

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: P401814

Luminaire Tested: **ENT-SA1F-730-U-SL4**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-730-U-SL4
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6723 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

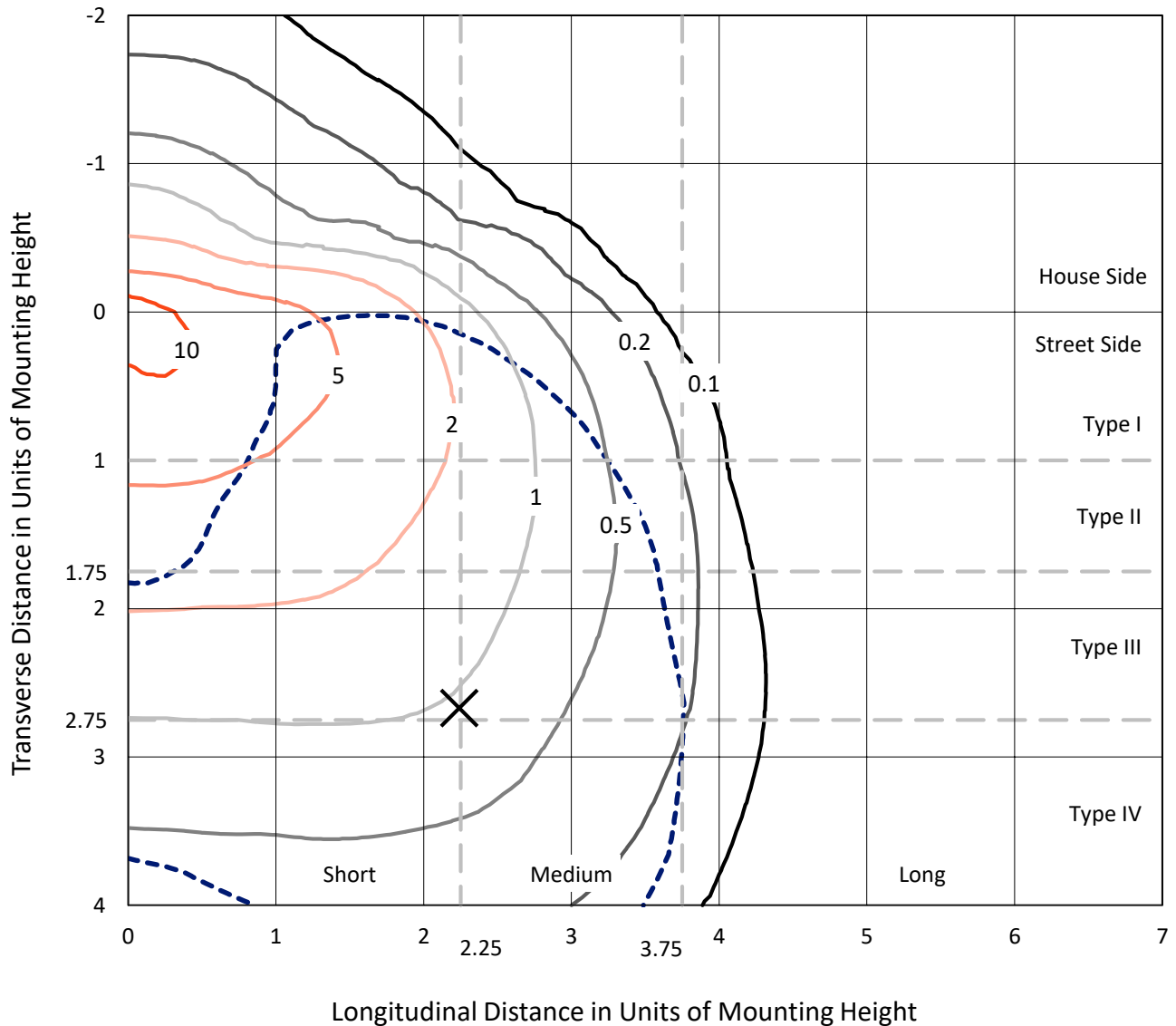
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

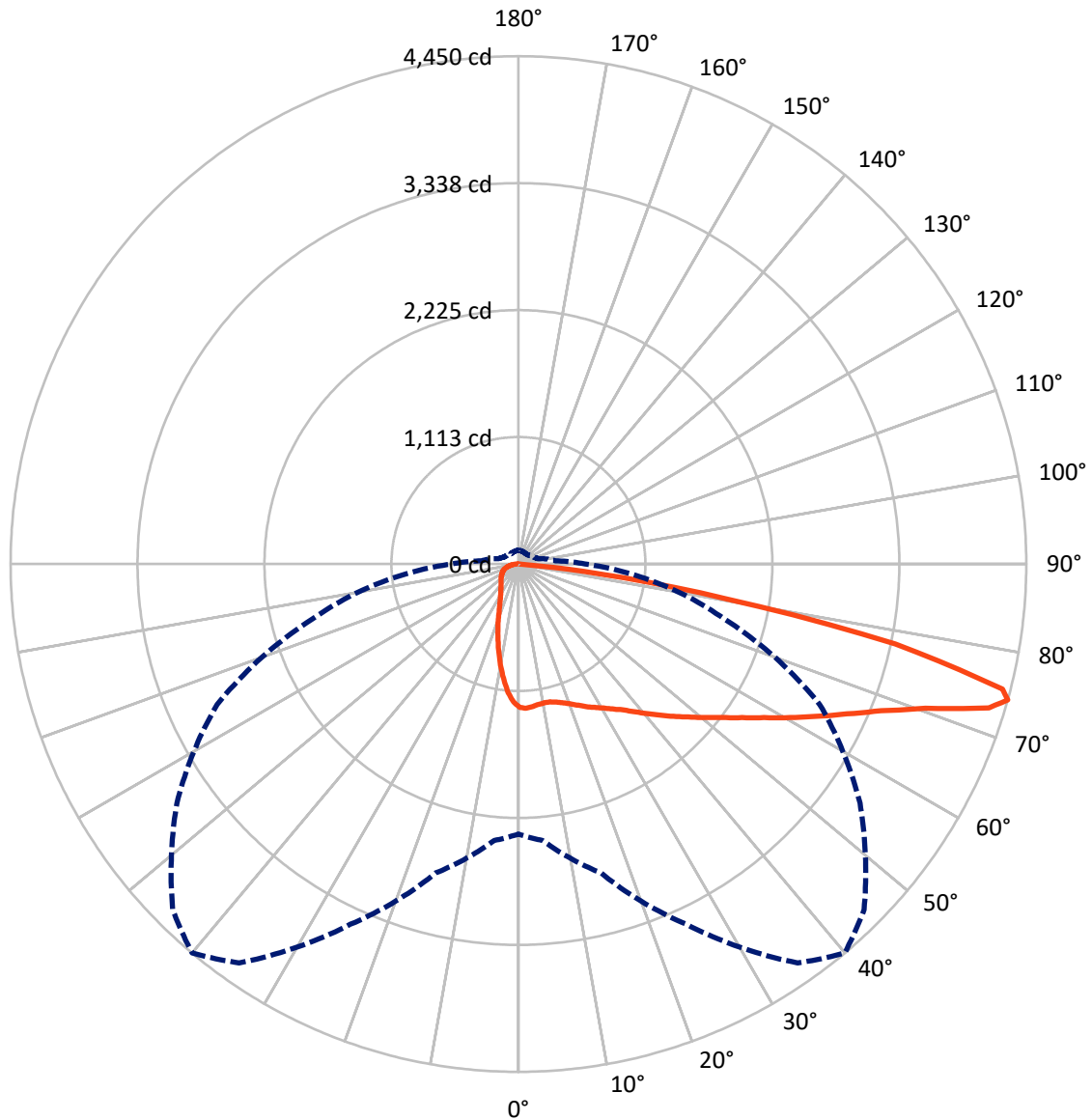
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1048.2	0.0	1048.2
	% Fixture	15.6	0.0	15.6
Street Side	Lumens	5674.8	0.0	5674.8
	% Fixture	84.4	0.0	84.4
Total	Lumens	6723.0	0.0	6723.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	1.6
10°-20°	285.3	4.2
20°-30°	437.6	6.5
30°-40°	632.0	9.4
40°-50°	909.2	13.5
50°-60°	1255.4	18.7
60°-70°	1582.8	23.5
70°-80°	1372.5	20.4
80°-90°	137.4	2.0
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°	6723.0	100.0
0°-180°	6723.0	100.0



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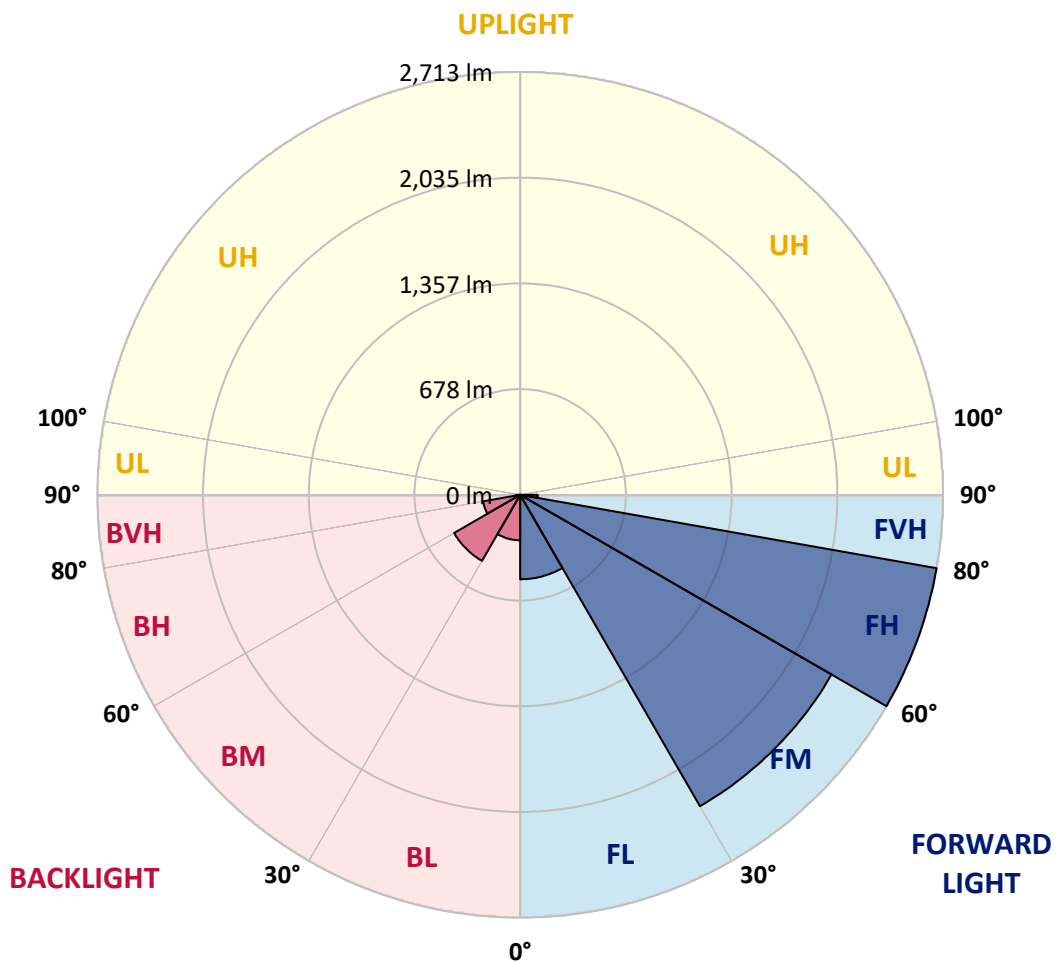
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	542.0	8.1			
FM	(30°-60°)	2307.1	34.3			
FH	(60°-80°)	2713.4	40.4			G2/5000
FVH	(80°-90°)	112.3	1.7			G2/225
BL	(0°-30°)	291.7	4.3	B1/500		
BM	(30°-60°)	489.5	7.3	B1/1000		
BH	(60°-80°)	241.9	3.6	B1/500		G1/500
BVH	(80°-90°)	25.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9
2.5°	1271.1	1270.1	1273.1	1271.1	1268.0	1266.0	1265.0	1259.0	1257.0	1250.9	1242.8
5°	1266.0	1266.0	1266.0	1264.0	1258.0	1255.9	1253.9	1244.9	1238.8	1228.7	1213.6
7.5°	1248.9	1251.9	1250.9	1249.9	1244.9	1242.8	1239.8	1228.7	1220.7	1205.5	1186.4
10°	1232.8	1232.8	1233.8	1237.8	1235.8	1236.8	1235.8	1223.7	1212.6	1193.4	1169.3
12.5°	1209.6	1213.6	1219.7	1230.7	1235.8	1239.8	1239.8	1230.7	1218.6	1195.5	1167.2
15°	1195.5	1200.5	1215.6	1235.8	1247.9	1254.9	1257.0	1245.9	1230.7	1207.6	1176.3
17.5°	1189.4	1195.5	1223.7	1251.9	1273.1	1279.1	1280.1	1268.0	1251.9	1223.7	1187.4
20°	1195.5	1202.5	1239.8	1278.1	1303.3	1308.4	1310.4	1293.2	1273.1	1245.9	1198.5
22.5°	1218.6	1228.7	1270.1	1311.4	1337.6	1344.6	1342.6	1318.4	1298.3	1269.0	1212.6
25°	1269.0	1275.1	1312.4	1356.7	1376.9	1385.0	1379.9	1352.7	1326.5	1297.3	1232.8
27.5°	1327.5	1335.6	1374.9	1408.1	1421.3	1423.3	1418.2	1390.0	1360.8	1336.6	1264.0
30°	1398.1	1405.1	1437.4	1462.6	1463.6	1464.6	1461.6	1429.3	1405.1	1386.0	1309.4
32.5°	1472.7	1473.7	1506.9	1519.0	1511.0	1514.0	1511.0	1475.7	1458.5	1452.5	1368.8
35°	1541.2	1542.2	1576.5	1580.5	1567.4	1568.4	1574.5	1533.1	1533.1	1547.2	1457.5
37.5°	1606.7	1609.7	1640.0	1636.0	1630.9	1640.0	1648.0	1612.8	1632.9	1673.2	1565.4
40°	1656.1	1663.2	1703.5	1701.5	1712.6	1721.6	1728.7	1710.5	1742.8	1821.4	1698.4
42.5°	1688.4	1702.5	1759.9	1774.0	1793.2	1809.3	1821.4	1820.4	1876.9	1985.7	1839.6
45°	1721.6	1735.7	1812.3	1846.6	1878.9	1904.1	1927.3	1939.4	2029.1	2159.1	2003.9
47.5°	1761.9	1774.0	1859.7	1927.3	1968.6	2002.9	2044.2	2070.4	2184.3	2335.5	2156.1
50°	1823.4	1831.5	1908.1	2012.9	2065.4	2112.7	2164.1	2217.6	2351.6	2515.9	2289.1
52.5°	1903.1	1908.1	1964.6	2099.6	2183.3	2233.7	2310.3	2380.8	2522.0	2679.2	2398.0
55°	1993.8	1989.8	2033.1	2203.4	2301.2	2376.8	2471.6	2543.1	2701.4	2821.3	2484.7
57.5°	2084.5	2081.5	2115.7	2303.2	2450.4	2539.1	2636.9	2712.5	2865.7	2954.4	2547.2
60°	2171.2	2160.1	2208.5	2420.2	2630.8	2732.6	2820.3	2889.9	3020.9	3050.1	2580.4
62.5°	2247.8	2247.8	2318.4	2564.3	2846.5	2938.3	3007.8	3054.2	3169.1	3120.7	2567.3
65°	2318.4	2327.4	2428.2	2725.6	3070.3	3164.0	3224.5	3242.7	3316.3	3123.7	2456.4
67.5°	2398.0	2412.1	2554.2	2914.1	3328.3	3428.1	3480.6	3474.5	3421.1	3077.4	2218.6
70°	2475.6	2498.8	2710.5	3157.0	3646.9	3781.9	3839.4	3720.5	3475.5	2820.3	1842.6
72.5°	2532.0	2571.4	2838.5	3399.9	4103.5	4311.1	4287.9	3788.0	3220.5	2324.4	1394.0
74°	2366.7	2432.3	2803.2	3483.6	4267.8	4450.2	4283.9	3653.9	2913.1	1871.8	987.8
75°	2174.2	2237.7	2624.8	3450.3	4299.0	4380.7	4076.3	3418.1	2612.7	1450.5	645.1
77.5°	1609.7	1659.1	2016.0	2720.5	3399.9	3375.7	3035.0	2316.3	1287.2	437.5	272.2
80°	710.6	747.9	994.9	1368.8	1841.6	1834.5	1708.5	1064.4	415.3	228.8	166.3
82.5°	214.7	213.7	286.3	399.2	699.5	712.6	605.8	366.9	198.6	94.8	80.6
85°	1.0	1.0	1.0	1.0	3.0	26.2	22.2	70.6	36.3	17.1	29.2
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
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°	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9	1254.9
2.5°	1237.8	1236.8	1233.8	1226.7	1221.7	1206.6	1211.6	1201.5	1200.5	1198.5	1197.5
5°	1206.6	1202.5	1190.4	1176.3	1160.2	1135.0	1126.9	1111.8	1102.7	1099.7	1101.7
7.5°	1174.3	1165.2	1142.0	1111.8	1079.5	1042.3	1015.0	993.9	978.7	973.7	966.7
10°	1154.1	1139.0	1099.7	1049.3	996.9	944.5	899.1	867.9	844.7	826.5	826.5
12.5°	1147.1	1126.9	1069.5	995.9	920.3	845.7	780.2	738.8	699.5	680.4	677.4
15°	1151.1	1122.9	1044.3	947.5	846.7	749.9	669.3	609.8	572.5	549.3	557.4
17.5°	1155.1	1119.9	1018.1	896.1	775.1	663.3	569.5	502.0	456.6	444.5	439.5
20°	1160.2	1113.8	984.8	840.7	701.6	579.6	480.8	412.3	378.0	362.9	362.9
22.5°	1167.2	1105.8	950.5	779.2	626.0	497.9	406.2	354.8	327.6	318.5	318.5
25°	1177.3	1100.7	915.2	717.7	554.4	433.4	356.8	316.5	302.4	296.3	295.3
27.5°	1196.5	1101.7	881.0	655.2	483.8	379.0	321.5	295.3	284.3	281.2	280.2
30°	1225.7	1111.8	844.7	588.7	421.3	337.7	297.4	279.2	272.2	270.1	270.1
32.5°	1266.0	1129.9	814.4	529.2	375.0	304.4	277.2	265.1	261.1	259.1	260.1
35°	1328.5	1161.2	778.2	474.8	331.6	281.2	261.1	252.0	249.0	249.0	250.0
37.5°	1410.2	1209.6	742.9	424.4	302.4	261.1	245.9	240.9	237.9	239.9	240.9
40°	1513.0	1267.0	709.6	379.0	278.2	244.9	232.8	228.8	227.8	229.8	231.8
42.5°	1623.9	1336.6	679.4	341.7	259.1	231.8	221.8	219.7	218.7	219.7	222.8
45°	1752.9	1416.2	654.2	313.5	244.9	220.7	211.7	209.7	208.7	210.7	212.7
47.5°	1871.8	1487.8	634.0	294.3	232.8	212.7	203.6	200.6	200.6	200.6	202.6
50°	1968.6	1544.2	621.9	281.2	222.8	203.6	195.5	192.5	191.5	190.5	191.5
52.5°	2052.2	1586.6	617.9	273.2	214.7	195.5	187.5	185.5	183.5	181.4	182.4
55°	2107.7	1607.7	609.8	266.1	207.6	186.5	179.4	177.4	175.4	172.4	172.4
57.5°	2139.9	1605.7	591.7	262.1	203.6	178.4	171.4	171.4	169.3	164.3	165.3
60°	2143.0	1570.4	547.3	257.0	200.6	170.3	162.3	164.3	164.3	160.3	160.3
62.5°	2091.6	1477.7	461.7	243.9	196.6	164.3	155.2	160.3	162.3	158.3	158.3
65°	1933.3	1259.0	370.9	224.8	186.5	157.2	147.2	157.2	163.3	160.3	159.3
67.5°	1629.9	996.9	306.4	203.6	175.4	148.2	139.1	152.2	160.3	160.3	159.3
70°	1308.4	757.0	252.0	180.4	158.3	137.1	130.0	141.1	148.2	150.2	150.2
72.5°	901.1	462.7	204.6	155.2	139.1	124.0	117.9	125.0	129.0	133.1	132.0
74°	581.6	324.6	179.4	141.1	127.0	113.9	110.9	113.9	115.9	119.9	121.0
75°	389.1	265.1	167.3	131.0	119.9	106.8	104.8	107.9	109.9	112.9	112.9
77.5°	223.8	189.5	135.1	108.9	99.8	91.7	90.7	91.7	94.8	97.8	96.8
80°	155.2	144.1	106.8	84.7	78.6	74.6	75.6	76.6	81.6	82.7	81.6
82.5°	93.7	103.8	75.6	63.5	59.5	58.5	61.5	63.5	67.5	68.5	67.5
85°	37.3	49.4	37.3	35.3	39.3	43.3	48.4	51.4	53.4	53.4	53.4
87.5°	0.0	7.1	9.1	14.1	22.2	26.2	34.3	37.3	39.3	38.3	37.3
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)