

Photometric Toolbox

IES INDOOR REPORT

PHOTOMETRIC FILENAME: BN124C L1200 1 XLED38S_830.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002 [TEST] LVE2657900 [TESTLAB] [MANUFAC] PHILIPS [LUMCAT] [LUMINAIRE] BN124C L1200 LED38S/830 NO [LAMP] LED38S/830 [BALLAST] -[ISSUEDATE] 2017-02-03 [OTHER] B-Angle = 0.00 B-Tilt = 0.00 2019-06-21

CHARACTERISTICS

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13165	10225	10106
55	12027	8982	9086
65	10593	7800	8128
75	8339	6728	7271
85	3611	5839	6585

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CANDELA TABULATION

0.0 2.5 5.0 7.5 10.0 12.5 15.0 22.5 25.0 27.5 30.0 32.5 35.0 37.5 40.0 42.5 45.0 47.5 50.0 62.5 65.0 67.5 70.0 72.5 77.5 80.0 77.5 80.0 77.5 80.0 77.5 80.0 77.5 80.0 77.5 80.0 77.5 80.0 80.0 80.0 80.0 80.0 80.0 80.0 80	0.0 1073.50 1069.70 1065.52 1057.16 1046.52 1032.08 1015.36 995.60 973.18 948.86 921.12 891.86 860.70 827.64 793.44 756.96 719.72 682.10 643.72 604.58 564.68 524.40 484.12 445.36 404.70 363.66 321.86 282.72 242.82 203.68 163.40 125.02 88.54 56.62 29.64 11.40 3.04 1.52 1.14	2.5 1073.50 1070.08 1065.52 1057.16 1046.52 1032.46 1015.36 995.60 973.18 948.86 921.50 892.24 860.70 828.02 793.44 757.34 720.10 682.10 644.10 604.96 565.06 524.78 484.50 445.74 405.46 364.04 322.62 283.48 243.58 204.44 164.16 126.16 89.68 58.52 31.92 13.68 4.94 2.28 1.52 1.52	5.0 1073.50 1073.50 1070.08 1065.52 1057.54 1046.52 1032.46 1015.74 995.98 973.56 949.24 921.88 892.62 861.08 828.78 794.20 758.10 720.86 683.24 645.24 606.10 566.20 525.92 485.64 446.88 406.98 365.56 324.52 285.38 245.86 207.10 167.58 129.96 94.24 63.46 37.62 19.76 9.50 3.42 2.28 2.28	7.5 1073.50 1070.46 1065.90 1057.92 1046.90 1032.84 1016.12 996.36 974.32 950.00 922.64 893.38 862.22 829.54 795.34 759.24 722.38 684.76 646.38 608.00 568.10 527.82 487.54 449.16 409.26 368.22 327.56 288.42 249.66 211.28 172.52 135.66 100.70 70.68 45.98 28.12 16.34 6.84 4.18 3.42	10.0 1073.50 1073.50 1070.84 1065.90 1058.30 1047.28 1033.22 1016.50 997.12 975.08 951.14 923.78 894.90 863.36 831.06 796.86 760.76 724.28 686.66 648.66 648.66 610.28 570.38 530.48 490.58 451.82 412.68 372.02 331.74 292.98 254.98 216.98 179.36 143.26 109.44 80.18 56.24 38.00 24.70 11.78 6.84 4.94	12.5 1073.50 1070.84 1066.28 1058.30 1047.28 1033.60 1016.88 997.50 975.84 951.90 924.54 896.04 864.88 832.58 798.38 763.04 726.18 688.94 651.32 612.94 573.42 533.90 494.00 455.62 416.86 376.96 337.06 298.30 261.44 224.20 187.34 152.76 119.70 91.20 67.26 49.02 34.58 18.24 11.02 7.60	15.0 1073.50 1070.84 1066.28 1058.68 1047.66 1033.98 1017.64 998.26 976.60 952.66 925.68 897.18 866.40 834.48 800.66 765.32 728.84 691.98 654.36 616.36 577.22 538.08 498.18 459.80 422.18 382.66 343.14 305.14 269.04 232.18 196.84 162.64 130.34 102.98 79.04 60.42 45.22 25.84 16.36	17.5 1073.50 1070.84 1066.28 1058.68 1048.04 1034.36 1018.02 999.02 977.36 953.80 927.20 898.70 868.68 836.76 803.32 767.98 731.88 695.02 658.16 620.54 581.78 542.64 503.50 464.74 428.26 389.12 350.36 312.74 277.40 241.30 207.48 173.66 142.12 115.14 91.96 72.20 56.24 34.58 22.42 15.58	20.0 1073.50 1073.50 1071.22 1066.66 1059.06 1048.42 1034.74 1018.78 999.78 978.50 955.32 928.72 900.60 870.58 839.04 805.98 771.02 735.30 699.20 662.34 625.10 586.72 547.96 509.58 470.82 434.72 396.34 358.34 321.10 286.90 251.18 218.50 185.44 154.66 104.50 84.74 68.02 44.46 29.64 20.90	22.5 1073.50 1071.22 1066.66 1059.06 1048.80 1035.50 1019.54 1000.92 979.64 956.46 930.62 902.88 873.24 842.08 809.02 774.82 739.48 703.38 666.90 630.04 592.42 554.04 515.66 441.56
100.0	1.14	1.52	2.28	4.18	6.84	11.02	16.34	22.42	29.64	37.62
125.0 130.0 135.0 180.0	2.28 3.04 3.80 0.00	2.28 3.04 3.80 0.00	2.66 3.04 3.80 0.00	3.42 3.42 4.18 0.00	4.18 4.56 4.94 0.00	5.32 5.32 5.70 0.00	6.46 6.46 6.84 0.00	7.60 7.60 7.60 0.00	9.50 8.74 8.74 0.00	11.40 10.26 9.88 0.00
Vert. Angles	Horizont	al Angles								
0.0 2.5 5.0 7.5 10.0 12.5 15.0	25.0 1073.50 1071.22 1066.66 1059.44 1049.18 1035.88 1020.30	27.5 1073.50 1071.60 1067.04 1059.82 1049.94 1037.02 1021.44	30.0 1073.50 1071.98 1067.42 1060.58 1050.70 1037.78 1022.58	32.5 1073.50 1072.36 1068.18 1060.96 1051.46 1038.92 1023.72	35.0 1073.50 1072.74 1068.56 1061.72 1052.22 1040.06 1025.24	37.5 1073.50 1072.74 1068.94 1062.10 1052.60 1040.82 1026.00	40.0 1073.50 1073.12 1069.32 1062.48 1052.98 1041.58 1027.14	42.5 1073.50 1073.12 1069.32 1062.86 1053.74 1042.34 1028.28	45.0 1073.50 1073.50 1069.70 1063.24 1054.50 1043.10 1029.42	47.5 1073.50 1073.50 1070.08 1063.62 1054.88 1043.86 1030.56

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CANDELA TABULATION - (Cont.)

17.5 20.0 22.5 25.0 27.5 30.0 32.5 35.0 37.5 40.0 42.5 45.0 47.5 50.0 52.5 55.0 67.5 70.0 72.5 75.0 77.5 80.0 82.5 85.0 87.5 90.0 105.0 115.0 115.0 125.0 130.0 125.0 130.0 130.0	1002.06 980.78 957.98 932.52 905.16 876.28 845.12 812.82 778.62 744.04 708.32 672.22 635.74 598.12 560.50 522.50 484.88 442.68 375.44 339.34 306.66 272.84 241.30 209.76 180.12 153.52 130.34 109.44 91.96 64.60 45.98 33.44 25.08 19.38 15.96 13.68 12.16	1003.20 982.68 960.26 934.80 908.20 879.32 848.54 816.62 783.18 748.98 713.64 677.92 641.82 604.58 567.34 529.72 492.48 456.38 421.42 384.94 349.60 316.92 283.86 252.70 221.92 193.42 166.82 143.26 104.12 75.24 55.10 40.66 30.78 23.56 19.38 15.96 14.06	1004.72 984.58 962.54 937.46 911.24 882.36 852.34 821.18 788.12 753.92 719.34 684.00 648.28 611.42 574.18 537.32 500.46 464.36 430.16 394.44 359.86 327.56 295.26 264.10 234.46 205.96 180.12 155.80 134.90 116.28 85.88 64.22 47.88 36.48 28.12 22.80 18.62 15.96	1006.62 986.48 964.82 940.12 914.28 885.78 885.78 856.52 825.36 793.06 759.24 724.66 690.08 654.74 618.26 581.78 545.30 508.82 472.72 439.66 404.70 370.12 338.20 306.66 275.88 247.00 218.50 192.66 168.72 147.44 128.44 96.52 73.34 55.86 42.56 33.06 26.60 21.66 18.24	1008.14 988.38 967.10 942.78 916.94 889.58 860.32 829.92 798.00 764.56 730.74 696.16 661.20 625.48 589.38 553.28 517.56 481.84 448.40 414.96 381.14 348.84 318.06 286.90 258.40 231.04 205.20 181.26 159.60 140.22 107.54 82.84 63.46 49.02 38.38 30.40 24.70 20.52	1009.28 990.28 969.00 945.06 919.98 893.00 864.50 834.48 802.94 769.88 736.44 702.62 668.42 632.70 597.36 562.02 526.30 491.34 457.90 425.22 391.78 359.86 329.08 298.68 269.80 242.44 216.98 193.04 171.38 151.62 117.80 91.96 71.44 55.86 43.32 34.58 27.74 23.18	1010.80 991.80 971.28 947.72 923.40 896.80 868.68 839.04 807.88 775.58 742.52 709.08 675.26 640.30 605.34 570.38 535.42 501.22 467.02 435.10 402.42 370.88 340.10 310.46 281.58 254.22 228.38 204.44 182.78 163.02 128.44 101.46 79.42 62.32 49.02 39.14 31.16 25.46	1011.94 993.70 973.56 950.76 926.44 900.60 872.86 843.60 812.82 781.28 748.60 715.92 682.48 647.90 613.70 579.12 544.92 510.72 476.90 444.60 413.06 381.52 350.74 321.10 292.98 265.62 239.78 215.84 193.80 174.04 138.32 110.20 87.40 68.78 54.34 43.32 34.58 28.12	1013.84 995.60 975.84 953.42 929.48 904.02 876.66 847.78 817.76 786.60 754.68 722.38 689.70 655.88 621.68 553.66 520.22 486.78 454.48 422.94 392.16 361.38 331.74 303.62 276.64 250.80 226.86 204.44 184.30 148.20 118.94 95.00 75.24 59.66 47.50 38.00 30.78	1014.98 997.50 978.12 956.08 932.52 907.44 880.46 852.34 822.70 792.30 761.14 729.22 696.92 663.48 630.04 596.60 562.78 529.72 496.28 463.60 432.44 402.42 372.02 342.38 314.26 287.28 261.44 237.50 215.08 194.18 157.70 127.68 102.22 81.70 64.98 52.06 41.42 33.44
135.0	11.02	12.54	14.06	15.96	17.86	19.76	21.66	23.56	25.46	27.74
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vert. Angles		al Angles								
0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0 27.5 30.0 32.5 35.0 37.5	50.0 1073.50 1073.88 1070.46 1064.38 1055.64 1045.00 1031.70 1016.50 999.40 980.40 958.36 935.56 910.86 884.64 856.90 828.02	52.5 1073.50 1073.88 1070.08 1064.38 1056.02 1045.38 1032.46 1017.64 1000.92 981.92 960.64 938.22 914.28 888.44 861.46 832.96	55.0 1073.50 1073.88 1070.08 1064.38 1056.40 1045.76 1033.60 1018.78 1002.06 983.82 963.30 941.26 917.70 892.24 865.64 837.90	57.5 1073.50 1073.50 1070.08 1064.38 1056.40 1046.14 1034.36 1019.92 1003.58 985.72 965.58 944.30 920.74 896.42 870.20 842.84	60.0 1073.50 1073.50 1070.08 1064.38 1056.78 1046.90 1035.12 1021.06 1005.10 987.62 967.86 947.34 924.54 900.22 874.38 847.78	62.5 1073.50 1073.50 1070.46 1065.14 1057.54 1047.66 1036.26 1022.20 1007.00 989.90 970.52 950.00 927.58 903.64 878.18 851.96	65.0 1073.50 1073.88 1070.84 1065.52 1058.30 1048.80 1037.40 1023.72 1008.52 991.80 972.80 952.66 930.24 906.68 881.98 855.38	67.5 1073.50 1074.26 1071.22 1065.52 1058.68 1049.18 1037.78 1024.48 1009.66 993.32 974.32 954.18 932.52 909.34 885.02 858.80	70.0 1073.50 1073.88 1070.84 1065.52 1058.30 1049.18 1038.16 1024.86 1010.42 994.08 975.46 955.70 934.42 911.24 887.30 861.84	72.5 1073.50 1073.12 1070.08 1065.14 1057.92 1048.80 1038.16 1025.24 1010.80 994.46 976.60 957.22 935.94 913.52 889.58 864.50

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CANDELA TABULATION - (Cont.)

40.0	798.00	803.70	809.02	814.34	819.66	824.22	828.02	831.82	835.24	838.28
42.5	767.22	773.30	779.38	785.08	790.78	795.34	799.90	804.08	807.50	810.92
45.0	736.06	742.52	748.98	755.44	761.14	766.46	771.02	775.58	779.38	783.18
47.5	704.14	711.36	718.20	724.66	730.74	736.44	741.38	746.32	750.50	754.68
50.0	671.46	679.06	686.28	693.12	699.58	705.66	710.98	715.92	720.86	725.04
52.5	638.40	646.38	653.98	661.20	667.66	674.12	679.82	685.52	690.46	695.02
55.0	605.34	613.32	621.30	628.52	635.74	642.58	648.66	654.36	659.68	664.24
57.5	571.90	580.26	588.24	596.22	603.82	610.66	617.12	623.20	628.52	633.46
60.0	538.84	547.20	555.94	563.92	571.52	578.74	585.58	592.04	597.36	602.68
62.5	505.78	514.90	523.64	532.00	539.60	547.20	554.04	560.88	566.58	571.52
65.0	473.10	482.60	491.34	500.08	508.06	515.66	522.88	529.72	535.42	540.74
67.5	441.94	451.06	460.18	468.92	477.28	484.88	492.48	498.94	505.02	509.96
70.0	412.68	421.42	430.16	438.90	447.64	455.24	462.84	469.30	475.38	480.32
72.5	382.28	392.16	400.52	409.26	418.00	425.98	433.20	439.66	445.36	450.68
75.0	353.02	362.90	371.64	380.38	388.74	396.72	403.56	410.02	416.10	421.04
77.5	324.90	334.78	343.90	352.26	360.62	368.22	375.44	381.90	387.60	392.92
0.08	297.54	307.42	316.92	325.28	333.64	341.24	348.08	354.54	360.62	365.56
82.5	271.70	281.58	291.08	299.44	307.80	315.02	322.24	328.70	334.40	339.34
85.0	247.38	257.26	266.38	275.12	283.10	290.70	297.54	303.62	309.32	314.26
87.5	224.96	234.46	243.58	251.94	259.92	267.14	273.98	280.06	285.38	290.32
90.0	204.06	213.56	221.92	230.28	238.26	245.48	251.94	257.64	262.96	267.52
95.0	166.44	175.18	183.54	191.14	198.36	205.20	211.28	216.98	221.54	226.10
100.0	135.66	143.64	150.86	157.70	164.54	170.24	175.94	180.88	185.44	189.24
105.0	109.44	116.66	123.12	129.58	135.28	140.60	145.54	150.10	153.90	157.32
110.0	87.78	93.86	99.56	105.26	110.58	115.14	119.70	123.50	126.92	129.96
115.0	70.30	75.62	80.18	84.74	89.30	93.48	97.28	100.70	103.74	106.78
120.0	56.24	60.42	64.60	68.40	72.20	75.62	79.04	82.08	84.74	87.02
125.0	45.22	48.64	51.68	55.10	58.14	60.80	63.46	66.12	68.40	70.30
130.0	36.48	39.14	41.42	44.08	46.74	49.02	50.92	53.20	54.72	56.24
135.0	29.64	31.92	33.82	35.72	37.62	39.52	41.04	42.56	44.08	45.22
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vert.	Horizontal Angles
2alan A	

Angles							
_	<u>75.0</u>	<u>77.5</u>	<u>80.0</u>	<u>82.5</u>	<u>85.0</u>	<u>87.5</u>	<u>90.0</u>
0.0	1073.50	1073.50	1073.50	1073.50	1073.50	1073.50	1073.50
2.5	1072.36	1071.60	1071.22	1070.84	1070.08	1068.94	1068.18
5.0	1069.32	1068.56	1068.18	1068.18	1067.42	1066.28	1065.52
7.5	1064.38	1064.00	1063.62	1063.62	1062.86	1061.72	1060.58
10.0	1057.54	1056.78	1056.78	1056.78	1056.02	1054.88	1054.50
12.5	1048.42	1048.42	1048.42	1048.42	1047.66	1046.52	1045.76
15.0	1037.78	1037.78	1037.78	1037.78	1037.40	1036.26	1035.88
17.5	1025.24	1025.62	1025.62	1025.62	1025.24	1024.48	1024.10
20.0	1010.80	1011.18	1011.94	1011.94	1011.94	1010.80	1010.80
22.5	995.22	995.60	996.36	996.74	996.36	995.60	995.60
25.0	977.36	978.12	978.88	979.64	979.64	978.88	978.50
27.5	957.98	959.12	960.26	961.02	961.02	960.64	959.88
30.0	937.46	938.98	940.12	940.88	940.88	940.50	940.50
32.5	915.42	916.94	918.46	919.22	919.60	919.22	919.22
35.0	891.48	893.38	895.28	896.42	896.80	896.42	896.42
37.5	866.78	869.06	870.96	872.10	872.86	872.48	872.48
40.0	840.94	843.60	845.50	847.02	847.78	847.78	847.40
42.5	813.96	817.00	819.28	820.42	821.18	821.56	821.56
45.0	786.60	789.64	791.92	793.82	794.58	794.58	794.96
47.5	758.48	761.52	764.18	765.70	766.84	767.22	767.22
50.0	729.22	732.26	734.92	736.82	737.96	738.34	738.72
52.5	698.82	702.62	705.28	707.18	708.32	708.70	709.08
55.0	668.80	672.22	675.26	676.78	678.30	679.06	679.06
57.5	638.02	641.82	644.48	646.76	647.90	648.66	649.42
60.0	607.24	610.66	613.70	615.98	617.12	617.88	618.64

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CANDELA TABULATION - (Cont.)

62.5	576.08	579.88	582.92	585.20	586.72	587.48	587.86
65.0	544.92	548.72	551.76	554.04	555.56	556.70	557.08
67.5	514.52	518.32	521.36	523.64	525.16	525.92	526.68
70.0	484.88	488.68	491.72	494.00	495.52	496.66	497.04
72.5	455.24	459.04	462.08	464.36	465.88	466.64	467.40
75.0	425.60	429.40	432.44	434.72	436.62	437.76	438.14
77.5	397.48	401.28	403.94	406.60	408.12	409.26	409.64
80.0	369.74	373.54	376.58	378.86	380.76	381.52	382.28
82.5	343.52	347.32	350.36	352.64	354.16	354.92	355.68
85.0	318.44	321.86	324.52	327.18	328.70	329.46	330.22
87.5	294.12	297.92	300.58	302.86	304.38	305.14	305.90
90.0	271.70	275.12	277.40	279.68	281.20	281.96	282.72
95.0	229.90	232.94	235.22	237.50	238.64	239.40	240.16
100.0	192.66	195.32	197.60	199.50	200.64	201.40	201.78
105.0	160.36	163.02	164.92	166.44	167.58	168.34	168.72
110.0	132.62	134.90	136.42	137.94	138.70	139.46	139.84
115.0	108.68	110.58	112.10	113.24	114.00	114.38	114.76
120.0	88.92	90.44	91.58	92.34	93.10	93.48	93.86
125.0	71.82	73.34	74.10	74.86	75.24	75.62	76.00
130.0	57.76	58.52	59.28	60.04	60.42	60.80	60.80
135.0	45.98	47.12	47.50	47.88	48.26	48.64	48.64
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	391.61	10.30	10.20
0-30	830.47	21.90	21.70
0-40	1360.37	35.80	35.60
0-60	2440.92	64.20	63.80
0-80	3221.75	84.80	84.30
0-90	3450.00	90.80	90.20
10-90	3348.51	88.10	87.60
20-40	968.76	25.50	25.30
20-50	1525.59	40.10	39.90
40-70	1524.48	40.10	39.90
60-80	780.83	20.50	20.40
70-80	336.89	8.90	8.80
80-90	228.25	6.00	6.00
90-110	244.26	6.40	6.40
90-120	303.20	8.00	7.90
90-130	338.41	8.90	8.80
90-150	350.05	9.20	9.20
90-180	374.02	9.80	9.80
110-180	129.76	3.40	3.40
0-180	3824.02	100.60	100.00

Total Luminaire Efficiency = 100.60%

ZONAL LUMEN SUMMARY

Zone	Lumens
Zone 0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100 100-110 110-120 120-130 130-140 140-150 150-160	Lumens 101.49 290.12 438.86 529.90 556.83 523.72 443.93 336.89 228.25 148.88 95.38 58.94 35.22 11.63 0.00 0.00
160-170 170-180	0.00 23.97

IES INDOOR REPORT

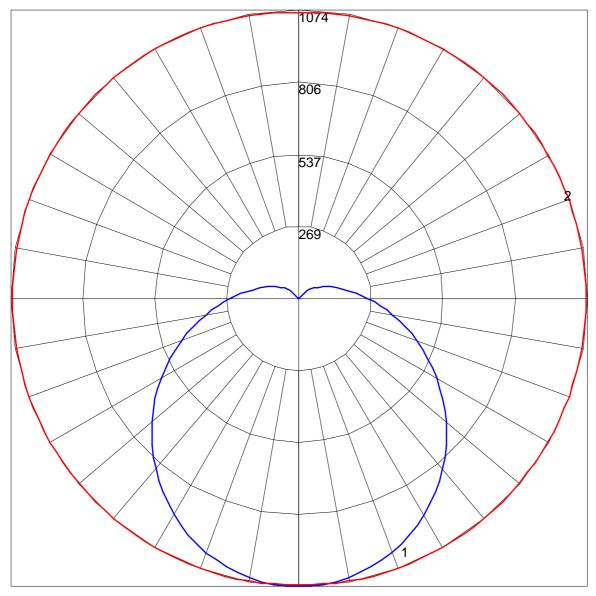
PHOTOMETRIC FILENAME: BN124C L1200 1 XLED38S_830.IES

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	117117117117	114114114114	106106106	100100100	94 94 94	91
1	10599 94 90	10196 91 87	90 86 83	84 81 78	79 77 74	72
2	95 86 78 72	91 83 76 70	78 72 67	73 68 64	68 64 61	58
3	86 75 66 59	83 72 64 58	68 61 55	64 58 53	60 55 51	48
4	79 66 56 49	75 64 55 48	60 53 47	56 50 45	53 48 43	41
5	72 59 49 42	69 57 48 42	54 46 40	51 44 39	48 42 38	35
6	66 53 43 37	64 51 42 36	48 41 35	46 39 34	43 37 33	31
7	62 48 39 32	59 46 38 32	44 36 31	42 35 30	39 34 29	27
8	57 43 35 29	55 42 34 28	40 33 27	38 32 27	36 30 26	24
9	53 40 31 26	52 39 31 25	37 30 25	35 29 24	33 28 23	21
10	50 37 29 23	48 36 28 23	34 27 22	32 26 22	31 25 21	19

POLAR GRAPH



Maximum Candela = 1074.26 Located At Horizontal Angle = 67.5, Vertical Angle = 2.5 # 1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.) # 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)