

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: STREETWORKS

Report Number: P129497

Luminaire Tested: **VERD-A028-E-U-T3-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P129497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25189)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-A028-E-U-T3-AP
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K LEDS AT 80% STANDARD LUMENS AND TYPE III OPTICS, GREY
PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7693 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

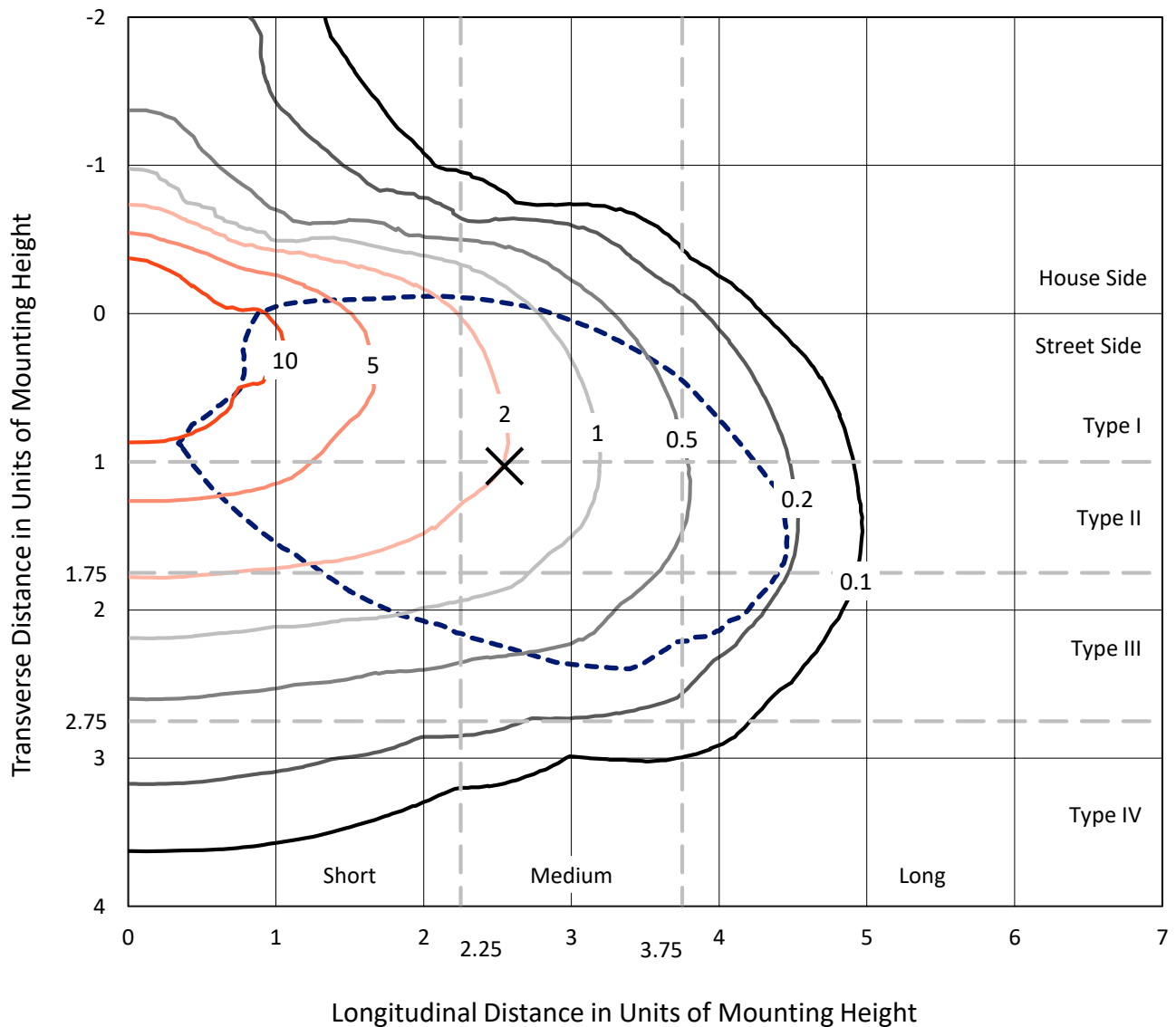
Input Watts (W): 72
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

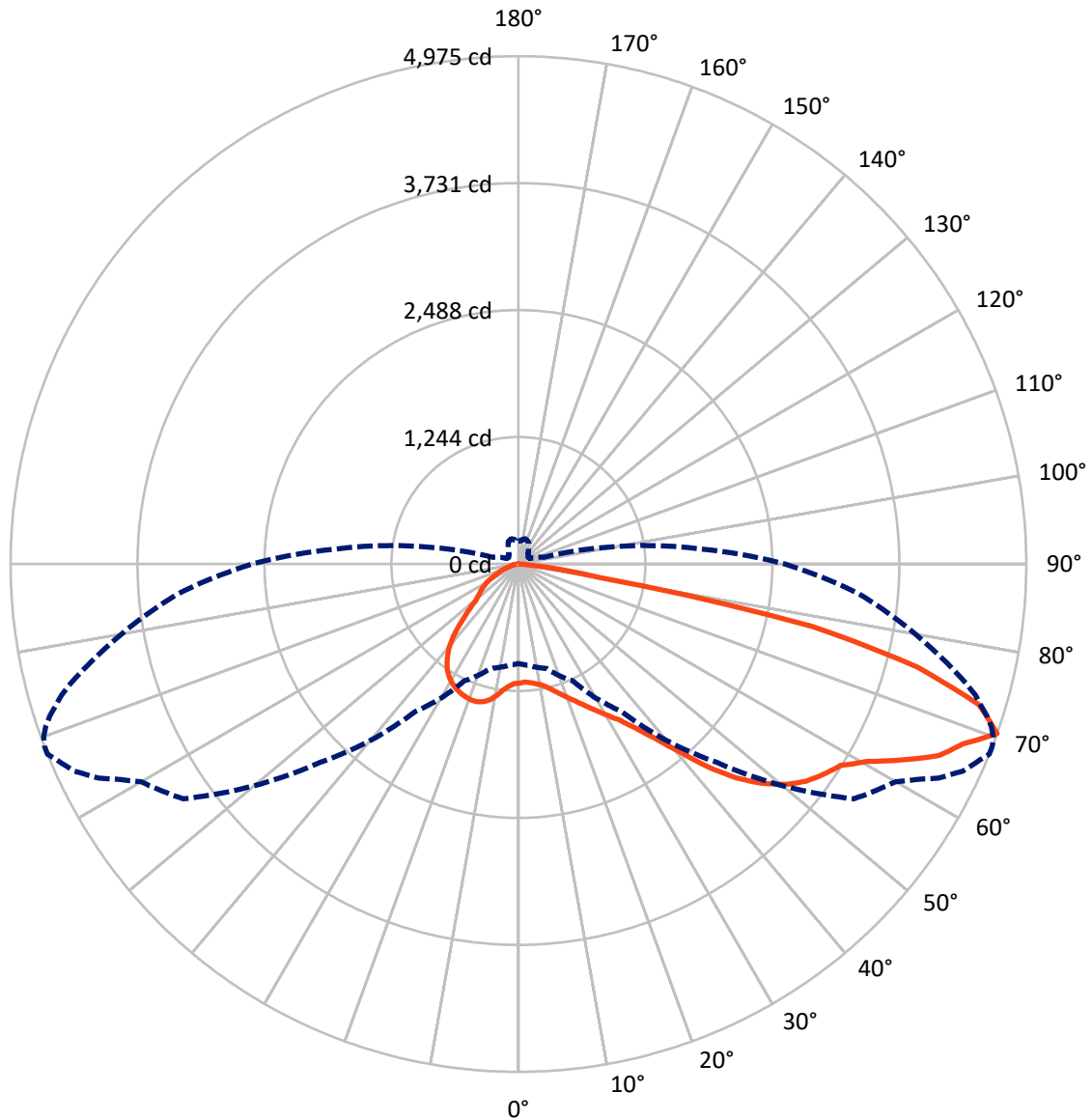


Based on 10 foot mounting height. Maximum calculated value = 13.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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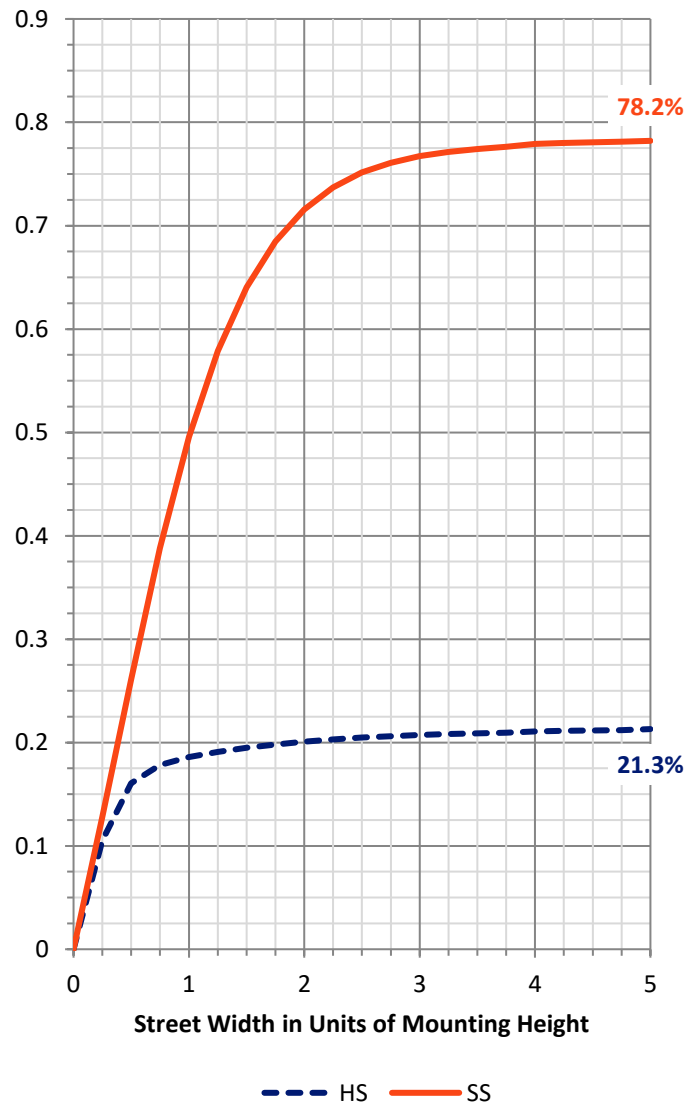
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1672.2	0.0	1672.2
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	6020.8	0.0	6020.8
	% Fixture	78.3	0.0	78.3
Total	Lumens	7693.0	0.0	7693.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	1.5
10°-20°	387.9	5.0
20°-30°	654.6	8.5
30°-40°	930.2	12.1
40°-50°	1276.5	16.6
50°-60°	1540.1	20.0
60°-70°	1660.8	21.6
70°-80°	1037.9	13.5
80°-90°	86.0	1.1
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°	7693.0	100.0
0°-180°	7693.0	100.0



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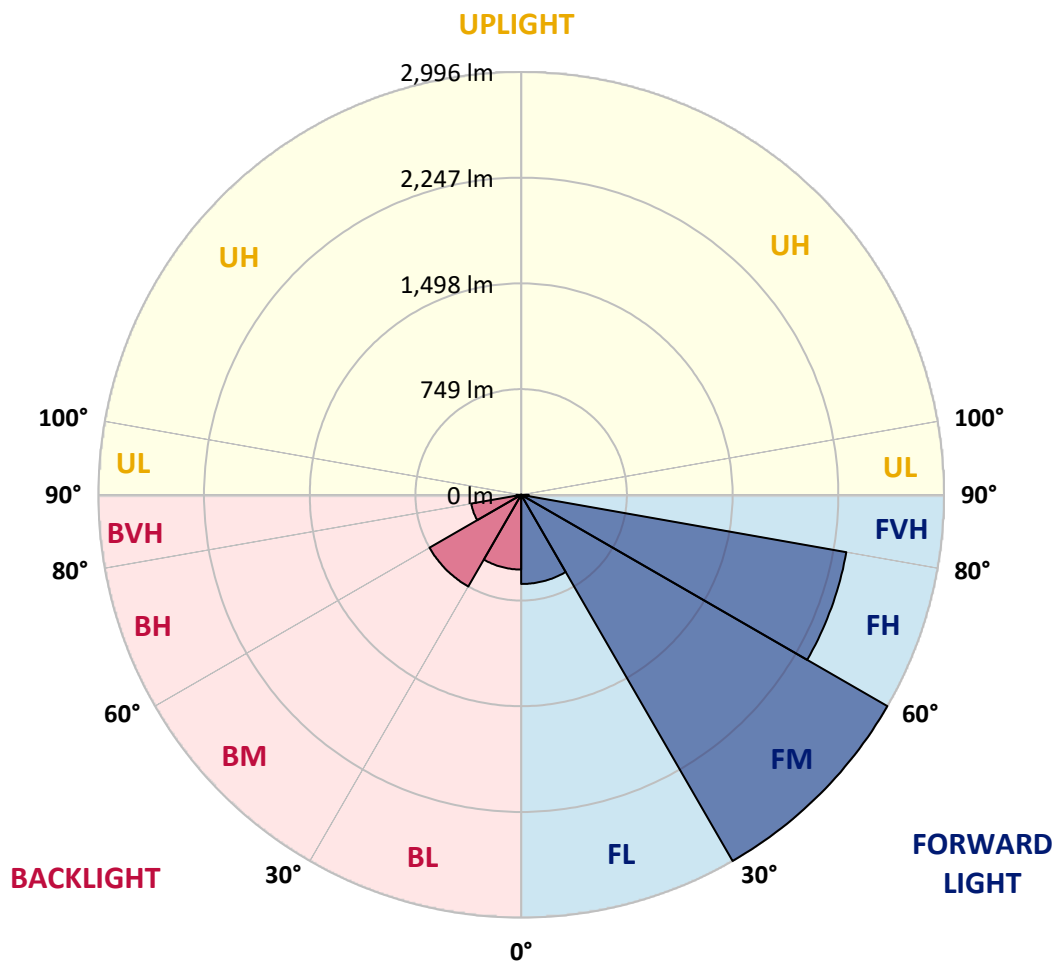
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	631.9	8.2			
FM (30°-60°)	2996.4	38.9			
FH (60°-80°)	2339.6	30.4			G2/5000
FVH (80°-90°)	52.9	0.7			G1/100
BL (0°-30°)	529.6	6.9	B2/1000		
BM (30°-60°)	750.4	9.8	B1/1000		
BH (60°-80°)	359.2	4.7	B1/500		G1/500
BVH (80°-90°)	33.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
0°	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6
2.5°	1176.9	1176.1	1178.6	1166.0	1163.4	1164.3	1166.0	1159.2	1158.3	1158.3	1157.5
5°	1196.4	1194.7	1197.2	1184.6	1178.6	1176.9	1177.8	1171.0	1170.2	1169.3	1167.6
7.5°	1231.1	1226.8	1228.5	1215.8	1205.7	1199.8	1196.4	1190.5	1190.5	1188.8	1187.1
10°	1268.3	1267.4	1267.4	1253.9	1242.1	1231.1	1218.4	1213.3	1214.2	1212.5	1211.6
12.5°	1313.9	1313.9	1316.5	1302.1	1297.0	1281.8	1258.1	1253.0	1251.4	1249.7	1247.1
15°	1377.3	1375.6	1380.7	1363.8	1358.7	1341.0	1313.1	1302.1	1297.9	1298.7	1297.0
17.5°	1459.3	1454.3	1450.0	1429.8	1423.8	1396.8	1366.3	1355.4	1351.1	1352.0	1349.4
20°	1544.7	1543.9	1535.4	1504.2	1490.6	1455.1	1426.4	1408.6	1406.1	1401.9	1401.9
22.5°	1643.7	1647.1	1634.4	1598.0	1571.8	1527.0	1488.9	1470.3	1465.3	1464.4	1461.0
25°	1757.0	1757.8	1748.5	1713.0	1670.7	1610.7	1559.1	1542.2	1536.3	1534.6	1532.1
27.5°	1878.7	1885.5	1871.1	1842.4	1787.4	1709.6	1637.8	1625.9	1624.2	1619.1	1616.6
30°	2007.2	2008.1	1998.8	1980.2	1917.6	1821.2	1724.0	1718.1	1719.8	1714.7	1711.3
32.5°	2121.4	2124.8	2132.4	2118.8	2058.8	1950.6	1823.8	1828.0	1828.8	1825.5	1823.8
35°	2208.5	2216.1	2247.4	2259.2	2211.0	2103.6	1944.7	1963.3	1964.1	1954.0	1955.7
37.5°	2292.2	2293.9	2331.9	2359.0	2342.9	2257.5	2104.5	2127.3	2129.0	2118.8	2116.3
40°	2347.1	2355.6	2400.4	2427.5	2446.1	2397.9	2273.6	2313.3	2319.2	2310.8	2324.3
42.5°	2310.8	2314.2	2415.6	2493.4	2531.5	2546.7	2453.7	2539.1	2551.7	2548.4	2564.4
45°	2267.7	2269.3	2369.1	2517.9	2604.2	2689.6	2671.8	2800.3	2814.7	2813.0	2828.2
47.5°	2205.9	2216.1	2322.6	2503.6	2671.0	2821.5	2917.9	3006.6	3020.2	3023.5	3041.3
50°	2140.0	2156.9	2277.8	2481.6	2726.8	2960.1	3088.6	3151.2	3167.3	3180.0	3203.6
52.5°	2062.2	2077.4	2210.2	2441.8	2753.0	3109.8	3218.0	3284.8	3304.2	3317.8	3342.3
55°	1963.3	1981.9	2117.2	2374.2	2753.8	3196.9	3332.2	3391.3	3412.5	3432.8	3460.7
57.5°	1855.9	1877.9	2008.9	2269.3	2722.5	3205.3	3402.3	3457.3	3479.3	3500.4	3530.8
60°	1727.4	1751.9	1885.5	2134.9	2651.5	3183.3	3429.4	3540.1	3590.0	3627.2	3678.8
62.5°	1592.1	1609.8	1724.0	1986.9	2530.6	3192.6	3625.5	3804.8	3836.9	3888.5	3935.8
65°	1422.1	1442.4	1538.0	1789.9	2330.2	3219.7	3896.1	4109.2	4162.4	4198.0	4252.9
67.5°	1222.6	1242.1	1313.9	1562.5	2097.7	3079.3	4030.5	4242.8	4304.5	4368.7	4449.9
70°	974.9	994.3	1058.6	1264.9	1763.7	2746.2	4010.2	4266.4	4373.0	4483.7	4618.2
72.5°	733.1	746.6	788.0	901.3	1254.7	2225.4	3802.3	4104.9	4241.1	4356.1	4521.8
75°	492.1	499.7	553.8	632.4	735.6	1445.0	3180.8	3423.5	3595.9	3694.9	3817.5
77.5°	174.2	168.3	213.9	273.1	377.9	512.4	2025.0	2265.1	2487.5	2529.8	2550.9
80°	53.3	55.8	100.6	125.1	179.2	266.3	542.0	638.4	708.5	705.2	759.3
82.5°	41.4	44.0	71.0	76.9	70.2	100.6	259.6	287.5	303.5	300.2	304.4
85°	25.4	27.1	33.0	32.1	32.1	44.8	88.8	66.8	77.8	71.0	75.3
87.5°	14.4	14.4	14.4	14.4	11.8	10.1	18.6	9.3	9.3	8.5	8.5
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):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6
2.5°	1157.5	1158.3	1158.3	1158.3	1158.3	1158.3	1158.3	1157.5	1157.5	1157.5	1157.5
5°	1166.8	1166.8	1166.8	1166.8	1166.8	1166.8	1166.0	1165.1	1164.3	1164.3	1164.3
7.5°	1185.4	1183.7	1182.9	1182.9	1182.9	1182.9	1182.0	1181.2	1179.5	1179.5	1180.3
10°	1209.1	1207.4	1206.5	1203.2	1202.3	1201.5	1201.5	1200.6	1199.8	1200.6	1201.5
12.5°	1244.6	1245.4	1242.1	1237.8	1236.1	1232.8	1232.8	1232.8	1232.8	1234.4	1237.0
15°	1292.8	1293.6	1290.2	1287.7	1286.0	1280.9	1279.3	1280.9	1282.6	1284.3	1286.0
17.5°	1346.9	1346.9	1343.5	1341.8	1340.1	1336.7	1337.6	1337.6	1336.7	1337.6	1339.3
20°	1401.0	1400.2	1400.2	1400.2	1400.2	1397.6	1400.2	1400.2	1398.5	1395.9	1395.9
22.5°	1460.2	1461.0	1462.7	1466.1	1464.4	1464.4	1464.4	1467.8	1467.0	1463.6	1463.6
25°	1532.9	1535.4	1538.8	1542.2	1541.4	1543.9	1543.9	1547.3	1545.6	1546.4	1551.5
27.5°	1620.8	1622.5	1625.1	1621.7	1627.6	1634.4	1634.4	1634.4	1644.5	1648.7	1654.7
30°	1717.2	1716.4	1718.9	1715.5	1721.5	1727.4	1733.3	1743.4	1754.4	1758.7	1769.7
32.5°	1824.6	1822.9	1824.6	1821.2	1822.1	1832.2	1850.8	1861.8	1870.3	1884.6	1898.2
35°	1963.3	1962.4	1965.8	1971.7	1974.3	1982.7	2010.6	2014.8	2037.7	2047.0	2064.7
37.5°	2132.4	2135.8	2145.1	2158.6	2161.1	2182.3	2198.3	2235.5	2256.7	2269.3	2283.7
40°	2338.7	2353.9	2373.3	2386.9	2405.5	2449.4	2482.4	2519.6	2549.2	2567.8	2592.3
42.5°	2589.8	2624.5	2648.1	2673.5	2714.1	2760.6	2813.0	2854.4	2889.9	2909.4	2943.2
45°	2851.9	2884.0	2913.6	2950.0	2987.2	3037.1	3086.1	3123.3	3152.1	3163.9	3173.2
47.5°	3059.9	3092.9	3125.8	3165.6	3211.2	3262.0	3302.6	3322.0	3331.3	3328.8	3324.5
50°	3228.2	3262.0	3303.4	3349.9	3394.7	3431.9	3453.1	3455.6	3455.6	3449.7	3442.1
52.5°	3372.7	3411.6	3457.3	3502.9	3532.5	3550.3	3560.4	3561.3	3561.3	3555.4	3546.9
55°	3491.1	3538.5	3581.6	3612.0	3633.2	3639.1	3644.1	3643.3	3640.8	3634.0	3625.5
57.5°	3568.9	3609.5	3656.8	3691.5	3723.6	3733.8	3749.8	3765.1	3784.5	3788.7	3803.9
60°	3717.7	3782.8	3825.1	3879.2	3925.7	3951.9	3984.0	4004.3	4023.8	4020.4	4015.3
62.5°	3971.4	4044.1	4101.6	4176.0	4224.2	4243.6	4263.9	4264.7	4263.1	4242.8	4225.0
65°	4310.4	4385.7	4444.0	4498.1	4526.0	4512.5	4506.6	4477.0	4447.4	4404.3	4365.4
67.5°	4527.7	4596.2	4646.9	4679.0	4699.3	4686.7	4668.1	4629.2	4582.7	4527.7	4474.4
70°	4706.9	4800.8	4855.8	4911.6	4975.0	4973.3	4949.6	4898.9	4827.0	4737.4	4655.4
72.5°	4619.0	4687.5	4718.8	4731.5	4717.9	4696.8	4657.9	4586.9	4534.5	4426.2	4376.4
75°	3912.2	3995.0	4020.4	4046.6	4037.3	4038.2	3994.2	3933.3	3899.5	3793.8	3768.4
77.5°	2747.1	2761.4	2815.5	2905.2	2939.8	2990.6	2972.0	2917.0	2838.4	2736.9	2700.6
80°	739.8	778.7	788.0	825.2	807.5	853.1	848.0	804.9	778.7	745.7	754.2
82.5°	302.7	314.5	306.9	304.4	321.3	316.2	316.2	312.8	303.5	305.2	301.8
85°	67.6	75.3	74.4	68.5	65.9	77.8	72.7	74.4	67.6	66.8	71.0
87.5°	8.5	8.5	8.5	8.5	7.6	8.5	7.6	7.6	7.6	7.6	7.6
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):

	75°	85°	90°	95°	105°	115°	125°	135°	145°	155°	165°
0°	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6	1167.6
2.5°	1158.3	1156.7	1155.0	1167.6	1168.5	1172.7	1178.6	1189.6	1194.7	1201.5	1211.6
5°	1166.0	1167.6	1166.0	1180.3	1191.3	1204.9	1219.2	1239.5	1253.9	1277.6	1299.5
7.5°	1182.9	1184.6	1187.1	1198.9	1222.6	1253.9	1293.6	1338.4	1368.0	1397.6	1423.0
10°	1204.0	1206.5	1210.8	1222.6	1274.2	1323.2	1368.9	1401.9	1422.1	1456.0	1469.5
12.5°	1237.0	1240.4	1253.0	1275.9	1339.3	1370.6	1401.0	1423.0	1434.0	1463.6	1467.8
15°	1284.3	1297.9	1321.5	1343.5	1384.9	1398.5	1411.2	1417.1	1415.4	1432.3	1426.4
17.5°	1336.7	1364.7	1391.7	1401.9	1412.0	1408.6	1401.0	1384.1	1362.1	1363.0	1352.8
20°	1395.1	1439.1	1448.4	1445.0	1424.7	1403.5	1367.2	1324.1	1281.8	1277.6	1252.2
22.5°	1463.6	1507.5	1499.9	1482.2	1430.6	1384.1	1317.3	1248.8	1184.6	1162.6	1133.0
25°	1554.9	1579.4	1559.1	1525.3	1439.1	1360.4	1256.4	1155.0	1062.0	1011.2	973.2
27.5°	1658.9	1658.0	1624.2	1574.3	1449.2	1323.2	1181.2	1039.1	906.4	833.7	782.9
30°	1776.4	1740.9	1693.6	1625.9	1453.4	1274.2	1088.2	906.4	740.7	649.4	620.6
32.5°	1893.9	1836.4	1767.1	1674.1	1448.4	1219.2	985.9	751.7	571.6	526.8	512.4
35°	2058.0	1981.0	1886.3	1757.0	1439.1	1144.0	848.0	559.7	460.8	427.0	419.4
37.5°	2282.9	2211.0	2079.1	1880.4	1439.1	1038.3	655.3	421.1	351.7	312.8	327.2
40°	2593.2	2550.1	2367.4	2083.3	1447.5	908.9	443.9	306.9	231.7	226.6	276.5
42.5°	2939.8	2780.9	2562.7	2266.8	1461.0	729.7	287.5	213.1	196.2	213.1	257.9
45°	3163.0	2899.2	2660.8	2339.5	1469.5	519.1	208.0	195.3	186.9	202.9	245.2
47.5°	3307.6	3022.7	2750.4	2381.0	1400.2	350.0	192.8	187.7	180.1	196.2	241.0
50°	3428.5	3126.7	2824.0	2384.3	1229.4	261.3	189.4	180.1	175.0	190.2	237.6
52.5°	3532.5	3221.4	2895.9	2361.5	1093.2	230.8	182.6	173.3	169.1	184.3	230.0
55°	3612.9	3320.3	2956.7	2297.2	978.3	226.6	177.6	165.7	163.2	184.3	230.0
57.5°	3799.7	3437.0	2978.7	2252.4	852.3	219.8	172.5	159.0	160.6	186.9	239.3
60°	4001.8	3499.6	2966.0	2235.5	720.4	208.0	165.7	153.0	159.8	199.5	295.9
62.5°	4192.0	3518.2	2975.3	2227.9	574.9	190.2	155.6	148.8	158.1	220.7	353.4
65°	4316.3	3540.1	2945.8	2184.8	426.1	170.8	144.6	147.1	160.6	263.8	296.8
67.5°	4411.9	3501.3	2833.3	2030.1	320.4	152.2	130.2	138.7	164.9	242.7	257.0
70°	4547.1	3347.4	2607.5	1746.0	253.7	130.2	115.0	131.1	170.8	235.9	256.2
72.5°	4253.8	2961.0	2152.7	1319.8	190.2	106.5	94.7	122.6	175.0	237.6	255.3
75°	3626.4	2288.8	1527.0	711.9	138.7	82.0	74.4	109.9	169.9	235.1	244.4
77.5°	2488.3	1276.7	629.1	238.4	101.5	59.2	54.1	85.4	153.9	219.0	249.4
80°	666.3	319.6	235.1	161.5	71.0	43.1	39.7	55.0	123.4	192.8	238.4
82.5°	291.7	208.0	153.9	105.7	49.9	29.6	27.1	31.3	79.5	153.0	212.2
85°	63.4	46.5	37.2	28.7	20.3	15.2	14.4	18.6	31.3	89.6	155.6
87.5°	6.8	5.9	5.9	5.9	5.9	5.9	5.1	5.9	9.3	25.4	69.3
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: VERD-A028-E-U-T3-AP

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	1167.6	1167.6
2.5°	1226.0	1226.8
5°	1320.7	1321.5
7.5°	1440.7	1445.0
10°	1481.3	1483.0
12.5°	1477.1	1477.1
15°	1429.8	1424.7
17.5°	1355.4	1348.6
20°	1253.0	1248.8
22.5°	1118.6	1111.8
25°	950.4	952.0
27.5°	768.6	755.0
30°	623.1	624.8
32.5°	532.7	536.1
35°	427.8	420.2
37.5°	341.6	335.7
40°	319.6	308.6
42.5°	284.1	280.7
45°	268.0	267.2
47.5°	268.9	270.6
50°	270.6	271.4
52.5°	254.5	253.7
55°	241.0	237.6
57.5°	260.4	257.9
60°	320.4	320.4
62.5°	323.0	312.0
65°	277.3	281.6
67.5°	238.4	235.9
70°	228.3	222.4
72.5°	213.9	207.1
75°	186.9	176.7
77.5°	178.4	159.8
80°	181.8	149.7
82.5°	180.9	131.9
85°	160.6	137.8
87.5°	97.2	93.9
90°	0.0	0.0

(END OF REPORT)