

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: P401399

Luminaire Tested: **ENT-SA1C-830-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401399  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1C-830-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2941 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

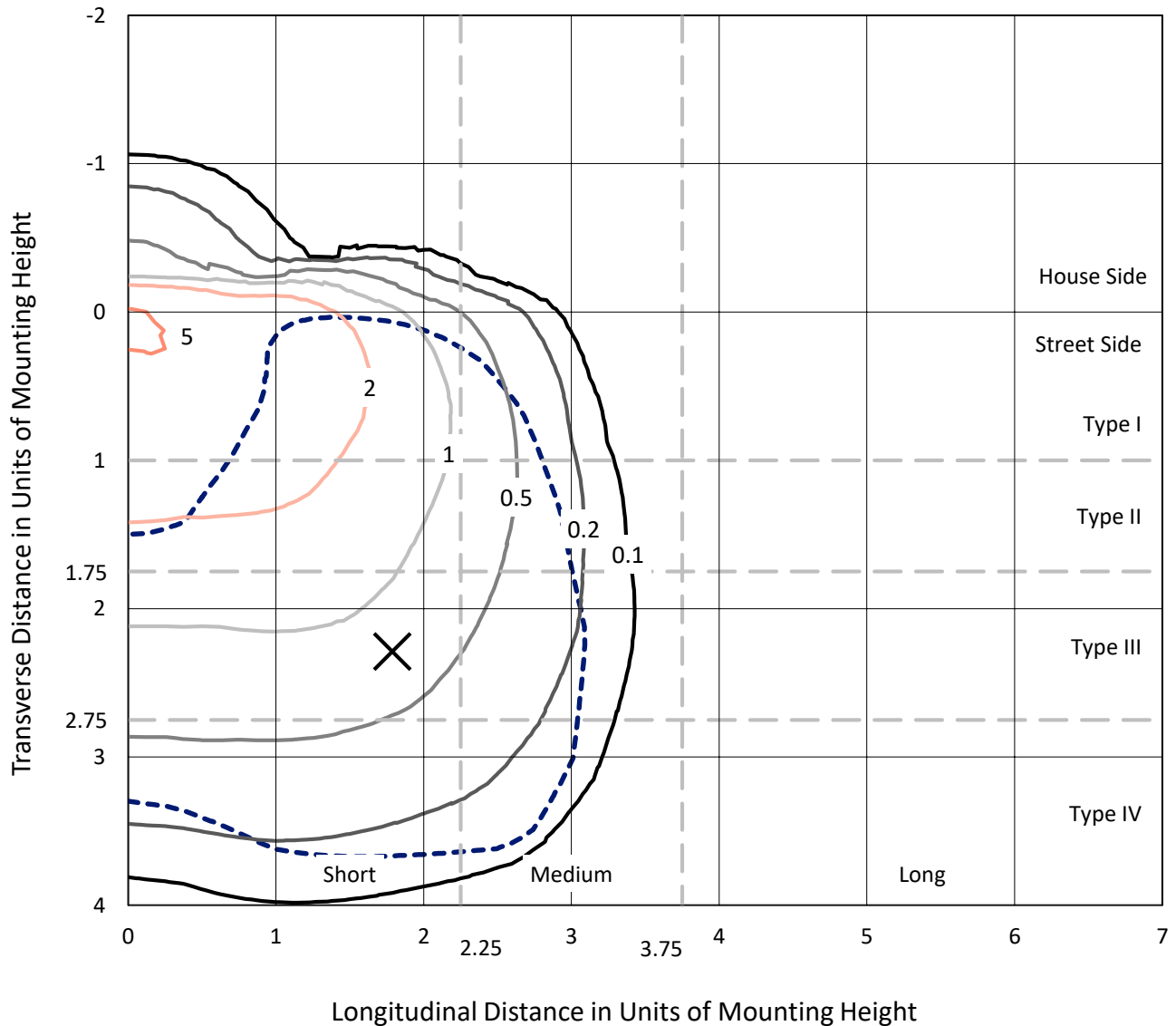
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

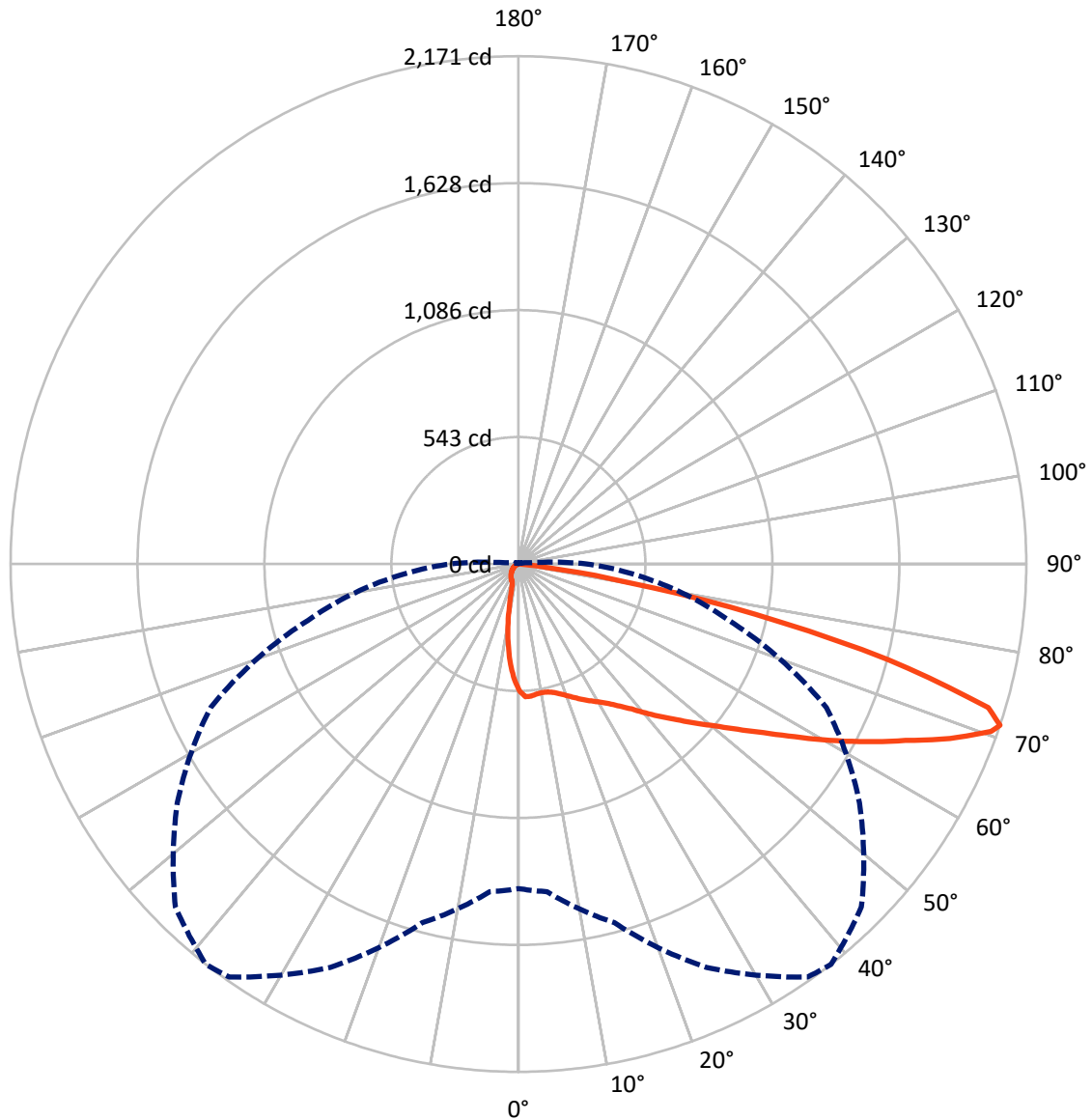


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	251.2	0.0	251.2
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	2689.8	0.0	2689.8
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	2941.0	0.0	2941.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.8	1.6
10°-20°	110.9	3.8
20°-30°	177.8	6.0
30°-40°	270.5	9.2
40°-50°	421.5	14.3
50°-60°	616.4	21.0
60°-70°	790.6	26.9
70°-80°	483.3	16.4
80°-90°	24.3	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°	2941.0	100.0
0°-180°	2941.0	100.0



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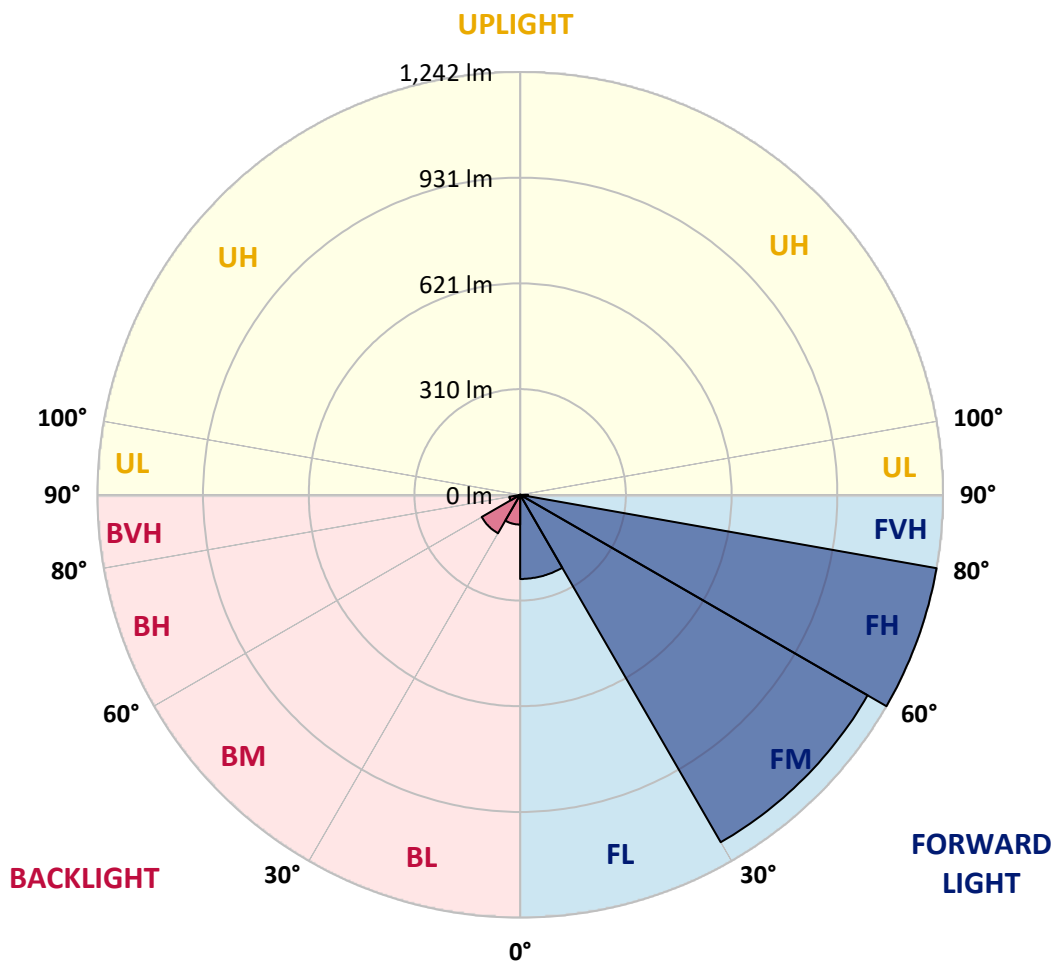
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	247.1	8.4			
FM	(30°-60°)	1177.9	40.1			
FH	(60°-80°)	1241.6	42.2			G1/1800
FVH	(80°-90°)	23.2	0.8			G1/100
BL	(0°-30°)	87.4	3.0	B0/110		
BM	(30°-60°)	130.5	4.4	B0/220		
BH	(60°-80°)	32.3	1.1	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2
2.5°	574.3	572.8	574.3	572.8	569.7	568.2	566.1	560.5	555.4	549.3	540.1
5°	575.3	574.3	574.3	572.2	568.7	567.1	565.1	559.5	552.9	543.7	529.9
7.5°	569.7	569.2	568.2	566.1	562.1	561.0	559.5	552.9	546.3	536.6	519.8
10°	560.5	561.5	561.0	561.0	559.5	558.5	557.5	549.8	542.7	531.5	513.6
12.5°	551.9	552.9	555.4	559.5	561.0	561.5	561.5	553.9	545.2	533.0	514.7
15°	546.3	548.3	555.4	563.6	568.2	569.7	571.2	563.1	552.9	539.6	520.3
17.5°	544.7	547.8	561.5	574.3	582.9	584.0	584.0	573.8	563.1	547.8	526.9
20°	549.8	553.9	571.7	589.6	600.3	601.3	599.3	586.0	573.3	556.4	532.5
22.5°	565.1	568.7	589.1	610.0	620.1	621.2	616.6	598.2	584.5	570.7	540.1
25°	591.6	593.6	615.6	635.4	641.0	642.6	634.9	613.0	597.2	584.5	550.8
27.5°	626.8	627.8	647.7	662.4	663.5	662.9	654.8	631.9	616.1	605.4	567.1
30°	663.5	665.0	681.3	691.0	686.9	684.9	677.7	653.3	639.0	630.8	590.6
32.5°	697.6	699.1	717.0	722.1	712.9	711.4	706.3	680.3	668.0	672.1	624.2
35°	731.2	731.2	751.6	754.2	746.0	746.0	746.0	714.9	712.9	726.6	671.1
37.5°	761.3	766.4	787.8	786.8	785.2	786.3	789.3	765.9	773.0	796.5	732.8
40°	786.8	793.4	821.9	824.5	831.1	836.7	841.3	829.1	845.9	884.1	811.7
42.5°	809.7	817.3	854.0	865.8	884.1	891.7	900.4	897.3	934.5	1004.4	912.6
45°	839.3	847.4	885.1	913.1	938.6	948.8	968.2	981.4	1043.1	1122.6	1021.7
47.5°	878.5	884.1	918.7	963.1	997.7	1016.1	1046.1	1080.3	1155.2	1247.9	1119.0
50°	932.0	932.5	958.5	1016.1	1067.5	1087.4	1139.4	1183.7	1277.5	1358.5	1189.3
52.5°	991.1	988.1	1008.4	1081.3	1146.5	1173.5	1234.7	1296.3	1390.6	1438.5	1220.9
55°	1047.2	1048.7	1061.4	1150.6	1245.9	1271.9	1349.3	1412.0	1494.1	1487.4	1238.2
57.5°	1111.9	1111.4	1127.7	1226.5	1362.1	1392.1	1473.2	1524.6	1556.7	1522.6	1241.3
60°	1173.0	1171.5	1196.5	1317.2	1485.9	1530.2	1603.1	1601.1	1619.4	1545.0	1238.8
62.5°	1227.5	1231.1	1274.9	1422.7	1624.5	1672.4	1709.1	1683.6	1688.7	1571.0	1207.2
65°	1293.8	1300.4	1371.2	1550.6	1795.7	1818.6	1832.9	1791.6	1740.7	1550.1	1111.4
67.5°	1377.4	1397.2	1497.1	1739.2	1974.1	1989.9	1990.4	1856.9	1738.6	1444.6	934.5
70°	1410.5	1431.4	1590.4	1888.5	2124.4	2144.3	2082.1	1846.7	1601.6	1131.2	630.8
71°	1387.6	1406.4	1587.8	1902.7	2155.5	2171.3	2073.9	1779.9	1452.3	932.0	488.7
72.5°	1221.9	1270.9	1490.0	1813.0	2099.9	2100.4	1942.0	1622.5	1155.2	581.9	245.6
75°	659.9	719.0	1092.0	1379.9	1619.9	1632.7	1494.1	1126.7	559.0	150.8	59.6
77.5°	217.6	245.1	489.7	716.5	1016.1	1035.9	913.7	500.4	176.3	51.0	31.1
80°	136.6	139.6	165.6	301.2	452.0	468.8	376.1	202.8	79.5	28.0	21.4
82.5°	22.9	27.5	78.0	88.7	159.5	126.4	85.6	103.4	37.2	12.7	18.3
85°	0.0	0.0	0.5	0.5	2.5	0.5	0.5	20.9	2.0	2.0	9.7
87.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	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°	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2	542.2
2.5°	536.1	532.0	523.8	515.2	504.5	495.3	492.2	485.6	482.6	480.0	480.0
5°	521.3	514.2	496.8	479.0	461.7	443.3	426.5	410.7	403.1	392.4	397.5
7.5°	509.1	496.8	472.4	444.3	408.7	372.5	344.5	320.0	299.6	293.0	288.4
10°	500.4	485.1	449.4	406.6	354.7	303.2	259.9	219.6	196.2	181.9	181.9
12.5°	499.4	480.0	433.6	367.9	293.0	223.2	169.7	131.5	112.6	104.0	103.4
15°	502.9	479.5	419.4	332.7	236.4	154.9	106.0	89.2	84.6	83.6	83.6
17.5°	506.0	479.0	402.6	293.0	174.3	101.9	84.1	81.0	80.0	79.5	79.5
20°	509.1	476.4	383.2	248.2	123.3	83.1	78.5	76.9	76.4	75.9	75.9
22.5°	513.1	473.9	363.3	197.2	91.2	77.5	74.9	73.4	72.9	72.9	72.9
25°	518.7	472.4	338.9	149.3	78.5	73.4	70.8	69.8	69.8	69.3	69.3
27.5°	529.4	473.9	312.4	107.0	73.4	69.3	67.8	66.8	66.8	66.2	66.2
30°	544.2	478.5	279.2	83.6	69.3	65.2	63.7	63.2	62.7	62.7	62.7
32.5°	565.1	485.6	243.1	71.3	64.2	61.1	59.6	59.1	59.1	59.1	58.6
35°	597.2	500.4	198.7	65.2	59.6	56.6	55.0	55.0	55.0	54.5	55.0
37.5°	646.1	524.3	153.9	60.1	54.5	52.0	51.0	50.4	50.4	50.4	50.4
40°	707.8	563.1	112.1	55.5	49.9	47.4	46.4	45.9	45.4	45.4	45.4
42.5°	787.3	605.9	81.5	50.4	45.9	43.3	42.3	41.3	40.3	39.7	39.7
45°	869.8	656.8	63.7	46.4	41.8	39.7	38.7	37.2	35.7	34.1	34.1
47.5°	949.8	696.1	54.5	41.8	38.2	36.2	35.2	33.1	30.6	29.0	29.0
50°	1000.3	708.3	48.9	37.7	34.7	33.1	31.6	29.0	25.5	23.9	23.9
52.5°	1016.1	685.9	43.8	34.1	31.6	30.1	28.0	24.5	20.9	18.9	18.9
55°	1022.2	642.6	38.7	31.6	28.5	26.5	23.9	20.4	16.8	14.8	14.8
57.5°	1014.5	581.4	34.7	28.5	25.5	23.4	20.4	16.3	12.7	11.2	11.2
60°	988.6	492.8	31.1	25.5	22.4	19.9	16.8	12.7	9.7	7.6	8.2
62.5°	918.2	381.2	27.0	21.4	19.4	16.8	13.2	9.7	6.1	5.1	5.1
65°	806.1	264.0	22.9	17.8	16.3	13.8	10.2	6.6	3.6	3.1	3.1
67.5°	654.8	170.7	17.8	14.8	13.8	11.2	7.6	4.1	2.0	2.0	1.5
70°	411.2	84.6	14.3	11.2	11.2	8.7	5.6	2.5	1.5	1.5	1.5
71°	291.0	57.6	12.7	10.2	10.2	8.2	5.1	2.0	1.5	1.5	1.5
72.5°	131.5	36.2	10.7	9.2	8.7	6.6	4.6	2.0	2.0	2.0	2.0
75°	41.3	19.9	7.6	7.1	7.1	5.6	4.1	2.5	2.5	2.5	2.5
77.5°	27.5	15.3	5.1	4.6	5.6	5.6	4.1	3.1	3.1	3.1	3.1
80°	22.4	8.2	3.1	3.1	4.1	5.1	4.1	3.1	3.6	3.1	3.1
82.5°	21.9	4.1	1.0	1.5	2.5	3.1	3.1	2.5	3.1	3.1	3.1
85°	9.2	1.0	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	1.5	2.0	2.0
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)