

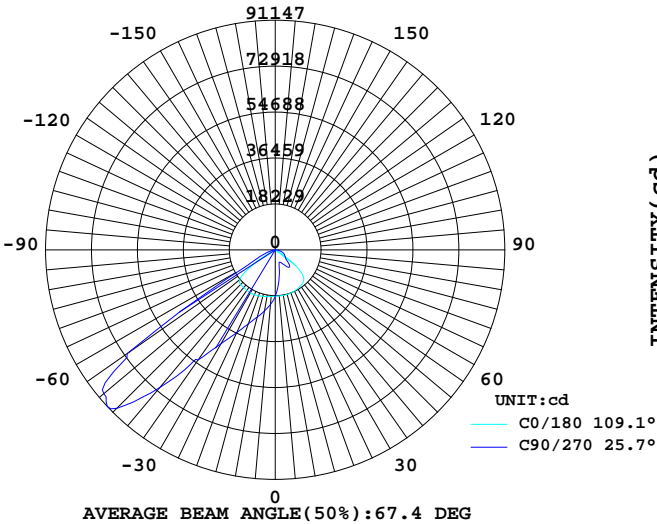
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

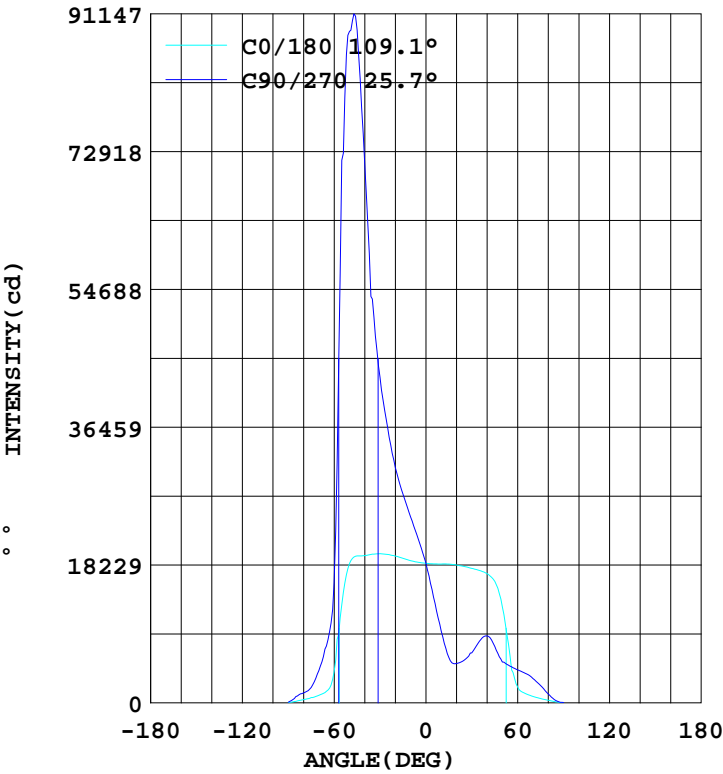
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	100029	S/MH(C0/180)	1.61
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	2.27
NOMINAL POWER(W)	600	TOTAL FLUX(lm)	87000	Voltage(V)	230.1
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	145.0	Current(A)	2.606
NOMINAL FLUX(lm)	87000.0	η up(%)	0.0	Power(W)	600.0
LAMPS QUANTITY	1	η down(%)	100.0	Power Factor(PF)	1.000
TEST VOLTAGE(V)	230.2	Effective Flux(lm)	86999.8	EEI	0.103

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



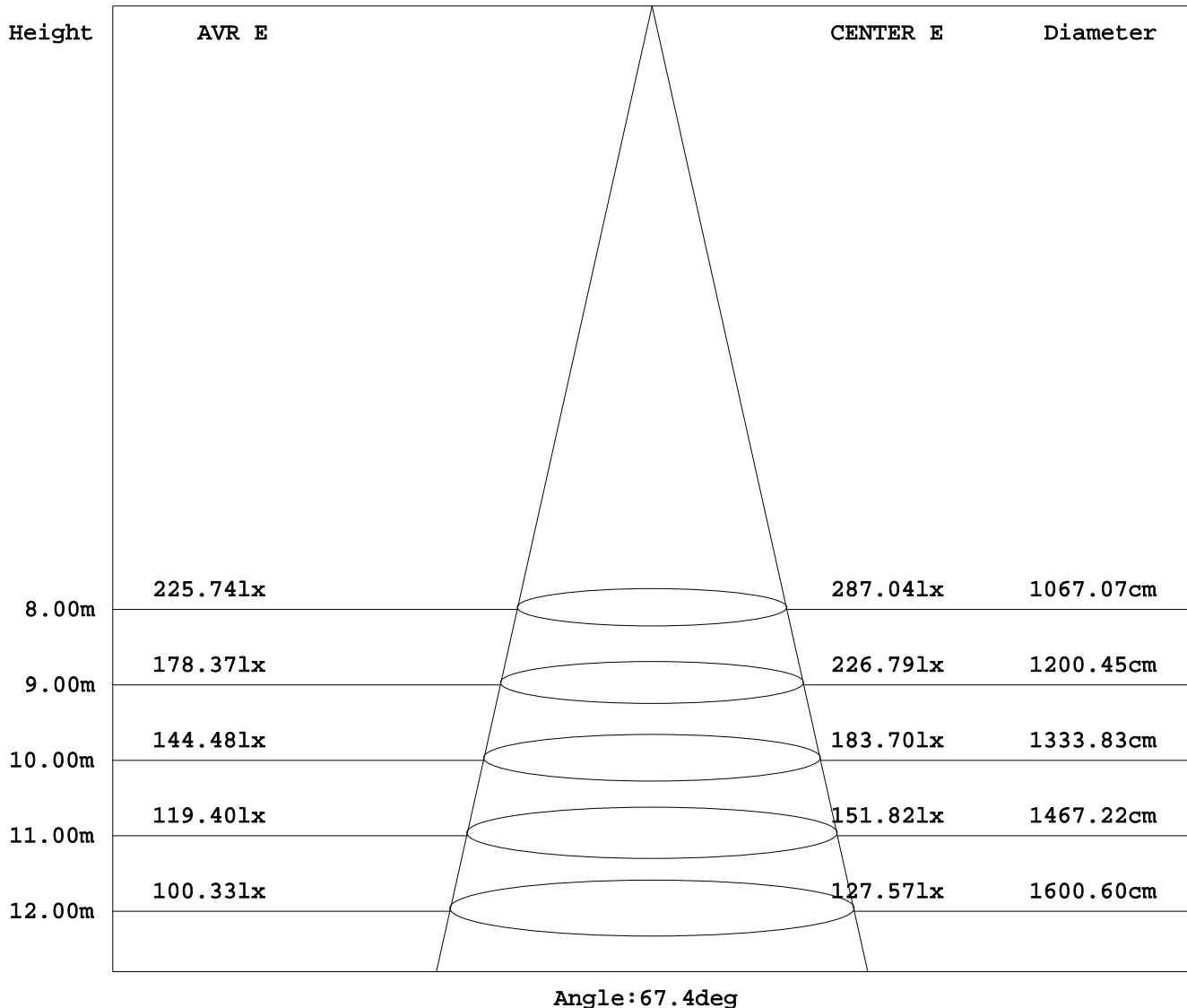
Test System:
 Temperature:25.3DEG
 Operators:
 Test Date:2025.02.20

Test Set: 5.0deg/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: Kroos	TYPE:IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:



Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	185.9	210.0	216.6	206.3	183.8	151.5	139.9	156.6	0- 5	437.1	437.1
10.0	188.0	233.7	245.9	228.2	183.7	118.1	95.19	125.9	5- 10	1282	1719
15.0	191.3	258.8	276.4	251.8	183.6	87.50	60.03	97.77	10- 15	2092	3811
20.0	194.2	287.2	311.6	278.2	182.4	64.17	52.07	70.59	15- 20	2921	6732
25.0	196.3	315.9	363.5	306.3	180.4	51.77	56.51	53.38	20- 25	3872	10604
30.0	197.2	347.1	430.3	335.8	177.9	50.19	66.16	46.36	25- 30	5004	15608
35.0	196.6	387.5	534.1	373.3	175.1	53.45	81.62	47.26	30- 35	6414	22022
40.0	194.7	449.8	714.5	431.1	170.9	58.32	88.57	50.03	35- 40	8344	30366
45.0	194.4	577.8	889.6	542.1	160.7	63.52	74.68	53.97	40- 45	11097	41464
50.0	184.1	741.0	888.0	656.0	127.2	62.16	54.14	52.72	45- 50	13870	55333
55.0	129.8	765.8	717.6	616.7	62.43	42.93	48.64	41.24	50- 55	14548	69882
60.0	41.12	468.2	159.0	245.4	20.75	32.06	43.77	28.05	55- 60	10241	80123
65.0	15.26	59.22	75.21	33.26	12.44	26.06	39.06	22.97	60- 65	3623	83746
70.0	10.01	16.16	42.78	13.35	8.548	19.81	32.29	16.84	65- 70	1491	85237
75.0	7.019	8.633	20.41	7.258	5.819	11.40	23.03	9.556	70- 75	904.8	86142
80.0	4.316	4.881	13.24	4.119	3.486	4.422	11.76	4.043	75- 80	528.6	86671
85.0	2.081	2.379	8.286	1.982	1.432	1.129	3.134	1.232	80- 85	252.5	86923
90.0	0.475	0.715	0.950	0.592	0.429	0.405	0.601	0.373	85- 90	76.67	87000
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:×100cd									UNIT:lm	

Test System:
 Temperature:25.3DEG
 Operators:
 Test Date:2025.02.20

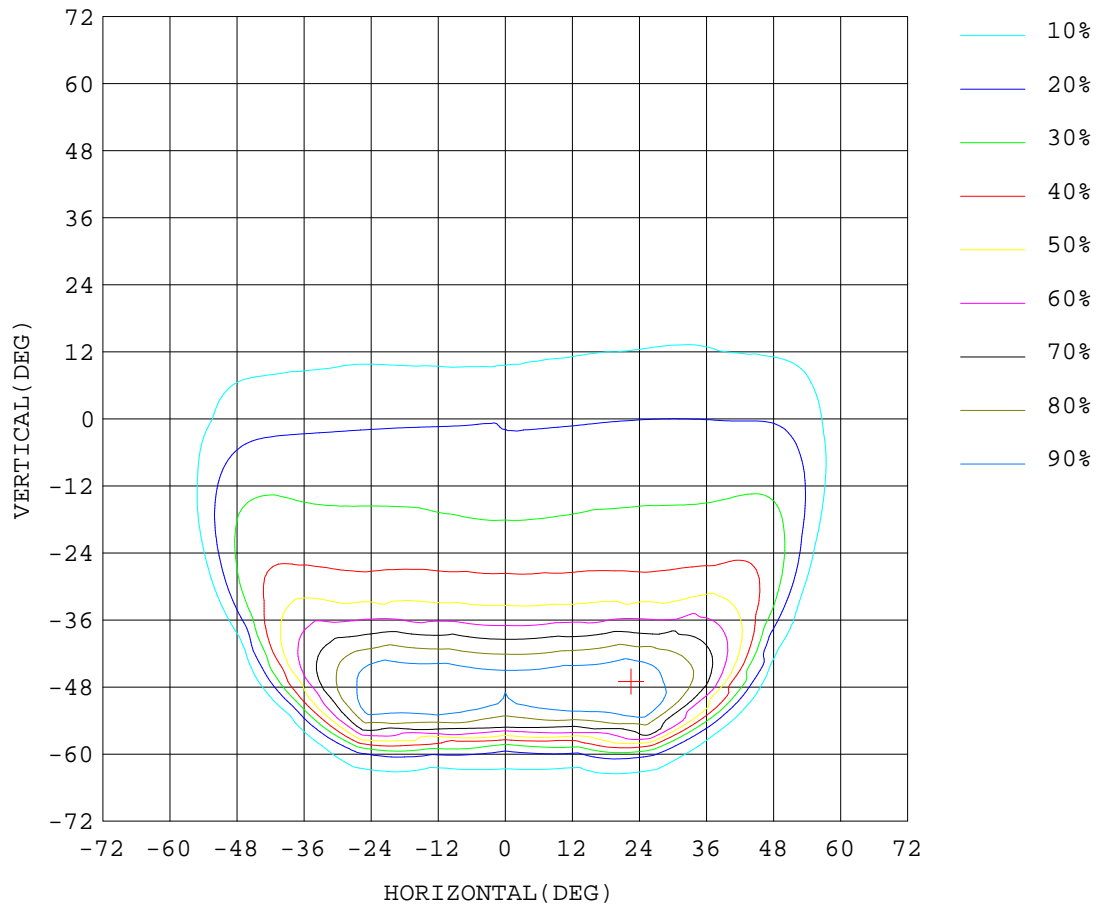
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

UNIT: cd



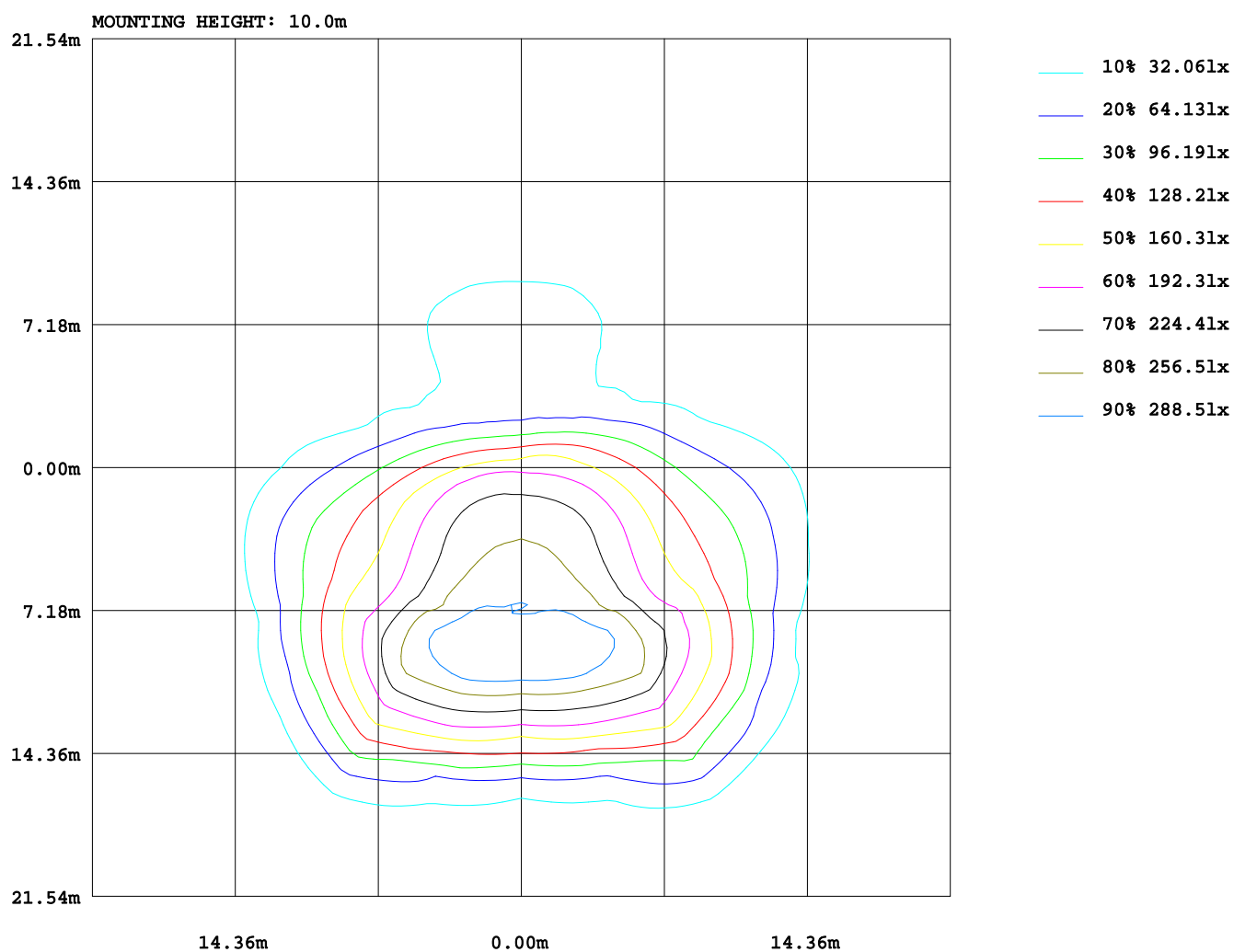
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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: Kroos	TYPE:IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:



Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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

Uncorrected UGR Table

Report number:

MANUFACTURER: ILUMEN GMBH	Address:			
NAME: Kroos	TYPE:IL-SL13-N60040-P50		WEIGHT:	
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:		SERIAL No.:	

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	35.0	36.6	35.3	36.8	37.0	41.2	42.8	41.5	43.0	43.2
3H	34.8	36.2	35.1	36.5	36.7	41.0	42.5	41.3	42.7	42.9
4H	34.7	36.0	35.0	36.3	36.5	40.9	42.3	41.3	42.5	42.8
6H	34.6	35.8	34.9	36.1	36.4	40.9	42.1	41.2	42.4	42.7
8H	34.5	35.8	34.9	36.0	36.3	40.8	42.0	41.1	42.3	42.6
12H	34.5	35.7	34.8	35.9	36.2	40.8	41.9	41.1	42.2	42.5
4H 2H	36.6	38.0	36.9	38.2	38.5	41.1	42.5	41.5	42.7	43.0
3H	36.4	37.6	36.8	37.9	38.2	41.0	42.2	41.4	42.5	42.8
4H	36.3	37.4	36.7	37.7	38.0	40.9	42.0	41.3	42.3	42.6
6H	36.3	37.2	36.6	37.5	37.9	40.9	41.8	41.3	42.1	42.5
8H	36.2	37.1	36.6	37.4	37.8	40.8	41.7	41.2	42.0	42.4
12H	36.2	36.9	36.6	37.3	37.7	40.8	41.6	41.2	41.9	42.3
8H 4H	36.2	37.1	36.6	37.4	37.8	40.8	41.6	41.2	42.0	42.4
6H	36.1	36.8	36.6	37.2	37.7	40.7	41.4	41.2	41.8	42.3
8H	36.1	36.7	36.6	37.1	37.6	40.7	41.3	41.2	41.7	42.2
12H	36.1	36.6	36.6	37.0	37.5	40.7	41.2	41.2	41.7	42.1
12H 4H	36.2	36.9	36.6	37.3	37.7	40.8	41.5	41.2	41.9	42.3
6H	36.1	36.7	36.6	37.1	37.6	40.7	41.3	41.2	41.7	42.2
8H	36.1	36.6	36.6	37.0	37.5	40.7	41.2	41.2	41.6	42.1

Variations with the observer position at spacings:

S = 1.0H	+ 2.1 / - 4.9	+ 1.9 / - 2.5
1.5H	+ 1.9 / - 4.4	+ 3.3 / - 6.2
2.0H	+ 5.8 / -13.2	+ 2.3 / - 9.2

CIE Pub.117 Corrected 87000 lm Total Lamp Luminous Flux.(8log(F/F0) = 15.5)

Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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: Kroos	TYPE: IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION: 5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

UNIT: ×100cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210
0.0	185	185	185	185	185	185	185	185	185	185	185	185	185	185	185
5.0	186	195	203	210	214	217	217	215	211	206	200	192	184	173	162
10.0	188	206	221	234	241	246	246	244	237	228	216	201	184	160	138
15.0	191	219	241	259	270	277	276	275	265	252	233	210	184	148	115
20.0	194	231	261	287	300	310	312	307	294	278	251	220	182	135	92.2
25.0	196	243	282	316	337	358	364	356	331	306	269	230	180	122	71.2
30.0	197	254	304	347	391	423	430	422	384	336	288	240	178	106	53.7
35.0	197	266	326	388	467	520	534	521	459	373	309	252	175	85.8	44.4
40.0	195	282	356	450	602	703	715	706	588	431	339	269	171	62.4	41.1
45.0	194	307	404	578	821	896	890	899	796	542	385	290	161	38.6	38.5
50.0	184	316	449	741	992	933	888	943	953	656	403	283	127	27.7	35.4
55.0	130	231	382	766	992	779	718	808	934	617	286	172	62.4	22.2	30.6
60.0	41.1	36.3	127	468	745	249	159	275	615	245	27.4	29.3	20.7	17.6	24.0
65.0	15.2	16.8	18.3	59.2	125	83.6	75.2	80.5	112	33.2	14.5	13.8	12.4	12.8	18.1
70.0	10.0	10.5	11.1	16.1	35.5	49.7	42.7	49.1	25.5	13.3	9.39	8.94	8.54	8.57	12.2
75.0	7.01	6.71	7.55	8.63	15.1	29.7	20.4	26.3	11.3	7.25	5.64	5.79	5.81	5.57	7.10
80.0	4.31	4.40	4.07	4.88	7.80	11.5	13.2	10.6	5.67	4.11	3.51	3.72	3.48	3.15	3.55
85.0	2.08	2.30	1.91	2.37	2.58	8.14	8.28	5.88	2.20	1.98	1.58	1.86	1.43	1.00	1.28
90.0	0.48	0.64	0.49	0.71	0.61	1.36	0.95	1.03	0.50	0.59	0.36	0.48	0.43	0.29	0.46

Test System:
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Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE: IL-SL13-N60040-P50	WEIGHT:
SPECIFICATION: 5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

UNIT: ×100cd

C (DEG) γ (DEG)	225	240	255	270	285	300	315	330	345
0.0	185	185	185	185	185	185	185	185	185
5.0	152	145	140	140	142	148	157	167	177
10.0	118	105	96.4	95.1	99.2	110	126	147	169
15.0	87.5	70.8	62.9	60.0	69.6	76.0	97.7	127	160
20.0	64.1	53.5	52.2	52.0	51.2	52.5	70.5	107	150
25.0	51.7	52.7	55.5	56.5	54.5	50.5	53.3	85.8	140
30.0	50.1	58.2	64.3	66.1	61.2	54.1	46.3	66.3	130
35.0	53.4	67.5	79.6	81.6	74.4	61.1	47.2	48.1	115
40.0	58.3	78.3	88.7	88.5	83.7	69.4	50.0	37.1	93.1
45.0	63.5	81.5	81.3	74.6	80.5	72.6	53.9	33.7	69.1
50.0	62.1	69.7	60.0	54.1	61.1	66.6	52.7	29.9	43.2
55.0	42.9	47.6	48.2	48.6	46.5	43.2	41.2	25.3	25.9
60.0	32.0	40.0	43.1	43.7	41.6	37.0	28.0	20.8	17.9
65.0	26.0	34.4	37.8	39.0	37.3	32.4	22.9	15.9	12.3
70.0	19.8	29.3	32.6	32.2	32.7	27.2	16.8	10.7	8.51
75.0	11.4	22.5	25.1	23.0	26.2	19.3	9.55	6.89	5.77
80.0	4.42	11.9	14.4	11.7	15.6	9.32	4.04	3.85	3.44
85.0	1.12	2.53	3.00	3.13	3.10	2.17	1.23	1.54	1.29
90.0	0.40	0.67	0.41	0.60	0.44	0.64	0.37	0.43	0.28

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