

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: P401472

Luminaire Tested: **ENT-SA1D-735-U-SL4**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401472
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-SA1D-735-U-SL4
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 800mA 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: 5029 lumens
Efficiency: N/A
Efficacy: 116.7 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): 43.1
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

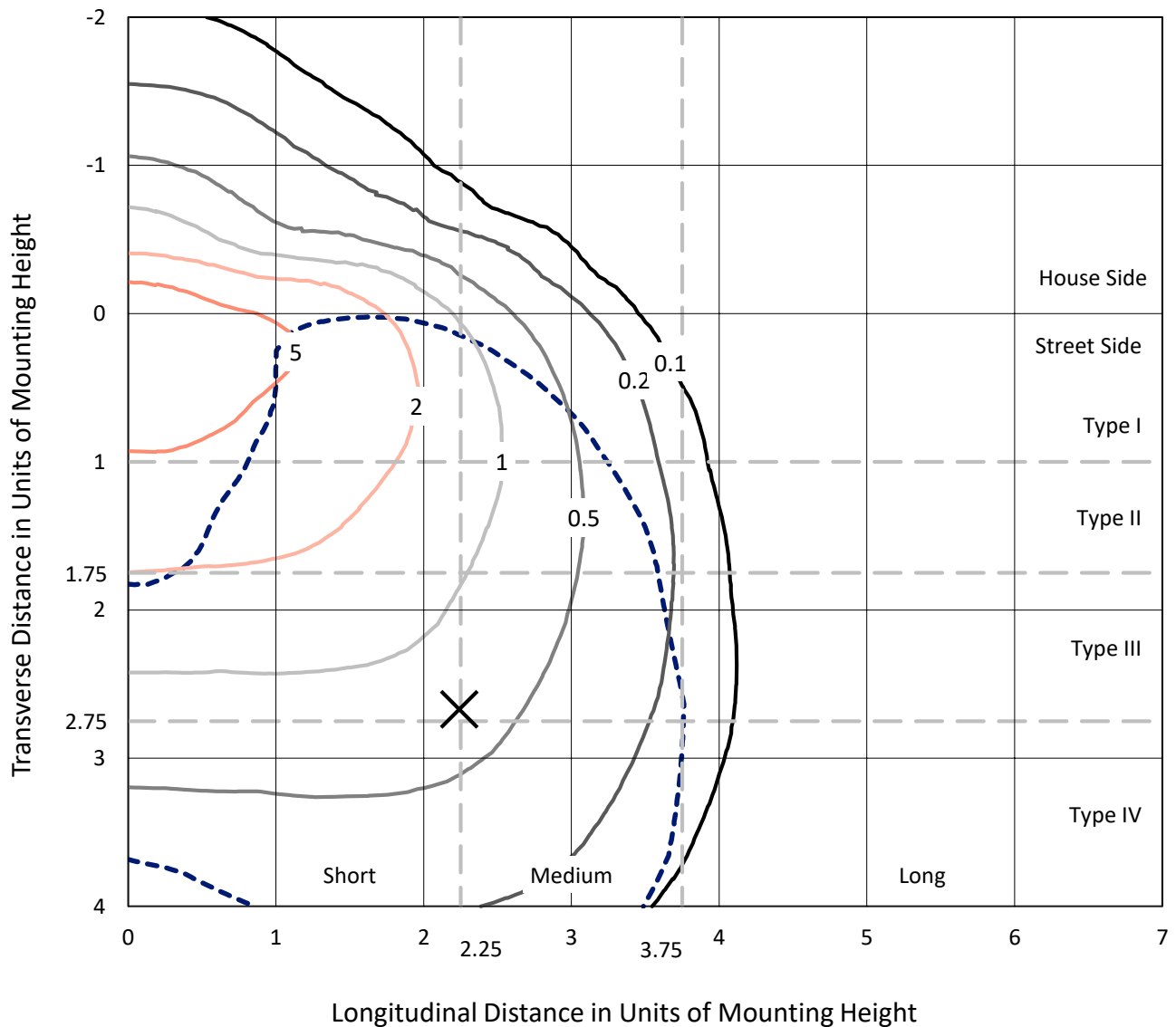


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

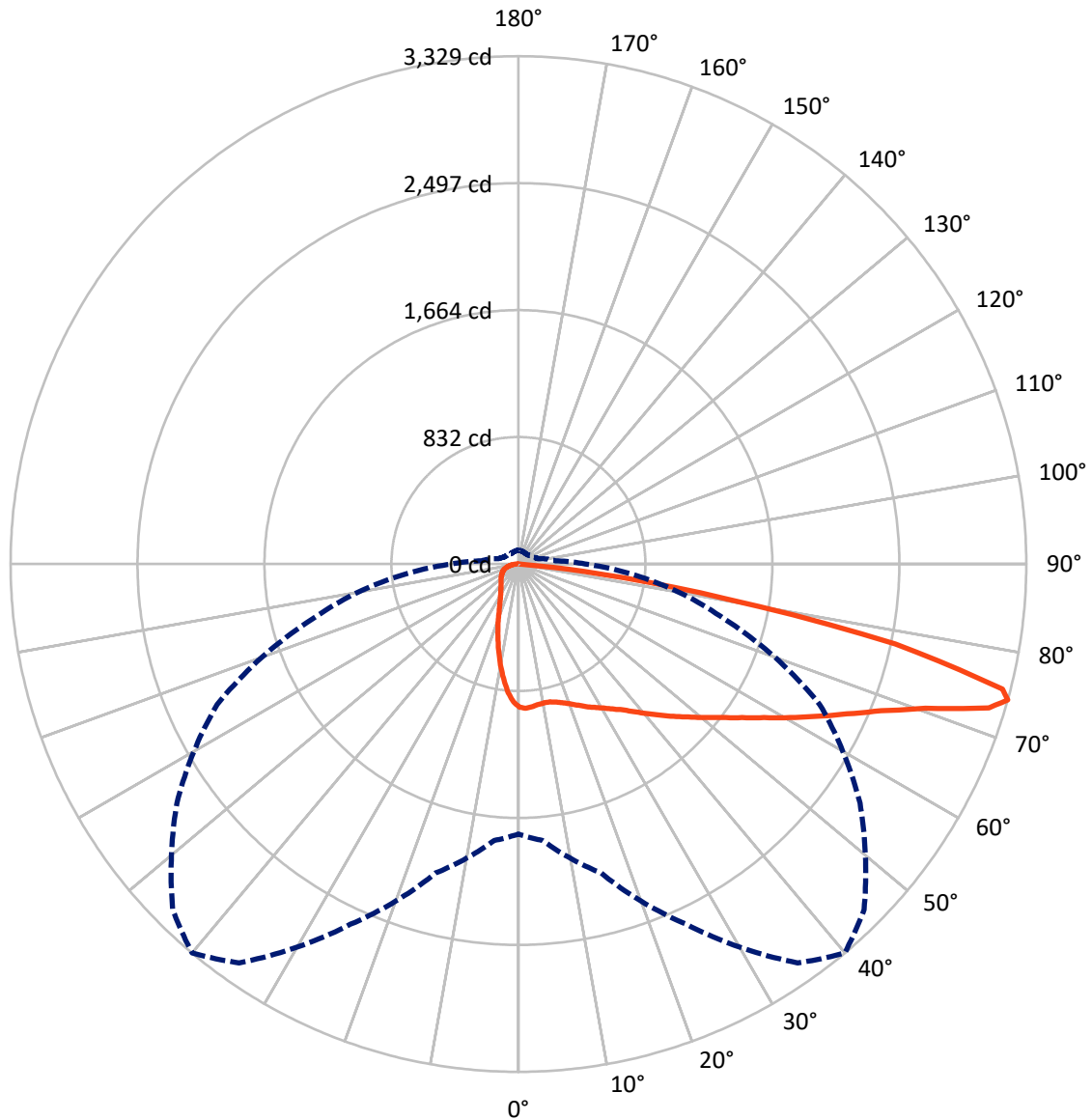


Based on 10 foot mounting height. Maximum calculated value = 9.4 fc
 Type IV - Short - Non-Cutoff

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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	784.1	0.0	784.1
	% Fixture	15.6	0.0	15.6
Street Side	Lumens	4244.9	0.0	4244.9
	% Fixture	84.4	0.0	84.4
Total	Lumens	5029.0	0.0	5029.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	1.6
10°-20°	213.4	4.2
20°-30°	327.3	6.5
30°-40°	472.7	9.4
40°-50°	680.1	13.5
50°-60°	939.1	18.7
60°-70°	1184.0	23.5
70°-80°	1026.7	20.4
80°-90°	102.8	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°	5029.0	100.0
0°-180°	5029.0	100.0



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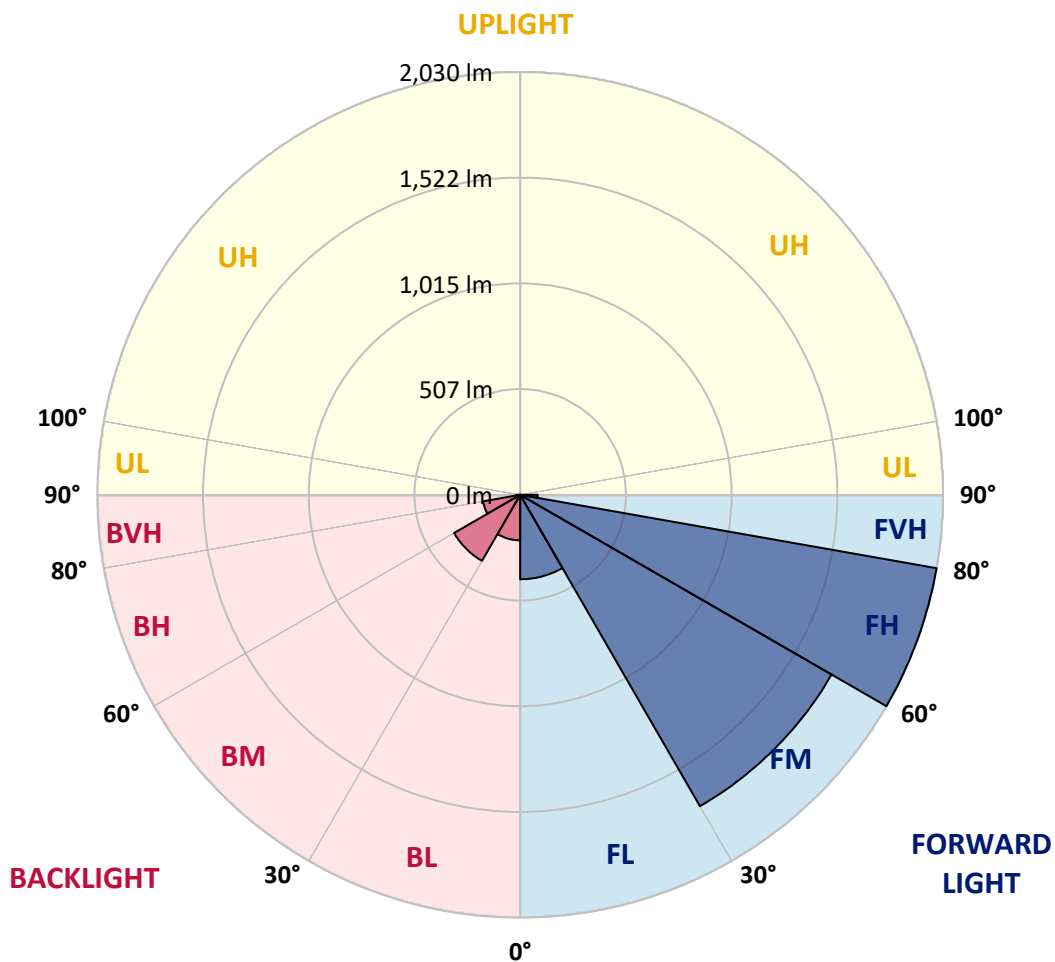
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	405.4	8.1			
FM (30°-60°)	1725.8	34.3			
FH (60°-80°)	2029.7	40.4			G2/5000
FVH (80°-90°)	84.0	1.7			G1/100
BL (0°-30°)	218.2	4.3	B1/500		
BM (30°-60°)	366.2	7.3	B1/1000		
BH (60°-80°)	181.0	3.6	B1/500		G1/500
BVH (80°-90°)	18.7	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°	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7
2.5°	950.8	950.0	952.3	950.8	948.5	947.0	946.3	941.7	940.2	935.7	929.7
5°	947.0	947.0	947.0	945.5	941.0	939.5	938.0	931.2	926.7	919.1	907.8
7.5°	934.2	936.5	935.7	935.0	931.2	929.7	927.4	919.1	913.1	901.8	887.5
10°	922.1	922.1	922.9	925.9	924.4	925.2	924.4	915.4	907.1	892.7	874.6
12.5°	904.8	907.8	912.3	920.6	924.4	927.4	927.4	920.6	911.6	894.2	873.1
15°	894.2	898.0	909.3	924.4	933.4	938.7	940.2	931.9	920.6	903.3	879.9
17.5°	889.7	894.2	915.4	936.5	952.3	956.8	957.6	948.5	936.5	915.4	888.2
20°	894.2	899.5	927.4	956.1	974.9	978.7	980.2	967.4	952.3	931.9	896.5
22.5°	911.6	919.1	950.0	981.0	1000.6	1005.8	1004.3	986.2	971.1	949.3	907.1
25°	949.3	953.8	981.7	1014.9	1030.0	1036.0	1032.2	1011.9	992.3	970.4	922.1
27.5°	993.0	999.0	1028.5	1053.3	1063.1	1064.6	1060.9	1039.8	1017.9	999.8	945.5
30°	1045.8	1051.1	1075.2	1094.1	1094.8	1095.6	1093.3	1069.2	1051.1	1036.7	979.4
32.5°	1101.6	1102.3	1127.2	1136.3	1130.2	1132.5	1130.2	1103.9	1091.0	1086.5	1023.9
35°	1152.9	1153.6	1179.3	1182.3	1172.5	1173.2	1177.7	1146.8	1146.8	1157.4	1090.3
37.5°	1201.9	1204.1	1226.8	1223.7	1220.0	1226.8	1232.8	1206.4	1221.5	1251.6	1171.0
40°	1238.8	1244.1	1274.3	1272.7	1281.0	1287.8	1293.1	1279.5	1303.7	1362.5	1270.5
42.5°	1262.9	1273.5	1316.5	1327.0	1341.4	1353.4	1362.5	1361.7	1403.9	1485.4	1376.0
45°	1287.8	1298.4	1355.7	1381.3	1405.5	1424.3	1441.6	1450.7	1517.8	1615.1	1498.9
47.5°	1318.0	1327.0	1391.1	1441.6	1472.6	1498.2	1529.1	1548.7	1633.9	1747.0	1612.8
50°	1364.0	1370.0	1427.3	1505.7	1544.9	1580.4	1618.8	1658.8	1759.1	1882.0	1712.3
52.5°	1423.5	1427.3	1469.5	1570.6	1633.2	1670.9	1728.2	1780.9	1886.5	2004.1	1793.8
55°	1491.4	1488.4	1520.8	1648.2	1721.4	1777.9	1848.8	1902.3	2020.7	2110.4	1858.6
57.5°	1559.3	1557.0	1582.6	1722.9	1833.0	1899.3	1972.5	2029.0	2143.6	2210.0	1905.4
60°	1624.1	1615.8	1652.0	1810.3	1967.9	2044.1	2109.7	2161.7	2259.7	2281.6	1930.2
62.5°	1681.4	1681.4	1734.2	1918.2	2129.3	2197.9	2249.9	2284.6	2370.6	2334.4	1920.4
65°	1734.2	1741.0	1816.4	2038.8	2296.7	2366.8	2412.0	2425.6	2480.7	2336.6	1837.5
67.5°	1793.8	1804.3	1910.6	2179.8	2489.7	2564.3	2603.6	2599.0	2559.1	2302.0	1659.6
70°	1851.8	1869.2	2027.5	2361.5	2728.0	2829.0	2872.0	2783.0	2599.8	2109.7	1378.3
72.5°	1894.0	1923.4	2123.3	2543.2	3069.5	3224.9	3207.5	2833.5	2409.0	1738.7	1042.8
74°	1770.4	1819.4	2096.9	2605.8	3192.4	3328.9	3204.5	2733.2	2179.1	1400.2	738.9
75°	1626.4	1673.9	1963.4	2580.9	3215.8	3276.9	3049.2	2556.8	1954.4	1085.0	482.6
77.5°	1204.1	1241.1	1508.0	2035.0	2543.2	2525.1	2270.3	1732.7	962.9	327.2	203.6
80°	531.6	559.5	744.2	1023.9	1377.6	1372.3	1278.0	796.2	310.6	171.2	124.4
82.5°	160.6	159.8	214.1	298.6	523.3	533.1	453.2	274.5	148.5	70.9	60.3
85°	0.8	0.8	0.8	0.8	2.3	19.6	16.6	52.8	27.1	12.8	21.9
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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°	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7	938.7
2.5°	925.9	925.2	922.9	917.6	913.8	902.5	906.3	898.8	898.0	896.5	895.7
5°	902.5	899.5	890.5	879.9	867.9	849.0	843.0	831.7	824.9	822.6	824.1
7.5°	878.4	871.6	854.3	831.7	807.5	779.6	759.3	743.4	732.1	728.4	723.1
10°	863.3	852.0	822.6	784.9	745.7	706.5	672.6	649.2	631.9	618.3	618.3
12.5°	858.1	843.0	800.0	745.0	688.4	632.6	583.6	552.7	523.3	508.9	506.7
15°	861.1	840.0	781.1	708.8	633.4	561.0	500.7	456.2	428.3	410.9	417.0
17.5°	864.1	837.7	761.5	670.3	579.8	496.1	426.0	375.5	341.6	332.5	328.7
20°	867.9	833.2	736.7	628.8	524.8	433.5	359.7	308.4	282.7	271.4	271.4
22.5°	873.1	827.1	711.0	582.8	468.2	372.5	303.9	265.4	245.0	238.3	238.3
25°	880.7	823.4	684.6	536.8	414.7	324.2	266.9	236.8	226.2	221.7	220.9
27.5°	895.0	824.1	659.0	490.1	361.9	283.5	240.5	220.9	212.6	210.4	209.6
30°	916.9	831.7	631.9	440.3	315.2	252.6	222.4	208.9	203.6	202.1	202.1
32.5°	947.0	845.2	609.2	395.8	280.5	227.7	207.3	198.3	195.3	193.8	194.5
35°	993.8	868.6	582.1	355.1	248.1	210.4	195.3	188.5	186.2	186.2	187.0
37.5°	1054.8	904.8	555.7	317.4	226.2	195.3	184.0	180.2	177.9	179.5	180.2
40°	1131.8	947.8	530.8	283.5	208.1	183.2	174.2	171.2	170.4	171.9	173.4
42.5°	1214.7	999.8	508.2	255.6	193.8	173.4	165.9	164.4	163.6	164.4	166.6
45°	1311.2	1059.4	489.3	234.5	183.2	165.1	158.3	156.8	156.1	157.6	159.1
47.5°	1400.2	1112.9	474.3	220.2	174.2	159.1	152.3	150.0	150.0	150.0	151.6
50°	1472.6	1155.1	465.2	210.4	166.6	152.3	146.3	144.0	143.3	142.5	143.3
52.5°	1535.1	1186.8	462.2	204.3	160.6	146.3	140.2	138.7	137.2	135.7	136.5
55°	1576.6	1202.6	456.2	199.1	155.3	139.5	134.2	132.7	131.2	128.9	128.9
57.5°	1600.7	1201.1	442.6	196.0	152.3	133.5	128.2	128.2	126.7	122.9	123.7
60°	1603.0	1174.7	409.4	192.3	150.0	127.4	121.4	122.9	122.9	119.9	119.9
62.5°	1564.5	1105.4	345.3	182.5	147.0	122.9	116.1	119.9	121.4	118.4	118.4
65°	1446.2	941.7	277.5	168.1	139.5	117.6	110.1	117.6	122.1	119.9	119.1
67.5°	1219.2	745.7	229.2	152.3	131.2	110.8	104.1	113.9	119.9	119.9	119.1
70°	978.7	566.3	188.5	135.0	118.4	102.5	97.3	105.6	110.8	112.3	112.3
72.5°	674.1	346.1	153.1	116.1	104.1	92.7	88.2	93.5	96.5	99.5	98.8
74°	435.1	242.8	134.2	105.6	95.0	85.2	82.9	85.2	86.7	89.7	90.5
75°	291.0	198.3	125.2	98.0	89.7	79.9	78.4	80.7	82.2	84.4	84.4
77.5°	167.4	141.8	101.0	81.4	74.6	68.6	67.9	68.6	70.9	73.1	72.4
80°	116.1	107.8	79.9	63.3	58.8	55.8	56.5	57.3	61.1	61.8	61.1
82.5°	70.1	77.7	56.5	47.5	44.5	43.7	46.0	47.5	50.5	51.3	50.5
85°	27.9	36.9	27.9	26.4	29.4	32.4	36.2	38.5	40.0	40.0	40.0
87.5°	0.0	5.3	6.8	10.6	16.6	19.6	25.6	27.9	29.4	28.7	27.9
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)