TEST REPORT

Report No.:	NBEE260900101171
Date of issue:	2026-09-15
Product:	LED STREET LIGHT
Model No.:	AVYRA I 52W
Electrical Rating:	200-240V AC; 60 Hz; 52 W
Applicant:	ROY ALPHA S.A.
Address:	CALLE 15 No. 32-598 ZONA INDUSTRIAL YUMBO CALI, COLOMBIA, SOUTH AMERICA
Manufacturer:	NINGBO MORELUX LIGHTING MFG LTD
Address:	No.799 LONGFEI RD, MEICHI INDUSTRIAL ZONE, YINZHOU DISTRICT, NINGBO, Zhejiang 315137, P.R.China
Factory:	NINGBO MORELUX LIGHTING MFG LTD
Address:	No.799 LONGFEI RD, MEICHI INDUSTRIAL ZONE, YINZHOU DISTRICT, NINGBO, Zhejiang 315137, P.R.China
Testing Laboratory:	SGS-CSTC Standards Technical Services (Ningbo) Co., Ltd.
Address:	Unit 2, 1/F., 2/F.to 5/F., Building 4, Unit 6, 1/F., Building 7, No. 1177 Lingyun Road, Meixu Subdistrict, Hi-Tech Zone, Ningbo, Zhejiang, China.
Number of Samples received:	1
Date of samples reception:	2026-09-07
Date Test Conducted:	2026-09-07 to 2026-09-15
Test Requested:	The Electrical Power, Total luminous flux, Color Characteristics and Light Distribution
Test Method (standards):	ANSI/IES LM-79-24 Approved Method: Optical And Electrical Measurements Of Solid-State Lighting Products
Remark:	N/A

Prepared and checked by:

Stefan Gao

Reviewed by:

Chris Chen

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

General product information and other remarks:

The product is LED STREET LIGHT.

1. TEST CONDITIONS

The AC Power Source DPS1030_V200 (EVERFINE) as used to generate 200V/60Hz, 220V/60Hz and 240V/60Hz to the tested sample for all the mentioned tests.

Before measurements are taken, there is no seasoning for the tested sample, and tested sample in base-up position was stabilized for 45 minutes in the ambient temperature 25 ºC±1.2 ºC, with relative humidity of 10%~65%.

The sample was mounted at base-up position. The geometric centre of the tested sample was considered as optical reference centre for photometric test.

The total luminous flux and light distribution were measured by calibrated EVERFINE R5000 Type C goniophotometer with the distance 26m between the detector and the sample's reference center.

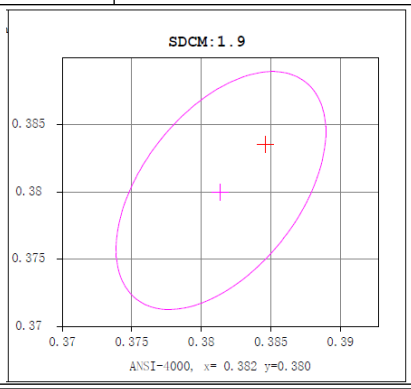
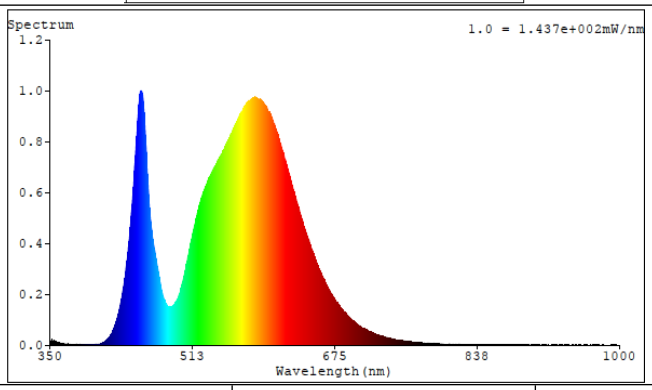
Spacing criteria of goniophotometer is C=15°/ γ =1°

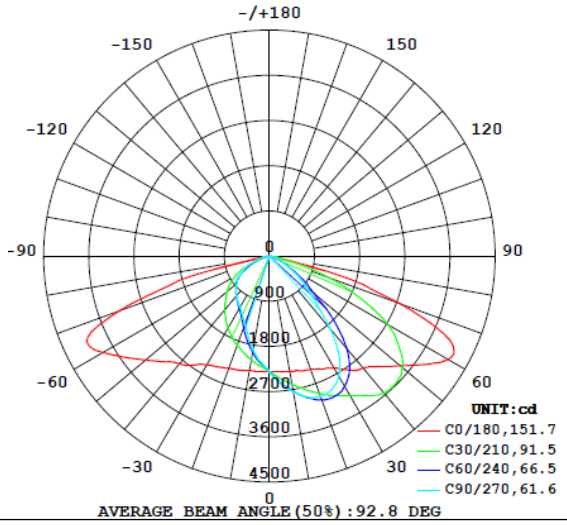
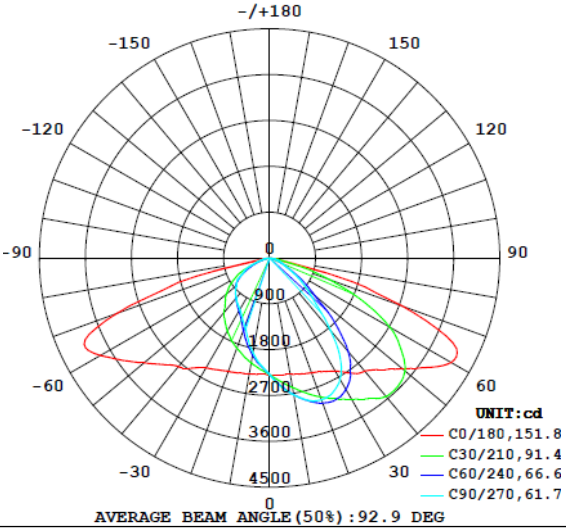
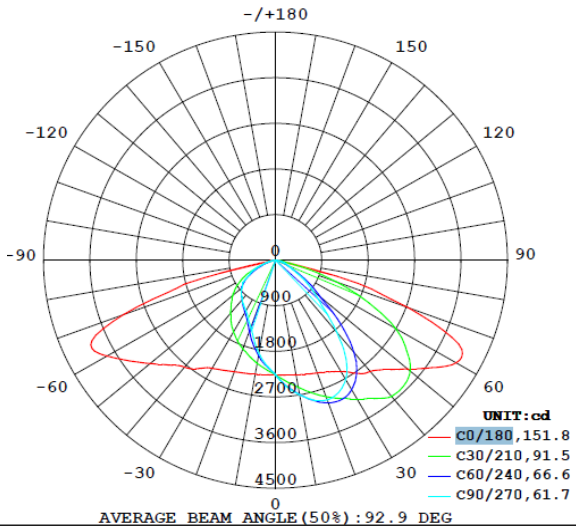
The color characteristics of the light emitted by the tested sample were measured by EVERFINE HAAS-2000 spectroradiometer integrated into 2.0 m integrating sphere with an interior coating reflectance of 93%; the 4π geometry is used for photometric measurement.

The ambient temperature during measurements was 25 ºC

All measurements are traceable to NIM.

2. TEST DATA

Model No.		AVYRA I 52W		
Electrical parameters		**Measured Value**		
Test Voltage (V)		200	220	240
Frequency (Hz)		60	60	60
Power Factor (PF)		0,996	0,992	0,988
Current (A)		0,2613	0,2382	0,2192
Power (W)		51,9	51,9	51,9
Photometric parameters		**Measured Value**		
Luminous Efficacy (lm/W)		153,8	153,2	151,5
Total Luminous Flux (lm)		7983,3	7947,3	7854,5
CCT (K)		3927	3928	3926
Rendering Index (Ra)		71,8	71,7	71,8
Chromaticity Co-ordinate	x	0,3849	0,3849	0,3851
	y	0,3831	0,3832	0,3833
	u'	0,2255	0,2255	0,2255
	v'	0,5050	0,5050	0,5051
Duv		$1,66e^{-03}$	$1,68e^{-03}$	$1,70e^{-03}$
SDCM				
Relative Spectrum Distribution				
Beam Angle (°)		92,8	92,9	92,9
Peak Intensity (cd)		4770	4754	4701

Light Distribution Curve	
200V/60Hz	
220V/60Hz	
240V/60Hz	

Zonal Flux Diagram

200V/60Hz

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2329	2677	2742	2648	2319	2005	1898	2038	0- 10	222.1	222.1	2.78,2.78
20	2406	2993	2979	2974	2379	1666	1439	1700	10- 20	661.5	883.5	11.1,11.1
30	2578	3133	2764	3091	2500	1322	1170	1333	20- 30	1063	1947	24.4,24.4
40	2913	2955	1869	2891	2793	1082	1028	1103	30- 40	1381	3328	41.7,41.7
50	3397	2013	977.2	2001	3215	903.6	857.8	918.5	40- 50	1508	4836	60.6,60.6
60	4110	665.1	426.3	686.6	3841	643.0	617.5	625.4	50- 60	1469	6304	79,79
70	2761	200.6	218.6	204.2	3190	245.3	314.8	225.7	60- 70	1200	7505	94,94
80	109.4	53.67	50.58	58.19	175.2	55.63	85.15	49.40	70- 80	447.4	7952	99.6,99.6
90	0	0	0	0	0	0	0	0	80- 90	27.71	7980	100,100
100	0	0	0	0	0.7205	0	0	0	90-100	0.0225	7980	100,100
110	2.342	0	0	0	1.802	0	0	0	100-110	0.3091	7980	100,100
120	2.680	0	0	0	1.801	0.7139	0	0.5399	110-120	0.5055	7981	100,100
130	2.625	0	0	0	1.801	1.435	0.3652	1.153	120-130	0.5600	7981	100,100
140	2.569	0	0	0	1.801	1.434	1.221	1.827	130-140	0.6543	7982	100,100
150	2.489	0	0	0	1.801	1.433	1.642	1.945	140-150	0.6090	7982	100,100
160	2.259	0	0	0.1790	1.801	1.258	1.644	2.064	150-160	0.4514	7983	100,100
170	2.096	0.6382	0	0.7297	2.342	1.973	1.646	2.183	160-170	0.3026	7983	100,100
180	1.981	1.077	0.3657	1.274	2.702	1.795	1.280	1.274	170-180	0.1246	7983	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

220V/60Hz

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2323	2662	2729	2641	2311	1997	1888	2027	0- 10	221.1	221.1	2.78,2.78
20	2395	2978	2965	2965	2369	1664	1430	1694	10- 20	658.7	879.8	11.1,11.1
30	2565	3129	2750	3080	2491	1316	1167	1329	20- 30	1059	1938	24.4,24.4
40	2899	2950	1858	2880	2781	1078	1022	1100	30- 40	1375	3313	41.7,41.7
50	3381	2007	973.6	1997	3202	900.0	854.5	915.0	40- 50	1501	4815	60.6,60.6
60	4097	662.3	424.2	684.1	3821	640.7	613.2	623.8	50- 60	1462	6277	79,79
70	2748	199.6	217.4	202.8	3174	243.4	312.6	224.8	60- 70	1195	7471	94,94
80	108.1	53.64	50.23	57.97	174.7	55.32	84.45	49.20	70- 80	445.5	7917	99.6,99.6
90	0	0	0	0	0	0	0	0	80- 90	27.52	7944	100,100
100	0	0	0	0	0.5570	0	0	0	90-100	0.0201	7944	100,100
110	2.378	0	0	0	1.830	0	0	0	100-110	0.3267	7945	100,100
120	2.745	0	0	0	1.830	0.9078	0	0.3696	110-120	0.4916	7945	100,100
130	2.930	0	0	0	1.281	0.9112	0.0008	1.293	120-130	0.4780	7946	100,100
140	2.745	0	0	0	1.281	0.9112	0.9267	1.479	130-140	0.5387	7946	100,100
150	2.196	0	0	0	1.281	0.9112	0.9267	1.479	140-150	0.4578	7947	100,100
160	1.835	0	0	0	1.281	0.9112	0.9267	1.479	150-160	0.3268	7947	100,100
170	1.830	0.3646	0	0.5545	1.281	0.9112	0.9267	1.479	160-170	0.2135	7947	100,100
180	1.830	0.7289	0.1853	0.9241	1.281	0.9112	0.5560	0.9241	170-180	0.0894	7947	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

240V/60Hz

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	2295	2631	2697	2609	2284	1975	1864	1999	0- 10	218.4	218.4	2.78,2.78
20	2367	2944	2933	2922	2342	1643	1413	1672	10- 20	650.8	869.2	11.1,11.1
30	2533	3095	2721	3041	2464	1301	1153	1309	20- 30	1046	1915	24.4,24.4
40	2863	2919	1842	2836	2749	1064	1011	1084	30- 40	1359	3274	41.7,41.7
50	3337	1986	963.6	1977	3172	889.0	844.4	902.1	40- 50	1484	4758	60.6,60.6
60	4046	657.9	420.5	675.2	3783	632.0	605.8	614.8	50- 60	1445	6202	79,79
70	2726	197.7	215.4	200.2	3131	239.7	308.0	220.5	60- 70	1181	7383	94,94
80	107.1	53.13	50.51	57.34	169.9	54.15	82.35	47.80	70- 80	441.3	7825	99.6,99.6
90	0	0	0	0	0	0	0	0	80- 90	27.20	7852	100,100
100	0	0	0	0	0.3710	0	0	0	90-100	0.0142	7852	100,100
110	2.188	0	0	0	1.643	0	0	0	100-110	0.3031	7852	100,100
120	2.555	0	0	0	1.643	0.7273	0	0.1838	110-120	0.4868	7853	100,100
130	2.555	0	0	0	1.460	0.9092	0.0013	0.9198	120-130	0.4546	7853	100,100
140	2.555	0	0	0	1.460	0.9092	0.7396	1.287	130-140	0.5117	7853	100,100
150	2.190	0	0	0	1.460	0.9092	0.7396	1.287	140-150	0.4330	7854	100,100
160	1.825	0	0	0	1.462	0.9092	0.7396	1.287	150-160	0.3095	7854	100,100
170	1.643	0.5450	0	0.7303	1.643	0.9092	0.7396	1.104	160-170	0.2032	7854	100,100
180	1.643	0.9092	0.1849	0.9190	1.643	0.7273	0.5547	1.103	170-180	0.0864	7855	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Luminous Distribution Intensity Data

200V/60Hz

Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302
5	2314	2381	2439	2492	2534	2540	2543	2549	2524	2471	2433	2377	2305	2244	2196	2152	2135	2107	2107
10	2329	2472	2589	2677	2733	2750	2742	2749	2717	2648	2565	2463	2319	2191	2098	2005	1944	1898	1898
15	2365	2589	2749	2846	2916	2907	2900	2917	2879	2824	2714	2564	2348	2155	1991	1837	1736	1661	1652
20	2406	2716	2910	2993	3044	2985	2979	2993	3008	2974	2873	2687	2379	2130	1889	1666	1515	1451	1439
25	2473	2877	3060	3090	3075	2968	2937	2967	3011	3071	3005	2832	2432	2113	1785	1486	1326	1295	1291
30	2578	3077	3212	3133	2997	2806	2764	2805	2950	3091	3142	2992	2500	2093	1661	1322	1208	1179	1170
35	2770	3379	3387	3116	2778	2492	2425	2476	2740	3046	3286	3220	2650	2087	1531	1180	1115	1096	1099
40	2913	3580	3556	2955	2397	1992	1869	1998	2377	2891	3394	3436	2793	2087	1388	1082	1034	1018	1028
45	3108	3812	3567	2597	1826	1388	1297	1413	1823	2565	3394	3600	2977	2035	1238	1006	956	940	951
50	3397	4070	3463	2013	1165	1008	977	1015	1169	2001	3275	3838	3215	1980	1109	904	877	858	858
55	3763	4353	3152	1312	812	724	691	740	815	1302	2989	4124	3518	1878	954	803	757	750	791
60	4110	4715	2727	665	484	444	426	454	506	687	2621	4509	3841	1691	774	643	590	582	617
65	3976	4609	2026	340	284	281	296	282	294	367	1932	4642	4020	1320	557	433	416	420	495
70	2761	3241	1261	201	195	209	219	215	197	204	1295	3537	3190	636	291	245	252	254	315
75	1223	1611	537	126	121	122	135	126	125	128	616	1818	1858	218	129	122	132	127	179
80	109	263	131	53.7	48.9	45.9	50.6	47.8	51.0	58.2	150	348	175	77.6	58.0	55.6	58.3	53.1	85.2
85	26.0	32.8	22.1	12.2	9.78	9.40	9.86	9.96	11.0	13.8	25.0	41.3	37.3	19.5	13.6	11.6	10.4	7.86	7.31
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	1.08	0.00	0.00	0.00	0.00	0.00
105	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.85	0.72	0.00	0.00	0.00	0.00
110	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.94	1.62	0.00	0.00	0.00	0.00
115	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.80	2.02	1.48	0.00	0.00	0.00	0.00
120	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	2.11	1.34	0.71	0.18	0.00	0.00
125	2.65	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.98	1.26	0.89	0.18	0.00	0.00
130	2.62	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.44	0.72	0.18	0.37
135	2.60	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.27	1.08	0.73
140	2.57	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.72	1.70	1.22
145	2.54	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.78	2.15	1.64
150	2.49	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.46	1.80	1.80	1.26	1.43	1.75	2.12	1.64
155	2.34	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	1.46	1.80	1.80	1.26	1.43	1.72	2.09	1.64
160	2.26	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.30	1.46	1.80	1.80	1.26	1.26	1.69	2.06	1.64
165	2.18	0.18	0.00	0.18	0.18	0.25	0.00	0.00	0.29	0.29	0.71	1.46	1.80	1.83	1.26	1.97	1.66	2.03	1.65
170	2.10	0.72	0.72	0.64	0.54	0.61	0.00	0.30	0.76	0.73	0.89	1.46	2.34	1.89	1.26	1.97	1.63	2.00	1.65
175	2.01	1.04	1.65	1.06	1.05	1.08	0.19	0.71	1.09	1.13	1.27	1.46	2.62	1.95	1.26	1.97	1.27	1.81	1.65
180	1.98	1.26	1.80	1.08	1.09	1.82	0.37	0.91	1.27	1.27	1.09	1.46	2.70	1.98	1.26	1.80	1.09	1.26	1.28

Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302	2302
5	2314	2381	2439	2492	2534	2540	2543	2549	2524	2471	2433	2377	2305	2244	2196	2152	2135	2107	2107
10	2329	2472	2589	2677	2733	2750	2742	2749	2717	2648	2565	2463	2319	2191	2098	2005	1944	1898	1898
15	2365	2589	2749	2846	2916	2907	2900	2917	2879	2824	2714	2564	2348	2155	1991	1837	1736	1661	1652
20	2406	2716	2910	2993	3044	2985	2979	2993	3008	2974	2873	2687	2379	2130	1889	1666	1515	1451	1439
25	2473	2877	3060	3090	3075	2968	2937	2967	3011	3071	3005	2832	2432	2113	1785	1486	1326	1295	1291
30	2578	3077	3212	3133	2997	2806	2764	2805	2950	3091	3142	2992	2500	2093	1661	1322	1208	1179	1170
35	2770	3379	3387	3116	2778	2492	2425	2476	2740	3046	3286	3220	2650	2087	1531	1180	1115	1096	1099
40	2913	3580	3556	2955	2397	1992	1869	1998	2377	2891	3394	3436	2793	2087	1388	1082	1034	1018	1028
45	3108	3812	3567	2597	1826	1388	1297	1413	1823	2565	3394	3600	2977	2035	1238	1006	956	940	951
50	3397	4070	3463	2013	1165	1008	977	1015	1169	2001	3275	3838	3215	1980	1109	904	877	858	858
55	3763	4353	3152	1312	812	724	691	740	815	1302	2989	4124	3518	1878	954	803	757	750	791
60	4110	4715	2727	665	484	444	426	454	506	687	2621	4509	3841	1691	774	643	590	582	617
65	3976	4609	2026	340	284	281	296	282	294	367	1932	4642	4020	1320	557	433	416	420	495
70	2761	3241	1261	201	195	209	219	215	197	204	1295	3537	3190	636	291	245	252	254	315
75	1223	1611	537	126	121	122	135	126	125	128	616	1818	1858	218	129	122	132	127	179
80	109	263	131	53.7	48.9	45.9	50.6	47.8	51.0	58.2	150	348	175	77.6	58.0	55.6	58.3	53.1	85.2
85	26.0	32.8	22.1	12.2	9.78	9.40	9.86	9.96	11.0	13.8	25.0	41.3	37.3	19.5	13.6	11.6	10.4	7.86	7.31
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	1.08	0.00	0.00	0.00	0.00	0.00
105	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.85	0.72	0.00	0.00	0.00	0.00
110	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.94	1.62	0.00	0.00	0.00	0.00
115	2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.80	2.02	1.48	0.00	0.00	0.00	0.00
120	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	2.11	1.34	0.71	0.18	0.00	0.00
125	2.65	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.98	1.26	0.89	0.18	0.00	0.00
130	2.62	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.44	0.72	0.18	0.37
135	2.60	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.27	1.08	0.73
140	2.57	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.72	1.70	1.22
145	2.54	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.80	1.80	1.26	1.43	1.78	2.15	1.64
150	2.49	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.46	1.80	1.80	1.26	1.43	1.75	2.12	1.64
155	2.34	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	1.46	1.80	1.80	1.26	1.43	1.72	2.09	1.64
160	2.26	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.30	1.46	1.80	1.80	1.26	1.26	1.69	2.06	1.64
165	2.18	0.18	0.00	0.18	0.18	0.25	0.00	0.00	0.29	0.29	0.71	1.46	1.80	1.83	1.26	1.97	1.66	2.03	1.65
170	2.10	0.72	0.72	0.64	0.54	0.61	0.00	0.30	0.76	0.73	0.89	1.46	2.34	1.89	1.26	1.97	1.63	2.00	1.65
175	2.01	1.04	1.65	1.06	1.05	1.08	0.19	0.71	1.09	1.13	1.27	1.46	2.62	1.95	1.26	1.97	1.27	1.81	1.65
180	1.98	1.26	1.80	1.08	1.09	1.82	0.37	0.91	1.27	1.27	1.09	1.46	2.70	1.98	1.26	1.80	1.09	1.26	1.28

220V/60Hz

Table--1 UNIT: cd

γ (DEG) \ C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293	2293
5	2302	2373	2430	2482	2519	2536	2533	2532	2508	2466	2422	2366	2296	2233	2190	2146	2119	2103	2100
10	2323	2463	2578	2662	2721	2740	2729	2737	2703	2641	2554	2453	2311	2183	2091	1997	1936	1893	1888
15	2357	2578	2741	2830	2899	2901	2888	2894	2871	2816	2703	2552	2338	2149	1987	1832	1726	1657	1644
20	2395	2708	2902	2978	3030	2981	2965	2974	2986	2965	2859	2676	2369	2124	1883	1664	1510	1446	1430
25	2462	2865	3048	3079	3066	2951	2919	2951	3003	3058	2997	2816	2422	2104	1778	1482	1320	1291	1282
30	2565	3064	3201	3129	2984	2801	2750	2792	2929	3080	3130	2976	2491	2083	1654	1316	1203	1176	1167
35	2757	3362	3373	3109	2771	2478	2411	2464	2721	3036	3273	3204	2638	2079	1525	1177	1112	1094	1093
40	2899	3564	3546	2950	2384	1987	1858	1991	2368	2880	3379	3418	2781	2080	1382	1078	1028	1013	1022
45	3097	3793	3552	2590	1817	1385	1293	1404	1814	2554	3380	3585	2957	2028	1233	1000	950	937	947
50	3381	4054	3451	2007	1161	1006	974	1009	1164	1997	3262	3827	3202	1974	1106	900	872	854	854
55	3750	4332	3135	1313	809	721	689	737	810	1297	2980	4104	3500	1871	953	801	755	748	786
60	4097	4690	2715	662	483	443	424	454	503	684	2608	4485	3821	1687	772	641	586	580	613
65	3956	4587	2019	338	282	279	295	281	293	366	1924	4622	4001	1315	555	431	413	419	493
70	2748	3228	1257	200	194	208	217	212	196	203	1290	3518	3174	631	291	243	251	252	313
75	1218	1610	536	126	121	122	135	125	124	127	612	1815	1854	217	129	121	131	126	177
80	108	263	131	53.6	48.7	45.9	50.2	47.8	51.0	58.0	150	347	175	77.4	58.0	55.3	57.4	52.8	84.5
85	25.9	32.8	21.9	12.1	9.76	9.15	9.83	9.94	10.8	13.9	24.9	40.9	37.2	19.3	13.5	11.4	10.2	7.84	6.97
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	1.10	0.00	0.00	0.00	0.00	0.00
105	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	2.74	0.73	0.00	0.00	0.00	0.00
110	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	2.74	0.91	0.00	0.00	0.00	0.00
115	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.83	2.56	0.91	0.00	0.00	0.00	0.00
120	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	1.83	2.56	0.91	0.91	0.00	0.00	0.00
125	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.83	0.91	0.91	0.18	0.00	0.00
130	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	0.92	0.18	0.00
135	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.28	0.92	0.74
140	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.10	1.28	0.93
145	2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.10	1.28	0.93
150	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.10	1.28	0.93
155	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.10	1.28	0.93
160	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.28	1.65	0.91	0.91	1.10	1.28	0.93
165	1.83	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.37	1.11	1.28	1.83	0.91	0.91	1.10	1.28	0.93
170	1.83	0.37	0.73	0.36	0.37	0.55	0.00	0.37	0.56	0.55	0.55	1.11	1.28	1.83	0.91	0.91	1.10	1.28	0.93
175	1.83	0.73	0.91	0.73	0.92	0.55	0.37	0.55	0.92	0.92	1.10	1.11	1.28	1.83	0.91	0.91	0.92	1.10	0.92
180	1.83	0.91	0.91	0.73	0.92	0.55	0.19	0.92	0.92	0.92	0.92	1.11	1.28	1.83	0.91	0.91	0.73	0.92	0.56

Table--2 UNIT: cd

γ (DEG) \ C(DEG)	285	300	315	330	345														
0	2293	2293	2293	2293	2293														
5	2102	2122	2156	2197	2243														
10	1901	1946	2027	2113	2206														
15	1661	1735	1876	2021	2182														
20	1439	1507	1694	1919	2167														
25	1286	1326	1506	1811	2169														
30	1177	1204	1329	1696	2169														
35	1093	1105	1205	1547	2189														
40	1014	1025	1100	1394	2180														
45	938	938	1014	1257	2146														
50	862	865	915	1104	2095														
55	750	753	803	942	1982														
60	575	570	624	753	1739														
65	406	399	412	519	1214														
70	243	234	225	258	524														
75	115	122	112	116	189														
80	43.2	51.1	49.2	50.3	67.5														
85	5.46	7.85	9.19	10.4	16.2														
90	0.00	0.00	0.00	0.00	0.00														
95	0.00	0.00	0.00	0.00	0.00														
100	0.00	0.00	0.00	0.00	0.93														
105	0.00	0.00	0.00	0.00	2.22														
110	0.00	0.00	0.00	0.37	2.41														
115	0.00	0.00	0.00	0.92	2.41														
120	0.00	0.00	0.37	1.29	2.41														
125	0.00	0.00	0.56	1.29	1.11														
130	0.37	0.37	1.29	1.29	1.11														
135	0.92	1.10	1.48	1.29	1.11														
140	0.74	1.10	1.48	1.29	1.11														
145	0.74	1.10	1.48	1.29	1.11														
150	0.74	1.10	1.48	1.29	1.11														
155	0.74	1.10	1.48	1.29	1.11														
160	0.74	1.10	1.48	1.29	1.11														
165	0.74	1.10	1.48	1.29	1.11														
170	0.73	1.10	1.48	1.29	1.11														
175	0.37	0.92	1.11	1.29	0.93														
180	0.18	0.92	0.92	0.92	0.93														

240V/60Hz

Table--1 UNIT: cd

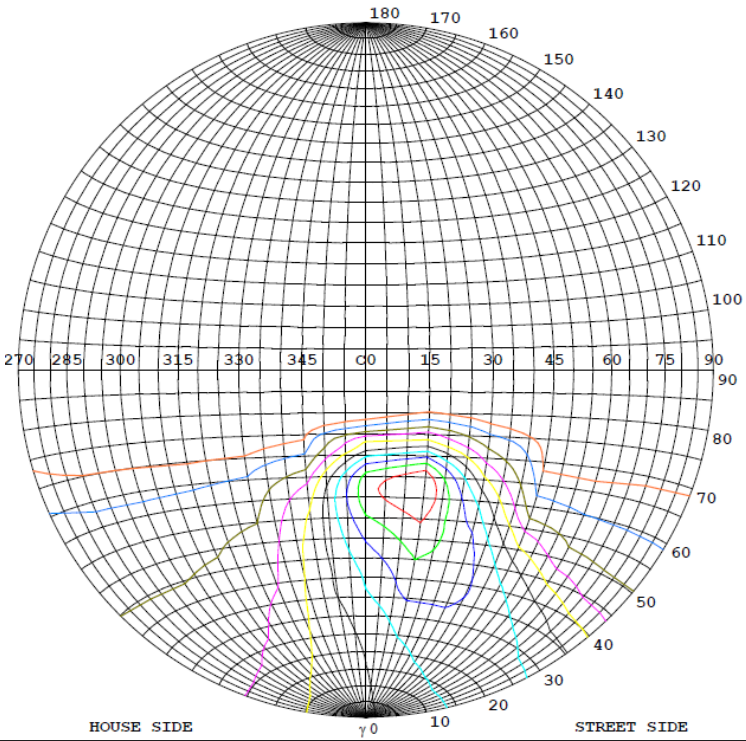
γ (DEG) \ C(DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265	2265
5	2275	2345	2400	2453	2491	2505	2502	2506	2482	2429	2394	2330	2269	2208	2164	2121	2096	2079	2075
10	2295	2437	2548	2631	2693	2707	2697	2704	2674	2609	2523	2416	2284	2160	2066	1975	1913	1870	1864
15	2328	2549	2709	2798	2866	2868	2857	2862	2836	2778	2671	2522	2309	2125	1963	1810	1707	1636	1624
20	2367	2679	2865	2944	2994	2948	2933	2943	2955	2922	2824	2641	2342	2098	1860	1643	1494	1429	1413
25	2433	2832	3012	3042	3035	2917	2886	2919	2970	3010	2956	2785	2395	2080	1757	1465	1305	1276	1267
30	2533	3027	3163	3095	2953	2768	2721	2763	2898	3041	3099	2931	2464	2062	1633	1301	1190	1161	1153
35	2723	3323	3334	3075	2740	2452	2387	2439	2695	2990	3235	3158	2610	2059	1505	1164	1099	1081	1081
40	2863	3523	3504	2919	2365	1969	1842	1971	2340	2836	3339	3367	2749	2055	1364	1064	1016	1001	1011
45	3057	3748	3510	2562	1802	1373	1280	1393	1798	2520	3338	3537	2926	2006	1218	988	940	925	936
50	3337	4007	3411	1986	1150	997	964	1000	1154	1977	3227	3769	3172	1953	1091	889	863	844	844
55	3700	4285	3102	1302	803	715	684	729	804	1283	2941	4044	3462	1851	940	790	745	739	777
60	4046	4637	2690	658	480	440	421	450	500	675	2574	4414	3783	1666	762	632	578	573	606
65	3915	4546	2002	336	280	276	292	278	291	362	1900	4561	3959	1297	546	424	407	413	486
70	2726	3206	1247	198	192	206	215	211	195	200	1276	3487	3131	620	285	240	247	248	308
75	1219	1605	535	125	120	121	134	124	124	126	609	1791	1827	212	127	119	129	124	174
80	107	263	131	53.1	48.5	45.7	50.5	47.7	50.8	57.3	149	347	170	75.9	56.6	54.1	56.2	51.7	82.4
85	25.8	32.8	21.9	12.0	9.71	9.14	9.64	9.71	10.6	13.8	24.8	40.8	36.2	18.8	13.2	11.0	10.2	7.26	6.58
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.92	0.00	0.00	0.00	0.00	0.00
105	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	2.38	0.55	0.00	0.00	0.00	0.00
110	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	2.55	1.28	0.00	0.00	0.00	0.00
115	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	1.64	2.56	1.28	0.00	0.00	0.00	0.00
120	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.64	2.37	1.28	0.73	0.00	0.00	0.00
125	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.73	0.00	0.00	0.00
130	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	0.55	0.00	0.00
135	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	0.73	0.56
140	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	1.10	0.74
145	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	1.10	0.74
150	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	1.10	0.74
155	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	1.10	0.74
160	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.46	1.64	1.28	0.91	1.10	1.10	0.74
165	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.92	1.64	1.64	1.82	0.91	1.10	1.10	0.74
170	1.64	0.55	0.37	0.54	0.37	0.18	0.00	0.18	0.37	0.73	0.56	0.92	1.64	1.64	2.01	0.91	1.10	1.10	0.74
175	1.64	1.28	0.73	0.73	0.55	0.73	0.18	0.55	0.92	0.92	0.92	0.92	1.64	1.64	2.01	0.73	0.92	1.09	0.74
180	1.64	2.55	0.73	0.91	0.73	0.55	0.18	0.55	1.65	0.92	0.92	0.92	1.64	1.64	1.82	0.73	0.92	0.73	0.55

Table--2 UNIT: cd

C(DEG) / γ (DEG)	285	300	315	330	345
0	2302	2302	2302	2302	2302
5	2115	2132	2162	2206	2252
10	1914	1959	2038	2123	2217
15	1674	1742	1882	2028	2192
20	1449	1515	1700	1924	2176
25	1297	1335	1510	1821	2176
30	1183	1208	1333	1704	2180
35	1097	1111	1211	1556	2200
40	1019	1027	1103	1397	2189
45	942	941	1019	1263	2156
50	867	870	919	1109	2104
55	754	757	805	946	1990
60	578	574	625	755	1749
65	408	401	414	519	1221
70	245	235	226	260	528
75	118	123	113	117	189
80	42.9	51.2	49.4	50.8	67.9
85	5.74	8.08	9.22	10.8	16.4
90	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.91
105	0.00	0.00	0.00	0.18	2.18
110	0.00	0.00	0.00	0.33	2.30
115	0.00	0.00	0.00	1.09	2.41
120	0.00	0.00	0.54	1.50	2.53
125	0.00	0.11	0.55	1.77	1.64
130	0.18	0.36	1.15	2.00	1.64
135	0.73	1.27	1.67	2.00	1.64
140	0.73	1.09	1.83	2.00	1.64
145	0.73	1.09	1.89	2.00	1.64
150	0.73	1.09	1.95	2.00	1.64
155	0.73	1.09	2.00	2.00	1.64
160	0.73	1.09	2.06	2.00	1.64
165	0.73	1.09	2.12	2.00	1.64
170	0.73	1.09	2.18	2.00	1.64
175	0.61	0.91	1.53	1.60	1.10
180	0.36	0.90	1.27	1.27	1.09

Street Isocandela Diagram

200V/60Hz

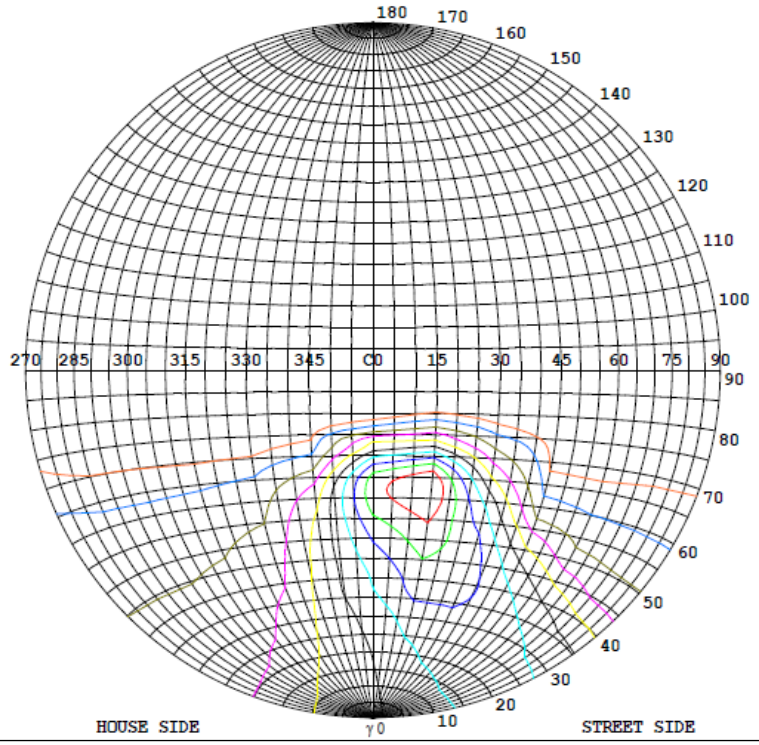


Classification:

IES:Type II - Short
CIE:Narrow - Intermediate
IES:Cut-off
CIE:Semi-cut-off
Max.At80:43.62cd/klm
Max.At90:0.0006cd/klm
Max.80-90:43.62cd/klm
NRB 5101:Semi limited[19.9%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4770
90%	4293
80%	3816
70%	3339
60%	2862
50%	2385
40%	1908
30%	1431
20%	954
10%	477
5%	239

220V/60Hz

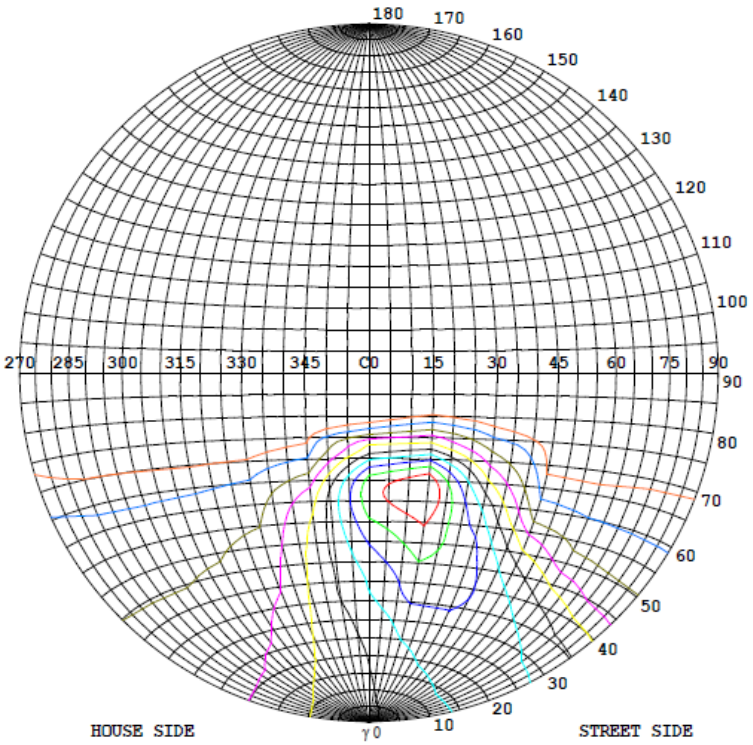


Classification:

IES:Type II - Short
CIE:Narrow - Intermediate
IES:Cut-off
CIE:Semi-cut-off
Max.At80:43.64cd/klm
Max.At90:0cd/klm
Max.80-90:43.64cd/klm
NRB 5101:Semi limited[19.9%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4754
90%	4278
80%	3803
70%	3328
60%	2852
50%	2377
40%	1902
30%	1426
20%	951
10%	475
5%	238

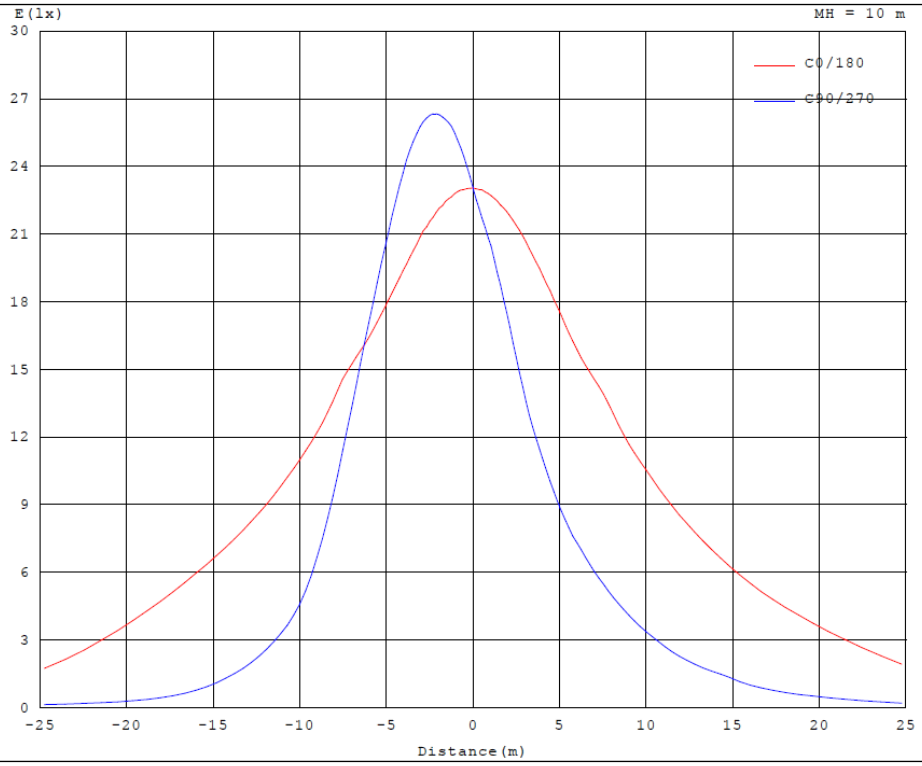
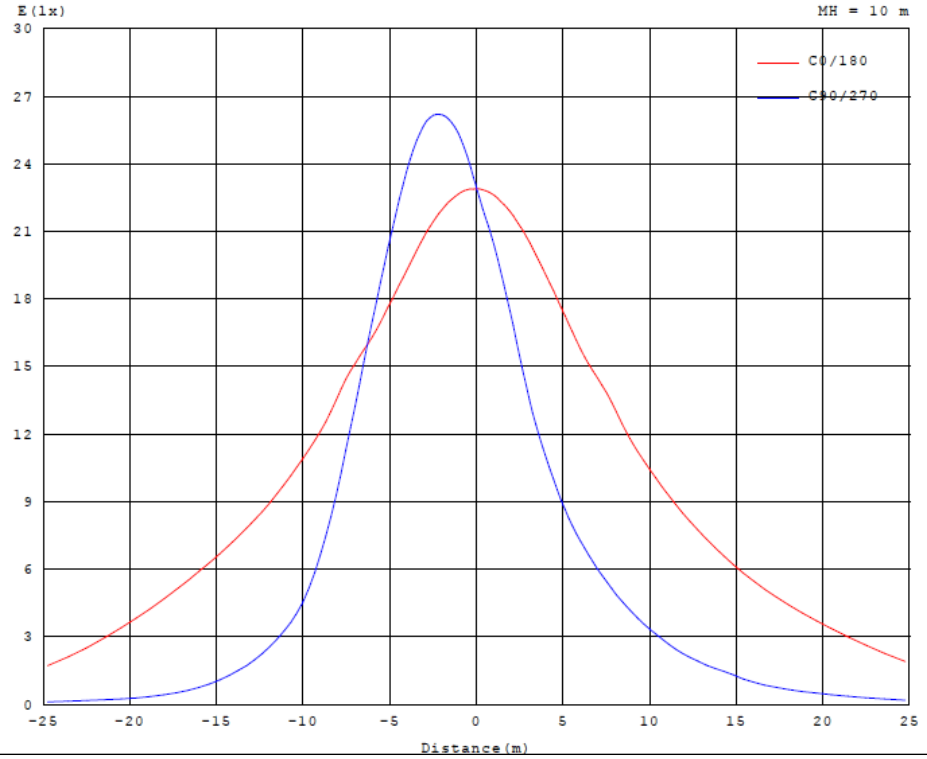
240V/60Hz

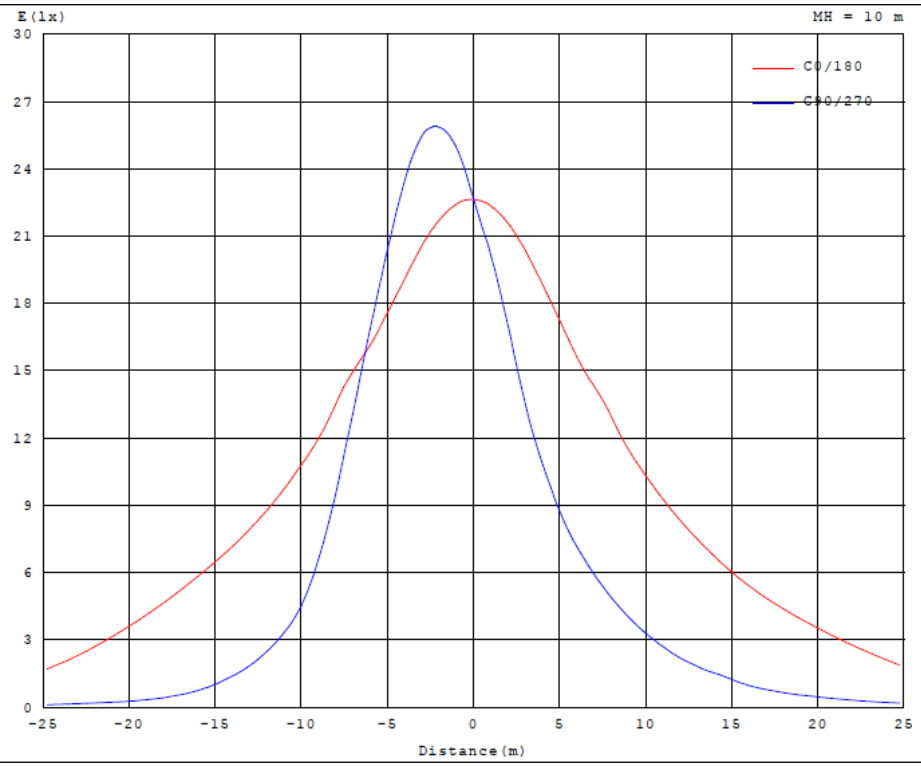
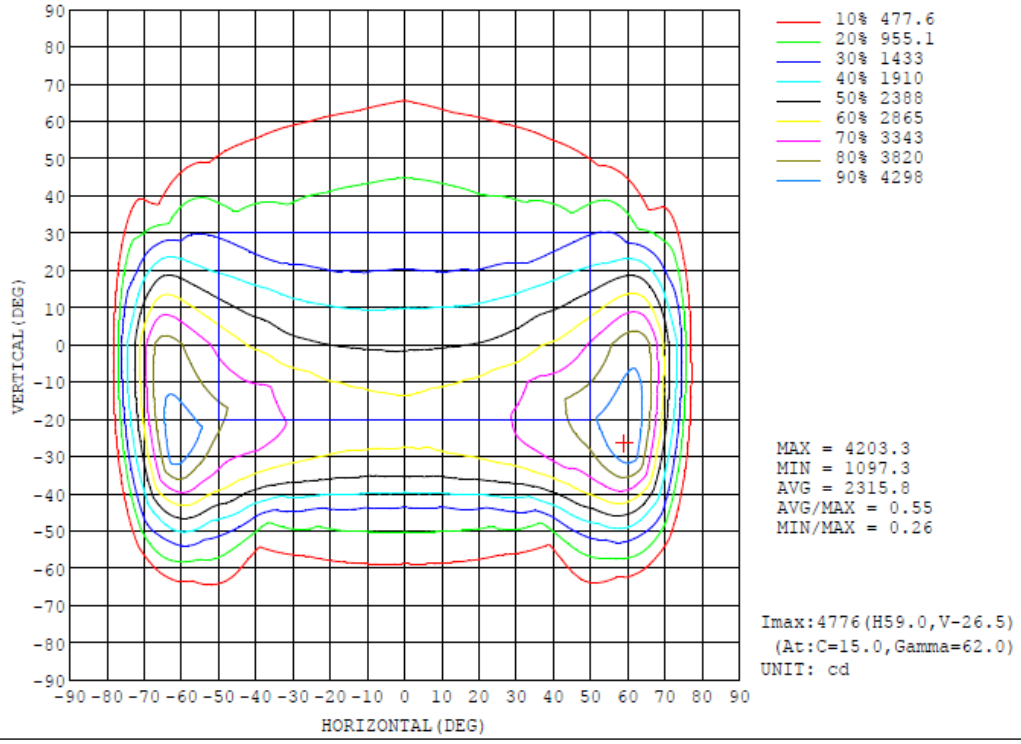


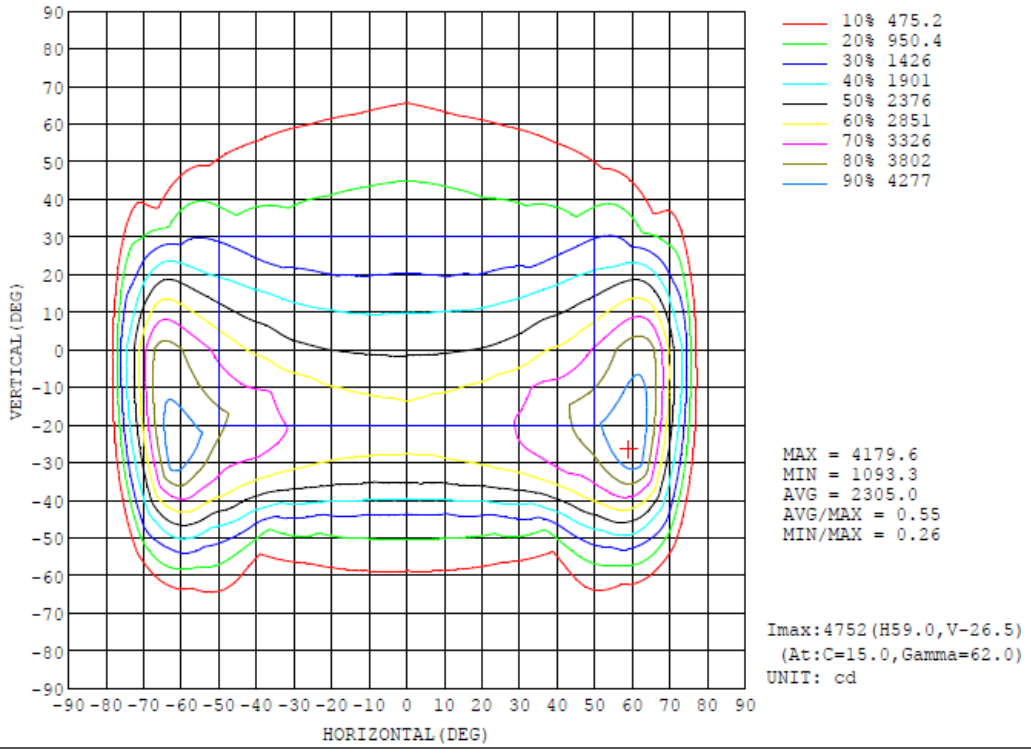
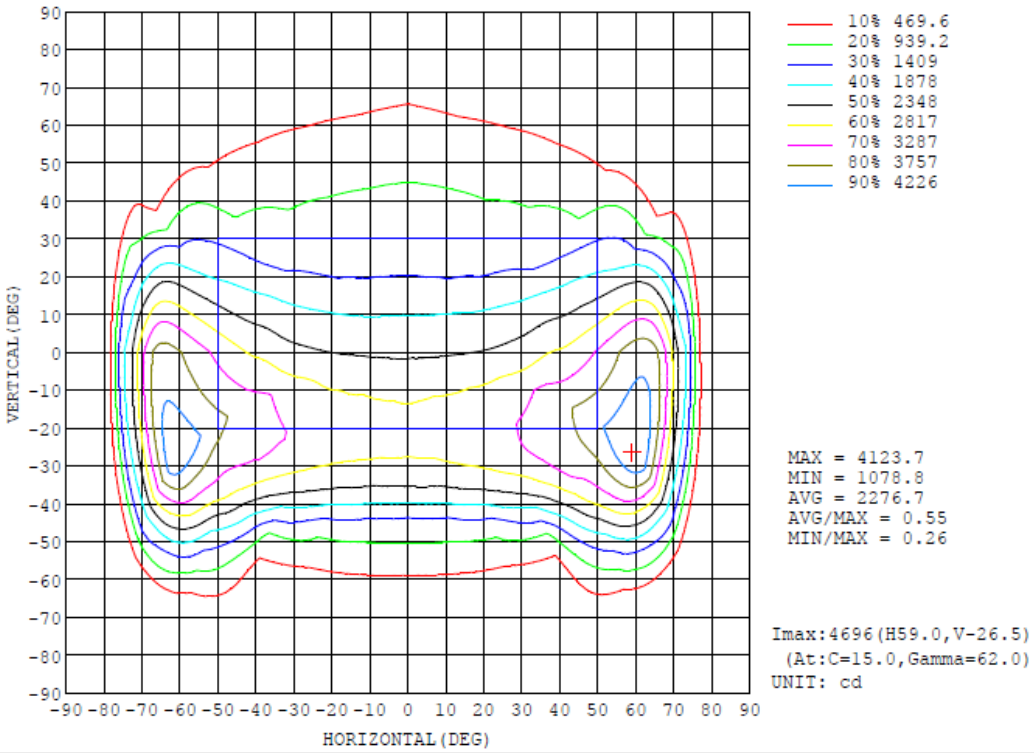
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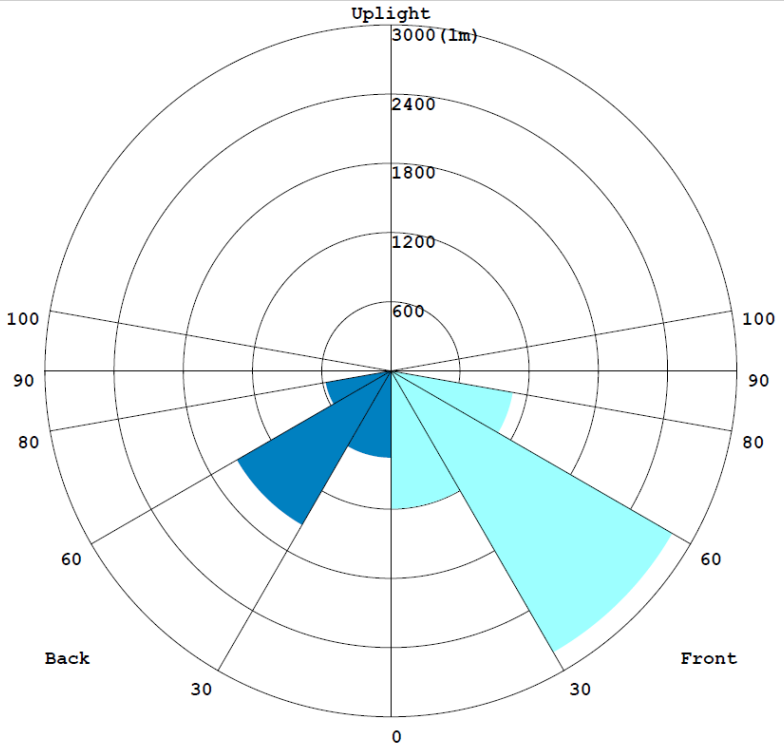
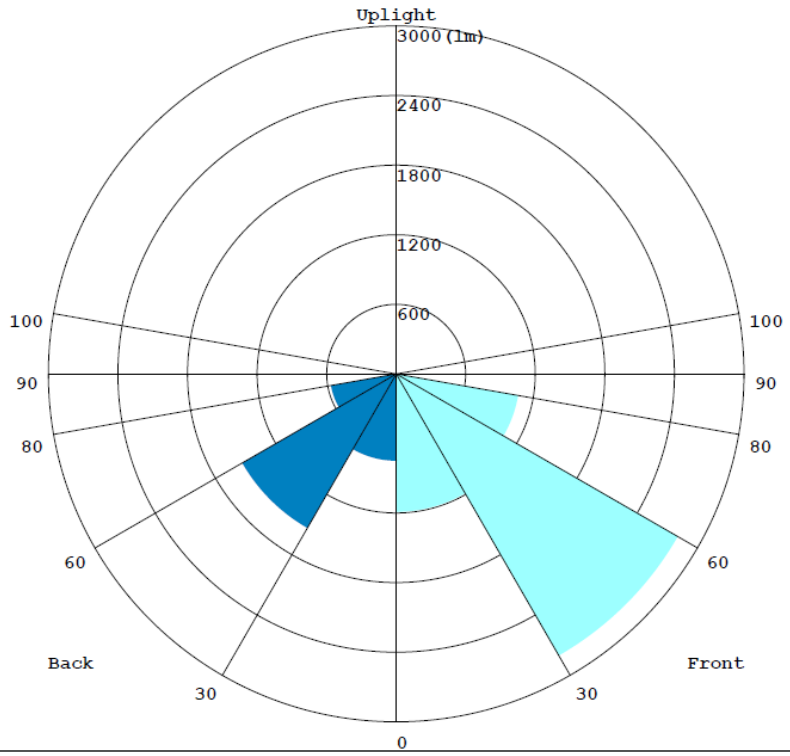
IES:Type II - Short
CIE:Narrow - Intermediate
IES:Cut-off
CIE:Semi-cut-off
Max.At80:44.12cd/klm
Max.At90:0.0003cd/klm
Max.80-90:44.12cd/klm
NRB 5101:Semi limited[20.0%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4701
90%	4231
80%	3761
70%	3291
60%	2821
50%	2351
40%	1881
30%	1410
20%	940
10%	470
5%	235

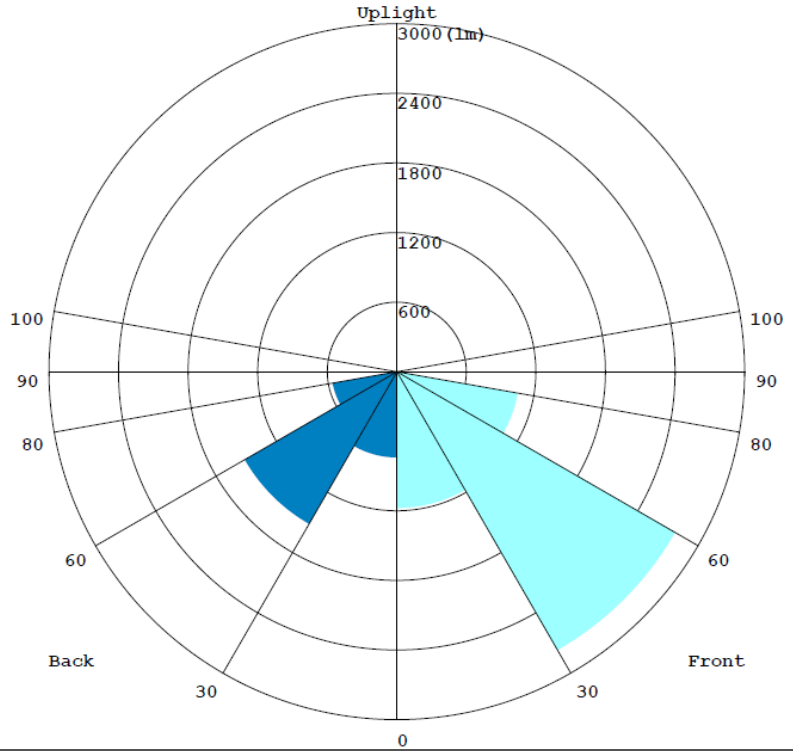
Planar Illuminance Curve	
200V/60Hz	
220V/60Hz	

240V/60Hz	
Isocandela Diagram	
200V/60Hz	

220V/60Hz	
240V/60Hz	

Luminaire classification system(LCS) Graph	
200V/60Hz	
220V/60Hz	

240V/60Hz



IESNA Luminaire Flux Distribution Table

200V/60Hz

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1193.9	15.0
FM - Front-Medium(30-60)	2816.2	35.3
FH - Front-High(60-80)	1073.6	13.4
FVH - Front-Very High(80-90)	16.804	0.2
Total Forward Light	5101.3	63.9

BL - Back-Low(0-30)	752.7	9.4
BM - Back-Medium(30-60)	1541.6	19.3
BH - Back-High(60-80)	574.04	7.2
BVH - Back-Very High(80-90)	10.906	0.1
Total Back Light	2882	36.1

UL - Uplight-Low(90-100)	0.022505	0.0
UH - Uplight-High(100-180)	3.5165	0.0
Total Up Light	3.539	0.0

BUG(Back,Up,Glare) Rating	B2-U1-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2879.2	2.7531	2882
Street Side	5100.5	0.78591	5101.3

220V/60Hz

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1188.9	15.0
FM - Front-Medium(30-60)	2804	35.3
FH - Front-High(60-80)	1068.9	13.4
FVH - Front-Very High(80-90)	16.707	0.2
Total Forward Light	5079.1	63.9

BL - Back-Low(0-30)	749.49	9.4
BM - Back-Medium(30-60)	1534.4	19.3
BH - Back-High(60-80)	571.22	7.2
BVH - Back-Very High(80-90)	10.809	0.1
Total Back Light	2868.2	36.1

UL - Uplight-Low(90-100)	0.020055	0.0
UH - Uplight-High(100-180)	2.9224	0.0
Total Up Light	2.9425	0.0

BUG(Back,Up,Glare) Rating	B2-U1-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2865.9	2.2552	2868.2
Street Side	5078.4	0.68733	5079.1

240V/60Hz

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1174.7	15.0
FM - Front-Medium(30-60)	2771.5	35.3
FH - Front-High(60-80)	1059.4	13.5
FVH - Front-Very High(80-90)	16.684	0.2
Total Forward Light	5022.9	63.9

BL - Back-Low(0-30)	740.39	9.4
BM - Back-Medium(30-60)	1515.7	19.3
BH - Back-High(60-80)	562.81	7.2
BVH - Back-Very High(80-90)	10.518	0.1
Total Back Light	2831.6	36.1

UL - Uplight-Low(90-100)	0.014207	0.0
UH - Uplight-High(100-180)	2.7881	0.0
Total Up Light	2.8023	0.0

BUG(Back,Up,Glare) Rating	B2-U1-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2829.4	2.183	2831.6
Street Side	5022.3	0.61928	5022.9

ANNEX 1: PHOTO DOCUMENTION:

Details of: Overview of model AVYRA I 52W

View:

[x] general

[ ] front

[ ] rear

[ ] right

[ ] left

[ ] top

[ ] bottom



Details of: Overview of model AVYRA I 52W

View:

[x] general

[ ] front

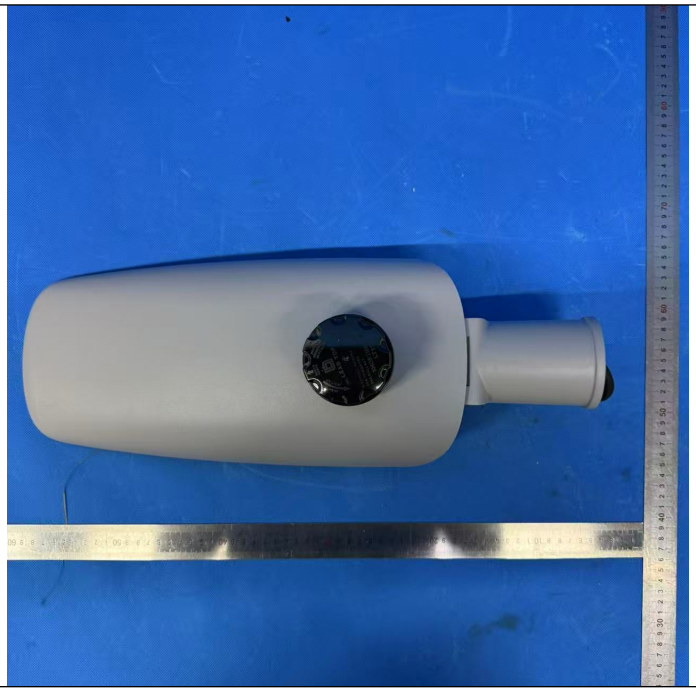
[ ] rear

[ ] right

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[ ] bottom



ANNEX2: STANDARD BULB USED FOR SYSTEM CALIBRAITON

For EVERFINE R5000 system:

Model	D908S
Intensity Distribution Type	Omni-Directional Type
Calibration voltage (V)	92,00
Reference current (A)	7,3163
Calibration CCT (K)	2856
Calibration luminous Flux (lm)	11390

For EVERFINE HAAS-2000 system:

Model	D204
Intensity Distribution Type	Omni-Directional Type
Calibration current (A)	3,9330
Reference voltage (V)	21,68
Calibration CCT (K)	2842
Calibration luminous Flux (lm)	1341,0

ANNEX3: LIST OF EQUIPMENT USED

Registration No	Equipment name	Model No	Manufacturer	Next Cal. Date
NBES155-29	Temperature and Humidity Datalogging Module	S320TH	HUATO	2027/3/24
NBES358-3	Digital power Meter	PF310	EVERFINE	2027/3/8
NBES361-3	Ac power supply	DPS1030_V200	EVERFINE	--
NBES363-4	LED Integrating Sphere	2.0m	EVERFINE	2027/4/1
NBES359-2	Digital cc&cv DC power supply	WY	EVERFINE	2027/3/8
NBES360-2	"UV-VIS-near IR spectrophoto colorimeter (Integrating sphere test system	HAAS-2000	EVERFINE	2027/4/1
NBES362-9	Standard Light Source	D204	EVERFINE	2027/7/16

Registration No	Equipment name	Model No	Manufacturer	Next Cal. Date
NBES155-42	Temperature and Humidity Datalogging Module	S320TH	HUATO	2027/3/25
NBES366-6	Ac power supply	APW-105N	EVERFINE	--
NBES366-4	Digital power Meter	PF2010	EVERFINE	2027/3/17
NBES366-2	Goniophotometric System	R5000	EVERFINE	2027/5/8
NBES366-7	Spectral radiant flux standard lamp	D908S	EVERFINE	2027/5/13

--- End of Report ---