

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P145933

Luminaire Tested: **VPL-F04-LED-E1-CPL-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P145933
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33704)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: VPL-F04-LED-E1-CPL-8030
Description: VALET LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - 90° FORWARD THROW PERIMETER LEFT
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7506.5 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

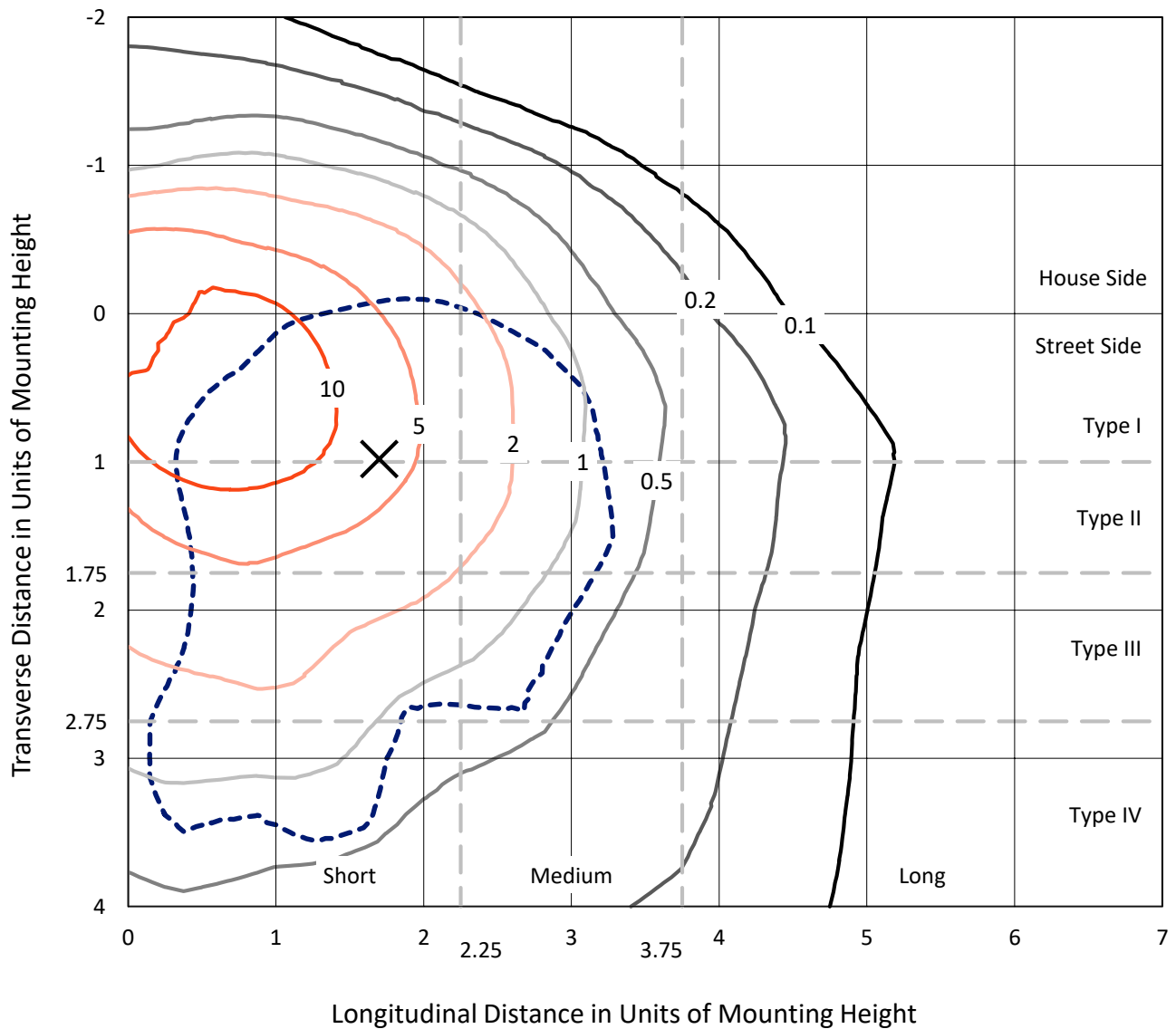
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

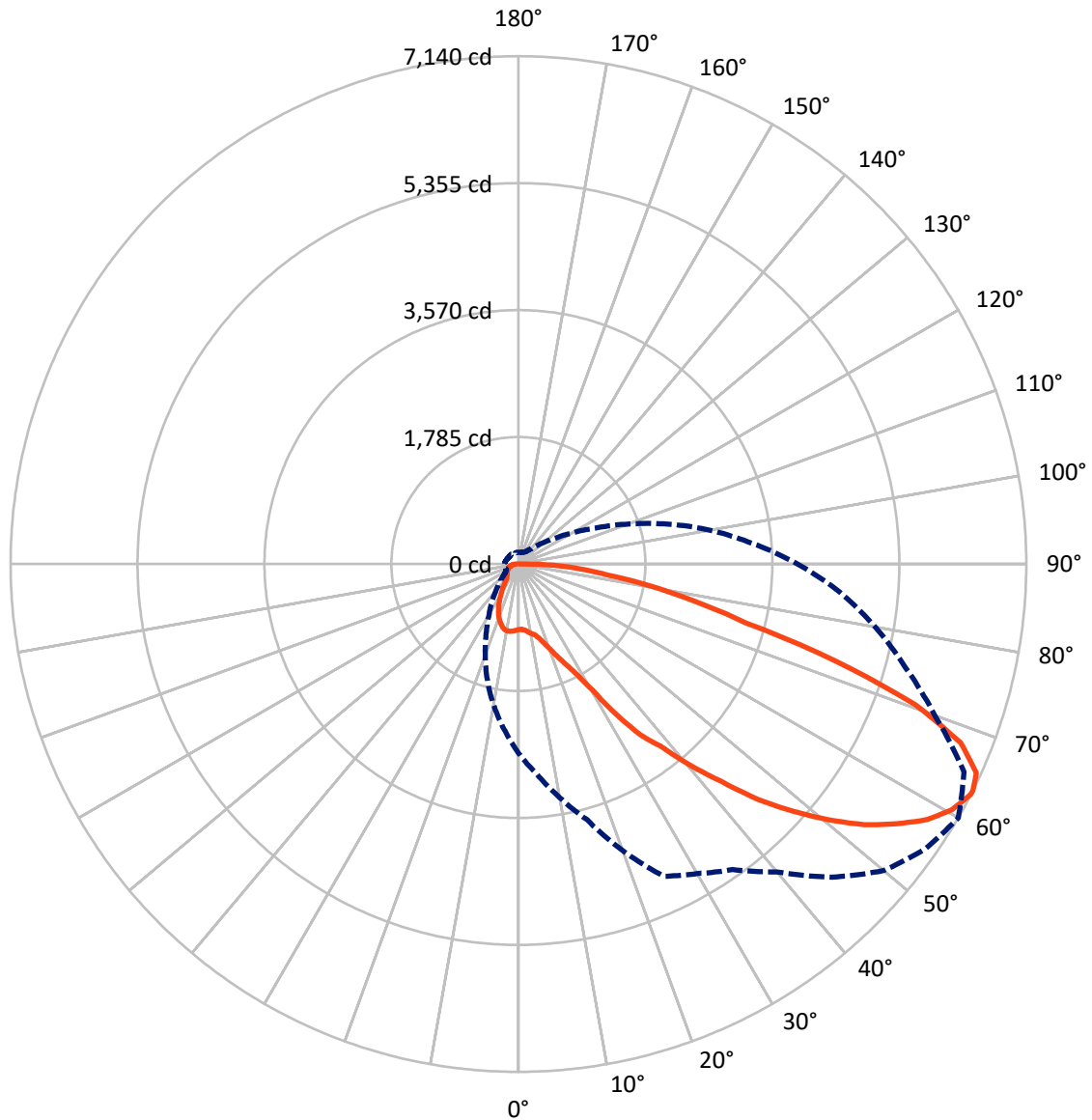
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1571.3	0.0	1571.3
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	5935.1	0.0	5935.1
	% Fixture	79.1	0.0	79.1
Total	Lumens	7506.5	0.0	7506.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	1.2
10°-20°	282.6	3.8
20°-30°	499.7	6.7
30°-40°	789.0	10.5
40°-50°	1160.2	15.5
50°-60°	1528.2	20.4
60°-70°	1703.4	22.7
70°-80°	1119.1	14.9
80°-90°	333.7	4.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	7506.5	100.0
0°-180°	7506.5	100.0



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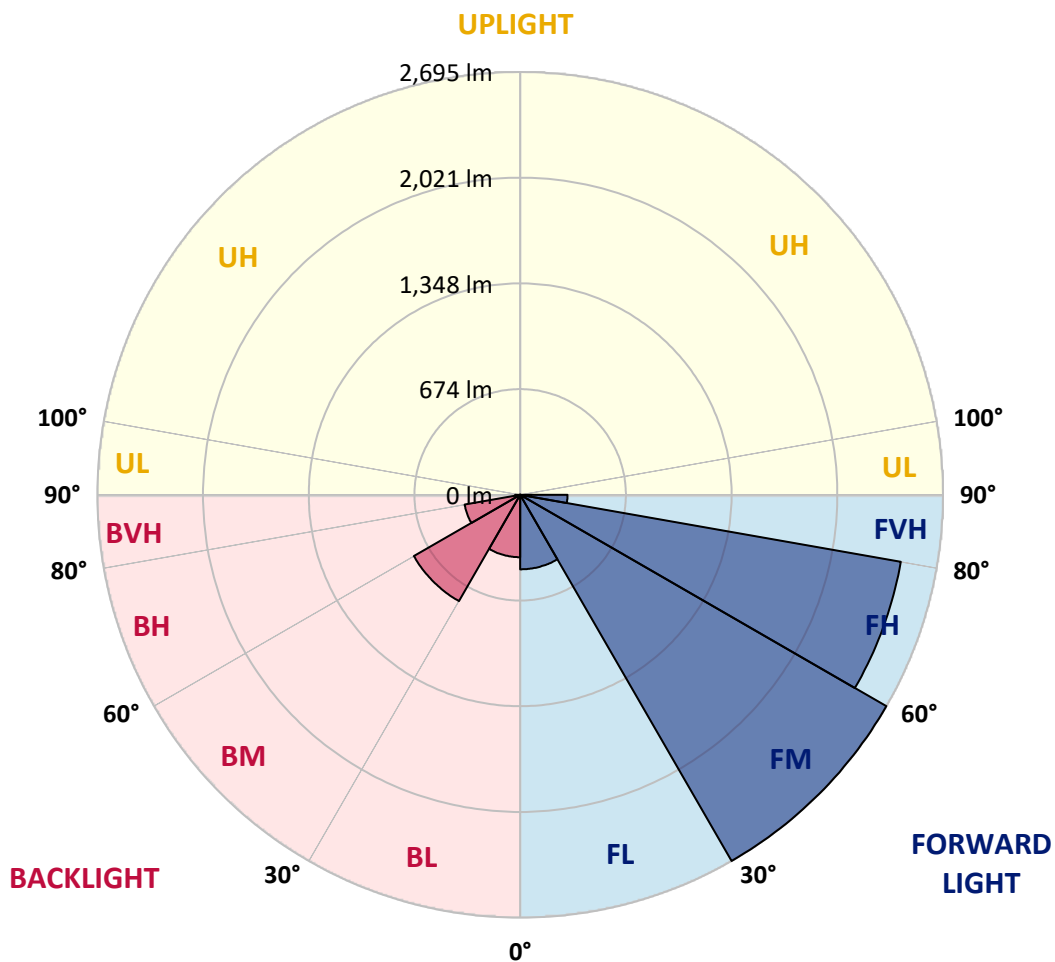
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	475.1	6.3			
FM	(30°-60°)	2695.0	35.9			
FH	(60°-80°)	2463.4	32.8			G2/5000
FVH	(80°-90°)	301.6	4.0			G3/500
BL	(0°-30°)	397.8	5.3	B1/500		
BM	(30°-60°)	782.3	10.4	B1/1000		
BH	(60°-80°)	359.1	4.8	B1/500		G1/500
BVH	(80°-90°)	32.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9
2.5°	920.8	921.4	919.7	919.1	918.0	918.6	918.6	917.5	917.5	918.0	916.3
5°	916.3	917.5	916.9	918.0	919.1	920.8	922.5	924.2	925.8	928.1	928.6
7.5°	911.3	914.7	915.2	918.6	922.5	926.9	932.5	938.6	947.0	949.2	954.2
10°	914.1	920.2	923.6	930.3	936.4	944.8	954.8	960.9	971.5	975.4	982.7
12.5°	935.9	940.3	944.8	952.6	961.5	972.1	983.2	992.7	1003.9	1007.8	1010.5
15°	977.1	981.6	986.6	994.4	1003.9	1016.7	1032.8	1044.5	1057.9	1068.0	1075.2
17.5°	1034.5	1034.5	1046.2	1048.4	1066.8	1086.4	1106.4	1129.3	1143.2	1151.6	1164.9
20°	1117.0	1117.0	1132.6	1139.9	1155.5	1180.5	1207.9	1232.9	1253.0	1269.7	1282.0
22.5°	1259.7	1253.6	1266.9	1265.3	1284.2	1321.6	1348.3	1362.3	1389.0	1399.0	1415.2
25°	1425.2	1447.0	1461.5	1461.5	1469.3	1507.7	1530.0	1540.6	1565.1	1557.9	1574.6
27.5°	1628.1	1686.7	1740.7	1763.0	1752.4	1794.8	1802.6	1812.6	1809.8	1792.6	1787.5
30°	1827.7	1930.8	2015.0	2066.2	2125.3	2207.3	2207.3	2220.6	2191.7	2143.7	2115.3
32.5°	1965.9	2098.6	2227.3	2333.8	2434.1	2559.5	2612.5	2686.1	2698.3	2716.7	2653.2
35°	2079.6	2265.8	2404.0	2564.0	2686.6	2813.7	2954.7	3082.4	3167.1	3153.1	3128.1
37.5°	2157.7	2396.8	2589.6	2777.5	2964.2	3109.7	3243.4	3410.1	3572.3	3604.6	3536.6
40°	2212.3	2489.3	2754.6	2985.4	3220.0	3438.5	3601.3	3780.2	4034.4	4142.0	4086.2
42.5°	2238.5	2561.8	2857.7	3151.5	3448.6	3724.5	3928.5	4173.7	4475.3	4659.2	4597.9
45°	2249.6	2606.3	2941.3	3275.8	3632.5	3973.1	4236.2	4514.3	4853.7	5149.2	5160.3
47.5°	2246.8	2630.3	2998.7	3364.4	3776.9	4173.2	4526.0	4841.5	5226.1	5536.5	5651.9
50°	2239.0	2638.7	3033.3	3417.9	3867.7	4319.8	4717.2	5092.3	5522.0	5915.0	6090.6
52.5°	2238.5	2640.3	3050.6	3447.4	3921.2	4409.5	4837.0	5280.1	5751.1	6161.9	6435.6
55°	2251.8	2650.4	3069.5	3468.1	3950.2	4460.2	4904.5	5397.7	5850.9	6317.4	6670.8
57.5°	2305.9	2697.2	3114.7	3503.2	3982.5	4500.4	4956.9	5431.8	5880.4	6382.1	6807.4
60°	2424.6	2784.7	3193.3	3567.8	4066.7	4605.7	5006.5	5383.8	5824.7	6363.7	6826.9
62.5°	2609.7	2925.2	3303.1	3687.1	4237.8	4805.8	5027.1	5274.0	5687.0	6257.8	6742.7
63°	2657.1	2962.5	3332.1	3720.0	4287.4	4843.7	5025.4	5245.0	5649.1	6226.6	6704.8
65°	2854.9	3135.3	3467.0	3877.2	4513.2	4964.1	4964.7	5074.5	5455.7	6054.4	6549.3
67.5°	3152.6	3420.1	3676.5	4084.5	4762.9	5024.3	4784.6	4701.6	5038.8	5689.8	6154.7
70°	3351.0	3681.6	3825.4	4139.2	4796.9	4951.3	4499.8	4222.8	4502.6	5046.6	5459.6
72.5°	3356.0	3732.8	3774.6	3906.2	4478.6	4602.4	4009.3	3634.2	3802.5	4259.0	4476.4
75°	2997.6	3471.4	3385.6	3337.1	3647.0	3699.9	3242.9	3086.8	3302.5	3572.3	3463.6
77.5°	2228.4	2858.3	2683.8	2477.6	2590.2	2598.0	2612.5	2906.8	3171.5	3281.9	3123.6
80°	1382.9	2099.7	1965.9	1625.9	1669.4	1797.6	2182.2	2702.2	2992.1	3071.2	2754.6
82.5°	833.9	1544.5	1473.2	1240.7	1295.4	1614.8	2040.0	2183.8	2281.4	2274.1	1947.0
85°	610.9	1049.0	1146.0	1163.3	1357.2	1567.9	1559.0	1452.6	1392.9	1225.7	1046.2
87.5°	192.3	541.2	642.1	748.6	819.9	775.9	763.1	659.4	472.1	399.1	438.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9
2.5°	916.3	918.6	919.7	919.1	919.7	919.7	923.0	921.9	923.0	922.5	925.8
5°	930.3	933.6	936.4	936.4	937.0	938.1	942.5	942.5	944.8	949.2	951.5
7.5°	957.6	962.1	962.6	963.7	967.1	965.4	968.2	969.3	971.0	973.2	976.0
10°	986.0	992.2	992.2	991.6	992.2	987.7	989.4	986.0	986.6	989.9	993.3
12.5°	1017.8	1021.1	1018.9	1017.2	1017.2	1008.9	1007.8	1003.3	1001.1	1001.6	1002.7
15°	1081.3	1078.5	1078.0	1075.2	1065.2	1059.0	1054.6	1040.6	1033.4	1029.5	1022.8
17.5°	1166.1	1167.7	1164.9	1162.2	1147.7	1127.0	1118.1	1103.1	1093.0	1083.0	1070.7
20°	1289.8	1278.6	1277.5	1268.6	1248.6	1219.6	1197.8	1173.3	1159.4	1144.9	1132.1
22.5°	1426.4	1414.7	1406.8	1389.6	1360.0	1323.2	1287.0	1255.8	1234.6	1224.0	1215.1
25°	1578.0	1571.3	1558.5	1514.4	1491.0	1448.7	1409.1	1378.4	1354.5	1345.5	1329.9
27.5°	1759.7	1764.7	1740.7	1699.5	1669.9	1610.3	1576.3	1523.3	1503.3	1470.9	1450.9
30°	2090.8	2058.4	2017.7	1954.8	1895.1	1814.9	1758.6	1703.4	1673.8	1630.4	1576.9
32.5°	2632.0	2508.8	2399.6	2265.8	2139.3	2036.7	1955.3	1885.6	1840.5	1768.6	1677.7
35°	3068.4	2949.7	2769.1	2574.6	2408.5	2276.9	2174.4	2108.6	2018.3	1903.5	1771.9
37.5°	3388.4	3251.8	3082.9	2934.1	2752.9	2606.3	2467.6	2331.0	2203.9	2030.0	1862.2
40°	3907.9	3722.8	3444.7	3269.1	3120.8	2922.4	2792.5	2608.6	2415.2	2191.1	1948.1
42.5°	4421.8	4176.5	3924.6	3722.8	3512.1	3297.0	3118.6	2871.7	2614.7	2324.3	2025.0
45°	5018.7	4718.3	4388.9	4106.8	3890.6	3637.5	3409.0	3105.8	2778.0	2433.6	2091.9
47.5°	5489.2	5191.5	4819.7	4535.5	4244.0	3958.6	3662.0	3288.0	2899.5	2522.7	2154.3
50°	5940.1	5653.0	5257.8	4908.9	4573.9	4229.5	3871.1	3417.3	2994.8	2592.4	2203.9
52.5°	6344.8	6089.5	5662.5	5245.6	4871.0	4474.2	4029.9	3538.3	3086.3	2664.3	2242.9
55°	6687.5	6448.4	6065.5	5546.6	5121.3	4682.1	4179.9	3648.7	3182.7	2739.6	2271.4
57.5°	6917.7	6779.5	6370.4	5811.3	5327.0	4859.3	4293.0	3759.6	3273.0	2786.4	2283.6
60°	7024.8	7006.4	6660.2	6050.5	5509.8	4997.5	4435.7	3877.2	3332.6	2807.6	2266.3
62.5°	7002.5	7134.0	6881.0	6214.3	5626.3	5083.9	4527.1	3927.9	3317.6	2756.3	2190.0
63°	6981.8	7139.6	6912.2	6230.5	5635.8	5092.3	4536.0	3921.8	3303.6	2733.4	2163.8
65°	6830.8	7073.8	6920.0	6201.5	5592.3	5068.3	4495.9	3825.4	3164.9	2589.6	2015.5
67.5°	6460.7	6704.3	6619.0	5882.1	5310.8	4810.8	4215.5	3497.1	2824.8	2284.2	1740.7
70°	5696.5	5914.4	5812.4	5164.2	4633.6	4279.1	3713.3	2908.5	2301.5	1836.0	1324.9
72.5°	4505.9	4659.2	4681.5	4166.5	3760.1	3547.2	2991.5	2193.9	1681.1	1278.6	860.1
75°	3336.5	3300.9	3308.1	3020.5	2854.9	2765.2	2236.2	1504.9	1132.6	781.5	510.0
77.5°	2804.2	2547.8	2329.3	2249.6	2056.8	2001.0	1474.8	923.6	661.1	467.6	290.4
80°	2280.3	1891.8	1574.1	1433.0	1357.8	1368.9	816.0	492.2	346.1	254.7	181.7
82.5°	1559.0	1263.6	996.6	865.6	852.2	865.1	424.2	241.3	182.8	146.6	114.3
85°	921.9	867.9	774.8	687.8	657.7	620.9	315.5	172.8	94.2	78.0	64.1
87.5°	398.5	489.4	501.1	498.9	464.3	372.9	115.9	44.6	39.6	20.1	16.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9
2.5°	925.8	926.4	925.3	926.4	930.3	930.3	929.7	930.8	931.4	934.7	933.6
5°	953.7	954.2	954.8	958.7	961.5	964.8	963.7	964.8	967.1	967.6	968.7
7.5°	979.3	982.7	987.1	988.8	993.8	994.9	1000.0	1000.5	1001.6	999.4	997.2
10°	997.2	1000.5	1006.1	1008.9	1017.8	1018.9	1022.8	1023.9	1026.2	1024.5	1022.8
12.5°	1006.1	1008.9	1015.0	1020.6	1032.8	1036.7	1043.4	1047.3	1050.1	1048.4	1042.9
15°	1024.5	1023.9	1027.3	1031.7	1042.9	1050.1	1059.6	1064.6	1068.0	1065.2	1057.9
17.5°	1066.8	1059.0	1059.0	1056.3	1064.6	1066.3	1070.2	1073.0	1071.9	1063.5	1051.8
20°	1125.4	1113.7	1106.4	1099.7	1096.9	1083.0	1075.8	1065.7	1056.8	1041.8	1028.4
22.5°	1201.2	1192.8	1176.1	1161.0	1139.9	1111.4	1080.8	1054.6	1035.1	1014.4	991.6
25°	1316.0	1297.0	1273.1	1237.4	1210.1	1159.9	1108.6	1059.0	1017.2	984.9	946.4
27.5°	1424.1	1384.0	1338.8	1283.1	1232.9	1166.1	1100.8	1043.4	988.8	937.0	892.9
30°	1514.4	1444.8	1371.2	1293.1	1221.8	1141.0	1065.2	1000.0	938.1	876.8	835.0
32.5°	1582.4	1482.1	1384.0	1284.2	1196.2	1101.4	1014.4	944.8	874.5	809.9	761.4
35°	1643.7	1508.3	1380.1	1260.3	1156.0	1051.2	957.6	879.6	802.6	733.5	677.8
37.5°	1687.8	1517.2	1363.4	1225.7	1104.7	989.9	888.5	805.4	722.9	652.7	591.4
40°	1721.8	1512.8	1331.6	1172.7	1034.5	915.2	816.0	729.1	646.6	576.3	512.2
42.5°	1744.6	1496.0	1283.7	1112.5	976.0	851.1	754.1	662.7	580.2	506.7	435.9
45°	1774.2	1489.3	1254.1	1067.4	923.0	797.1	693.4	604.2	518.4	441.5	374.0
47.5°	1802.0	1485.4	1230.2	1030.1	875.1	748.0	645.5	551.8	465.4	390.2	328.9
50°	1818.8	1479.3	1205.1	984.9	821.6	697.9	599.7	505.0	418.0	346.1	291.5
52.5°	1823.8	1467.0	1172.2	933.6	775.3	654.9	552.9	458.2	374.6	309.9	259.2
55°	1819.9	1443.1	1127.6	891.8	727.9	607.6	505.6	413.6	337.8	277.0	236.3
57.5°	1800.9	1395.1	1070.2	838.9	673.9	547.9	447.6	363.4	296.0	247.5	216.3
60°	1758.6	1326.0	1000.0	764.7	596.4	477.1	382.4	309.9	253.1	217.9	197.3
62.5°	1666.0	1226.3	898.0	659.9	492.7	382.9	300.4	246.9	208.5	190.1	177.8
63°	1638.7	1191.7	867.9	632.1	474.9	361.7	282.0	233.5	199.0	183.9	173.9
65°	1494.9	1032.3	733.5	508.3	367.9	274.2	215.2	183.4	165.0	159.4	156.6
67.5°	1225.1	803.2	516.1	341.1	246.9	189.5	158.9	146.6	139.9	139.3	141.0
70°	865.6	532.9	319.4	218.5	170.0	143.2	131.5	126.0	122.6	123.7	127.1
72.5°	563.0	312.7	201.8	160.0	138.2	126.0	117.6	115.9	114.8	113.7	114.8
75°	297.6	195.6	152.7	133.8	121.0	110.9	105.3	103.1	103.7	103.7	103.7
77.5°	184.5	148.8	130.4	118.2	108.1	98.1	92.5	90.9	91.4	92.5	93.1
80°	141.6	129.9	114.8	105.9	91.4	83.1	80.3	79.7	80.8	80.8	82.5
82.5°	103.7	100.3	94.8	83.6	72.5	66.9	66.3	68.6	66.3	65.8	66.9
85°	60.8	56.9	61.9	53.0	48.5	45.1	47.4	51.8	54.1	51.3	50.2
87.5°	19.5	13.4	19.5	21.7	19.5	16.7	21.2	25.1	25.6	24.5	27.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P145933

CATALOG NUMBER: VPL-F04-LED-E1-CPL-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9
2.5°	933.1	937.0	933.1	934.7	934.2	933.1	934.7	932.5	931.4	934.7	934.2
5°	968.2	968.7	963.7	964.3	963.7	959.3	959.3	957.0	954.2	954.8	953.7
7.5°	996.6	995.5	991.6	989.9	984.9	981.6	979.3	976.0	973.8	971.5	970.4
10°	1018.3	1015.6	1012.8	1007.8	1002.7	1000.0	993.8	988.8	987.1	983.8	981.6
12.5°	1037.3	1032.3	1027.8	1021.7	1015.6	1011.1	1003.9	1000.0	997.2	992.7	989.4
15°	1047.9	1038.4	1030.1	1020.6	1013.9	1007.2	998.8	997.2	993.3	988.8	982.7
17.5°	1035.1	1021.7	1006.1	996.1	986.0	976.0	967.6	967.6	966.0	960.9	950.3
20°	1008.9	988.8	970.4	954.2	944.2	929.7	924.7	916.9	911.3	902.4	889.0
22.5°	966.0	944.8	920.8	904.6	887.4	871.2	861.2	848.9	844.4	830.0	812.1
25°	918.0	887.4	861.7	840.5	816.6	797.6	783.7	767.0	755.8	741.9	719.6
27.5°	861.2	829.4	800.4	777.0	751.9	725.7	700.1	680.6	660.5	644.3	631.5
30°	799.9	767.0	731.3	704.0	675.0	642.1	620.9	594.7	579.1	561.3	544.6
32.5°	719.6	690.6	648.8	617.0	581.4	555.7	538.4	513.4	495.0	479.9	470.4
35°	631.5	588.0	546.2	522.3	497.7	477.1	453.2	433.6	421.4	405.8	397.4
37.5°	535.7	484.9	449.3	428.1	403.0	393.0	377.9	366.2	355.1	344.5	337.8
40°	449.8	403.0	370.7	352.8	336.1	325.0	315.5	310.5	303.2	294.9	289.8
42.5°	378.5	341.1	309.4	292.6	279.8	278.7	272.6	268.7	265.9	260.9	253.1
45°	322.7	288.7	261.4	248.0	242.5	243.0	243.0	239.7	239.7	238.0	233.0
47.5°	285.4	254.7	234.7	225.7	223.5	224.1	222.4	221.3	221.8	221.3	218.5
50°	256.4	230.2	213.5	210.1	209.6	209.0	206.8	205.1	204.6	205.7	205.1
52.5°	226.9	205.1	195.6	194.5	195.1	195.1	194.5	194.0	195.1	196.2	194.5
55°	210.1	194.5	188.4	188.4	188.4	188.4	187.8	187.3	189.0	190.6	187.8
57.5°	194.5	183.4	181.2	181.2	181.2	180.0	180.0	180.6	182.8	186.2	182.8
60°	182.8	177.2	177.2	177.8	177.2	175.0	173.3	173.3	176.1	180.6	177.8
62.5°	171.7	168.9	170.0	169.4	168.3	165.5	163.3	163.3	166.7	171.1	172.2
63°	168.9	166.7	167.8	167.2	166.1	163.9	161.6	161.6	164.4	168.9	170.6
65°	156.6	157.2	157.7	158.3	157.7	157.2	154.4	153.3	155.5	158.9	161.1
67.5°	142.1	143.2	144.4	147.2	146.0	146.0	144.4	143.2	143.8	145.5	147.2
70°	128.8	129.9	131.5	132.7	133.2	133.8	132.7	131.0	131.5	132.1	133.2
72.5°	115.9	117.1	118.2	120.4	120.4	120.4	119.3	118.2	118.7	119.8	121.0
75°	104.2	104.8	105.9	107.6	108.1	107.0	107.0	105.9	106.5	108.1	109.2
77.5°	92.5	91.4	92.0	93.1	94.8	94.8	95.3	94.8	95.9	97.0	98.1
80°	79.1	78.0	76.9	77.5	79.7	82.5	85.3	85.3	87.0	87.5	89.2
82.5°	63.0	61.9	61.3	63.0	62.4	66.3	72.5	75.8	78.0	80.3	81.4
85°	49.1	46.3	47.4	47.4	46.3	52.4	58.0	62.4	63.0	66.3	66.9
87.5°	29.0	27.9	26.8	25.6	29.5	35.7	40.7	42.4	43.5	45.1	46.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: VPL-F04-LED-E1-CPL-8030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9
2.5°	929.7	934.2	933.1	932.5	933.1	932.5	930.8	931.4	930.3	930.8	929.7
5°	947.6	949.8	948.1	945.3	945.3	941.4	938.6	936.4	933.6	932.5	930.3
7.5°	964.8	963.2	960.9	955.9	953.1	948.1	944.2	939.8	937.0	933.6	929.7
10°	975.4	972.1	967.6	961.5	953.7	949.2	943.7	937.0	933.6	932.0	928.1
12.5°	980.4	971.5	964.3	953.1	942.0	933.6	927.5	920.8	919.1	916.9	914.1
15°	968.7	955.9	937.5	922.5	908.0	896.3	891.3	884.0	882.3	881.8	881.2
17.5°	929.2	909.7	891.8	871.8	858.9	848.3	843.9	842.2	839.4	838.3	838.9
20°	865.6	848.9	831.1	824.4	809.3	806.5	799.9	795.4	790.4	788.7	785.9
22.5°	791.5	770.9	759.7	754.7	748.6	734.1	730.7	726.3	719.6	714.6	713.5
25°	705.1	688.4	687.8	676.1	671.1	663.3	654.4	648.8	644.9	638.8	634.3
27.5°	617.0	610.9	600.3	591.4	588.0	583.6	570.2	567.4	563.0	557.9	552.9
30°	535.1	530.6	520.6	512.2	507.2	498.3	485.5	486.6	477.7	471.0	466.5
32.5°	455.4	452.0	442.6	440.3	424.2	419.7	406.3	396.3	387.4	380.7	375.1
35°	383.5	374.6	375.1	365.1	356.2	342.8	328.9	316.0	308.8	305.4	300.4
37.5°	331.6	323.3	314.9	303.8	293.7	284.3	275.9	272.0	267.5	268.7	269.2
40°	284.8	278.7	272.6	264.8	258.6	254.7	252.5	252.5	253.1	255.8	258.1
42.5°	251.4	246.4	243.0	240.2	241.3	241.3	243.0	245.8	248.6	252.5	254.7
45°	229.1	226.3	225.2	226.3	229.6	232.4	236.3	240.8	245.3	249.2	250.8
47.5°	215.7	214.0	214.0	216.8	221.8	226.3	232.4	236.9	241.9	245.3	246.4
50°	201.2	200.7	200.7	202.9	207.3	212.9	219.1	223.5	228.0	230.8	231.9
52.5°	192.9	191.2	190.6	193.4	197.3	202.9	209.0	213.5	216.8	219.1	219.6
55°	185.6	183.9	182.8	186.2	190.6	195.6	202.9	207.9	211.3	214.0	216.3
57.5°	179.5	177.8	176.7	180.6	185.1	191.2	197.3	202.9	207.3	210.7	212.9
60°	174.5	172.2	171.1	175.6	180.0	186.2	192.3	198.4	204.6	208.5	209.6
62.5°	168.3	166.7	165.0	167.8	170.0	174.5	180.0	186.2	191.7	195.6	195.6
63°	166.7	166.1	163.9	166.1	168.3	172.2	177.8	183.4	189.0	193.4	192.9
65°	159.4	159.4	158.3	160.5	162.8	166.7	171.1	177.2	182.3	185.6	186.2
67.5°	147.7	148.3	149.4	151.6	156.1	160.0	165.0	170.6	175.0	177.2	178.4
70°	134.3	135.4	137.7	141.0	144.9	148.3	151.6	157.2	161.1	163.3	164.4
72.5°	121.5	124.3	126.0	128.8	131.0	134.3	137.1	142.7	146.0	147.7	150.5
75°	109.8	112.0	113.1	114.8	117.1	118.2	121.5	123.7	128.2	130.4	133.8
77.5°	98.7	99.8	101.4	104.2	104.8	106.5	107.6	110.9	113.1	115.4	118.2
80°	88.6	89.7	92.0	93.6	94.2	95.3	95.9	95.3	94.8	93.1	95.3
82.5°	79.7	80.8	83.6	85.3	87.0	87.0	86.4	80.3	77.5	78.6	80.3
85°	65.8	66.9	69.7	73.0	73.6	73.0	73.6	67.4	63.5	61.9	63.5
87.5°	41.2	40.1	49.6	54.1	50.7	51.8	52.4	49.1	45.7	39.0	40.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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 CATALOG NUMBER: VPL-F04-LED-E1-CPL-8030

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	921.9	0°
2.5°	930.8	926.9	927.5	928.6	928.6	930.3	928.1	925.3	926.9	924.2	923.6	2.5°
5°	930.3	925.3	925.3	926.4	925.3	926.4	924.7	921.9	923.6	920.2	919.7	5°
7.5°	928.1	925.3	926.4	927.5	925.8	926.4	925.8	921.9	922.5	920.8	916.9	7.5°
10°	926.9	925.3	927.5	930.8	930.8	931.4	929.7	925.3	922.5	920.8	917.5	10°
12.5°	915.2	917.5	921.9	929.7	932.5	937.0	939.2	937.0	938.1	935.9	934.7	12.5°
15°	881.8	887.4	894.6	906.3	914.7	924.7	937.0	942.5	953.1	961.5	967.1	15°
17.5°	841.7	845.6	853.4	866.7	877.3	897.4	914.1	933.1	953.7	976.0	995.5	17.5°
20°	792.0	789.3	801.5	816.0	834.4	856.7	881.2	909.7	943.7	979.3	1013.3	20°
22.5°	719.0	719.0	731.9	749.1	771.4	797.1	831.1	861.7	906.3	958.2	1008.3	22.5°
25°	635.4	637.1	646.0	665.5	681.1	717.9	749.7	789.3	842.8	899.6	966.5	25°
27.5°	546.2	557.4	555.2	575.8	596.4	632.6	676.1	716.2	775.9	836.6	913.0	27.5°
30°	465.4	463.7	463.2	487.7	508.3	541.2	576.9	627.6	687.8	765.9	853.9	30°
32.5°	365.1	371.2	375.7	390.2	412.5	443.1	481.6	534.5	607.0	685.6	784.8	32.5°
35°	301.5	303.2	309.4	317.7	337.2	362.9	403.0	449.8	513.4	594.7	700.1	35°
37.5°	270.3	272.0	278.7	286.5	300.4	319.4	346.7	382.9	441.5	517.3	615.4	37.5°
40°	260.3	262.0	265.9	273.1	285.9	302.1	323.8	351.7	394.1	453.2	539.0	40°
42.5°	255.8	255.8	256.4	262.0	274.8	293.7	317.2	342.2	373.5	418.0	487.7	42.5°
45°	250.8	250.8	250.3	254.2	264.2	285.9	314.4	345.0	379.0	417.5	472.1	45°
47.5°	246.4	245.3	244.1	245.8	254.2	276.5	309.4	346.7	390.2	438.1	493.3	47.5°
50°	230.8	230.8	230.2	230.8	238.6	262.0	299.9	345.0	400.2	462.1	529.0	50°
52.5°	219.6	220.2	220.7	220.7	226.9	250.8	292.6	345.6	411.4	485.5	570.2	52.5°
55°	216.8	217.9	217.9	216.8	221.8	243.6	285.9	343.9	419.2	511.7	614.2	55°
57.5°	213.5	214.0	214.6	213.5	216.8	235.8	276.5	336.1	416.9	521.7	647.1	57.5°
60°	209.0	206.8	206.2	204.6	206.8	221.8	259.7	319.4	403.5	517.3	658.3	60°
62.5°	196.8	195.1	193.4	191.7	193.4	204.6	241.3	298.8	381.3	499.4	649.4	62.5°
63°	194.0	192.9	191.2	189.5	189.5	201.8	235.2	293.7	375.7	494.4	646.0	63°
65°	186.2	185.6	184.5	182.8	182.3	191.7	221.3	270.9	349.5	472.1	624.8	65°
67.5°	177.2	177.2	176.7	174.5	171.7	177.2	197.9	236.9	303.8	414.7	572.4	67.5°
70°	164.4	164.4	163.9	162.8	159.4	163.3	176.7	202.3	250.3	338.9	479.9	70°
72.5°	151.6	151.6	153.3	152.7	153.3	153.8	160.5	174.5	203.4	263.6	362.9	72.5°
75°	134.9	137.7	138.2	139.3	139.9	139.3	142.7	151.1	167.8	202.3	264.8	75°
77.5°	121.0	124.9	124.3	123.2	122.6	123.2	122.6	126.5	138.8	160.5	196.2	77.5°
80°	99.8	103.7	103.7	103.1	102.0	103.1	102.0	105.9	115.9	134.9	156.1	80°
82.5°	81.9	84.7	86.4	87.5	86.4	90.9	90.9	89.7	97.5	114.3	131.5	82.5°
85°	65.8	68.6	70.2	72.5	73.6	72.5	71.9	70.8	75.2	88.6	100.3	85°
87.5°	41.8	44.0	44.0	44.6	44.6	46.3	42.9	39.0	35.7	50.7	53.0	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P145933

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DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
921.9	921.9	921.9	921.9	921.9	921.9	921.9
921.9	921.9	922.5	920.8	922.5	922.5	920.8
918.0	916.9	916.9	916.3	917.5	916.9	916.3
914.7	914.7	912.4	910.8	910.2	912.4	911.3
913.6	912.4	911.9	910.8	911.3	913.0	914.1
933.6	929.7	930.8	930.3	930.8	932.5	935.9
970.4	970.4	973.2	967.1	969.9	972.6	977.1
1011.7	1021.7	1026.7	1026.2	1027.3	1029.5	1034.5
1046.8	1078.5	1100.8	1106.4	1121.5	1124.8	1117.0
1062.4	1119.2	1169.4	1202.8	1240.2	1255.2	1259.7
1030.6	1112.5	1195.0	1272.0	1345.5	1387.9	1425.2
997.7	1094.7	1204.5	1319.3	1439.2	1547.3	1628.1
952.0	1080.2	1228.5	1383.4	1542.3	1692.8	1827.7
901.9	1056.8	1230.7	1419.1	1615.3	1802.6	1965.9
830.0	1002.2	1195.0	1413.5	1641.0	1875.6	2079.6
747.5	915.2	1131.5	1381.2	1639.3	1913.0	2157.7
659.4	831.1	1058.5	1326.0	1617.5	1924.7	2212.3
593.1	763.1	986.0	1273.6	1585.2	1916.9	2238.5
559.1	704.5	926.9	1222.4	1549.0	1897.9	2249.6
565.7	688.9	891.8	1180.0	1516.7	1877.3	2246.8
603.1	712.3	891.3	1164.4	1496.0	1858.3	2239.0
659.4	765.3	923.6	1182.8	1507.2	1856.7	2238.5
722.9	839.4	1001.6	1232.4	1554.6	1886.8	2251.8
784.2	929.7	1102.0	1343.3	1644.3	1962.0	2305.9
820.5	1012.2	1230.7	1499.9	1782.5	2094.1	2424.6
828.8	1061.8	1345.0	1653.8	1972.0	2285.3	2609.7
828.3	1066.8	1364.5	1685.5	2010.5	2329.3	2657.1
815.5	1076.9	1416.9	1790.3	2164.9	2518.3	2854.9
775.3	1059.0	1445.9	1887.9	2318.2	2726.7	3152.6
683.4	977.7	1411.9	1919.6	2409.6	2865.0	3351.0
535.1	806.5	1219.0	1754.7	2285.8	2741.2	3356.0
376.2	570.2	938.1	1440.8	1868.4	2316.5	2997.6
262.0	369.5	609.2	969.3	1348.3	1690.0	2228.4
191.7	245.8	365.1	579.7	818.2	1056.3	1382.9
147.7	177.2	233.5	350.0	462.1	591.4	833.9
103.7	117.1	144.4	216.3	309.9	423.1	610.9
45.1	53.0	69.7	127.6	209.6	201.8	192.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)