

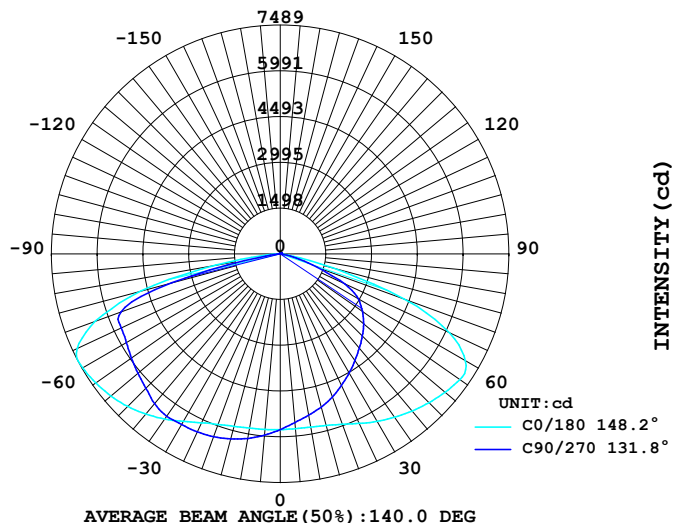
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

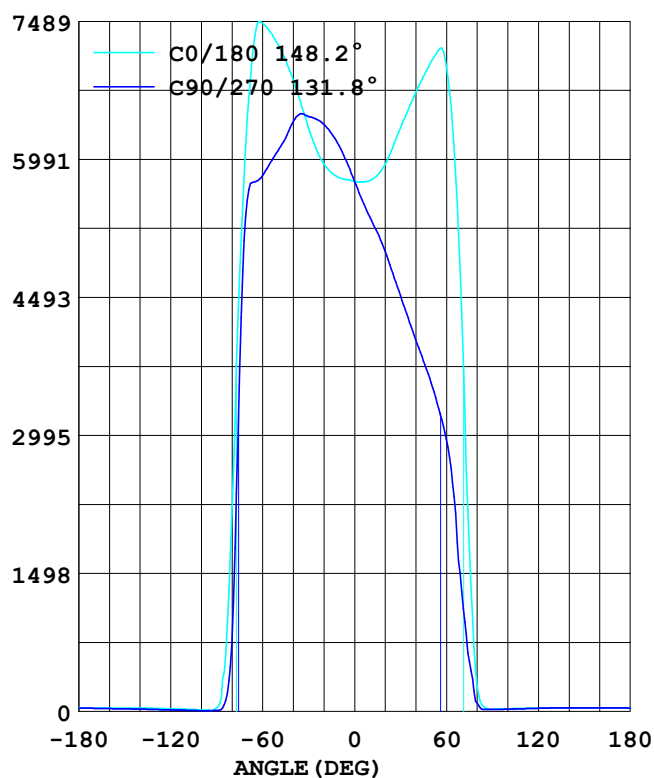
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	7999	S/MH (C0/180)	1.79
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.68
NOMINAL POWER(W)	180	TOTAL FLUX(lm)	27141	Voltage(V)	230.8
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	150.5	Current(A)	0.784
NOMINAL FLUX(lm)	27141.2	$\eta$ up (%)	0.7	Power(W)	180.3
LAMPS QUANTITY	1	$\eta$ down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.8	Effective Flux(lm)	27141.2	EEI	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



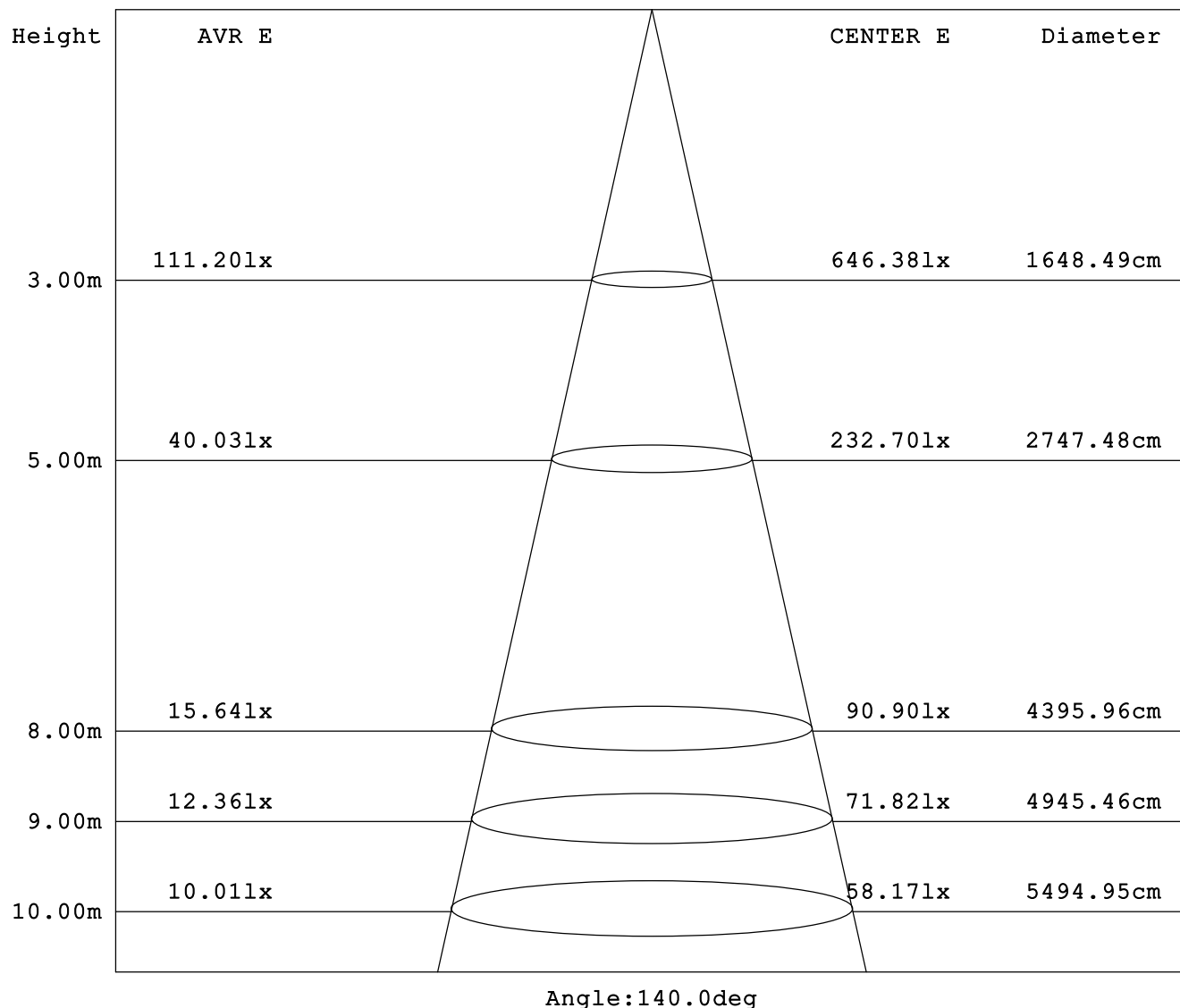
Test System:  
 Temperature: 25.3 DEG  
 Operators:  
 Test Date: 2025.03.24

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-D18040-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-D18040-TY4	WEIGHT:
SPECIFICATION:5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	5771	5912	5961	5889	5747	5590	5547	5607	0- 5	137.5	137.5
10.0	5793	6057	6138	6004	5761	5447	5366	5477	5- 10	411.6	549.1
15.0	5845	6200	6272	6114	5820	5322	5194	5366	10- 15	683.2	1232
20.0	5945	6361	6372	6231	5937	5178	4993	5233	15- 20	951.3	2184
25.0	6103	6538	6429	6362	6122	5061	4755	5122	20- 25	1215	3399
30.0	6330	6729	6456	6500	6334	4937	4510	5002	25- 30	1475	4874
35.0	6602	6928	6485	6630	6527	4811	4270	4882	30- 35	1730	6604
40.0	6848	7120	6402	6746	6716	4684	4034	4763	35- 40	1972	8576
45.0	7064	7295	6224	6853	6891	4540	3804	4636	40- 45	2193	10769
50.0	7238	7437	6083	6932	7048	4389	3570	4489	45- 50	2389	13158
55.0	7374	7522	5955	6956	7178	4219	3287	4317	50- 55	2557	15715
60.0	7466	7539	5817	6946	6997	3996	2951	4096	55- 60	2687	18402
65.0	7334	7458	5747	6850	6122	3653	2336	3780	60- 65	2738	21139
70.0	6446	7121	5549	6550	4320	2795	1301	3002	65- 70	2595	23734
75.0	4731	5349	3679	4696	1770	1214	542.3	1406	70- 75	2030	25764
80.0	2155	1750	736.8	1071	283.1	211.6	95.03	335.6	75- 80	982.8	26747
85.0	423.6	207.3	74.21	117.6	44.43	35.50	22.14	50.25	80- 85	182.4	26930
90.0	38.87	33.88	12.13	29.44	26.14	15.73	21.73	14.87	85- 90	27.35	26957
95.0	14.41	22.99	8.189	22.01	27.63	19.76	23.35	18.59	90- 95	11.53	26968
100.0	17.89	21.88	9.503	21.10	29.92	23.49	25.78	22.31	95-100	11.18	26980
105.0	21.57	22.49	11.62	21.81	32.21	26.42	28.20	25.32	100-105	12.09	26992
110.0	24.85	23.60	13.75	22.81	34.00	29.04	30.53	27.94	105-110	12.92	27005
115.0	27.33	24.81	15.77	23.92	35.69	31.26	32.65	30.25	110-115	13.51	27018
120.0	29.52	26.32	17.69	25.22	37.38	33.58	34.78	32.66	115-120	13.87	27032
125.0	31.81	27.93	19.71	26.73	39.26	36.20	37.10	35.37	120-125	14.10	27046
130.0	34.09	29.75	21.83	28.54	40.66	38.62	39.43	37.89	125-130	14.20	27060
135.0	36.18	31.46	24.06	30.15	41.35	39.73	40.64	39.19	130-135	13.94	27074
140.0	37.48	32.67	25.98	31.35	41.15	39.83	40.84	39.39	135-140	13.18	27088
145.0	37.87	33.48	27.60	32.16	40.66	39.53	40.84	39.09	140-145	12.05	27100
150.0	37.77	34.08	29.11	32.86	39.96	39.13	40.64	38.69	145-150	10.71	27110
155.0	37.48	34.69	30.53	33.46	39.46	38.72	40.54	38.29	150-155	9.239	27120
160.0	37.38	35.19	31.74	34.17	39.07	38.42	40.44	37.99	155-160	7.685	27127
165.0	37.38	35.90	33.16	34.87	38.97	38.12	40.24	37.69	160-165	6.069	27133
170.0	37.67	36.50	34.57	35.68	38.77	37.82	39.83	37.38	165-170	4.389	27138
175.0	37.77	37.11	35.79	36.28	38.47	37.31	38.72	36.68	170-175	2.655	27140
180.0	38.27	37.61	37.20	36.88	38.27	36.91	37.61	36.18	175-180	0.886	27141
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

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

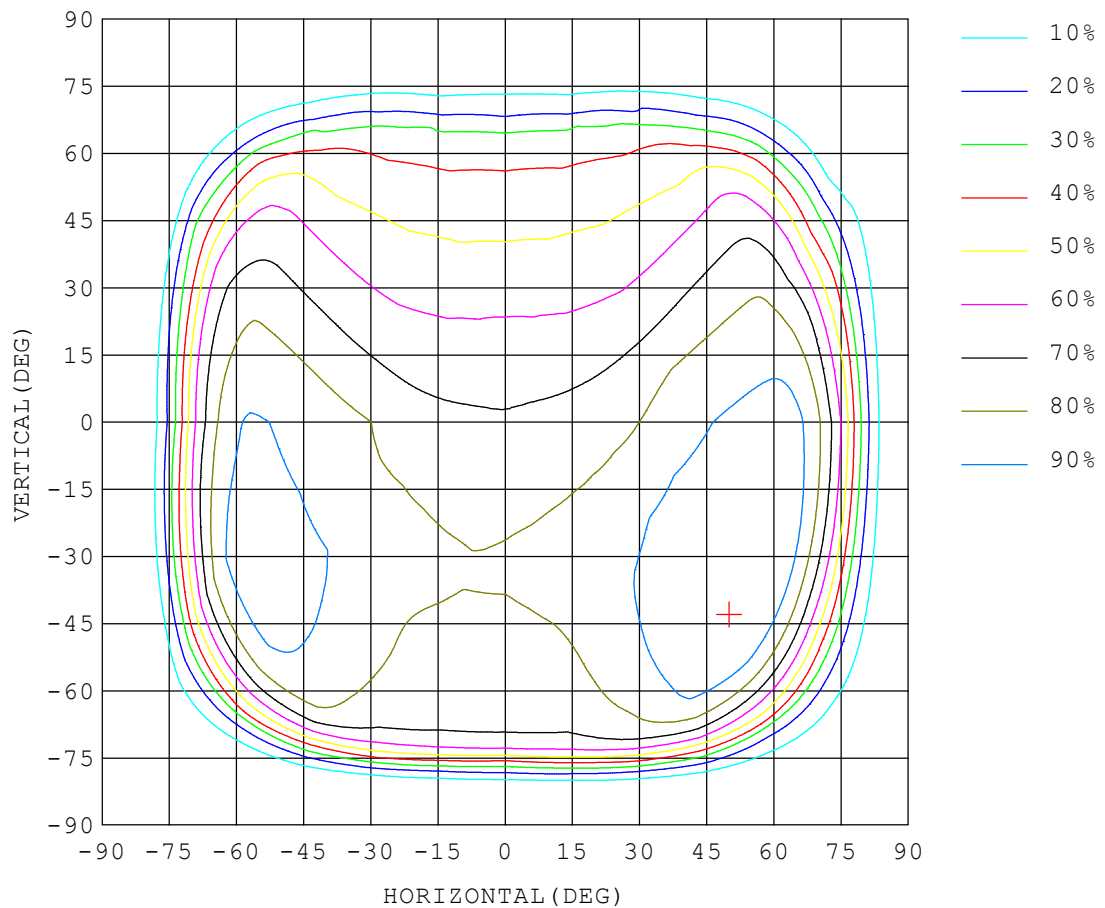
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY4	WEIGHT:
SPECIFICATION: 5050LED 4000K Type IV	DIMENSION:	SERIAL No.:

UNIT: cd



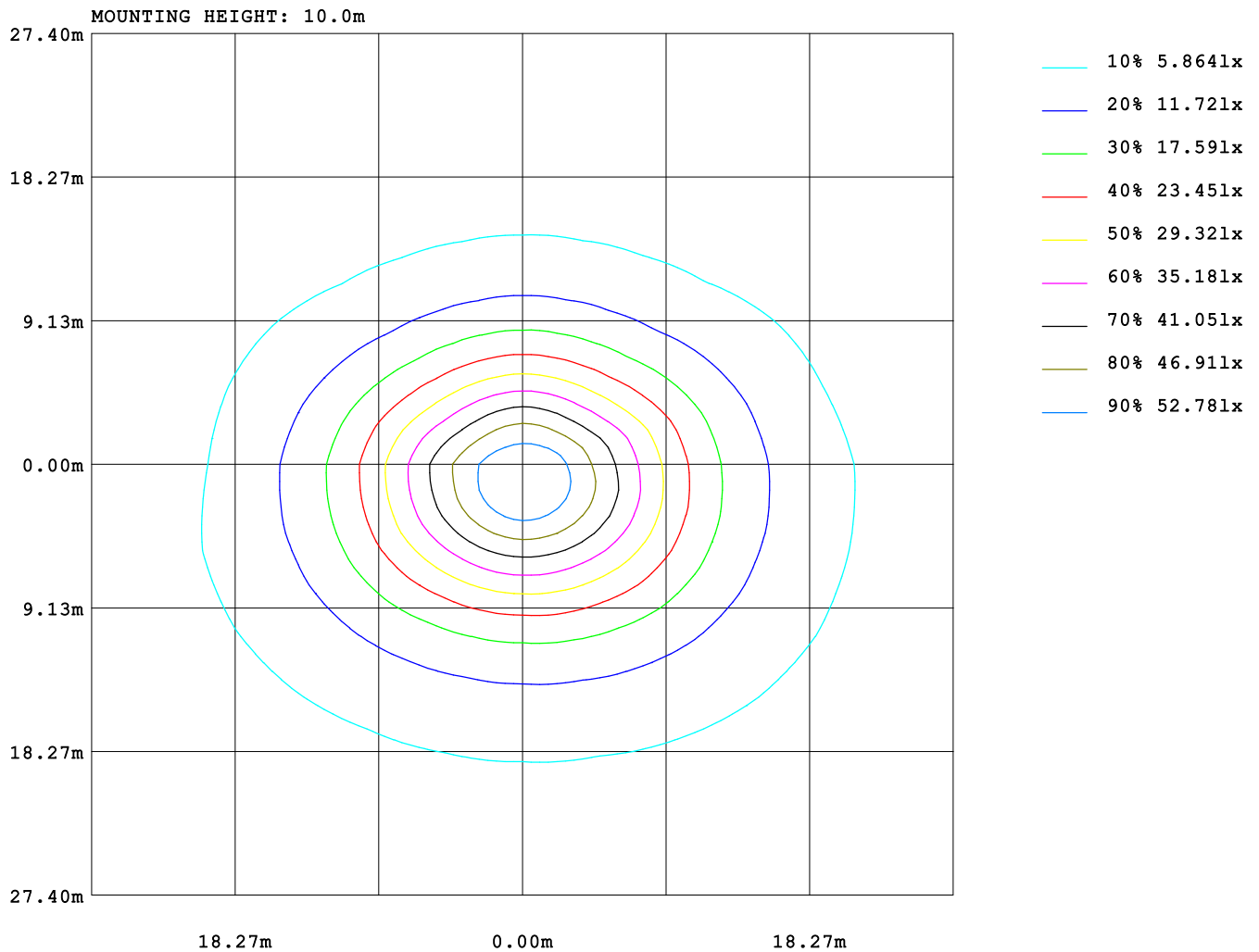
Test System:  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2025.03.24

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-D18040-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:</b> ILUMEN GMBH	<b>Address:</b>	
<b>NAME:</b> Muller	<b>TYPE:</b> IL-ST11-D18040-TY4	<b>WEIGHT:</b>
<b>SPECIFICATION:</b> 5050LED 4000K Type IV	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754	5754
5.0	5771	5822	5872	5912	5942	5957	5961	5948	5924	5889	5843	5791	5747	5690	5639
10.0	5793	5895	5990	6057	6107	6133	6138	6111	6068	6004	5930	5838	5761	5648	5537
15.0	5845	5999	6120	6200	6245	6271	6272	6238	6182	6114	6021	5900	5820	5635	5451
20.0	5945	6153	6290	6361	6381	6383	6372	6334	6285	6231	6143	6014	5937	5663	5396
25.0	6103	6361	6505	6538	6506	6457	6429	6394	6376	6362	6310	6182	6122	5748	5350
30.0	6330	6636	6761	6729	6622	6516	6456	6436	6458	6500	6506	6403	6334	5884	5328
35.0	6602	6939	7041	6928	6723	6581	6485	6478	6513	6630	6723	6644	6527	6016	5325
40.0	6848	7200	7299	7120	6797	6555	6402	6405	6537	6746	6913	6838	6716	6139	5330
45.0	7064	7438	7532	7295	6806	6468	6224	6279	6468	6853	7094	7030	6891	6249	5333
50.0	7238	7637	7739	7437	6797	6334	6083	6123	6409	6932	7249	7226	7048	6327	5314
55.0	7374	7802	7895	7522	6800	6204	5955	5991	6373	6956	7364	7410	7178	6366	5265
60.0	7466	7916	7990	7539	6754	6059	5817	5871	6282	6946	7446	7547	6997	6281	5181
65.0	7334	7778	7947	7458	6604	5885	5747	5781	6086	6850	7380	7351	6122	5722	4910
70.0	6446	6781	7119	7121	6250	5630	5549	5569	5736	6550	6606	6284	4320	4518	3935
75.0	4731	4624	5069	5349	4911	4208	3679	3914	4353	4696	4460	3927	1770	2461	1888
80.0	2155	1771	1561	1750	1332	915	737	767	916	1071	990	1085	283	410	300
85.0	424	283	323	207	111	105	74.2	98.9	82.7	118	134	120	44.4	34.5	57.5
90.0	38.8	50.6	27.8	33.8	14.3	26.7	12.1	26.1	14.4	29.4	17.6	32.1	26.1	19.3	30.2
95.0	14.4	25.5	14.3	22.9	10.7	18.8	8.18	18.1	10.0	22.0	14.4	24.9	27.6	20.4	28.4
100.0	17.8	25.1	15.9	21.8	11.4	17.4	9.50	17.1	10.9	21.1	16.0	25.3	29.9	24.4	30.8
105.0	21.5	26.5	18.2	22.4	13.7	18.3	11.6	17.8	13.2	21.8	18.3	26.7	32.2	27.8	32.9
110.0	24.8	28.1	20.7	23.6	15.8	19.3	13.7	18.9	15.3	22.8	20.5	28.2	34.0	30.5	34.6
115.0	27.3	29.6	22.8	24.8	17.8	20.6	15.7	20.2	17.1	23.9	22.4	29.6	35.6	32.7	36.2
120.0	29.5	31.2	24.9	26.3	19.9	21.9	17.6	21.4	19.0	25.2	24.3	31.0	37.3	34.8	37.9
125.0	31.8	32.9	27.2	27.9	22.1	23.4	19.7	22.8	21.0	26.7	26.4	32.6	39.2	37.0	39.9
130.0	34.0	34.9	29.6	29.7	24.2	25.1	21.8	24.6	23.2	28.5	28.5	34.4	40.6	38.8	41.9
135.0	36.1	36.8	31.7	31.4	26.2	26.9	24.0	26.3	25.3	30.1	30.4	35.9	41.3	39.7	42.6
140.0	37.4	37.8	33.0	32.6	28.0	28.5	25.9	28.0	27.1	31.3	31.6	36.7	41.1	39.8	42.4
145.0	37.8	38.2	33.7	33.4	29.2	29.8	27.6	29.4	28.5	32.1	32.3	36.9	40.6	39.3	41.8
150.0	37.7	38.2	34.3	34.0	30.5	31.0	29.1	30.9	29.7	32.8	32.9	36.9	39.9	38.8	40.9
155.0	37.4	38.1	34.7	34.6	31.6	32.2	30.5	32.1	30.9	33.4	33.3	36.8	39.4	38.2	40.3
160.0	37.3	38.1	35.1	35.1	32.7	33.2	31.7	33.3	32.1	34.1	33.8	36.7	39.0	37.8	39.7
165.0	37.3	38.1	35.5	35.9	33.8	34.3	33.1	34.4	33.3	34.8	34.3	36.7	38.9	37.6	39.2
170.0	37.6	38.1	36.1	36.5	34.8	35.5	34.5	35.4	34.4	35.6	35.0	36.8	38.7	37.5	38.8
175.0	37.7	38.1	36.5	37.1	35.8	36.4	35.7	36.3	35.2	36.2	35.5	36.9	38.4	37.3	38.3
180.0	38.2	38.0	37.2	37.6	36.8	37.2	37.2	37.0	36.4	36.8	36.3	36.9	38.2	37.3	37.8

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-D18040-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	5754	5754	5754	5754	5754	5754	5754	5754	5754
5.0	5590	5565	5544	5547	5547	5574	5607	5663	5717
10.0	5447	5395	5368	5366	5376	5415	5477	5581	5704
15.0	5322	5231	5192	5194	5206	5259	5366	5519	5721
20.0	5178	5065	4994	4993	5010	5095	5233	5483	5776
25.0	5061	4874	4769	4755	4786	4909	5122	5460	5889
30.0	4937	4674	4535	4510	4549	4709	5002	5460	6065
35.0	4811	4479	4299	4270	4317	4514	4882	5478	6243
40.0	4684	4283	4071	4034	4099	4327	4763	5508	6393
45.0	4540	4087	3846	3804	3878	4134	4636	5533	6508
50.0	4389	3884	3605	3570	3634	3932	4489	5531	6579
55.0	4219	3637	3340	3287	3374	3697	4317	5485	6611
60.0	3996	3346	3013	2951	3053	3411	4096	5391	6569
65.0	3653	2975	2493	2336	2536	3047	3780	5225	5973
70.0	2795	2101	1433	1301	1473	2188	3002	4202	4923
75.0	1214	920	528	542	549	1002	1406	2344	2766
80.0	212	197	87.2	95.0	99.3	232	336	512	663
85.0	35.5	47.7	14.1	22.1	13.4	46.5	50.2	76.6	51.7
90.0	15.7	25.4	13.9	21.7	13.5	24.9	14.8	29.5	19.2
95.0	19.7	25.9	17.4	23.3	17.0	25.2	18.5	27.5	18.9
100.0	23.4	28.0	20.9	25.7	20.6	27.4	22.3	29.6	22.7
105.0	26.4	30.0	24.1	28.2	23.7	29.4	25.3	31.6	26.0
110.0	29.0	31.9	27.0	30.5	26.6	31.4	27.9	33.2	28.6
115.0	31.2	33.7	29.4	32.6	29.2	33.4	30.2	34.7	30.7
120.0	33.5	35.7	31.8	34.7	31.8	35.4	32.6	36.3	32.5
125.0	36.2	38.1	34.5	37.1	34.5	37.7	35.3	38.4	34.6
130.0	38.6	40.6	37.1	39.4	36.9	40.2	37.8	40.6	36.7
135.0	39.7	41.4	38.5	40.6	38.2	41.2	39.1	41.6	38.0
140.0	39.8	41.4	39.0	40.8	38.6	41.1	39.3	41.6	38.4
145.0	39.5	41.2	39.3	40.8	38.7	40.9	39.0	41.0	38.3
150.0	39.1	40.9	39.3	40.6	38.6	40.5	38.6	40.3	37.9
155.0	38.7	40.5	39.2	40.5	38.5	40.1	38.2	39.7	37.4
160.0	38.4	40.2	39.1	40.4	38.4	39.8	37.9	39.2	37.1
165.0	38.1	39.8	38.8	40.2	38.2	39.4	37.6	38.7	36.8
170.0	37.8	39.1	38.2	39.8	37.9	38.8	37.3	38.2	36.5
175.0	37.3	38.2	37.3	38.7	37.0	37.9	36.6	37.5	36.2
180.0	36.9	37.3	36.6	37.6	36.4	36.9	36.1	36.9	36.2

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: