

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: P401850

Luminaire Tested: **ENT-SA1F-740-U-SL3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401850
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-740-U-SL3-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 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: 6524 lumens
Efficiency: N/A
Efficacy: 98.7 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

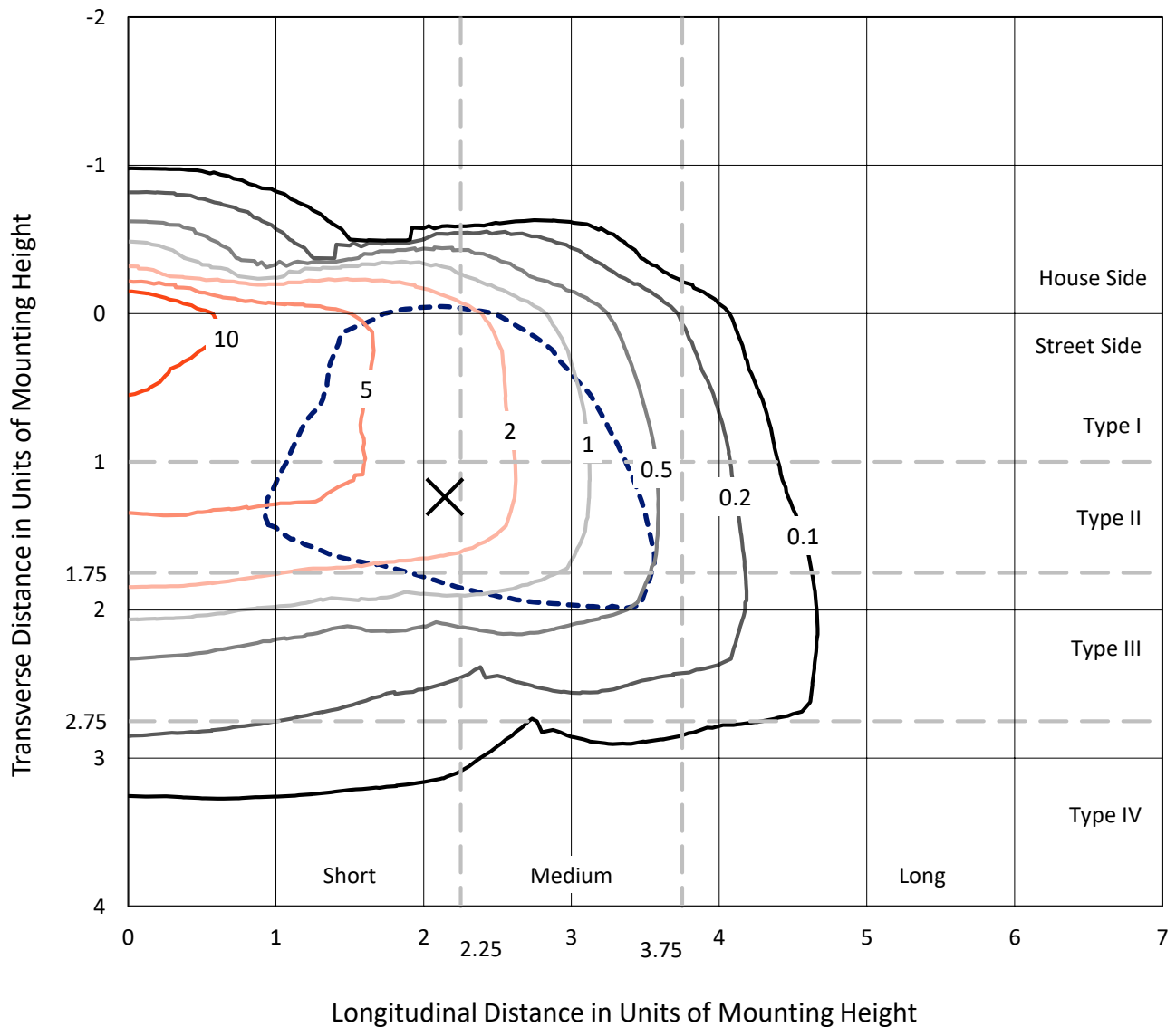


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Iso-Footcandle Lines of Horizontal Illumination

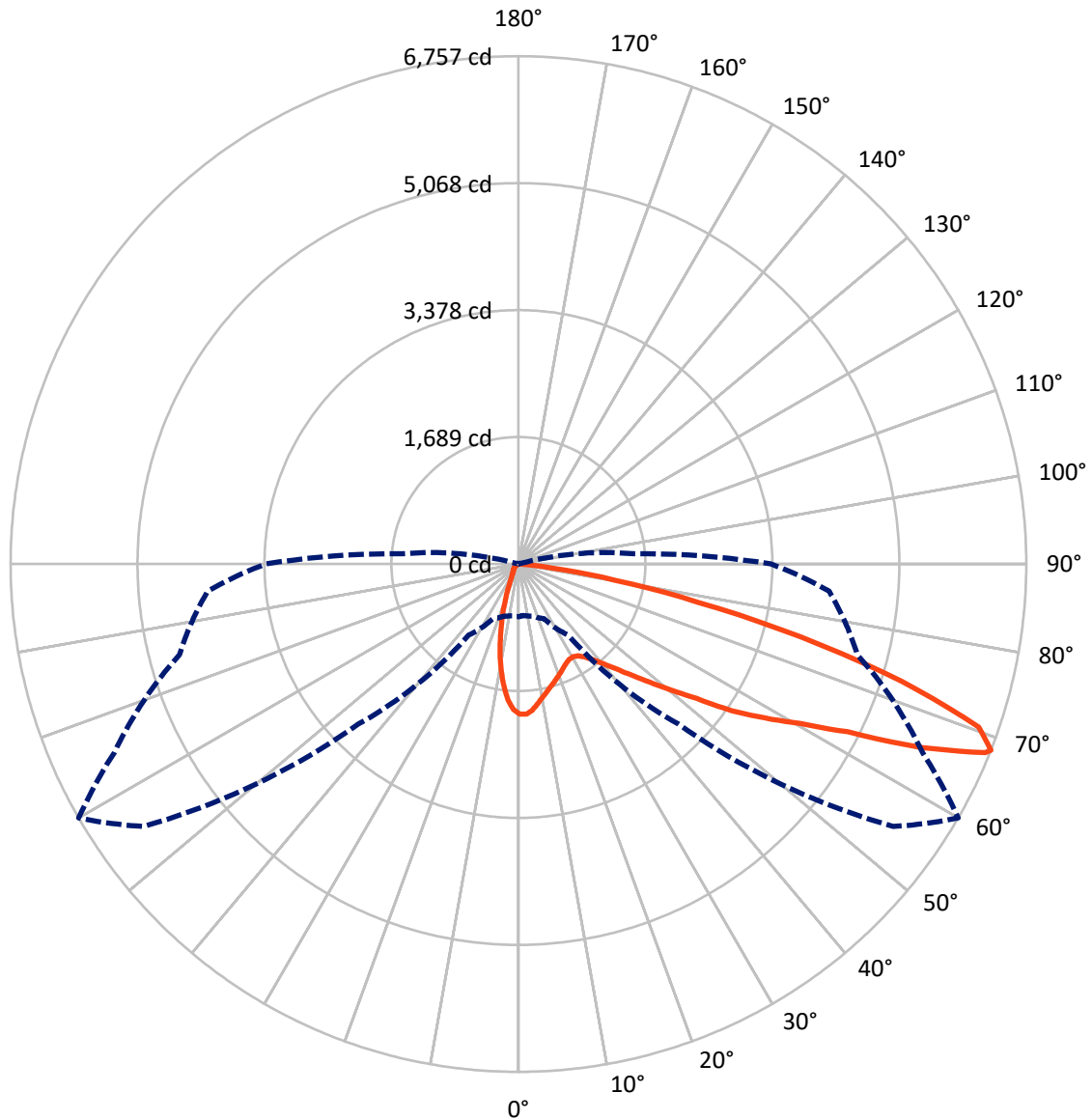
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20 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	729.4	0.0	729.4
	% Fixture	11.2	0.0	11.2
Street Side	Lumens	5794.6	0.0	5794.6
	% Fixture	88.8	0.0	88.8
Total	Lumens	6524.0	0.0	6524.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.0	2.5
10°-20°	330.5	5.1
20°-30°	435.2	6.7
30°-40°	600.5	9.2
40°-50°	910.3	14.0
50°-60°	1468.9	22.5
60°-70°	1744.9	26.7
70°-80°	822.5	12.6
80°-90°	49.1	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°	6524.0	100.0
0°-180°	6524.0	100.0



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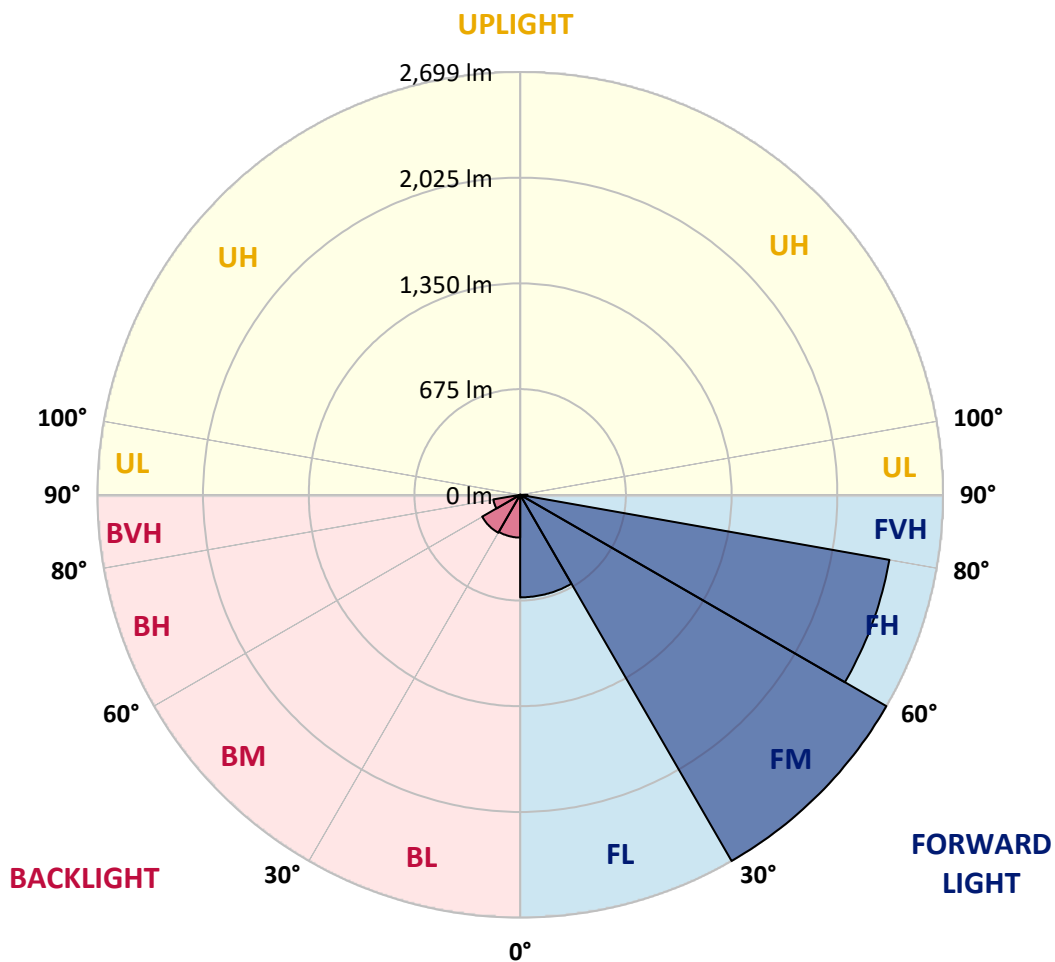
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	654.8	10.0			
FM	(30°-60°)	2699.3	41.4			
FH	(60°-80°)	2393.4	36.7			G2/5000
FVH	(80°-90°)	47.0	0.7			G1/100
BL	(0°-30°)	272.9	4.2	B1/500		
BM	(30°-60°)	280.4	4.3	B1/1000		
BH	(60°-80°)	174.0	2.7	B1/500		G1/500
BVH	(80°-90°)	2.1	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°	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9
2.5°	1979.2	1974.8	1987.0	1990.3	1993.6	2000.2	1999.1	2000.2	2001.4	1999.1	1985.9
5°	1844.2	1851.9	1863.0	1877.4	1891.8	1925.0	1938.3	1951.5	1960.4	1967.0	1954.9
7.5°	1711.3	1726.8	1735.7	1762.3	1784.4	1818.7	1847.5	1870.7	1892.9	1917.2	1905.0
10°	1605.1	1610.6	1618.3	1642.7	1675.9	1727.9	1765.6	1794.4	1820.9	1861.9	1851.9
12.5°	1501.0	1504.3	1519.8	1546.4	1580.7	1644.9	1694.7	1727.9	1757.8	1808.7	1809.9
15°	1424.6	1425.7	1435.7	1460.1	1499.9	1568.5	1632.7	1669.3	1711.3	1773.3	1776.6
17.5°	1374.8	1373.7	1375.9	1391.4	1429.1	1494.4	1571.9	1615.0	1664.8	1744.5	1747.9
20°	1359.3	1357.1	1352.7	1349.4	1372.6	1429.1	1516.5	1564.1	1622.8	1723.5	1724.6
22.5°	1372.6	1368.2	1358.2	1339.4	1346.0	1382.6	1455.6	1513.2	1585.1	1712.4	1704.7
25°	1404.7	1404.7	1391.4	1361.5	1346.0	1353.8	1412.5	1467.8	1547.5	1706.9	1690.3
27.5°	1457.8	1455.6	1437.9	1406.9	1378.1	1357.1	1385.9	1437.9	1519.8	1713.5	1683.7
30°	1522.0	1515.4	1496.6	1474.4	1439.0	1393.6	1391.4	1430.2	1506.5	1734.6	1688.1
32.5°	1582.9	1582.9	1575.2	1554.1	1519.8	1460.1	1425.7	1456.7	1523.2	1768.9	1702.5
35°	1658.2	1657.1	1659.3	1651.6	1621.7	1558.6	1503.2	1518.7	1574.1	1826.5	1736.8
37.5°	1718.0	1719.1	1737.9	1751.2	1737.9	1671.5	1613.9	1613.9	1660.4	1912.8	1795.5
40°	1776.6	1778.9	1814.3	1853.0	1856.3	1803.2	1747.9	1746.8	1773.3	2019.1	1886.2
42.5°	1829.8	1838.6	1889.6	1956.0	1994.7	1959.3	1918.3	1905.0	1918.3	2179.6	2033.5
45°	1886.2	1903.9	1974.8	2071.1	2134.2	2135.3	2119.8	2104.3	2110.9	2360.0	2230.5
47.5°	1959.3	1979.2	2067.8	2186.2	2305.8	2336.8	2351.1	2345.6	2327.9	2588.0	2485.1
50°	2077.7	2096.5	2179.6	2312.4	2476.2	2588.0	2626.8	2633.4	2610.2	2840.4	2774.0
52.5°	2279.2	2290.3	2367.7	2472.9	2656.7	2865.9	2967.7	2968.8	2916.8	3136.0	3086.2
55°	2495.0	2523.8	2614.6	2736.4	2925.6	3160.3	3414.9	3442.6	3282.1	3395.0	3314.2
57.5°	2498.4	2526.0	2676.6	2910.2	3306.4	3617.5	3844.4	3864.3	3686.1	3603.1	3528.9
60°	2234.9	2249.3	2458.5	2800.6	3442.6	4234.1	4333.7	4303.8	3969.5	3817.8	3797.9
62.5°	1577.4	1584.0	1832.0	2282.5	3141.5	4528.5	5078.7	4918.1	4372.4	4134.4	4200.8
65°	992.9	989.6	1092.6	1452.3	2336.8	4238.5	5999.6	5882.3	5113.0	4530.7	4515.2
67.5°	732.8	715.1	742.8	854.6	1335.0	3327.5	6169.0	6698.1	5818.1	4695.6	4242.9
68°	702.9	687.4	716.2	802.5	1154.5	3012.0	6087.1	6756.8	5929.9	4669.1	4149.9
70°	596.6	582.3	606.6	671.9	803.6	1954.9	5370.9	6496.6	6031.7	4443.3	3657.3
72.5°	424.0	431.7	495.9	576.7	680.8	1002.9	3955.1	5335.5	5188.2	3951.8	2782.9
75°	251.3	265.7	349.8	464.9	625.4	662.0	2551.5	3878.7	3806.8	2736.4	1507.7
77.5°	88.6	94.1	173.8	309.9	515.8	524.7	1421.3	2438.6	2268.1	1118.0	445.0
80°	32.1	32.1	64.2	172.7	333.2	400.7	754.9	1301.8	895.5	290.0	122.9
82.5°	5.5	5.5	14.4	58.7	147.2	213.6	350.9	462.7	265.7	64.2	60.9
85°	0.0	0.0	0.0	0.0	2.2	2.2	102.9	104.1	48.7	8.9	26.6
87.5°	0.0	0.0	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2	3.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9	1996.9
2.5°	1980.3	1978.1	1965.9	1943.8	1925.0	1894.0	1888.4	1858.6	1847.5	1838.6	1847.5
5°	1946.0	1933.8	1892.9	1843.1	1775.5	1695.8	1649.3	1585.1	1571.9	1536.4	1557.5
7.5°	1889.6	1861.9	1785.5	1678.1	1554.1	1432.4	1339.4	1249.7	1173.4	1146.8	1139.0
10°	1829.8	1791.0	1662.6	1496.6	1317.3	1130.2	991.8	862.3	790.4	722.8	720.6
12.5°	1773.3	1714.7	1528.7	1297.3	1047.2	824.7	645.3	509.2	424.0	377.5	389.6
15°	1727.9	1649.3	1393.6	1098.1	781.5	531.3	365.3	277.8	248.0	233.6	235.8
17.5°	1683.7	1579.6	1263.0	890.0	556.8	327.7	236.9	207.0	198.1	194.8	192.6
20°	1643.8	1512.1	1125.8	701.8	367.5	226.9	194.8	184.9	181.5	179.3	179.3
22.5°	1604.0	1441.2	988.5	520.3	251.3	186.0	174.9	170.5	168.3	164.9	164.9
25°	1567.4	1372.6	851.2	364.2	192.6	166.0	158.3	153.9	149.4	146.1	146.1
27.5°	1539.8	1320.6	723.9	257.9	161.6	149.4	141.7	133.9	128.4	124.0	124.0
30°	1522.0	1269.7	601.1	194.8	143.9	132.8	122.9	112.9	104.1	98.5	97.4
32.5°	1512.1	1227.6	487.1	159.4	128.4	116.2	104.1	93.0	83.0	76.4	76.4
35°	1516.5	1194.4	373.0	135.0	116.2	101.8	88.6	75.3	66.4	60.9	59.8
37.5°	1545.3	1175.6	277.8	119.5	104.1	88.6	75.3	62.0	53.1	48.7	47.6
40°	1599.5	1180.0	211.4	108.5	95.2	77.5	62.0	50.9	43.2	38.7	38.7
42.5°	1709.1	1212.1	167.1	99.6	85.2	66.4	52.0	42.1	35.4	32.1	31.0
45°	1854.1	1273.0	137.3	91.9	75.3	56.5	44.3	35.4	28.8	25.5	25.5
47.5°	2073.3	1370.4	118.4	84.1	65.3	47.6	36.5	28.8	22.1	19.9	18.8
50°	2326.8	1506.5	104.1	75.3	57.6	39.8	31.0	22.1	17.7	14.4	14.4
52.5°	2585.8	1658.2	94.1	67.5	49.8	34.3	24.4	16.6	12.2	10.0	10.0
55°	2823.8	1785.5	84.1	60.9	42.1	28.8	19.9	13.3	8.9	6.6	6.6
57.5°	3054.1	1901.7	73.1	53.1	34.3	23.2	15.5	10.0	6.6	4.4	4.4
60°	3343.0	2052.3	63.1	45.4	27.7	18.8	12.2	7.7	4.4	3.3	2.2
62.5°	3691.7	2161.9	53.1	36.5	22.1	14.4	8.9	5.5	3.3	1.1	1.1
65°	3820.1	2016.8	44.3	29.9	17.7	11.1	6.6	4.4	2.2	1.1	1.1
67.5°	3461.4	1625.0	35.4	23.2	13.3	7.7	5.5	3.3	2.2	1.1	1.1
68°	3361.8	1545.3	34.3	22.1	12.2	7.7	4.4	3.3	1.1	1.1	0.0
70°	2838.2	1240.9	27.7	16.6	10.0	6.6	4.4	2.2	1.1	1.1	0.0
72.5°	2104.3	855.7	19.9	11.1	6.6	4.4	3.3	2.2	1.1	1.1	0.0
75°	1110.3	333.2	15.5	8.9	5.5	4.4	3.3	3.3	2.2	1.1	1.1
77.5°	318.8	105.2	12.2	6.6	5.5	5.5	5.5	4.4	4.4	3.3	2.2
80°	93.0	34.3	7.7	4.4	5.5	5.5	6.6	5.5	5.5	4.4	4.4
82.5°	49.8	13.3	4.4	3.3	3.3	4.4	5.5	4.4	3.3	2.2	1.1
85°	21.0	4.4	3.3	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1
87.5°	1.1	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)