

ANEXO 23-0951-3-A RALED I 16 LED's RA10 40W

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:	40.12 W
I80 = 39.1 cd per klm.	I88 = 0.0 cd per klm.
I90 = 0.7 cd per klm.	I80/I88 = 794.744

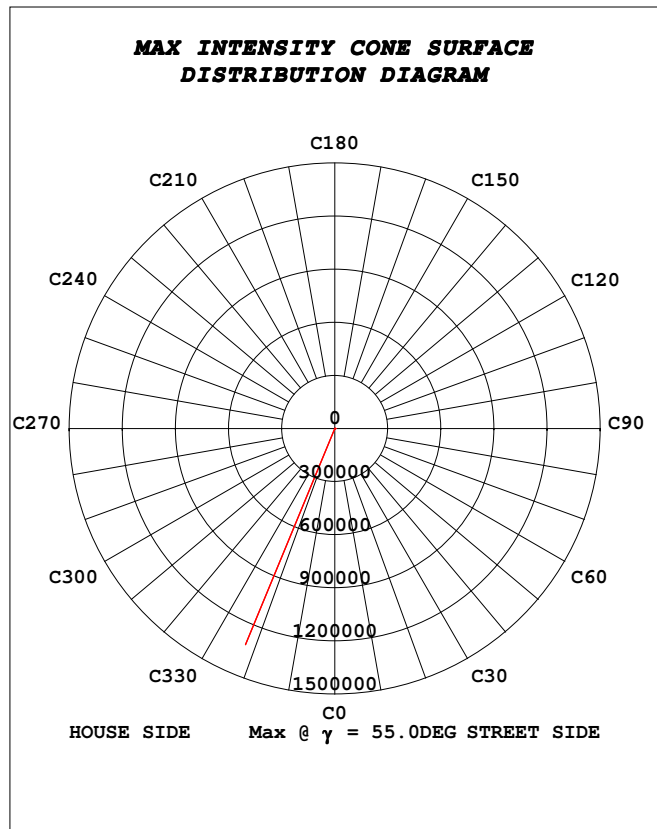
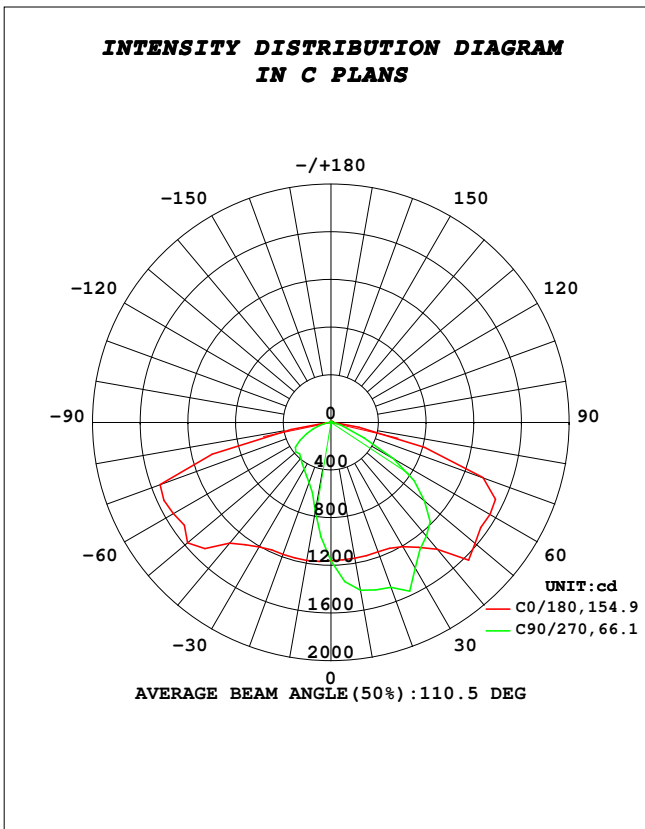
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.1-MIN: 40.4%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-3-A RALED I 16 LED's 40W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 750mA

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:220.18V I:0.1849A P:40.123W PF:0.9855 Freq:60.01Hz Lamp Flux:6165.89x1 lm		
NAME: ANEXO 23-0951-3-A RALED I 16 LED's 40W	TYPE:Alumbrado Publico	WEIGHT:----
SPEC.:16 LED's 40W	DIM.: ----	SERIAL No.:23-0951-3
MFR.: ROY ALPHA	SUR.:-----	Shielding Angle:-----

DATA OF LAMP		PHOTOMETRIC DATA Eff: 153.67 lm/W			
MODEL	2X8 Z15 5050	Imax(cd)	1320598	η street_up(%)	0.3
NOMINAL POWER(W)	40	LOR(%)	100.0	η street_down(%)	49.7
RATED VOLTAGE(V)	----	TOTAL FLUX(lm)	6166	η house_up(%)	12.4
NOMINAL FLUX(lm)	6165.89	MAXIMUM @ (C, γ)	338,55.0	η house_down(%)	37.5
LAMPS INSIDE	1	η up(%)	12.7	76 FLASHAREA(m2)	
TEST VOLTAGE(V)	220	η down(%)	87.3	SLI	

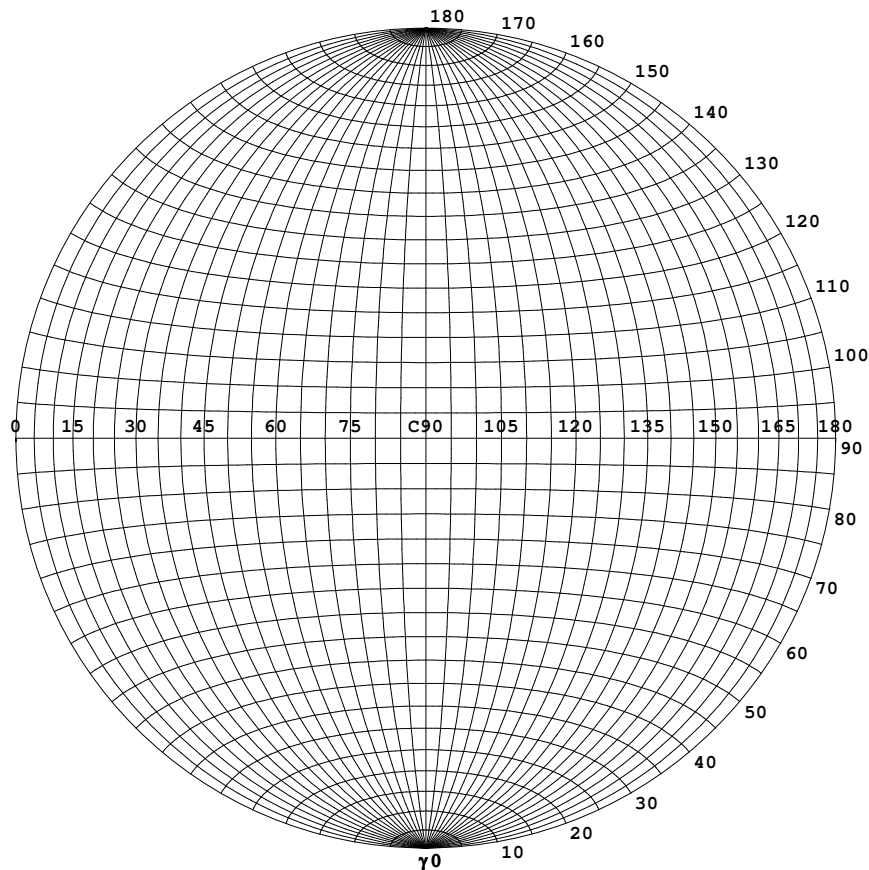


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C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25 \pm 1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
 γ Interval: 5.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.1-MIN: 40.4%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-3-A RALED I 16 LED's 40W
DRIVER ADVANCE 55W 0.1-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 750mA

STREETLIGHT ISOCANDELA DIAGRAM

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Classification:

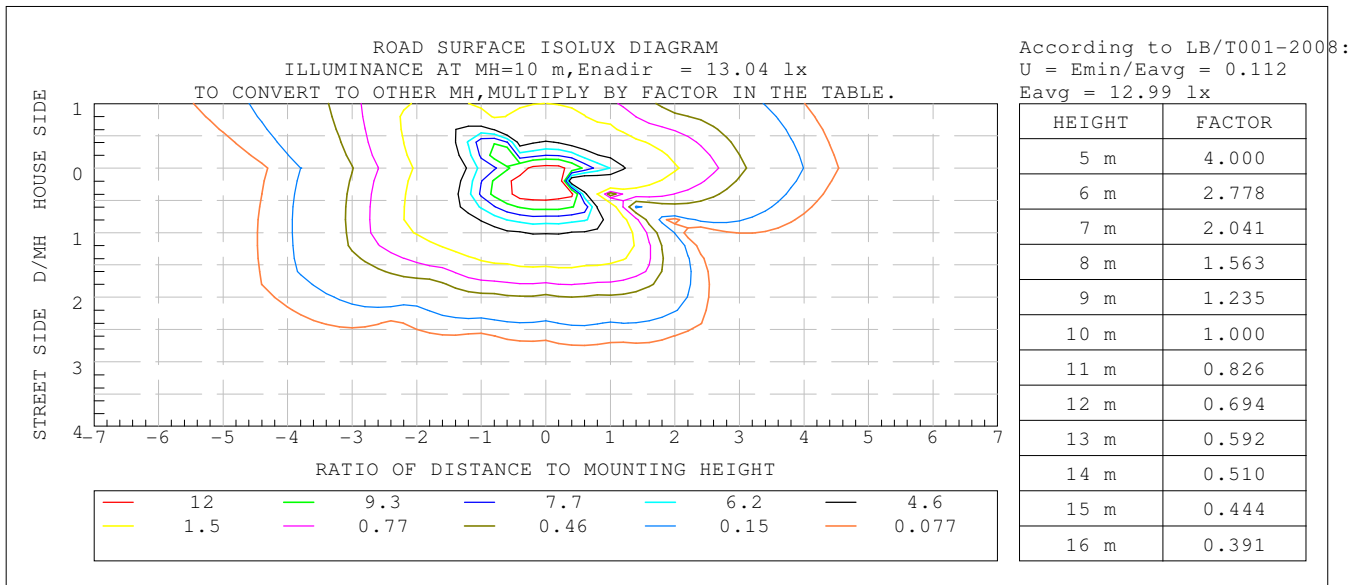
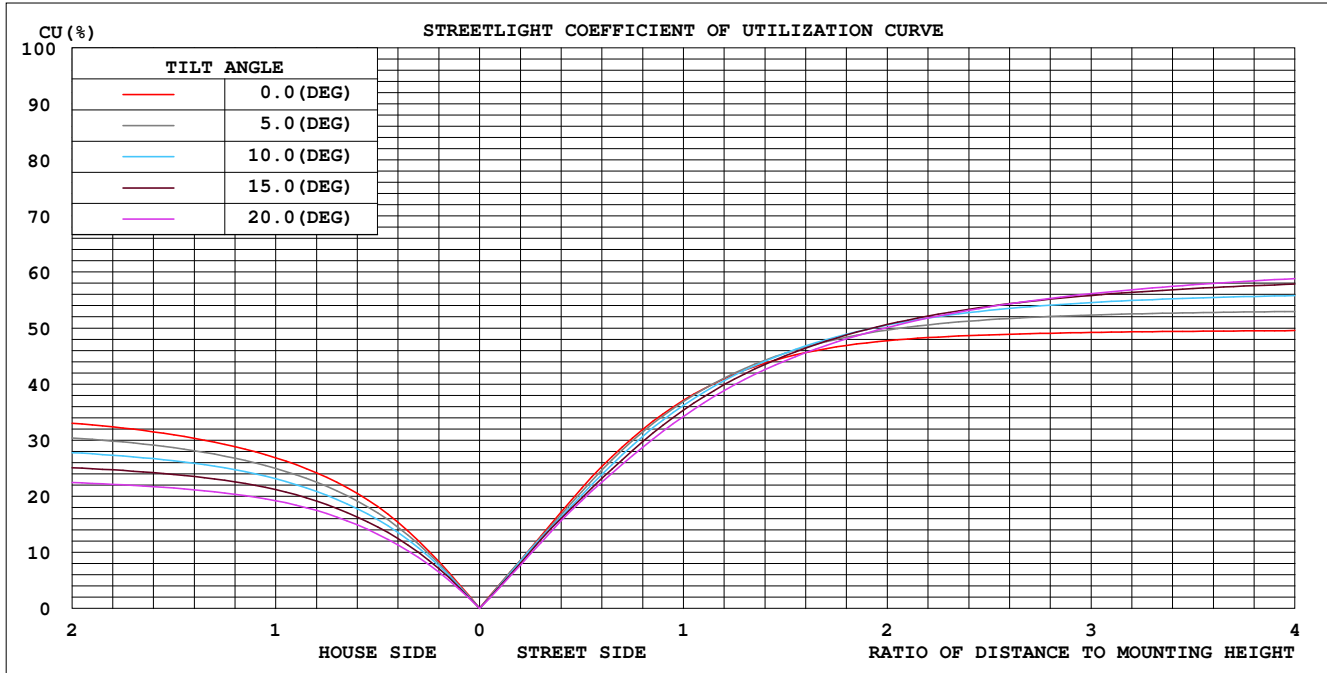
IES:Type I - Short
CIE:Narrow - Short
IES:None cut-off
CIE:Non-cut-off
Max.At80:198339cd/klm
Max.At90:191175cd/klm
Max.80-90:198339cd/klm
NRB 5101:Non limited[19833.9%]

ISOCANDELA DIAGRAM	
UNIT	cd
I _{max} =100%	1320598
90%	1188538
80%	1056479
70%	924419
60%	792359
50%	660299
40%	528239
30%	396179
20%	264120
10%	132060
5%	66030

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Test Speed: HIGH
Temperature:25±1°CDEG
Operators:Fabian Loaiza
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γ Interval: 5.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity:MAX:51.1-MIN:40.4%
Test Distance:7.080m [K=1.0000]
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Corriente de programacion:750mA

COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



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ZONAL FLUX DIAGRAM

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SPEC.:16 LED's 40W	DIM.: ----	SERIAL No.:23-0951-3
MFR.: ROY ALPHA	SUR.:-----	Shielding Angle:-----

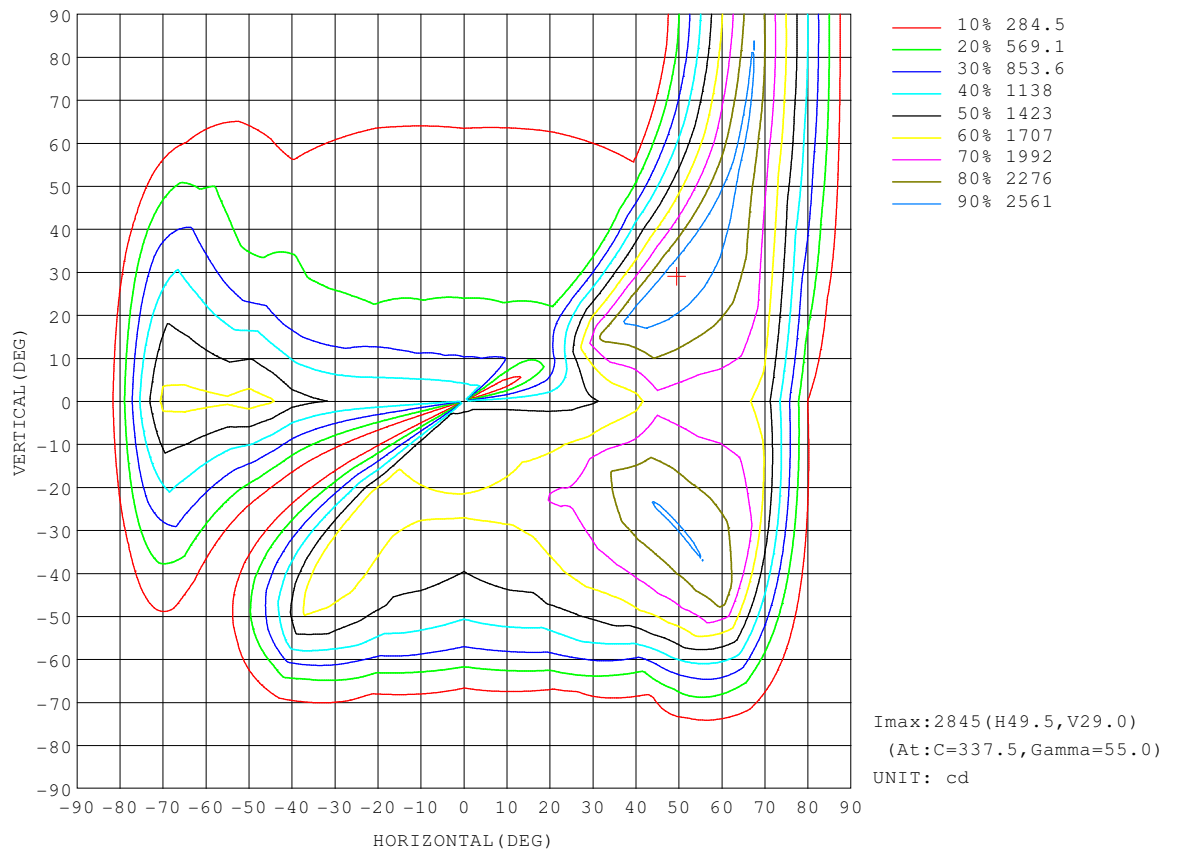
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	1.158	1.380	1.431	1.411	1.176	0.8933	0.7594	0.8742	0- 10	109.8	109.8	1.78,1.78
20	1.157	1.483	1.473	1.507	1.179	0.6364	0.5407	0.6267	10- 20	316.0	425.8	6.91,6.91
30	1.205	1.759	1.415	1.723	1.206	0.4954	0.4518	0.5054	20- 30	530.8	956.7	15.5,15.5
40	1.388	1.688	1.246	1.751	1.324	0.4121	0.3928	0.4219	30- 40	757.1	1714	27.8,27.8
50	1.579	1.608	1.023	1.752	1.573	0.3644	0.3855	0.3798	40- 50	956.6	2670	43.3,43.3
60	1.542	1.312	0.6032	1.498	1.529	0.3007	0.3022	0.3030	50- 60	1036	3706	60.1,60.1
70	1.358	0.4880	0.1415	0.5857	1.526	0.1854	0.1650	0.1859	60- 70	902.9	4609	74.8,74.8
80	0.2409	0.1025	0.0391	0.1266	0.3430	0.0670	0.0452	0.0695	70- 80	546.3	5155	83.6,83.6
90	0.0042	0.0010	0.0006	0.0012	0.0016	0.0008	0.0002	0.0011	80- 90	225.2	5381	87.3,87.3
100	0.0081	0.0018	0.0012	0.0017	0.0046	0.0026	0.0008	0.0032	90-100	167.5	5548	90,90
110	0.0113	0.0028	0.0021	0.0027	0.0084	0.0058	0.0026	0.0062	100-110	149.4	5698	92.4,92.4
120	0.0121	0.0037	0.0028	0.0033	0.0107	0.0097	0.0051	0.0093	110-120	125.9	5823	94.4,94.4
130	0.0117	0.0044	0.0032	0.0037	0.0111	0.0115	0.0077	0.0113	120-130	104.4	5928	96.1,96.1
140	0.0105	0.0052	0.0037	0.0043	0.0103	0.0110	0.0097	0.0119	130-140	85.75	6014	97.5,97.5
150	0.0097	0.0063	0.0046	0.0052	0.0095	0.0101	0.0107	0.0117	140-150	67.21	6081	98.6,98.6
160	0.0096	0.0075	0.0063	0.0065	0.0091	0.0110	0.0112	0.0109	150-160	47.87	6129	99.4,99.4
170	0.0098	0.0094	0.0083	0.0080	0.0093	0.0103	0.0107	0.0102	160-170	28.14	6157	99.9,99.9
180	0.0102	0.0106	0.0102	0.0097	0.0102	0.0105	0.0103	0.0097	170-180	9.067	6166	100,100
DEG	LUMINOUS INTENSITY: μ A1000cd Less than 35% Percent = 11.8 %									UNIT:lm		

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Humidity:MAX:51.1-MIN:40.4%
Test Distance:7.080m [K=1.0000]
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MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion:750mA

ISOCANDELA DIAGRAM

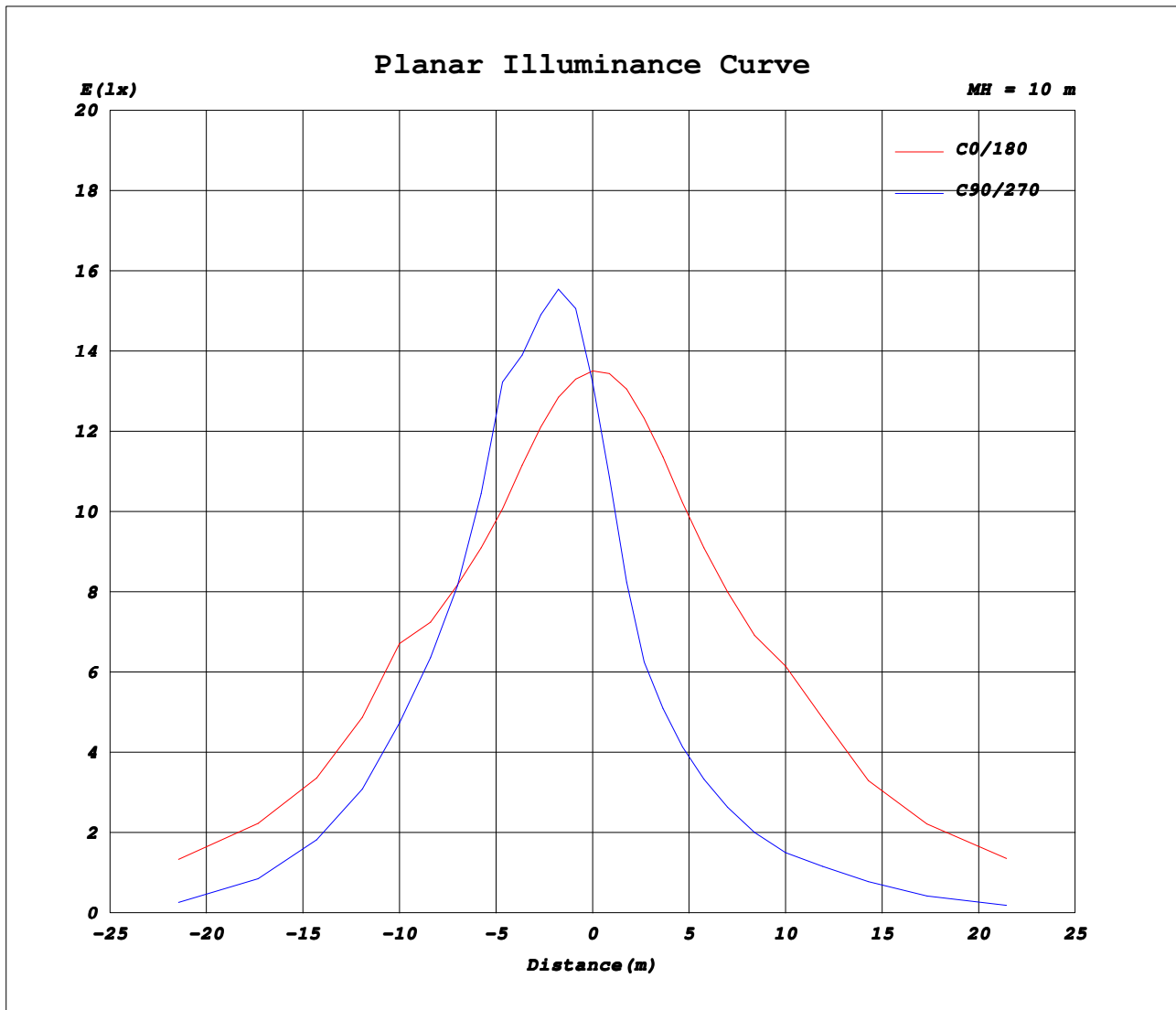
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Planar Illuminance Curve



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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: 0:10:19"
Tiempo de ensayo: 0:15:00"

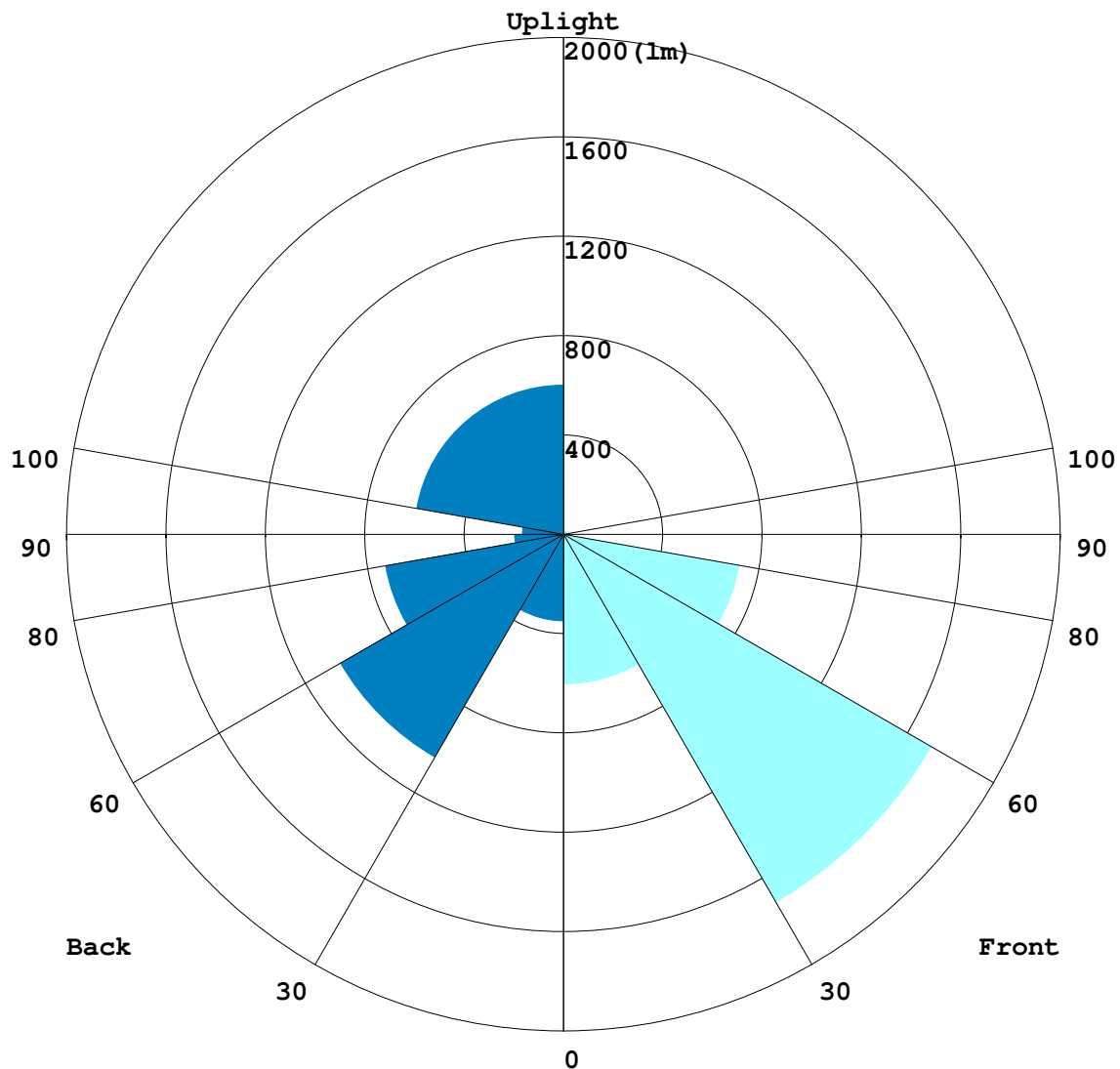
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LCS REPORT

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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)	605.39	9.8
FM - Front-Medium(30-60)	1712.1	27.8
FH - Front-High(60-80)	720.54	11.7
FVH - Front-Very High(80-90)	28.274	0.5
Total Forward Light	3084	50.0

BL - Back-Low(0-30)	351.26	5.7
BM - Back-Medium(30-60)	1037.4	16.8
BH - Back-High(60-80)	728.69	11.8
BVH - Back-Very High(80-90)	196.97	3.2
Total Back Light	3081.9	50.0

UL - Uplight-Low(90-100)	167.52	2.7
UH - Uplight-High(100-180)	617.73	10.0
Total Up Light	785.25	12.7

BUG (Back, Up, Glare) Rating	B2-U4-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2314.4	767.52	3081.9
Street Side	3066.3	17.726	3084

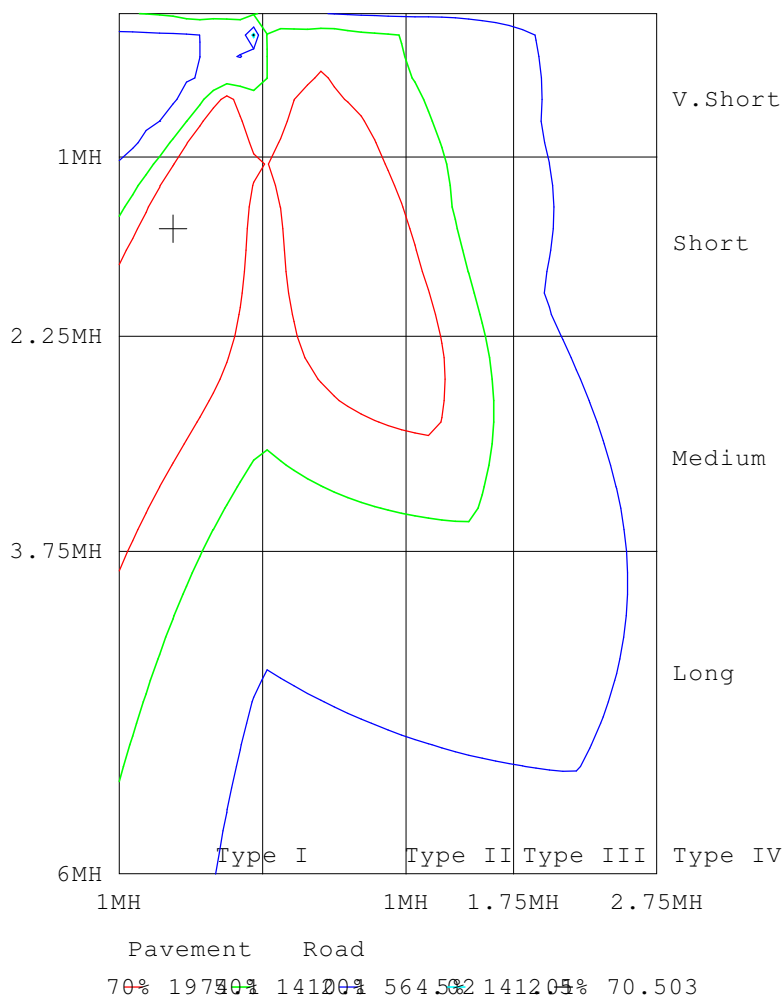
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ROAD ISOCANDELA REPORT

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ROAD SURFACE ISOCANDELA DIAGRAM



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LUMINOUS DISTRIBUTION INTENSITY DATA

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Table--1

UNIT: ;Á1000cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16			
5	1.16	1.23	1.29	1.33	1.34	1.33	1.30	1.11	1.17	1.10	1.03	0.99	0.97	0.98	1.02	5.41			
10	1.16	1.30	1.38	1.42	1.43	1.44	1.41	1.34	1.18	1.03	0.89	0.79	0.76	0.78	0.87	27.10			
15	1.16	1.35	1.43	1.46	1.45	1.47	1.47	1.61	1.18	0.96	0.75	0.64	0.61	0.63	0.74	141.05			
20	1.16	1.39	1.48	1.49	1.47	1.49	1.51	1.93	1.18	0.89	0.64	0.55	0.54	0.56	0.63	255.88			
25	1.16	1.47	1.59	1.58	1.56	1.57	1.56	2.26	1.18	0.81	0.55	0.50	0.49	0.50	0.55	490.51			
30	1.21	1.62	1.76	1.51	1.42	1.52	1.72	2.54	1.21	0.73	0.50	0.46	0.45	0.46	0.51	817.18			
35	1.28	1.88	1.70	1.41	1.30	1.43	1.73	2.76	1.25	0.66	0.45	0.42	0.42	0.43	0.46	1088.67			
40	1.39	2.05	1.69	1.35	1.25	1.37	1.75	2.95	1.32	0.61	0.41	0.39	0.39	0.40	0.42	1179.72			
45	1.63	2.18	1.68	1.28	1.18	1.31	1.77	3.10	1.50	0.59	0.38	0.37	0.37	0.38	0.39	1269.68			
50	1.58	2.23	1.61	1.19	1.02	1.24	1.75	3.22	1.57	0.63	0.36	0.38	0.39	0.38	0.38	1306.24			
55	1.54	2.23	1.49	0.99	0.85	1.07	1.68	3.32	1.50	0.52	0.39	0.38	0.36	0.37	0.40	1320.60			
60	1.54	2.23	1.31	0.77	0.60	0.84	1.50	3.39	1.53	0.51	0.30	0.35	0.30	0.34	0.30	1306.99			
65	1.53	2.21	0.97	0.46	0.31	0.50	1.11	3.43	1.55	0.53	0.24	0.25	0.23	0.24	0.24	1280.04			
70	1.36	2.05	0.49	0.16	0.14	0.23	0.59	3.44	1.53	0.54	0.19	0.18	0.16	0.17	0.19	1249.25			
75	0.82	1.29	0.20	0.09	0.08	0.10	0.24	3.44	1.03	0.40	0.13	0.12	0.10	0.12	0.13	1221.95			
80	0.24	0.50	0.10	0.04	0.04	0.05	0.13	3.40	0.34	0.11	0.07	0.06	0.05	0.05	0.07	1222.94			
85	0.03	0.04	0.02	0.01	0.01	0.02	0.03	3.36	0.04	0.02	0.02	0.01	0.01	0.01	0.01	1210.24			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1178.77			
95	0.01	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1121.00			
100	0.01	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1065.39			
105	0.01	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.01	0.01	0.00	0.00	0.00	0.00	0.00	1016.59			
110	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.34	0.01	0.01	0.01	0.00	0.00	0.00	0.01	963.16			
115	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.35	0.01	0.01	0.01	0.00	0.00	0.00	0.01	885.34			
120	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	838.25			
125	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.43	0.01	0.01	0.01	0.01	0.01	0.01	0.01	803.02			
130	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.62	0.01	0.01	0.01	0.01	0.01	0.01	0.01	776.48			
135	0.01	0.01	0.00	0.00	0.00	0.00	0.00	3.70	0.01	0.01	0.01	0.01	0.01	0.01	0.01	756.89			
140	0.01	0.01	0.01	0.00	0.00	0.00	0.00	3.78	0.01	0.01	0.01	0.01	0.01	0.01	0.01	741.94			
145	0.01	0.01	0.01	0.00	0.00	0.00	0.00	3.88	0.01	0.01	0.01	0.01	0.01	0.01	0.01	727.71			
150	0.01	0.01	0.01	0.01	0.00	0.00	0.01	4.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	713.24			
155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	697.61			
160	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.28	0.01	0.01	0.01	0.01	0.01	0.01	0.01	680.11			
165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.43	0.01	0.01	0.01	0.01	0.01	0.01	0.01	661.52			
170	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.60	0.01	0.01	0.01	0.01	0.01	0.01	0.01	642.48			
175	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.78	0.01	0.01	0.01	0.01	0.01	0.01	0.01	621.58			
180	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4.93	0.01	0.01	0.01	0.01	0.01	0.01	0.01	600.52			

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25±1°CDEG

Operators:Fabian Loaiza

Test Date:2023-11-06

γ Range: 0 - 180DEG

γ Interval: 5.0DEG

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

Humidity:MAX:51.1-MIN:40.4%

Test Distance:7.080m [K=1.0000]

Remarks: ANEXO 23-0951-3-A RALED I 16 LED's 40W

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

MODULO LED 2X8 Z15 5050 4K SAMSUNG

Corriente de programacion:750mA

Photometric Data Table [cd]

G/C	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0.0	1162	1162	1162	1162	1162	1162	1162	1162	1162	1162
5.0	1158	1228	1286	1325	1340	1334	1298	1107	1170	1095
10.0	1158	1296	1380	1420	1431	1442	1411	1338	1176	1030
15.0	1157	1346	1429	1456	1455	1473	1469	1612	1177	960.6
20.0	1157	1392	1483	1489	1473	1491	1507	1926	1179	889.9
25.0	1164	1468	1585	1582	1563	1573	1562	2262	1182	810.1
30.0	1205	1618	1759	1509	1415	1521	1723	2540	1206	730.2
35.0	1279	1884	1696	1408	1304	1426	1727	2765	1253	662.0
40.0	1388	2051	1688	1353	1246	1369	1751	2950	1324	609.1
45.0	1635	2185	1679	1279	1179	1309	1767	3101	1498	588.6
50.0	1579	2227	1608	1186	1023	1236	1752	3219	1573	633.9
55.0	1535	2227	1488	988.3	852.9	1067	1676	3318	1504	520.8
60.0	1542	2226	1312	766.1	603.2	836.4	1498	3386	1529	512.7
65.0	1525	2205	968.8	459.7	306.4	500.3	1108	3426	1549	531.5
70.0	1358	2055	488.0	163.0	141.5	229.5	585.7	3441	1526	541.7
75.0	815.9	1287	196.7	94.31	80.39	101.9	241.7	3443	1034	397.6
80.0	240.9	500.0	102.5	44.67	39.15	49.42	126.6	3402	343.0	109.7
85.0	25.39	41.93	20.26	13.08	8.903	15.42	28.40	3362	42.18	18.54
90.0	4.157	2.100	1.028	0.8142	0.5761	0.9056	1.231	3340	1.568	2.175
95.0	5.848	2.776	1.290	0.9852	0.8573	0.9509	1.230	3340	2.862	3.563
100.0	8.066	3.868	1.790	1.376	1.196	1.341	1.742	3338	4.635	5.765
105.0	10.13	4.845	2.281	1.793	1.710	1.758	2.225	3340	6.577	8.310
110.0	11.30	5.505	2.756	2.200	2.140	2.176	2.687	3340	8.415	10.77
115.0	11.93	6.034	3.237	2.611	2.510	2.554	3.045	3351	9.827	12.42
120.0	12.13	6.527	3.711	2.959	2.811	2.770	3.309	3399	10.66	13.37
125.0	12.06	6.948	4.048	3.257	3.014	2.946	3.486	3430	11.02	13.76
130.0	11.72	7.170	4.356	3.526	3.184	3.102	3.667	3624	11.06	13.65
135.0	11.06	7.291	4.719	3.816	3.377	3.279	3.948	3698	10.81	13.34
140.0	10.50	7.520	5.185	4.216	3.669	3.599	4.273	3781	10.34	12.86
145.0	10.00	7.827	5.706	4.717	4.083	4.049	4.699	3882	9.884	11.99
150.0	9.738	8.149	6.322	5.334	4.595	4.618	5.203	3999	9.529	10.65
155.0	9.615	8.595	6.983	6.031	5.427	5.394	5.888	4132	9.099	9.963
160.0	9.567	8.993	7.532	7.067	6.324	6.204	6.528	4276	9.140	10.06
165.0	9.605	9.386	8.433	8.082	7.297	7.089	7.214	4429	9.185	10.03
170.0	9.816	9.736	9.360	9.203	8.334	8.031	7.973	4604	9.345	9.914
175.0	10.10	10.50	10.26	10.40	9.401	9.057	8.843	4781	9.602	9.845
180.0	10.22	10.47	10.55	10.95	10.25	9.981	9.684	4932	10.22	10.46

G/C	225.0	247.5	270.0	292.5	315.0	337.5
0.0	1162	1162	1162	1162	1162	1162
5.0	1032	985.6	966.4	977.9	1020	5411
10.0	893.3	792.9	759.4	783.2	874.2	27101
15.0	750.9	640.2	610.1	634.9	736.4	141053
20.0	636.4	555.0	540.7	557.1	626.7	255879
25.0	549.6	499.7	489.2	502.4	554.6	490510
30.0	495.4	456.8	451.8	462.0	505.4	817176
35.0	448.8	423.1	421.6	430.8	459.1	1088671
40.0	412.1	394.5	392.8	401.4	421.9	1179718
45.0	382.8	367.3	374.2	377.0	393.0	1269684
50.0	364.4	377.2	385.5	384.5	379.8	1306242
55.0	386.2	379.9	363.9	369.5	395.3	1320598
60.0	300.7	352.3	302.2	336.1	303.0	1306992
65.0	240.8	252.8	225.8	243.6	242.9	1280042
70.0	185.4	181.3	165.0	173.2	185.9	1249248
75.0	126.1	123.6	104.4	117.1	125.5	1221946
80.0	66.97	57.50	45.24	52.75	69.45	1222938
85.0	16.73	13.68	11.35	12.07	13.33	1210239
90.0	0.8492	0.3440	0.2239	0.3921	1.051	1178767
95.0	1.350	0.4542	0.4099	0.6474	1.858	1121004
100.0	2.589	0.9996	0.7995	1.320	3.208	1065390
105.0	4.116	1.902	1.545	2.380	4.736	1016592
110.0	5.765	3.054	2.557	3.635	6.220	963158
115.0	7.802	4.473	3.709	4.959	7.802	885343
120.0	9.658	6.026	5.052	6.277	9.273	838247
125.0	10.89	7.056	6.399	7.527	10.45	803022
130.0	11.52	7.735	7.713	8.747	11.30	776479
135.0	11.64	8.604	8.822	9.753	11.80	756891
140.0	11.04	9.377	9.669	10.47	11.88	741940
145.0	10.27	10.08	10.30	10.94	11.83	727711
150.0	10.08	11.17	10.72	11.18	11.65	713238
155.0	10.27	12.22	11.10	11.25	11.37	697606
160.0	11.01	12.25	11.19	11.15	10.94	680108
165.0	10.80	11.22	10.87	10.84	10.52	661521
170.0	10.35	10.70	10.66	10.59	10.22	642476

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.1-MIN: 40.4%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-3-A RALED I 16 LED's 40W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 750mA

Photometric Data Table [cd]

175.0	10.17	10.57	10.51	10.36	9.954	621576
180.0	10.53	10.94	10.27	9.984	9.713	600519

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25±1°CDEG
Operators: Fabian Loaiza
Test Date: 2023-11-06

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.406.10
Humidity: MAX: 51.1-MIN: 40.4%
Test Distance: 7.080m [K=1.0000]
Remarks: ANEXO 23-0951-3-A RALÉD I 16 LED's 40W
DRIVER ADVANCE 55W 0.1.-1.8A 0-10V
MODULO LED 2X8 Z15 5050 4K SAMSUNG
Corriente de programacion: 750mA