

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: P401463

Luminaire Tested: **ENV-SA1D-730-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401463  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-730-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3642 lumens  
Efficiency: N/A  
Efficacy: 84.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

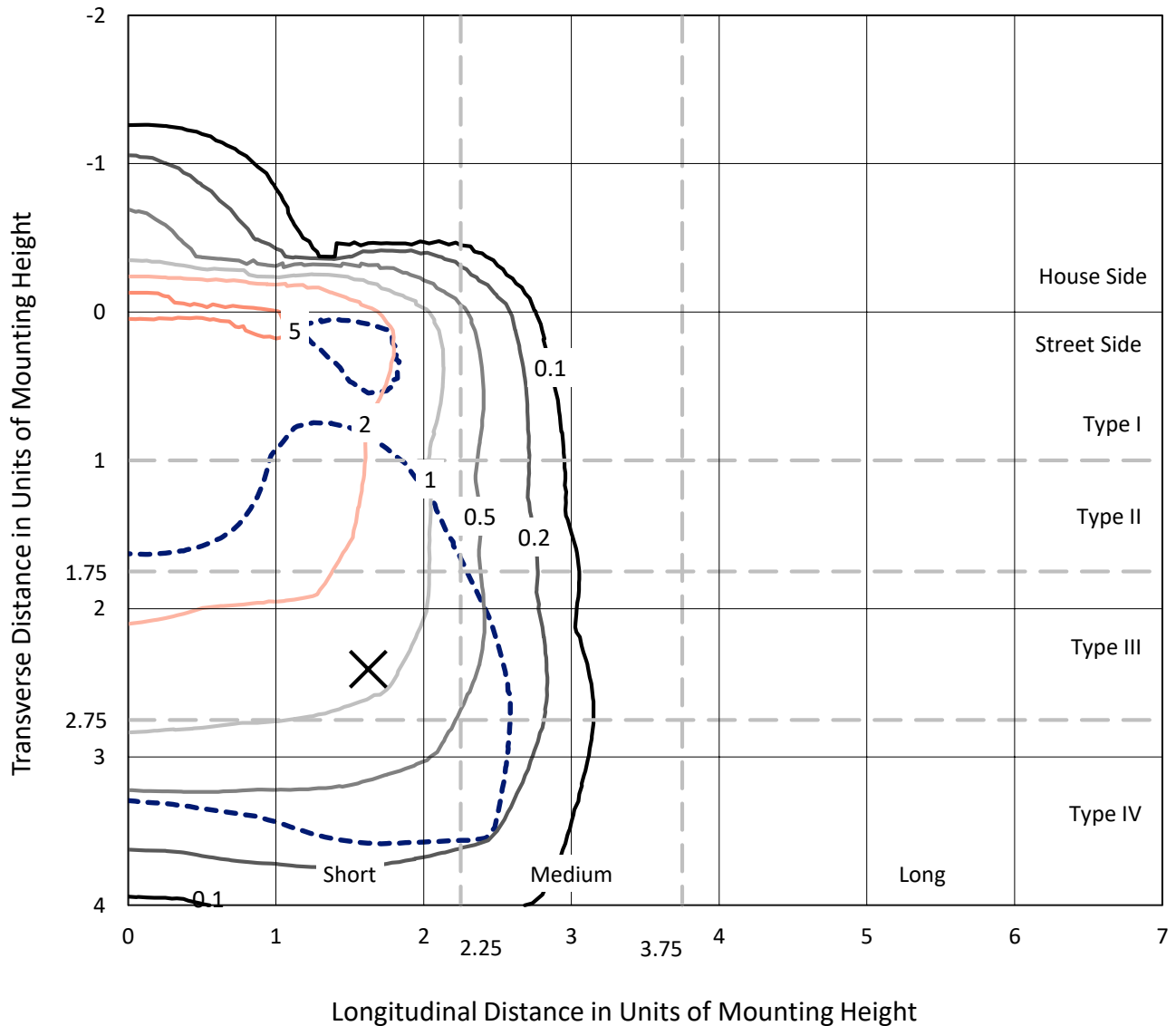
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

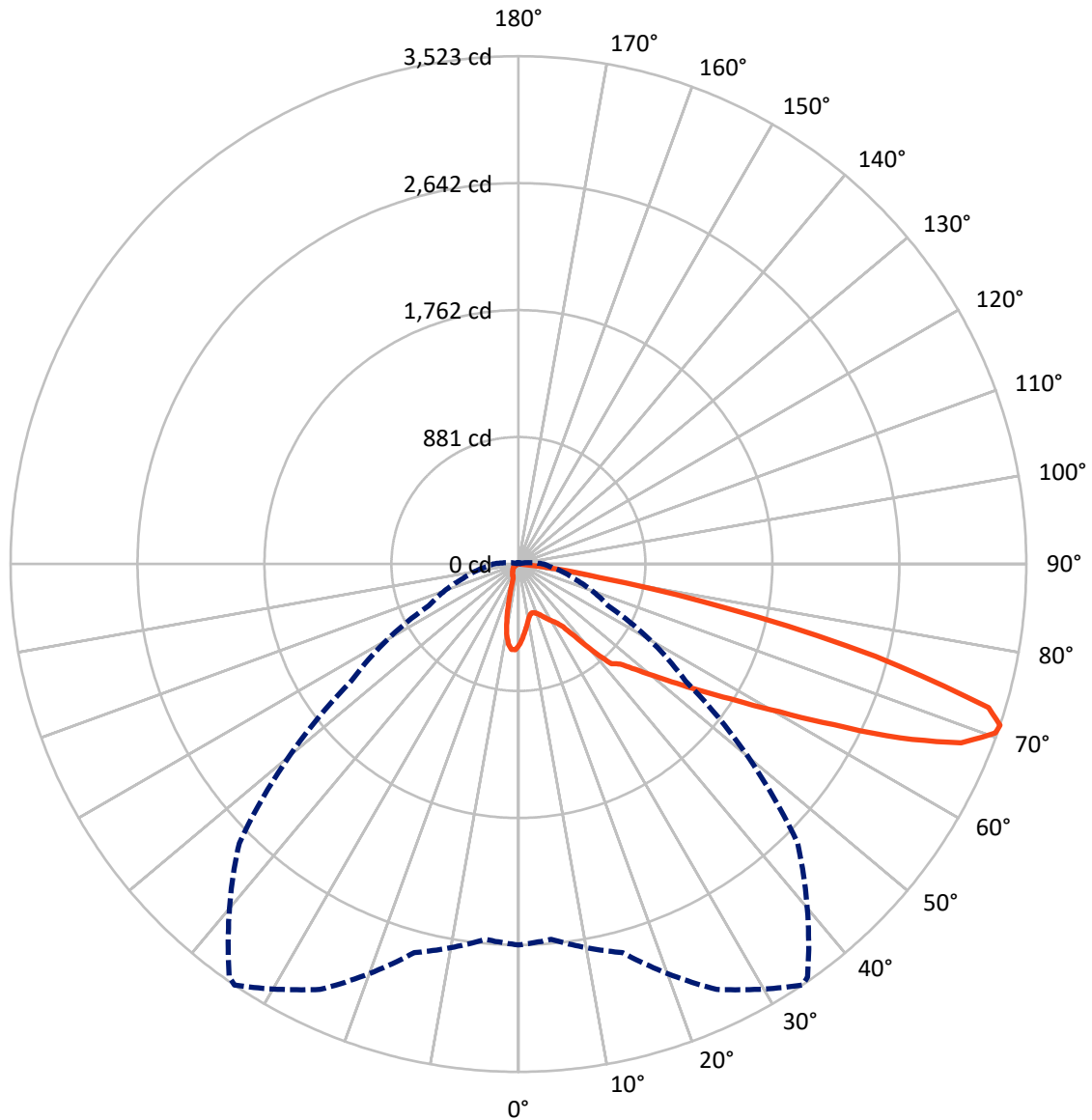
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	402.7	0.0	402.7
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	3239.3	0.0	3239.3
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	3642.0	0.0	3642.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.7	1.4
10°-20°	114.0	3.1
20°-30°	170.2	4.7
30°-40°	284.2	7.8
40°-50°	513.2	14.1
50°-60°	814.3	22.4
60°-70°	1094.3	30.0
70°-80°	580.6	15.9
80°-90°	21.4	0.6
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°	3642.0	100.0
0°-180°	3642.0	100.0



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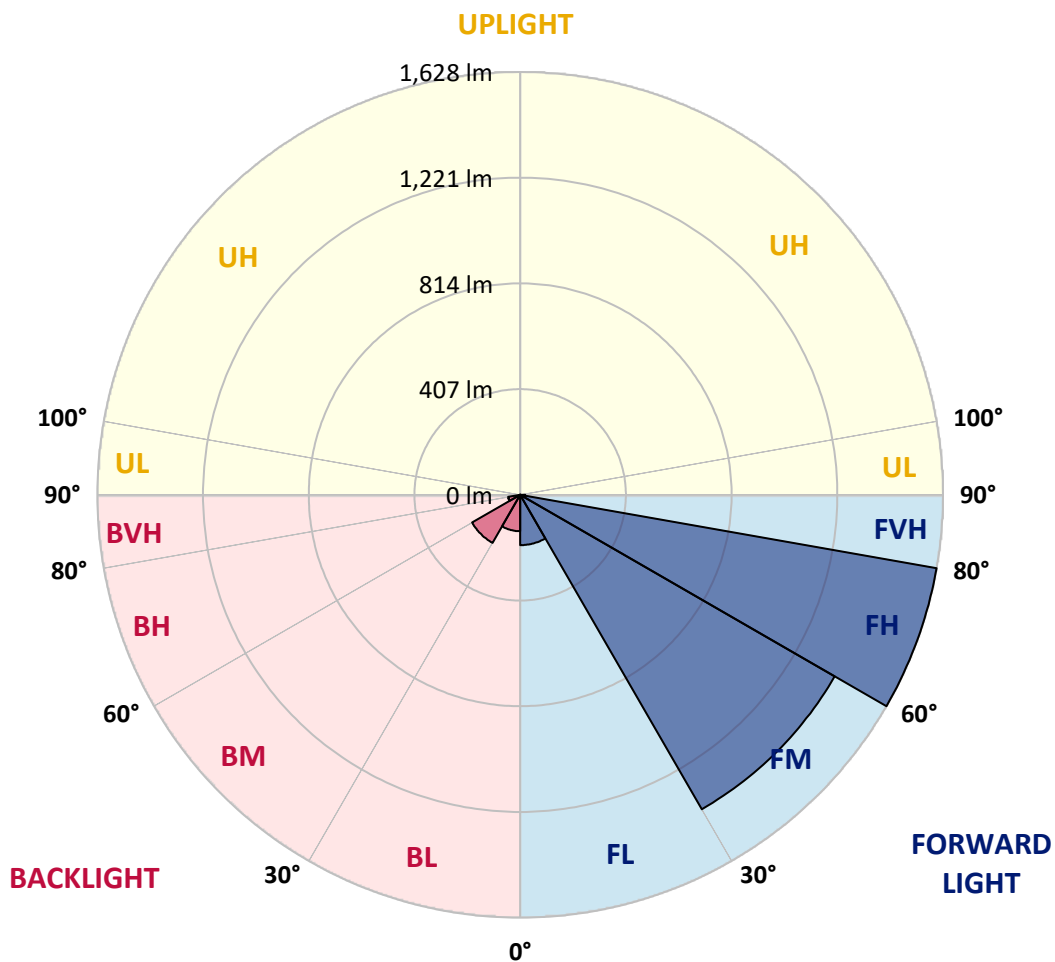
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	193.8	5.3			
FM	(30°-60°)	1398.1	38.4			
FH	(60°-80°)	1627.9	44.7			G1/1800
FVH	(80°-90°)	19.5	0.5			G1/100
BL	(0°-30°)	140.1	3.8	B1/500		
BM	(30°-60°)	213.7	5.9	B0/220		
BH	(60°-80°)	47.0	1.3	B0/110		G0/110
BVH	(80°-90°)	1.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	513.9	507.3	513.1	516.1	518.3	521.2	525.6	533.6	542.4	552.6	558.5
5°	448.1	451.7	453.9	462.0	470.0	471.5	485.4	501.4	521.9	542.4	559.9
7.5°	394.7	394.7	401.3	413.7	426.9	428.3	452.5	473.7	502.9	534.3	562.8
10°	352.3	353.8	358.9	371.3	388.1	391.8	418.8	448.1	484.6	525.6	565.8
12.5°	338.4	337.7	337.0	345.7	359.6	363.3	393.3	428.3	471.5	521.2	573.1
15°	347.2	345.0	339.9	341.4	350.1	353.8	380.1	415.2	463.4	520.5	585.5
17.5°	361.1	358.2	348.7	345.7	355.3	358.9	380.8	411.5	460.5	524.1	600.1
20°	377.9	375.0	360.4	356.7	366.2	369.1	391.8	418.1	462.0	531.4	619.9
22.5°	402.0	398.4	377.2	372.8	382.3	385.2	409.3	433.5	470.7	544.6	646.9
25°	431.3	426.9	399.8	394.0	405.7	408.6	432.7	455.4	485.4	562.1	681.3
27.5°	463.4	458.3	429.8	418.1	431.3	435.7	458.3	483.2	506.6	584.0	726.6
30°	492.7	486.8	459.0	445.9	459.0	461.2	488.3	516.1	540.9	621.3	793.1
32.5°	573.8	559.2	516.1	478.1	486.8	491.2	524.1	568.0	605.2	665.9	878.6
35°	695.2	683.5	630.8	565.0	534.3	535.8	578.2	633.8	650.6	717.8	984.6
37.5°	812.1	801.9	755.8	695.2	636.7	638.9	646.2	699.5	719.3	807.7	1114.0
40°	940.0	923.9	887.4	829.7	789.4	779.9	744.1	781.4	824.5	921.0	1255.1
42.5°	999.2	983.9	945.9	949.5	945.1	928.3	857.4	909.3	957.6	1085.5	1410.8
45°	1097.2	1067.2	989.0	994.8	989.0	990.5	1008.0	1083.3	1125.0	1259.5	1586.9
47.5°	1187.8	1153.5	1071.6	1065.8	1091.3	1104.5	1198.8	1290.2	1293.8	1410.8	1725.1
50°	1270.4	1245.6	1170.3	1171.0	1217.8	1232.4	1421.0	1504.3	1430.5	1527.0	1833.3
52.5°	1380.1	1345.0	1277.7	1301.9	1375.0	1388.1	1642.5	1692.2	1529.2	1632.3	1918.1
55°	1481.7	1462.7	1413.0	1448.8	1560.6	1595.0	1867.6	1836.9	1598.6	1725.8	1959.0
57.5°	1648.3	1630.1	1616.9	1635.2	1785.0	1828.2	2095.7	1939.3	1652.7	1788.0	1940.0
60°	1926.1	1907.8	1868.4	1885.2	2080.3	2102.3	2274.8	2043.1	1673.9	1805.5	1865.4
62.5°	2268.9	2246.3	2182.7	2260.2	2456.1	2455.3	2460.4	2097.9	1646.9	1753.6	1668.8
65°	2578.1	2546.7	2513.8	2671.7	2910.0	2877.1	2657.8	2104.5	1561.4	1502.9	1290.9
67.5°	2803.3	2790.8	2809.1	3055.5	3312.0	3279.1	2849.3	2013.8	1299.7	1084.8	797.5
70°	2794.5	2768.9	2885.1	3278.4	3511.6	3484.5	2841.3	1654.9	866.9	574.5	334.1
71°	2643.2	2613.9	2790.8	3256.5	3523.3	3497.7	2738.9	1415.9	685.6	405.7	220.0
72.5°	2042.3	2130.8	2412.2	3021.8	3410.7	3377.8	2460.4	1084.0	434.2	234.6	110.4
75°	864.0	912.2	1432.0	2157.1	2558.4	2541.6	1658.6	500.7	199.6	106.0	42.4
77.5°	222.2	219.3	438.6	925.4	1489.7	1516.0	764.6	171.8	103.8	75.3	24.1
80°	43.1	46.8	125.0	321.6	568.7	584.0	249.3	75.3	69.4	59.2	12.4
82.5°	4.4	5.1	21.9	99.4	190.8	184.2	54.8	28.5	42.4	40.2	5.8
85°	0.0	0.0	0.7	0.7	0.7	0.7	0.7	2.9	10.2	11.0	1.5
87.5°	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	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°	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3	564.3
2.5°	562.8	569.4	576.7	581.9	587.0	587.7	595.0	593.5	595.7	596.5	595.7
5°	569.4	578.2	592.1	599.4	602.3	597.2	595.7	587.7	584.8	581.1	577.5
7.5°	576.7	587.7	603.8	607.4	597.2	578.2	562.8	543.1	524.8	513.1	514.6
10°	584.8	598.7	611.8	602.3	576.0	538.7	495.6	451.7	413.0	398.4	403.5
12.5°	595.0	611.8	617.7	591.4	540.2	464.9	386.7	320.2	280.0	255.8	252.9
15°	610.4	627.2	620.6	573.8	483.2	365.5	268.3	201.0	162.3	149.8	143.3
17.5°	629.4	645.4	620.6	542.4	402.0	261.7	163.0	122.1	109.6	106.7	107.5
20°	652.8	668.1	617.7	494.9	309.9	160.8	108.9	100.9	100.9	100.9	100.1
22.5°	684.2	692.2	613.3	432.0	213.4	108.9	96.5	95.8	96.5	96.5	96.5
25°	722.2	720.7	605.2	356.7	134.5	92.8	92.1	92.1	92.8	93.6	93.6
27.5°	772.6	757.3	591.4	266.8	95.0	86.3	87.7	89.2	90.6	92.1	92.1
30°	842.8	805.5	568.7	180.5	80.4	79.7	82.6	87.0	89.2	90.6	90.6
32.5°	918.1	855.2	530.0	115.5	73.8	73.1	76.0	82.6	88.4	89.9	89.9
35°	1013.1	908.6	472.2	83.3	69.4	68.0	70.9	76.8	85.5	89.9	89.9
37.5°	1113.3	965.6	388.1	70.2	65.1	63.6	65.8	70.2	80.4	88.4	89.2
40°	1220.0	1016.0	291.7	65.1	60.7	59.9	60.7	65.1	73.1	84.1	86.3
42.5°	1327.4	1058.4	203.9	59.9	57.0	55.6	57.0	59.9	67.2	76.8	78.2
45°	1445.9	1105.2	136.0	55.6	54.1	52.6	54.1	56.3	61.4	66.5	67.2
47.5°	1532.1	1122.0	93.6	50.4	49.7	50.4	51.2	52.6	55.6	56.3	55.6
50°	1589.1	1113.3	67.2	45.3	46.1	48.2	48.2	49.0	49.0	46.8	46.1
52.5°	1630.8	1081.1	51.9	38.7	43.1	45.3	45.3	43.9	42.4	39.5	38.7
55°	1635.2	1008.7	40.9	33.6	38.7	42.4	41.7	38.7	35.8	32.9	32.9
57.5°	1579.6	899.1	33.6	28.5	33.6	37.3	35.8	32.9	29.2	27.0	27.0
60°	1489.7	786.5	28.5	24.1	27.8	31.4	29.2	27.0	23.4	21.2	21.2
62.5°	1323.8	675.4	23.4	19.7	22.7	24.9	24.1	21.9	18.3	16.8	16.1
65°	1014.6	513.9	17.5	15.4	17.5	20.5	19.0	16.8	14.6	12.4	11.7
67.5°	609.6	309.2	13.9	11.7	13.9	16.1	14.6	12.4	10.2	8.8	8.8
70°	258.0	132.3	11.0	8.8	10.2	12.4	11.7	10.2	8.0	7.3	7.3
71°	175.4	94.3	9.5	8.0	9.5	11.7	11.0	9.5	8.0	7.3	7.3
72.5°	89.9	48.2	8.0	6.6	8.8	10.2	10.2	8.8	7.3	7.3	7.3
75°	32.2	20.5	6.6	5.8	7.3	7.3	8.0	8.0	8.0	8.0	7.3
77.5°	18.3	12.4	5.8	5.8	5.8	6.6	8.0	8.8	9.5	9.5	8.8
80°	10.2	6.6	3.7	4.4	5.8	6.6	8.0	8.8	10.2	10.2	9.5
82.5°	5.1	2.2	0.7	2.2	3.7	5.8	6.6	7.3	8.8	8.0	8.0
85°	0.7	0.0	0.0	0.7	2.2	2.9	4.4	5.8	7.3	7.3	6.6
87.5°	0.0	0.0	0.0	0.0	0.7	1.5	2.2	3.7	5.1	5.8	5.1
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)