

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: INVUE

Report Number: P141415

Luminaire Tested: **ECM-F04-LED-E1-SLL**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141415  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33693)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ECM-F04-LED-E1-SLL  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT  
Light Source: (28) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8636.7 lumens  
Efficiency: N/A  
Efficacy: 84.5 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

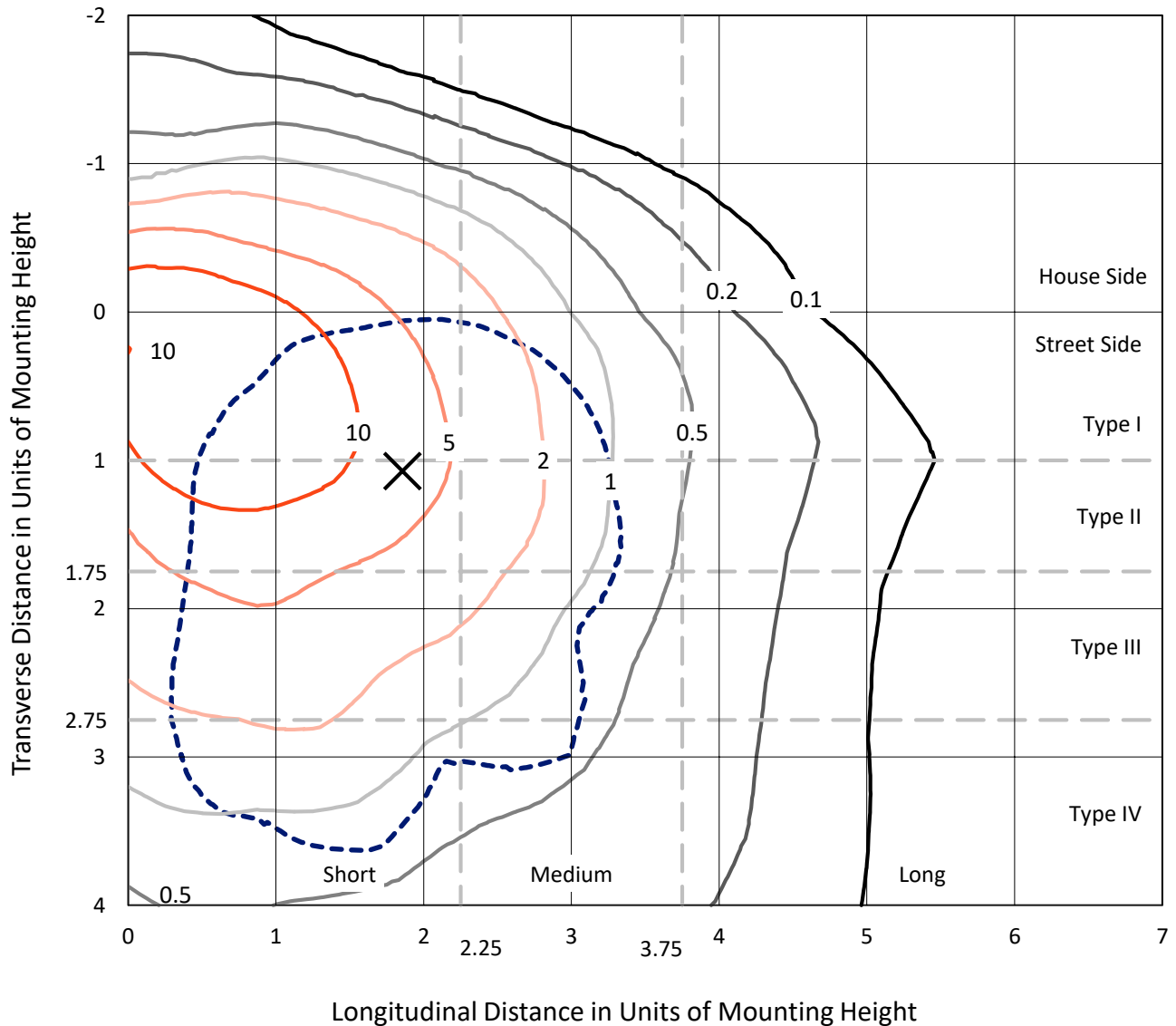
Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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 CATALOG NUMBER: ECM-F04-LED-E1-SLL

### Iso-Footcandle Lines of Horizontal Illumination

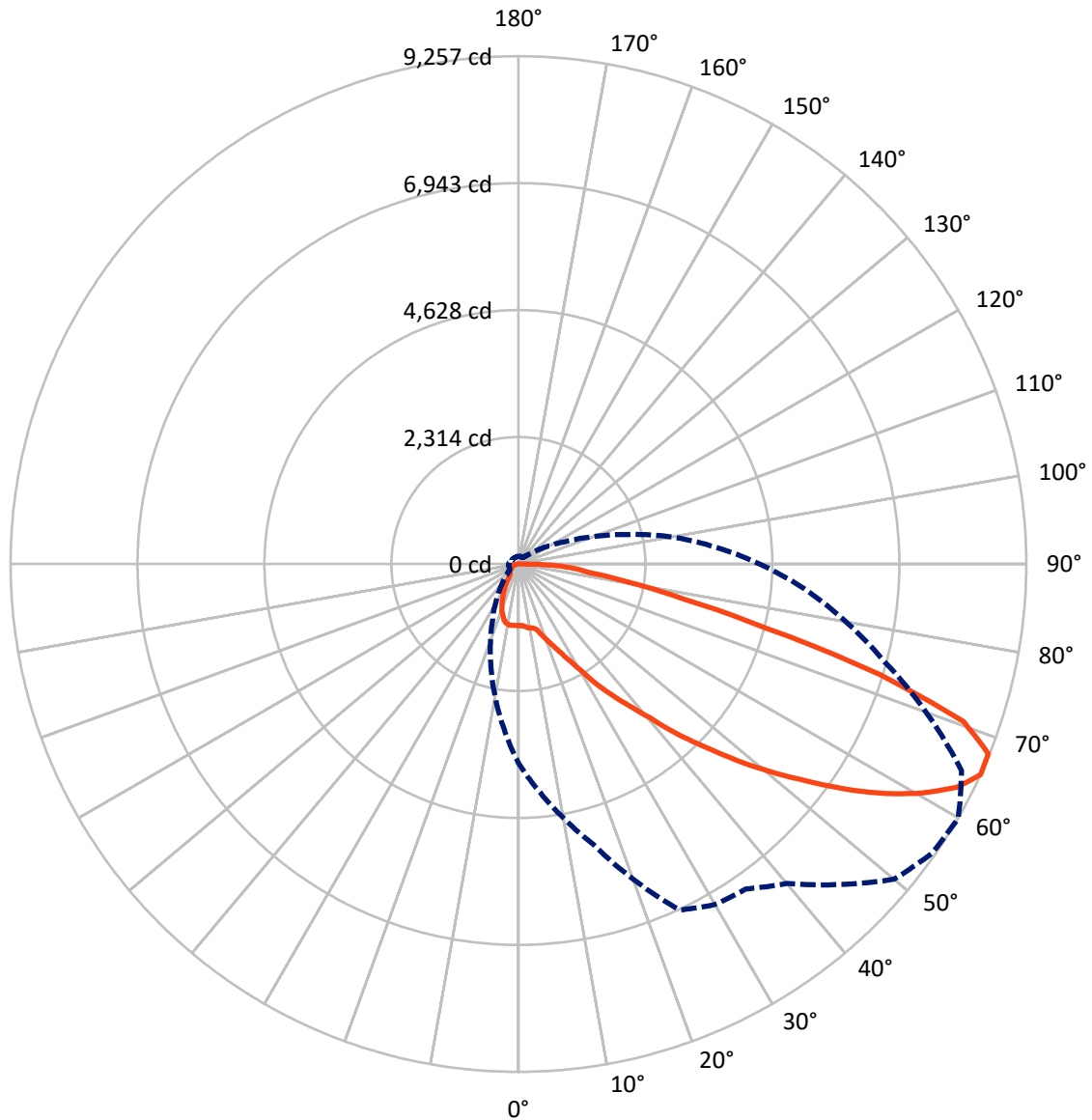
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.2 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1601.9	0.0	1601.9
	% Fixture	18.5	0.0	18.5
<b>Street Side</b>	Lumens	7034.8	0.0	7034.8
	% Fixture	81.5	0.0	81.5
<b>Total</b>	Lumens	8636.7	0.0	8636.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.6	1.3
10°-20°	326.2	3.8
20°-30°	542.0	6.3
30°-40°	792.3	9.2
40°-50°	1205.3	14.0
50°-60°	1732.5	20.1
60°-70°	2130.0	24.7
70°-80°	1424.9	16.5
80°-90°	374.9	4.3
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°	8636.7	100.0
0°-180°	8636.7	100.0

**Coefficient of Utilization**



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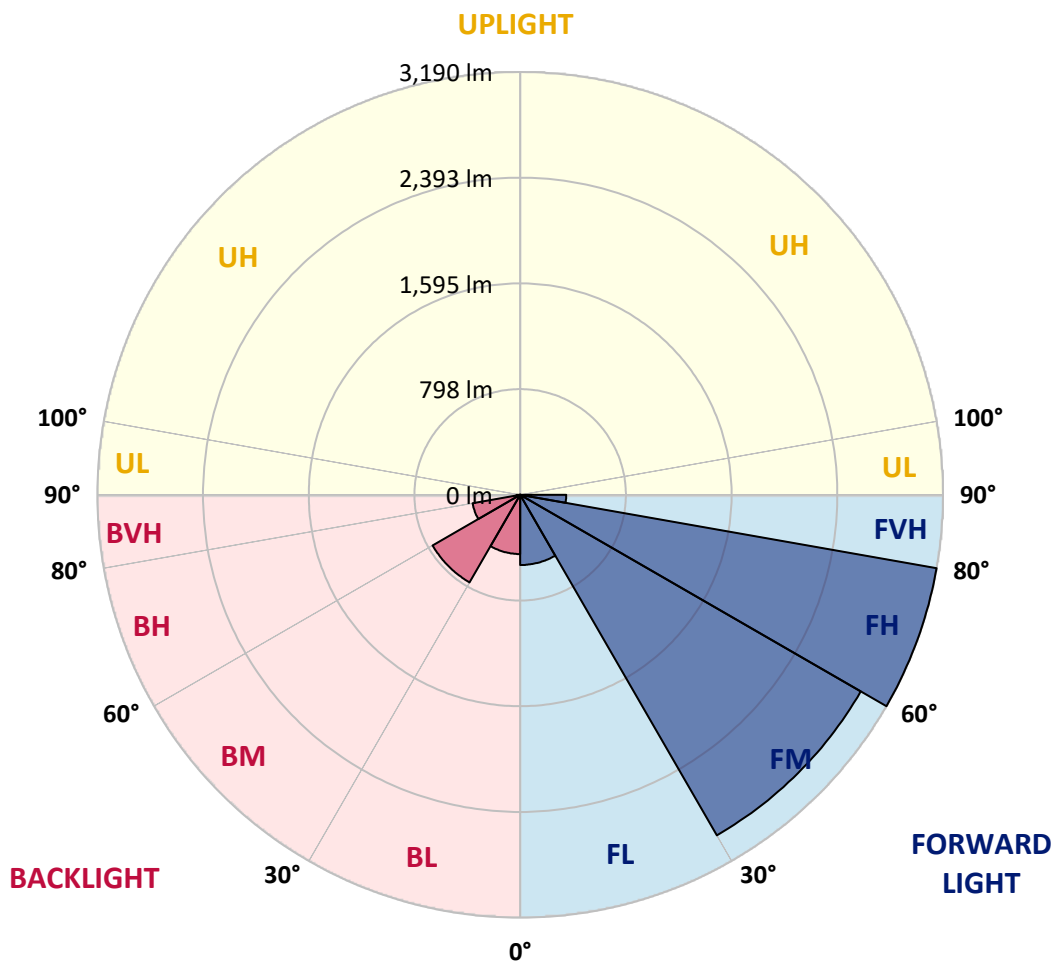
CATALOG NUMBER: ECM-F04-LED-E1-SLL

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	529.8	6.1			
FM	(30°-60°)	2967.0	34.4			
FH	(60°-80°)	3190.4	36.9			G2/5000
FVH	(80°-90°)	347.6	4.0			G3/500
BL	(0°-30°)	447.1	5.2	B1/500		
BM	(30°-60°)	763.0	8.8	B1/1000		
BH	(60°-80°)	364.6	4.2	B1/500		G1/500
BVH	(80°-90°)	27.2	0.3			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°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1123.8	1124.9	1124.9	1123.8	1122.7	1123.8	1121.6	1123.8	1122.7	1121.6	1122.7
5°	1109.5	1110.6	1112.8	1112.8	1115.0	1119.4	1120.5	1126.0	1129.3	1130.4	1134.8
7.5°	1075.4	1080.9	1084.2	1088.6	1095.2	1106.2	1113.9	1127.1	1137.0	1145.8	1157.9
10°	1054.5	1061.1	1067.7	1077.6	1087.5	1101.8	1115.0	1131.5	1144.7	1157.9	1172.2
12.5°	1060.0	1067.7	1076.5	1084.2	1099.6	1112.8	1129.3	1149.1	1155.7	1168.9	1181.1
15°	1105.1	1111.7	1118.3	1127.1	1141.4	1156.8	1178.8	1200.9	1205.3	1219.6	1232.8
17.5°	1165.6	1166.7	1177.7	1193.2	1206.4	1231.7	1258.1	1287.8	1306.5	1315.3	1323.0
20°	1228.4	1231.7	1249.3	1263.6	1293.3	1326.3	1364.9	1408.9	1424.3	1462.8	1477.1
22.5°	1321.9	1320.8	1341.8	1361.6	1394.6	1429.8	1485.9	1546.5	1581.7	1611.4	1622.4
25°	1463.9	1467.2	1463.9	1492.5	1526.7	1583.9	1640.0	1700.6	1721.5	1773.2	1797.4
27.5°	1604.8	1630.1	1664.3	1673.1	1714.9	1780.9	1825.0	1889.9	1940.5	1954.8	1994.5
30°	1735.8	1788.6	1844.8	1892.1	1967.0	2047.3	2113.3	2187.1	2190.4	2216.8	2227.8
32.5°	1869.0	1951.5	2034.1	2094.6	2167.3	2274.0	2396.2	2516.2	2594.3	2674.7	2634.0
35°	2036.3	2165.1	2280.7	2374.2	2435.8	2534.9	2675.8	2870.6	2996.1	3091.9	3146.9
37.5°	2189.3	2384.1	2561.3	2694.5	2845.3	2915.8	3008.2	3149.1	3293.3	3382.5	3428.7
40°	2301.6	2567.9	2818.9	3011.5	3203.0	3371.4	3488.1	3602.6	3797.4	3908.6	3917.4
42.5°	2389.6	2728.6	3031.3	3307.6	3589.4	3824.9	3965.8	4111.1	4358.8	4487.6	4477.6
45°	2450.2	2848.6	3224.0	3564.1	3905.3	4212.4	4484.3	4700.0	4953.1	5198.6	5149.1
47.5°	2503.0	2947.7	3376.9	3761.1	4170.6	4553.6	4892.6	5196.4	5531.0	5862.3	5882.1
50°	2555.8	3028.0	3515.6	3958.1	4419.3	4900.3	5309.8	5700.5	6118.8	6540.4	6637.2
52.5°	2628.5	3118.3	3644.4	4137.5	4673.6	5181.0	5637.8	6124.3	6641.6	7048.9	7324.1
55°	2737.4	3243.8	3804.0	4316.9	4901.4	5460.6	5965.8	6527.2	7002.7	7505.7	7897.5
57.5°	2915.8	3411.1	3988.9	4512.9	5121.6	5713.7	6238.8	6827.6	7281.1	7839.2	8331.2
60°	3141.4	3638.9	4198.1	4745.1	5380.2	6069.3	6598.7	7034.6	7489.2	8053.8	8646.0
62.5°	3397.9	3896.5	4453.4	5018.1	5740.1	6486.4	6941.0	7189.8	7586.0	8201.3	8849.6
65°	3623.5	4137.5	4693.4	5292.2	6108.9	6957.5	7166.7	7229.4	7600.3	8260.8	8937.7
67.5°	3808.4	4399.5	4917.9	5514.5	6497.4	7256.9	7171.1	7045.6	7405.5	8116.6	8769.3
70°	3905.3	4516.2	5024.7	5534.3	6580.0	7298.7	6998.2	6657.0	6821.0	7516.7	8062.6
72.5°	3798.5	4424.8	4826.6	5143.6	6085.8	6783.6	6400.6	5756.7	5906.4	6580.0	6720.9
75°	3380.2	4136.4	4370.9	4359.9	4867.3	5228.3	4950.9	4540.4	4922.3	5203.0	5058.8
77.5°	2523.9	3388.0	3518.9	3277.9	3385.8	3689.5	3427.6	3746.8	4210.2	4336.8	4063.8
80°	1587.2	2483.2	2497.5	2197.0	2139.8	2258.6	2596.6	3275.7	3718.2	3691.7	3330.7
82.5°	883.9	1610.3	1763.3	1488.1	1417.7	1709.4	2312.6	2673.6	2615.3	2593.2	2123.3
85°	604.3	1099.6	1344.0	1288.9	1425.4	1705.0	1896.5	1695.1	1632.3	1390.2	1128.2
87.5°	245.5	495.3	833.2	957.6	1015.9	1247.1	1091.9	889.4	684.6	649.4	558.1
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°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1119.4	1121.6	1121.6	1122.7	1123.8	1124.9	1124.9	1124.9	1126.0	1127.1	1126.0
5°	1135.9	1139.2	1141.4	1141.4	1143.6	1145.8	1148.0	1146.9	1150.2	1152.4	1153.5
7.5°	1162.3	1168.9	1174.4	1178.8	1181.1	1181.1	1181.1	1177.7	1181.1	1182.2	1183.3
10°	1181.1	1188.8	1189.9	1194.3	1193.2	1192.1	1189.9	1187.7	1188.8	1191.0	1194.3
12.5°	1186.6	1194.3	1196.5	1199.8	1198.7	1197.6	1193.2	1193.2	1192.1	1195.4	1198.7
15°	1231.7	1238.3	1249.3	1239.4	1240.5	1231.7	1224.0	1219.6	1217.4	1219.6	1221.8
17.5°	1335.1	1346.2	1341.8	1326.3	1325.2	1306.5	1303.2	1281.2	1281.2	1281.2	1274.6
20°	1477.1	1476.0	1468.3	1452.9	1419.9	1413.3	1389.1	1371.5	1355.0	1351.7	1344.0
22.5°	1632.3	1615.8	1611.4	1579.5	1558.6	1519.0	1482.6	1469.4	1454.0	1450.7	1449.6
25°	1783.1	1789.7	1757.8	1742.4	1689.6	1654.4	1633.4	1600.4	1600.4	1596.0	1590.5
27.5°	1972.5	1994.5	1959.2	1937.2	1887.7	1838.2	1801.8	1782.0	1761.1	1746.8	1707.2
30°	2239.9	2254.2	2230.0	2184.9	2123.3	2035.2	1985.7	1963.6	1925.1	1876.7	1811.8
32.5°	2616.4	2596.6	2514.0	2434.7	2354.4	2270.7	2211.3	2171.7	2112.2	2015.4	1892.1
35°	3104.0	2933.4	2829.9	2720.9	2628.5	2534.9	2489.8	2418.2	2282.9	2125.5	1960.3
37.5°	3343.9	3268.0	3149.1	3067.7	2957.6	2864.0	2761.7	2639.5	2464.5	2238.8	2009.9
40°	3824.9	3681.8	3589.4	3496.9	3361.5	3233.9	3095.2	2898.1	2616.4	2335.7	2048.4
42.5°	4330.2	4224.5	4057.2	3933.9	3832.6	3621.3	3401.2	3126.0	2771.6	2423.7	2083.6
45°	4988.4	4746.2	4539.3	4434.7	4235.5	3977.9	3721.5	3328.5	2914.7	2516.2	2123.3
47.5°	5649.9	5338.4	5124.9	4930.0	4717.6	4372.0	3972.4	3504.6	3024.7	2593.2	2156.3
50°	6359.8	5949.3	5702.7	5469.4	5119.4	4701.1	4192.6	3649.9	3139.2	2665.9	2186.0
52.5°	7081.9	6563.5	6211.2	5939.4	5505.7	4988.4	4391.8	3800.7	3261.4	2736.3	2210.2
55°	7731.3	7244.8	6790.2	6370.9	5849.1	5248.1	4574.5	3936.1	3371.4	2810.1	2225.6
57.5°	8320.2	7896.4	7353.8	6791.3	6165.0	5489.2	4742.9	4082.5	3474.9	2864.0	2224.5
60°	8724.1	8476.5	7912.9	7227.2	6495.2	5710.4	4945.4	4245.4	3566.3	2902.5	2215.7
62.5°	9014.7	8965.2	8473.2	7646.6	6764.9	5909.7	5141.4	4380.8	3632.3	2906.9	2178.3
65°	9196.3	9256.9	8911.3	7912.9	6915.7	6061.6	5238.2	4392.9	3585.0	2834.3	2079.2
67.5°	9081.9	9238.2	8909.1	7797.4	6771.5	5919.6	5096.2	4190.4	3332.9	2608.7	1856.9
70°	8371.9	8606.4	8281.7	7031.3	6066.0	5371.4	4573.4	3599.3	2867.3	2148.6	1467.2
72.5°	6566.8	6876.1	6592.1	5734.6	5021.4	4440.2	3848.0	2826.6	2186.0	1578.4	986.2
75°	4530.5	4649.4	4479.8	3887.7	3668.6	3441.9	2888.2	1899.8	1444.1	974.1	580.1
77.5°	3514.5	3084.2	2759.5	2517.3	2512.9	2471.1	1889.9	1137.0	864.0	536.0	322.5
80°	2642.8	2074.8	1712.7	1498.1	1557.5	1741.3	1101.8	583.4	446.9	296.1	198.1
82.5°	1739.1	1324.1	1056.7	935.6	945.5	1091.9	553.7	321.4	220.1	168.4	128.8
85°	1060.0	1029.2	918.0	833.2	768.3	750.7	430.4	246.6	122.2	87.0	66.0
87.5°	517.3	613.1	748.5	758.4	651.6	552.6	223.4	70.4	51.7	27.5	19.8
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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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1127.1	1132.6	1130.4	1129.3	1129.3	1134.8	1134.8	1132.6	1132.6	1133.7	1133.7
5°	1153.5	1159.0	1156.8	1157.9	1160.1	1161.2	1164.5	1161.2	1159.0	1161.2	1160.1
7.5°	1184.4	1189.9	1188.8	1191.0	1193.2	1195.4	1197.6	1196.5	1194.3	1194.3	1193.2
10°	1197.6	1208.6	1213.0	1217.4	1222.9	1225.1	1228.4	1228.4	1224.0	1224.0	1218.5
12.5°	1206.4	1215.2	1226.2	1232.8	1242.7	1250.4	1253.7	1254.8	1251.5	1247.1	1241.6
15°	1225.1	1231.7	1242.7	1249.3	1261.4	1271.3	1277.9	1276.8	1272.4	1260.3	1243.8
17.5°	1271.3	1270.2	1274.6	1279.0	1282.3	1287.8	1285.6	1275.7	1254.8	1232.8	1209.7
20°	1340.7	1339.6	1332.9	1323.0	1310.9	1295.5	1271.3	1241.6	1206.4	1166.7	1131.5
22.5°	1438.6	1428.7	1419.9	1393.5	1351.7	1299.9	1237.2	1178.8	1137.0	1098.5	1060.0
25°	1568.5	1544.3	1501.4	1439.7	1373.7	1296.6	1205.3	1127.1	1074.3	1029.2	990.6
27.5°	1649.9	1593.8	1522.3	1437.5	1349.5	1250.4	1149.1	1072.1	1012.6	963.1	919.1
30°	1719.3	1618.0	1517.9	1410.0	1298.8	1196.5	1089.7	1007.1	937.8	882.8	829.9
32.5°	1757.8	1622.4	1497.0	1368.2	1247.1	1130.4	1014.8	925.7	859.6	791.4	718.8
35°	1782.0	1609.2	1457.3	1312.0	1178.8	1057.8	936.7	838.7	751.8	668.1	595.5
37.5°	1788.6	1587.2	1405.6	1249.3	1097.4	965.3	850.8	736.4	649.4	559.2	475.5
40°	1785.3	1545.4	1340.7	1151.3	991.7	864.0	752.9	648.3	552.6	472.2	391.8
42.5°	1772.1	1498.1	1263.6	1071.0	910.3	788.1	685.7	580.1	494.2	408.4	340.1
45°	1767.7	1451.8	1205.3	1009.3	855.2	735.3	635.1	532.7	442.5	361.0	292.8
47.5°	1757.8	1410.0	1151.3	962.0	810.1	694.5	591.1	490.9	397.4	323.6	257.6
50°	1735.8	1364.9	1111.7	925.7	772.7	653.8	548.1	440.3	348.9	276.3	225.6
52.5°	1712.7	1336.2	1086.4	889.4	733.1	605.4	500.8	391.8	306.0	237.8	199.2
55°	1689.6	1314.2	1052.3	846.4	681.3	555.9	450.2	350.0	269.7	211.3	183.8
57.5°	1664.3	1284.5	1010.4	791.4	623.0	500.8	395.2	300.5	234.4	190.4	171.7
60°	1643.3	1242.7	937.8	714.4	544.8	423.8	328.0	251.0	199.2	171.7	164.0
62.5°	1588.3	1162.3	833.2	601.0	442.5	331.3	249.9	195.9	167.3	154.1	155.2
65°	1455.1	982.9	661.5	468.9	310.4	222.3	178.3	149.7	136.5	136.5	139.8
67.5°	1226.2	748.5	468.9	298.3	203.6	160.7	136.5	124.4	122.2	124.4	129.9
70°	868.5	485.4	293.9	194.8	153.0	129.9	117.8	113.4	111.2	113.4	115.6
72.5°	534.9	286.2	187.1	151.9	131.0	116.7	109.0	105.7	104.6	104.6	103.5
75°	291.7	191.5	149.7	132.1	118.9	107.9	100.2	94.7	93.6	94.7	92.5
77.5°	186.0	149.7	133.2	122.2	110.1	95.8	89.2	84.8	84.8	83.7	81.5
80°	145.3	133.2	122.2	111.2	92.5	81.5	74.8	73.7	72.6	71.5	71.5
82.5°	109.0	105.7	100.2	90.3	73.7	64.9	61.6	61.6	60.5	57.2	57.2
85°	62.7	61.6	66.0	58.3	49.5	42.9	42.9	44.0	45.1	44.0	40.7
87.5°	20.9	17.6	18.7	18.7	15.4	12.1	16.5	19.8	18.7	16.5	19.8
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: P141415  
 CATALOG NUMBER: ECM-F04-LED-E1-SLL

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1130.4	1132.6	1137.0	1132.6	1130.4	1130.4	1128.2	1129.3	1126.0	1122.7	1123.8
5°	1157.9	1155.7	1157.9	1154.6	1148.0	1146.9	1142.5	1142.5	1138.1	1133.7	1131.5
7.5°	1188.8	1185.5	1186.6	1180.0	1172.2	1166.7	1161.2	1159.0	1153.5	1146.9	1142.5
10°	1213.0	1209.7	1207.5	1199.8	1189.9	1184.4	1176.6	1172.2	1166.7	1157.9	1153.5
12.5°	1228.4	1220.7	1216.3	1203.1	1194.3	1188.8	1180.0	1177.7	1171.1	1163.4	1160.1
15°	1225.1	1207.5	1194.3	1178.8	1166.7	1159.0	1151.3	1149.1	1145.8	1142.5	1135.9
17.5°	1171.1	1149.1	1134.8	1102.9	1085.3	1077.6	1076.5	1075.4	1073.2	1073.2	1065.5
20°	1096.3	1071.0	1049.0	1018.1	995.0	987.3	966.4	960.9	954.3	960.9	954.3
22.5°	1029.2	997.2	971.9	946.6	919.1	897.1	869.6	856.3	837.6	833.2	835.4
25°	957.6	918.0	886.1	856.3	826.6	795.8	770.5	751.8	739.7	723.2	707.8
27.5°	870.7	837.6	794.7	770.5	735.3	701.1	674.7	654.9	632.9	619.7	597.7
30°	782.6	732.0	689.0	654.9	616.4	599.9	574.6	553.7	533.8	519.5	500.8
32.5°	668.1	615.3	570.2	530.5	504.1	481.0	465.6	448.0	438.1	426.0	413.9
35°	547.0	481.0	427.1	409.5	379.7	380.8	373.1	364.3	356.6	345.6	344.5
37.5°	412.8	361.0	325.8	303.8	299.4	292.8	293.9	292.8	290.6	287.3	287.3
40°	326.9	280.7	257.6	253.2	253.2	252.1	251.0	251.0	251.0	248.8	247.7
42.5°	279.6	246.6	238.9	236.7	234.4	233.3	231.1	227.8	227.8	225.6	222.3
45°	246.6	227.8	225.6	223.4	223.4	220.1	216.8	214.6	213.5	212.4	210.2
47.5°	225.6	215.7	213.5	211.3	210.2	208.0	204.7	201.4	200.3	199.2	199.2
50°	202.5	195.9	195.9	195.9	192.6	190.4	187.1	184.9	184.9	183.8	182.7
52.5°	186.0	182.7	181.6	180.5	178.3	175.0	172.8	171.7	170.6	171.7	170.6
55°	178.3	176.1	175.0	172.8	170.6	167.3	165.1	161.8	160.7	162.9	162.9
57.5°	169.5	168.4	167.3	165.1	162.9	158.5	155.2	153.0	153.0	156.3	155.2
60°	166.2	165.1	164.0	162.9	159.6	154.1	148.6	146.4	146.4	149.7	149.7
62.5°	158.5	157.4	156.3	155.2	150.8	146.4	140.9	138.7	139.8	142.0	145.3
65°	144.2	145.3	144.2	144.2	140.9	137.6	134.3	132.1	131.0	132.1	135.4
67.5°	131.0	132.1	132.1	132.1	131.0	127.7	125.5	122.2	120.0	121.1	122.2
70°	118.9	120.0	121.1	121.1	118.9	115.6	112.3	109.0	107.9	109.0	109.0
72.5°	105.7	105.7	105.7	106.8	105.7	104.6	100.2	95.8	95.8	94.7	95.8
75°	92.5	92.5	92.5	92.5	90.3	90.3	88.1	83.7	82.6	83.7	84.8
77.5°	81.5	79.3	78.1	78.1	78.1	75.9	74.8	74.8	73.7	73.7	73.7
80°	67.1	64.9	62.7	61.6	62.7	62.7	64.9	64.9	63.8	63.8	63.8
82.5°	52.8	48.4	47.3	47.3	45.1	47.3	51.7	57.2	55.0	56.1	56.1
85°	38.5	34.1	31.9	31.9	29.7	34.1	39.6	44.0	41.8	44.0	42.9
87.5°	17.6	16.5	13.2	11.0	13.2	19.8	23.1	24.2	20.9	25.3	25.3
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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CATALOG NUMBER: ECM-F04-LED-E1-SLL

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1128.2	1123.8	1122.7	1123.8	1121.6	1124.9	1124.9	1123.8	1123.8	1122.7	1124.9
5°	1134.8	1129.3	1126.0	1126.0	1123.8	1127.1	1124.9	1123.8	1122.7	1122.7	1122.7
7.5°	1144.7	1137.0	1131.5	1128.2	1123.8	1123.8	1120.5	1117.2	1115.0	1113.9	1113.9
10°	1153.5	1142.5	1133.7	1126.0	1119.4	1113.9	1108.4	1100.7	1098.5	1096.3	1097.4
12.5°	1152.4	1140.3	1127.1	1115.0	1099.6	1093.0	1078.7	1069.9	1069.9	1064.4	1067.7
15°	1128.2	1107.3	1088.6	1068.8	1050.1	1036.9	1019.2	1009.3	1003.8	1002.7	1010.4
17.5°	1055.6	1035.8	1018.1	996.1	971.9	963.1	951.0	946.6	943.3	948.8	954.3
20°	957.6	932.3	915.8	902.6	902.6	900.4	894.9	887.2	880.6	879.5	886.1
22.5°	818.9	809.0	812.3	803.5	803.5	799.1	807.9	793.6	801.3	794.7	798.0
25°	703.3	698.9	696.7	695.6	695.6	703.3	702.2	704.4	696.7	701.1	700.0
27.5°	598.8	593.3	585.6	590.0	594.4	599.9	602.1	603.2	609.8	597.7	602.1
30°	498.6	489.8	495.3	490.9	493.1	492.0	492.0	492.0	496.4	505.2	498.6
32.5°	408.4	404.0	409.5	401.8	402.9	402.9	400.7	397.4	399.6	389.6	397.4
35°	337.9	332.4	336.8	333.5	330.2	321.4	318.1	312.6	313.7	311.5	310.4
37.5°	282.9	281.8	278.5	278.5	276.3	275.2	269.7	270.8	271.9	274.1	274.1
40°	244.4	243.3	242.2	244.4	245.5	246.6	248.8	251.0	254.3	257.6	260.9
42.5°	222.3	222.3	222.3	226.7	230.0	235.5	238.9	243.3	247.7	253.2	257.6
45°	209.1	208.0	210.2	213.5	219.0	224.5	230.0	236.7	243.3	248.8	252.1
47.5°	198.1	197.0	199.2	202.5	208.0	216.8	224.5	232.2	240.0	245.5	247.7
50°	183.8	183.8	184.9	188.2	193.7	201.4	209.1	217.9	225.6	230.0	232.2
52.5°	172.8	173.9	173.9	177.2	182.7	189.3	197.0	204.7	210.2	213.5	217.9
55°	161.8	164.0	164.0	167.3	172.8	180.5	190.4	197.0	203.6	208.0	211.3
57.5°	154.1	155.2	155.2	159.6	166.2	172.8	182.7	191.5	199.2	204.7	209.1
60°	147.5	148.6	147.5	153.0	158.5	166.2	175.0	184.9	195.9	203.6	206.9
62.5°	142.0	142.0	140.9	145.3	148.6	153.0	160.7	171.7	181.6	188.2	191.5
65°	135.4	135.4	133.2	137.6	137.6	144.2	149.7	159.6	167.3	175.0	177.2
67.5°	122.2	124.4	123.3	126.6	131.0	135.4	142.0	149.7	157.4	162.9	166.2
70°	109.0	110.1	113.4	115.6	120.0	122.2	127.7	133.2	140.9	144.2	147.5
72.5°	96.9	98.0	100.2	102.4	106.8	109.0	113.4	117.8	124.4	127.7	131.0
75°	84.8	85.9	87.0	89.2	91.4	93.6	95.8	100.2	104.6	109.0	112.3
77.5°	72.6	73.7	77.0	75.9	78.1	79.3	82.6	84.8	87.0	91.4	95.8
80°	63.8	62.7	64.9	66.0	68.2	68.2	70.4	70.4	73.7	73.7	74.8
82.5°	53.9	52.8	55.0	58.3	59.4	59.4	61.6	57.2	56.1	57.2	60.5
85°	40.7	41.8	42.9	47.3	48.4	48.4	50.6	47.3	42.9	42.9	45.1
87.5°	23.1	17.6	25.3	29.7	29.7	30.8	33.0	31.9	30.8	24.2	25.3
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: P141415  
 CATALOG NUMBER: ECM-F04-LED-E1-SLL

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	0°
2.5°	1123.8	1124.9	1126.0	1127.1	1128.2	1127.1	1129.3	1127.1	1128.2	1126.0	1124.9	2.5°
5°	1122.7	1123.8	1123.8	1126.0	1127.1	1123.8	1126.0	1122.7	1122.7	1120.5	1117.2	5°
7.5°	1115.0	1117.2	1117.2	1119.4	1119.4	1116.1	1116.1	1109.5	1107.3	1099.6	1094.1	7.5°
10°	1099.6	1102.9	1105.1	1109.5	1111.7	1106.2	1102.9	1095.2	1086.4	1077.6	1068.8	10°
12.5°	1073.2	1074.3	1082.0	1088.6	1091.9	1095.2	1093.0	1091.9	1083.1	1077.6	1074.3	12.5°
15°	1012.6	1021.4	1029.2	1044.6	1055.6	1067.7	1076.5	1086.4	1090.8	1096.3	1098.5	15°
17.5°	959.8	969.7	975.2	988.4	999.4	1018.1	1041.3	1066.6	1084.2	1106.2	1127.1	17.5°
20°	886.1	902.6	907.0	927.9	942.2	966.4	991.7	1023.7	1058.9	1093.0	1130.4	20°
22.5°	803.5	811.2	820.0	842.0	859.6	890.5	929.0	973.0	1013.7	1061.1	1115.0	22.5°
25°	703.3	713.3	722.1	746.3	771.6	800.2	846.4	900.4	952.1	1014.8	1085.3	25°
27.5°	604.3	612.0	627.4	645.0	673.6	704.4	761.7	821.1	880.6	956.5	1040.2	27.5°
30°	500.8	508.5	516.2	537.1	566.9	603.2	654.9	725.4	795.8	877.3	976.3	30°
32.5°	401.8	404.0	419.4	434.8	460.1	490.9	547.0	615.3	691.2	790.3	888.3	32.5°
35°	313.7	326.9	333.5	354.4	369.8	401.8	449.1	511.8	591.1	691.2	796.9	35°
37.5°	278.5	282.9	291.7	307.1	328.0	356.6	389.6	438.1	506.3	591.1	690.1	37.5°
40°	265.3	269.7	276.3	288.4	308.2	334.6	362.1	400.7	453.5	520.6	609.8	40°
42.5°	260.9	262.0	264.2	275.2	295.0	324.7	357.7	394.1	434.8	488.7	559.2	42.5°
45°	255.4	255.4	256.5	264.2	281.8	312.6	354.4	400.7	446.9	495.3	554.8	45°
47.5°	251.0	252.1	251.0	254.3	267.5	297.2	343.4	399.6	461.2	523.9	588.9	47.5°
50°	233.3	233.3	234.4	235.5	245.5	274.1	319.2	380.8	456.8	541.5	630.7	50°
52.5°	219.0	221.2	221.2	223.4	230.0	253.2	298.3	363.2	445.8	544.8	664.8	52.5°
55°	214.6	216.8	217.9	217.9	222.3	242.2	285.1	346.7	433.7	541.5	678.0	55°
57.5°	211.3	213.5	214.6	213.5	216.8	233.3	273.0	333.5	420.5	533.8	683.5	57.5°
60°	208.0	209.1	206.9	204.7	205.8	220.1	255.4	314.8	405.1	522.8	681.3	60°
62.5°	192.6	193.7	191.5	189.3	187.1	198.1	230.0	288.4	373.1	497.5	663.7	62.5°
65°	179.4	179.4	179.4	177.2	175.0	181.6	204.7	254.3	328.0	452.4	623.0	65°
67.5°	168.4	167.3	167.3	166.2	164.0	166.2	180.5	214.6	271.9	380.8	549.2	67.5°
70°	150.8	149.7	150.8	149.7	147.5	147.5	154.1	172.8	211.3	279.6	427.1	70°
72.5°	133.2	134.3	136.5	136.5	136.5	137.6	137.6	143.1	164.0	200.3	290.6	72.5°
75°	114.5	115.6	118.9	123.3	121.1	122.2	122.2	125.5	136.5	158.5	203.6	75°
77.5°	96.9	100.2	104.6	105.7	102.4	102.4	104.6	110.1	120.0	133.2	155.2	77.5°
80°	79.3	83.7	84.8	87.0	88.1	88.1	90.3	94.7	104.6	121.1	138.7	80°
82.5°	62.7	66.0	69.3	72.6	74.8	78.1	79.3	81.5	91.4	107.9	127.7	82.5°
85°	47.3	50.6	55.0	58.3	60.5	63.8	62.7	63.8	69.3	82.6	96.9	85°
87.5°	28.6	28.6	31.9	33.0	34.1	34.1	36.3	31.9	34.1	44.0	52.8	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: P141415

NUMBER: ECM-F04-LED-E1-SLL

**DISTRIBUTION (continued):**

330°	335°	340°	345°	350°	355°	360°
1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
1126.0	1124.9	1123.8	1124.9	1127.1	1127.1	1123.8
1118.3	1115.0	1112.8	1112.8	1112.8	1111.7	1109.5
1091.9	1086.4	1083.1	1080.9	1079.8	1079.8	1075.4
1063.3	1060.0	1053.4	1051.2	1052.3	1055.6	1054.5
1069.9	1060.0	1056.7	1056.7	1055.6	1061.1	1060.0
1106.2	1106.2	1101.8	1100.7	1098.5	1105.1	1105.1
1144.7	1154.6	1159.0	1154.6	1155.7	1156.8	1165.6
1165.6	1194.3	1209.7	1221.8	1222.9	1229.5	1228.4
1168.9	1220.7	1261.4	1287.8	1312.0	1324.1	1321.9
1152.4	1224.0	1295.5	1362.7	1413.3	1440.8	1463.9
1130.4	1215.2	1307.6	1402.3	1484.8	1558.6	1604.8
1078.7	1186.6	1305.4	1426.5	1544.3	1649.9	1735.8
1006.0	1130.4	1272.4	1432.0	1597.1	1743.5	1869.0
909.2	1042.4	1215.2	1411.1	1629.0	1847.0	2036.3
804.6	951.0	1140.3	1375.9	1645.5	1929.5	2189.3
713.3	857.4	1064.4	1330.7	1643.3	1983.5	2301.6
653.8	789.2	998.3	1287.8	1632.3	2014.3	2389.6
634.0	756.2	954.3	1253.7	1625.7	2036.3	2450.2
660.4	766.1	944.4	1238.3	1623.5	2061.6	2503.0
722.1	821.1	981.8	1263.6	1643.3	2086.9	2555.8
780.4	898.2	1063.3	1336.2	1717.1	2160.7	2628.5
827.7	981.8	1151.3	1432.0	1822.8	2275.1	2737.4
854.1	1046.8	1265.8	1565.2	1967.0	2443.6	2915.8
865.2	1091.9	1363.8	1705.0	2148.6	2636.2	3141.4
860.7	1112.8	1434.2	1832.7	2312.6	2847.5	3397.9
833.2	1112.8	1478.2	1935.0	2450.2	3015.9	3623.5
767.2	1074.3	1482.6	1994.5	2555.8	3157.9	3808.4
646.1	963.1	1408.9	1987.9	2588.8	3203.0	3905.3
452.4	718.8	1175.5	1796.3	2448.0	3096.3	3798.5
280.7	448.0	842.0	1389.1	2037.4	2627.4	3380.2
197.0	271.9	482.1	879.5	1402.3	1958.1	2523.9
164.0	200.3	275.2	484.3	843.1	1206.4	1587.2
142.0	161.8	191.5	276.3	429.3	642.8	883.9
105.7	117.8	132.1	181.6	270.8	397.4	604.3
42.9	48.4	53.9	72.6	166.2	228.9	245.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)