

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: P401829

Luminaire Tested: **ENT-SA1F-735-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401829
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-735-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6128 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66.1
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

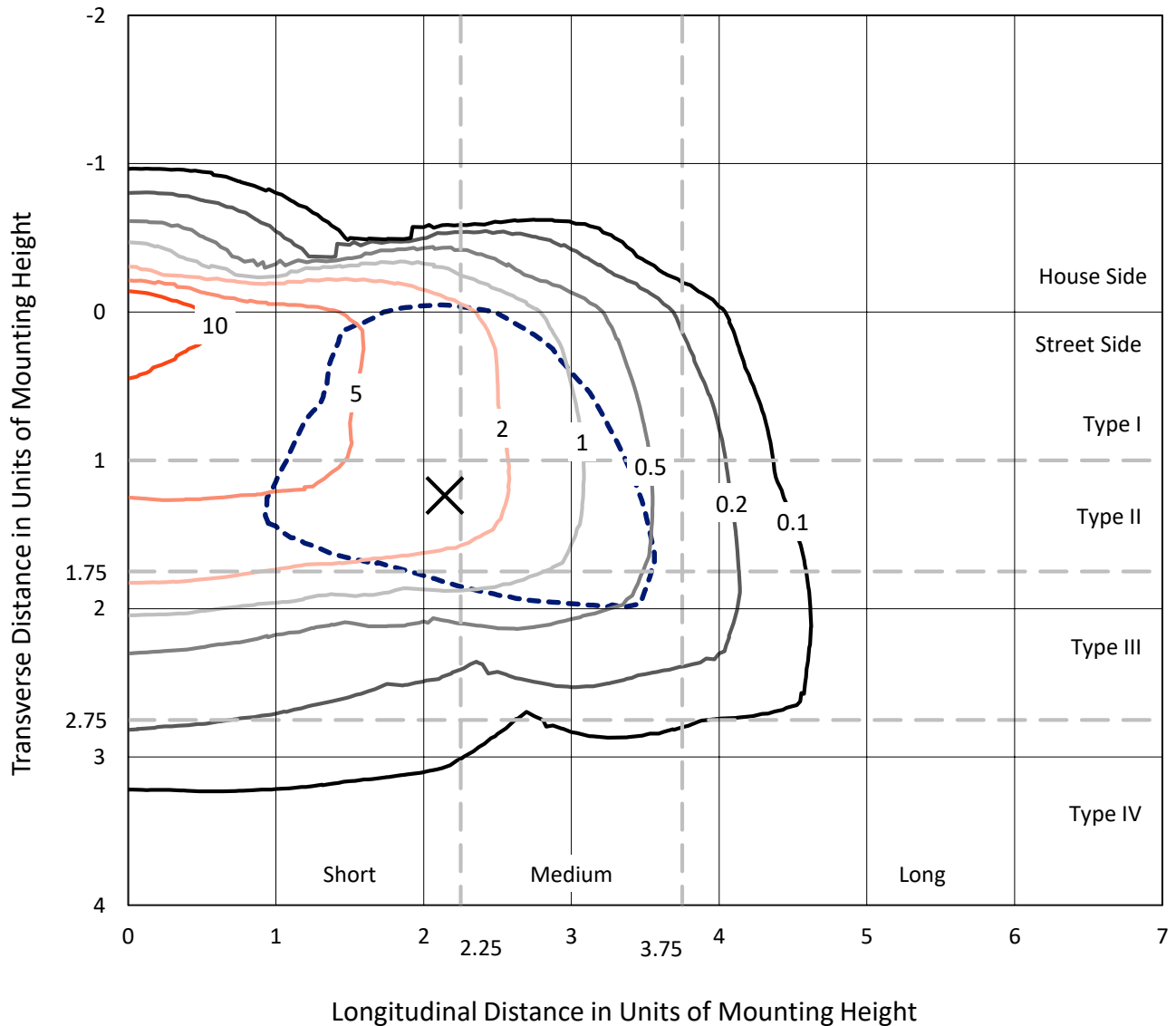


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

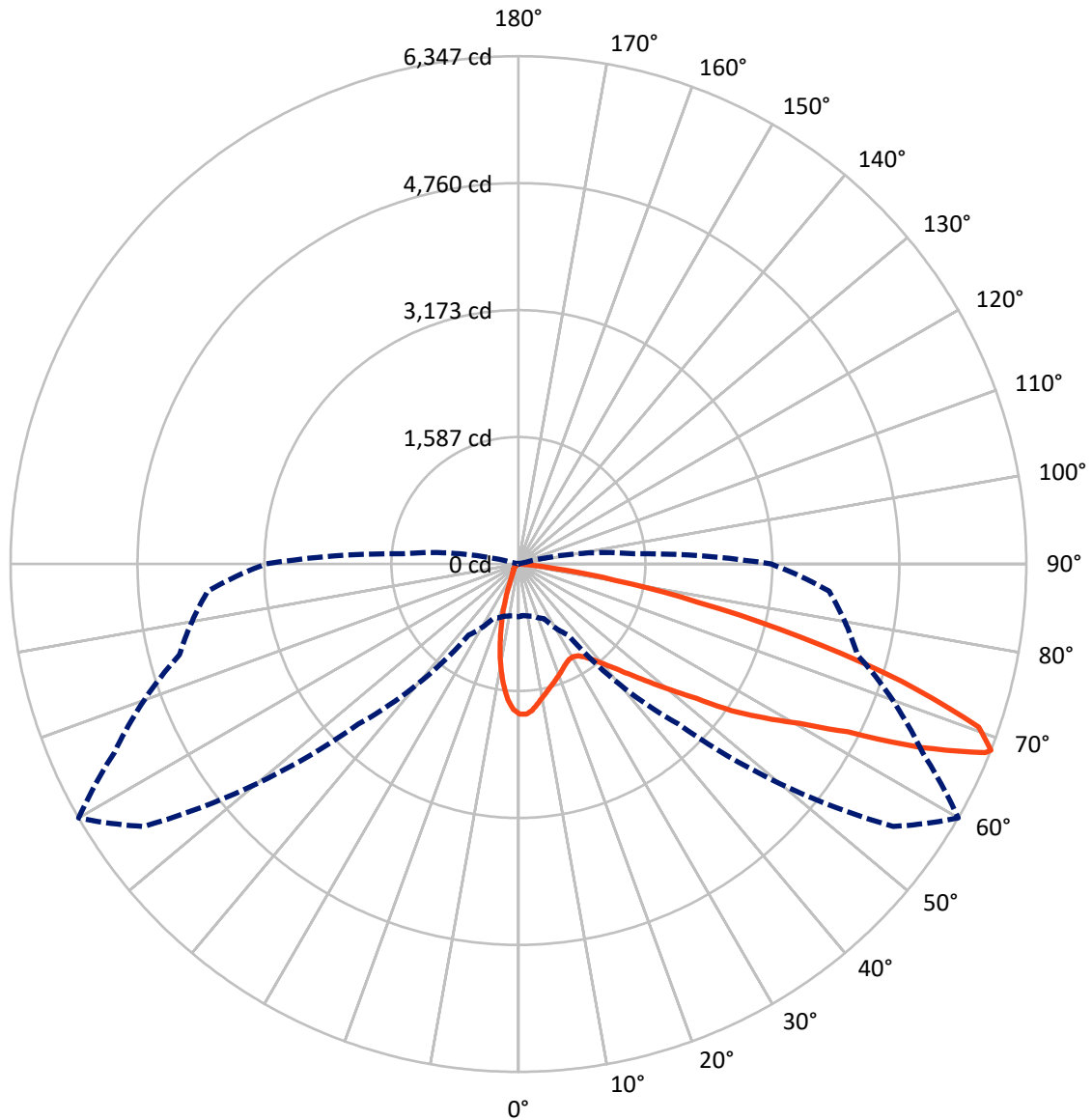


Based on 10 foot mounting height. Maximum calculated value = 18.8 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	685.1	0.0	685.1
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	5442.9	0.0	5442.9
	% Fixture	88.8	0.0	88.8
Total	Lumens	6128.0	0.0	6128.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.2	2.5
10°-20°	310.5	5.1
20°-30°	408.7	6.7
30°-40°	564.1	9.2
40°-50°	855.0	14.0
50°-60°	1379.7	22.5
60°-70°	1639.0	26.7
70°-80°	772.6	12.6
80°-90°	46.1	0.8
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°	6128.0	100.0
0°-180°	6128.0	100.0



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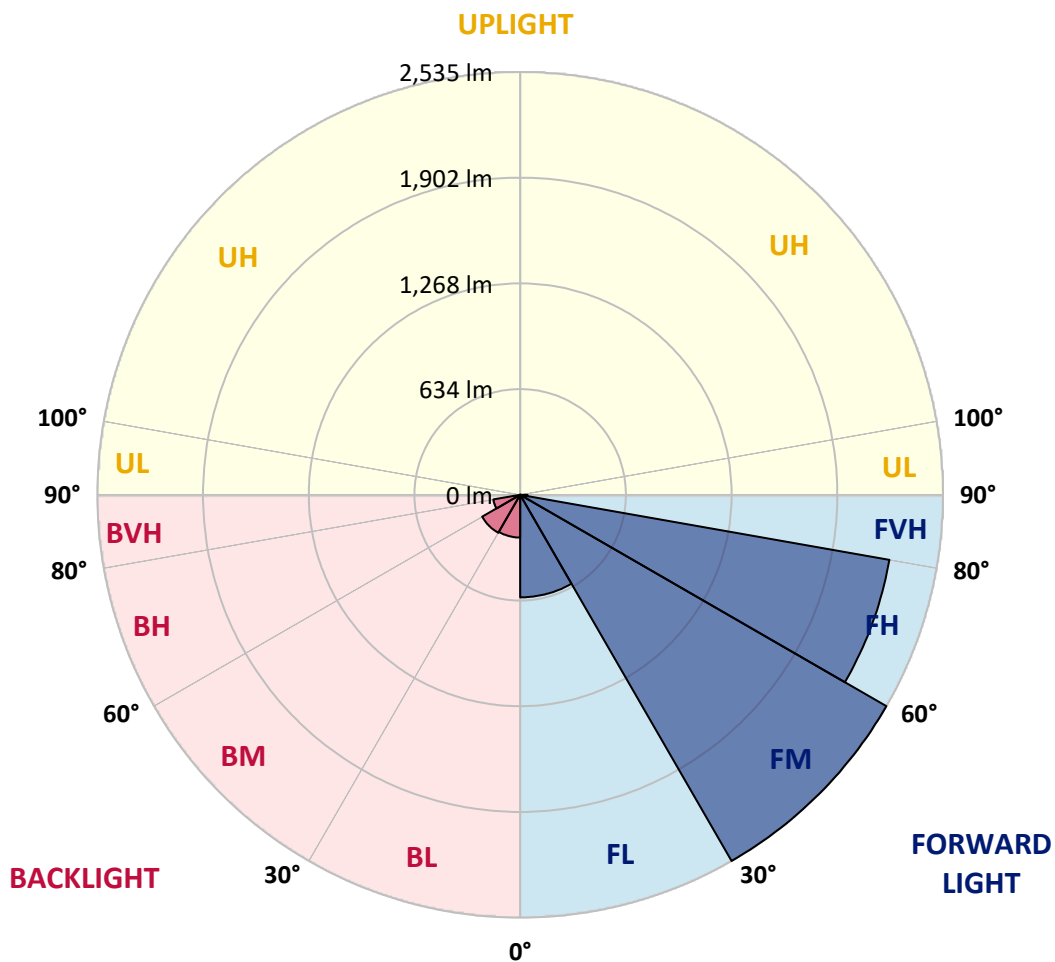
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	615.0	10.0			
FM	(30°-60°)	2535.5	41.4			
FH	(60°-80°)	2248.2	36.7			G2/5000
FVH	(80°-90°)	44.2	0.7			G1/100
BL	(0°-30°)	256.4	4.2	B1/500		
BM	(30°-60°)	263.4	4.3	B1/1000		
BH	(60°-80°)	163.4	2.7	B1/500		G1/500
BVH	(80°-90°)	2.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7
2.5°	1859.1	1854.9	1866.4	1869.5	1872.6	1878.8	1877.8	1878.8	1879.9	1877.8	1865.3
5°	1732.2	1739.5	1749.9	1763.4	1776.9	1808.1	1820.6	1833.1	1841.4	1847.6	1836.2
7.5°	1607.5	1622.0	1630.3	1655.3	1676.1	1708.3	1735.3	1757.2	1778.0	1800.9	1789.4
10°	1507.6	1512.8	1520.1	1543.0	1574.2	1623.1	1658.4	1685.4	1710.4	1748.9	1739.5
12.5°	1409.9	1413.0	1427.6	1452.5	1484.8	1545.1	1591.9	1623.1	1651.1	1699.0	1700.0
15°	1338.2	1339.2	1348.6	1371.4	1408.9	1473.3	1533.6	1567.9	1607.5	1665.7	1668.8
17.5°	1291.4	1290.3	1292.4	1307.0	1342.3	1403.7	1476.4	1517.0	1563.8	1638.6	1641.8
20°	1276.8	1274.7	1270.6	1267.5	1289.3	1342.3	1424.5	1469.2	1524.3	1618.9	1619.9
22.5°	1289.3	1285.1	1275.8	1258.1	1264.3	1298.7	1367.3	1421.3	1488.9	1608.5	1601.2
25°	1319.4	1319.4	1307.0	1278.9	1264.3	1271.6	1326.7	1378.7	1453.6	1603.3	1587.7
27.5°	1369.4	1367.3	1350.6	1321.5	1294.5	1274.7	1301.8	1350.6	1427.6	1609.5	1581.5
30°	1429.7	1423.4	1405.7	1384.9	1351.7	1309.0	1307.0	1343.4	1415.1	1629.3	1585.6
32.5°	1486.8	1486.8	1479.6	1459.8	1427.6	1371.4	1339.2	1368.3	1430.7	1661.5	1599.1
35°	1557.5	1556.5	1558.6	1551.3	1523.2	1464.0	1412.0	1426.5	1478.5	1715.6	1631.4
37.5°	1613.7	1614.7	1632.4	1644.9	1632.4	1570.0	1516.0	1516.0	1559.6	1796.7	1686.5
40°	1668.8	1670.9	1704.2	1740.5	1743.7	1693.8	1641.8	1640.7	1665.7	1896.5	1771.7
42.5°	1718.7	1727.0	1774.9	1837.2	1873.6	1840.4	1801.9	1789.4	1801.9	2047.3	1910.0
45°	1771.7	1788.4	1854.9	1945.4	2004.6	2005.7	1991.1	1976.6	1982.8	2216.8	2095.1
47.5°	1840.4	1859.1	1942.3	2053.5	2165.8	2194.9	2208.4	2203.2	2186.6	2430.9	2334.2
50°	1951.6	1969.3	2047.3	2172.0	2325.9	2430.9	2467.3	2473.6	2451.7	2668.0	2605.6
52.5°	2140.8	2151.2	2224.0	2322.8	2495.4	2691.9	2787.6	2788.6	2739.7	2945.6	2898.8
55°	2343.6	2370.6	2455.9	2570.3	2748.1	2968.5	3207.6	3233.6	3082.9	3188.9	3113.0
57.5°	2346.7	2372.7	2514.1	2733.5	3105.7	3397.9	3611.1	3629.8	3462.4	3384.4	3314.7
60°	2099.3	2112.8	2309.3	2630.6	3233.6	3977.1	4070.6	4042.6	3728.6	3586.1	3567.4
62.5°	1481.6	1487.9	1720.8	2144.0	2950.8	4253.6	4770.4	4619.6	4107.0	3883.5	3945.9
65°	932.7	929.5	1026.2	1364.2	2194.9	3981.2	5635.5	5525.2	4802.6	4255.7	4241.1
67.5°	688.3	671.7	697.7	802.7	1253.9	3125.5	5794.5	6291.5	5464.9	4410.6	3985.4
68°	660.2	645.7	672.7	753.8	1084.5	2829.2	5717.6	6346.6	5570.0	4385.7	3898.0
70°	560.4	546.9	569.8	631.1	754.9	1836.2	5044.9	6102.3	5665.6	4173.6	3435.3
72.5°	398.2	405.5	465.8	541.7	639.4	942.0	3715.0	5011.6	4873.3	3711.9	2613.9
75°	236.0	249.5	328.6	436.7	587.5	621.8	2396.6	3643.3	3575.7	2570.3	1416.1
77.5°	83.2	88.4	163.2	291.1	484.5	492.8	1335.0	2290.6	2130.5	1050.1	418.0
80°	30.2	30.2	60.3	162.2	313.0	376.4	709.1	1222.7	841.2	272.4	115.4
82.5°	5.2	5.2	13.5	55.1	138.3	200.7	329.6	434.6	249.5	60.3	57.2
85°	0.0	0.0	0.0	0.0	2.1	2.1	96.7	97.7	45.7	8.3	25.0
87.5°	0.0	0.0	0.0	0.0	0.0	1.0	2.1	2.1	2.1	2.1	3.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7	1875.7
2.5°	1860.1	1858.0	1846.6	1825.8	1808.1	1779.0	1773.8	1745.7	1735.3	1727.0	1735.3
5°	1827.9	1816.4	1778.0	1731.2	1667.8	1592.9	1549.2	1488.9	1476.4	1443.2	1462.9
7.5°	1774.9	1748.9	1677.1	1576.3	1459.8	1345.4	1258.1	1173.9	1102.1	1077.2	1069.9
10°	1718.7	1682.3	1561.7	1405.7	1237.3	1061.6	931.6	810.0	742.4	679.0	676.9
12.5°	1665.7	1610.6	1435.9	1218.6	983.6	774.6	606.2	478.3	398.2	354.6	366.0
15°	1623.1	1549.2	1309.0	1031.4	734.1	499.1	343.1	261.0	232.9	219.4	221.5
17.5°	1581.5	1483.7	1186.4	836.0	523.0	307.8	222.5	194.4	186.1	183.0	180.9
20°	1544.0	1420.3	1057.4	659.2	345.2	213.1	183.0	173.6	170.5	168.4	168.4
22.5°	1506.6	1353.8	928.5	488.7	236.0	174.7	164.3	160.1	158.0	154.9	154.9
25°	1472.3	1289.3	799.6	342.1	180.9	156.0	148.7	144.5	140.4	137.2	137.2
27.5°	1446.3	1240.4	680.0	242.3	151.8	140.4	133.1	125.8	120.6	116.5	116.5
30°	1429.7	1192.6	564.6	183.0	135.2	124.8	115.4	106.1	97.7	92.5	91.5
32.5°	1420.3	1153.1	457.5	149.7	120.6	109.2	97.7	87.3	78.0	71.7	71.7
35°	1424.5	1121.9	350.4	126.8	109.2	95.7	83.2	70.7	62.4	57.2	56.1
37.5°	1451.5	1104.2	261.0	112.3	97.7	83.2	70.7	58.2	49.9	45.7	44.7
40°	1502.4	1108.4	198.6	101.9	89.4	72.8	58.2	47.8	40.6	36.4	36.4
42.5°	1605.4	1138.5	157.0	93.6	80.1	62.4	48.9	39.5	33.3	30.2	29.1
45°	1741.6	1195.7	128.9	86.3	70.7	53.0	41.6	33.3	27.0	23.9	23.9
47.5°	1947.5	1287.2	111.3	79.0	61.3	44.7	34.3	27.0	20.8	18.7	17.7
50°	2185.6	1415.1	97.7	70.7	54.1	37.4	29.1	20.8	16.6	13.5	13.5
52.5°	2428.9	1557.5	88.4	63.4	46.8	32.2	22.9	15.6	11.4	9.4	9.4
55°	2652.4	1677.1	79.0	57.2	39.5	27.0	18.7	12.5	8.3	6.2	6.2
57.5°	2868.7	1786.3	68.6	49.9	32.2	21.8	14.6	9.4	6.2	4.2	4.2
60°	3140.1	1927.7	59.3	42.6	26.0	17.7	11.4	7.3	4.2	3.1	2.1
62.5°	3467.6	2030.6	49.9	34.3	20.8	13.5	8.3	5.2	3.1	1.0	1.0
65°	3588.2	1894.4	41.6	28.1	16.6	10.4	6.2	4.2	2.1	1.0	1.0
67.5°	3251.3	1526.4	33.3	21.8	12.5	7.3	5.2	3.1	2.1	1.0	1.0
68°	3157.7	1451.5	32.2	20.8	11.4	7.3	4.2	3.1	1.0	1.0	0.0
70°	2665.9	1165.6	26.0	15.6	9.4	6.2	4.2	2.1	1.0	1.0	0.0
72.5°	1976.6	803.7	18.7	10.4	6.2	4.2	3.1	2.1	1.0	1.0	0.0
75°	1042.9	313.0	14.6	8.3	5.2	4.2	3.1	3.1	2.1	1.0	1.0
77.5°	299.4	98.8	11.4	6.2	5.2	5.2	5.2	4.2	4.2	3.1	2.1
80°	87.3	32.2	7.3	4.2	5.2	5.2	6.2	5.2	5.2	4.2	4.2
82.5°	46.8	12.5	4.2	3.1	3.1	4.2	5.2	4.2	3.1	2.1	1.0
85°	19.8	4.2	3.1	2.1	2.1	2.1	2.1	2.1	2.1	1.0	1.0
87.5°	1.0	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)