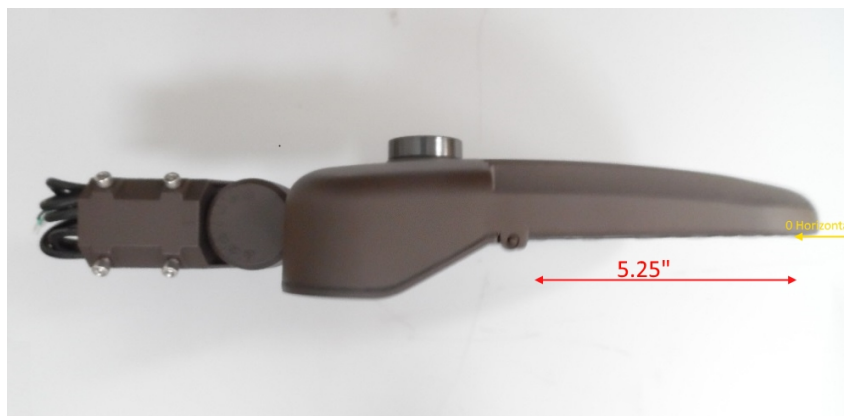


Report of Test

LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

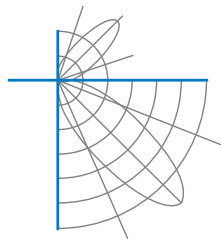
Pole mounted, cast aluminum housing, clear plastic enclosure.
154 white LEDs, 1 150W-7C22B-3030-A1 LED board with 154 LEDs.
One Shenzhen Sosen Electronics Co. SS-150V-54B LED driver.
120.0Vac, 59.99Hz, 1.216A, 145.4W, 0.996PF, 5.0%THD(i)



Performance Summary

Total Light Output	18778 lm	Power Factor	0.996
Luminaire Power	145.4 W	THD(i)	5.0 %
Luminous Efficacy	129.1 lm/W	Lateral Classification	Type IV
		Vertical Classification	Medium
		% of Luminous Flux	
		0-90° Zone	99.9 %
BUG Rating	B3-U2-G3	80°-90° Zone	3.4 %

PREPARED FOR : Topaz Lighting Corp, 925 Waverly Avenue, Holtsville, NY 11742, USA



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

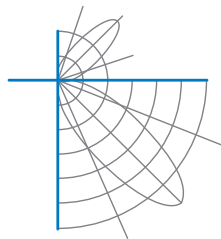
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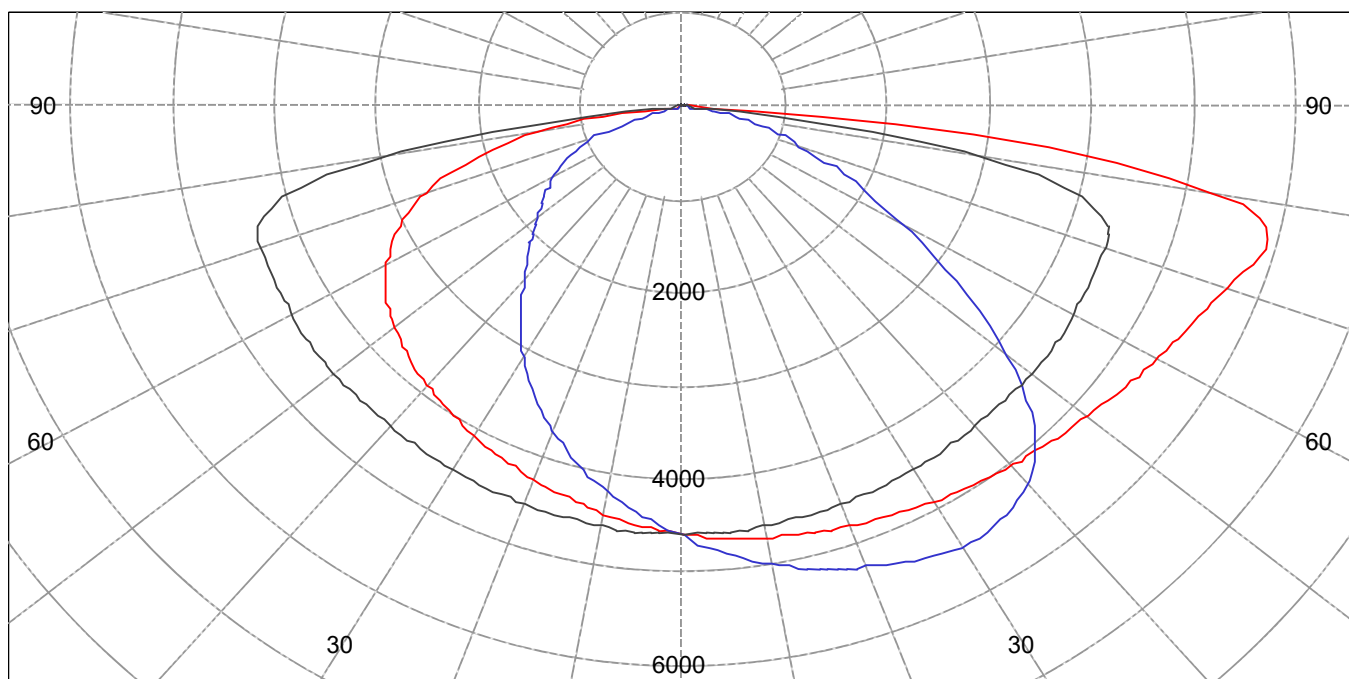
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Polar Light Distribution Curves



House side / L270

L90 / 270 - Black, Plane of maximum - Red, L0 / 180 - Blue (cd)

Street side / L90

Percentage Outputs

	Upward	Downward	Total
Street Side	0.0 %	62.5 %	62.5 %
House Side	0.0 %	37.5 %	37.5 %
	0.1 %	99.9 %	100.0 %

Report data based on absolute values as measured.

Signed:

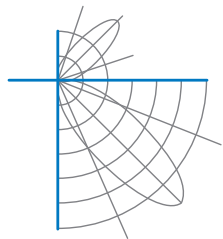
Authorized Signatory

Date of test

31-Jul-2018

Date of report

1-Aug-2018



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

Pole mounted, cast aluminum housing, clear plastic enclosure.

154 white LEDs, 1 150W-7C22B-3030-A1 LED board with 154 LEDs.

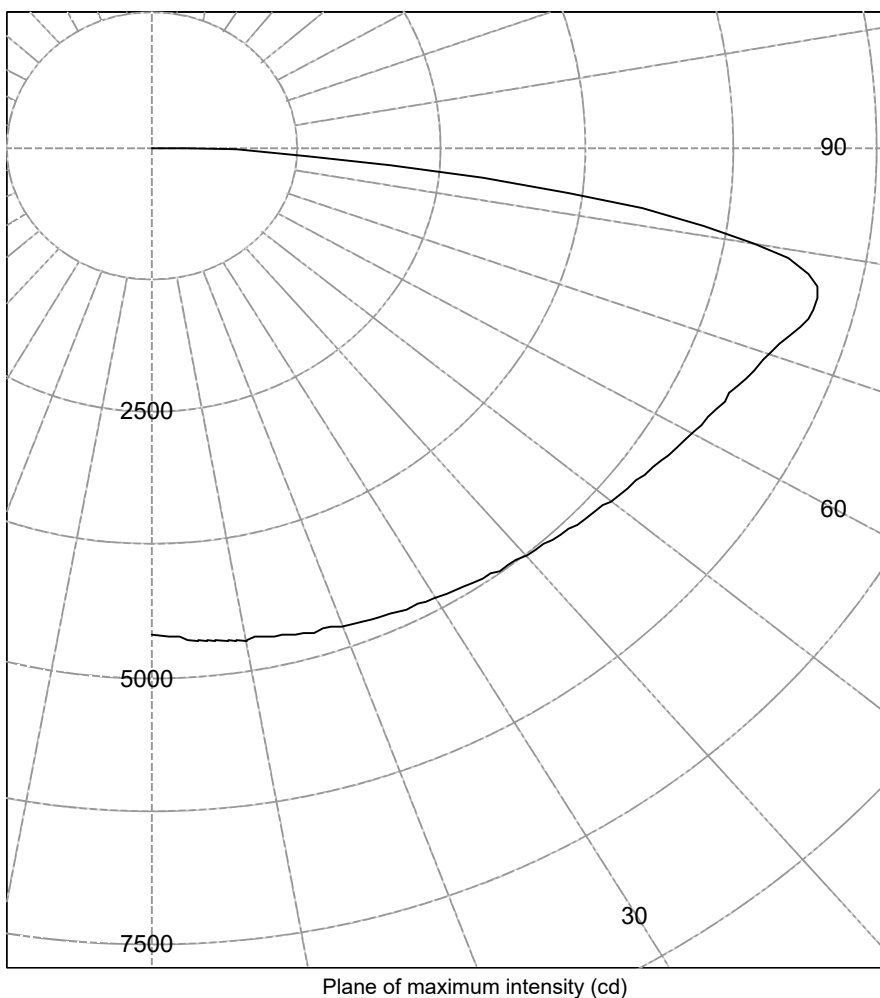
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120.0Vac, 59.99Hz, 1.216A, 145.4W, 0.996PF, 5.0%THD(i)

Intensity in principal plane
(based on overall max intensity)

Vertical Angle (°)	Intensity (cd)
0.0	4595.4
10.0	4702.8
20.0	4795.9
30.0	4904.3
35.0	4960.3
40.0	5020.8
45.0	5090.6
47.5	5129.2
50.0	5170.4
52.5	5216.4
55.0	5268.2
57.5	5325.3
60.0	5383.5
62.5	5441.4
65.0	5500.5
67.5	5574.8
70.0	5675.0
72.5	5804.6
75.0	5893.1
77.5	5826.3
80.0	5263.2
82.5	3965.1
85.0	2072.7
87.5	487.5
90.0	0.7
92.5	0.1
95.0	0.0
97.5	0.0
100.0	0.0
102.5	0.0
105.0	0.1
120.0	1.1
135.0	2.9
150.0	1.8
165.0	0.5
180.0	0.5

Principal Vertical Plane



House side max intensity

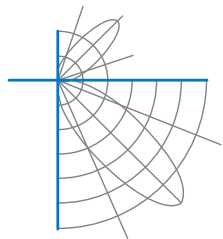
4609.4 cd @ (165.0°, 0.5°)

Street side max intensity

5895.3 cd @ (70.0°, 75.5°)

Coordinates expressed in the C Type coordinate system

Data for the two symmetric halves of the luminaire has been averaged.



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

Pole mounted, cast aluminum housing, clear plastic enclosure.

154 white LEDs, 1 150W-7C22B-3030-A1 LED board with 154 LEDs.

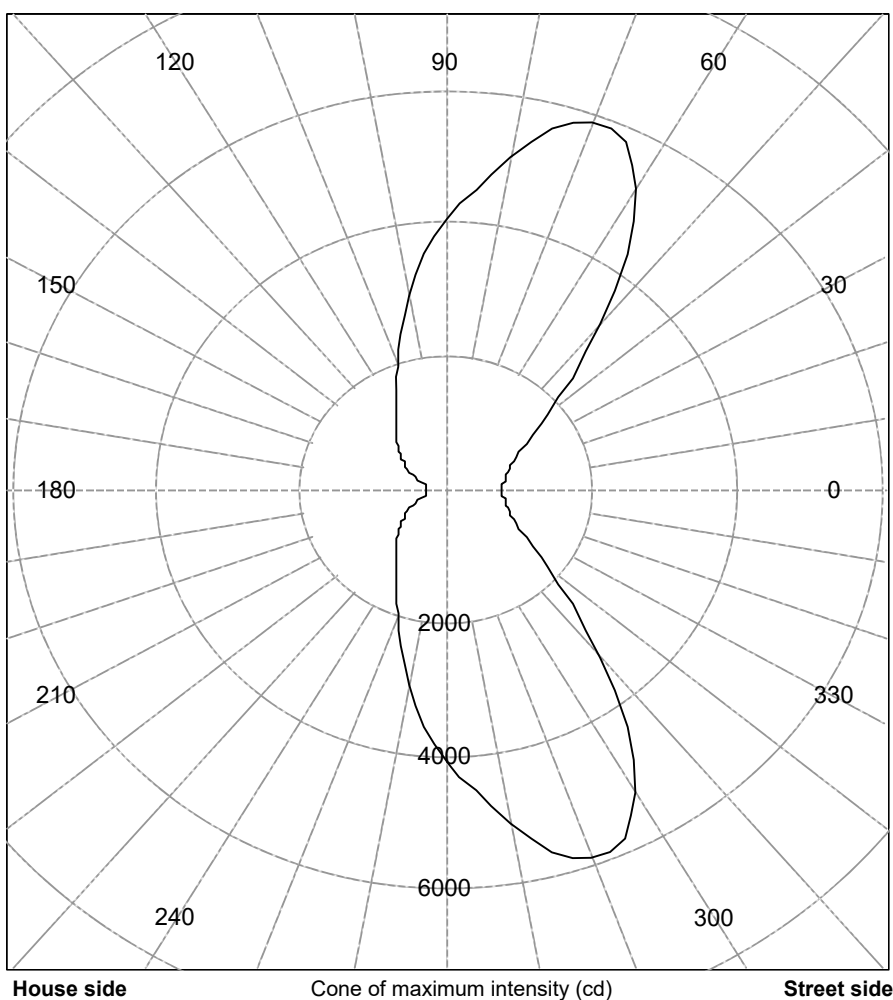
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120.0Vac, 59.99Hz, 1.216A, 145.4W, 0.996PF, 5.0%THD(i)

Intensity in principal cone
(based on overall max intensity)

Lateral Plane (°)	(V75.5) (cd)
0	761.0
15	848.7
30	1142.4
40	1779.0
45	2416.3
50	3295.7
55	4336.0
60	5250.9
65	5801.2
70	5895.3
75	5630.5
80	5086.7
85	4551.1
90	4105.3
95	3563.8
100	2970.6
105	2435.0
110	1990.9
115	1650.2
120	1424.2
125	1258.8
130	1096.4
135	938.3
140	820.2
150	629.1
165	303.3
180	267.5

Principal Conical Surface



House side max intensity

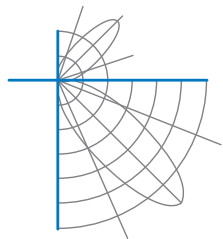
4609.4 cd @ (165.0°, 0.5°)

Street side max intensity

5895.3 cd @ (70.0°, 75.5°)

Coordinates expressed in the C Type coordinate system

Data for the two symmetric halves of the luminaire has been averaged.



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

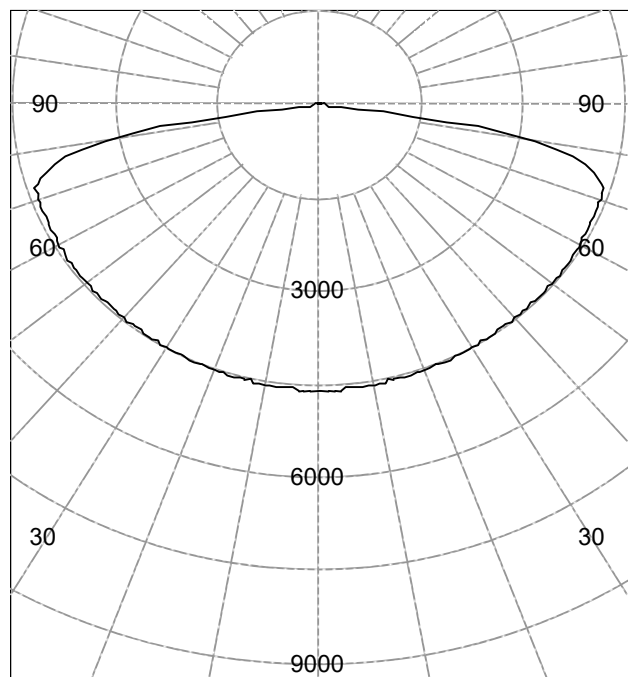
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Polar curve through L90 / L270

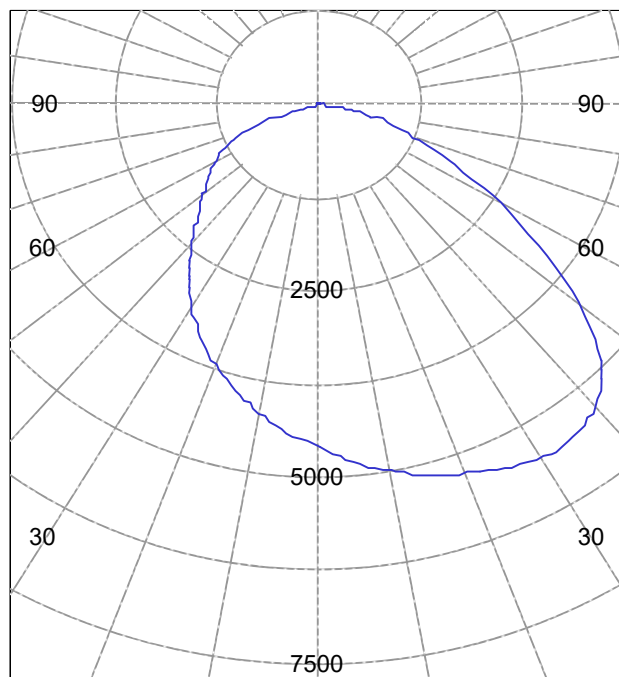


(L90)

(cd)

(L270)

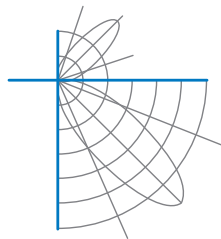
Polar curve through L0 / L180



House side (L180)

(cd)

Street side (L0)



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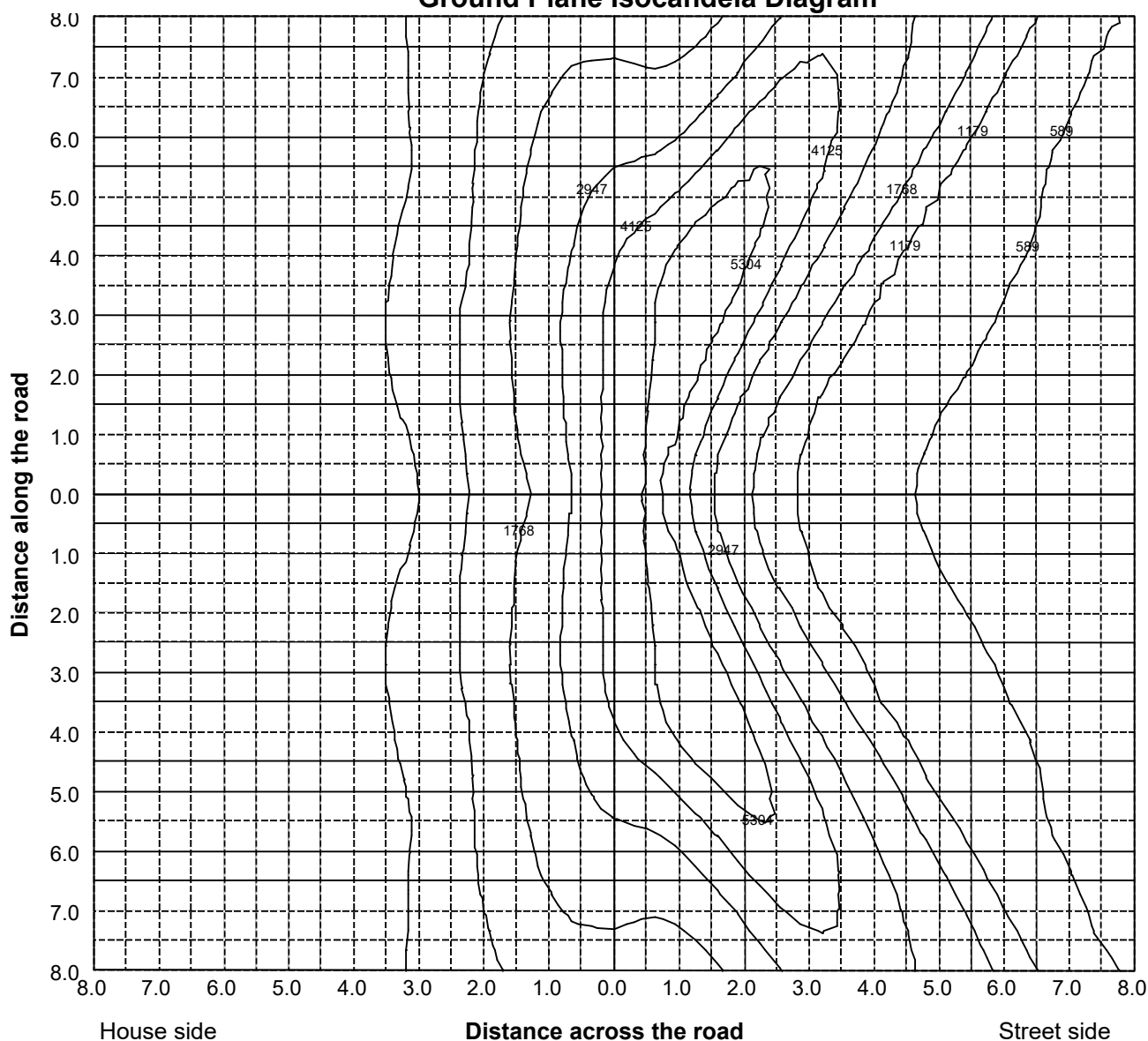
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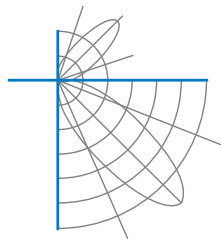
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Ground Plane Isocandela Diagram



The isocandela contour units are expressed as cd

Upstream and downstream sides have been averaged.



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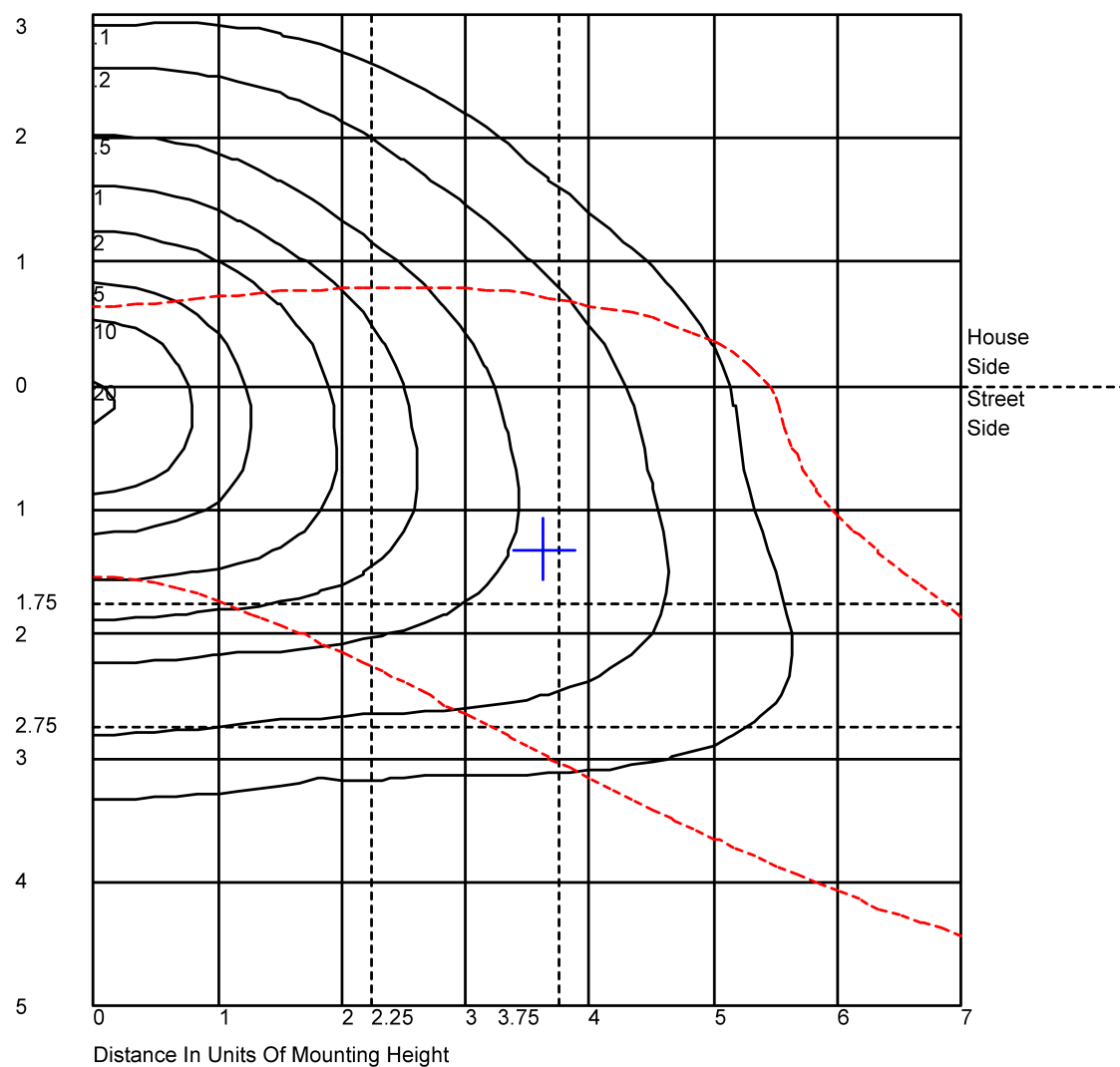
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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE

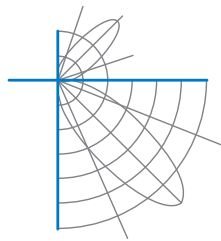


Distance In Units Of Mounting Height

Values Based On 15 Foot Mounting Height

1/2 Maximum Candela Trace Shown As Dashed Curve

(+) = Maximum Candela Point



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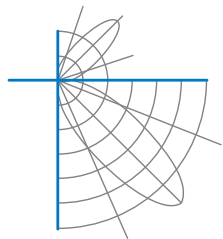
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Intensity data (cd)

Vertical	L-Plane								
	L0	L15	L30	L40	L45	L50	L55	L60	L65
0.0	4595	4595	4595	4595	4595	4595	4595	4595	4595
10.0	4988	4976	4929	4883	4856	4829	4799	4769	4734
20.0	5261	5235	5147	5082	5043	5002	4958	4911	4852
30.0	5465	5428	5357	5291	5243	5194	5135	5068	4988
35.0	5436	5431	5447	5409	5361	5304	5233	5150	5057
40.0	5265	5308	5437	5495	5474	5421	5341	5242	5133
45.0	4857	4987	5309	5485	5525	5523	5462	5355	5227
47.5	4537	4716	5175	5442	5517	5551	5520	5417	5279
50.0	4150	4371	4976	5364	5487	5558	5565	5482	5336
52.5	3719	3966	4702	5241	5430	5545	5591	5545	5397
55.0	3277	3527	4358	5058	5331	5509	5597	5594	5462
57.5	2849	3087	3957	4805	5178	5441	5585	5624	5528
60.0	2440	2662	3516	4482	4961	5331	5550	5635	5582
62.5	2067	2259	3063	4096	4673	5165	5484	5627	5615
65.0	1744	1899	2625	3665	4320	4933	5379	5603	5638
67.5	1464	1588	2204	3204	3910	4636	5220	5556	5660
70.0	1223	1324	1814	2742	3457	4274	5005	5493	5697
72.5	1009	1095	1476	2292	2980	3856	4738	5412	5756
75.0	800	888	1192	1862	2508	3392	4411	5288	5804
77.5	613	699	955	1455	2044	2893	3978	5039	5738
80.0	449	532	746	1077	1557	2346	3406	4615	5434
82.5	305	383	542	713	993	1660	2641	3742	4454
85.0	175	240	339	399	510	892	1622	2248	2536
87.5	58	93	117	127	135	249	527	615	622
90.0	1	1	1	1	1	1	1	1	1
92.5	1	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0
100.0	2	1	0	0	0	0	0	0	0
102.5	5	2	0	0	0	0	0	0	0
105.0	7	4	1	0	0	0	0	0	0
120.0	8	6	4	6	4	4	2	2	1
135.0	4	3	2	2	2	2	2	2	3
150.0	2	2	1	1	1	2	2	2	2
165.0	1	1	1	1	1	1	1	1	1
180.0	0	0	0	0	0	0	0	0	0



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

Pole mounted, cast aluminum housing, clear plastic enclosure.

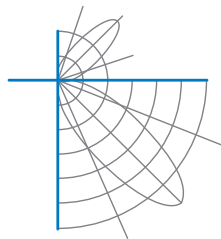
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120.0Vac, 59.99Hz, 1.216A, 145.4W, 0.996PF, 5.0%THD(i)

Intensity data (cd)

Vertical	L-Plane								
	L70	L75	L80	L85	L90	L95	L100	L105	L110
0.0	4595	4595	4595	4595	4595	4595	4595	4595	4595
10.0	4703	4674	4641	4603	4574	4546	4502	4474	4442
20.0	4796	4739	4675	4603	4541	4475	4395	4330	4262
30.0	4904	4813	4713	4603	4504	4400	4282	4181	4080
35.0	4960	4852	4732	4604	4487	4362	4226	4107	3991
40.0	5021	4895	4756	4611	4476	4329	4176	4042	3901
45.0	5091	4942	4782	4620	4462	4296	4128	3971	3795
47.5	5129	4966	4794	4625	4459	4279	4102	3931	3740
50.0	5170	4991	4806	4631	4455	4260	4076	3881	3682
52.5	5216	5018	4818	4637	4455	4239	4044	3830	3616
55.0	5268	5050	4832	4644	4452	4215	4006	3776	3541
57.5	5325	5087	4847	4647	4442	4188	3961	3714	3452
60.0	5384	5123	4863	4650	4427	4158	3905	3638	3343
62.5	5441	5165	4878	4643	4413	4130	3844	3547	3210
65.0	5500	5213	4901	4638	4403	4103	3778	3438	3054
67.5	5575	5290	4953	4651	4401	4075	3697	3300	2876
70.0	5675	5413	5044	4695	4403	4033	3589	3127	2675
72.5	5805	5575	5150	4728	4364	3920	3401	2884	2430
75.0	5893	5640	5123	4606	4168	3640	3054	2518	2072
77.5	5826	5385	4661	4086	3700	3179	2599	2089	1671
80.0	5263	4323	3385	2908	2793	2487	2053	1629	1294
82.5	3965	2730	1809	1504	1635	1635	1415	1156	903
85.0	2073	1121	533	385	563	813	825	627	374
87.5	488	221	114	72	84	215	162	81	41
90.0	1	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0
120.0	1	1	1	1	1	1	1	1	1
135.0	3	3	3	3	3	3	3	3	3
150.0	2	2	2	2	2	2	2	2	2
165.0	1	1	0	0	0	0	1	0	1
180.0	0	0	0	0	0	0	0	0	0



Test Report No. LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

Pole mounted, cast aluminum housing, clear plastic enclosure.

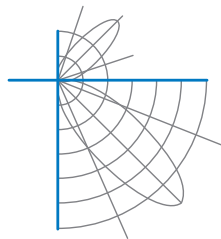
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Intensity data (cd)

Vertical	L-Plane								
	L115	L120	L125	L130	L135	L140	L150	L165	L180
0.0	4595	4595	4595	4595	4595	4595	4595	4595	4595
10.0	4410	4377	4352	4324	4307	4283	4255	4224	4200
20.0	4198	4129	4074	4015	3965	3915	3835	3751	3711
30.0	3983	3879	3783	3686	3598	3509	3356	3192	3122
35.0	3873	3746	3629	3510	3397	3285	3082	2858	2771
40.0	3753	3607	3463	3316	3173	3032	2780	2510	2413
45.0	3627	3452	3274	3090	2915	2748	2468	2193	2100
47.5	3557	3363	3163	2961	2773	2598	2317	2057	1969
50.0	3479	3262	3040	2821	2623	2447	2177	1935	1852
52.5	3391	3147	2903	2670	2469	2298	2048	1824	1745
55.0	3290	3017	2752	2514	2317	2155	1929	1723	1646
57.5	3169	2869	2594	2358	2170	2023	1818	1625	1551
60.0	3026	2707	2432	2203	2030	1899	1709	1527	1455
62.5	2861	2535	2263	2051	1896	1778	1599	1420	1342
65.0	2683	2355	2092	1900	1762	1652	1479	1293	1211
67.5	2493	2166	1921	1745	1615	1511	1341	1138	1048
70.0	2286	1968	1743	1579	1453	1348	1162	918	787
72.5	2046	1754	1549	1390	1263	1140	914	614	456
75.0	1722	1488	1316	1160	992	868	674	338	297
77.5	1375	1153	961	811	704	605	427	181	169
80.0	1031	787	586	473	389	317	172	48	44
82.5	549	263	156	116	103	78	25	2	0
85.0	170	81	49	32	25	22	5	0	0
87.5	28	14	8	4	3	2	0	0	0
90.0	0	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0
120.0	1	1	1	1	1	1	2	1	1
135.0	3	3	3	3	2	2	2	1	1
150.0	2	2	2	2	2	2	1	1	1
165.0	0	1	1	0	0	1	1	1	1
180.0	0	0	0	0	0	0	0	0	0



Test Number: LLIA001007-002

Catalog Number: F-ARL/150/50K/S3

Pole mounted, cast aluminum housing, clear plastic enclosure.

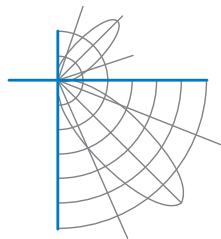
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120.0Vac, 59.99Hz, 1.216A, 145.4W, 0.996PF, 5.0%THD(i)

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	127.7	8.25	8.99
8.0	71.8	11.00	11.99
10.0	46.0	13.75	14.98
12.0	31.9	16.50	17.98
14.0	23.4	19.25	20.98
16.0	18.0	22.00	23.97



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Test Distance 9.5 m
Test Temperature 25.2 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the IESNA Type C coordinate system (L, V) as defined in IESNA publication LM-75.

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