

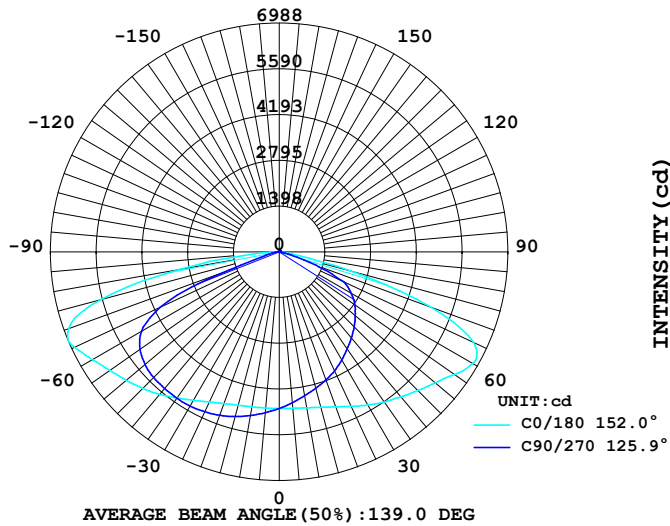
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

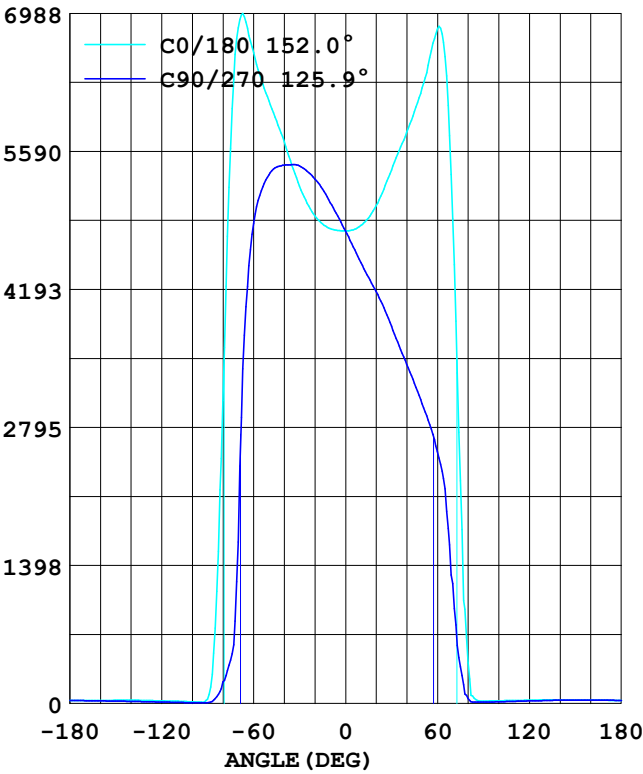
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D15040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax (cd)	7876	S/MH (C0/180)	1.79
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.71
NOMINAL POWER (W)	150	TOTAL FLUX (lm)	22469	Voltage (V)	230.6
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	149.4	Current (A)	0.654
NOMINAL FLUX (lm)	22469.0	$\eta$ up (%)	0.7	Power (W)	150.3
LAMPS QUANTITY	1	$\eta$ down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.6	Effective Flux (lm)	22469.0	EEL	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



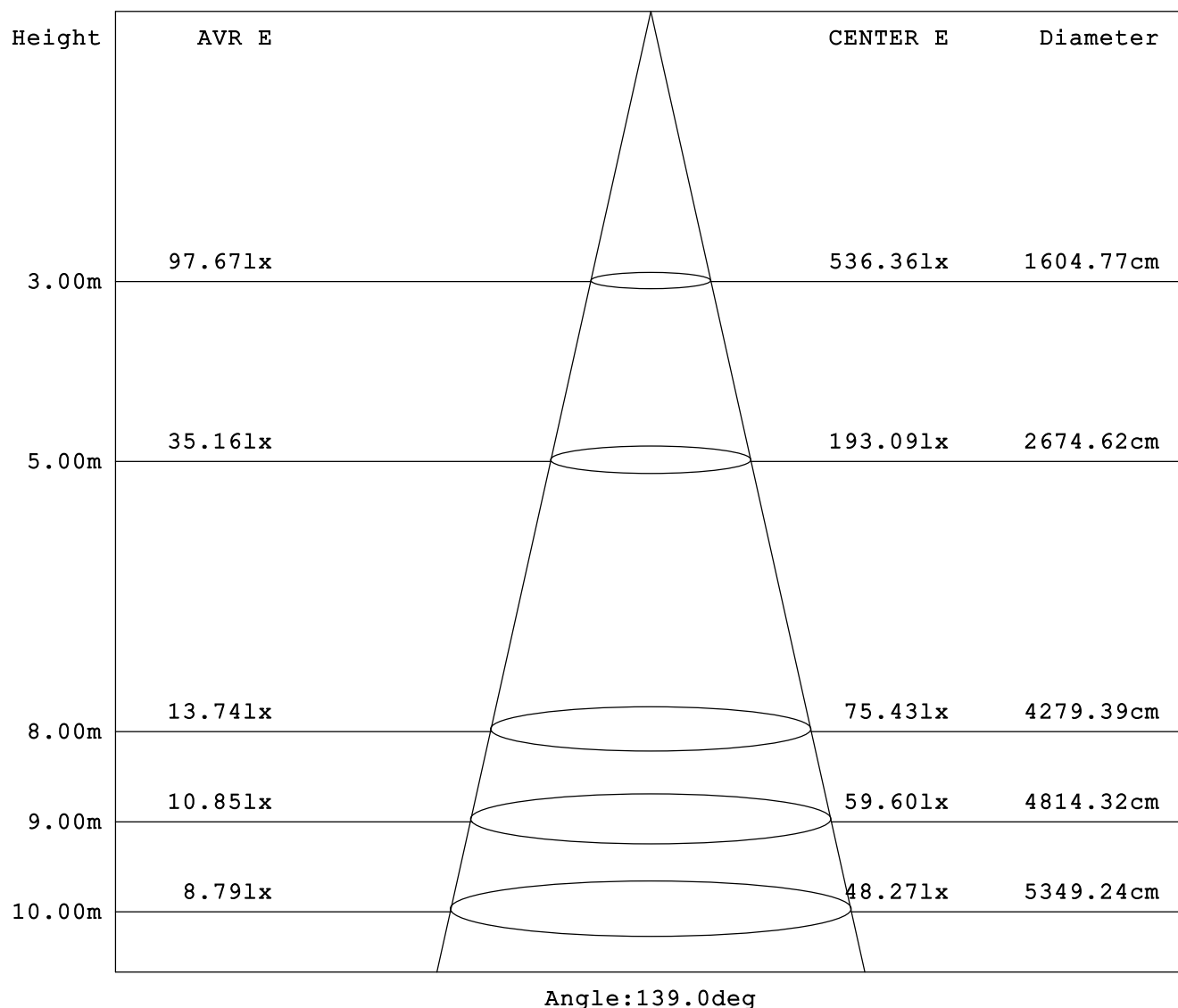
Test System:  
 Temperature: 25.3 DEG  
 Operators:  
 Test Date: 2025.03.23

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-D15040-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-D15040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	4788	4895	4933	4892	4796	4674	4623	4677	0- 5	114.4	114.4
10.0	4809	5009	5072	4998	4840	4565	4465	4568	5- 10	342.5	456.9
15.0	4856	5133	5210	5119	4916	4461	4315	4461	10- 15	569.3	1026
20.0	4937	5280	5312	5253	5042	4351	4169	4350	15- 20	794.6	1821
25.0	5064	5444	5389	5401	5209	4239	4009	4234	20- 25	1018	2839
30.0	5239	5630	5443	5562	5400	4130	3821	4127	25- 30	1239	4078
35.0	5451	5827	5455	5724	5600	4003	3620	4007	30- 35	1454	5531
40.0	5688	5998	5451	5858	5784	3862	3433	3879	35- 40	1658	7189
45.0	5898	6131	5429	5960	5990	3700	3243	3729	40- 45	1848	9037
50.0	6101	6234	5353	6035	6232	3497	3034	3541	45- 50	2019	11056
55.0	6320	6312	5191	6063	6539	3239	2824	3299	50- 55	2163	13218
60.0	6591	6329	4860	6000	6827	2949	2550	3019	55- 60	2272	15490
65.0	6898	6227	4016	5675	6549	2530	2172	2645	60- 65	2316	17806
70.0	6842	5765	1636	4314	4905	1648	1214	1948	65- 70	2136	19942
75.0	5623	3268	439.0	979.8	2256	629.4	372.0	892.1	70- 75	1460	21402
80.0	3069	590.6	219.5	280.4	413.2	118.1	50.05	264.7	75- 80	682.5	22085
85.0	763.3	162.2	49.04	92.85	41.23	23.31	14.74	39.08	80- 85	196.9	22282
90.0	45.22	34.16	9.606	22.47	25.10	12.45	14.24	11.23	85- 90	34.01	22316
95.0	13.96	17.92	7.163	16.52	26.26	15.65	15.50	14.51	90- 95	9.517	22325
100.0	17.37	16.91	7.921	16.02	28.01	18.76	17.44	18.03	95-100	9.070	22335
105.0	20.53	17.42	9.691	16.60	29.59	21.29	19.88	20.96	100-105	9.863	22344
110.0	23.10	18.51	11.46	17.61	30.84	23.56	22.16	23.48	105-110	10.60	22355
115.0	25.10	19.69	13.14	18.70	32.00	25.49	24.35	25.83	110-115	11.15	22366
120.0	26.93	21.03	14.74	19.79	33.50	27.35	26.29	27.84	115-120	11.51	22378
125.0	28.84	22.46	16.43	21.22	35.16	29.37	28.06	29.69	120-125	11.71	22389
130.0	30.92	24.06	18.28	22.64	36.07	31.55	29.91	31.53	125-130	11.78	22401
135.0	32.58	25.58	20.14	24.07	35.91	33.07	32.02	33.21	130-135	11.61	22413
140.0	33.33	26.76	21.82	25.24	35.16	33.40	33.62	33.80	135-140	11.06	22424
145.0	33.08	27.60	23.17	26.08	34.24	33.15	34.29	33.55	140-145	10.14	22434
150.0	32.50	28.27	24.43	26.84	33.50	32.82	34.29	33.04	145-150	9.010	22443
155.0	32.00	28.86	25.53	27.59	32.91	32.40	34.21	32.62	150-155	7.764	22451
160.0	31.75	29.45	26.71	28.26	32.66	32.14	34.12	32.20	155-160	6.452	22457
165.0	31.67	30.04	27.89	28.93	32.50	31.89	33.79	31.87	160-165	5.091	22462
170.0	31.83	30.63	28.98	29.77	32.42	31.64	33.37	31.45	165-170	3.680	22466
175.0	31.83	31.13	30.08	30.36	32.33	31.22	32.52	30.86	170-175	2.226	22468
180.0	32.17	31.47	31.26	30.95	32.17	30.96	31.60	30.36	175-180	0.743	22469
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

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

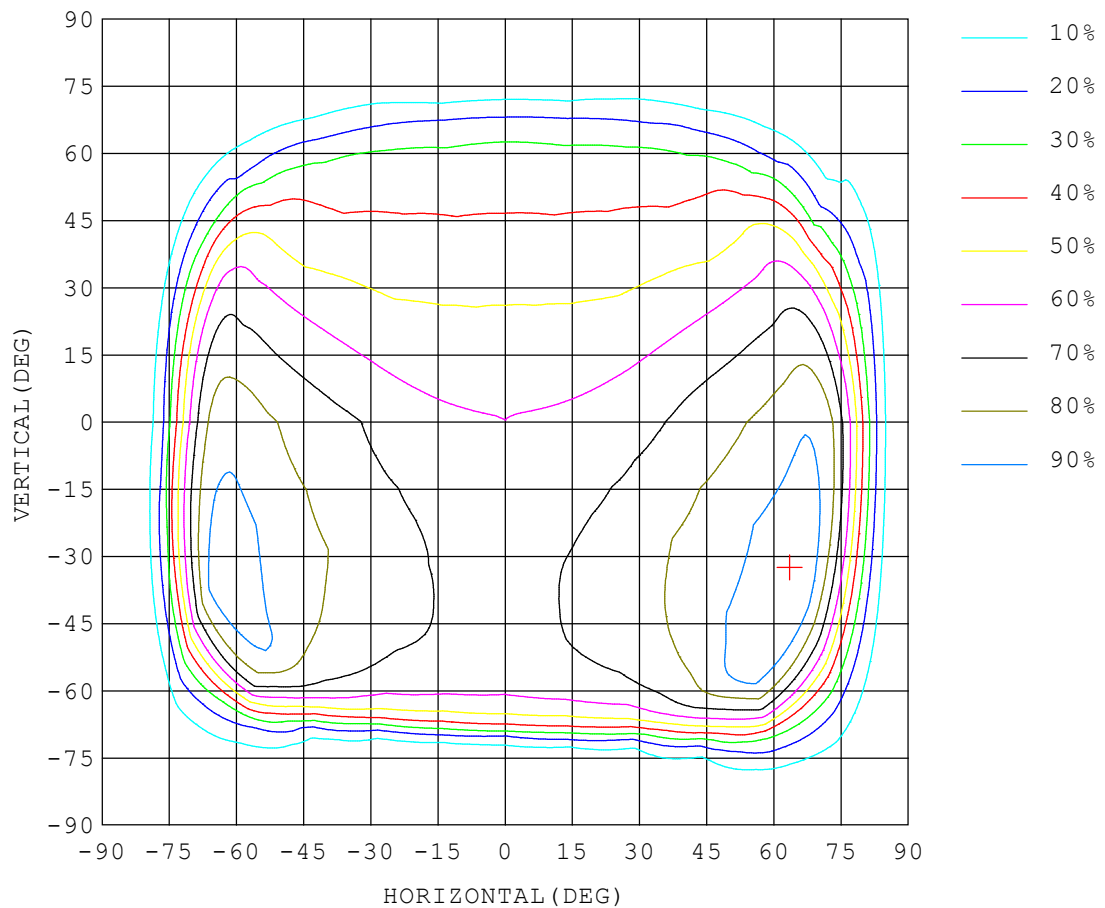
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D15040-TY3	WEIGHT:
SPECIFICATION: 5050LED 4000K Type III	DIMENSION:	SERIAL No.:

UNIT: cd



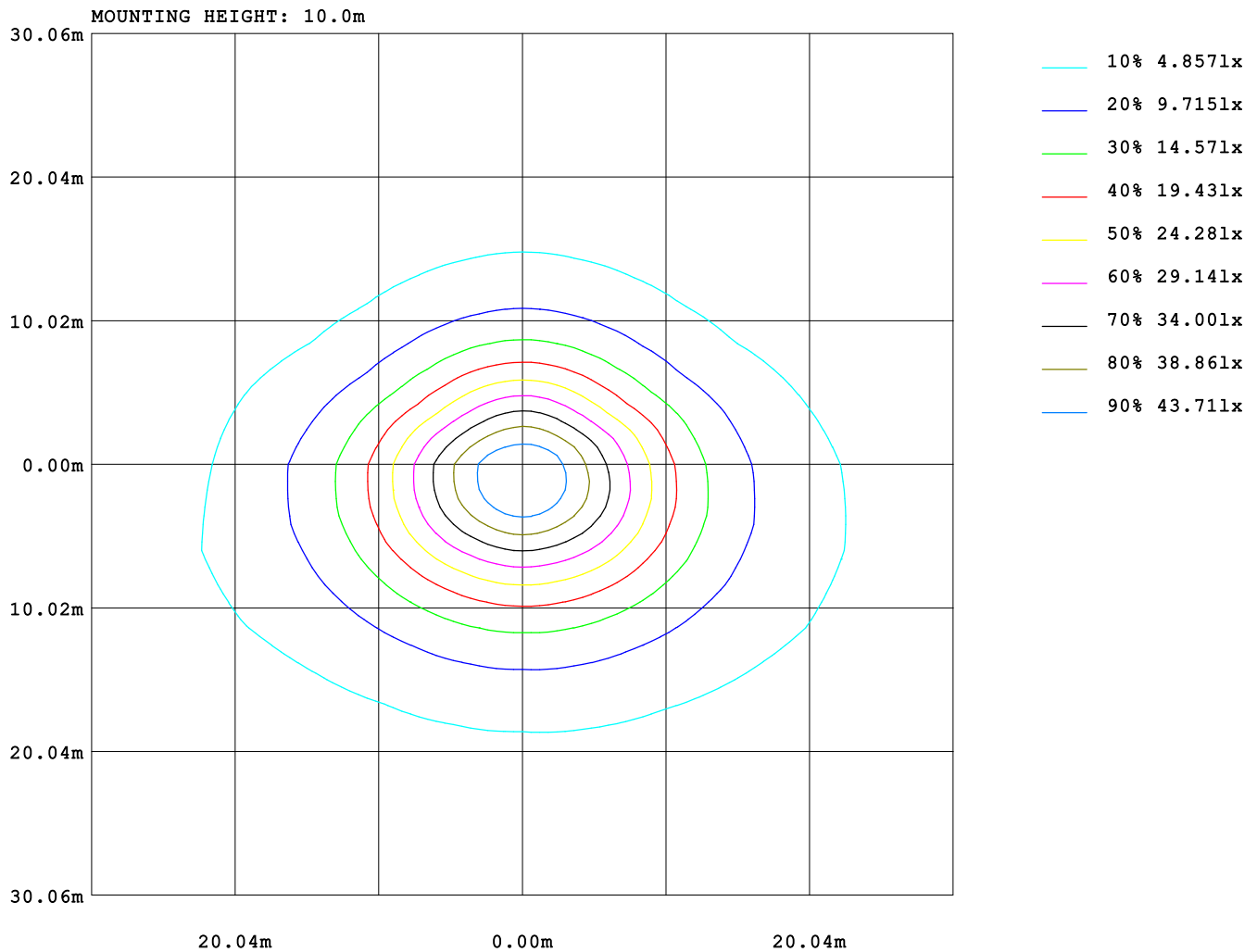
Test System:  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2025.03.23

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-D15040-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:

<b>MANUFACTURER: ILUMEN GMBH</b>	<b>Address:</b>	
<b>NAME: Muller</b>	<b>TYPE:IL-ST11-D15040-TY3</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type III</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: cd

<b>C (DEG)</b> <b>γ (DEG)</b>	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784	4784
5.0	4788	4826	4862	4895	4916	4934	4933	4933	4914	4892	4859	4825	4796	4754	4711
10.0	4809	4883	4950	5009	5044	5071	5072	5067	5036	4998	4943	4880	4840	4750	4648
15.0	4856	4967	5063	5133	5178	5207	5210	5200	5165	5119	5054	4968	4916	4765	4594
20.0	4937	5094	5207	5280	5303	5319	5312	5305	5277	5253	5198	5106	5042	4806	4549
25.0	5064	5280	5407	5444	5416	5403	5389	5383	5375	5401	5390	5295	5209	4868	4507
30.0	5239	5508	5648	5630	5529	5466	5443	5439	5464	5562	5611	5520	5400	4958	4454
35.0	5451	5769	5891	5827	5631	5502	5455	5460	5535	5724	5828	5757	5600	5065	4391
40.0	5688	6028	6129	5998	5719	5517	5451	5468	5589	5858	6029	5989	5784	5146	4324
45.0	5898	6273	6351	6131	5772	5530	5429	5464	5634	5960	6219	6213	5990	5207	4231
50.0	6101	6546	6582	6234	5803	5513	5353	5425	5646	6035	6389	6488	6232	5257	4090
55.0	6320	6851	6773	6312	5739	5379	5191	5271	5543	6063	6552	6788	6539	5306	3910
60.0	6591	7204	7030	6329	5537	5108	4860	4966	5280	6000	6755	7208	6827	5297	3695
65.0	6898	7681	7362	6227	5035	4325	4016	4063	4546	5675	7051	7687	6549	5210	3330
70.0	6842	7773	7689	5765	3597	2424	1636	1851	2527	4314	6751	7378	4905	3813	2271
75.0	5623	6468	6336	3268	779	498	439	447	454	980	4283	5307	2256	1595	940
80.0	3069	3378	2401	591	282	242	220	210	214	280	992	1885	413	322	158
85.0	763	780	454	162	88.7	76.5	49.0	63.7	56.3	92.8	140	242	41.2	28.0	43.9
90.0	45.2	61.5	33.0	34.1	13.1	20.2	9.60	19.5	11.8	22.4	14.6	29.6	25.1	16.5	23.7
95.0	13.9	23.4	11.3	17.9	8.76	14.9	7.16	14.4	8.31	16.5	11.1	22.0	26.2	19.9	24.7
100.0	17.3	22.7	12.8	16.9	8.67	13.5	7.92	13.3	8.73	16.0	12.4	22.0	28.0	23.0	26.5
105.0	20.5	23.7	14.8	17.4	10.5	14.2	9.69	14.1	10.4	16.6	14.3	23.0	29.5	25.3	27.9
110.0	23.1	25.2	17.0	18.5	12.2	15.3	11.4	15.1	12.1	17.6	16.2	24.1	30.8	27.3	29.2
115.0	25.1	26.4	19.1	19.6	14.0	16.4	13.1	16.3	13.8	18.7	17.9	25.1	32.0	29.0	30.5
120.0	26.9	27.7	21.1	21.0	15.8	17.6	14.7	17.4	15.4	19.7	19.6	26.2	33.5	30.9	32.1
125.0	28.8	29.1	22.9	22.4	17.5	18.9	16.4	18.7	17.1	21.2	21.3	27.5	35.1	33.1	34.1
130.0	30.9	30.7	24.8	24.0	19.4	20.5	18.2	20.3	19.0	22.6	23.0	29.0	36.0	34.5	36.0
135.0	32.5	32.1	26.5	25.5	21.3	22.0	20.1	21.8	20.8	24.0	24.6	30.1	35.9	34.6	36.5
140.0	33.3	32.8	27.7	26.7	22.9	23.5	21.8	23.3	22.3	25.2	25.7	30.6	35.1	33.9	35.9
145.0	33.0	32.8	28.4	27.6	24.2	24.8	23.1	24.6	23.6	26.0	26.3	30.6	34.2	33.1	35.1
150.0	32.5	32.6	28.8	28.2	25.3	25.8	24.4	25.7	24.7	26.8	26.9	30.5	33.5	32.4	34.3
155.0	32.0	32.4	29.2	28.8	26.4	26.8	25.5	26.8	25.7	27.5	27.4	30.5	32.9	31.8	33.6
160.0	31.7	32.3	29.5	29.4	27.3	27.7	26.7	27.8	26.8	28.2	27.9	30.4	32.6	31.5	33.1
165.0	31.6	32.2	29.9	30.0	28.3	28.7	27.8	28.8	27.8	28.9	28.4	30.5	32.5	31.3	32.7
170.0	31.8	32.2	30.4	30.6	29.2	29.7	28.9	29.7	28.8	29.7	29.1	30.7	32.4	31.3	32.5
175.0	31.8	32.1	30.7	31.1	29.9	30.4	30.0	30.4	29.5	30.3	29.6	30.9	32.3	31.3	32.0
180.0	32.1	32.0	31.2	31.4	30.9	31.2	31.2	31.1	30.5	30.9	30.3	30.9	32.1	31.3	31.6

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-D15040-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	4784	4784	4784	4784	4784	4784	4784	4784	4784
5.0	4674	4643	4630	4623	4633	4647	4677	4714	4756
10.0	4565	4503	4473	4465	4479	4510	4568	4649	4747
15.0	4461	4370	4319	4315	4330	4379	4461	4592	4757
20.0	4351	4230	4178	4169	4188	4237	4350	4539	4789
25.0	4239	4096	4026	4009	4035	4100	4234	4495	4844
30.0	4130	3957	3851	3821	3858	3957	4127	4442	4927
35.0	4003	3790	3651	3620	3660	3788	4007	4384	5046
40.0	3862	3610	3457	3433	3469	3610	3879	4331	5153
45.0	3700	3417	3265	3243	3276	3426	3729	4259	5217
50.0	3497	3199	3051	3034	3061	3216	3541	4143	5249
55.0	3239	2955	2826	2824	2838	2977	3299	3956	5270
60.0	2949	2683	2539	2550	2567	2719	3019	3735	5247
65.0	2530	2281	2139	2172	2183	2352	2645	3508	5215
70.0	1648	1271	1168	1214	1246	1600	1948	2619	4496
75.0	629	540	336	372	378	706	892	1229	2355
80.0	118	99.0	42.1	50.0	50.2	104	265	316	637
85.0	23.3	28.8	7.09	14.7	6.57	29.8	39.0	67.6	52.0
90.0	12.4	17.0	8.02	14.2	7.83	16.8	11.2	23.8	16.5
95.0	15.6	18.3	10.7	15.5	10.5	17.9	14.5	23.7	18.0
100.0	18.7	20.3	13.7	17.4	13.6	20.1	18.0	25.7	21.4
105.0	21.2	22.4	16.7	19.8	16.7	22.6	20.9	27.4	23.9
110.0	23.5	24.5	19.5	22.1	19.6	24.7	23.4	28.8	25.8
115.0	25.4	26.1	22.0	24.3	22.3	26.6	25.8	30.3	27.5
120.0	27.3	27.6	24.0	26.2	24.5	28.4	27.8	31.9	29.1
125.0	29.3	29.4	26.0	28.0	26.5	30.0	29.6	33.5	31.1
130.0	31.5	31.4	28.3	29.9	28.5	31.7	31.5	35.5	33.1
135.0	33.0	33.1	30.5	32.0	30.5	33.5	33.2	36.5	33.9
140.0	33.4	34.1	32.3	33.6	32.2	34.6	33.8	36.1	33.6
145.0	33.1	34.3	33.0	34.2	32.9	34.7	33.5	35.3	33.0
150.0	32.8	34.1	33.2	34.2	33.0	34.5	33.0	34.5	32.3
155.0	32.4	33.8	33.1	34.2	32.8	34.2	32.6	33.7	31.8
160.0	32.1	33.5	32.9	34.1	32.6	33.7	32.2	33.1	31.3
165.0	31.8	33.1	32.5	33.7	32.3	33.2	31.8	32.6	31.0
170.0	31.6	32.6	32.0	33.3	31.9	32.7	31.4	32.1	30.8
175.0	31.2	32.0	31.3	32.5	31.1	31.9	30.8	31.5	30.4
180.0	30.9	31.3	30.7	31.6	30.6	31.0	30.3	30.9	30.2

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

Test Set: 5.0deg/s C-Gamma (TYPE C)  
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