	5450	6803	8453	9216	7852	6245	3993
70.0	8202	9318	9218	6912	4313	2906	1961	2219	3030	5172	8093	8846	5880	4571	2723
75.0	6742	7755	7595	3917	933	597	526	536	544	1175	5134	6362	2704	1912	1127
80.0	3680	4050	2878	708	338	290	263	251	257	336	1190	2260	495	386	189
85.0	915	935	544	195	106	91.7	58.7	76.3	67.6	111	167	290	49.4	33.6	52.6
90.0	54.2	73.7	39.6	40.9	15.7	24.2	11.5	23.4	14.2	26.9	17.5	35.5	30.0	19.8	28.5
95.0	16.7	28.1	13.5	21.4	10.5	17.9	8.58	17.2	9.97	19.8	13.3	26.3	31.4	23.9	29.6
100.0	20.8	27.3	15.3	20.2	10.4	16.1	9.49	15.9	10.4	19.2	14.9	26.4	33.5	27.6	31.8
105.0	24.6	28.5	17.7	20.8	12.6	17.1	11.6	16.9	12.4	19.9	17.2	27.5	35.4	30.4	33.5
110.0	27.7	30.2	20.4	22.1	14.7	18.4	13.7	18.1	14.6	21.1	19.4	28.9	36.9	32.7	35.0
115.0	30.0	31.7	22.9	23.6	16.8	19.7	15.7	19.6	16.6	22.4	21.5	30.1	38.3	34.8	36.6
120.0	32.2	33.2	25.3	25.2	18.9	21.1	17.6	20.9	18.5	23.7	23.5	31.4	40.1	37.1	38.5
125.0	34.5	34.9	27.5	26.9	21.0	22.7	19.7	22.5	20.5	25.4	25.5	32.9	42.1	39.7	40.9
130.0	37.0	36.8	29.8	28.8	23.3	24.5	21.9	24.3	22.8	27.1	27.6	34.7	43.2	41.4	43.1
135.0	39.0	38.5	31.8	30.6	25.6	26.4	24.1	26.1	24.9	28.8	29.5	36.1	43.0	41.5	43.7
140.0	39.9	39.4	33.2	32.0	27.5	28.2	26.1	27.9	26.7	30.2	30.8	36.7	42.1	40.7	43.0
145.0	39.6	39.4	34.0	33.0	29.0	29.7	27.7	29.5	28.3	31.2	31.5	36.7	41.0	39.7	42.1
150.0	38.9	39.1	34.5	33.8	30.3	30.9	29.2	30.8	29.6	32.1	32.2	36.6	40.1	38.9	41.1
155.0	38.3	38.9	35.0	34.6	31.7	32.1	30.6	32.2	30.9	33.0	32.8	36.5	39.4	38.2	40.3
160.0	38.0	38.7	35.4	35.3	32.8	33.2	32.0	33.4	32.1	33.8	33.5	36.4	39.1	37.8	39.7
165.0	37.9	38.6	35.8	36.0	34.0	34.4	33.4	34.5	33.4	34.6	34.1	36.6	38.9	37.6	39.2
170.0	38.1	38.6	36.4	36.7	35.0	35.6	34.7	35.6	34.5	35.6	34.9	36.8	38.8	37.6	38.9
175.0	38.1	38.5	36.8	37.3	35.9	36.5	36.0	36.4	35.4	36.4	35.5	37.0	38.7	37.5	38.4
180.0	38.5	38.4	37.4	37.7	37.0	37.4	37.4	37.3	36.6	37.1	36.3	37.0	38.5	37.6	37.9

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.23

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-D18040-TY3</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type III</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: cd

C (DEG) γ (DEG)	225	240	255	270	285	300	315	330	345
0.0	5735	5735	5735	5735	5735	5735	5735	5735	5735
5.0	5604	5566	5551	5543	5554	5571	5608	5651	5701
10.0	5473	5399	5363	5353	5370	5407	5476	5573	5691
15.0	5349	5239	5178	5173	5191	5250	5348	5505	5703
20.0	5216	5071	5008	4998	5021	5080	5215	5442	5741
25.0	5082	4911	4827	4806	4838	4916	5076	5388	5808
30.0	4951	4744	4617	4581	4626	4744	4948	5325	5907
35.0	4800	4544	4377	4340	4388	4541	4804	5255	6050
40.0	4631	4327	4145	4116	4159	4328	4650	5192	6177
45.0	4436	4097	3914	3888	3928	4107	4471	5106	6255
50.0	4192	3835	3658	3638	3670	3856	4246	4966	6293
55.0	3884	3543	3388	3386	3403	3570	3955	4742	6318
60.0	3535	3216	3044	3057	3078	3259	3619	4477	6291
65.0	3033	2735	2564	2604	2617	2820	3171	4205	6252
70.0	1975	1523	1400	1455	1494	1918	2336	3139	5390
75.0	755	647	403	446	453	846	1070	1473	2823
80.0	142	119	50.5	60.0	60.2	124	317	379	763
85.0	27.9	34.6	8.50	17.6	7.88	35.7	46.8	81.1	62.3
90.0	14.9	20.3	9.61	17.0	9.39	20.2	13.4	28.6	19.8
95.0	18.7	22.0	12.8	18.5	12.6	21.5	17.3	28.4	21.6
100.0	22.4	24.4	16.4	20.9	16.3	24.1	21.6	30.8	25.6
105.0	25.5	26.9	20.0	23.8	20.1	27.1	25.1	32.8	28.6
110.0	28.2	29.3	23.3	26.5	23.5	29.7	28.1	34.5	30.9
115.0	30.5	31.3	26.4	29.1	26.7	31.9	30.9	36.3	33.0
120.0	32.7	33.1	28.8	31.5	29.4	34.1	33.3	38.2	34.9
125.0	35.2	35.3	31.2	33.6	31.8	36.0	35.5	40.2	37.3
130.0	37.8	37.6	34.0	35.8	34.2	38.0	37.8	42.5	39.7
135.0	39.6	39.7	36.6	38.3	36.6	40.1	39.8	43.7	40.6
140.0	40.0	40.9	38.7	40.3	38.6	41.5	40.5	43.3	40.3
145.0	39.7	41.2	39.6	41.1	39.5	41.7	40.2	42.3	39.5
150.0	39.3	40.9	39.8	41.1	39.6	41.4	39.6	41.3	38.7
155.0	38.8	40.5	39.7	41.0	39.4	41.0	39.1	40.4	38.1
160.0	38.5	40.1	39.4	40.9	39.2	40.4	38.6	39.7	37.5
165.0	38.2	39.7	39.0	40.5	38.7	39.8	38.2	39.1	37.2
170.0	37.9	39.1	38.4	40.0	38.2	39.2	37.7	38.5	36.9
175.0	37.4	38.3	37.5	38.9	37.3	38.2	37.0	37.7	36.4
180.0	37.1	37.5	36.8	37.8	36.7	37.2	36.4	37.0	36.2

Test System:  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025.03.23

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