

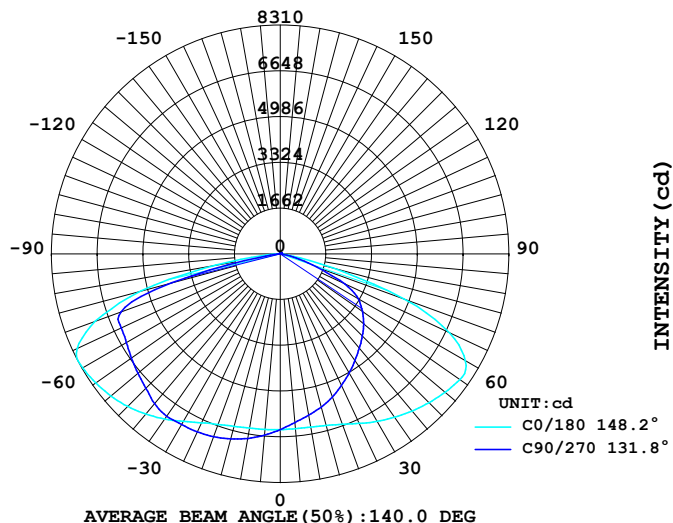
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

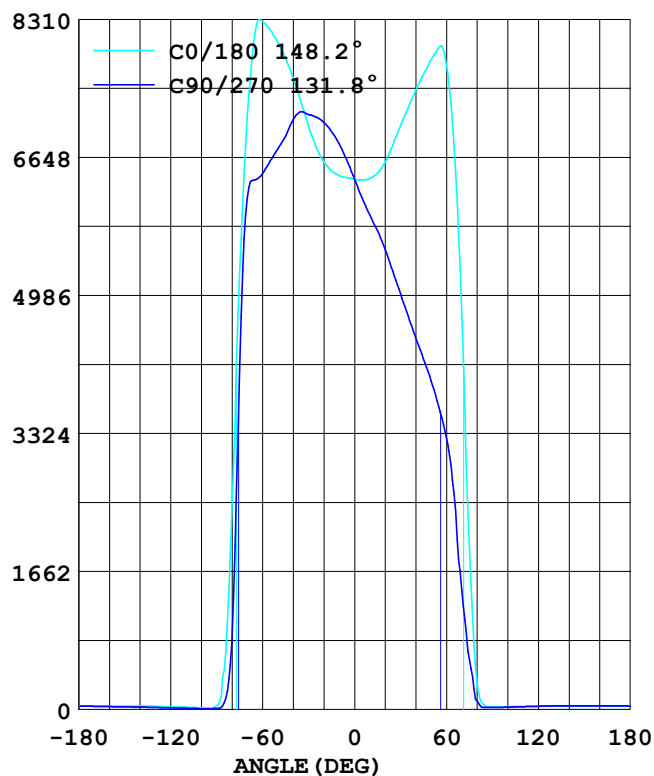
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D20040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	8876	S/MH (C0/180)	1.79
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.68
NOMINAL POWER(W)	200	TOTAL FLUX(lm)	30119	Voltage(V)	230.6
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	150.4	Current(A)	0.871
NOMINAL FLUX(lm)	30119.4	$\eta$ up (%)	0.7	Power(W)	200.1
LAMPS QUANTITY	1	$\eta$ down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.6	Effective Flux(lm)	30119.4	EEI	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



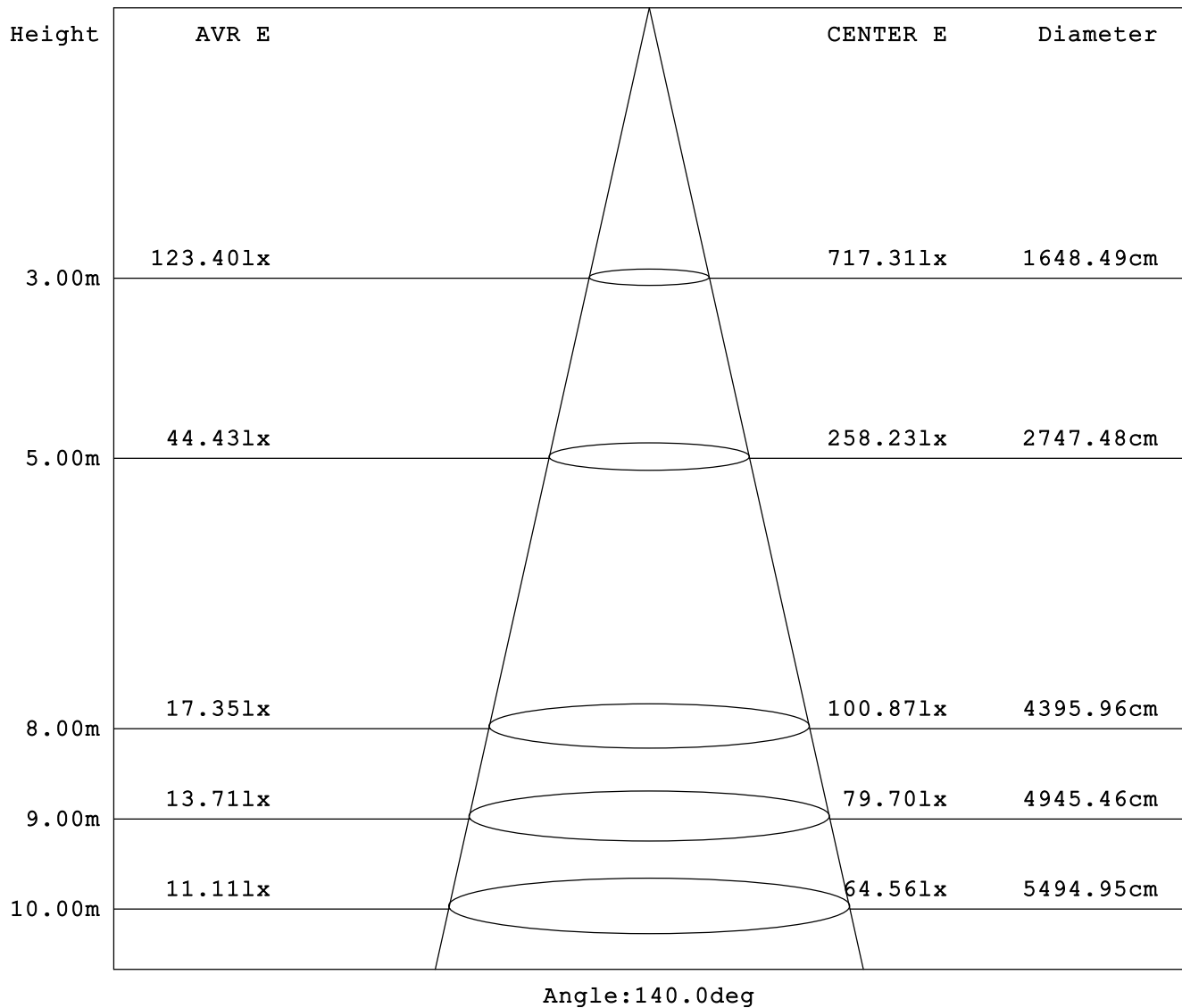
Test System:  
 Temperature: 25.3 DEG  
 Operators:  
 Test Date: 2025.03.24

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-D20040-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-D20040-TY4	WEIGHT:
SPECIFICATION:5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	6405	6561	6615	6535	6377	6203	6156	6222	0- 5	152.6	152.6
10.0	6428	6721	6812	6663	6393	6044	5955	6078	5- 10	456.7	609.4
15.0	6487	6881	6960	6785	6459	5906	5764	5955	10- 15	758.2	1368
20.0	6598	7059	7071	6915	6589	5746	5541	5807	15- 20	1056	2423
25.0	6773	7256	7134	7060	6794	5617	5276	5684	20- 25	1349	3772
30.0	7025	7467	7164	7214	7029	5478	5004	5551	25- 30	1637	5409
35.0	7326	7689	7197	7357	7243	5339	4738	5418	30- 35	1920	7329
40.0	7599	7901	7105	7487	7453	5198	4477	5286	35- 40	2188	9517
45.0	7839	8096	6907	7605	7647	5039	4222	5144	40- 45	2434	11951
50.0	8033	8253	6750	7693	7821	4871	3962	4982	45- 50	2651	14602
55.0	8183	8348	6608	7719	7966	4682	3647	4790	50- 55	2838	17440
60.0	8286	8367	6455	7708	7765	4434	3275	4546	55- 60	2982	20421
65.0	8139	8277	6377	7601	6794	4054	2592	4194	60- 65	3038	23459
70.0	7153	7902	6158	7268	4795	3101	1443	3331	65- 70	2879	26338
75.0	5251	5936	4083	5212	1964	1347	601.8	1560	70- 75	2253	28591
80.0	2392	1942	817.7	1189	314.2	234.9	105.4	372.5	75- 80	1091	29682
85.0	470.0	230.1	82.35	130.6	49.31	39.39	24.57	55.76	80- 85	202.4	29885
90.0	43.13	37.60	13.46	32.68	29.01	17.45	24.12	16.50	85- 90	30.35	29915
95.0	15.99	25.51	9.088	24.42	30.67	21.93	25.91	20.63	90- 95	12.80	29928
100.0	19.85	24.28	10.54	23.42	33.20	26.07	28.61	24.76	95-100	12.41	29940
105.0	23.94	24.95	12.90	24.20	35.74	29.32	31.30	28.10	100-105	13.42	29954
110.0	27.58	26.18	15.25	25.31	37.73	32.23	33.88	31.00	105-110	14.34	29968
115.0	30.33	27.53	17.50	26.54	39.60	34.69	36.24	33.57	110-115	15.00	29983
120.0	32.76	29.21	19.63	27.99	41.48	37.27	38.59	36.24	115-120	15.39	29998
125.0	35.30	31.00	21.87	29.66	43.57	40.18	41.17	39.26	120-125	15.65	30014
130.0	37.84	33.01	24.23	31.67	45.12	42.86	43.75	42.04	125-130	15.76	30030
135.0	40.15	34.91	26.70	33.46	45.89	44.09	45.10	43.49	130-135	15.47	30045
140.0	41.59	36.26	28.83	34.79	45.67	44.20	45.32	43.72	135-140	14.62	30060
145.0	42.03	37.15	30.63	35.69	45.12	43.87	45.32	43.38	140-145	13.37	30073
150.0	41.92	37.82	32.31	36.47	44.35	43.42	45.10	42.94	145-150	11.88	30085
155.0	41.59	38.50	33.88	37.14	43.79	42.97	44.99	42.49	150-155	10.25	30095
160.0	41.48	39.06	35.23	37.92	43.35	42.64	44.88	42.16	155-160	8.528	30104
165.0	41.48	39.84	36.80	38.70	43.24	42.30	44.65	41.82	160-165	6.734	30111
170.0	41.81	40.51	38.37	39.59	43.02	41.97	44.20	41.49	165-170	4.871	30115
175.0	41.92	41.18	39.71	40.26	42.69	41.41	42.97	40.71	170-175	2.946	30118
180.0	42.47	41.74	41.28	40.93	42.47	40.96	41.73	40.15	175-180	0.983	30119
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

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

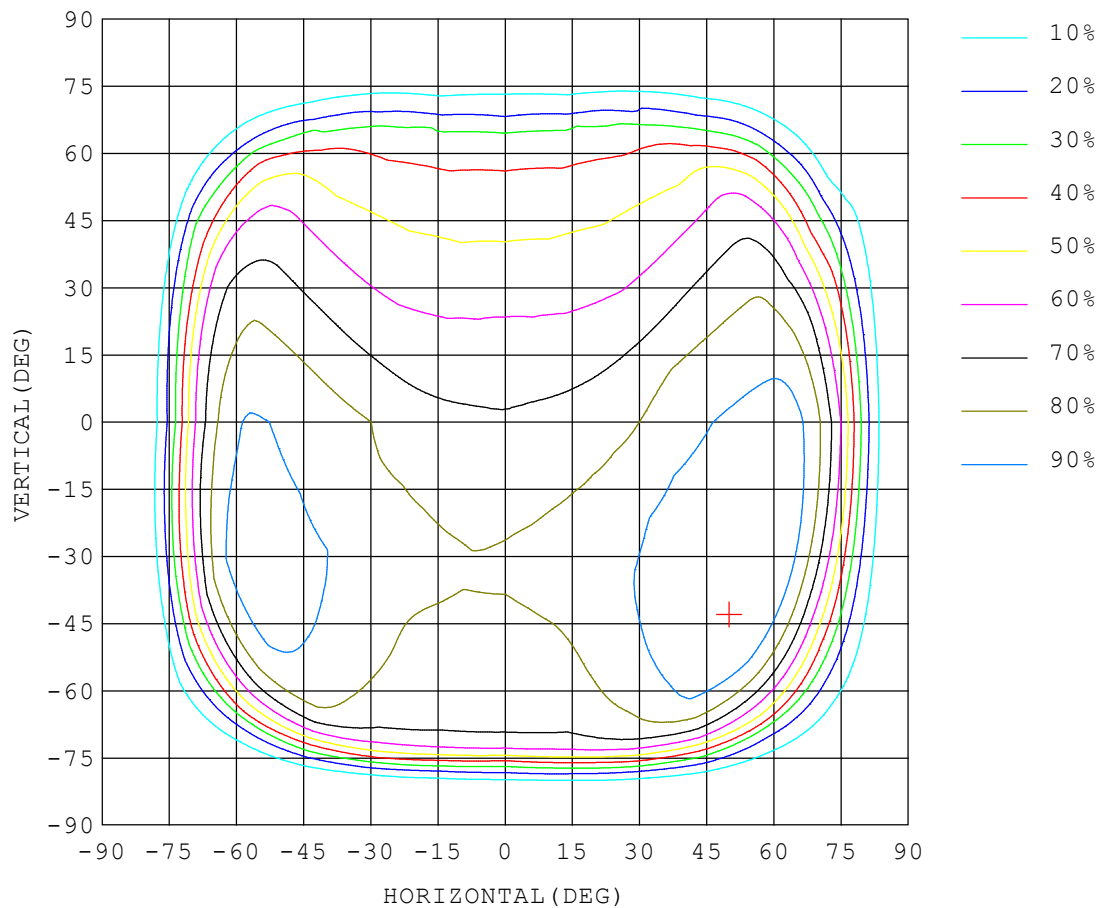
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D20040-TY4	WEIGHT:
SPECIFICATION:5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

UNIT: cd



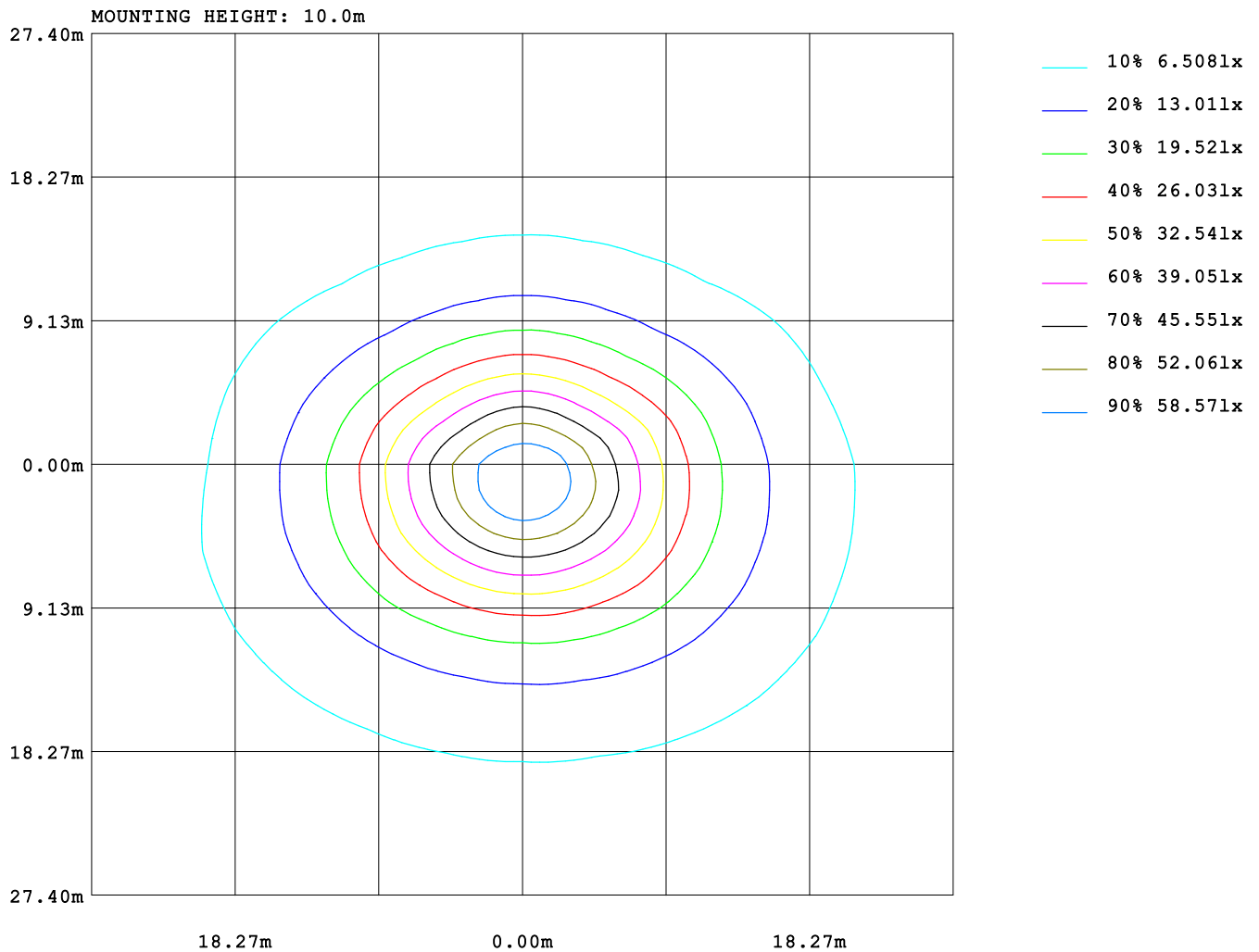
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.03.24

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

## ISOLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D20040-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-D20040-TY4</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type IV</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	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385	6385
5.0	6405	6461	6516	6561	6595	6611	6615	6601	6574	6535	6484	6426	6377	6314	6258
10.0	6428	6542	6647	6721	6777	6806	6812	6781	6734	6663	6580	6479	6393	6268	6144
15.0	6487	6657	6791	6881	6930	6959	6960	6923	6860	6785	6682	6548	6459	6254	6049
20.0	6598	6828	6980	7059	7081	7084	7071	7029	6974	6915	6817	6673	6589	6285	5988
25.0	6773	7059	7219	7256	7219	7166	7134	7095	7076	7060	7002	6860	6794	6379	5937
30.0	7025	7364	7503	7467	7348	7231	7164	7142	7167	7214	7220	7106	7029	6530	5912
35.0	7326	7701	7814	7689	7461	7303	7197	7189	7227	7357	7460	7373	7243	6676	5909
40.0	7599	7990	8099	7901	7543	7275	7105	7107	7255	7487	7672	7588	7453	6812	5915
45.0	7839	8254	8358	8096	7552	7178	6907	6968	7178	7605	7872	7801	7647	6935	5919
50.0	8033	8475	8588	8253	7543	7030	6750	6795	7112	7693	8044	8019	7821	7021	5897
55.0	8183	8659	8761	8348	7546	6884	6608	6648	7072	7719	8172	8224	7966	7065	5842
60.0	8286	8785	8867	8367	7495	6724	6455	6515	6971	7708	8263	8375	7765	6971	5749
65.0	8139	8632	8819	8277	7329	6530	6377	6415	6754	7601	8189	8158	6794	6350	5449
70.0	7153	7526	7900	7902	6936	6248	6158	6180	6366	7268	7331	6974	4795	5014	4366
75.0	5251	5131	5625	5936	5450	4670	4083	4343	4831	5212	4950	4358	1964	2732	2095
80.0	2392	1965	1733	1942	1478	1015	818	851	1016	1189	1098	1205	314	456	333
85.0	470	314	358	230	123	117	82.3	110	91.8	131	148	134	49.3	38.2	63.8
90.0	43.1	56.1	30.8	37.6	15.9	29.6	13.4	29.0	15.9	32.6	19.5	35.6	29.0	21.4	33.5
95.0	15.9	28.3	15.9	25.5	11.8	20.8	9.08	20.1	11.1	24.4	15.9	27.6	30.6	22.6	31.5
100.0	19.8	27.8	17.7	24.2	12.6	19.4	10.5	19.0	12.1	23.4	17.7	28.1	33.2	27.0	34.2
105.0	23.9	29.4	20.2	24.9	15.2	20.3	12.9	19.8	14.6	24.2	20.3	29.6	35.7	30.8	36.5
110.0	27.5	31.1	22.9	26.1	17.6	21.4	15.2	21.0	16.9	25.3	22.7	31.3	37.7	33.8	38.4
115.0	30.3	32.8	25.3	27.5	19.8	22.8	17.5	22.4	19.0	26.5	24.8	32.8	39.6	36.2	40.2
120.0	32.7	34.6	27.6	29.2	22.0	24.3	19.6	23.7	21.1	27.9	26.9	34.4	41.4	38.6	42.1
125.0	35.3	36.5	30.2	31.0	24.5	26.0	21.8	25.3	23.3	29.6	29.3	36.2	43.5	41.0	44.3
130.0	37.8	38.7	32.8	33.0	26.9	27.9	24.2	27.3	25.8	31.6	31.6	38.2	45.1	43.0	46.5
135.0	40.1	40.8	35.2	34.9	29.1	29.8	26.7	29.2	28.1	33.4	33.7	39.8	45.8	44.0	47.2
140.0	41.5	41.9	36.6	36.2	31.1	31.6	28.8	31.1	30.0	34.7	35.1	40.7	45.6	44.1	47.0
145.0	42.0	42.4	37.4	37.1	32.5	33.1	30.6	32.7	31.6	35.6	35.8	40.9	45.1	43.6	46.3
150.0	41.9	42.4	38.1	37.8	33.8	34.4	32.3	34.3	32.9	36.4	36.5	40.9	44.3	43.0	45.4
155.0	41.5	42.2	38.5	38.5	35.0	35.8	33.8	35.6	34.3	37.1	36.9	40.8	43.7	42.4	44.8
160.0	41.4	42.2	39.0	39.0	36.3	36.9	35.2	36.9	35.6	37.9	37.5	40.7	43.3	41.9	44.1
165.0	41.4	42.2	39.4	39.8	37.5	38.1	36.8	38.2	37.0	38.7	38.1	40.7	43.2	41.7	43.6
170.0	41.8	42.2	40.1	40.5	38.6	39.4	38.3	39.3	38.2	39.5	38.8	40.8	43.0	41.6	43.1
175.0	41.9	42.2	40.5	41.1	39.7	40.4	39.7	40.3	39.1	40.2	39.4	40.9	42.6	41.4	42.5
180.0	42.4	42.1	41.3	41.7	40.9	41.3	41.2	41.1	40.4	40.9	40.3	40.9	42.4	41.4	42.0

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-D20040-TY4</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:5050LED 4000K Type IV</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	6385	6385	6385	6385	6385	6385	6385	6385	6385
5.0	6203	6175	6152	6156	6155	6185	6222	6284	6344
10.0	6044	5987	5957	5955	5966	6009	6078	6194	6330
15.0	5906	5805	5762	5764	5777	5836	5955	6124	6349
20.0	5746	5621	5542	5541	5560	5654	5807	6084	6410
25.0	5617	5409	5292	5276	5311	5448	5684	6059	6535
30.0	5478	5187	5032	5004	5048	5225	5551	6059	6731
35.0	5339	4971	4771	4738	4791	5009	5418	6079	6929
40.0	5198	4753	4518	4477	4548	4802	5286	6113	7094
45.0	5039	4535	4267	4222	4304	4588	5144	6140	7222
50.0	4871	4310	4000	3962	4033	4364	4982	6138	7301
55.0	4682	4036	3706	3647	3744	4102	4790	6087	7336
60.0	4434	3713	3343	3275	3388	3785	4546	5982	7290
65.0	4054	3301	2767	2592	2814	3381	4194	5798	6628
70.0	3101	2332	1590	1443	1635	2428	3331	4663	5463
75.0	1347	1020	586	602	609	1112	1560	2601	3069
80.0	235	218	96.8	105	110	258	373	568	736
85.0	39.3	53.0	15.7	24.5	14.9	51.6	55.7	85.1	57.4
90.0	17.4	28.2	15.4	24.1	15.0	27.7	16.5	32.7	21.3
95.0	21.9	28.8	19.4	25.9	18.9	28.0	20.6	30.5	21.0
100.0	26.0	31.1	23.2	28.6	22.8	30.4	24.7	32.8	25.2
105.0	29.3	33.2	26.8	31.3	26.3	32.6	28.1	35.1	28.9
110.0	32.2	35.4	29.9	33.8	29.5	34.8	31.0	36.8	31.7
115.0	34.6	37.4	32.6	36.2	32.5	37.1	33.5	38.5	34.1
120.0	37.2	39.6	35.3	38.5	35.3	39.3	36.2	40.3	36.0
125.0	40.1	42.3	38.3	41.1	38.3	41.9	39.2	42.6	38.4
130.0	42.8	45.0	41.1	43.7	41.0	44.6	42.0	45.1	40.7
135.0	44.0	45.9	42.7	45.1	42.4	45.7	43.4	46.2	42.1
140.0	44.2	45.9	43.3	45.3	42.9	45.6	43.7	46.2	42.6
145.0	43.8	45.7	43.6	45.3	43.0	45.4	43.3	45.5	42.5
150.0	43.4	45.4	43.6	45.1	42.9	44.9	42.9	44.7	42.0
155.0	42.9	44.9	43.5	44.9	42.8	44.5	42.4	44.1	41.5
160.0	42.6	44.6	43.4	44.8	42.7	44.1	42.1	43.5	41.1
165.0	42.3	44.1	43.1	44.6	42.4	43.7	41.8	42.9	40.8
170.0	41.9	43.4	42.4	44.2	42.1	43.1	41.4	42.4	40.5
175.0	41.4	42.4	41.4	42.9	41.1	42.1	40.7	41.6	40.1
180.0	40.9	41.4	40.6	41.7	40.4	41.0	40.1	40.9	40.1

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: