

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: P401823

Luminaire Tested: **ENV-SA1F-730-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401823  
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-SA1F-730-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA 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: 5022 lumens  
Efficiency: N/A  
Efficacy: 76.0 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 - G2

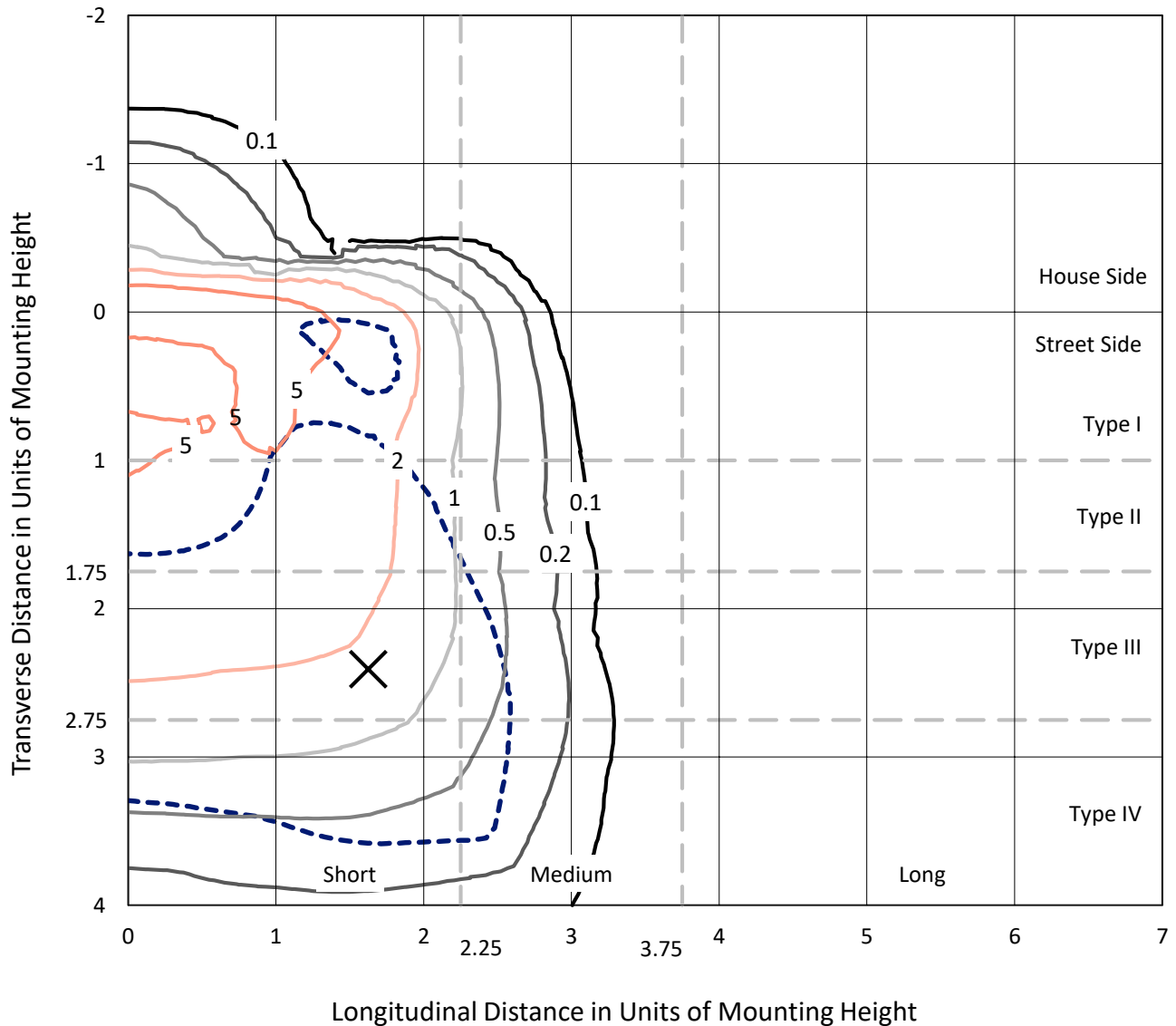
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

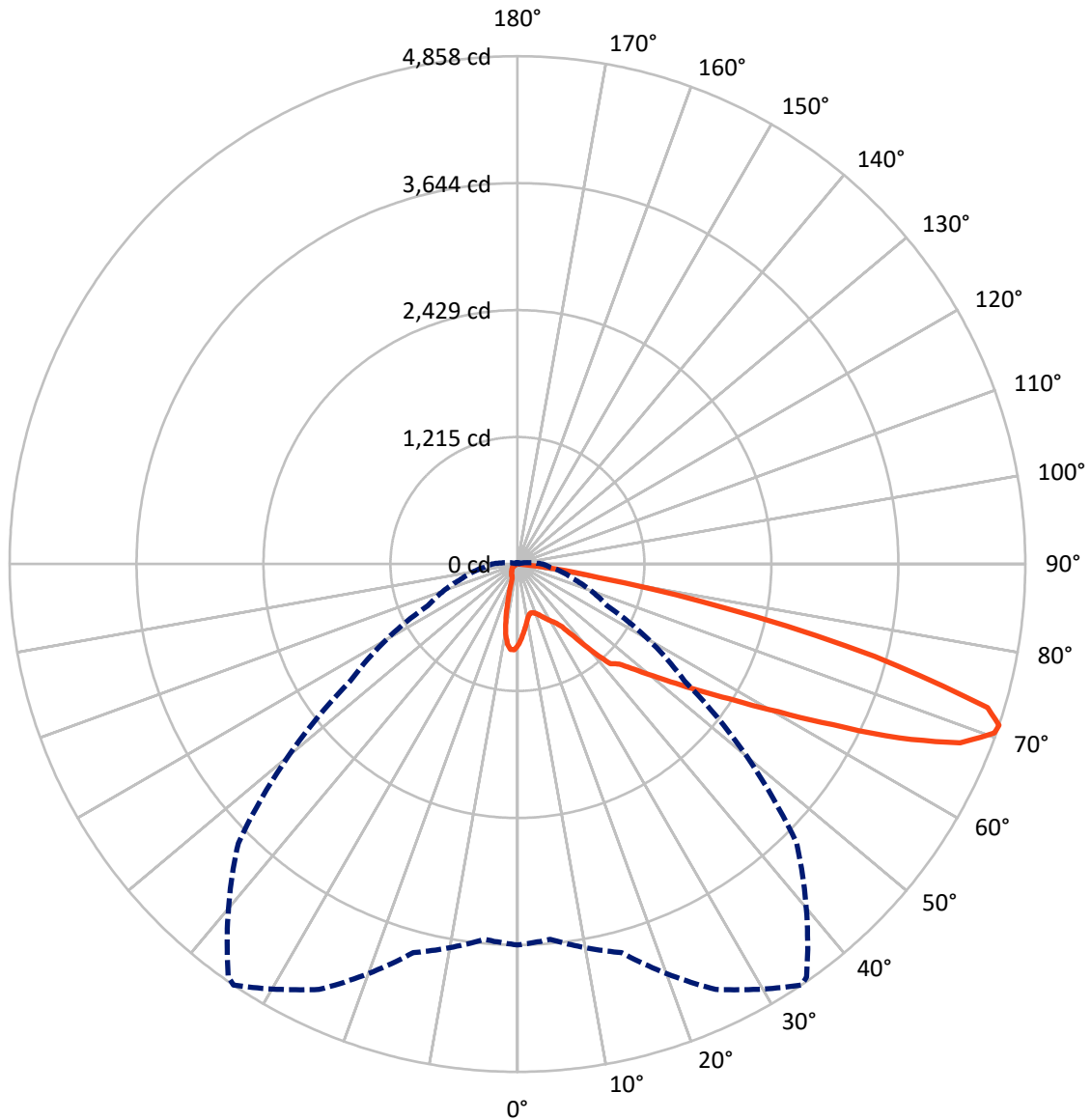
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 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	555.3	0.0	555.3
	% Fixture	11.1	0.0	11.1
<b>Street Side</b>	Lumens	4466.7	0.0	4466.7
	% Fixture	88.9	0.0	88.9
<b>Total</b>	Lumens	5022.0	0.0	5022.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	1.4
10°-20°	157.2	3.1
20°-30°	234.6	4.7
30°-40°	391.9	7.8
40°-50°	707.7	14.1
50°-60°	1122.9	22.4
60°-70°	1508.9	30.0
70°-80°	800.7	15.9
80°-90°	29.5	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°	5022.0	100.0
0°-180°	5022.0	100.0

**Coefficient of Utilization**



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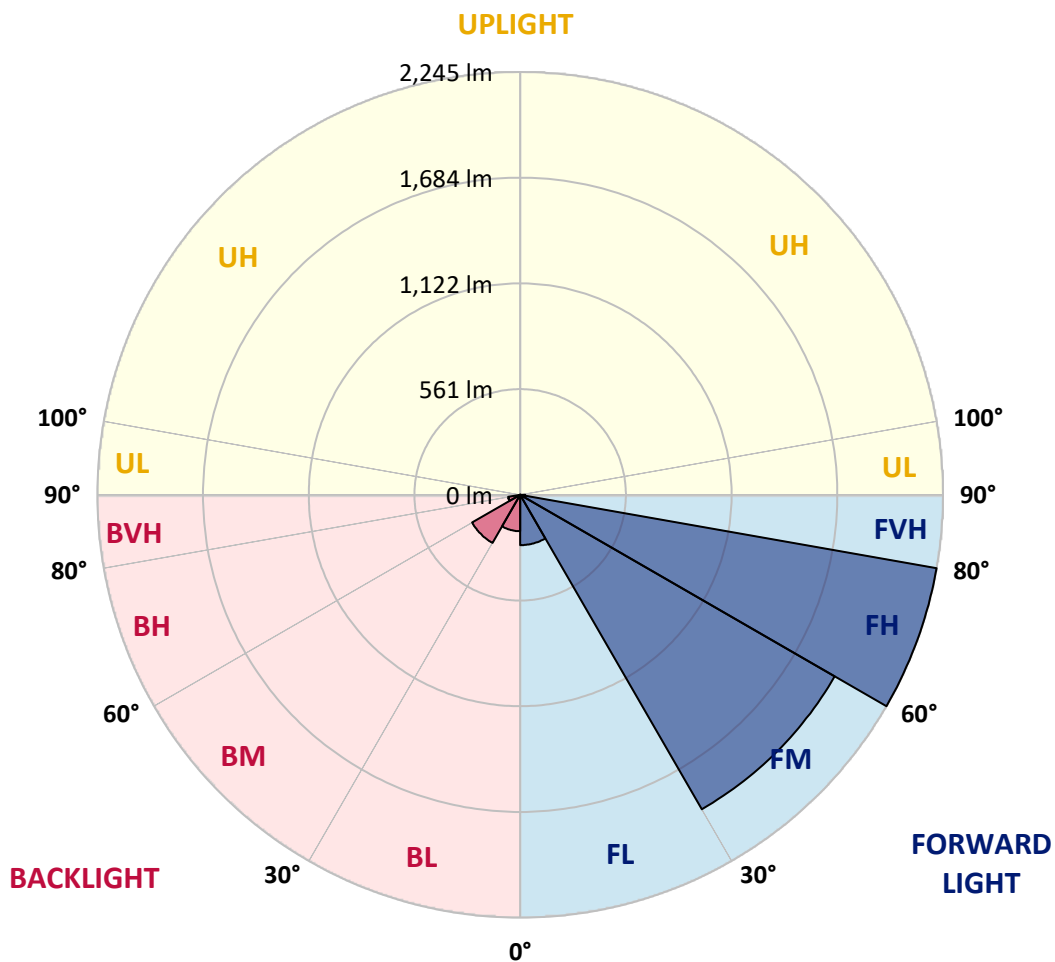
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	267.3	5.3			
FM	(30°-60°)	1927.8	38.4			
FH	(60°-80°)	2244.8	44.7			G2/5000
FVH	(80°-90°)	26.9	0.5			G1/100
BL	(0°-30°)	193.1	3.8	B1/500		
BM	(30°-60°)	294.7	5.9	B1/1000		
BH	(60°-80°)	64.8	1.3	B0/110		G0/110
BVH	(80°-90°)	2.7	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-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1
2.5°	708.6	699.5	707.6	711.6	714.6	718.7	724.7	735.8	747.9	762.0	770.1
5°	617.9	622.9	625.9	637.0	648.1	650.1	669.3	691.4	719.7	747.9	772.1
7.5°	544.3	544.3	553.4	570.5	588.6	590.7	623.9	653.1	693.5	736.8	776.1
10°	485.8	487.8	494.9	512.0	535.2	540.3	577.6	617.9	668.3	724.7	780.1
12.5°	466.7	465.7	464.7	476.8	495.9	500.9	542.3	590.7	650.1	718.7	790.2
15°	478.8	475.7	468.7	470.7	482.8	487.8	524.1	572.5	639.0	717.7	807.4
17.5°	497.9	493.9	480.8	476.8	489.9	494.9	525.1	567.5	635.0	722.7	827.5
20°	521.1	517.1	496.9	491.9	505.0	509.0	540.3	576.5	637.0	732.8	854.7
22.5°	554.4	549.3	520.1	514.1	527.2	531.2	564.4	597.7	649.1	750.9	892.0
25°	594.7	588.6	551.3	543.3	559.4	563.4	596.7	627.9	669.3	775.1	939.4
27.5°	639.0	632.0	592.7	576.5	594.7	600.7	632.0	666.3	698.5	805.3	1001.9
30°	679.4	671.3	633.0	614.8	633.0	636.0	673.3	711.6	745.9	856.8	1093.6
32.5°	791.2	771.1	711.6	659.2	671.3	677.3	722.7	783.2	834.6	918.2	1211.5
35°	958.6	942.4	869.9	779.1	736.8	738.8	797.3	873.9	897.1	989.8	1357.7
37.5°	1119.8	1105.7	1042.2	958.6	877.9	880.9	891.0	964.6	991.8	1113.8	1536.1
40°	1296.2	1274.0	1223.6	1144.0	1088.6	1075.5	1026.1	1077.5	1137.0	1270.0	1730.6
42.5°	1377.9	1356.7	1304.3	1309.3	1303.3	1280.1	1182.3	1253.9	1320.4	1496.8	1945.3
45°	1512.9	1471.6	1363.7	1371.8	1363.7	1365.8	1390.0	1493.8	1551.2	1736.7	2188.2
47.5°	1637.9	1590.5	1477.6	1469.6	1504.9	1523.0	1653.0	1779.0	1784.1	1945.3	2378.7
50°	1751.8	1717.5	1613.7	1614.7	1679.2	1699.4	1959.4	2074.3	1972.5	2105.6	2527.9
52.5°	1903.0	1854.6	1761.9	1795.1	1895.9	1914.1	2264.8	2333.4	2108.6	2250.7	2644.8
55°	2043.1	2016.9	1948.4	1997.7	2152.0	2199.3	2575.3	2533.0	2204.4	2379.8	2701.3
57.5°	2272.9	2247.7	2229.6	2254.8	2461.4	2520.9	2889.8	2674.1	2279.0	2465.4	2675.1
60°	2655.9	2630.7	2576.3	2599.5	2868.6	2898.8	3136.7	2817.2	2308.2	2489.6	2572.3
62.5°	3128.7	3097.4	3009.7	3116.6	3386.7	3385.7	3392.7	2892.8	2270.9	2418.1	2301.1
65°	3555.0	3511.7	3466.3	3684.0	4012.6	3967.3	3664.9	2901.9	2153.0	2072.3	1780.0
67.5°	3865.5	3848.3	3873.5	4213.2	4567.0	4521.6	3929.0	2776.9	1792.1	1495.8	1099.7
70°	3853.4	3818.1	3978.4	4520.6	4842.2	4804.9	3917.9	2282.0	1195.4	792.2	460.6
71°	3644.7	3604.4	3848.3	4490.4	4858.3	4823.0	3776.8	1952.4	945.5	559.4	303.4
72.5°	2816.2	2938.2	3326.2	4166.8	4703.1	4657.7	3392.7	1494.8	598.7	323.5	152.2
75°	1191.4	1257.9	1974.6	2974.4	3527.8	3504.6	2287.0	690.4	275.2	146.2	58.5
77.5°	306.4	302.4	604.8	1276.1	2054.2	2090.5	1054.3	236.9	143.1	103.8	33.3
80°	59.5	64.5	172.4	443.5	784.2	805.3	343.7	103.8	95.8	81.6	17.1
82.5°	6.0	7.1	30.2	137.1	263.1	254.0	75.6	39.3	58.5	55.4	8.1
85°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	4.0	14.1	15.1	2.0
87.5°	0.0	0.0	1.0	1.0	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°	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1
2.5°	776.1	785.2	795.3	802.3	809.4	810.4	820.5	818.4	821.5	822.5	821.5
5°	785.2	797.3	816.4	826.5	830.5	823.5	821.5	810.4	806.4	801.3	796.3
7.5°	795.3	810.4	832.6	837.6	823.5	797.3	776.1	748.9	723.7	707.6	709.6
10°	806.4	825.5	843.6	830.5	794.3	742.9	683.4	622.9	569.5	549.3	556.4
12.5°	820.5	843.6	851.7	815.4	744.9	641.1	533.2	441.5	386.0	352.8	348.7
15°	841.6	864.8	855.7	791.2	666.3	504.0	369.9	277.2	223.8	206.6	197.6
17.5°	867.8	890.0	855.7	747.9	554.4	360.8	224.8	168.3	151.2	147.2	148.2
20°	900.1	921.3	851.7	682.4	427.4	221.7	150.2	139.1	139.1	139.1	138.1
22.5°	943.4	954.5	845.7	595.7	294.3	150.2	133.0	132.0	133.0	133.0	133.0
25°	995.8	993.8	834.6	491.9	185.5	128.0	127.0	127.0	128.0	129.0	129.0
27.5°	1065.4	1044.2	815.4	367.9	131.0	118.9	121.0	123.0	125.0	127.0	127.0
30°	1162.2	1110.8	784.2	249.0	110.9	109.9	113.9	119.9	123.0	125.0	125.0
32.5°	1266.0	1179.3	730.8	159.3	101.8	100.8	104.8	113.9	122.0	124.0	124.0
35°	1397.0	1252.9	651.1	114.9	95.8	93.7	97.8	105.8	117.9	124.0	124.0
37.5°	1535.1	1331.5	535.2	96.8	89.7	87.7	90.7	96.8	110.9	122.0	123.0
40°	1682.3	1401.0	402.2	89.7	83.7	82.7	83.7	89.7	100.8	115.9	118.9
42.5°	1830.4	1459.5	281.2	82.7	78.6	76.6	78.6	82.7	92.7	105.8	107.8
45°	1993.7	1524.0	187.5	76.6	74.6	72.6	74.6	77.6	84.7	91.7	92.7
47.5°	2112.6	1547.2	129.0	69.5	68.5	69.5	70.6	72.6	76.6	77.6	76.6
50°	2191.3	1535.1	92.7	62.5	63.5	66.5	66.5	67.5	67.5	64.5	63.5
52.5°	2248.7	1490.7	71.6	53.4	59.5	62.5	62.5	60.5	58.5	54.4	53.4
55°	2254.8	1391.0	56.4	46.4	53.4	58.5	57.5	53.4	49.4	45.4	45.4
57.5°	2178.2	1239.8	46.4	39.3	46.4	51.4	49.4	45.4	40.3	37.3	37.3
60°	2054.2	1084.5	39.3	33.3	38.3	43.3	40.3	37.3	32.3	29.2	29.2
62.5°	1825.4	931.3	32.3	27.2	31.2	34.3	33.3	30.2	25.2	23.2	22.2
65°	1399.0	708.6	24.2	21.2	24.2	28.2	26.2	23.2	20.2	17.1	16.1
67.5°	840.6	426.4	19.2	16.1	19.2	22.2	20.2	17.1	14.1	12.1	12.1
70°	355.8	182.4	15.1	12.1	14.1	17.1	16.1	14.1	11.1	10.1	10.1
71°	241.9	130.0	13.1	11.1	13.1	16.1	15.1	13.1	11.1	10.1	10.1
72.5°	124.0	66.5	11.1	9.1	12.1	14.1	14.1	12.1	10.1	10.1	10.1
75°	44.3	28.2	9.1	8.1	10.1	10.1	11.1	11.1	11.1	11.1	10.1
77.5°	25.2	17.1	8.1	8.1	8.1	9.1	11.1	12.1	13.1	13.1	12.1
80°	14.1	9.1	5.0	6.0	8.1	9.1	11.1	12.1	14.1	14.1	13.1
82.5°	7.1	3.0	1.0	3.0	5.0	8.1	9.1	10.1	12.1	11.1	11.1
85°	1.0	0.0	0.0	1.0	3.0	4.0	6.0	8.1	10.1	10.1	9.1
87.5°	0.0	0.0	0.0	0.0	1.0	2.0	3.0	5.0	7.1	8.1	7.1
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)