

IES INDOOR REPORT
PHOTOMETRIC FILENAME : NLR48LFA40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 8,389P13
 [TESTLAB] CSA Group
 [ISSUEDATE] 08/29/2015 12:51:42 AM
 [MANUFAC] LAMAR LIGHTING CO., INC.
 [LUMINAIRE] NLR48LFA40
 [AMBIENT] 24.6 deg C
 [POWERFACTOR] 0.9973
 [ATHD] 5.35%
 [CURRENT] 0.2018
 [VOLTAGE] 120.00
 [STABILIZATION] 23:22.1 Stable
 [POWER VARIATION] 0.36 %
 [LIGHT VARIATION] 0.40 %
 [Lumens] 2,455

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2455
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	24.21
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.16 ft
Luminous Width (90-270)	3.75 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14876	14131	13352
55	13532	12847	12160
65	11964	11474	10942
75	9766	9694	9483
85	5235	7419	8472

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CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0.0	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690
2.5	1018.963	1019.529	1019.323	1021.138	1022.857	1025.289	1022.879	1021.211	1020.337	1018.155
5.0	1014.804	1014.606	1014.364	1015.598	1017.170	1018.632	1016.524	1014.121	1012.453	1010.426
7.5	1007.340	1006.363	1006.282	1006.620	1007.597	1008.207	1005.150	1001.786	999.993	998.017
10.0	996.929	995.136	994.527	994.372	994.439	993.836	989.817	986.122	983.903	982.147
12.5	983.117	981.339	979.480	978.797	978.246	976.659	971.729	966.755	964.338	962.009
15.0	965.763	963.787	961.612	960.488	957.975	955.389	950.202	944.222	940.864	938.712
17.5	945.757	943.649	940.578	938.697	935.391	931.115	924.591	918.052	914.496	911.689
20.0	923.503	921.182	916.685	913.438	910.021	904.651	896.202	890.133	885.115	882.147
22.5	897.157	895.739	891.110	886.269	882.088	875.109	866.366	859.019	853.663	850.761
25.0	868.606	867.541	862.736	857.189	850.863	843.612	834.296	826.207	821.145	816.913
27.5	838.961	837.712	831.871	825.766	819.624	809.904	800.485	791.786	785.923	782.536
30.0	806.987	805.951	799.376	793.043	785.269	775.248	764.441	755.558	750.562	746.257
32.5	772.581	771.655	765.190	758.526	750.136	739.402	728.058	718.684	714.033	710.007
35.0	737.154	737.271	728.668	723.099	713.621	702.682	690.868	682.169	676.953	673.573
37.5	700.529	700.500	693.292	686.680	675.792	664.639	654.508	645.596	640.673	637.323
40.0	664.955	664.081	656.315	649.313	638.807	627.867	616.839	608.126	603.350	600.154
42.5	626.589	625.994	618.088	611.168	600.720	590.295	579.333	571.611	566.417	562.971
45.0	586.893	587.407	580.068	573.103	562.861	552.127	541.628	535.141	530.049	526.758
47.5	549.387	548.086	541.849	534.810	525.715	515.767	506.238	499.508	494.438	490.229
50.0	510.793	509.897	504.710	496.775	488.164	478.753	470.744	463.904	458.387	455.830
52.5	472.456	471.861	467.916	459.834	451.738	442.973	435.207	428.690	423.966	421.784
55.0	433.062	433.120	429.822	423.297	415.664	406.627	399.794	394.365	390.398	389.141
57.5	394.879	395.239	392.065	386.269	379.480	371.949	364.668	360.451	356.836	355.014
60.0	356.829	357.248	353.685	350.452	342.613	336.309	331.122	326.993	323.929	322.291
62.5	319.800	320.315	317.243	313.636	306.796	301.690	297.465	294.615	292.065	290.273
65.0	282.110	284.013	281.045	277.790	272.669	268.452	264.654	262.126	261.112	258.019
67.5	245.500	247.587	245.853	242.032	238.748	235.008	232.092	229.910	230.527	226.890
70.0	210.308	211.292	209.874	207.700	205.260	202.564	200.713	198.523	199.941	195.379
72.5	175.189	176.269	175.366	173.066	171.303	170.267	169.554	168.099	169.356	165.961
75.0	141.033	142.216	141.613	140.570	139.850	140.137	139.424	138.704	138.770	136.941
77.5	107.531	109.228	109.896	110.065	110.910	111.050	110.844	110.998	110.778	110.220
80.0	77.548	78.936	79.568	81.037	82.125	83.851	84.615	84.902	85.093	84.762
82.5	49.644	50.290	52.164	55.235	56.917	58.960	60.216	61.553	61.884	61.840
85.0	25.457	26.302	29.322	32.121	34.582	37.573	39.204	40.629	40.967	41.195
87.5	7.222	8.596	11.689	14.474	17.479	19.808	22.416	23.709	24.370	24.693
90.0	0.044	1.330	3.674	6.495	9.052	11.417	13.643	14.907	16.141	16.413

Vert. Angles **Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>	<u>190</u>
0.0	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690
2.5	1017.420	1013.732	1012.152	1007.487	1007.083	1011.660	1015.157	1019.506	1018.441	1018.471
5.0	1008.817	1006.333	1004.761	1000.434	1000.316	1004.511	1009.081	1013.658	1013.739	1014.018
7.5	996.459	994.372	992.367	989.185	989.178	994.079	999.317	1003.975	1006.502	1005.848
10.0	979.517	978.635	976.813	973.984	975.233	979.436	986.430	991.639	995.379	994.769
12.5	959.504	959.136	957.667	955.404	957.799	962.582	970.524	976.394	980.149	979.972
15.0	936.574	935.876	935.758	934.362	937.183	944.097	951.025	957.299	962.310	961.781
17.5	910.044	909.573	910.213	909.661	913.548	921.035	929.895	935.986	942.143	941.797
20.0	881.390	881.552	882.529	882.683	887.341	895.607	905.048	911.961	920.094	919.007
22.5	849.468	849.247	852.179	852.671	859.952	867.886	878.275	885.850	895.188	893.564
25.0	816.685	816.781	820.373	822.416	829.249	839.571	849.071	857.035	867.115	866.535
27.5	782.610	782.419	786.636	789.560	796.723	806.723	819.286	825.127	836.566	835.949
30.0	746.455	747.168	751.275	755.132	762.824	773.639	785.813	792.433	804.504	804.621

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CANDELA TABULATION - (Cont.)

32.5	708.714	711.175	714.841	719.404	727.625	739.130	751.422	758.181	770.957	771.516
35.0	671.861	674.962	678.591	683.697	692.220	703.688	716.237	722.570	736.816	737.411
37.5	636.059	637.727	642.458	648.461	656.183	667.409	678.282	686.305	700.456	699.655
40.0	599.354	600.573	606.039	611.785	619.550	630.035	641.584	649.078	662.993	662.361
42.5	562.773	563.647	569.025	574.932	581.669	592.771	603.225	611.476	625.590	624.084
45.0	526.016	527.463	531.908	537.433	544.376	555.470	565.124	573.573	587.804	586.445
47.5	490.875	492.249	496.466	502.278	507.487	519.330	527.147	534.707	550.547	548.880
50.0	455.250	457.182	461.906	466.358	471.332	481.427	490.133	495.989	512.130	510.110
52.5	422.232	422.798	426.589	431.423	436.272	444.486	452.575	459.290	472.970	471.457
55.0	386.592	389.553	392.161	396.040	400.999	408.412	415.238	421.358	434.560	433.238
57.5	353.971	356.080	357.850	362.589	366.865	373.044	378.870	383.580	398.325	396.620
60.0	321.255	322.621	324.774	328.815	332.084	337.867	342.172	346.499	361.032	359.312
62.5	289.487	289.494	291.588	294.460	297.671	302.182	306.289	309.933	323.885	323.018
65.0	257.836	257.821	259.577	262.148	264.242	267.952	271.192	273.286	286.511	285.519
67.5	226.302	225.906	226.405	229.491	231.056	233.363	235.795	238.271	249.930	249.240
70.0	195.349	195.019	195.430	196.833	197.274	200.441	201.205	202.248	214.775	214.253
72.5	165.521	164.764	165.087	165.249	165.249	166.145	167.570	167.137	179.237	180.207
75.0	137.139	135.751	135.376	135.207	134.171	134.083	134.560	134.582	146.389	146.301
77.5	109.081	108.941	107.420	106.010	105.518	104.122	103.659	103.424	112.909	113.188
80.0	83.535	83.131	81.441	79.487	77.577	76.262	74.954	73.881	82.544	82.874
82.5	61.156	59.665	58.005	56.205	53.464	51.150	48.953	46.903	54.375	55.396
85.0	40.710	38.880	37.756	34.942	32.290	29.439	26.567	24.252	30.020	31.467
87.5	24.091	22.695	21.057	18.691	15.774	13.122	9.926	7.604	11.013	12.453
90.0	15.936	14.885	14.907	11.256	9.015	6.252	3.857	1.484	0.691	2.263

Vert. Angles **Horizontal Angles**

	200	210	220	230	240	250	260	270	280	290
0.0	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690
2.5	1018.412	1021.035	1022.930	1025.377	1022.857	1021.608	1021.424	1019.844	1018.801	1015.862
5.0	1013.401	1015.723	1017.868	1020.006	1017.684	1015.723	1015.899	1014.415	1013.717	1010.991
7.5	1005.657	1007.810	1009.955	1011.293	1008.457	1006.216	1006.708	1005.327	1004.776	1001.991
10.0	994.453	995.460	997.634	997.554	995.012	992.080	991.617	991.896	990.354	981.229
12.5	978.929	979.612	980.141	980.171	976.989	972.794	972.478	971.692	970.980	960.077
15.0	960.973	960.231	959.988	957.997	954.309	950.107	948.255	948.402	946.867	938.917
17.5	940.188	938.851	937.595	934.112	929.528	924.106	923.114	921.880	921.475	917.765
20.0	917.067	915.098	912.130	907.788	902.241	896.407	894.152	893.160	892.910	895.607
22.5	890.861	888.194	883.719	878.385	872.155	865.102	862.883	861.524	862.207	864.551
25.0	861.561	858.108	852.715	846.191	838.036	831.827	828.624	826.824	828.000	830.520
27.5	830.182	825.715	819.286	811.190	802.425	794.990	792.234	789.582	791.926	793.983
30.0	797.230	793.101	785.637	776.137	765.212	758.534	755.727	753.244	756.006	757.806
32.5	763.566	758.615	750.797	739.946	728.756	721.931	718.537	716.590	719.668	722.482
35.0	727.294	722.497	713.680	704.217	692.411	684.807	681.353	678.980	682.698	686.269
37.5	691.125	685.211	676.240	664.595	653.354	646.022	642.525	641.173	643.722	649.100
40.0	652.884	648.578	638.065	626.177	613.710	606.789	604.820	602.373	605.503	610.014
42.5	615.590	610.771	599.714	587.650	577.496	568.797	566.358	565.778	567.482	573.132
45.0	578.260	573.485	562.163	550.041	541.349	533.745	530.115	529.777	531.320	537.080
47.5	540.805	534.942	525.112	513.621	506.179	498.604	494.483	496.011	495.658	501.918
50.0	503.850	496.238	487.143	476.056	469.885	463.236	459.298	459.628	460.650	465.969
52.5	465.616	458.585	449.467	439.049	433.275	427.801	424.245	423.856	425.465	429.976
55.0	428.220	421.490	412.828	402.498	397.473	393.256	389.869	390.309	391.536	395.004
57.5	391.088	384.917	377.048	369.694	364.911	360.628	358.423	357.872	360.201	362.839
60.0	355.558	349.240	342.451	335.868	331.504	329.351	327.478	326.721	328.279	331.401
62.5	318.522	313.570	307.545	302.829	298.847	297.113	296.319	294.997	297.722	299.030
65.0	282.095	277.996	273.176	269.797	266.086	265.124	264.308	263.045	265.484	266.975
67.5	245.919	243.340	239.417	236.463	233.899	233.142	232.856	232.364	234.127	235.633

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CANDELA TABULATION - (Cont.)

70.0	211.924	209.536	206.612	204.768	203.512	202.520	202.843	203.225	203.923	205.812
72.5	178.091	176.938	174.807	174.425	173.676	173.081	173.830	174.521	175.101	176.394
75.0	144.508	144.435	144.155	144.721	144.596	144.920	145.706	145.831	146.786	147.454
77.5	113.261	113.401	114.312	115.399	116.641	117.310	118.015	119.411	119.763	120.116
80.0	82.918	85.137	86.783	88.884	90.890	91.514	92.712	93.667	94.218	93.961
82.5	56.631	59.878	62.354	64.257	66.843	68.327	69.459	70.605	70.722	70.120
85.0	34.164	37.396	40.342	42.664	45.941	47.954	49.034	49.666	50.018	49.166
87.5	15.546	18.985	22.313	25.663	28.227	30.630	32.004	32.488	32.555	31.453
90.0	5.466	8.603	12.387	15.377	17.956	19.653	21.248	21.843	21.622	20.932

Vert. Angles **Horizontal Angles**

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0.0	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690	1019.690
2.5	1014.173	1009.897	1009.559	1013.849	1017.295	1020.969	1018.963
5.0	1009.360	1005.701	1006.032	1010.110	1013.768	1017.346	1014.804
7.5	1000.713	998.002	999.530	1003.755	1007.920	1011.410	1007.340
10.0	988.172	987.510	988.539	993.153	998.303	1001.602	996.929
12.5	970.495	970.583	972.596	978.180	984.329	988.656	983.117
15.0	949.218	950.180	953.428	959.988	966.821	972.023	965.763
17.5	925.450	927.118	931.622	938.969	947.058	952.788	945.757
20.0	899.670	901.602	907.759	915.598	924.973	931.291	923.503
22.5	870.091	873.580	880.193	889.913	899.449	906.488	897.157
25.0	836.985	841.606	850.327	860.855	871.839	878.481	868.606
27.5	801.969	807.487	817.391	828.815	840.805	848.042	838.961
30.0	766.461	772.699	784.549	796.753	809.169	815.715	806.987
32.5	730.659	738.476	749.431	763.155	775.292	782.206	772.581
35.0	692.602	703.328	714.261	728.389	741.026	748.380	737.154
37.5	655.646	665.293	677.011	692.109	704.188	712.497	700.529
40.0	616.920	627.000	638.910	653.450	666.167	675.094	664.955
42.5	579.583	589.935	601.447	615.458	628.470	637.088	626.589
45.0	543.406	554.669	564.859	578.870	590.780	598.567	586.893
47.5	507.450	518.860	528.323	542.047	554.001	561.428	549.387
50.0	471.729	481.309	490.118	503.387	514.650	521.769	510.793
52.5	435.442	444.134	453.016	465.190	476.438	482.940	472.456
55.0	401.264	408.523	416.457	427.610	437.404	444.376	433.062
57.5	368.041	374.352	381.508	391.264	401.132	407.185	394.879
60.0	336.441	340.710	347.374	356.271	363.588	370.597	356.829
62.5	303.740	307.119	312.821	320.256	327.595	332.430	319.800
65.0	271.053	272.787	278.238	283.844	290.625	294.446	282.110
67.5	238.307	239.931	243.707	248.836	254.199	256.763	245.500
70.0	206.943	209.353	212.439	215.267	219.778	221.358	210.308
72.5	176.512	178.510	180.170	182.338	185.093	186.357	175.189
75.0	147.733	148.534	149.416	150.827	152.054	152.237	141.033
77.5	119.690	119.999	119.594	119.653	119.381	119.455	107.531
80.0	93.035	92.829	91.382	90.023	89.303	88.002	77.548
82.5	68.606	67.864	65.778	63.794	61.450	60.025	49.644
85.0	47.991	46.000	43.046	40.085	37.345	35.435	25.457
87.5	30.571	27.485	25.141	21.299	17.890	15.487	7.222
90.0	19.007	16.707	14.070	10.389	6.987	3.534	0.044

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	363.95	N.A.	14.80
0-30	752.07	N.A.	30.60
0-40	1192.84	N.A.	48.60
0-60	1989.01	N.A.	81.00
0-80	2409.57	N.A.	98.20
0-90	2454.97	N.A.	100.00
10-90	2359.06	N.A.	96.10
20-40	828.89	N.A.	33.80
20-50	1258.03	N.A.	51.20
40-70	1065.44	N.A.	43.40
60-80	420.56	N.A.	17.10
70-80	151.29	N.A.	6.20
80-90	45.40	N.A.	1.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2454.97	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	95.91
10-20	268.03
20-30	388.12
30-40	440.77
40-50	429.14
50-60	367.03
60-70	269.27
70-80	151.29
80-90	45.40
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

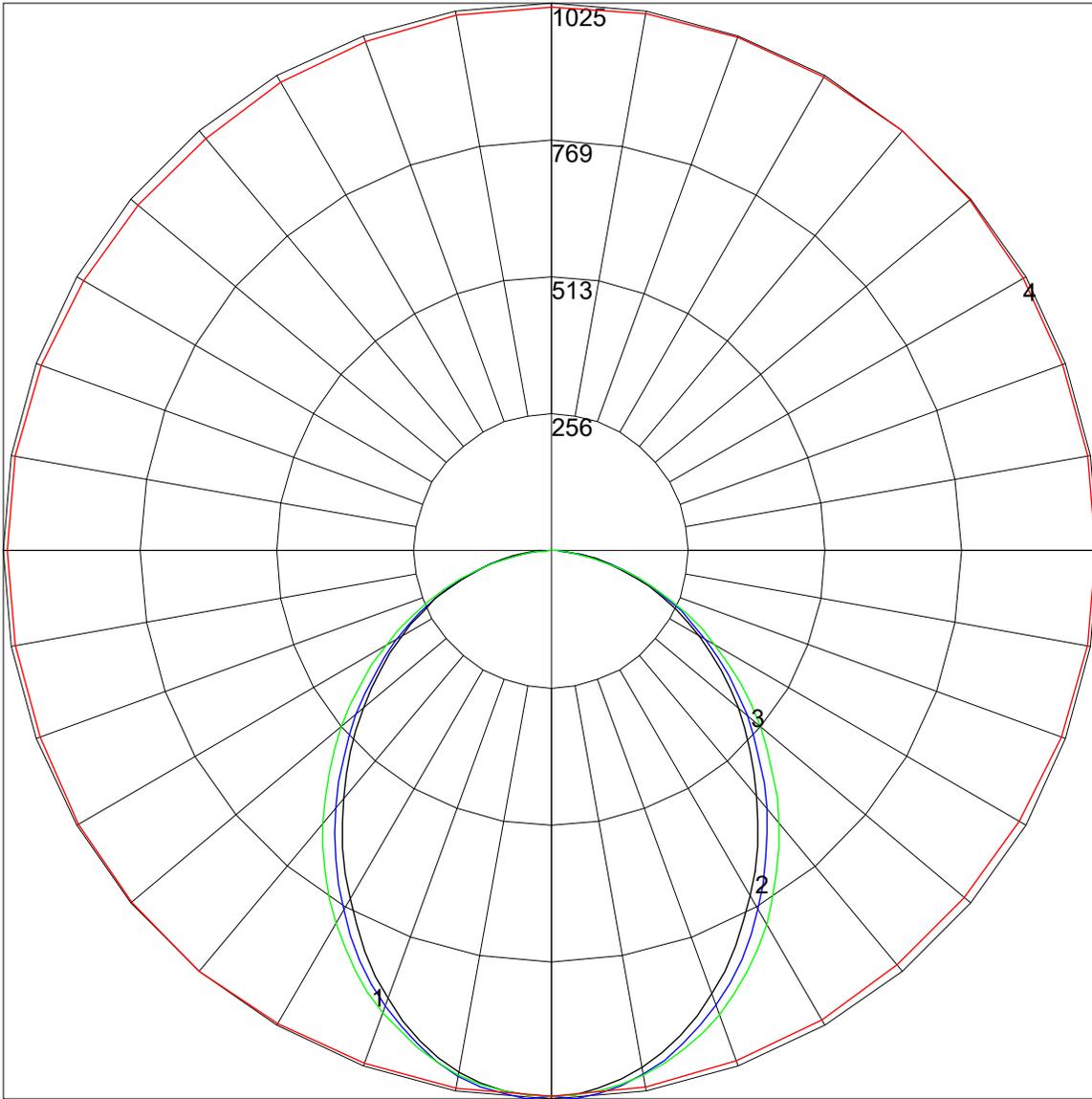
IES INDOOR REPORT
PHOTOMETRIC FILENAME : NLR48LFA40.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0	
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97		106	102	98	95	98	95	92	94	92	89	90	88	87	84
2	100	92	85	79		97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67		89	79	72	66	76	70	65	74	68	64	71	67	63	60
4	84	72	63	57		81	71	63	56	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49		75	63	55	49	61	54	49	59	53	48	58	52	48	45
6	71	58	50	43		70	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	45	39		65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	35		60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31		57	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28		53	41	33	28	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1025.377 Located At Horizontal Angle = 230, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (230 - 50) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Vertical Plane Through Horizontal Angles (0 - 180)
4 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)