

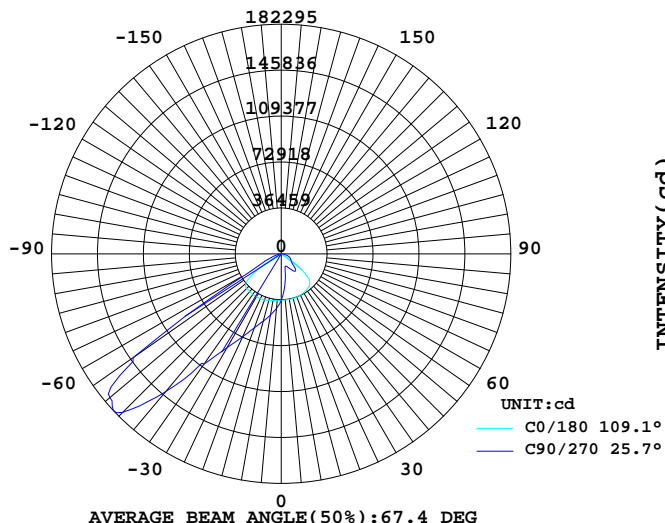
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

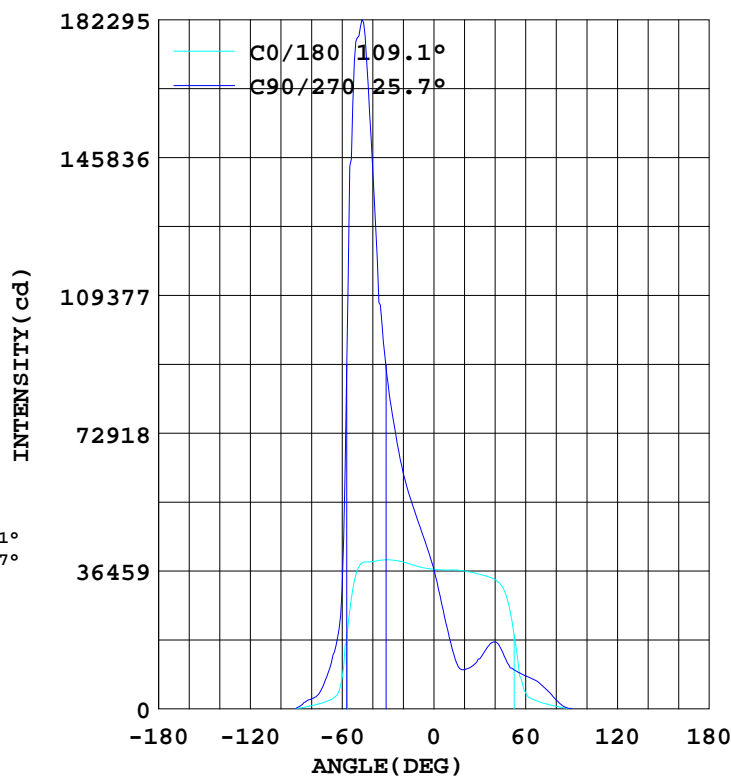
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N120040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	200059	S/MH(C0/180)	1.61
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	2.27
NOMINAL POWER(W)	1200	TOTAL FLUX(lm)	174000	Voltage(V)	230.1
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	145.0	Current(A)	5.213
NOMINAL FLUX(lm)	174000.0	η up(%)	0.0	Power(W)	1200
LAMPS QUANTITY	1	η down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	230.2	Effective Flux(lm)	173999.6	EEI	0.103

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



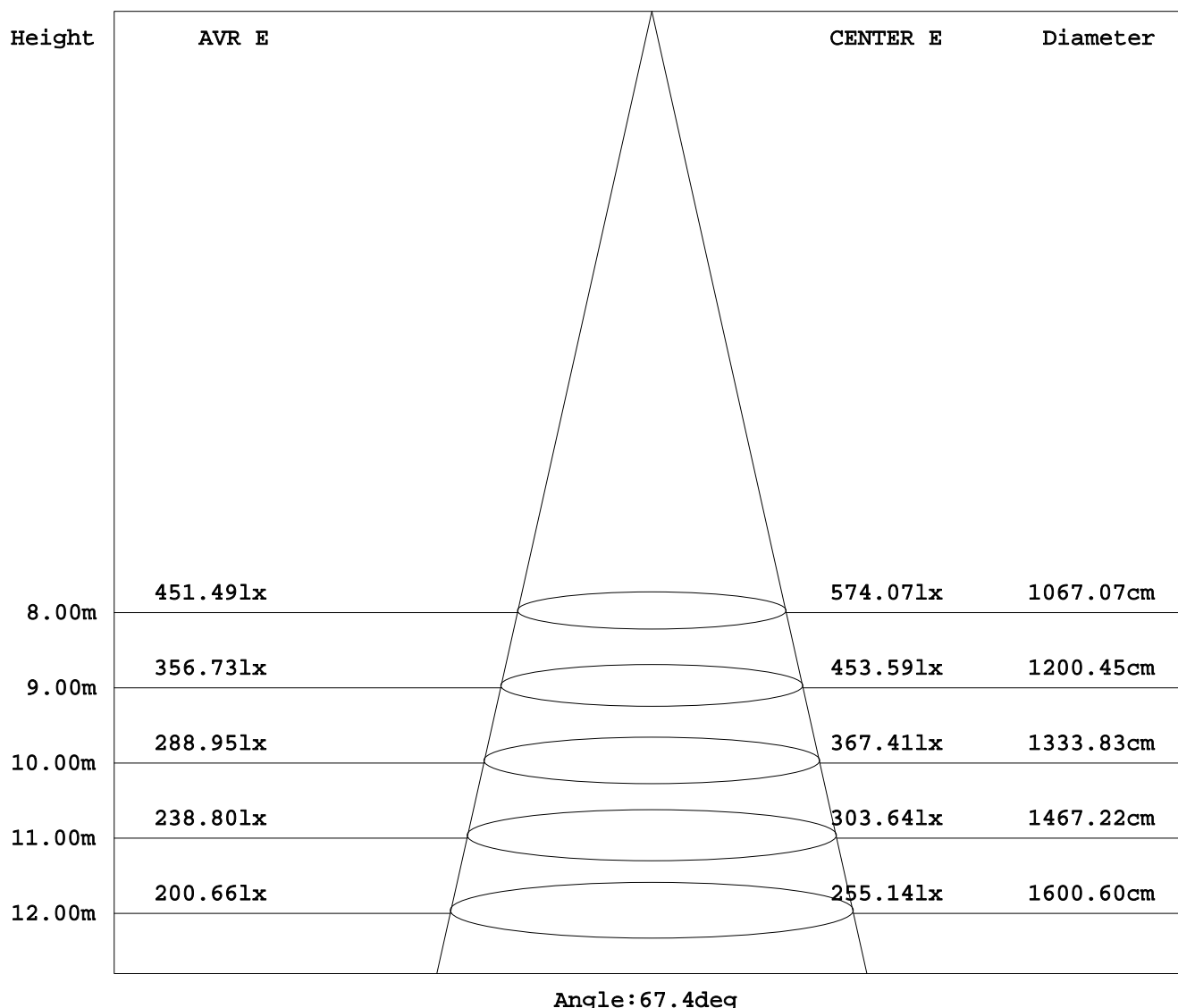
Test System:
 Temperature:25.3DEG
 Operators:
 Test Date:2025.02.20

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-N120040-P50	WEIGHT:
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ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N120040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	371.9	420.0	433.2	412.7	367.6	303.1	279.8	313.2	0- 5	874.3	874.3
10.0	376.1	467.5	491.8	456.4	367.4	236.3	190.3	251.9	5- 10	2564	3438
15.0	382.6	517.6	552.8	503.7	367.2	175.0	120.0	195.5	10- 15	4183	7621
20.0	388.4	574.4	623.2	556.4	364.8	128.3	104.1	141.1	15- 20	5843	13464
25.0	392.7	631.9	727.1	612.6	360.9	103.5	113.0	106.7	20- 25	7745	21209
30.0	394.5	694.3	860.7	671.7	355.9	100.3	132.3	92.73	25- 30	10008	31217
35.0	393.3	775.0	1068	746.6	350.3	106.9	163.2	94.52	30- 35	12828	44044
40.0	389.4	899.6	1429	862.2	341.8	116.6	177.1	100.0	35- 40	16688	60732
45.0	388.9	1156	1779	1084	321.4	127.0	149.3	107.9	40- 45	22195	82927
50.0	368.3	1482	1776	1312	254.4	124.3	108.2	105.4	45- 50	27739	110666
55.0	259.6	1532	1435	1234	124.8	85.86	97.29	82.49	50- 55	29097	139763
60.0	82.25	936.5	318.0	490.9	41.50	64.13	87.54	56.11	55- 60	20483	160246
65.0	30.53	118.4	150.4	66.53	24.88	52.12	78.13	45.94	60- 65	7246	167492
70.0	20.02	32.33	85.57	26.71	17.09	39.63	64.59	33.68	65- 70	2982	170474
75.0	14.03	17.26	40.83	14.51	11.63	22.81	46.06	19.11	70- 75	1810	172284
80.0	8.632	9.762	26.49	8.238	6.972	8.845	23.53	8.086	75- 80	1057	173341
85.0	4.163	4.758	16.57	3.964	2.864	2.258	6.268	2.464	80- 85	505.0	173846
90.0	0.951	1.429	1.900	1.183	0.858	0.810	1.202	0.747	85- 90	153.3	174000
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

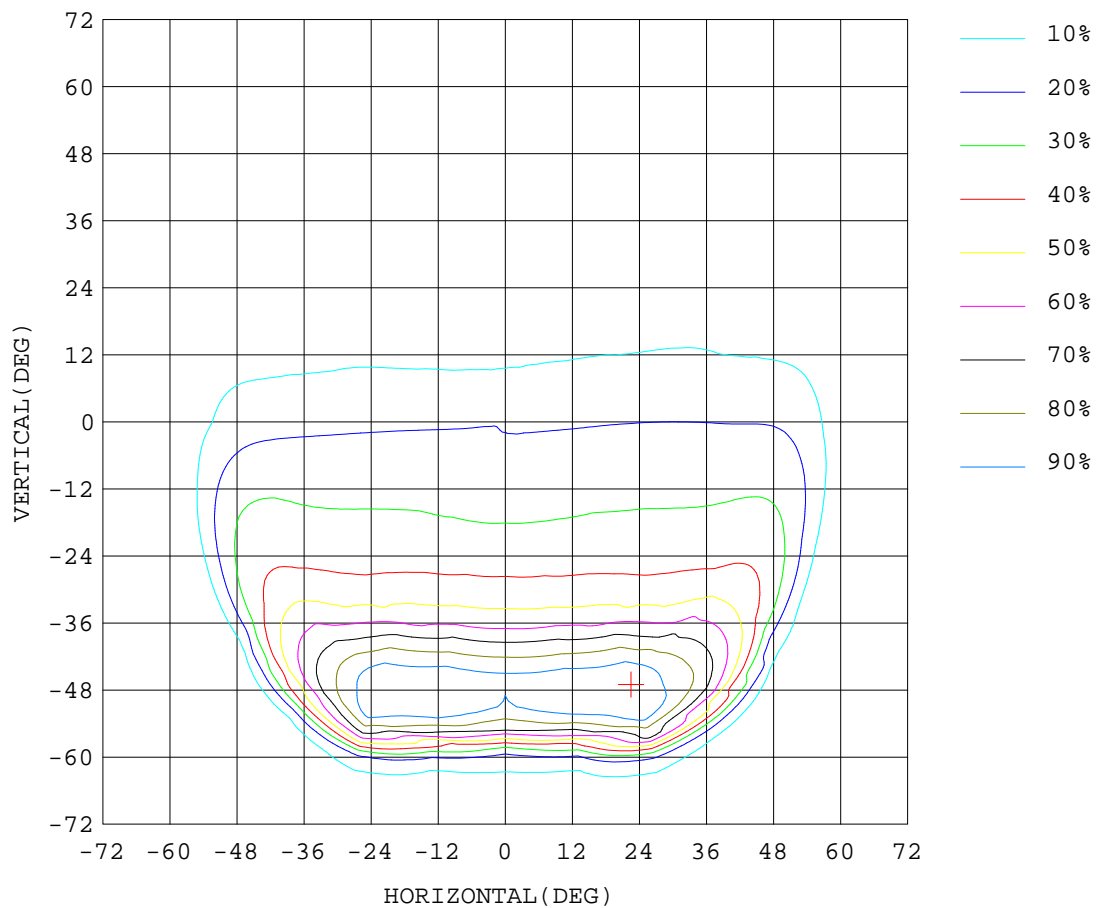
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N120040-P50	WEIGHT:
SPECIFICATION:5050LED 4000K P50 30X110°	DIMENSION:	SERIAL No.:

UNIT: cd



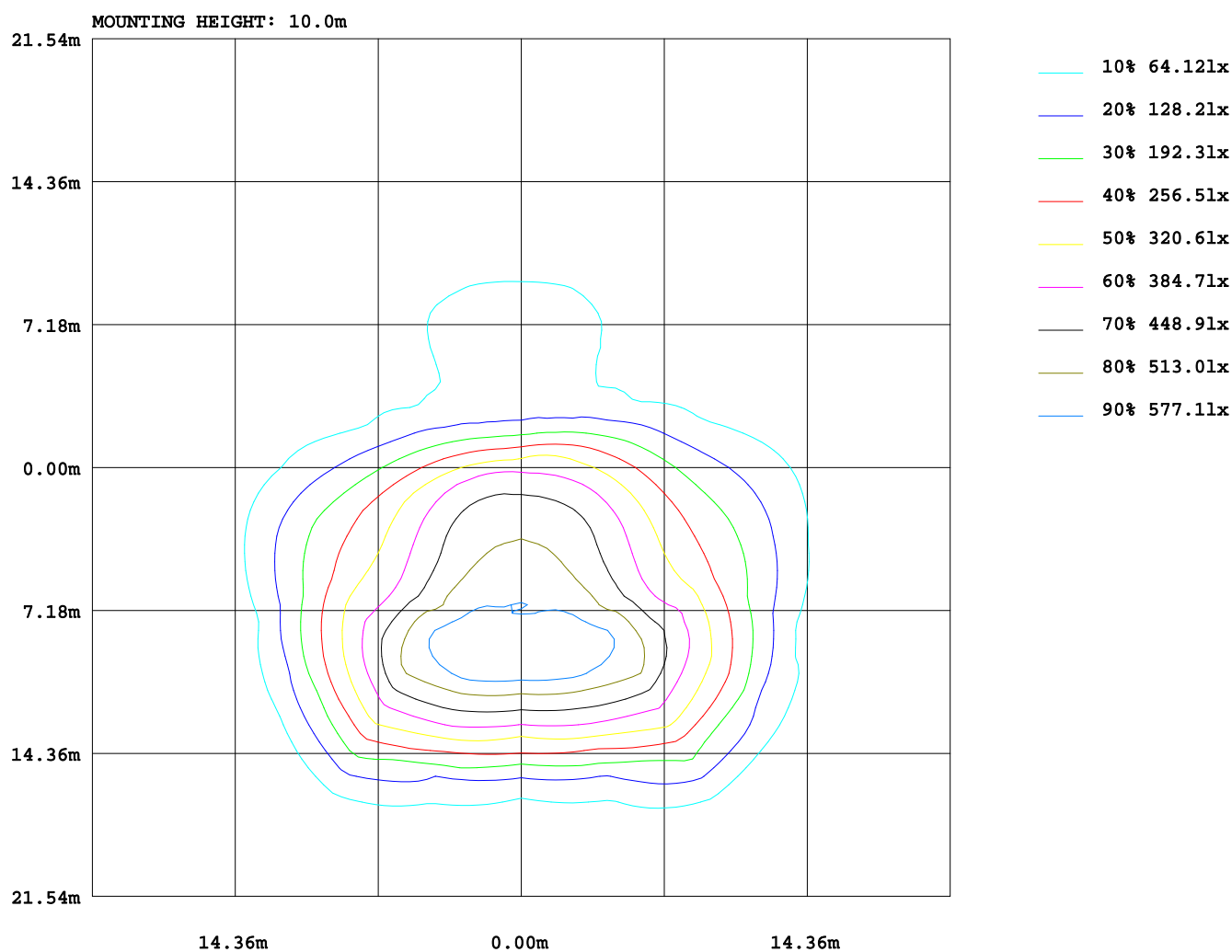
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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-N120040-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-N120040-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	34.1	35.7	34.4	35.9	36.1	40.3	41.9	40.6	42.1	42.3
3H	33.9	35.3	34.2	35.6	35.8	40.1	41.6	40.4	41.8	42.0
4H	33.8	35.1	34.1	35.4	35.6	40.0	41.4	40.4	41.6	41.9
6H	33.7	34.9	34.0	35.2	35.5	40.0	41.2	40.3	41.5	41.8
8H	33.6	34.9	34.0	35.1	35.4	39.9	41.1	40.2	41.4	41.7
12H	33.6	34.8	33.9	35.0	35.3	39.9	41.0	40.2	41.3	41.6
4H 2H	35.7	37.1	36.0	37.3	37.6	40.2	41.6	40.6	41.8	42.1
3H	35.5	36.7	35.9	37.0	37.3	40.1	41.3	40.5	41.6	41.9
4H	35.4	36.5	35.8	36.8	37.1	40.0	41.1	40.4	41.4	41.7
6H	35.3	36.3	35.7	36.6	37.0	40.0	40.9	40.4	41.2	41.6
8H	35.3	36.2	35.7	36.5	36.9	39.9	40.8	40.3	41.1	41.5
12H	35.3	36.0	35.7	36.4	36.8	39.9	40.7	40.3	41.0	41.4
8H 4H	35.3	36.2	35.7	36.5	36.9	39.9	40.7	40.3	41.1	41.5
6H	35.2	35.9	35.7	36.3	36.8	39.8	40.5	40.3	40.9	41.4
8H	35.2	35.8	35.7	36.2	36.7	39.8	40.4	40.3	40.8	41.3
12H	35.2	35.7	35.7	36.1	36.6	39.8	40.3	40.3	40.8	41.2
12H 4H	35.3	36.0	35.7	36.4	36.8	39.9	40.6	40.3	41.0	41.4
6H	35.2	35.8	35.7	36.2	36.7	39.8	40.4	40.3	40.8	41.3
8H	35.2	35.7	35.7	36.1	36.6	39.8	40.3	40.3	40.7	41.2

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 174000 lm Total Lamp Luminous Flux.(8log(F/F0) = 17.9)

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-N120040-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	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369
5.0	372	391	407	420	428	434	433	431	423	413	399	384	368	345	323
10.0	376	413	443	468	482	492	492	488	474	456	432	402	367	320	275
15.0	383	437	482	518	540	554	553	549	530	504	466	421	367	296	230
20.0	388	462	522	574	600	621	623	614	588	556	503	440	365	270	184
25.0	393	485	564	632	675	716	727	711	661	613	539	459	361	244	143
30.0	395	507	607	694	782	846	861	844	768	672	576	479	356	213	108
35.0	393	532	653	775	933	1040	1068	1042	917	747	618	503	350	172	88.8
40.0	389	565	713	900	1204	1405	1429	1413	1175	862	678	538	342	125	82.2
45.0	389	614	807	1156	1643	1792	1779	1798	1591	1084	769	580	321	77.2	77.0
50.0	368	633	899	1482	1983	1867	1776	1886	1906	1312	806	565	254	55.5	70.8
55.0	260	462	763	1532	1984	1559	1435	1616	1869	1234	571	344	125	44.4	61.3
60.0	82.2	72.7	254	937	1490	498	318	551	1230	491	54.8	58.7	41.5	35.3	48.1
65.0	30.5	33.7	36.6	118	250	167	150	161	223	66.5	29.0	27.7	24.8	25.7	36.3
70.0	20.0	21.0	22.3	32.3	71.0	99.5	85.5	98.2	51.0	26.7	18.7	17.8	17.0	17.1	24.4
75.0	14.0	13.4	15.1	17.2	30.3	59.4	40.8	52.6	22.7	14.5	11.2	11.5	11.6	11.1	14.2
80.0	8.63	8.81	8.14	9.76	15.6	23.0	26.4	21.3	11.3	8.23	7.03	7.44	6.97	6.30	7.10
85.0	4.16	4.61	3.83	4.75	5.16	16.2	16.5	11.7	4.40	3.96	3.16	3.73	2.86	2.00	2.57
90.0	0.95	1.28	0.99	1.42	1.22	2.72	1.90	2.07	1.00	1.18	0.72	0.95	0.86	0.57	0.92

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 Humidity:65.0%
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LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE: IL-SL13-N120040-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	369	369	369	369	369	369	369	369	369
5.0	303	289	280	280	284	297	313	334	354
10.0	236	210	193	190	199	221	252	293	337
15.0	175	142	126	120	139	152	196	253	319
20.0	128	107	105	104	103	105	141	214	299
25.0	104	106	111	113	109	101	107	172	280
30.0	100	117	129	132	122	108	92.7	133	260
35.0	107	135	159	163	149	122	94.5	96.2	230
40.0	117	157	178	177	167	139	100	74.2	186
45.0	127	163	163	149	161	145	108	67.5	138
50.0	124	139	120	108	122	133	105	59.9	86.5
55.0	85.8	95.2	96.5	97.2	93.1	86.4	82.4	50.6	51.9
60.0	64.1	80.0	86.2	87.5	83.3	74.1	56.1	41.6	35.9
65.0	52.1	68.9	75.7	78.1	74.7	64.8	45.9	31.9	24.7
70.0	39.6	58.6	65.2	64.5	65.4	54.4	33.6	21.5	17.0
75.0	22.8	45.0	50.3	46.0	52.5	38.6	19.1	13.7	11.5
80.0	8.84	23.9	28.8	23.5	31.3	18.6	8.08	7.70	6.88
85.0	2.25	5.06	6.01	6.26	6.21	4.34	2.46	3.09	2.59
90.0	0.81	1.33	0.82	1.20	0.87	1.28	0.75	0.86	0.57

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