

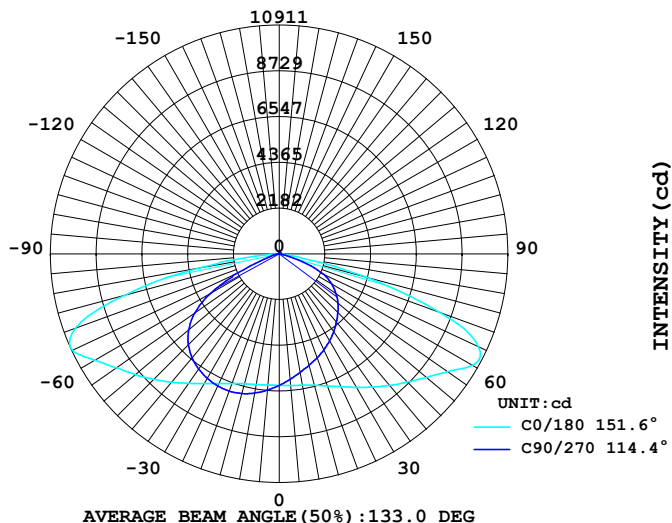
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

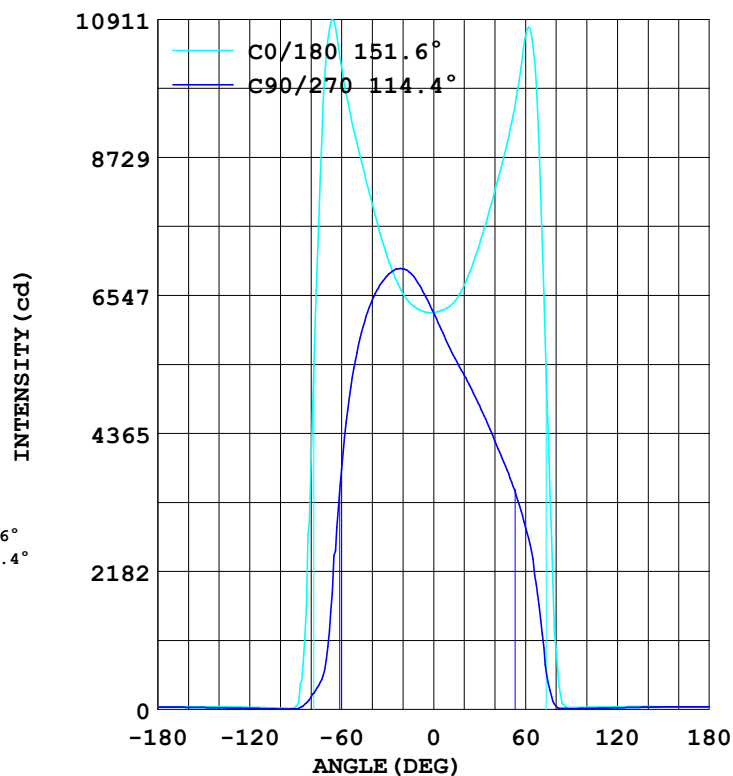
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY2	WEIGHT:
SPECIFICATION: 5050LED 4000K Type II	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	10911	S/MH (C0/180)	1.92
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.60
NOMINAL POWER(W)	180	TOTAL FLUX(lm)	26864	Voltage(V)	230.8
RATED VOLTAGE (V)	230	EFFICIENCY (lm/W)	148.3	Current(A)	0.794
NOMINAL FLUX(lm)	26864.0	η up (%)	0.7	Power(W)	181.1
LAMPS QUANTITY	1	η down (%)	99.3	Power Factor (PF)	0.996
TEST VOLTAGE (V)	230.8	Effective Flux(lm)	26864.1	EEI	0.101

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



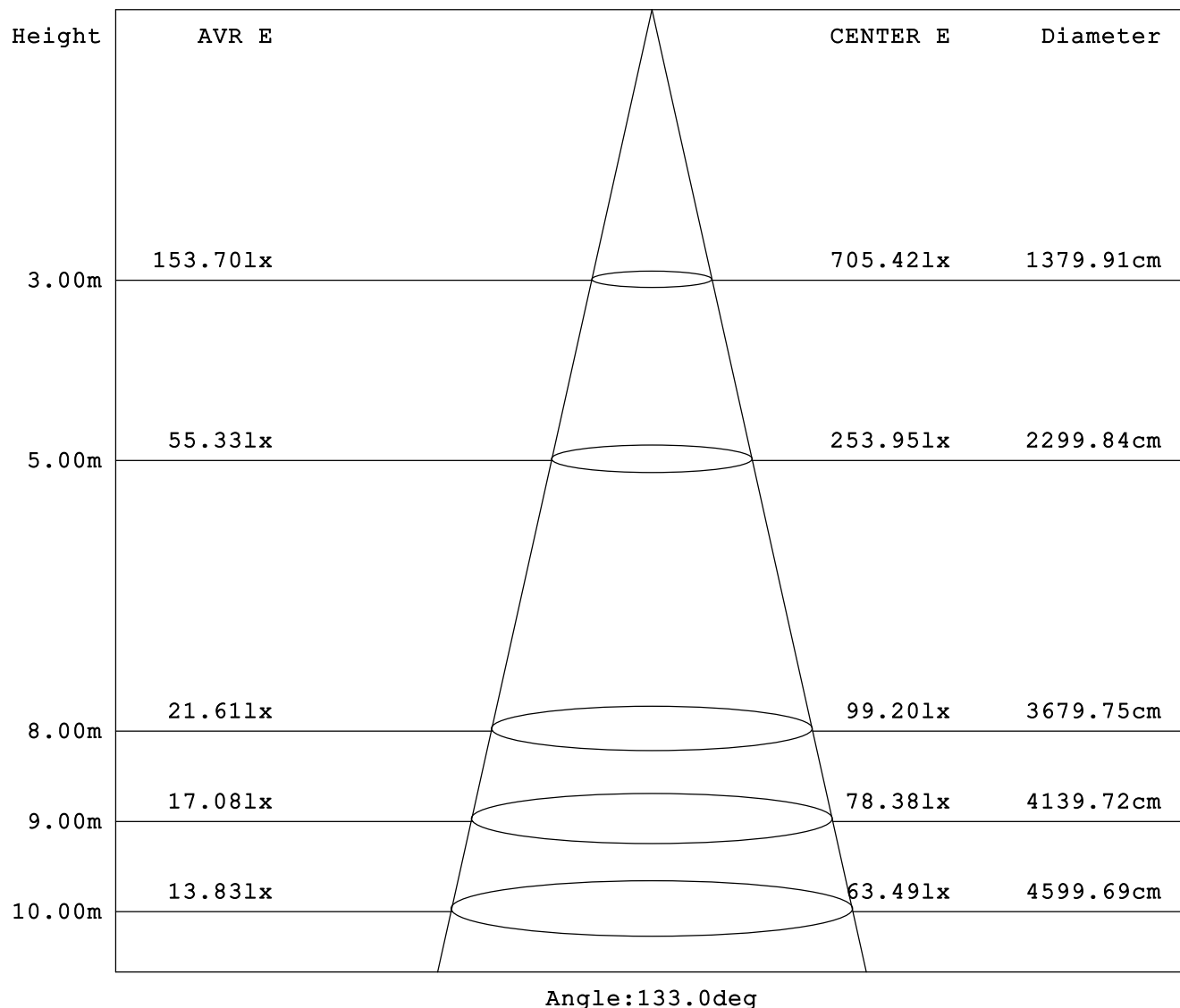
Test System:
 Temperature: 25.3 DEG
 Operators:
 Test Date: 2025.03.22

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-TY2	WEIGHT:
SPECIFICATION:5050LED 4000K Type II	DIMENSION:	SERIAL No.:



Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.03.22

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-TY2	WEIGHT:
SPECIFICATION:5050LED 4000K Type II	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	628.4	646.3	652.2	645.1	630.7	610.6	601.0	611.6	0- 5	150.1	150.1
10.0	632.9	663.8	674.0	661.5	636.4	594.1	574.1	596.3	5- 10	449.9	600.0
15.0	641.7	680.3	690.2	675.2	649.0	578.0	550.8	580.5	10- 15	747.5	1348
20.0	657.9	696.9	696.7	686.9	670.9	563.4	528.7	565.5	15- 20	1042	2389
25.0	682.7	712.3	695.5	695.2	699.7	549.3	505.3	550.9	20- 25	1332	3722
30.0	714.7	724.1	686.2	701.0	735.4	533.7	480.4	533.6	25- 30	1615	5337
35.0	754.2	733.0	670.7	702.8	776.1	517.6	453.4	516.3	30- 35	1887	7224
40.0	799.3	735.1	647.3	700.0	819.8	497.4	424.6	495.3	35- 40	2141	9364
45.0	847.3	727.9	613.0	690.4	864.8	471.5	396.5	469.5	40- 45	2367	11731
50.0	895.5	707.6	564.2	666.1	916.9	440.2	365.8	437.7	45- 50	2549	14280
55.0	949.4	664.9	492.8	615.5	980.8	402.1	330.8	395.8	50- 55	2668	16947
60.0	1015	586.0	380.4	533.1	1064	353.9	289.2	344.9	55- 60	2705	19653
65.0	1088	442.3	243.0	384.5	1048	287.2	237.8	275.3	60- 65	2608	22261
70.0	1034	194.8	78.10	164.1	808.9	184.9	140.7	175.0	65- 70	2185	24445
75.0	761.5	56.57	37.94	52.42	428.8	75.70	40.35	68.20	70- 75	1398	25843
80.0	381.6	31.42	18.79	28.11	95.93	16.06	5.187	15.42	75- 80	622.9	26466
85.0	73.64	12.10	6.045	11.52	7.359	3.577	1.624	3.357	80- 85	182.0	26648
90.0	4.106	3.003	1.140	2.856	3.223	0.978	1.473	0.932	85- 90	32.84	26681
95.0	1.934	1.975	0.848	1.844	3.352	1.300	1.524	1.273	90- 95	10.27	26691
100.0	2.370	1.955	0.918	1.784	3.570	1.673	1.685	1.673	95-100	10.07	26701
105.0	2.757	2.096	1.130	1.894	3.779	2.025	1.907	2.064	100-105	11.11	26712
110.0	3.064	2.297	1.352	2.054	3.937	2.358	2.180	2.415	105-110	12.17	26725
115.0	3.293	2.509	1.564	2.235	4.066	2.650	2.452	2.746	110-115	12.99	26738
120.0	3.501	2.711	1.786	2.415	4.245	2.902	2.725	3.017	115-120	13.57	26751
125.0	3.739	2.922	2.008	2.596	4.503	3.134	2.987	3.267	120-125	13.95	26765
130.0	4.037	3.134	2.240	2.796	4.701	3.396	3.239	3.508	125-130	14.11	26779
135.0	4.294	3.325	2.482	2.987	4.761	3.648	3.502	3.718	130-135	14.02	26793
140.0	4.404	3.477	2.704	3.167	4.671	3.870	3.774	3.919	135-140	13.54	26807
145.0	4.364	3.598	2.906	3.307	4.542	4.001	3.986	4.029	140-145	12.61	26819
150.0	4.275	3.678	3.098	3.418	4.413	4.051	4.118	4.059	145-150	11.35	26831
155.0	4.185	3.749	3.270	3.528	4.324	4.081	4.208	4.069	150-155	9.869	26841
160.0	4.126	3.819	3.441	3.628	4.265	4.091	4.269	4.059	155-160	8.253	26849
165.0	4.106	3.890	3.613	3.718	4.235	4.091	4.299	4.049	160-165	6.540	26855
170.0	4.116	3.971	3.774	3.819	4.205	4.081	4.279	4.029	165-170	4.743	26860
175.0	4.116	4.021	3.906	3.899	4.175	4.041	4.198	3.969	170-175	2.874	26863
180.0	4.156	4.071	4.047	3.969	4.156	4.011	4.097	3.899	175-180	0.960	26864
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm	

Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.03.22

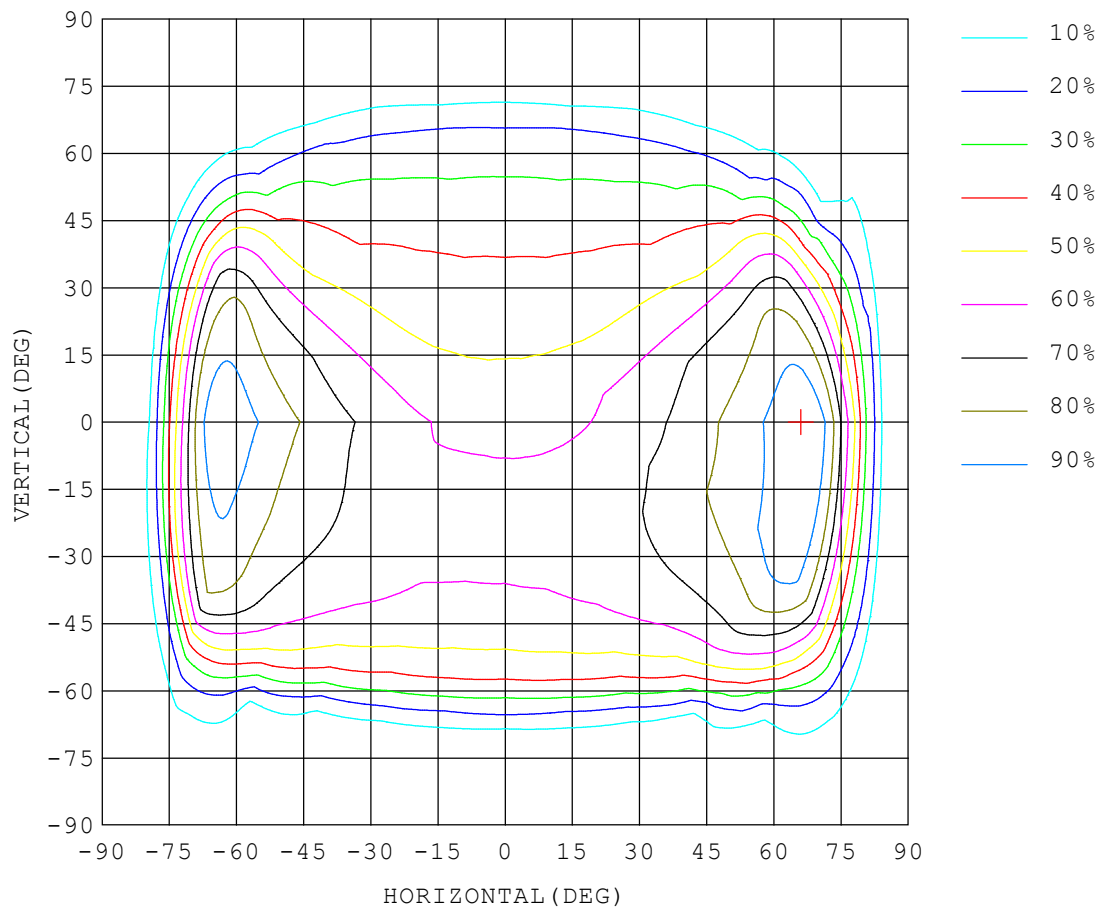
Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D18040-TY2	WEIGHT:
SPECIFICATION:5050LED 4000K Type II	DIMENSION:	SERIAL No.:

UNIT: cd



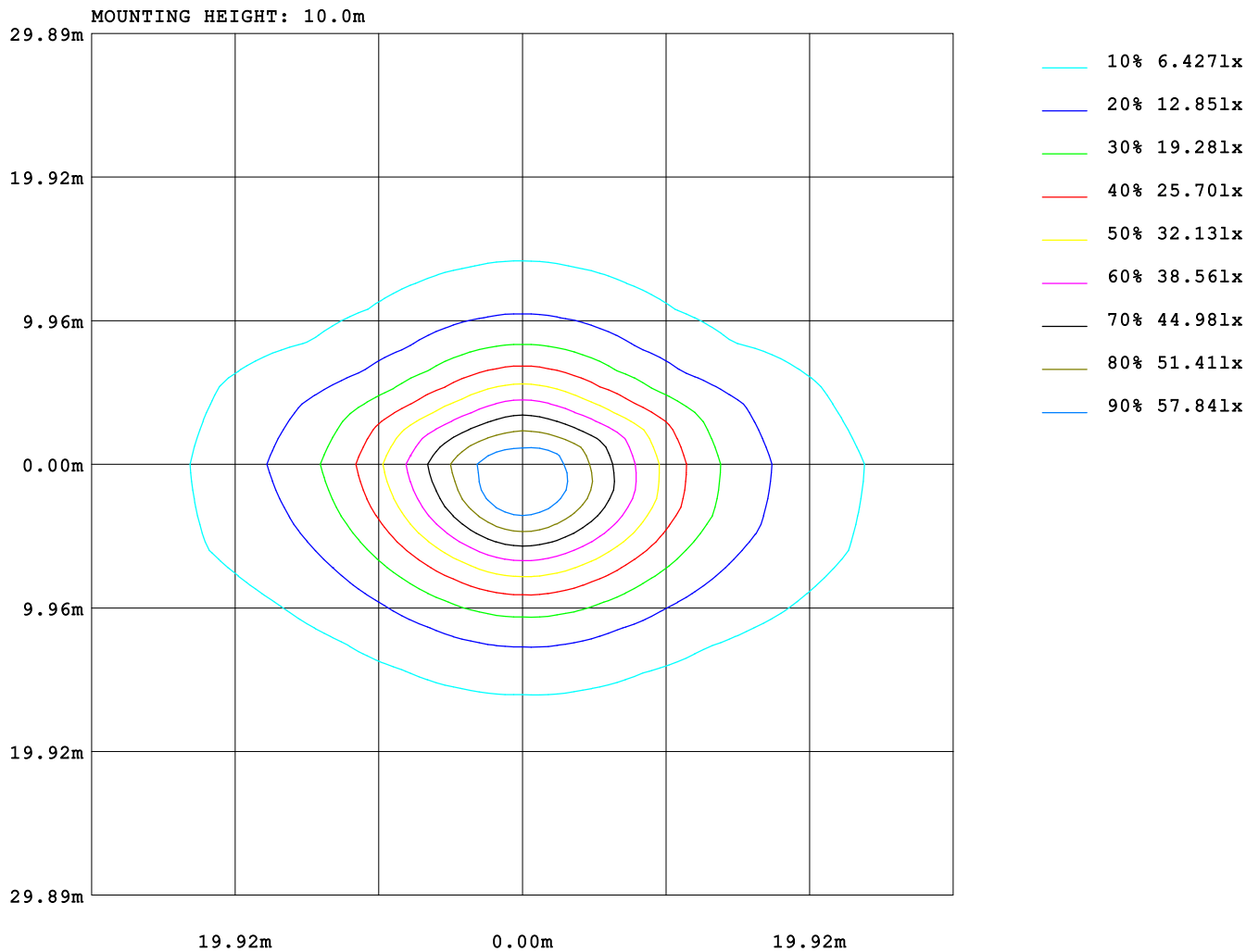
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.03.22

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

ISOLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE: IL-ST11-D18040-TY2	WEIGHT:
SPECIFICATION: 5050LED 4000K Type II	DIMENSION:	SERIAL No.:



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Operators:
Test Date: 2025.03.22

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity: 65.0%
Test Distance: 10.000 m
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LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Muller	TYPE:IL-ST11-D18040-TY2	WEIGHT:
SPECIFICATION:5050LED 4000K Type II	DIMENSION:	SERIAL No.:

UNIT: ×10cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	628	628	628	628	628	628	628	628	628	628	628	628	628	628	628
5.0	628	635	641	646	650	653	652	652	649	645	640	634	631	624	617
10.0	633	645	655	664	669	674	674	673	668	662	652	642	636	624	608
15.0	642	658	671	680	686	690	690	689	683	675	665	652	649	628	602
20.0	658	679	691	697	697	698	697	696	691	687	679	668	671	639	599
25.0	683	708	716	712	703	699	696	695	693	695	697	693	700	657	597
30.0	715	741	742	724	704	693	686	688	689	701	715	721	735	680	597
35.0	754	781	766	733	698	680	671	672	679	703	732	753	776	708	597
40.0	799	822	789	735	686	660	647	651	663	700	747	785	820	738	593
45.0	847	863	806	728	665	631	613	620	640	690	755	816	865	769	582
50.0	896	901	812	708	626	585	564	573	601	666	753	843	917	798	563
55.0	949	943	809	665	560	514	493	503	537	616	739	874	981	828	533
60.0	1015	993	800	586	455	406	380	397	432	533	706	909	1064	869	488
65.0	1088	1056	771	442	294	239	243	233	275	385	635	957	1048	867	407
70.0	1034	993	596	195	104	86.1	78.1	84.9	97.9	164	432	926	809	655	250
75.0	762	723	284	56.5	44.3	42.7	37.9	41.6	42.2	52.4	121	682	429	282	102
80.0	382	305	56.4	31.4	24.7	22.5	18.7	22.0	24.3	28.1	34.2	244	95.9	39.3	22.2
85.0	73.6	55.8	16.7	12.1	7.78	8.13	6.04	8.14	7.78	11.5	13.0	48.1	7.35	4.83	6.34
90.0	4.10	5.57	2.55	3.00	1.34	2.26	1.14	2.18	1.23	2.85	2.23	4.95	3.22	1.94	2.54
95.0	1.93	2.96	1.50	1.97	1.00	1.70	0.85	1.63	0.96	1.84	1.34	2.82	3.35	2.28	2.56
100.0	2.37	3.03	1.75	1.95	1.02	1.53	0.92	1.52	0.97	1.78	1.54	2.86	3.57	2.68	2.80
105.0	2.75	3.23	2.08	2.09	1.25	1.63	1.13	1.62	1.19	1.89	1.82	3.02	3.77	2.99	3.03
110.0	3.06	3.43	2.40	2.29	1.49	1.79	1.35	1.76	1.41	2.05	2.10	3.21	3.93	3.24	3.24
115.0	3.29	3.60	2.70	2.50	1.72	1.94	1.56	1.91	1.62	2.23	2.36	3.35	4.06	3.45	3.42
120.0	3.50	3.76	2.96	2.71	1.96	2.11	1.78	2.07	1.84	2.41	2.58	3.46	4.24	3.68	3.60
125.0	3.73	3.94	3.20	2.92	2.21	2.29	2.00	2.25	2.07	2.59	2.79	3.61	4.50	3.95	3.81
130.0	4.03	4.15	3.43	3.13	2.46	2.48	2.24	2.45	2.31	2.79	3.01	3.80	4.70	4.21	4.05
135.0	4.29	4.33	3.62	3.32	2.71	2.70	2.48	2.66	2.55	2.98	3.22	3.99	4.76	4.37	4.24
140.0	4.40	4.42	3.75	3.47	2.92	2.90	2.70	2.86	2.77	3.16	3.38	4.10	4.67	4.37	4.34
145.0	4.36	4.40	3.80	3.59	3.10	3.08	2.90	3.04	2.95	3.30	3.48	4.11	4.54	4.30	4.35
150.0	4.27	4.33	3.83	3.67	3.27	3.25	3.09	3.23	3.13	3.41	3.54	4.07	4.41	4.22	4.32
155.0	4.18	4.27	3.87	3.74	3.42	3.41	3.27	3.40	3.28	3.52	3.59	4.03	4.32	4.15	4.28
160.0	4.12	4.23	3.89	3.81	3.55	3.57	3.44	3.55	3.43	3.62	3.64	3.99	4.26	4.11	4.24
165.0	4.10	4.20	3.92	3.89	3.68	3.71	3.61	3.69	3.58	3.71	3.70	3.97	4.23	4.08	4.21
170.0	4.11	4.17	3.96	3.97	3.80	3.85	3.77	3.83	3.71	3.81	3.77	3.98	4.20	4.08	4.18
175.0	4.11	4.15	4.00	4.02	3.90	3.95	3.90	3.93	3.81	3.89	3.83	3.99	4.17	4.05	4.14
180.0	4.15	4.14	4.05	4.07	4.00	4.03	4.04	4.01	3.93	3.96	3.89	3.98	4.15	4.06	4.10

Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.03.22

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-TY2	WEIGHT:
SPECIFICATION:5050LED 4000K Type II	DIMENSION:	SERIAL No.:

UNIT: ×10cd

C (DEG) γ (DEG)	225	240	255	270	285	300	315	330	345
0.0	628	628	628	628	628	628	628	628	628
5.0	611	605	602	601	603	606	612	618	625
10.0	594	582	576	574	577	584	596	611	627
15.0	578	561	553	551	553	562	581	607	633
20.0	563	541	531	529	531	542	566	604	646
25.0	549	521	509	505	508	520	551	602	665
30.0	534	501	485	480	484	500	534	602	690
35.0	518	478	460	453	458	477	516	601	719
40.0	497	456	432	425	431	454	495	596	750
45.0	472	431	404	397	403	428	470	583	778
50.0	440	399	372	366	370	395	438	560	806
55.0	402	360	335	331	333	354	396	526	831
60.0	354	314	291	289	289	307	345	475	864
65.0	287	255	238	238	233	247	275	387	830
70.0	185	161	146	141	142	159	175	230	596
75.0	75.7	70.6	41.2	40.3	38.5	64.7	68.2	94.4	274
80.0	16.0	12.6	5.38	5.18	4.28	12.1	15.4	21.8	36.5
85.0	3.57	3.75	0.67	1.62	0.58	2.94	3.35	6.36	4.65
90.0	0.98	1.64	0.67	1.47	0.66	1.58	0.93	2.52	2.05
95.0	1.30	1.68	0.89	1.52	0.88	1.63	1.27	2.52	2.22
100.0	1.67	1.85	1.17	1.68	1.16	1.82	1.67	2.79	2.64
105.0	2.02	2.09	1.49	1.90	1.48	2.09	2.06	3.06	2.97
110.0	2.35	2.36	1.83	2.18	1.82	2.37	2.41	3.31	3.22
115.0	2.65	2.61	2.15	2.45	2.16	2.64	2.74	3.54	3.48
120.0	2.90	2.86	2.46	2.72	2.47	2.91	3.01	3.78	3.72
125.0	3.13	3.09	2.75	2.98	2.77	3.16	3.26	3.97	3.97
130.0	3.39	3.35	3.04	3.23	3.05	3.40	3.50	4.15	4.20
135.0	3.64	3.60	3.32	3.50	3.33	3.64	3.71	4.30	4.32
140.0	3.87	3.84	3.62	3.77	3.61	3.87	3.91	4.36	4.31
145.0	4.00	4.02	3.86	3.98	3.83	4.05	4.02	4.35	4.24
150.0	4.05	4.12	4.01	4.11	3.97	4.14	4.05	4.30	4.16
155.0	4.08	4.18	4.10	4.20	4.05	4.18	4.06	4.24	4.08
160.0	4.09	4.21	4.15	4.26	4.10	4.20	4.05	4.19	4.02
165.0	4.09	4.21	4.16	4.29	4.12	4.20	4.04	4.14	3.98
170.0	4.08	4.19	4.13	4.27	4.11	4.18	4.02	4.10	3.95
175.0	4.04	4.12	4.05	4.19	4.03	4.10	3.96	4.03	3.90
180.0	4.01	4.04	3.99	4.09	3.96	3.99	3.89	3.96	3.89

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