

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: P401661

Luminaire Tested: **ENV-SA1E-735-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401661
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-SA1E-735-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 1050mA 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: 4680 lumens
Efficiency: N/A
Efficacy: 81.8 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): 57.2
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

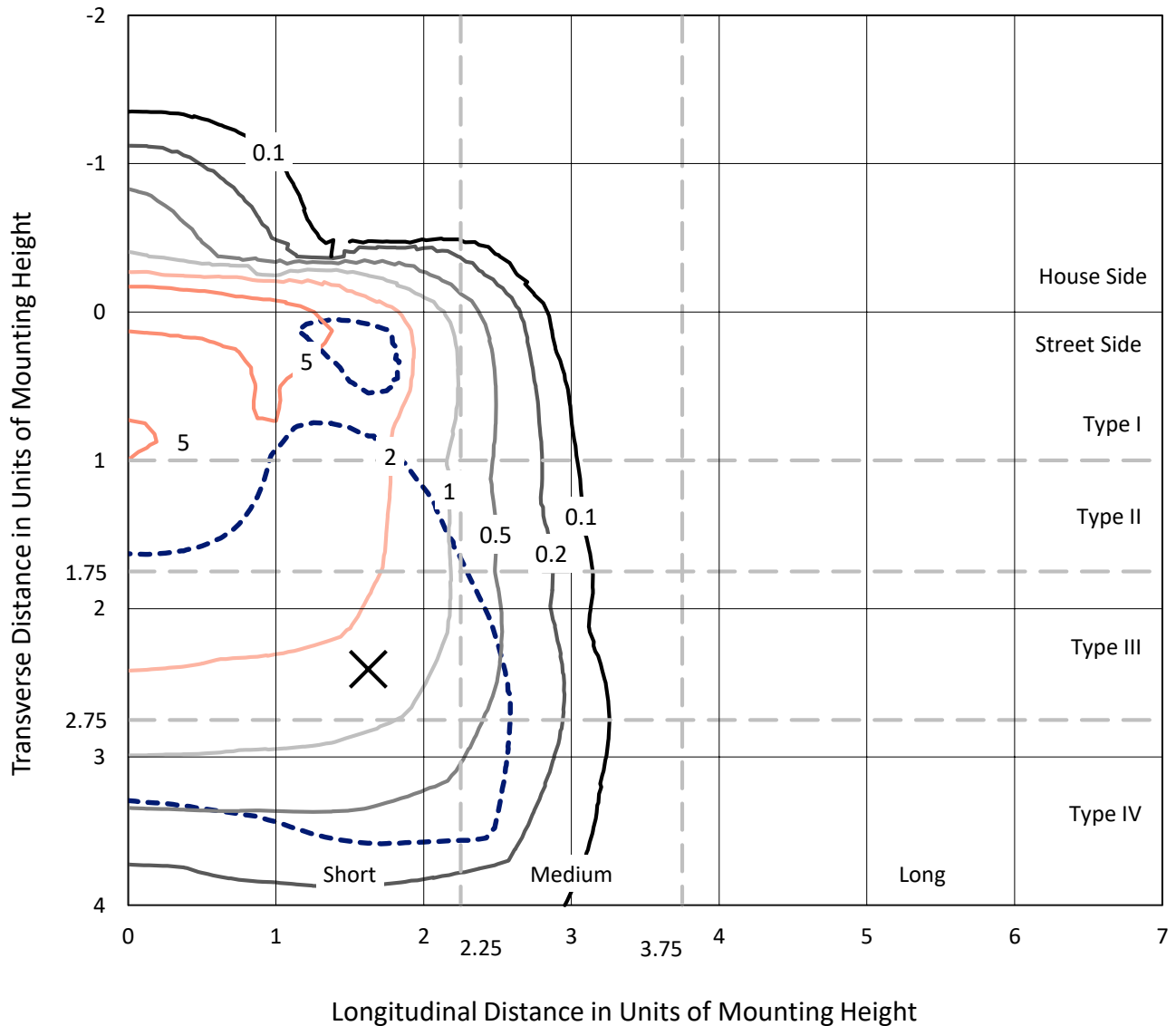


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Iso-Footcandle Lines of Horizontal Illumination

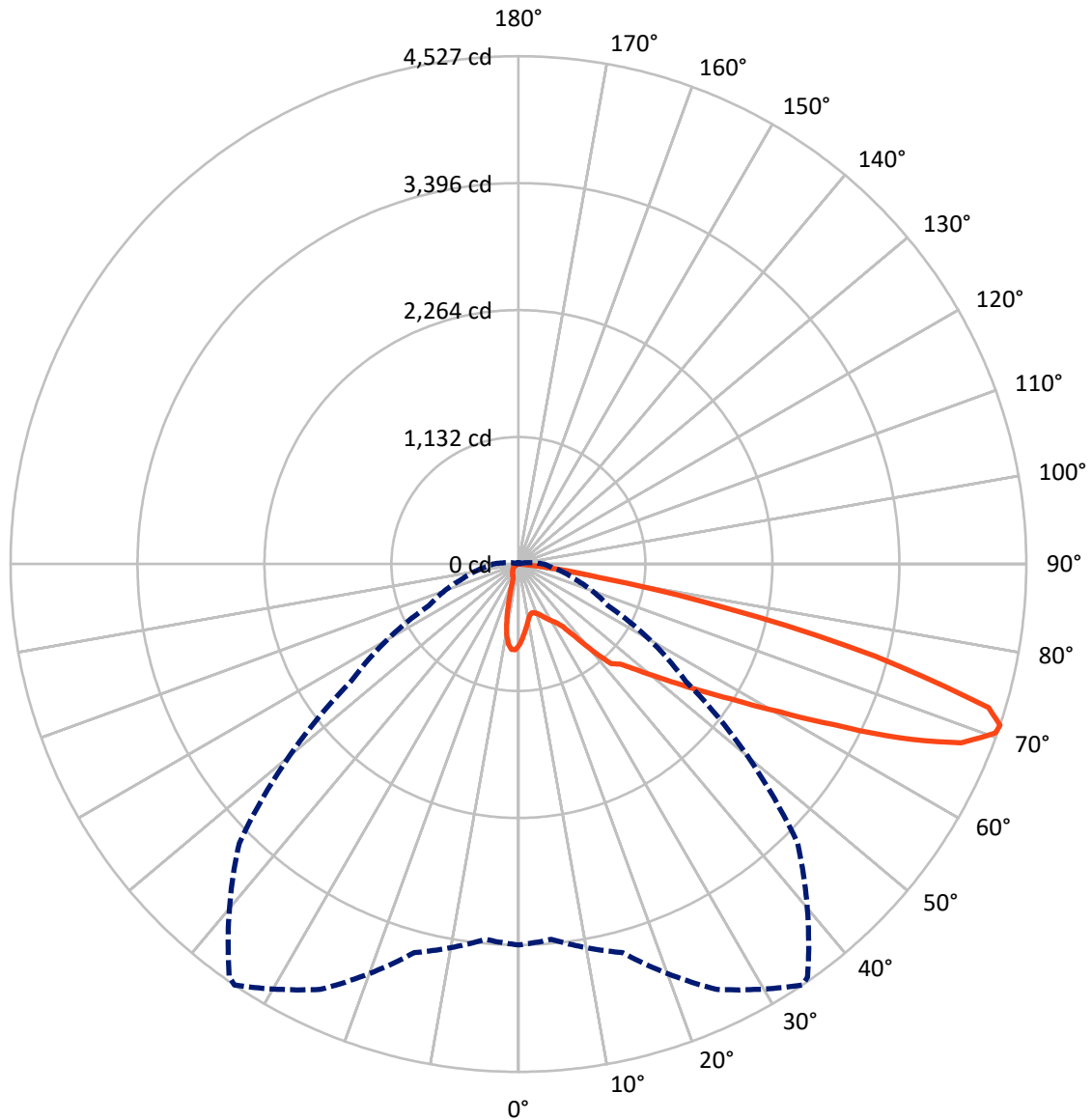
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.3 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
House Side	Lumens	517.5	0.0	517.5
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	4162.5	0.0	4162.5
	% Fixture	88.9	0.0	88.9
Total	Lumens	4680.0	0.0	4680.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	1.4
10°-20°	146.5	3.1
20°-30°	218.6	4.7
30°-40°	365.2	7.8
40°-50°	659.5	14.1
50°-60°	1046.4	22.4
60°-70°	1406.2	30.0
70°-80°	746.1	15.9
80°-90°	27.5	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°	4680.0	100.0
0°-180°	4680.0	100.0



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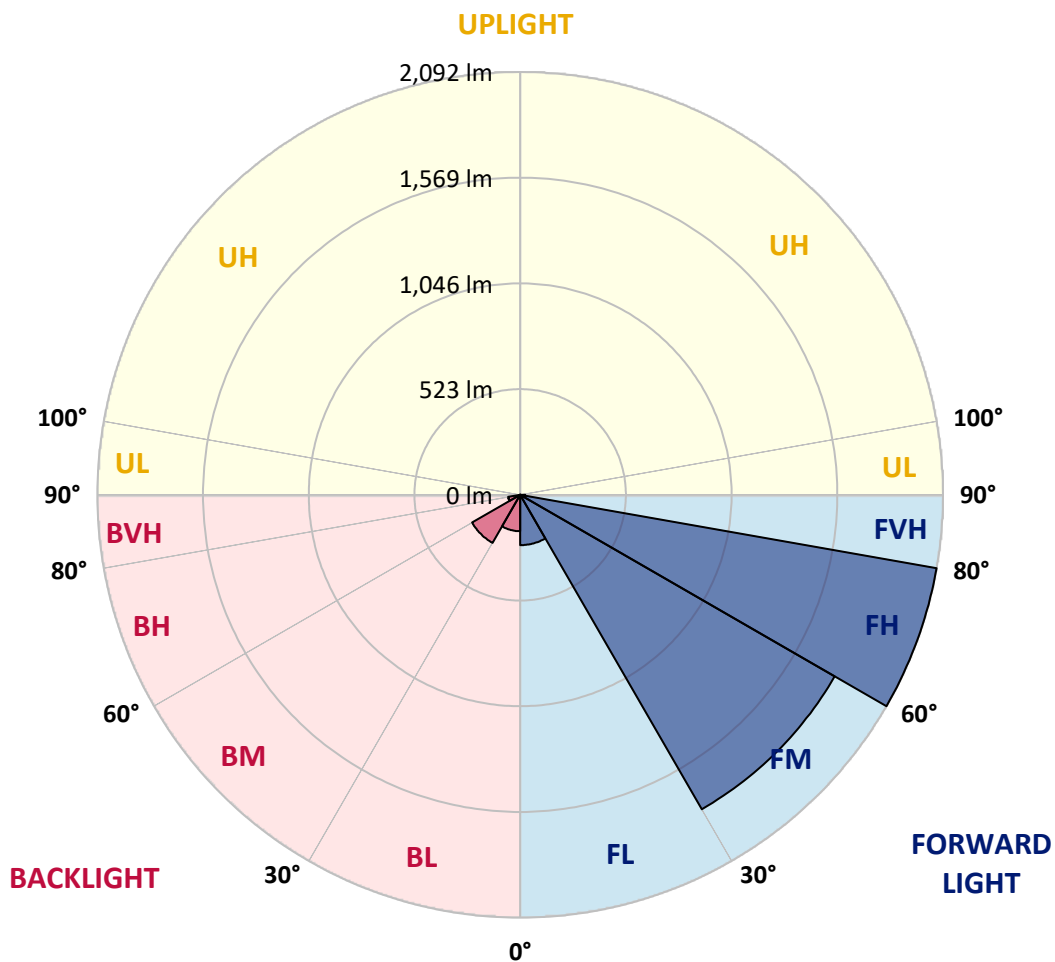
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	249.1	5.3			
FM	(30°-60°)	1796.5	38.4			
FH	(60°-80°)	2091.9	44.7			G2/5000
FVH	(80°-90°)	25.0	0.5			G1/100
BL	(0°-30°)	180.0	3.8	B1/500		
BM	(30°-60°)	274.6	5.9	B1/1000		
BH	(60°-80°)	60.4	1.3	B0/110		G0/110
BVH	(80°-90°)	2.5	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°	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1
2.5°	660.3	651.9	659.4	663.1	666.0	669.7	675.4	685.7	697.0	710.1	717.6
5°	575.8	580.5	583.3	593.6	604.0	605.8	623.7	644.4	670.7	697.0	719.5
7.5°	507.2	507.2	515.7	531.6	548.6	550.4	581.4	608.7	646.2	686.6	723.3
10°	452.7	454.6	461.2	477.2	498.8	503.5	538.2	575.8	622.8	675.4	727.0
12.5°	434.9	434.0	433.0	444.3	462.1	466.8	505.3	550.4	605.8	669.7	736.4
15°	446.2	443.4	436.8	438.7	449.9	454.6	488.4	533.5	595.5	668.8	752.4
17.5°	464.0	460.3	448.0	444.3	456.5	461.2	489.4	528.8	591.8	673.5	771.2
20°	485.6	481.9	463.1	458.4	470.6	474.3	503.5	537.3	593.6	682.9	796.5
22.5°	516.6	511.9	484.7	479.0	491.3	495.0	526.0	557.0	604.9	699.8	831.3
25°	554.2	548.6	513.8	506.3	521.3	525.1	556.1	585.2	623.7	722.3	875.4
27.5°	595.5	588.9	552.3	537.3	554.2	559.8	588.9	620.9	650.9	750.5	933.7
30°	633.1	625.6	589.9	573.0	589.9	592.7	627.5	663.1	695.1	798.4	1019.1
32.5°	737.4	718.6	663.1	614.3	625.6	631.2	673.5	729.8	777.7	855.7	1129.0
35°	893.3	878.2	810.6	726.1	686.6	688.5	743.0	814.4	836.0	922.4	1265.2
37.5°	1043.6	1030.4	971.2	893.3	818.1	820.9	830.3	898.9	924.3	1037.9	1431.5
40°	1207.9	1187.3	1140.3	1066.1	1014.4	1002.2	956.2	1004.1	1059.5	1183.5	1612.8
42.5°	1284.0	1264.3	1215.5	1220.2	1214.5	1192.9	1101.8	1168.5	1230.5	1394.9	1812.9
45°	1409.9	1371.4	1270.9	1278.4	1270.9	1272.8	1295.3	1392.0	1445.6	1618.4	2039.2
47.5°	1526.4	1482.2	1377.0	1369.5	1402.4	1419.3	1540.5	1657.9	1662.6	1812.9	2216.8
50°	1632.5	1600.6	1503.8	1504.8	1564.9	1583.7	1826.0	1933.1	1838.2	1962.2	2355.8
52.5°	1773.4	1728.3	1641.9	1672.9	1766.8	1783.7	2110.6	2174.5	1965.0	2097.5	2464.7
55°	1904.0	1879.5	1815.7	1861.7	2005.4	2049.6	2399.9	2360.5	2054.3	2217.7	2517.3
57.5°	2118.1	2094.6	2077.7	2101.2	2293.8	2349.2	2693.0	2492.0	2123.8	2297.5	2492.9
60°	2475.1	2451.6	2400.9	2422.5	2673.3	2701.4	2923.1	2625.3	2151.0	2320.1	2397.1
62.5°	2915.6	2886.5	2804.8	2904.3	3156.1	3155.1	3161.7	2695.8	2116.2	2253.4	2144.4
65°	3312.9	3272.5	3230.3	3433.1	3739.4	3697.1	3415.3	2704.2	2006.3	1931.2	1658.8
67.5°	3602.2	3586.3	3609.7	3926.3	4256.0	4213.7	3661.4	2587.8	1670.1	1393.9	1024.8
70°	3591.0	3558.1	3707.4	4212.8	4512.4	4477.7	3651.1	2126.6	1114.0	738.3	429.3
71°	3396.5	3358.9	3586.3	4184.6	4527.4	4494.6	3519.6	1819.4	881.1	521.3	282.7
72.5°	2624.4	2738.1	3099.7	3883.1	4382.8	4340.5	3161.7	1393.0	557.9	301.5	141.8
75°	1110.3	1172.2	1840.1	2771.9	3287.6	3266.0	2131.3	643.4	256.4	136.2	54.5
77.5°	285.5	281.8	563.6	1189.2	1914.3	1948.1	982.5	220.7	133.4	96.7	31.0
80°	55.4	60.1	160.6	413.3	730.8	750.5	320.3	96.7	89.2	76.1	16.0
82.5°	5.6	6.6	28.2	127.7	245.2	236.7	70.4	36.6	54.5	51.7	7.5
85°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	3.8	13.2	14.1	1.9
87.5°	0.0	0.0	0.9	0.9	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°	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1	725.1
2.5°	723.3	731.7	741.1	747.7	754.3	755.2	764.6	762.7	765.5	766.5	765.5
5°	731.7	743.0	760.8	770.2	774.0	767.4	765.5	755.2	751.4	746.7	742.0
7.5°	741.1	755.2	775.9	780.6	767.4	743.0	723.3	697.9	674.4	659.4	661.3
10°	751.4	769.3	786.2	774.0	740.2	692.3	636.8	580.5	530.7	511.9	518.5
12.5°	764.6	786.2	793.7	759.9	694.1	597.4	496.9	411.4	359.8	328.8	325.0
15°	784.3	805.9	797.5	737.4	620.9	469.7	344.7	258.3	208.5	192.6	184.1
17.5°	808.7	829.4	797.5	697.0	516.6	336.3	209.5	156.9	140.9	137.1	138.1
20°	838.8	858.5	793.7	635.9	398.3	206.6	140.0	129.6	129.6	129.6	128.7
22.5°	879.2	889.5	788.1	555.1	274.3	140.0	124.0	123.0	124.0	124.0	124.0
25°	928.0	926.2	777.7	458.4	172.8	119.3	118.4	118.4	119.3	120.2	120.2
27.5°	992.8	973.1	759.9	342.8	122.1	110.8	112.7	114.6	116.5	118.4	118.4
30°	1083.0	1035.1	730.8	232.0	103.3	102.4	106.1	111.8	114.6	116.5	116.5
32.5°	1179.8	1099.0	681.0	148.4	94.9	93.9	97.7	106.1	113.7	115.5	115.5
35°	1301.9	1167.6	606.8	107.1	89.2	87.4	91.1	98.6	109.9	115.5	115.5
37.5°	1430.6	1240.8	498.8	90.2	83.6	81.7	84.5	90.2	103.3	113.7	114.6
40°	1567.7	1305.6	374.8	83.6	78.0	77.0	78.0	83.6	93.9	108.0	110.8
42.5°	1705.8	1360.1	262.1	77.0	73.3	71.4	73.3	77.0	86.4	98.6	100.5
45°	1857.9	1420.2	174.7	71.4	69.5	67.6	69.5	72.3	78.9	85.5	86.4
47.5°	1968.8	1441.8	120.2	64.8	63.9	64.8	65.8	67.6	71.4	72.3	71.4
50°	2042.0	1430.6	86.4	58.2	59.2	62.0	62.0	62.9	62.9	60.1	59.2
52.5°	2095.6	1389.2	66.7	49.8	55.4	58.2	58.2	56.4	54.5	50.7	49.8
55°	2101.2	1296.2	52.6	43.2	49.8	54.5	53.5	49.8	46.0	42.3	42.3
57.5°	2029.8	1155.3	43.2	36.6	43.2	47.9	46.0	42.3	37.6	34.8	34.8
60°	1914.3	1010.7	36.6	31.0	35.7	40.4	37.6	34.8	30.1	27.2	27.2
62.5°	1701.1	867.9	30.1	25.4	29.1	31.9	31.0	28.2	23.5	21.6	20.7
65°	1303.8	660.3	22.5	19.7	22.5	26.3	24.4	21.6	18.8	16.0	15.0
67.5°	783.4	397.3	17.8	15.0	17.8	20.7	18.8	16.0	13.2	11.3	11.3
70°	331.6	170.0	14.1	11.3	13.2	16.0	15.0	13.2	10.3	9.4	9.4
71°	225.4	121.2	12.2	10.3	12.2	15.0	14.1	12.2	10.3	9.4	9.4
72.5°	115.5	62.0	10.3	8.5	11.3	13.2	13.2	11.3	9.4	9.4	9.4
75°	41.3	26.3	8.5	7.5	9.4	9.4	10.3	10.3	10.3	10.3	9.4
77.5°	23.5	16.0	7.5	7.5	7.5	8.5	10.3	11.3	12.2	12.2	11.3
80°	13.2	8.5	4.7	5.6	7.5	8.5	10.3	11.3	13.2	13.2	12.2
82.5°	6.6	2.8	0.9	2.8	4.7	7.5	8.5	9.4	11.3	10.3	10.3
85°	0.9	0.0	0.0	0.9	2.8	3.8	5.6	7.5	9.4	9.4	8.5
87.5°	0.0	0.0	0.0	0.0	0.9	1.9	2.8	4.7	6.6	7.5	6.6
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)