

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:

Luminaire Tested: **ENT-SA1E-740-U-SL3-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401672 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-SL3-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8674.9 lumens
Efficiency: N/A
Efficacy: 117.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B1 - U5 - G2

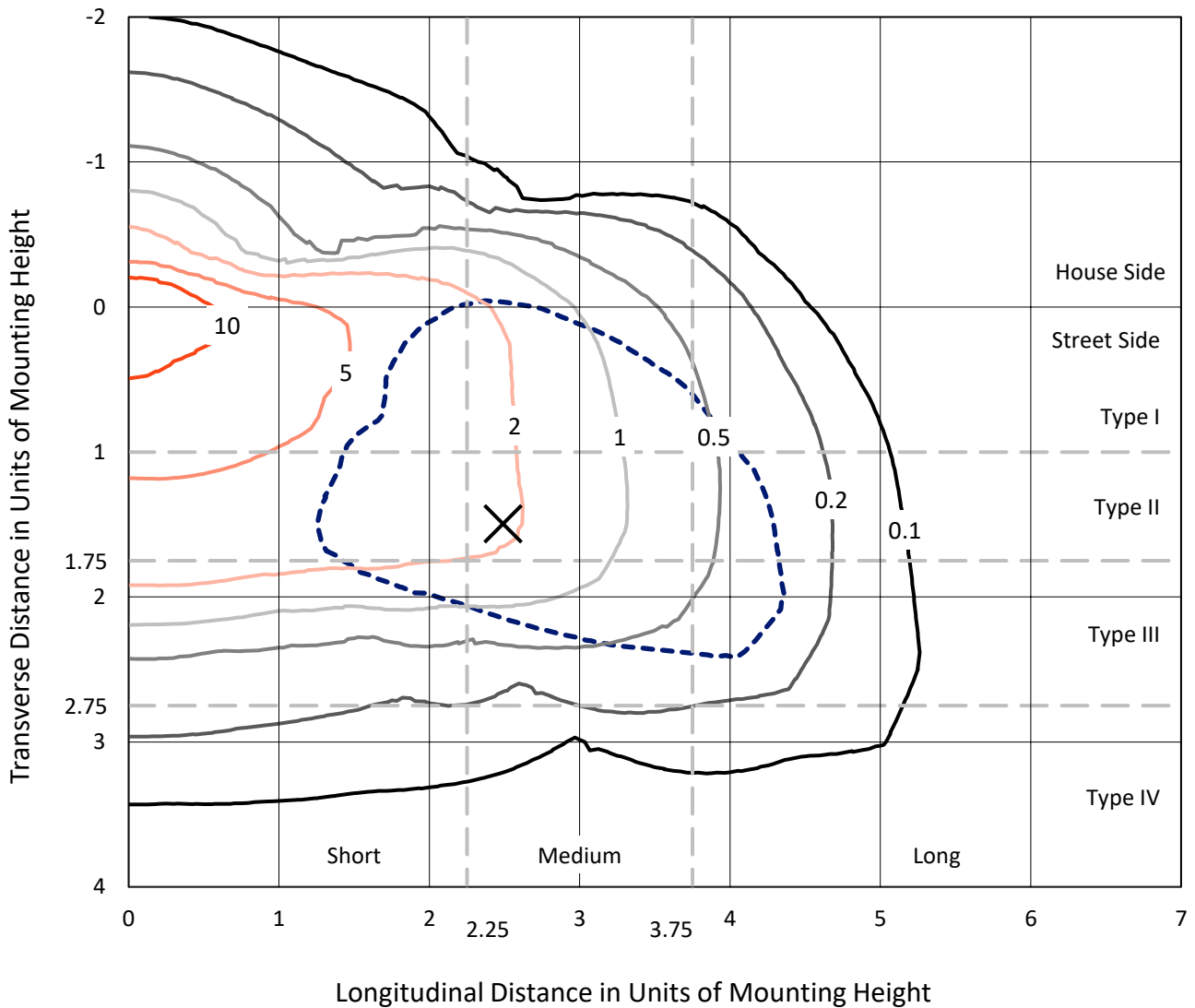
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

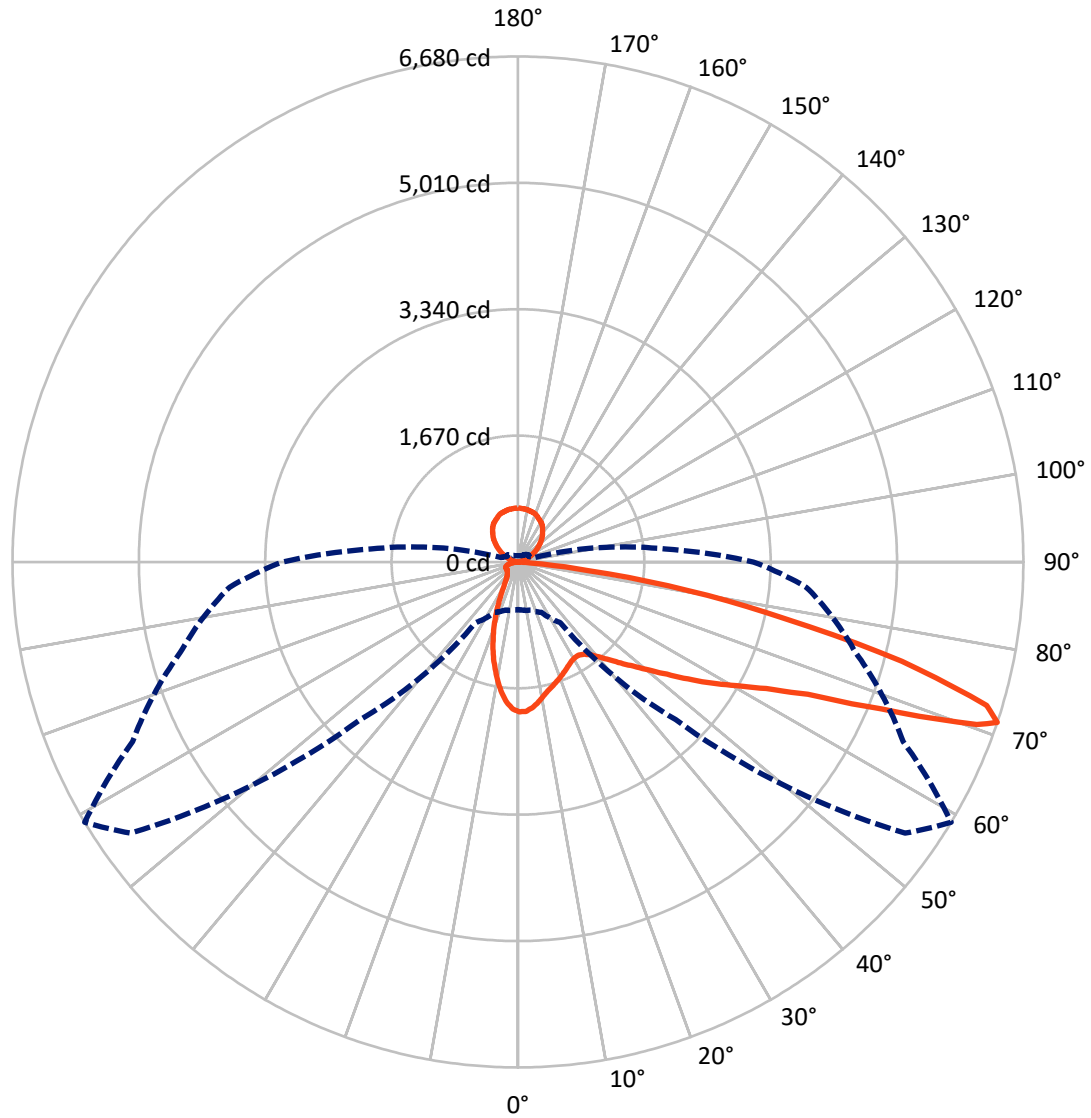
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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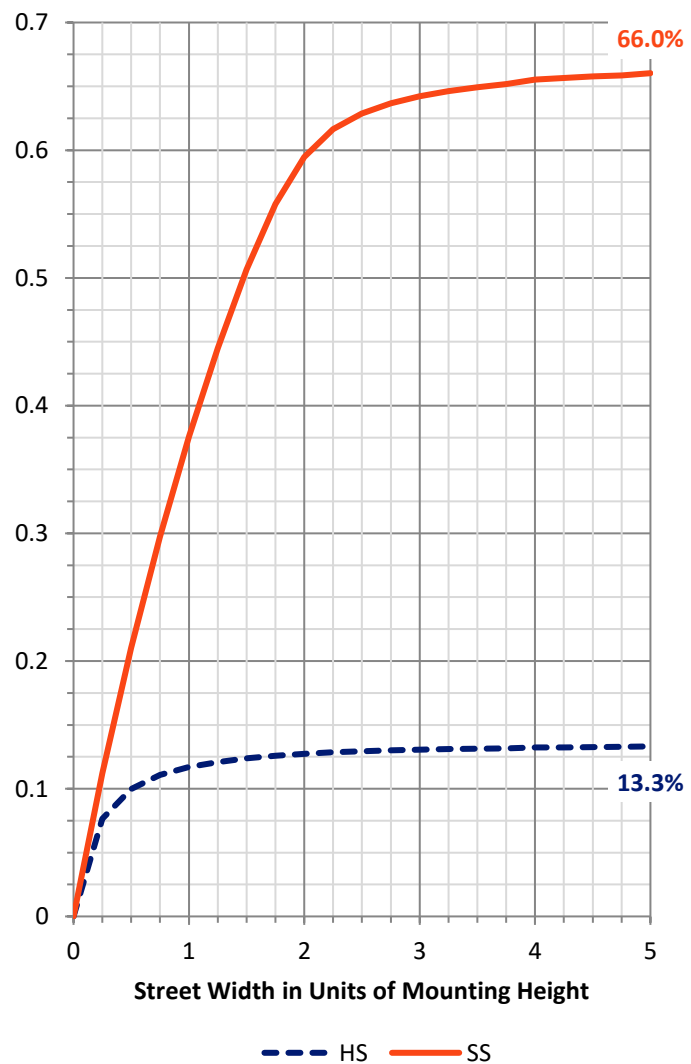
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1171.3	887.0	2058.3
	% Fixture	13.5	10.2	23.7
Street Side	Lumens	5729.7	887.0	6616.7
	% Fixture	66.0	10.2	76.3
Total	Lumens	6901.0	1773.9	8674.9
	% Fixture	79.6	20.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	2.0
10°-20°	384.3	4.4
20°-30°	488.4	5.6
30°-40°	624.4	7.2
40°-50°	866.6	10.0
50°-60°	1283.0	14.8
60°-70°	1734.1	20.0
70°-80°	1229.7	14.2
80°-90°	119.4	1.4
90°-100°	8.4	0.1
100°-110°	58.7	0.7
110°-120°	169.9	2.0
120°-130°	279.4	3.2
130°-140°	344.6	4.0
140°-150°	352.5	4.1
150°-160°	297.0	3.4
160°-170°	195.5	2.3
170°-180°	67.8	0.8
0°-90°	6901.0	79.6
0°-180°	8674.9	100.0

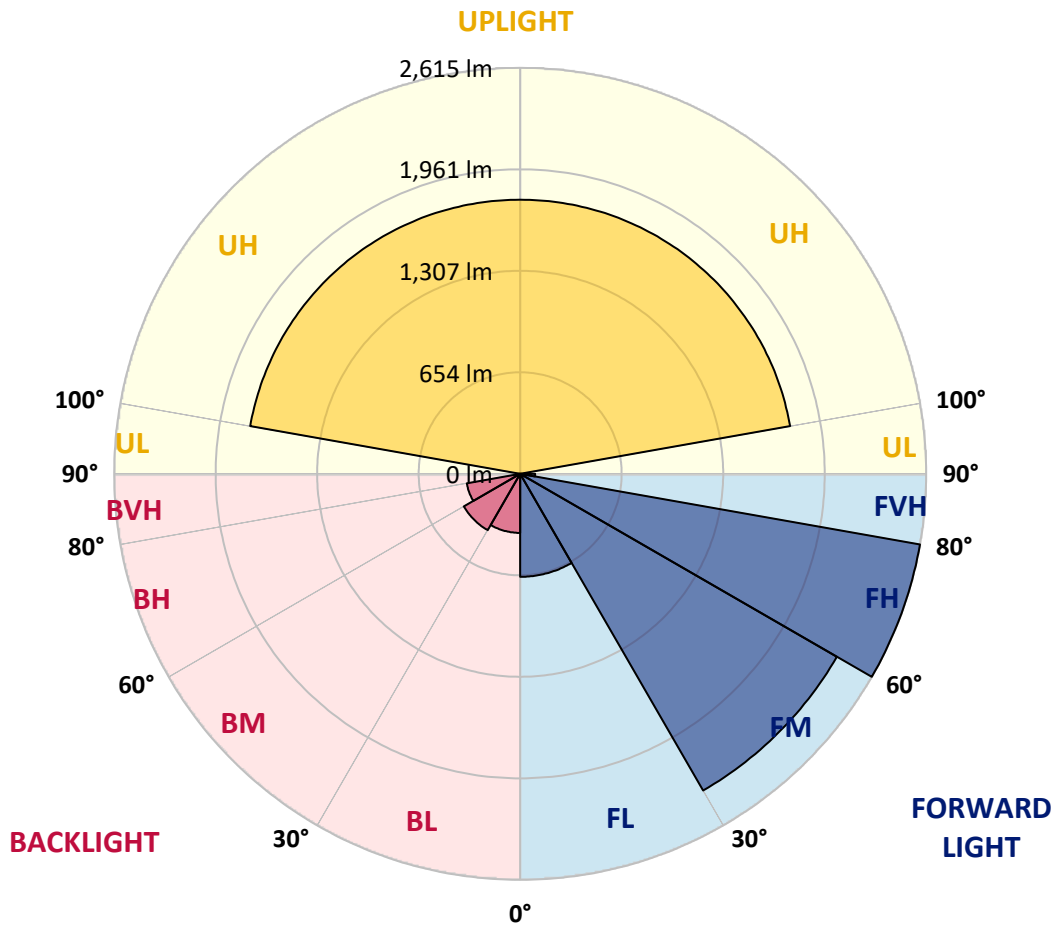


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	663.3	7.6			
FM (30°-60°)	2355.0	27.1			
FH (60°-80°)	2614.8	30.1			G2/5000
FVH (80°-90°)	96.7	1.1			G1/100
BL (0°-30°)	380.5	4.4	B1/500		
BM (30°-60°)	418.9	4.8	B1/1000		
BH (60°-80°)	349.1	4.0	B1/500		G1/500
BVH (80°-90°)	22.8	0.3			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	20.4		U5	

BUG Rating: B1-U5-G2
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9
2.5°	1962.9	1969.9	1972.9	1977.9	1977.9	1979.9	1977.9	1976.9	1980.9	1976.9	1965.9
5°	1875.9	1878.9	1887.9	1897.9	1907.9	1928.9	1934.9	1938.9	1947.9	1949.9	1938.9
7.5°	1757.9	1768.9	1780.9	1793.9	1814.9	1843.9	1868.9	1878.9	1895.9	1905.9	1889.9
10°	1657.9	1663.9	1669.9	1692.9	1725.9	1765.9	1791.9	1810.9	1837.9	1850.9	1835.9
12.5°	1557.9	1562.9	1574.9	1605.9	1639.9	1687.9	1734.9	1749.9	1781.9	1807.9	1795.9
15°	1480.9	1480.9	1489.9	1523.9	1559.9	1623.9	1678.9	1701.9	1741.9	1778.9	1763.9
17.5°	1412.9	1415.9	1421.9	1443.9	1493.9	1560.9	1630.9	1659.9	1709.9	1757.9	1737.9
20°	1374.9	1372.9	1376.9	1387.9	1427.9	1498.9	1582.9	1616.9	1678.9	1744.9	1712.9
22.5°	1361.9	1359.9	1356.9	1355.9	1381.9	1441.9	1531.9	1573.9	1650.9	1737.9	1689.9
25°	1371.9	1371.9	1362.9	1345.9	1357.9	1398.9	1485.9	1530.9	1619.9	1732.9	1668.9
27.5°	1398.9	1398.9	1385.9	1363.9	1358.9	1376.9	1445.9	1493.9	1593.9	1735.9	1651.9
30°	1435.9	1434.9	1421.9	1402.9	1387.9	1381.9	1426.9	1470.9	1575.9	1748.9	1643.9
32.5°	1477.9	1475.9	1469.9	1456.9	1438.9	1412.9	1428.9	1467.9	1571.9	1771.9	1644.9
35°	1527.9	1524.9	1527.9	1520.9	1503.9	1475.9	1465.9	1496.9	1591.9	1814.9	1661.9
37.5°	1571.9	1569.9	1584.9	1588.9	1584.9	1547.9	1534.9	1554.9	1638.9	1882.9	1696.9
40°	1608.9	1610.9	1637.9	1666.9	1672.9	1640.9	1631.9	1648.9	1714.9	1965.9	1759.9
42.5°	1649.9	1655.9	1695.9	1747.9	1767.9	1746.9	1751.9	1763.9	1810.9	2078.9	1850.9
45°	1689.9	1702.9	1757.9	1824.9	1875.9	1875.9	1892.9	1904.9	1934.9	2220.9	1983.9
47.5°	1759.9	1768.9	1828.9	1909.9	1987.9	2012.9	2059.9	2055.9	2078.9	2376.9	2139.9
50°	1850.9	1865.9	1926.9	2010.9	2109.9	2180.9	2234.9	2242.9	2251.9	2536.8	2324.9
52.5°	1976.9	1994.9	2044.9	2122.9	2239.9	2355.9	2469.9	2464.9	2452.9	2710.8	2536.8
55°	2103.9	2122.9	2169.9	2232.9	2370.9	2548.8	2734.8	2727.8	2672.8	2888.8	2732.8
57.5°	2232.9	2248.9	2297.9	2352.9	2515.8	2776.8	3014.8	3019.8	2906.8	3086.8	2926.8
60°	2286.9	2310.9	2431.9	2537.8	2741.8	3029.8	3300.8	3313.8	3149.8	3286.8	3140.8
62.5°	2042.9	2071.9	2271.9	2557.8	3051.8	3517.8	3672.8	3680.8	3442.8	3507.8	3374.8
65°	1511.9	1510.9	1717.9	2145.9	2989.8	4172.7	4335.7	4209.7	3806.8	3800.8	3683.8
67.5°	865.9	891.9	957.9	1279.9	2277.9	4293.7	5515.7	5186.7	4451.7	4256.7	4095.8
70°	698.0	692.0	712.0	798.0	1241.9	3530.8	6284.6	6434.6	5367.7	4628.7	4002.8
71°	629.0	638.0	658.0	736.0	979.9	2945.8	6246.6	6679.6	5617.7	4618.7	3825.8
72.5°	541.0	543.0	589.0	681.0	805.0	2077.9	5775.7	6477.6	5879.6	4487.7	3565.8
75°	368.0	373.0	445.0	548.0	735.0	986.9	4132.8	5239.7	5351.7	4193.7	2944.8
77.5°	211.0	215.0	267.0	401.0	626.0	696.0	2536.8	3620.8	3847.8	3066.8	1578.9
80°	109.0	114.0	148.0	253.0	478.0	563.0	1454.9	2276.9	2188.9	1059.9	366.0
82.5°	29.0	33.0	43.0	91.0	231.0	367.0	645.0	941.9	673.0	220.0	133.0
85°	0.0	0.0	0.0	1.0	2.0	51.0	136.0	169.0	94.0	43.0	36.0
87.5°	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0	2.0	3.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.6	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.5	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.4	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.9	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.8	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.2	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.3	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.0	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.3	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.2	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.4	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.9	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.3	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.4	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.5	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.0	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.0	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.0	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.0	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9
2.5°	1963.9	1963.9	1957.9	1948.9	1938.9	1915.9	1919.9	1901.9	1903.9	1901.9	1901.9
5°	1929.9	1923.9	1908.9	1880.9	1849.9	1808.9	1802.9	1769.9	1750.9	1744.9	1751.9
7.5°	1882.9	1865.9	1827.9	1778.9	1719.9	1666.9	1617.9	1573.9	1540.9	1526.9	1520.9
10°	1820.9	1799.9	1737.9	1651.9	1570.9	1487.9	1410.9	1360.9	1294.9	1274.9	1268.9
12.5°	1769.9	1733.9	1640.9	1520.9	1394.9	1284.9	1180.9	1075.9	1012.9	967.9	960.9
15°	1725.9	1674.9	1541.9	1386.9	1229.9	1077.9	936.9	796.0	707.0	669.0	642.0
17.5°	1686.9	1620.9	1442.9	1241.9	1047.9	846.9	675.0	540.0	484.0	455.0	456.0
20°	1646.9	1562.9	1339.9	1096.9	867.9	645.0	477.0	414.0	386.0	380.0	377.0
22.5°	1608.9	1496.9	1230.9	953.9	684.0	474.0	384.0	353.0	346.0	346.0	346.0
25°	1565.9	1429.9	1120.9	808.0	518.0	374.0	330.0	319.0	321.0	325.0	326.0
27.5°	1530.9	1371.9	1011.9	639.0	402.0	318.0	295.0	293.0	301.0	310.0	310.0
30°	1499.9	1318.9	893.9	499.0	320.0	279.0	271.0	274.0	282.0	290.0	293.0
32.5°	1478.9	1270.9	788.0	388.0	273.0	252.0	250.0	254.0	262.0	266.0	269.0
35°	1469.9	1235.9	674.0	313.0	243.0	232.0	231.0	234.0	238.0	239.0	238.0
37.5°	1479.9	1211.9	557.0	265.0	224.0	218.0	217.0	217.0	217.0	218.0	217.0
40°	1508.9	1202.9	452.0	234.0	212.0	207.0	204.0	201.0	199.0	199.0	198.0
42.5°	1569.9	1216.9	363.0	216.0	203.0	197.0	191.0	187.0	184.0	183.0	183.0
45°	1667.9	1255.9	302.0	204.0	195.0	186.0	179.0	175.0	172.0	173.0	172.0
47.5°	1802.9	1320.9	267.0	196.0	187.0	175.0	168.0	164.0	163.0	166.0	167.0
50°	1955.9	1412.9	246.0	190.0	181.0	166.0	158.0	155.0	156.0	162.0	163.0
52.5°	2135.9	1531.9	237.0	186.0	176.0	158.0	151.0	148.0	150.0	157.0	158.0
55°	2329.9	1667.9	250.0	188.0	171.0	153.0	145.0	141.0	144.0	150.0	151.0
57.5°	2526.8	1835.9	294.0	189.0	165.0	149.0	139.0	133.0	135.0	140.0	141.0
60°	2725.8	2002.9	370.0	190.0	163.0	145.0	134.0	125.0	126.0	129.0	130.0
62.5°	2959.8	2214.9	470.0	194.0	165.0	142.0	125.0	115.0	115.0	117.0	117.0
65°	3314.8	2530.8	536.0	192.0	170.0	139.0	116.0	106.0	105.0	106.0	106.0
67.5°	3569.8	2572.8	374.0	181.0	173.0	140.0	111.0	98.0	96.0	95.0	95.0
70°	3299.8	2164.9	247.0	171.0	168.0	142.0	107.0	93.0	89.0	86.0	85.0
71°	3112.8	1950.9	229.0	167.0	164.0	140.0	105.0	90.0	86.0	84.0	83.0
72.5°	2835.8	1740.9	211.0	161.0	155.0	136.0	102.0	87.0	82.0	79.0	78.0
75°	2240.9	1334.9	185.0	148.0	134.0	112.0	94.0	81.0	76.0	72.0	71.0
77.5°	1012.9	531.0	142.0	128.0	109.0	89.0	82.0	75.0	69.0	66.0	65.0
80°	283.0	202.0	104.0	101.0	82.0	69.0	66.0	64.0	62.0	58.0	58.0
82.5°	131.0	118.0	74.0	71.0	56.0	49.0	52.0	53.0	53.0	49.0	48.0
85°	36.0	39.0	34.0	38.0	36.0	33.0	38.0	41.0	43.0	39.0	36.0
87.5°	3.0	7.0	9.0	15.0	18.0	19.0	24.0	29.0	30.0	24.0	25.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)