

ANEXO 23-0951-1-A RALED I 16 LED's RA10 20W

DRIVER ADVANCE XITANIUM 55W 0.1-1.8A 0-10V Dimming

MODULO LED 2X8 Z15 5050 4K SAMSUNG

SURGE PROTECTIVE DEVICE SPD-10KP320

LENTE: RA10 (4UND)



Light Output Ratio: 100.0%
Luminaire Power: 20.62 W

I80 = 49.5 cd per klm. I88 = 0.9 cd per klm.
I90 = 0.9 cd per klm. I80/I88 = 57.864

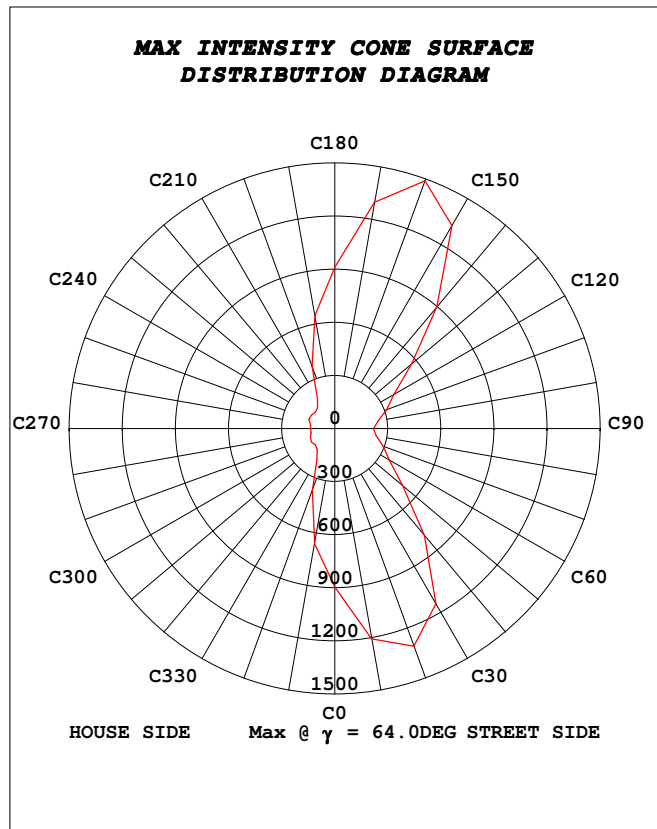
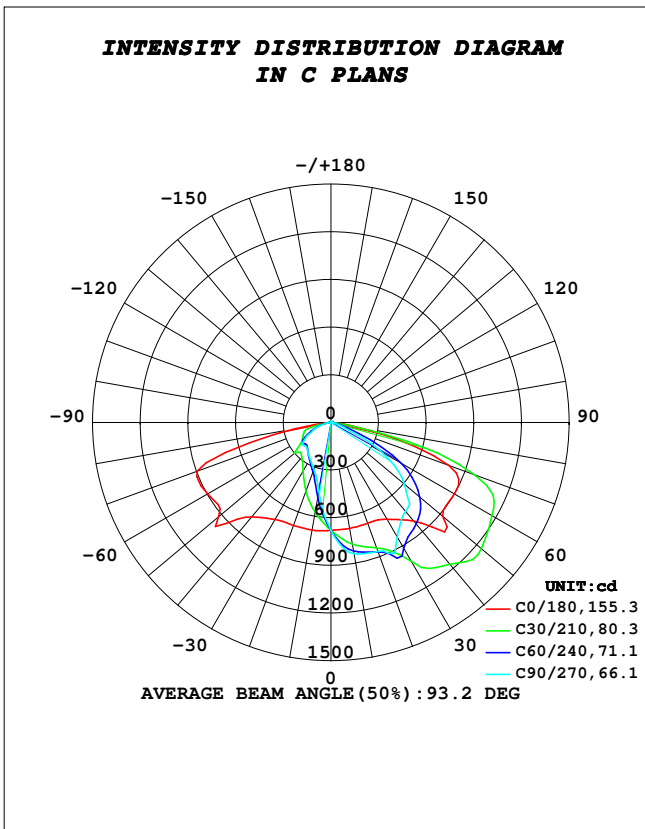
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:220.20V I:0.0979A P:20.622W PF:0.9569 Freq:60.01Hz Lamp Flux:2793.58x1 lm		
NAME: ANEXO 23-0951-1-A RALED I 16 LED's 20W	TYPE: Alumbrado Publico	WEIGHT: ----
SPEC.: 16 LED's 20W	DIM.: ----	SERIAL No.: 23-0951-1
MFR.: ROY ALPHA	SUR.: ----	Shielding Angle: ----

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.46 lm/W			
MODEL	2X8 Z15 5050	Imax(cd)	1490	η street_up(%)	0.3
NOMINAL POWER(W)	20	LOR(%)	100.0	η street_down(%)	70.8
RATED VOLTAGE(V)	----	TOTAL FLUX(lm)	2794	η house_up(%)	0.5
NOMINAL FLUX(lm)	2793.58	MAXIMUM @ (C, γ)	160, 64.0	η house_down(%)	28.4
LAMPS INSIDE	1	η up(%)	0.8	76 FLASHAREA(m2)	
TEST VOLTAGE(V)	220	η down(%)	99.2	SLI	

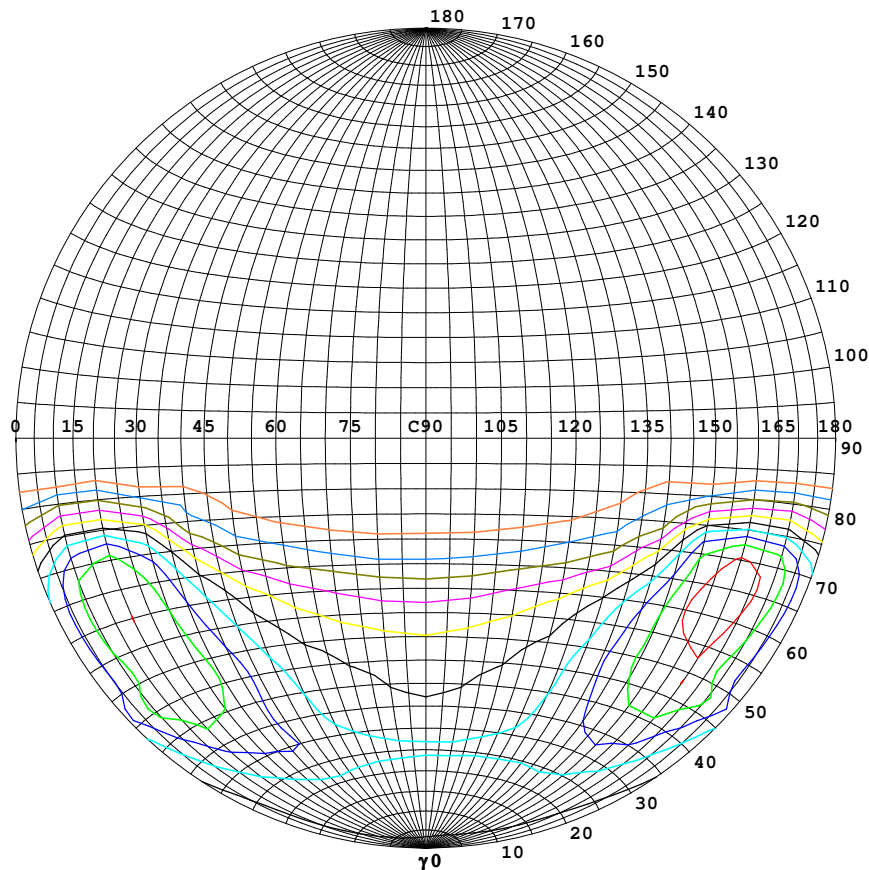


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STREETLIGHT ISOCANDELA DIAGRAM

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Classification:

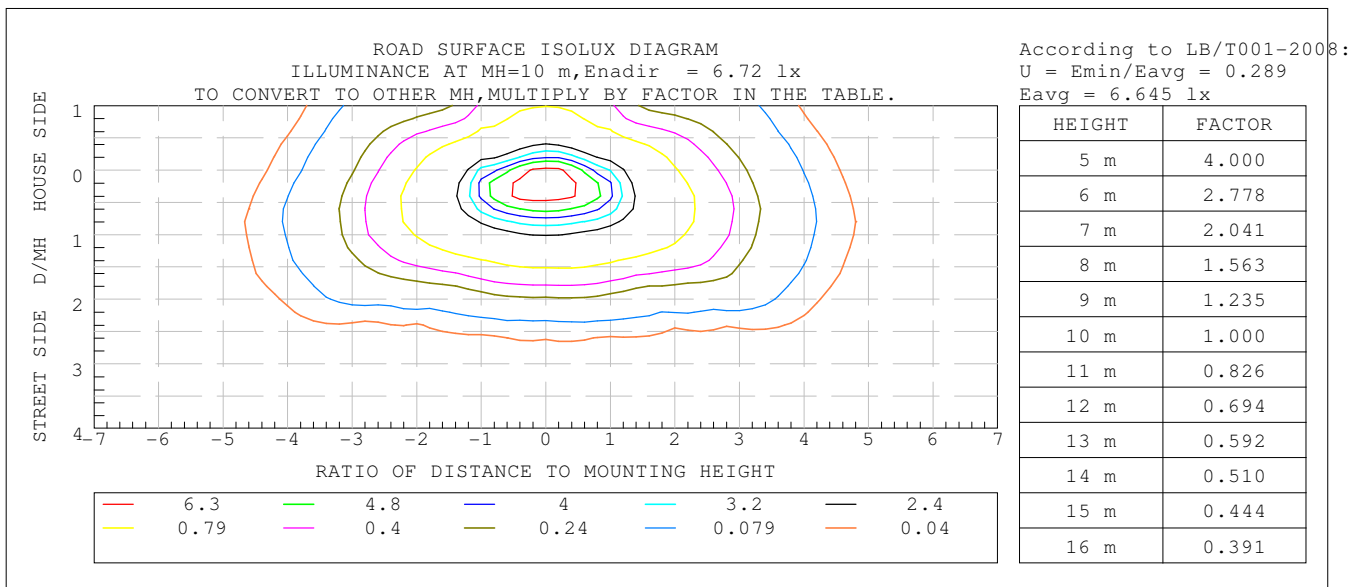
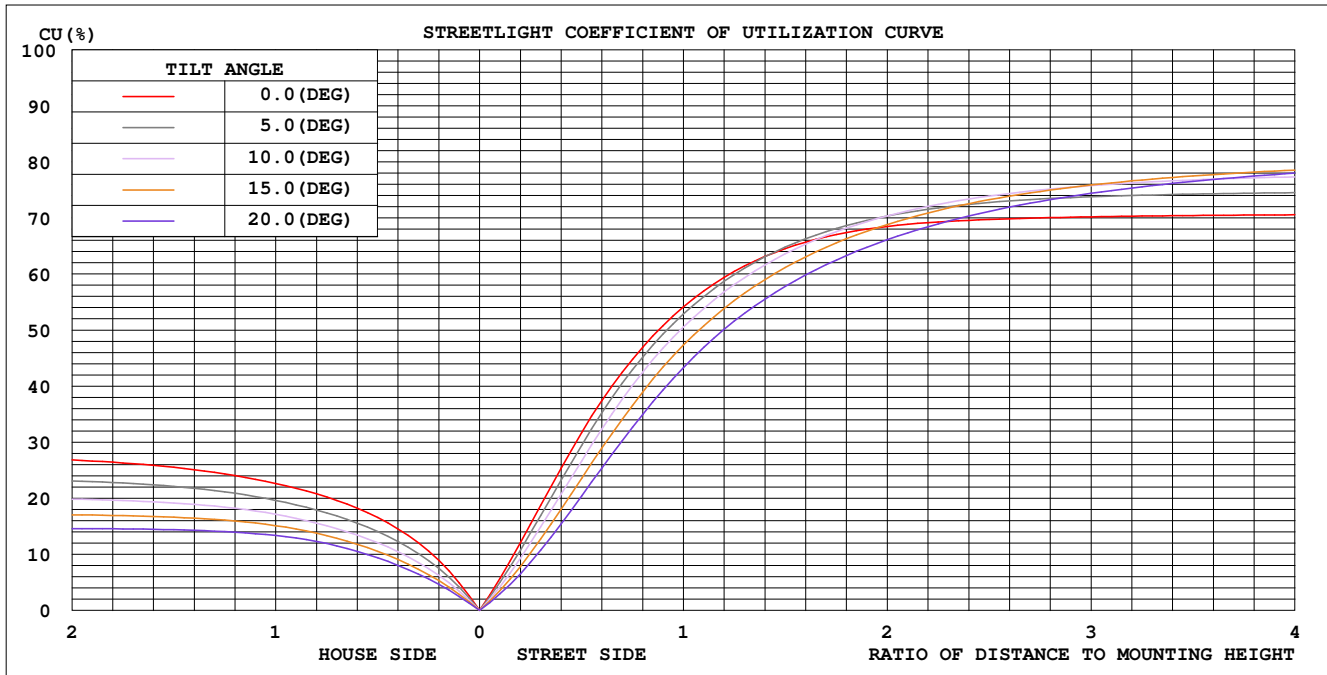
IES:Type III - Short
CIE:Narrow - Intermediate
IES:Semi cut-off
CIE:Non-cut-off
Max.At80:118.4cd/klm
Max.At90:0.8636cd/klm
Max.80-90:118.4cd/klm
NRB 5101:Semi limited[28.4%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	1490
90%	1341
80%	1192
70%	1043
60%	894
50%	745
40%	596
30%	447
20%	298
10%	149
5%	75

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γ Interval: 2.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity:MAX:51.3-MIN:41.0%
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COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



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ZONAL FLUX DIAGRAM

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MFR.: ROY ALPHA	SUR.:-----	Shielding Angle:-----

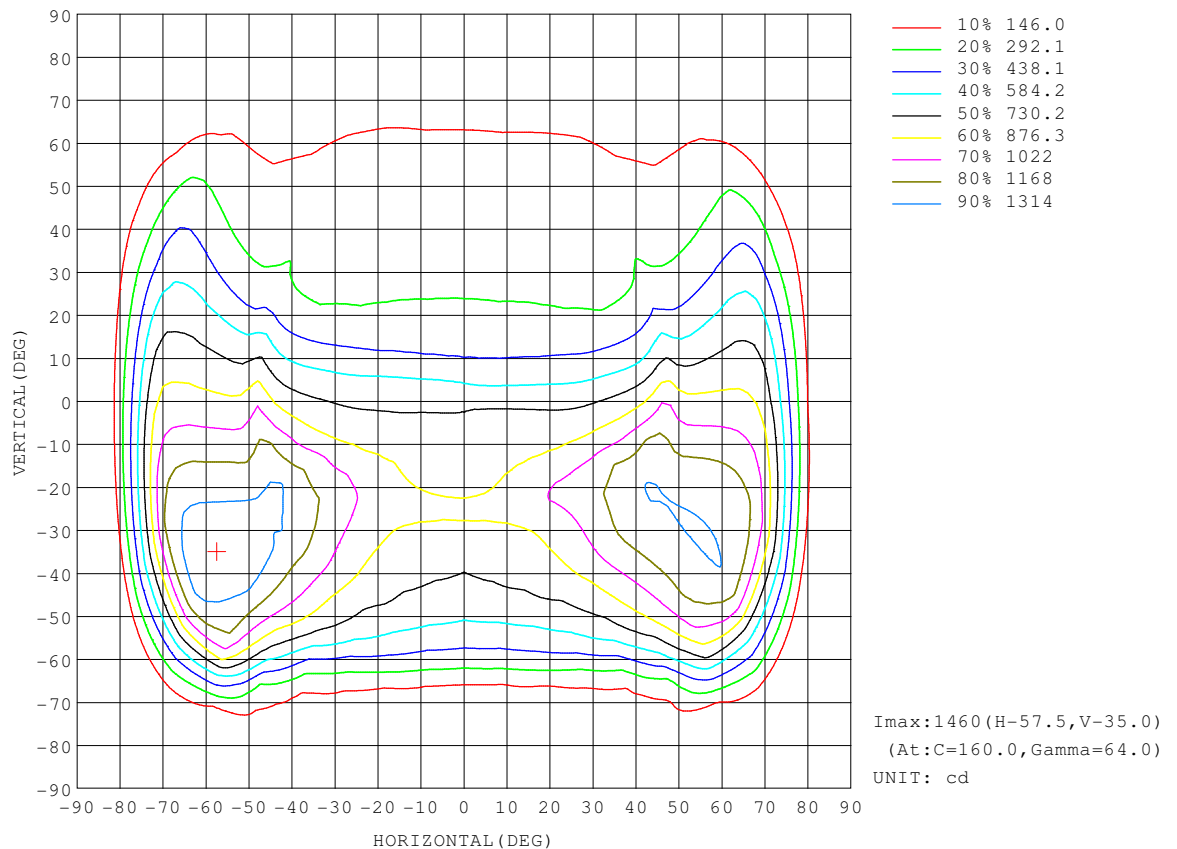
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	677.2	805.9	839.9	824.9	688.5	523.7	443.8	512.1	0- 10	64.28	64.28	2.3,2.3
20	675.7	866.0	865.2	881.2	690.4	375.1	317.4	369.1	10- 20	182.5	246.8	8.83,8.83
30	704.2	1023	833.6	1004	706.8	292.0	265.5	296.3	20- 30	294.0	540.7	19.4,19.4
40	811.1	991.8	732.9	1023	776.4	243.7	230.8	249.2	30- 40	399.3	940.0	33.6,33.6
50	919.7	950.2	603.3	1029	923.4	221.3	227.1	231.5	40- 50	507.0	1447	51.8,51.8
60	898.9	782.0	358.0	892.3	897.7	176.6	176.9	179.1	50- 60	547.1	1994	71.4,71.4
70	789.1	346.3	83.66	413.6	896.3	112.7	96.51	113.1	60- 70	488.0	2482	88.8,88.8
80	138.3	69.41	23.52	84.94	233.9	40.16	26.06	39.25	70- 80	263.3	2745	98.3,98.3
90	2.413	0.5929	0.3516	0.7027	0.8940	0.5152	0.1384	0.6095	80- 90	25.56	2771	99.2,99.2
100	4.736	1.077	0.7196	1.041	2.623	1.471	0.4422	1.906	90-100	1.286	2772	99.2,99.2
110	6.605	1.636	1.270	1.600	4.858	3.351	1.453	3.685	100-110	2.608	2775	99.3,99.3
120	7.075	2.193	1.662	1.970	6.177	5.551	2.922	5.415	110-120	3.658	2778	99.5,99.5
130	6.862	2.581	1.893	2.182	6.397	6.592	4.478	6.531	120-130	3.975	2782	99.6,99.6
140	6.150	3.061	2.173	2.516	5.962	6.335	5.588	6.833	130-140	3.670	2786	99.7,99.7
150	5.694	3.713	2.712	3.050	5.420	5.811	6.212	6.703	140-150	3.049	2789	99.8,99.8
160	5.577	4.469	3.706	3.798	5.316	6.410	6.488	6.339	150-160	2.346	2792	99.9,99.9
170	5.685	5.476	4.892	4.643	5.425	5.983	6.249	5.929	160-170	1.524	2793	100,100
180	5.962	6.193	6.013	5.639	5.935	6.175	5.993	5.655	170-180	0.5403	2794	100,100
DEG	LUMINOUS INTENSITY:cd Less than 35% Percent = 13.3 %									UNIT:lm		

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Test Speed: HIGH
Temperature:25±1°CDEG
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Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity:MAX:51.3-MIN:41.0%
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Corriente de programacion:369mA

ISOCANDELA DIAGRAM

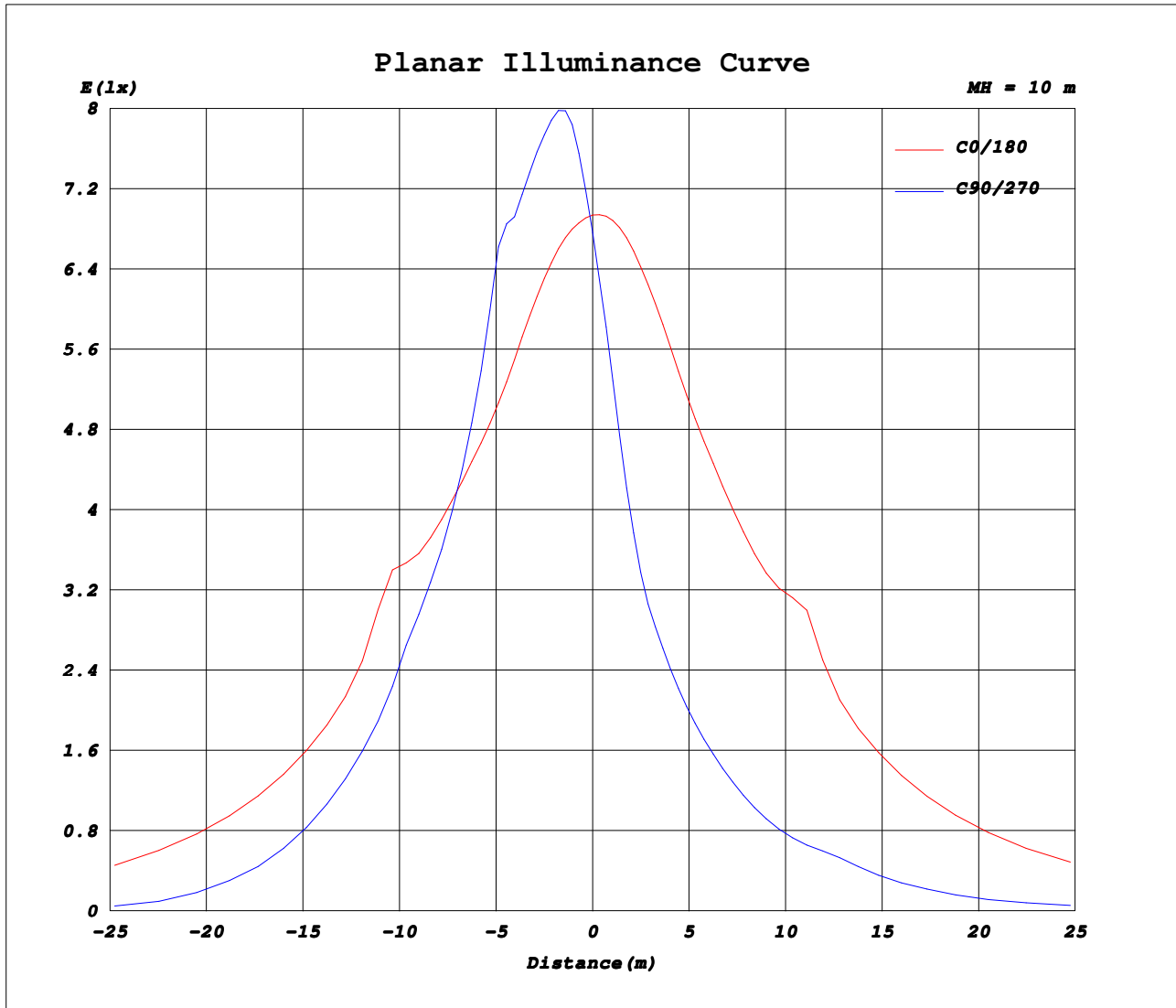
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Planar Illuminance Curve



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DRIVER ADVANCE XITANIUM 55W 0.1-1.8A 0-10V Dimming
MODULO LED 2X8 Z15 5050 4K SAMSUNG
SURGE PROTECTIVE DEVICE SPD-10KP320
LENTE: RA10 (4UND)

Test Distance: 7.080 metres
Test Temperature: 25±1°C degrees Celsius

Significance: ENSAYO FOTOMETRICO A LUMINARIAS
ROY ALPHA S.A
CALLE 15 No 32-598
Acopi Yumbo

Special Notes: EQUIPOS UTILIZADOS
Fotogoniómetro EQEN-023
Fuente de tensión INCO-011
Luxómetro INME-039
Flexómetro INME-050
Controlador de temperatura INME-046
Analizador de potencia INME-013
Datalogger INME-062-3
El presente reporte de pruebas no se debe reproducir en forma parcial,
sin la aprobación del Laboratorio de ensayos de Roy Alpha.

Realizó/revisó Realizó
Fabian Loaiza.

Revisó
Luis Asprilla.

Testing Procedure: Las pruebas fueron realizadas de acuerdo con la norma LM 79 de 2019.
Tiempo de estabilización: 0:24:10"
Tiempo de ensayo: 0:20:19"

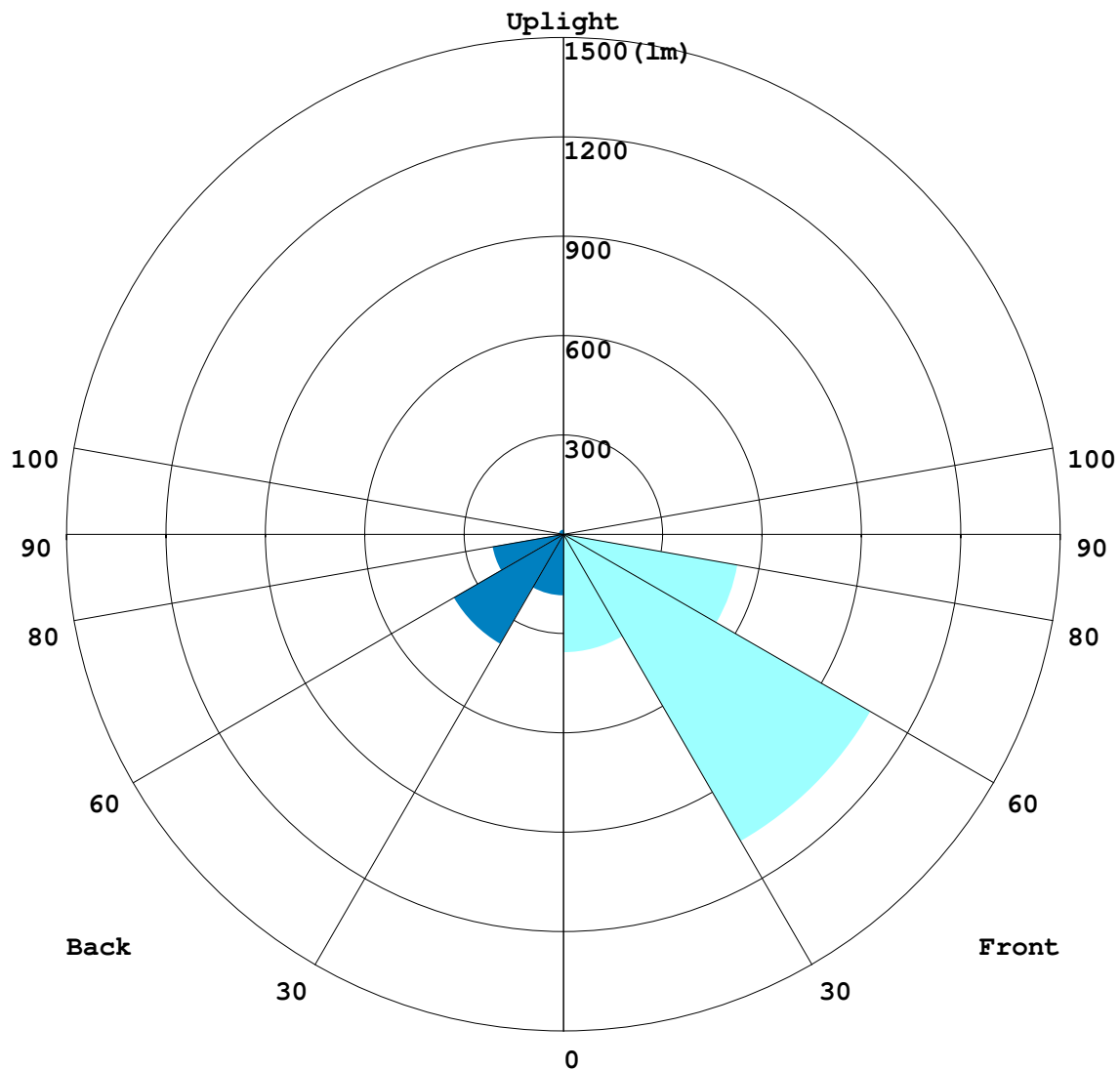
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LCS REPORT

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LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



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BUG REPORT

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IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	356.27	12.8
FM - Front-Medium(30-60)	1071.1	38.3
FH - Front-High(60-80)	533.85	19.1
FVH - Front-Very High(80-90)	16.098	0.6
Total Forward Light	1986	71.1

BL - Back-Low(0-30)	184.45	6.6
BM - Back-Medium(30-60)	382.27	13.7
BH - Back-High(60-80)	217.43	7.8
BVH - Back-Very High(80-90)	9.4661	0.3
Total Back Light	807.63	28.9

UL - Uplight-Low(90-100)	1.2861	0.0
UH - Uplight-High(100-180)	21.37	0.8
Total Up Light	22.656	0.8

BUG (Back, Up, Glare) Rating	B1-U2-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	793.62	14.009	807.63
Street Side	1977.3	8.6476	1986

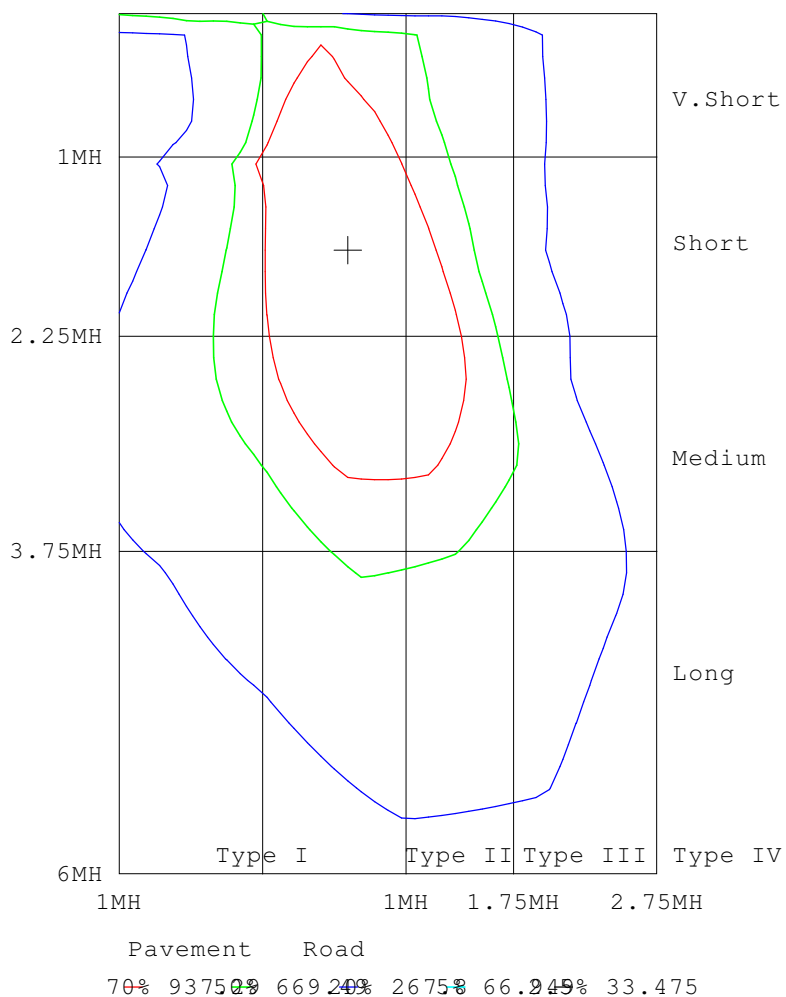
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ROAD ISOCANDELA REPORT

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ROAD SURFACE ISOCANDELA DIAGRAM



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LUMINOUS DISTRIBUTION INTENSITY DATA

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Table--1

UNIT: cd

C (DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680
5	677	692	707	720	732	742	751	758	762	765	764	762	756	748	739	728	714	699	683
10	677	715	750	778	798	814	822	831	833	840	838	843	837	833	817	794	762	728	688
15	677	728	772	805	823	837	842	847	845	852	851	858	857	859	848	828	789	742	689
20	676	746	802	840	860	872	870	869	862	865	863	872	872	881	881	867	827	763	690
25	678	765	833	879	907	911	906	906	903	903	901	902	895	902	910	899	855	780	691
30	704	825	928	1007	1051	995	916	870	834	834	838	878	924	989	1019	986	932	831	707
35	737	893	1045	1108	1050	950	869	819	780	778	788	830	882	968	1044	1095	1026	884	728
40	811	1049	1197	1166	1054	929	836	778	738	733	744	786	849	958	1089	1195	1191	1015	776
45	914	1177	1257	1219	1070	915	806	746	716	716	718	758	828	952	1116	1269	1298	1137	847
50	920	1146	1296	1235	1042	858	730	683	623	603	638	711	769	924	1134	1338	1365	1187	923
55	894	1154	1301	1211	995	793	658	583	535	527	552	621	716	879	1111	1342	1380	1179	880
60	899	1198	1315	1170	901	662	507	429	372	358	386	465	560	750	1034	1360	1462	1243	898
65	895	1206	1309	1143	790	502	355	291	237	220	249	312	386	564	899	1325	1490	1299	911
70	789	1111	1217	960	492	200	129	89.5	82.7	83.7	85.8	96.5	150	250	577	1194	1391	1301	896
75	546	840	886	698	217	100	70.3	59.5	52.0	53.5	54.2	64.0	77.6	118	286	893	1054	1011	692
80	138	269	283	124	94.3	44.4	29.2	25.4	22.9	23.5	24.1	28.1	33.2	55.0	115	155	302	331	234
85	28.8	37.1	44.1	28.8	27.3	15.5	11.6	10.1	9.11	9.38	9.86	11.6	14.2	20.7	37.6	40.4	45.6	46.7	41.9
90	2.41	1.91	1.32	0.90	0.66	0.52	0.48	0.44	0.45	0.35	0.46	0.50	0.54	0.61	0.79	1.00	1.44	1.98	0.89
95	3.21	2.43	1.67	1.15	0.80	0.64	0.53	0.53	0.47	0.48	0.46	0.51	0.51	0.61	0.73	1.05	1.55	2.27	1.43
100	4.74	3.57	2.52	1.70	1.20	0.95	0.82	0.80	0.74	0.72	0.71	0.79	0.79	0.92	1.16	1.62	2.42	3.43	2.62
105	5.73	4.35	3.05	2.04	1.44	1.17	1.02	1.00	0.94	0.97	0.93	0.98	0.99	1.14	1.41	2.04	3.05	4.29	3.52
110	6.61	5.11	3.55	2.46	1.79	1.48	1.31	1.28	1.22	1.27	1.22	1.27	1.28	1.45	1.75	2.49	3.66	5.24	4.86
115	6.91	5.40	3.79	2.70	2.03	1.70	1.51	1.46	1.40	1.44	1.37	1.44	1.45	1.62	1.96	2.72	3.91	5.57	5.55
120	7.07	5.66	4.12	3.06	2.37	2.01	1.76	1.71	1.65	1.66	1.55	1.61	1.62	1.81	2.13	2.95	4.13	5.71	6.18
125	7.08	5.75	4.30	3.30	2.58	2.16	1.90	1.87	1.80	1.77	1.62	1.70	1.69	1.90	2.23	3.02	4.18	5.69	6.36
130	6.86	5.68	4.40	3.51	2.80	2.37	2.09	2.05	1.96	1.89	1.74	1.81	1.83	2.03	2.33	3.09	4.18	5.63	6.40
135	6.54	5.53	4.46	3.63	2.96	2.53	2.24	2.18	2.07	1.98	1.84	1.87	1.92	2.16	2.43	3.11	4.07	5.33	6.27
140	6.15	5.44	4.57	3.88	3.27	2.85	2.55	2.43	2.28	2.17	2.05	2.08	2.16	2.38	2.65	3.20	4.03	5.00	5.96
145	5.92	5.43	4.68	4.08	3.50	3.11	2.80	2.66	2.48	2.36	2.25	2.30	2.37	2.59	2.82	3.28	3.99	4.85	5.75
150	5.69	5.41	4.88	4.38	3.88	3.55	3.26	3.08	2.82	2.71	2.62	2.68	2.76	2.95	3.15	3.48	3.99	4.76	5.42
155	5.57	5.45	5.04	4.62	4.16	3.89	3.57	3.37	3.21	3.07	2.98	3.03	3.10	3.27	3.45	3.70	4.11	4.81	5.33
160	5.58	5.52	5.29	4.99	4.60	4.34	4.17	4.09	3.88	3.71	3.58	3.61	3.62	3.75	3.85	4.05	4.30	4.88	5.32
165	5.60	5.62	5.46	5.21	4.85	4.78	4.67	4.55	4.34	4.16	4.02	4.03	3.99	4.09	4.14	4.31	4.46	4.96	5.34
170	5.69	5.85	5.64	5.59	5.50	5.45	5.39	5.35	5.13	4.89	4.71	4.69	4.60	4.65	4.64	4.74	4.79	5.18	5.43
175	5.82	5.94	5.89	6.01	5.88	5.92	5.90	5.90	5.65	5.40	5.19	5.17	5.06	5.07	5.02	5.08	5.07	5.39	5.54
180	5.96	5.98	6.09	6.11	6.19	6.20	6.32	6.38	6.24	6.01	5.84	5.81	5.68	5.69	5.59	5.57	5.48	5.68	5.93

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25±1°CDEG

Operators:Fabian Loaiza

Test Date:2023-11-06

γ Range: 0 - 180DEG

γ Interval: 2.0DEG

Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10

Humidity:MAX:51.3-MIN:41.0%

Test Distance:7.080m [K=1.0000]

Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W

DRIVER ADVANCE 55W 0.1.-1.8A 0-10V

MODULO LED 2X8 Z15 5050 4K SAMSUNG

Corriente de programacion:369mA

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.20V I:0.0979A P:20.622W PF:0.9569 Freq:60.01Hz Lamp Flux:2793.58x1 lm		
NAME: ANEXO 23-0951-1-A RALED I 16 LED's 20W	TYPE:Alumbrado Publico	WEIGHT:----
SPEC.:16 LED's 20W	DIM.: ----	SERIAL No.:23-0951-1
MFR.: ROY ALPHA	SUR.:-----	Shielding Angle:-----

Table--2

UNIT: cd

C (DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680	680		
5	669	653	638	625	613	604	597	592	590	590	594	600	608	619	631	645	660		
10	651	612	576	540	507	481	460	449	444	447	455	472	496	528	563	599	637		
15	637	585	530	480	435	407	387	376	372	374	383	401	428	467	517	570	622		
20	620	542	462	396	354	332	323	318	317	318	324	333	350	388	447	525	603		
25	604	510	414	352	319	306	297	292	293	293	298	308	323	347	405	491	588		
30	592	462	353	301	283	272	267	264	266	265	269	275	287	305	347	445	578		
35	589	434	320	278	262	253	251	250	251	252	255	258	267	284	317	423	582		
40	586	397	285	251	236	229	231	228	231	229	234	235	241	257	289	403	594		
45	611	386	271	237	222	216	218	217	221	218	222	221	228	243	281	406	640		
50	669	421	304	236	206	213	221	219	227	222	224	221	216	247	322	426	663		
55	634	359	242	230	222	217	222	217	221	216	218	219	235	239	255	378	633		
60	644	362	208	180	174	193	202	180	177	173	187	202	175	183	222	371	650		
65	649	375	196	154	144	154	157	140	138	137	147	154	145	157	206	372	662		
70	595	379	182	122	104	106	103	98.1	96.5	95.9	99.4	103	102	124	185	355	575		
75	446	309	162	96.4	74.2	77.4	77.8	72.9	69.6	70.7	74.1	74.2	72.5	99.3	156	261	379		
80	144	80.9	50.7	45.5	34.8	35.7	32.1	27.9	26.1	26.8	29.6	32.9	32.0	46.5	44.4	63.3	107		
85	28.9	20.6	14.7	15.4	13.0	12.5	11.8	10.4	9.39	9.80	10.5	10.8	11.7	12.4	11.7	14.6	19.8		
90	1.26	1.23	0.98	0.62	0.41	0.19	0.20	0.16	0.14	0.16	0.21	0.29	0.49	0.72	1.06	1.27	1.26		
95	1.73	1.75	1.46	0.88	0.42	0.27	0.19	0.20	0.18	0.24	0.27	0.48	0.77	1.19	1.78	2.12	2.14		
100	3.16	3.25	2.81	1.87	1.07	0.68	0.51	0.45	0.44	0.52	0.67	1.03	1.55	2.26	3.24	3.82	3.80		
105	4.27	4.43	3.87	2.67	1.70	1.13	0.89	0.77	0.78	0.88	1.12	1.56	2.19	3.06	4.32	5.18	5.19		
110	5.92	6.19	5.51	3.97	2.73	2.00	1.63	1.41	1.45	1.57	1.93	2.49	3.17	4.20	5.90	7.13	7.12		
115	6.69	7.04	6.39	4.94	3.60	2.72	2.23	1.92	1.99	2.09	2.53	3.14	3.89	4.95	6.52	7.66	7.69		
120	7.33	7.75	7.25	6.15	4.95	3.91	3.23	2.77	2.92	2.97	3.44	4.08	4.91	5.92	7.09	7.93	7.78		
125	7.54	7.95	7.54	6.66	5.62	4.63	3.66	3.40	3.55	3.56	4.02	4.67	5.47	6.38	7.32	7.88	7.64		
130	7.49	7.87	7.64	7.00	6.18	5.20	4.33	4.42	4.48	4.49	4.89	5.49	6.17	6.89	7.35	7.52	7.14		
135	7.28	7.71	7.58	7.01	6.29	5.24	4.80	5.19	5.00	5.03	5.39	5.91	6.51	6.99	7.21	7.14	6.72		
140	6.88	7.37	7.38	6.74	5.93	5.39	5.39	5.91	5.59	5.63	5.93	6.34	6.71	6.95	6.95	6.59	6.11		
145	6.54	7.07	6.93	6.31	5.76	5.51	5.77	6.21	5.88	5.92	6.18	6.52	6.76	6.88	6.77	6.28	5.78		
150	5.92	6.12	6.02	5.80	5.83	5.99	6.64	6.57	6.21	6.20	6.41	6.58	6.71	6.70	6.49	5.96	5.49		
155	5.65	5.73	5.80	5.85	5.96	6.37	7.03	6.76	6.39	6.28	6.46	6.54	6.67	6.56	6.34	5.85	5.35		
160	5.60	5.73	5.93	6.20	6.62	7.03	7.07	6.82	6.49	6.32	6.46	6.40	6.41	6.27	6.12	5.74	5.30		
165	5.56	5.73	6.01	6.33	6.60	6.71	6.70	6.53	6.40	6.26	6.32	6.23	6.23	6.05	5.93	5.62	5.32		
170	5.55	5.68	5.87	5.93	6.03	6.10	6.22	6.17	6.25	6.14	6.15	6.03	6.02	5.84	5.74	5.52	5.33		
175	5.55	5.69	5.82	5.86	6.00	6.05	6.17	6.13	6.19	6.07	6.06	5.92	5.89	5.73	5.68	5.52	5.39		
180	5.97	6.06	6.11	6.16	6.19	6.29	6.35	6.24	5.99	5.86	5.82	5.72	5.70	5.61	5.57	5.52	5.68		

C Range: 0 - 360DEG

C Interval: 10.0DEG

Test Speed: HIGH

Temperature:25±1°CDEG

Operators:Fabian Loaiza

Test Date:2023-11-06

γ Range: 0 - 180DEG

γ Interval: 2.0DEG

Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10

Humidity:MAX:51.3-MIN:41.0%

Test Distance:7.080m [K=1.0000]

Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W

DRIVER ADVANCE 55W 0.1.-1.8A 0-10V

MODULO LED 2X8 Z15 5050 4K SAMSUNG

Corriente de programacion:369mA

Photometric Data Table [cd]

G/C	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
0.0	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7
2.0	678.2	685.4	692.8	699.9	705.7	711.4	715.7	719.8	721.5	723.6
4.0	677.1	692.1	706.9	720.0	732.2	742.5	751.0	758.3	761.6	764.9
6.0	677.1	699.5	721.2	740.9	758.5	772.5	782.5	792.4	796.1	801.1
8.0	677.4	707.7	735.8	761.1	780.3	795.8	805.4	816.1	819.2	825.6
10.0	677.2	715.2	749.9	778.1	797.6	814.1	821.8	831.0	832.6	839.9
12.0	676.6	721.9	762.0	792.3	811.5	826.5	832.6	840.1	839.8	846.7
14.0	676.6	728.4	772.4	804.8	823.2	836.7	841.5	847.3	845.3	851.5
16.0	675.8	734.3	781.5	815.9	834.1	846.7	850.1	854.7	850.8	856.5
18.0	675.7	740.2	791.1	827.2	845.4	858.0	859.3	861.6	855.6	860.7
20.0	675.7	746.4	802.3	840.1	860.0	872.0	869.6	869.5	861.7	865.2
22.0	675.7	754.1	815.7	856.6	879.6	889.3	881.3	878.8	871.4	872.7
24.0	677.8	764.6	833.2	879.2	906.6	910.7	905.8	906.3	902.9	903.1
26.0	683.2	779.4	856.3	911.1	941.9	953.2	951.8	935.3	915.7	916.6
28.0	691.8	799.2	888.0	950.3	999.7	1004	952.2	909.1	874.9	874.8
30.0	704.2	825.1	927.5	1007	1051	995.3	916.5	870.1	833.5	833.6
32.0	719.6	857.0	975.3	1077	1054	970.4	889.2	840.2	802.0	801.9
34.0	737.4	892.5	1045	1108	1050	949.6	868.8	819.4	780.2	778.0
36.0	757.6	932.1	1108	1128	1046	939.2	856.7	803.4	762.2	756.7
38.0	781.5	984.6	1158	1146	1047	934.6	847.5	789.9	748.3	740.8
40.0	811.1	1049	1197	1166	1054	929.4	835.7	777.6	738.5	732.9
42.0	851.2	1118	1227	1190	1063	923.2	821.0	762.8	729.9	724.4
44.0	913.7	1177	1257	1219	1070	914.6	805.6	746.4	716.1	715.7
46.0	993.9	1203	1296	1243	1069	903.1	785.9	725.2	697.8	671.5
48.0	983.7	1184	1306	1244	1060	884.2	760.7	705.9	661.7	635.6
50.0	919.7	1146	1296	1235	1042	857.8	730.0	682.7	623.0	603.3
52.0	897.3	1142	1295	1223	1019	827.6	696.2	629.4	577.8	568.0
54.0	894.3	1154	1301	1211	994.6	792.8	658.2	583.0	535.0	527.4
56.0	896.0	1170	1309	1198	967.4	755.3	616.3	538.2	487.2	479.0
58.0	897.3	1186	1314	1183	936.0	712.8	567.6	487.9	432.7	422.3
60.0	898.9	1198	1315	1170	900.8	662.5	506.7	429.4	372.0	358.0
62.0	898.5	1206	1313	1159	856.4	591.5	435.6	362.7	308.2	295.3
64.0	895.3	1206	1309	1143	789.7	501.9	355.2	291.0	237.4	219.6
66.0	880.5	1193	1299	1115	697.2	403.7	271.4	207.4	146.9	144.1
68.0	851.7	1167	1277	1056	602.0	301.4	192.6	124.0	114.8	98.25
70.0	789.1	1111	1217	960.3	492.2	199.5	129.4	89.48	82.72	83.66
72.0	679.8	997.2	1098	842.5	348.7	136.5	99.65	74.67	66.45	67.50
74.0	545.7	839.8	886.4	698.4	217.3	100.3	70.27	59.52	52.00	53.54
76.0	403.3	651.7	653.3	497.7	155.1	78.84	54.67	46.05	40.72	42.19
78.0	267.0	452.3	464.6	309.9	127.2	61.08	40.46	35.33	31.37	32.08
80.0	138.3	269.1	283.3	123.9	94.28	44.40	29.25	25.39	22.87	23.52
82.0	83.41	87.03	110.4	61.22	61.28	28.58	19.77	16.88	15.32	15.82
84.0	28.78	37.08	44.06	28.77	27.27	15.48	11.61	10.10	9.106	9.377
86.0	7.293	7.951	7.693	8.011	7.538	6.436	5.259	4.939	4.444	1.437
88.0	2.391	1.990	1.506	1.269	1.070	1.363	1.283	1.592	1.410	0.3036
90.0	2.413	1.908	1.325	0.9031	0.6627	0.5227	0.4782	0.4439	0.4524	0.3516
92.0	2.788	2.099	1.444	0.9856	0.6756	0.5546	0.4600	0.4559	0.4195	0.4155
94.0	3.212	2.425	1.675	1.146	0.7996	0.6409	0.5335	0.5285	0.4748	0.4803
96.0	3.681	2.791	1.933	1.319	0.9281	0.7435	0.6273	0.6145	0.5578	0.5551
98.0	4.203	3.181	2.212	1.504	1.061	0.8497	0.7191	0.7057	0.6448	0.6353
100.0	4.736	3.574	2.516	1.698	1.198	0.9548	0.8213	0.8016	0.7388	0.7196
102.0	5.261	3.981	2.805	1.885	1.315	1.065	0.9153	0.9002	0.8386	0.8356
104.0	5.727	4.353	3.046	2.044	1.440	1.172	1.017	0.9956	0.9374	0.9704
106.0	6.095	4.657	3.236	2.194	1.560	1.277	1.119	1.090	1.032	1.074
108.0	6.374	4.900	3.406	2.330	1.675	1.373	1.222	1.187	1.124	1.174
110.0	6.605	5.112	3.552	2.459	1.788	1.483	1.313	1.280	1.218	1.270
112.0	6.786	5.282	3.677	2.576	1.901	1.591	1.411	1.372	1.312	1.367
114.0	6.914	5.399	3.789	2.698	2.026	1.698	1.512	1.463	1.400	1.442
116.0	7.001	5.508	3.902	2.818	2.143	1.799	1.603	1.554	1.491	1.525
118.0	7.059	5.598	4.014	2.943	2.264	1.907	1.682	1.638	1.575	1.598
120.0	7.075	5.656	4.116	3.065	2.373	2.013	1.760	1.713	1.654	1.662
122.0	7.079	5.706	4.214	3.182	2.494	2.090	1.827	1.796	1.732	1.717
124.0	7.079	5.745	4.299	3.302	2.580	2.158	1.898	1.867	1.797	1.765
126.0	7.052	5.761	4.332	3.404	2.647	2.228	1.960	1.931	1.856	1.809
128.0	7.013	5.756	4.365	3.451	2.725	2.295	2.024	1.998	1.911	1.853
130.0	6.862	5.682	4.398	3.509	2.795	2.365	2.094	2.054	1.963	1.893
132.0	6.680	5.593	4.431	3.568	2.874	2.449	2.161	2.117	2.010	1.933
134.0	6.538	5.530	4.463	3.627	2.960	2.534	2.240	2.184	2.066	1.985
136.0	6.406	5.469	4.479	3.697	3.061	2.626	2.333	2.256	2.121	2.033
138.0	6.275	5.441	4.518	3.791	3.162	2.731	2.436	2.338	2.199	2.092
140.0	6.150	5.436	4.572	3.885	3.271	2.848	2.550	2.431	2.283	2.173
142.0	6.026	5.431	4.627	3.975	3.382	2.972	2.667	2.542	2.377	2.261
144.0	5.920	5.426	4.685	4.080	3.498	3.106	2.805	2.665	2.485	2.361
146.0	5.811	5.421	4.748	4.178	3.607	3.240	2.938	2.784	2.599	2.465

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA

Photometric Data Table [cd]

148.0	5.718	5.415	4.795	4.264	3.724	3.381	3.084	2.919	2.691	2.565
150.0	5.694	5.410	4.884	4.381	3.878	3.548	3.261	3.080	2.821	2.712
152.0	5.616	5.410	4.942	4.491	4.017	3.709	3.422	3.183	2.986	2.863
154.0	5.573	5.445	5.043	4.620	4.161	3.891	3.568	3.366	3.207	3.072
156.0	5.573	5.469	5.125	4.749	4.311	4.075	3.729	3.597	3.446	3.280
158.0	5.565	5.488	5.207	4.870	4.463	4.155	3.938	3.838	3.654	3.484
160.0	5.577	5.523	5.285	4.994	4.596	4.342	4.170	4.087	3.876	3.706
162.0	5.588	5.570	5.367	5.127	4.670	4.552	4.441	4.310	4.099	3.923
164.0	5.600	5.625	5.460	5.209	4.846	4.778	4.669	4.546	4.345	4.161
166.0	5.612	5.691	5.566	5.265	5.048	5.034	4.896	4.796	4.594	4.397
168.0	5.623	5.765	5.651	5.408	5.284	5.243	5.143	5.071	4.858	4.645
170.0	5.685	5.851	5.640	5.593	5.498	5.454	5.387	5.348	5.127	4.892
172.0	5.751	5.924	5.760	5.784	5.686	5.683	5.646	5.618	5.388	5.144
174.0	5.818	5.944	5.893	6.010	5.881	5.917	5.903	5.898	5.654	5.403
176.0	5.899	5.979	6.053	6.178	6.080	6.157	6.167	6.180	5.928	5.650
178.0	5.974	6.080	6.255	6.329	6.275	6.376	6.402	6.436	6.173	5.882
180.0	5.962	5.979	6.088	6.112	6.190	6.196	6.324	6.377	6.245	6.013
G/C	100.0	110.0	120.0	130.0	140.0	150.0	160.0	170.0	180.0	190.0
0.0	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7
2.0	722.6	721.9	718.7	714.5	710.0	704.0	697.1	689.4	681.4	673.9
4.0	764.0	761.8	755.9	748.2	739.2	727.7	714.3	699.4	683.5	668.5
6.0	800.0	798.8	791.5	781.9	767.7	750.8	731.3	709.5	685.7	663.0
8.0	824.3	825.6	818.5	810.5	794.5	773.2	746.8	719.0	687.4	657.0
10.0	838.4	843.1	837.1	832.6	817.2	793.9	761.7	727.7	688.5	650.7
12.0	845.3	852.7	849.8	848.2	834.3	812.4	776.2	735.0	688.7	643.8
14.0	850.5	857.8	856.9	859.2	848.1	827.9	789.5	741.9	688.7	637.0
16.0	855.1	863.0	862.3	867.0	859.8	841.0	802.4	748.5	689.0	631.4
18.0	858.7	866.9	867.3	874.0	869.8	853.7	814.6	755.7	689.9	626.2
20.0	863.4	871.8	872.1	881.3	876.2	867.2	826.8	762.8	690.4	619.9
22.0	870.9	878.9	879.3	890.3	894.0	882.1	839.9	770.6	690.8	612.4
24.0	901.0	901.9	895.5	902.0	909.5	899.2	855.4	780.4	691.3	604.4
26.0	916.0	937.1	941.8	927.8	928.5	921.1	875.0	793.6	694.0	598.4
28.0	876.6	917.7	954.9	980.9	962.5	949.2	900.1	810.3	699.0	594.4
30.0	838.3	878.1	923.9	989.0	1019	986.3	931.7	831.1	706.8	591.9
32.0	809.7	849.9	898.0	975.8	1032	1053	970.1	856.0	716.9	590.7
34.0	788.4	829.5	881.9	967.9	1044	1095	1026	884.1	728.1	588.8
36.0	770.1	813.3	870.2	965.8	1059	1124	1096	917.8	741.1	585.7
38.0	754.4	799.3	859.4	963.7	1074	1159	1147	961.1	757.0	583.9
40.0	743.6	786.5	849.0	957.9	1089	1195	1191	1015	776.4	585.7
42.0	733.9	773.0	838.5	953.8	1103	1229	1243	1078	804.4	592.1
44.0	718.4	758.3	828.4	951.9	1116	1269	1298	1137	847.3	610.8
46.0	702.3	741.0	815.1	950.0	1127	1296	1348	1210	913.3	648.7
48.0	674.0	725.6	794.5	941.8	1139	1320	1368	1239	980.3	702.6
50.0	638.2	711.0	768.8	924.2	1134	1338	1365	1187	923.4	669.2
52.0	595.7	666.9	744.0	903.8	1122	1335	1359	1166	884.5	637.6
54.0	552.3	621.4	716.3	878.9	1111	1342	1380	1179	879.6	633.8
56.0	504.9	577.2	679.0	847.8	1095	1353	1406	1200	884.6	636.9
58.0	449.7	526.3	627.2	807.8	1071	1360	1435	1221	891.3	641.0
60.0	386.4	465.2	560.3	750.1	1034	1360	1462	1243	897.7	644.2
62.0	319.7	389.3	479.0	670.6	977.4	1350	1484	1270	903.7	642.7
64.0	249.4	312.3	386.1	563.9	899.2	1325	1490	1299	911.5	648.7
66.0	158.3	228.2	300.6	450.0	812.2	1291	1475	1317	910.6	641.1
68.0	122.0	144.3	221.2	338.0	710.0	1250	1445	1326	910.7	621.1
70.0	85.78	96.49	150.2	250.1	576.9	1194	1391	1301	896.3	595.3
72.0	69.21	79.95	113.8	162.7	434.8	1078	1272	1210	827.3	538.3
74.0	54.15	63.99	77.55	117.8	286.3	892.8	1054	1011	691.8	446.4
76.0	42.50	49.41	60.94	92.11	196.0	611.2	792.7	774.2	525.0	334.1
78.0	32.84	38.46	45.36	74.45	150.9	382.4	522.1	550.8	368.6	235.7
80.0	24.11	28.07	33.20	55.02	114.8	155.2	302.4	330.8	233.9	144.5
82.0	16.32	18.95	23.17	36.60	78.85	77.11	112.6	113.4	99.49	86.66
84.0	9.861	11.64	14.23	20.70	37.56	40.41	45.64	46.70	41.92	28.88
86.0	4.924	5.914	6.905	9.302	13.89	15.61	16.60	16.83	12.68	9.681
88.0	1.649	2.039	2.086	2.620	2.650	3.509	3.475	4.154	2.756	2.235
90.0	0.4554	0.4982	0.5358	0.6132	0.7921	1.004	1.443	1.976	0.8940	1.258
92.0	0.4229	0.4551	0.4740	0.5224	0.6348	0.9012	1.338	1.950	1.103	1.324
94.0	0.4578	0.5114	0.5055	0.6108	0.7336	1.054	1.546	2.267	1.432	1.734
96.0	0.5328	0.5963	0.5933	0.7123	0.8660	1.230	1.810	2.619	1.804	2.179
98.0	0.6086	0.6890	0.6892	0.8137	1.011	1.416	2.095	3.016	2.203	2.661
100.0	0.7079	0.7852	0.7895	0.9213	1.160	1.622	2.417	3.427	2.623	3.157
102.0	0.8204	0.8820	0.8893	1.027	1.291	1.845	2.749	3.857	3.057	3.676
104.0	0.9275	0.9781	0.9868	1.135	1.408	2.039	3.046	4.287	3.516	4.270
106.0	1.027	1.075	1.087	1.240	1.528	2.206	3.287	4.663	3.988	4.880
108.0	1.118	1.176	1.187	1.351	1.645	2.356	3.489	4.981	4.432	5.426
110.0	1.219	1.271	1.283	1.446	1.754	2.490	3.660	5.237	4.858	5.920

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA

Photometric Data Table [cd]

112.0	1.311	1.368	1.371	1.544	1.863	2.608	3.801	5.433	5.243	6.356
114.0	1.375	1.445	1.449	1.620	1.957	2.721	3.914	5.570	5.545	6.691
116.0	1.438	1.509	1.509	1.693	2.017	2.818	4.007	5.663	5.803	6.957
118.0	1.499	1.561	1.576	1.753	2.078	2.899	4.085	5.711	6.018	7.172
120.0	1.550	1.613	1.621	1.806	2.135	2.947	4.134	5.711	6.177	7.333
122.0	1.590	1.661	1.658	1.859	2.183	2.984	4.171	5.703	6.282	7.459
124.0	1.622	1.698	1.693	1.899	2.227	3.025	4.183	5.687	6.363	7.536
126.0	1.658	1.733	1.737	1.932	2.264	3.069	4.199	5.683	6.413	7.556
128.0	1.694	1.770	1.782	1.980	2.292	3.081	4.207	5.678	6.413	7.552
130.0	1.741	1.806	1.834	2.032	2.332	3.085	4.175	5.632	6.397	7.487
132.0	1.785	1.842	1.878	2.097	2.381	3.097	4.110	5.479	6.336	7.374
134.0	1.841	1.874	1.922	2.158	2.434	3.114	4.074	5.328	6.269	7.281
136.0	1.897	1.922	1.986	2.226	2.501	3.134	4.046	5.187	6.226	7.202
138.0	1.969	2.003	2.062	2.299	2.575	3.166	4.041	5.086	6.116	7.066
140.0	2.048	2.085	2.158	2.384	2.647	3.199	4.025	5.001	5.962	6.883
142.0	2.140	2.186	2.264	2.481	2.723	3.227	3.997	4.914	5.844	6.704
144.0	2.247	2.298	2.371	2.594	2.816	3.276	3.993	4.850	5.747	6.542
146.0	2.348	2.405	2.480	2.695	2.913	3.324	3.976	4.777	5.673	6.400
148.0	2.458	2.523	2.599	2.808	3.010	3.382	3.972	4.753	5.560	6.166
150.0	2.618	2.679	2.759	2.954	3.146	3.479	3.988	4.757	5.420	5.923
152.0	2.773	2.840	2.905	3.096	3.260	3.551	3.984	4.730	5.335	5.665
154.0	2.983	3.030	3.096	3.266	3.445	3.698	4.113	4.814	5.335	5.647
156.0	3.172	3.224	3.262	3.434	3.571	3.832	4.167	4.855	5.277	5.630
158.0	3.367	3.412	3.438	3.592	3.704	3.937	4.223	4.863	5.293	5.613
160.0	3.577	3.608	3.618	3.750	3.845	4.054	4.299	4.883	5.316	5.596
162.0	3.794	3.813	3.807	3.915	3.990	4.177	4.373	4.916	5.324	5.579
164.0	4.020	4.027	3.992	4.085	4.140	4.310	4.462	4.960	5.345	5.561
166.0	4.249	4.244	4.193	4.267	4.298	4.444	4.539	5.017	5.347	5.559
168.0	4.483	4.466	4.394	4.452	4.459	4.585	4.672	5.094	5.382	5.557
170.0	4.715	4.695	4.602	4.649	4.636	4.740	4.790	5.180	5.425	5.555
172.0	4.949	4.927	4.820	4.856	4.822	4.901	4.920	5.281	5.476	5.553
174.0	5.193	5.173	5.055	5.074	5.020	5.079	5.066	5.386	5.538	5.550
176.0	5.436	5.430	5.297	5.305	5.230	5.266	5.215	5.508	5.616	5.585
178.0	5.652	5.635	5.490	5.511	5.416	5.432	5.353	5.618	5.694	5.636
180.0	5.836	5.812	5.683	5.692	5.585	5.574	5.479	5.683	5.935	5.975
G/C	200.0	210.0	220.0	230.0	240.0	250.0	260.0	270.0	280.0	290.0
0.0	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7	679.7
2.0	666.5	659.1	652.5	646.4	641.7	638.1	635.2	633.9	634.5	635.9
4.0	652.7	637.8	624.6	613.3	604.2	597.0	592.1	589.5	590.2	594.3
6.0	639.3	617.4	597.7	579.6	564.6	552.3	545.0	540.2	542.1	547.0
8.0	625.8	597.0	569.9	543.6	522.8	505.8	496.2	490.9	493.2	500.6
10.0	612.1	575.6	540.2	507.1	481.2	460.4	449.5	443.8	446.9	455.3
12.0	598.8	552.9	510.2	470.5	440.8	420.1	409.7	404.9	407.8	416.4
14.0	584.9	530.1	480.1	435.2	406.6	386.9	375.7	371.7	374.4	383.4
16.0	571.0	507.7	450.1	404.9	377.2	357.6	348.3	346.6	347.8	355.8
18.0	557.1	485.2	421.4	378.5	351.0	337.4	331.7	331.4	332.2	338.1
20.0	542.4	461.8	396.1	353.9	331.8	323.4	317.8	317.4	318.1	324.2
22.0	526.6	438.0	373.2	333.3	318.5	310.0	304.3	304.1	304.5	310.6
24.0	509.9	414.4	352.0	319.1	305.6	297.1	292.0	292.6	292.5	298.1
26.0	493.3	392.2	332.2	306.8	293.2	285.8	281.4	282.3	282.4	287.4
28.0	477.1	371.6	314.7	294.6	282.1	275.7	272.1	273.4	273.2	277.8
30.0	461.8	352.9	301.1	282.8	271.9	266.7	263.8	265.5	265.3	269.5
32.0	447.9	335.8	289.1	271.7	262.1	258.5	256.7	258.1	258.1	262.0
34.0	434.3	320.0	277.8	261.6	253.3	251.1	250.1	251.2	251.7	255.0
36.0	421.0	306.7	267.9	252.3	245.5	244.5	243.3	244.1	243.4	248.3
38.0	408.3	295.1	259.3	243.7	237.4	238.0	235.8	237.2	235.2	241.3
40.0	397.3	285.4	251.2	236.2	229.4	231.1	228.3	230.8	229.1	234.2
42.0	390.1	277.3	243.7	229.0	222.4	224.0	222.1	225.2	223.0	227.4
44.0	386.3	271.4	237.1	222.2	215.8	217.7	217.0	220.7	218.4	221.9
46.0	394.0	269.8	231.5	215.7	210.7	215.2	215.4	219.4	216.8	220.3
48.0	419.9	281.1	228.9	209.7	209.6	217.2	216.5	221.2	217.9	221.7
50.0	421.0	303.5	236.1	212.8	212.8	220.5	219.3	227.1	221.7	224.4
52.0	373.1	272.9	254.4	209.3	216.4	224.3	222.8	229.6	224.5	225.4
54.0	359.2	241.7	229.5	222.1	217.0	221.7	217.3	221.0	215.8	217.7
56.0	356.7	227.1	204.8	220.9	212.6	213.3	203.9	205.1	200.2	204.6
58.0	357.9	216.7	191.5	194.2	207.1	207.7	192.5	191.1	187.6	196.4
60.0	362.3	208.4	179.6	173.6	192.7	202.4	180.1	176.9	173.4	187.3
62.0	368.0	201.0	166.6	157.6	171.2	178.9	158.3	156.8	153.4	163.4
64.0	375.2	195.7	154.1	144.1	153.9	156.5	139.6	138.1	136.6	146.6
66.0	381.2	193.6	142.9	130.8	137.1	133.1	124.2	123.6	121.8	129.3
68.0	384.3	186.6	133.0	117.2	121.8	118.2	111.0	109.2	108.6	113.4
70.0	379.3	181.5	121.6	103.7	106.0	103.5	98.11	96.51	95.94	99.44
72.0	357.0	174.7	108.9	88.81	91.36	89.81	86.02	85.12	84.23	86.27
74.0	309.1	162.1	96.44	74.20	77.40	77.80	72.94	69.64	70.74	74.14

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA

Photometric Data Table [cd]

76.0	223.4	126.6	81.58	61.06	63.68	63.16	55.52	51.10	52.92	58.12
78.0	138.0	86.01	63.49	48.41	49.68	46.18	40.00	37.36	38.27	42.48
80.0	80.93	50.71	45.53	34.77	35.74	32.10	27.93	26.06	26.83	29.62
82.0	44.24	29.04	28.07	23.15	22.44	20.88	18.02	16.76	17.18	18.93
84.0	20.58	14.69	15.39	13.01	12.49	11.77	10.38	9.387	9.795	10.51
86.0	8.313	6.780	6.918	5.773	5.724	5.038	4.846	3.798	4.553	4.323
88.0	2.561	2.116	2.052	1.600	1.567	1.318	1.353	0.6667	1.173	0.8669
90.0	1.235	0.9784	0.6171	0.4128	0.1928	0.2015	0.1583	0.1384	0.1636	0.2148
92.0	1.329	1.086	0.6379	0.2916	0.2208	0.1705	0.1587	0.1358	0.1842	0.2051
94.0	1.750	1.460	0.8777	0.4187	0.2721	0.1861	0.2019	0.1750	0.2400	0.2726
96.0	2.218	1.884	1.165	0.6010	0.3708	0.2653	0.2618	0.2348	0.3039	0.3729
98.0	2.720	2.338	1.496	0.8165	0.5059	0.3670	0.3422	0.3193	0.4006	0.5051
100.0	3.251	2.810	1.866	1.075	0.6783	0.5108	0.4519	0.4422	0.5249	0.6738
102.0	3.793	3.299	2.266	1.370	0.8916	0.6847	0.5946	0.5901	0.6909	0.8840
104.0	4.432	3.868	2.668	1.698	1.133	0.8856	0.7681	0.7771	0.8793	1.120
106.0	5.031	4.454	3.054	2.026	1.386	1.110	0.9590	0.9841	1.088	1.365
108.0	5.630	5.003	3.461	2.357	1.683	1.360	1.182	1.214	1.321	1.636
110.0	6.194	5.509	3.970	2.728	2.001	1.628	1.413	1.453	1.566	1.930
112.0	6.677	5.971	4.473	3.148	2.345	1.912	1.653	1.715	1.824	2.232
114.0	7.040	6.391	4.941	3.604	2.722	2.232	1.917	1.987	2.094	2.532
116.0	7.333	6.746	5.364	4.074	3.117	2.577	2.185	2.282	2.372	2.837
118.0	7.564	7.028	5.773	4.529	3.510	2.927	2.470	2.600	2.668	3.143
120.0	7.748	7.254	6.147	4.953	3.913	3.225	2.765	2.922	2.970	3.438
122.0	7.895	7.428	6.445	5.319	4.291	3.453	3.081	3.235	3.264	3.736
124.0	7.946	7.536	6.659	5.617	4.629	3.656	3.396	3.547	3.560	4.020
126.0	7.949	7.612	6.807	5.856	4.899	3.859	3.714	3.867	3.865	4.319
128.0	7.926	7.643	6.920	6.045	5.083	4.076	4.042	4.178	4.176	4.616
130.0	7.875	7.643	6.998	6.183	5.196	4.334	4.417	4.478	4.490	4.894
132.0	7.792	7.624	7.018	6.270	5.232	4.565	4.813	4.751	4.779	5.156
134.0	7.707	7.577	7.014	6.286	5.244	4.795	5.194	5.004	5.032	5.395
136.0	7.622	7.530	6.994	6.228	5.275	5.008	5.534	5.234	5.266	5.598
138.0	7.504	7.475	6.915	6.095	5.302	5.210	5.737	5.427	5.470	5.778
140.0	7.371	7.379	6.738	5.930	5.393	5.385	5.913	5.588	5.635	5.931
142.0	7.239	7.189	6.541	5.823	5.440	5.556	6.068	5.739	5.785	6.060
144.0	7.072	6.934	6.312	5.756	5.508	5.769	6.210	5.884	5.924	6.180
146.0	6.778	6.640	6.080	5.748	5.640	6.046	6.352	6.016	6.039	6.289
148.0	6.464	6.296	5.876	5.775	5.753	6.352	6.464	6.109	6.120	6.365
150.0	6.120	6.025	5.795	5.826	5.988	6.643	6.569	6.212	6.199	6.407
152.0	5.833	5.828	5.815	5.881	6.139	6.895	6.672	6.308	6.271	6.447
154.0	5.733	5.803	5.850	5.956	6.368	7.026	6.756	6.388	6.283	6.463
156.0	5.732	5.826	5.913	6.108	6.657	7.062	6.819	6.436	6.296	6.467
158.0	5.730	5.873	6.008	6.332	6.880	7.070	6.822	6.472	6.309	6.467
160.0	5.729	5.927	6.202	6.619	7.032	7.070	6.822	6.488	6.321	6.455
162.0	5.727	6.045	6.400	6.816	7.037	7.074	6.816	6.488	6.334	6.403
164.0	5.725	6.014	6.325	6.601	6.706	6.696	6.533	6.401	6.262	6.323
166.0	5.706	5.932	6.096	6.172	6.265	6.319	6.264	6.294	6.210	6.258
168.0	5.686	5.905	5.967	6.059	6.127	6.239	6.193	6.265	6.174	6.210
170.0	5.679	5.869	5.932	6.035	6.104	6.222	6.173	6.249	6.139	6.154
172.0	5.679	5.838	5.897	6.000	6.072	6.195	6.169	6.221	6.107	6.109
174.0	5.687	5.819	5.862	5.999	6.053	6.167	6.130	6.189	6.070	6.061
176.0	5.690	5.799	5.838	5.984	6.006	6.123	6.066	6.121	6.015	5.997
178.0	5.698	5.787	5.835	5.889	5.964	6.036	5.992	6.021	5.903	5.916
180.0	6.056	6.108	6.163	6.188	6.289	6.353	6.245	5.993	5.864	5.820
G/C	300.0	310.0	320.0	330.0	340.0	350.0				
0.0	679.7	679.7	679.7	679.7	679.7	679.7				
2.0	639.0	643.3	649.0	655.2	662.2	670.0				
4.0	599.7	608.1	618.9	631.3	645.1	660.4				
6.0	557.9	571.6	588.7	608.1	629.3	652.4				
8.0	514.3	533.3	558.8	585.6	613.8	644.5				
10.0	472.3	496.0	528.1	562.8	599.2	636.7				
12.0	434.0	460.4	497.4	539.7	584.4	629.1				
14.0	400.6	427.8	467.2	516.8	570.2	622.4				
16.0	371.9	398.1	439.2	493.6	555.9	616.7				
18.0	348.2	372.7	412.5	469.9	541.2	610.8				
20.0	333.3	350.0	388.2	447.1	525.1	603.4				
22.0	320.7	334.2	366.6	425.8	508.1	595.4				
24.0	308.0	322.9	346.7	404.6	491.0	587.6				
26.0	296.0	311.4	329.2	384.5	474.8	581.4				
28.0	285.1	299.4	316.3	365.4	459.4	578.0				
30.0	275.0	287.5	305.2	347.4	445.3	577.7				
32.0	265.8	276.5	294.1	331.3	433.7	579.2				
34.0	257.6	266.5	283.7	317.1	423.4	582.4				
36.0	250.1	257.4	274.0	305.5	415.2	584.5				
38.0	242.3	248.8	265.1	296.4	408.1	587.2				

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA

Photometric Data Table [cd]

40.0	234.5	241.4	256.9	289.5	402.8	594.1
42.0	228.0	234.3	249.7	283.9	401.5	609.2
44.0	221.5	227.7	243.3	281.3	406.4	639.9
46.0	217.9	221.8	237.8	284.9	427.1	696.3
48.0	218.6	217.3	236.1	305.4	460.8	725.6
50.0	221.3	216.4	246.6	321.8	425.8	663.5
52.0	222.4	220.9	266.4	279.9	390.0	637.6
54.0	219.0	234.7	239.3	254.7	377.6	632.7
56.0	212.5	225.7	212.3	240.8	373.7	637.2
58.0	210.2	196.6	196.7	230.8	371.8	643.9
60.0	202.4	175.5	182.7	221.7	371.2	649.8
62.0	178.0	159.5	169.2	213.0	369.7	655.5
64.0	154.0	145.5	157.0	205.7	371.9	662.2
66.0	136.2	131.3	146.0	202.0	368.1	650.5
68.0	119.8	116.8	135.6	194.0	361.8	627.1
70.0	103.1	102.4	123.9	185.2	354.8	575.1
72.0	88.09	86.84	110.8	174.9	330.0	488.9
74.0	74.17	72.48	99.26	156.0	261.1	378.9
76.0	60.37	59.21	87.63	115.2	192.0	259.1
78.0	46.62	46.34	69.53	74.14	112.7	169.5
80.0	32.94	32.05	46.45	44.42	63.33	107.3
82.0	19.77	21.96	25.82	24.61	31.42	45.19
84.0	10.78	11.66	12.42	11.65	14.61	19.84
86.0	4.711	4.447	5.085	4.516	5.296	5.048
88.0	0.9606	0.9248	1.073	1.132	1.288	1.223
90.0	0.2852	0.4944	0.7244	1.055	1.268	1.262
92.0	0.3661	0.5853	0.9085	1.375	1.615	1.630
94.0	0.4756	0.7663	1.188	1.783	2.122	2.136
96.0	0.6197	0.9889	1.497	2.237	2.657	2.668
98.0	0.8075	1.261	1.864	2.735	3.232	3.231
100.0	1.030	1.554	2.257	3.243	3.816	3.802
102.0	1.291	1.870	2.668	3.760	4.461	4.448
104.0	1.565	2.188	3.061	4.324	5.177	5.194
106.0	1.863	2.508	3.430	4.894	5.879	5.852
108.0	2.172	2.833	3.808	5.447	6.582	6.511
110.0	2.489	3.166	4.203	5.896	7.133	7.122
112.0	2.808	3.522	4.585	6.257	7.467	7.519
114.0	3.137	3.894	4.946	6.520	7.661	7.687
116.0	3.460	4.252	5.299	6.731	7.779	7.753
118.0	3.770	4.588	5.617	6.910	7.884	7.777
120.0	4.081	4.905	5.925	7.093	7.933	7.777
122.0	4.381	5.199	6.180	7.242	7.936	7.733
124.0	4.668	5.474	6.382	7.324	7.879	7.639
126.0	4.948	5.716	6.583	7.365	7.786	7.507
128.0	5.225	5.958	6.761	7.366	7.672	7.347
130.0	5.490	6.171	6.890	7.350	7.522	7.139
132.0	5.712	6.360	6.966	7.289	7.336	6.908
134.0	5.914	6.508	6.990	7.212	7.136	6.718
136.0	6.081	6.617	6.990	7.131	6.958	6.538
138.0	6.226	6.676	6.978	7.046	6.774	6.319
140.0	6.338	6.713	6.953	6.953	6.595	6.105
142.0	6.430	6.738	6.925	6.855	6.428	5.932
144.0	6.518	6.758	6.881	6.766	6.284	5.784
146.0	6.582	6.741	6.828	6.678	6.166	5.667
148.0	6.578	6.724	6.776	6.576	6.053	5.562
150.0	6.578	6.708	6.699	6.491	5.964	5.492
152.0	6.570	6.691	6.638	6.414	5.891	5.452
154.0	6.538	6.674	6.558	6.341	5.847	5.355
156.0	6.501	6.585	6.472	6.263	5.806	5.285
158.0	6.462	6.496	6.376	6.191	5.778	5.289
160.0	6.401	6.411	6.267	6.117	5.742	5.301
162.0	6.329	6.330	6.162	6.033	5.701	5.321
164.0	6.229	6.233	6.049	5.927	5.624	5.317
166.0	6.156	6.160	5.973	5.854	5.600	5.317
168.0	6.104	6.092	5.912	5.797	5.564	5.329
170.0	6.032	6.019	5.840	5.740	5.523	5.333
172.0	5.968	5.951	5.779	5.700	5.519	5.354
174.0	5.916	5.894	5.735	5.683	5.519	5.386
176.0	5.859	5.833	5.682	5.659	5.519	5.431
178.0	5.791	5.781	5.642	5.631	5.519	5.480
180.0	5.723	5.696	5.614	5.574	5.519	5.683

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C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

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γ Interval: 2.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.3-MIN: 41.0%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-1-A RALED I 16 LED's 20W
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MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 369mA