

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: P145936

Luminaire Tested: **VPL-F04-LED-E1-CPL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P145936
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-7050
Description: VALET LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - 90° FORWARD THROW PERIMETER LEFT
Light Source: (28) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9126.2 lumens
Efficiency: N/A
Efficacy: 89.3 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

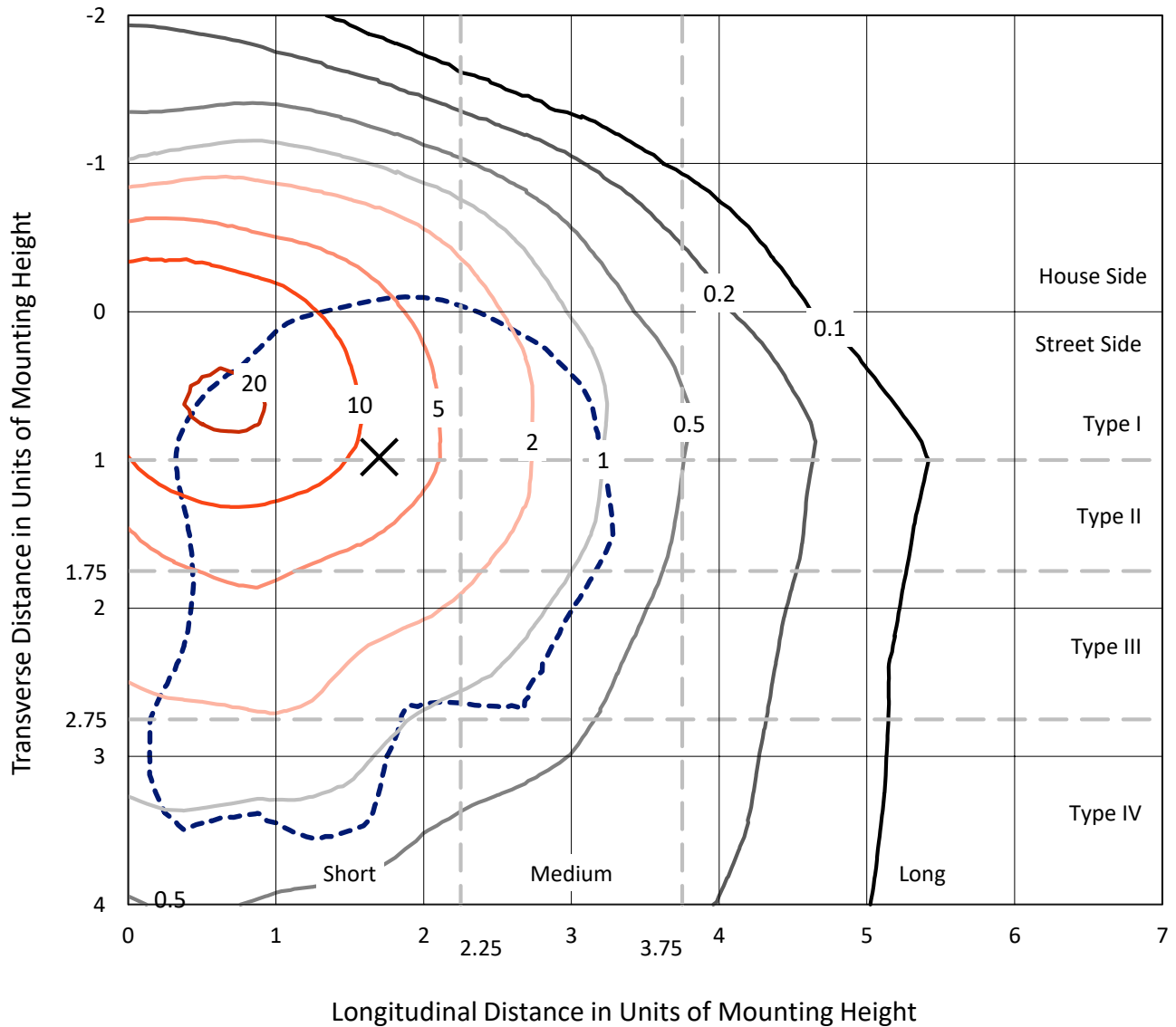
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

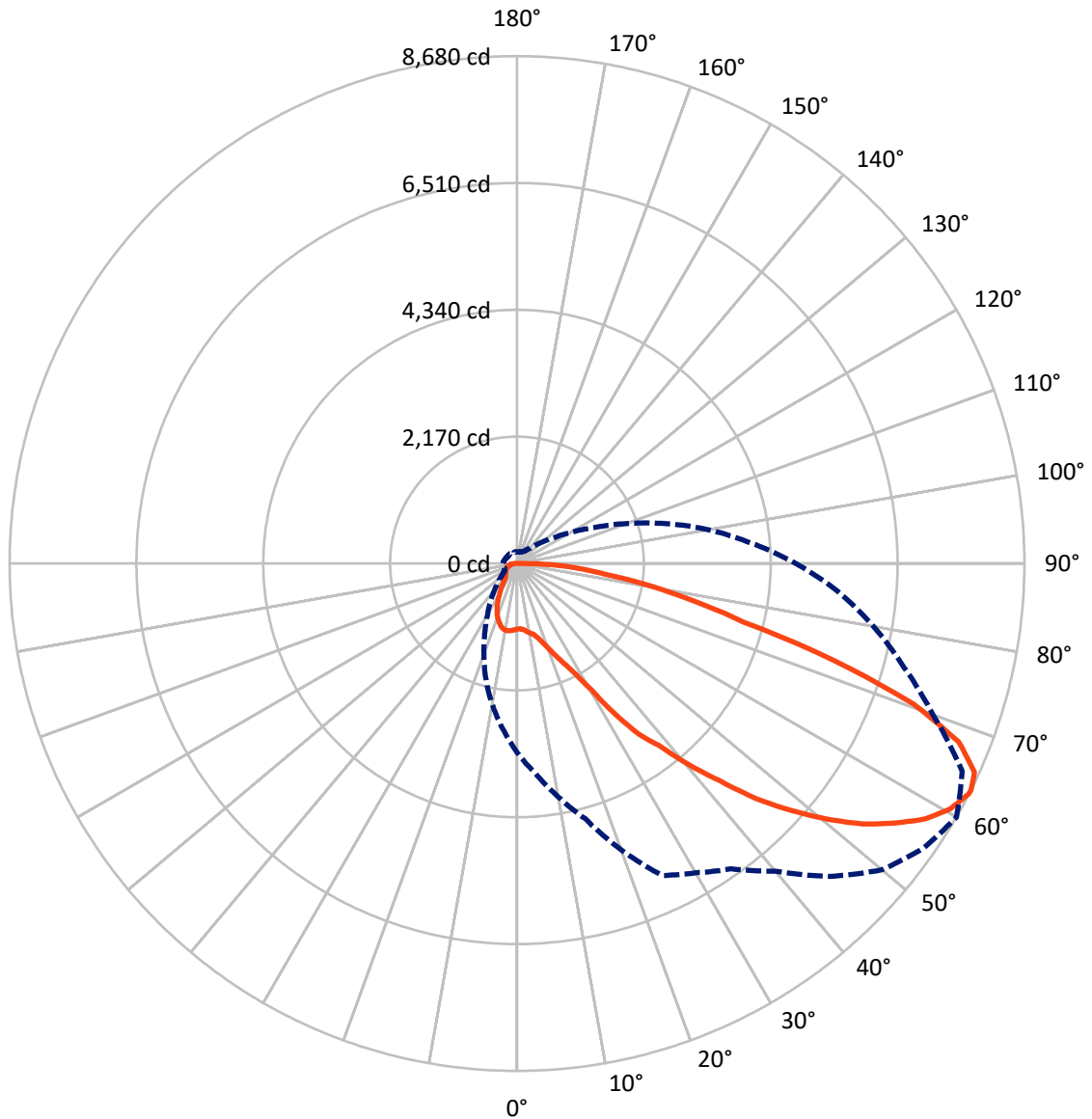
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 22.7 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	1910.4	0.0	1910.4
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	7215.8	0.0	7215.8
	% Fixture	79.1	0.0	79.1
Total	Lumens	9126.2	0.0	9126.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	1.2
10°-20°	343.6	3.8
20°-30°	607.6	6.7
30°-40°	959.2	10.5
40°-50°	1410.5	15.5
50°-60°	1858.0	20.4
60°-70°	2070.9	22.7
70°-80°	1360.6	14.9
80°-90°	405.8	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°	9126.2	100.0
0°-180°	9126.2	100.0

Coefficient of Utilization



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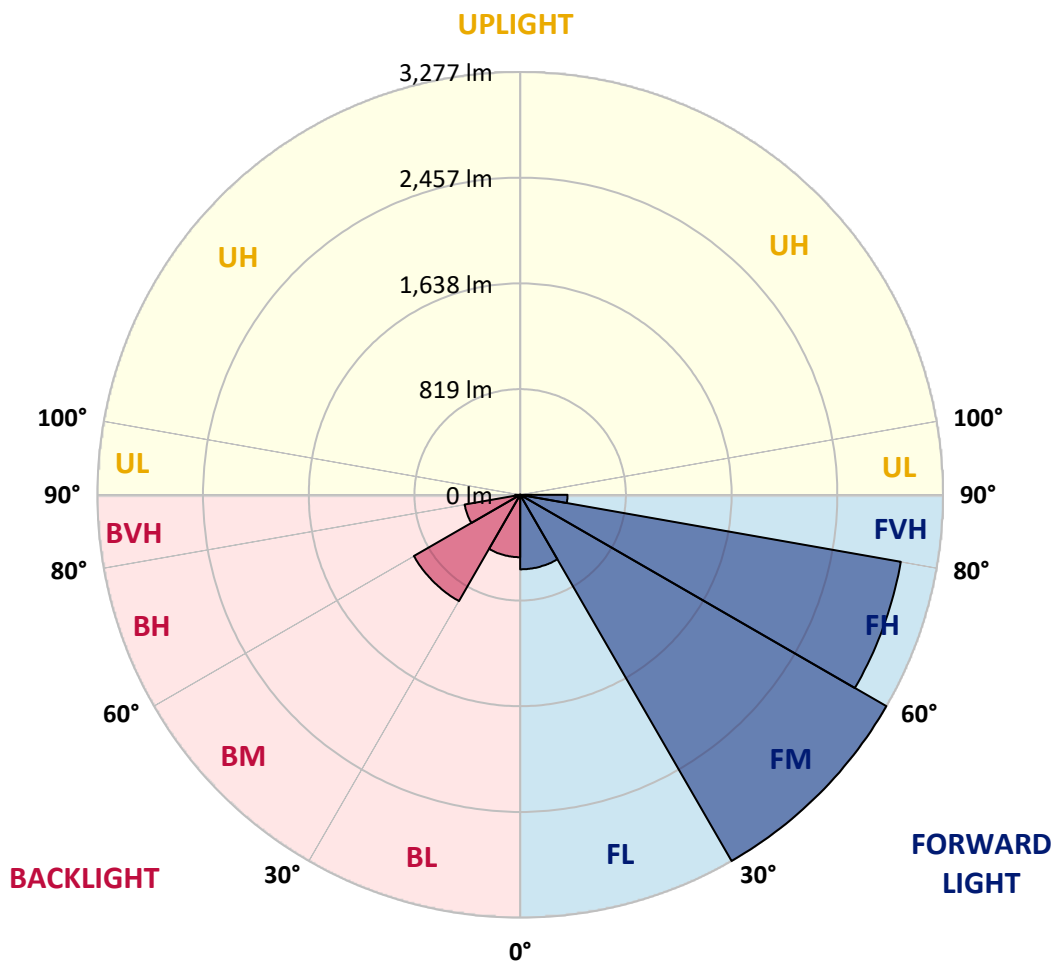
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	577.6	6.3			
FM	(30°-60°)	3276.5	35.9			
FH	(60°-80°)	2994.9	32.8			G2/5000
FVH	(80°-90°)	366.7	4.0			G3/500
BL	(0°-30°)	483.6	5.3	B1/500		
BM	(30°-60°)	951.1	10.4	B1/1000		
BH	(60°-80°)	436.6	4.8	B1/500		G1/500
BVH	(80°-90°)	39.0	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°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
2.5°	1119.5	1120.2	1118.1	1117.5	1116.1	1116.8	1116.8	1115.4	1115.4	1116.1	1114.1
5°	1114.1	1115.4	1114.8	1116.1	1117.5	1119.5	1121.5	1123.6	1125.6	1128.3	1129.0
7.5°	1108.0	1112.0	1112.7	1116.8	1121.5	1126.9	1133.7	1141.2	1151.3	1154.1	1160.2
10°	1111.4	1118.8	1122.9	1131.0	1138.5	1148.6	1160.8	1168.3	1181.2	1185.9	1194.7
12.5°	1137.8	1143.2	1148.6	1158.1	1169.0	1181.8	1195.4	1206.9	1220.5	1225.2	1228.6
15°	1187.9	1193.4	1199.5	1208.9	1220.5	1236.1	1255.7	1269.9	1286.2	1298.4	1307.2
17.5°	1257.7	1257.7	1272.0	1274.7	1297.0	1320.8	1345.2	1372.9	1389.9	1400.0	1416.3
20°	1358.0	1358.0	1377.0	1385.8	1404.8	1435.3	1468.5	1499.0	1523.4	1543.7	1558.6
22.5°	1531.5	1524.1	1540.3	1538.3	1561.3	1606.7	1639.3	1656.2	1688.7	1700.9	1720.6
25°	1732.8	1759.2	1776.8	1776.8	1786.3	1833.1	1860.2	1873.1	1902.9	1894.1	1914.4
27.5°	1979.4	2050.6	2116.3	2143.4	2130.6	2182.1	2191.6	2203.8	2200.4	2179.4	2173.3
30°	2222.0	2347.4	2449.7	2512.1	2583.9	2683.5	2683.5	2699.8	2664.6	2606.3	2571.7
32.5°	2390.1	2551.4	2707.9	2837.4	2959.3	3111.8	3176.2	3265.6	3280.6	3302.9	3225.7
35°	2528.4	2754.7	2922.7	3117.2	3266.3	3420.8	3592.3	3747.5	3850.5	3833.5	3803.0
37.5°	2623.2	2913.9	3148.4	3376.8	3603.8	3780.7	3943.3	4145.9	4343.1	4382.4	4299.8
40°	2689.6	3026.4	3349.0	3629.5	3914.8	4180.5	4378.4	4595.9	4904.9	5035.7	4967.9
42.5°	2721.5	3114.5	3474.4	3831.5	4192.7	4528.1	4776.2	5074.3	5440.9	5664.6	5590.0
45°	2735.0	3168.7	3576.0	3982.6	4416.3	4830.4	5150.2	5488.4	5901.1	6260.2	6273.8
47.5°	2731.6	3197.9	3645.8	4090.4	4591.8	5073.6	5502.6	5886.2	6353.7	6731.2	6871.5
50°	2722.2	3208.0	3687.8	4155.4	4702.3	5251.9	5735.0	6191.1	6713.6	7191.3	7404.8
52.5°	2721.5	3210.1	3708.8	4191.3	4767.3	5361.0	5880.7	6419.5	6992.1	7491.5	7824.3
55°	2737.7	3222.3	3731.9	4216.4	4802.6	5422.6	5962.7	6562.5	7113.4	7680.6	8110.2
57.5°	2803.5	3279.2	3786.8	4259.1	4841.9	5471.4	6026.4	6603.8	7149.3	7759.2	8276.3
60°	2947.8	3385.6	3882.3	4337.7	4944.2	5599.5	6086.7	6545.5	7081.6	7736.8	8300.0
62.5°	3172.8	3556.4	4015.8	4482.7	5152.3	5842.8	6111.8	6412.0	6914.2	7608.1	8197.7
63°	3230.4	3601.8	4051.1	4522.7	5212.6	5888.9	6109.8	6376.8	6868.1	7570.1	8151.6
65°	3471.0	3811.8	4215.0	4713.8	5487.0	6035.2	6035.9	6169.4	6632.9	7360.7	7962.5
67.5°	3832.8	4158.1	4469.8	4965.9	5790.6	6108.4	5817.0	5716.1	6126.1	6917.6	7482.7
70°	4074.1	4475.9	4650.8	5032.3	5831.9	6019.7	5470.8	5134.0	5474.1	6135.5	6637.7
72.5°	4080.2	4538.3	4589.1	4749.0	5445.0	5595.4	4874.4	4418.3	4623.0	5178.0	5442.3
75°	3644.5	4220.5	4116.1	4057.2	4433.9	4498.3	3942.6	3752.9	4015.1	4343.1	4211.0
77.5°	2709.3	3475.0	3262.9	3012.2	3149.1	3158.6	3176.2	3534.0	3855.9	3990.1	3797.6
80°	1681.3	2552.7	2390.1	1976.7	2029.6	2185.5	2653.0	3285.3	3637.7	3733.9	3349.0
82.5°	1013.8	1877.8	1791.1	1508.5	1574.9	1963.2	2480.2	2655.1	2773.7	2764.9	2367.1
85°	742.7	1275.4	1393.3	1414.3	1650.1	1906.3	1895.4	1766.0	1693.5	1490.2	1272.0
87.5°	233.8	658.0	780.7	910.1	996.8	943.3	927.7	801.7	574.0	485.2	533.3
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°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
2.5°	1114.1	1116.8	1118.1	1117.5	1118.1	1118.1	1122.2	1120.9	1122.2	1121.5	1125.6
5°	1131.0	1135.1	1138.5	1138.5	1139.1	1140.5	1145.9	1145.9	1148.6	1154.1	1156.8
7.5°	1164.2	1169.6	1170.3	1171.7	1175.7	1173.7	1177.1	1178.5	1180.5	1183.2	1186.6
10°	1198.8	1206.2	1206.2	1205.6	1206.2	1200.8	1202.8	1198.8	1199.5	1203.5	1207.6
12.5°	1237.4	1241.5	1238.8	1236.7	1236.7	1226.6	1225.2	1219.8	1217.1	1217.8	1219.1
15°	1314.7	1311.3	1310.6	1307.2	1295.0	1287.6	1282.1	1265.2	1256.4	1251.6	1243.5
17.5°	1417.7	1419.7	1416.3	1412.9	1395.3	1370.2	1359.4	1341.1	1328.9	1316.7	1301.8
20°	1568.1	1554.6	1553.2	1542.4	1518.0	1482.7	1456.3	1426.5	1409.5	1391.9	1376.3
22.5°	1734.1	1719.9	1710.4	1689.4	1653.5	1608.8	1564.7	1526.8	1501.0	1488.1	1477.3
25°	1918.5	1910.3	1894.7	1841.2	1812.7	1761.2	1713.1	1675.9	1646.7	1635.9	1616.9
27.5°	2139.4	2145.5	2116.3	2066.2	2030.3	1957.8	1916.4	1852.0	1827.7	1788.3	1764.0
30°	2541.9	2502.6	2453.1	2376.6	2304.0	2206.5	2138.0	2070.9	2035.0	1982.2	1917.1
32.5°	3199.9	3050.1	2917.3	2754.7	2600.9	2476.2	2377.2	2292.5	2237.6	2150.2	2039.8
35°	3730.5	3586.2	3366.6	3130.1	2928.2	2768.2	2643.6	2563.6	2453.8	2314.2	2154.3
37.5°	4119.5	3953.5	3748.1	3567.2	3347.0	3168.7	3000.0	2834.0	2679.5	2468.0	2264.1
40°	4751.1	4526.1	4187.9	3974.5	3794.2	3553.0	3395.1	3171.5	2936.3	2663.9	2368.4
42.5°	5375.9	5077.7	4771.4	4526.1	4269.9	4008.4	3791.5	3491.3	3178.9	2825.8	2461.9
45°	6101.7	5736.4	5335.9	4993.0	4730.1	4422.4	4144.6	3775.9	3377.5	2958.7	2543.3
47.5°	6673.6	6311.7	5859.7	5514.1	5159.7	4812.7	4452.2	3997.5	3525.2	3067.1	2619.2
50°	7221.8	6872.8	6392.4	5968.2	5560.9	5142.1	4706.4	4154.7	3641.1	3151.8	2679.5
52.5°	7713.8	7403.4	6884.4	6377.5	5922.1	5439.6	4899.5	4301.8	3752.2	3239.2	2726.9
55°	8130.6	7839.9	7374.3	6743.4	6226.3	5692.3	5081.8	4436.0	3869.4	3330.7	2761.5
57.5°	8410.4	8242.4	7745.0	7065.3	6476.4	5907.8	5219.3	4570.8	3979.2	3387.6	2776.4
60°	8540.6	8518.2	8097.4	7356.0	6698.7	6075.9	5392.8	4713.8	4051.7	3413.4	2755.4
62.5°	8513.4	8673.4	8365.7	7555.2	6840.3	6180.9	5504.0	4775.5	4033.4	3351.0	2662.5
63°	8488.4	8680.2	8403.7	7574.9	6851.8	6191.1	5514.8	4768.0	4016.5	3323.2	2630.7
65°	8304.7	8600.2	8413.2	7539.7	6799.0	6162.0	5466.0	4650.8	3847.8	3148.4	2450.4
67.5°	7854.8	8150.9	8047.2	7151.4	6456.7	5848.9	5125.1	4251.6	3434.4	2777.1	2116.3
70°	6925.7	7190.7	7066.6	6278.5	5633.4	5202.4	4514.6	3536.0	2798.1	2232.2	1610.8
72.5°	5478.2	5664.6	5691.7	5065.5	4571.5	4312.6	3637.0	2667.3	2043.8	1554.6	1045.6
75°	4056.5	4013.1	4021.9	3672.2	3471.0	3361.9	2718.8	1829.7	1377.0	950.1	620.1
77.5°	3409.3	3097.6	2831.9	2735.0	2500.6	2432.8	1793.1	1122.9	803.7	568.6	353.1
80°	2772.3	2300.0	1913.7	1742.3	1650.8	1664.3	992.1	598.4	420.8	309.7	220.9
82.5°	1895.4	1536.3	1211.7	1052.4	1036.1	1051.7	515.7	293.4	222.3	178.2	138.9
85°	1120.9	1055.1	941.9	836.2	799.6	754.9	383.6	210.1	114.5	94.9	77.9
87.5°	484.5	595.0	609.2	606.5	564.5	453.4	141.0	54.2	48.1	24.4	19.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
2.5°	1125.6	1126.3	1124.9	1126.3	1131.0	1131.0	1130.3	1131.7	1132.4	1136.4	1135.1
5°	1159.5	1160.2	1160.8	1165.6	1169.0	1173.0	1171.7	1173.0	1175.7	1176.4	1177.8
7.5°	1190.6	1194.7	1200.1	1202.2	1208.3	1209.6	1215.7	1216.4	1217.8	1215.0	1212.3
10°	1212.3	1216.4	1223.2	1226.6	1237.4	1238.8	1243.5	1244.9	1247.6	1245.5	1243.5
12.5°	1223.2	1226.6	1234.0	1240.8	1255.7	1260.4	1268.6	1273.3	1276.7	1274.7	1267.9
15°	1245.5	1244.9	1248.9	1254.3	1267.9	1276.7	1288.2	1294.3	1298.4	1295.0	1286.2
17.5°	1297.0	1287.6	1287.6	1284.2	1294.3	1296.4	1301.1	1304.5	1303.1	1293.0	1278.7
20°	1368.2	1354.0	1345.2	1337.0	1333.6	1316.7	1307.9	1295.7	1284.8	1266.5	1250.3
22.5°	1460.4	1450.2	1429.9	1411.6	1385.8	1351.3	1314.0	1282.1	1258.4	1233.3	1205.6
25°	1600.0	1576.9	1547.8	1504.4	1471.2	1410.2	1347.9	1287.6	1236.7	1197.4	1150.7
27.5°	1731.4	1682.6	1627.7	1560.0	1499.0	1417.7	1338.4	1268.6	1202.2	1139.1	1085.6
30°	1841.2	1756.5	1667.0	1572.2	1485.4	1387.2	1295.0	1215.7	1140.5	1066.0	1015.1
32.5°	1923.9	1801.9	1682.6	1561.3	1454.3	1339.1	1233.3	1148.6	1063.2	984.6	925.7
35°	1998.4	1833.7	1677.9	1532.2	1405.5	1278.1	1164.2	1069.3	975.8	891.8	824.0
37.5°	2052.0	1844.6	1657.6	1490.2	1343.1	1203.5	1080.2	979.2	878.9	793.5	719.0
40°	2093.3	1839.2	1618.9	1425.8	1257.7	1112.7	992.1	886.4	786.1	700.7	622.8
42.5°	2121.1	1818.8	1560.7	1352.6	1186.6	1034.8	916.9	805.7	705.4	616.0	529.9
45°	2157.0	1810.7	1524.7	1297.7	1122.2	969.1	843.0	734.6	630.2	536.7	454.7
47.5°	2190.9	1806.0	1495.6	1252.3	1063.9	909.4	784.7	670.9	565.8	474.4	399.8
50°	2211.2	1798.5	1465.1	1197.4	998.9	848.4	729.2	614.0	508.2	420.8	354.4
52.5°	2217.3	1783.6	1425.1	1135.1	942.6	796.3	672.2	557.0	455.4	376.8	315.1
55°	2212.6	1754.5	1370.9	1084.3	885.0	738.6	614.6	502.8	410.7	336.8	287.3
57.5°	2189.5	1696.2	1301.1	1019.9	819.3	666.1	544.2	441.8	359.8	300.9	262.9
60°	2138.0	1612.2	1215.7	929.8	725.1	580.1	464.9	376.8	307.7	265.0	239.9
62.5°	2025.5	1490.9	1091.7	802.4	599.1	465.6	365.3	300.2	253.4	231.1	216.2
63°	1992.3	1448.8	1055.1	768.5	577.4	439.8	342.9	283.9	241.9	223.6	211.4
65°	1817.5	1255.0	891.8	618.0	447.3	333.4	261.6	223.0	200.6	193.8	190.4
67.5°	1489.5	976.5	627.5	414.7	300.2	230.4	193.1	178.2	170.1	169.4	171.4
70°	1052.4	647.8	388.3	265.6	206.7	174.2	159.9	153.2	149.1	150.4	154.5
72.5°	684.4	380.2	245.3	194.5	168.1	153.2	143.0	141.0	139.6	138.2	139.6
75°	361.9	237.9	185.7	162.6	147.1	134.9	128.1	125.4	126.0	126.0	126.0
77.5°	224.3	180.9	158.6	143.7	131.5	119.3	112.5	110.5	111.1	112.5	113.2
80°	172.1	157.9	139.6	128.8	111.1	101.0	97.6	96.9	98.3	98.3	100.3
82.5°	126.0	122.0	115.2	101.6	88.1	81.3	80.6	83.4	80.6	80.0	81.3
85°	73.9	69.1	75.2	64.4	59.0	54.9	57.6	63.0	65.7	62.3	61.0
87.5°	23.7	16.3	23.7	26.4	23.7	20.3	25.8	30.5	31.2	29.8	33.9
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: P145936

CATALOG NUMBER: VPL-F04-LED-E1-CPL-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
2.5°	1134.4	1139.1	1134.4	1136.4	1135.8	1134.4	1136.4	1133.7	1132.4	1136.4	1135.8
5°	1177.1	1177.8	1171.7	1172.4	1171.7	1166.3	1166.3	1163.5	1160.2	1160.8	1159.5
7.5°	1211.7	1210.3	1205.6	1203.5	1197.4	1193.4	1190.6	1186.6	1183.9	1181.2	1179.8
10°	1238.1	1234.7	1231.3	1225.2	1219.1	1215.7	1208.3	1202.2	1200.1	1196.1	1193.4
12.5°	1261.1	1255.0	1249.6	1242.2	1234.7	1229.3	1220.5	1215.7	1212.3	1206.9	1202.8
15°	1274.0	1262.5	1252.3	1240.8	1232.7	1224.5	1214.4	1212.3	1207.6	1202.2	1194.7
17.5°	1258.4	1242.2	1223.2	1211.0	1198.8	1186.6	1176.4	1176.4	1174.4	1168.3	1155.4
20°	1226.6	1202.2	1179.8	1160.2	1148.0	1130.3	1124.2	1114.8	1108.0	1097.1	1080.9
22.5°	1174.4	1148.6	1119.5	1099.8	1078.8	1059.2	1047.0	1032.1	1026.7	1009.0	987.4
25°	1116.1	1078.8	1047.7	1021.9	992.8	969.7	952.8	932.5	918.9	902.0	874.9
27.5°	1047.0	1008.4	973.1	944.7	914.2	882.3	851.1	827.4	803.0	783.4	767.8
30°	972.4	932.5	889.1	855.9	820.6	780.7	754.9	723.1	704.1	682.4	662.1
32.5°	874.9	839.6	788.8	750.2	706.8	675.6	654.6	624.1	601.8	583.5	571.9
35°	767.8	714.9	664.1	635.0	605.2	580.1	550.9	527.2	512.3	493.3	483.2
37.5°	651.2	589.6	546.2	520.4	489.9	477.8	459.5	445.2	431.7	418.8	410.7
40°	546.9	489.9	450.6	429.0	408.6	395.1	383.6	377.5	368.6	358.5	352.4
42.5°	460.1	414.7	376.1	355.8	340.2	338.8	331.4	326.6	323.2	317.1	307.7
45°	392.4	351.0	317.8	301.6	294.8	295.5	295.5	291.4	291.4	289.4	283.3
47.5°	347.0	309.7	285.3	274.5	271.7	272.4	270.4	269.0	269.7	269.0	265.6
50°	311.7	279.9	259.5	255.5	254.8	254.1	251.4	249.4	248.7	250.1	249.4
52.5°	275.8	249.4	237.9	236.5	237.2	237.2	236.5	235.8	237.2	238.5	236.5
55°	255.5	236.5	229.0	229.0	229.0	229.0	228.4	227.7	229.7	231.8	228.4
57.5°	236.5	223.0	220.2	220.2	220.2	218.9	218.9	219.6	222.3	226.3	222.3
60°	222.3	215.5	215.5	216.2	215.5	212.8	210.8	210.8	214.1	219.6	216.2
62.5°	208.7	205.3	206.7	206.0	204.7	201.3	198.6	198.6	202.6	208.0	209.4
63°	205.3	202.6	204.0	203.3	201.9	199.2	196.5	196.5	199.9	205.3	207.4
65°	190.4	191.1	191.8	192.5	191.8	191.1	187.7	186.4	189.1	193.1	195.8
67.5°	172.8	174.2	175.5	178.9	177.5	177.5	175.5	174.2	174.8	176.9	178.9
70°	156.5	157.9	159.9	161.3	162.0	162.6	161.3	159.3	159.9	160.6	162.0
72.5°	141.0	142.3	143.7	146.4	146.4	146.4	145.0	143.7	144.3	145.7	147.1
75°	126.7	127.4	128.8	130.8	131.5	130.1	130.1	128.8	129.4	131.5	132.8
77.5°	112.5	111.1	111.8	113.2	115.2	115.2	115.9	115.2	116.6	117.9	119.3
80°	96.2	94.9	93.5	94.2	96.9	100.3	103.7	103.7	105.7	106.4	108.4
82.5°	76.6	75.2	74.5	76.6	75.9	80.6	88.1	92.2	94.9	97.6	98.9
85°	59.6	56.2	57.6	57.6	56.2	63.7	70.5	75.9	76.6	80.6	81.3
87.5°	35.2	33.9	32.5	31.2	35.9	43.4	49.5	51.5	52.9	54.9	56.9
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: P145936

CATALOG NUMBER: VPL-F04-LED-E1-CPL-7050

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
2.5°	1130.3	1135.8	1134.4	1133.7	1134.4	1133.7	1131.7	1132.4	1131.0	1131.7	1130.3
5°	1152.0	1154.7	1152.7	1149.3	1149.3	1144.6	1141.2	1138.5	1135.1	1133.7	1131.0
7.5°	1173.0	1171.0	1168.3	1162.2	1158.8	1152.7	1148.0	1142.5	1139.1	1135.1	1130.3
10°	1185.9	1181.8	1176.4	1169.0	1159.5	1154.1	1147.3	1139.1	1135.1	1133.0	1128.3
12.5°	1192.0	1181.2	1172.4	1158.8	1145.2	1135.1	1127.6	1119.5	1117.5	1114.8	1111.4
15°	1177.8	1162.2	1139.8	1121.5	1103.9	1089.7	1083.6	1074.8	1072.7	1072.1	1071.4
17.5°	1129.7	1105.9	1084.3	1059.9	1044.3	1031.4	1026.0	1023.9	1020.6	1019.2	1019.9
20°	1052.4	1032.1	1010.4	1002.3	984.0	980.6	972.4	967.0	960.9	958.9	955.5
22.5°	962.3	937.2	923.7	917.6	910.1	892.5	888.4	883.0	874.9	868.8	867.4
25°	857.2	836.9	836.2	822.0	815.9	806.4	795.6	788.8	784.1	776.6	771.2
27.5°	750.2	742.7	729.8	719.0	714.9	709.5	693.2	689.9	684.4	678.3	672.2
30°	650.6	645.1	632.9	622.8	616.7	605.8	590.2	591.6	580.8	572.6	567.2
32.5°	553.6	549.6	538.1	535.4	515.7	510.3	494.0	481.8	471.0	462.8	456.1
35°	466.2	455.4	456.1	443.9	433.0	416.8	399.8	384.2	375.4	371.4	365.3
37.5°	403.2	393.0	382.9	369.3	357.1	345.6	335.4	330.7	325.3	326.6	327.3
40°	346.3	338.8	331.4	321.9	314.4	309.7	307.0	307.0	307.7	311.0	313.8
42.5°	305.6	299.5	295.5	292.1	293.4	293.4	295.5	298.8	302.2	307.0	309.7
45°	278.5	275.1	273.8	275.1	279.2	282.6	287.3	292.7	298.2	302.9	304.9
47.5°	262.3	260.2	260.2	263.6	269.7	275.1	282.6	288.0	294.1	298.2	299.5
50°	244.6	244.0	244.0	246.7	252.1	258.9	266.3	271.7	277.2	280.6	281.9
52.5°	234.5	232.4	231.8	235.1	239.9	246.7	254.1	259.5	263.6	266.3	267.0
55°	225.7	223.6	222.3	226.3	231.8	237.9	246.7	252.8	256.8	260.2	262.9
57.5°	218.2	216.2	214.8	219.6	225.0	232.4	239.9	246.7	252.1	256.2	258.9
60°	212.1	209.4	208.0	213.5	218.9	226.3	233.8	241.2	248.7	253.4	254.8
62.5°	204.7	202.6	200.6	204.0	206.7	212.1	218.9	226.3	233.1	237.9	237.9
63°	202.6	201.9	199.2	201.9	204.7	209.4	216.2	223.0	229.7	235.1	234.5
65°	193.8	193.8	192.5	195.2	197.9	202.6	208.0	215.5	221.6	225.7	226.3
67.5°	179.6	180.3	181.6	184.3	189.7	194.5	200.6	207.4	212.8	215.5	216.9
70°	163.3	164.7	167.4	171.4	176.2	180.3	184.3	191.1	195.8	198.6	199.9
72.5°	147.7	151.1	153.2	156.5	159.3	163.3	166.7	173.5	177.5	179.6	183.0
75°	133.5	136.2	137.6	139.6	142.3	143.7	147.7	150.4	155.9	158.6	162.6
77.5°	119.9	121.3	123.3	126.7	127.4	129.4	130.8	134.9	137.6	140.3	143.7
80°	107.7	109.1	111.8	113.8	114.5	115.9	116.6	115.9	115.2	113.2	115.9
82.5°	96.9	98.3	101.6	103.7	105.7	105.7	105.0	97.6	94.2	95.6	97.6
85°	80.0	81.3	84.7	88.8	89.5	88.8	89.5	82.0	77.3	75.2	77.3
87.5°	50.1	48.8	60.3	65.7	61.7	63.0	63.7	59.6	55.6	47.4	49.5
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: P145936
 CATALOG NUMBER: VPL-F04-LED-E1-CPL-7050

REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	0°
2.5°	1131.7	1126.9	1127.6	1129.0	1129.0	1131.0	1128.3	1124.9	1126.9	1123.6	1122.9	2.5°
5°	1131.0	1124.9	1124.9	1126.3	1124.9	1126.3	1124.2	1120.9	1122.9	1118.8	1118.1	5°
7.5°	1128.3	1124.9	1126.3	1127.6	1125.6	1126.3	1125.6	1120.9	1121.5	1119.5	1114.8	7.5°
10°	1126.9	1124.9	1127.6	1131.7	1131.7	1132.4	1130.3	1124.9	1121.5	1119.5	1115.4	10°
12.5°	1112.7	1115.4	1120.9	1130.3	1133.7	1139.1	1141.9	1139.1	1140.5	1137.8	1136.4	12.5°
15°	1072.1	1078.8	1087.6	1101.9	1112.0	1124.2	1139.1	1145.9	1158.8	1169.0	1175.7	15°
17.5°	1023.3	1028.0	1037.5	1053.8	1066.6	1091.0	1111.4	1134.4	1159.5	1186.6	1210.3	17.5°
20°	963.0	959.6	974.5	992.1	1014.5	1041.6	1071.4	1105.9	1147.3	1190.6	1232.0	20°
22.5°	874.2	874.2	889.8	910.8	937.9	969.1	1010.4	1047.7	1101.9	1164.9	1225.9	22.5°
25°	772.5	774.6	785.4	809.1	828.1	872.8	911.5	959.6	1024.6	1093.7	1175.1	25°
27.5°	664.1	677.7	674.9	700.0	725.1	769.1	822.0	870.8	943.3	1017.2	1110.0	27.5°
30°	565.8	563.8	563.1	593.0	618.0	658.0	701.4	763.0	836.2	931.1	1038.2	30°
32.5°	443.9	451.3	456.7	474.4	501.5	538.7	585.5	649.9	738.0	833.5	954.1	32.5°
35°	366.6	368.6	376.1	386.3	410.0	441.2	489.9	546.9	624.1	723.1	851.1	35°
37.5°	328.7	330.7	338.8	348.3	365.3	388.3	421.5	465.6	536.7	628.9	748.1	37.5°
40°	316.5	318.5	323.2	332.1	347.6	367.3	393.7	427.6	479.1	550.9	655.3	40°
42.5°	311.0	311.0	311.7	318.5	334.1	357.1	385.6	416.1	454.0	508.2	593.0	42.5°
45°	304.9	304.9	304.3	309.0	321.2	347.6	382.2	419.5	460.8	507.6	574.0	45°
47.5°	299.5	298.2	296.8	298.8	309.0	336.1	376.1	421.5	474.4	532.6	599.7	47.5°
50°	280.6	280.6	279.9	280.6	290.0	318.5	364.6	419.5	486.6	561.8	643.1	50°
52.5°	267.0	267.7	268.4	268.4	275.8	304.9	355.8	420.1	500.1	590.2	693.2	52.5°
55°	263.6	265.0	265.0	263.6	269.7	296.1	347.6	418.1	509.6	622.1	746.8	55°
57.5°	259.5	260.2	260.9	259.5	263.6	286.7	336.1	408.6	506.9	634.3	786.8	57.5°
60°	254.1	251.4	250.7	248.7	251.4	269.7	315.8	388.3	490.6	628.9	800.3	60°
62.5°	239.2	237.2	235.1	233.1	235.1	248.7	293.4	363.2	463.5	607.2	789.5	62.5°
63°	235.8	234.5	232.4	230.4	230.4	245.3	286.0	357.1	456.7	601.1	785.4	63°
65°	226.3	225.7	224.3	222.3	221.6	233.1	269.0	329.3	424.9	574.0	759.7	65°
67.5°	215.5	215.5	214.8	212.1	208.7	215.5	240.6	288.0	369.3	504.2	696.0	67.5°
70°	199.9	199.9	199.2	197.9	193.8	198.6	214.8	246.0	304.3	412.0	583.5	70°
72.5°	184.3	184.3	186.4	185.7	186.4	187.0	195.2	212.1	247.3	320.5	441.2	72.5°
75°	164.0	167.4	168.1	169.4	170.1	169.4	173.5	183.6	204.0	246.0	321.9	75°
77.5°	147.1	151.8	151.1	149.8	149.1	149.8	149.1	153.8	168.7	195.2	238.5	77.5°
80°	121.3	126.0	126.0	125.4	124.0	125.4	124.0	128.8	141.0	164.0	189.7	80°
82.5°	99.6	103.0	105.0	106.4	105.0	110.5	110.5	109.1	118.6	138.9	159.9	82.5°
85°	80.0	83.4	85.4	88.1	89.5	88.1	87.4	86.1	91.5	107.7	122.0	85°
87.5°	50.8	53.5	53.5	54.2	54.2	56.2	52.2	47.4	43.4	61.7	64.4	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°



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NUMBER: VPL-F04-LED-E1-CPL-7050

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
1120.9	1120.9	1120.9	1120.9	1120.9	1120.9	1120.9
1120.9	1120.9	1121.5	1119.5	1121.5	1121.5	1119.5
1116.1	1114.8	1114.8	1114.1	1115.4	1114.8	1114.1
1112.0	1112.0	1109.3	1107.3	1106.6	1109.3	1108.0
1110.7	1109.3	1108.7	1107.3	1108.0	1110.0	1111.4
1135.1	1130.3	1131.7	1131.0	1131.7	1133.7	1137.8
1179.8	1179.8	1183.2	1175.7	1179.1	1182.5	1187.9
1230.0	1242.2	1248.3	1247.6	1248.9	1251.6	1257.7
1272.6	1311.3	1338.4	1345.2	1363.5	1367.5	1358.0
1291.6	1360.7	1421.7	1462.4	1507.8	1526.1	1531.5
1253.0	1352.6	1452.9	1546.4	1635.9	1687.4	1732.8
1213.0	1330.9	1464.4	1604.0	1749.7	1881.2	1979.4
1157.4	1313.3	1493.6	1682.0	1875.1	2058.1	2222.0
1096.5	1284.8	1496.3	1725.3	1963.9	2191.6	2390.1
1009.0	1218.4	1452.9	1718.5	1995.0	2280.3	2528.4
908.7	1112.7	1375.7	1679.2	1993.0	2325.7	2623.2
801.7	1010.4	1286.9	1612.2	1966.6	2340.0	2689.6
721.0	927.7	1198.8	1548.5	1927.3	2330.5	2721.5
679.7	856.6	1126.9	1486.1	1883.2	2307.4	2735.0
687.8	837.6	1084.3	1434.6	1843.9	2282.4	2731.6
733.2	866.1	1083.6	1415.6	1818.8	2259.3	2722.2
801.7	930.4	1122.9	1438.0	1832.4	2257.3	2721.5
878.9	1020.6	1217.8	1498.3	1890.0	2293.9	2737.7
953.5	1130.3	1339.7	1633.2	1999.1	2385.4	2803.5
997.5	1230.6	1496.3	1823.6	2167.2	2546.0	2947.8
1007.7	1290.9	1635.2	2010.6	2397.6	2778.4	3172.8
1007.0	1297.0	1658.9	2049.2	2444.3	2831.9	3230.4
991.4	1309.2	1722.6	2176.6	2632.0	3061.7	3471.0
942.6	1287.6	1757.9	2295.2	2818.4	3315.1	3832.8
830.8	1188.6	1716.5	2333.9	2929.5	3483.2	4074.1
650.6	980.6	1482.0	2133.3	2779.1	3332.7	4080.2
457.4	693.2	1140.5	1751.8	2271.5	2816.4	3644.5
318.5	449.3	740.7	1178.5	1639.3	2054.7	2709.3
233.1	298.8	443.9	704.8	994.8	1284.2	1681.3
179.6	215.5	283.9	425.6	561.8	719.0	1013.8
126.0	142.3	175.5	262.9	376.8	514.3	742.7
54.9	64.4	84.7	155.2	254.8	245.3	233.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)