

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: P401874

Luminaire Tested: **ENT-SA1F-740-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401874
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: ENT-SA1F-740-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 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: 5514 lumens
Efficiency: N/A
Efficacy: 83.4 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

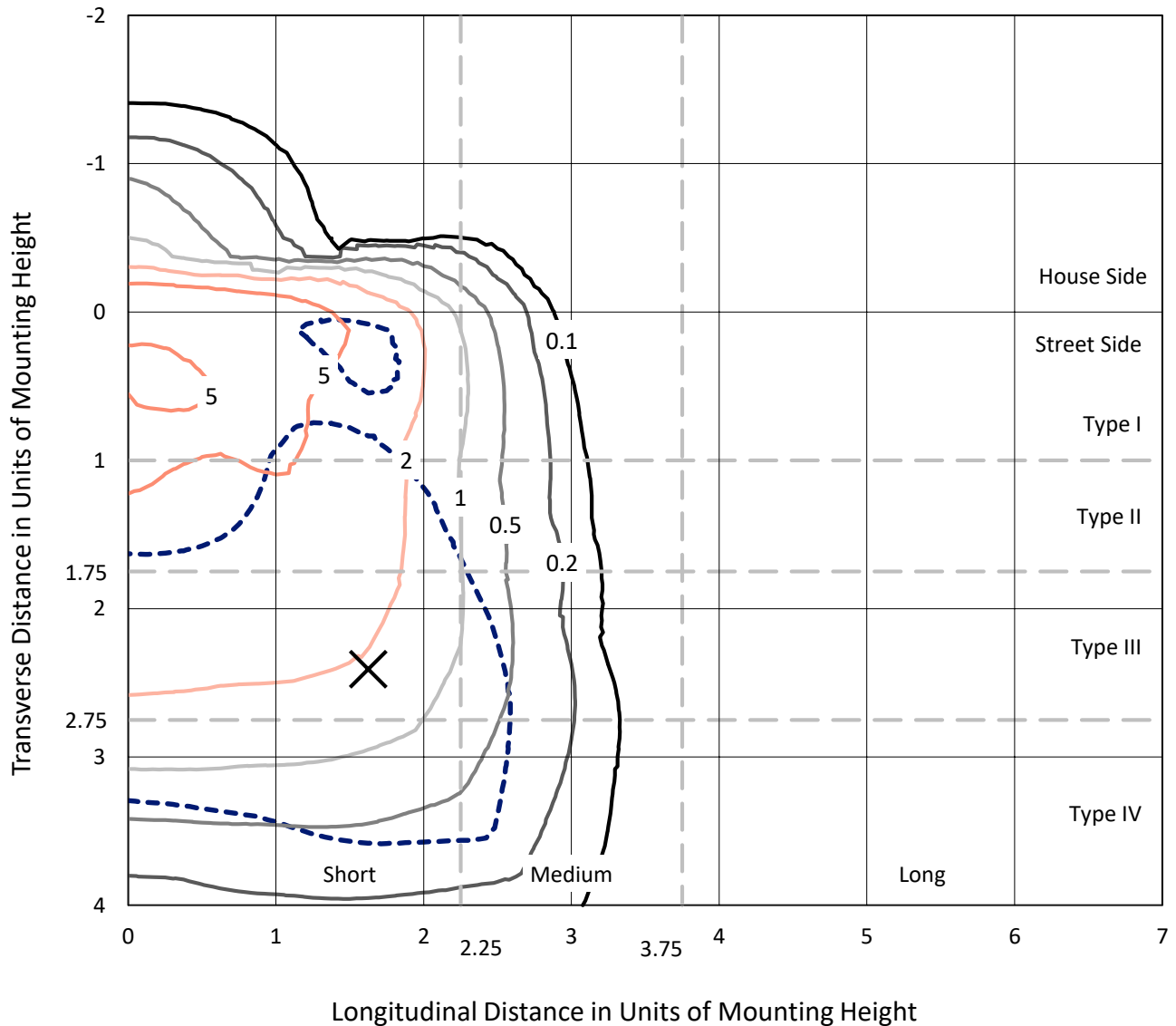
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

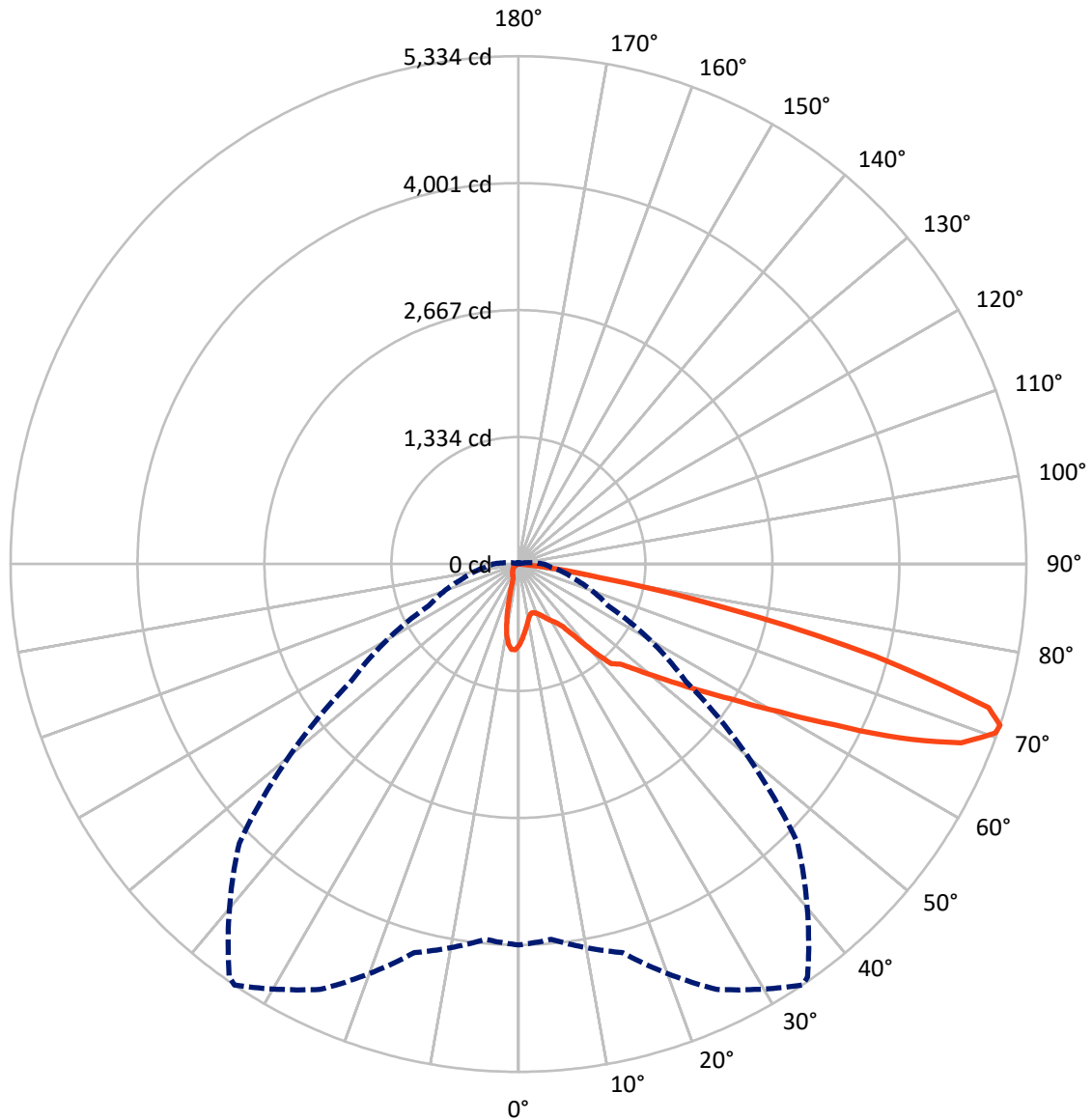
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.5 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	609.7	0.0	609.7
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	4904.3	0.0	4904.3
	% Fixture	88.9	0.0	88.9
Total	Lumens	5514.0	0.0	5514.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	1.4
10°-20°	172.6	3.1
20°-30°	257.6	4.7
30°-40°	430.2	7.8
40°-50°	777.0	14.1
50°-60°	1232.9	22.4
60°-70°	1656.8	30.0
70°-80°	879.1	15.9
80°-90°	32.4	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°	5514.0	100.0
0°-180°	5514.0	100.0

Coefficient of Utilization



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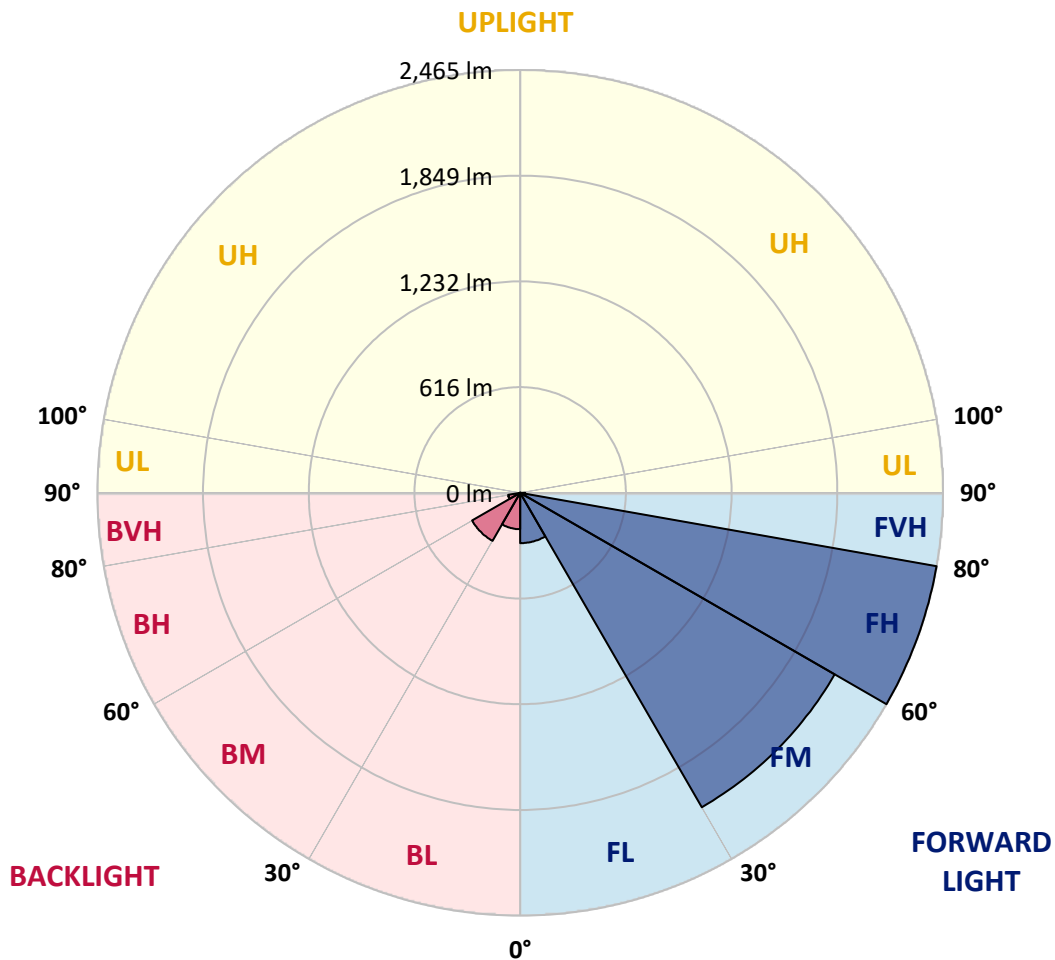
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	293.4	5.3			
FM	(30°-60°)	2116.7	38.4			
FH	(60°-80°)	2464.7	44.7			G2/5000
FVH	(80°-90°)	29.5	0.5			G1/100
BL	(0°-30°)	212.1	3.8	B1/500		
BM	(30°-60°)	323.5	5.9	B1/1000		
BH	(60°-80°)	71.2	1.3	B0/110		G0/110
BVH	(80°-90°)	2.9	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4
2.5°	778.0	768.0	776.9	781.3	784.6	789.1	795.7	807.9	821.2	836.7	845.5
5°	678.4	683.9	687.3	699.4	711.6	713.8	734.8	759.2	790.2	821.2	847.7
7.5°	597.6	597.6	607.6	626.4	646.3	648.5	685.0	717.1	761.4	809.0	852.2
10°	533.4	535.6	543.4	562.2	587.7	593.2	634.1	678.4	733.7	795.7	856.6
12.5°	512.4	511.3	510.2	523.5	544.5	550.0	595.4	648.5	713.8	789.1	867.6
15°	525.7	522.4	514.6	516.8	530.1	535.6	575.5	628.6	701.6	788.0	886.5
17.5°	546.7	542.3	527.9	523.5	537.9	543.4	576.6	623.1	697.2	793.5	908.6
20°	572.2	567.7	545.6	540.1	554.5	558.9	593.2	633.0	699.4	804.6	938.5
22.5°	608.7	603.1	571.1	564.4	578.8	583.2	619.7	656.3	712.7	824.5	979.4
25°	652.9	646.3	605.4	596.5	614.2	618.6	655.2	689.5	734.8	851.0	1031.4
27.5°	701.6	693.9	650.7	633.0	652.9	659.6	693.9	731.5	766.9	884.2	1100.1
30°	745.9	737.1	695.0	675.1	695.0	698.3	739.3	781.3	819.0	940.7	1200.8
32.5°	868.8	846.6	781.3	723.8	737.1	743.7	793.5	859.9	916.3	1008.2	1330.2
35°	1052.5	1034.8	955.1	855.5	809.0	811.2	875.4	959.5	985.0	1086.8	1490.7
37.5°	1229.5	1214.0	1144.3	1052.5	963.9	967.2	978.3	1059.1	1089.0	1222.9	1686.6
40°	1423.2	1398.9	1343.5	1256.1	1195.2	1180.8	1126.6	1183.1	1248.3	1394.4	1900.2
42.5°	1512.8	1489.6	1432.1	1437.6	1431.0	1405.5	1298.1	1376.7	1449.8	1643.4	2135.9
45°	1661.1	1615.8	1497.4	1506.2	1497.4	1499.6	1526.1	1640.1	1703.2	1906.8	2402.6
47.5°	1798.4	1746.4	1622.4	1613.6	1652.3	1672.2	1815.0	1953.3	1958.8	2135.9	2611.8
50°	1923.4	1885.8	1771.8	1772.9	1843.7	1865.9	2151.4	2277.6	2165.8	2311.9	2775.6
52.5°	2089.4	2036.3	1934.5	1971.0	2081.7	2101.6	2486.7	2562.0	2315.2	2471.2	2904.0
55°	2243.3	2214.5	2139.2	2193.5	2362.8	2414.8	2827.6	2781.1	2420.3	2612.9	2965.9
57.5°	2495.6	2467.9	2448.0	2475.7	2702.5	2767.8	3172.9	2936.0	2502.2	2707.0	2937.2
60°	2916.1	2888.5	2828.7	2854.2	3149.6	3182.8	3444.0	3093.2	2534.3	2733.5	2824.3
62.5°	3435.2	3400.9	3304.6	3421.9	3718.5	3717.4	3725.1	3176.2	2493.4	2654.9	2526.6
65°	3903.3	3855.7	3805.9	4045.0	4405.7	4355.9	4023.9	3186.2	2363.9	2275.4	1954.4
67.5°	4244.2	4225.3	4253.0	4626.0	5014.4	4964.6	4313.9	3048.9	1967.7	1642.3	1207.4
70°	4230.9	4192.1	4368.1	4963.5	5316.5	5275.6	4301.7	2505.5	1312.5	869.9	505.8
71°	4001.8	3957.5	4225.3	4930.3	5334.2	5295.5	4146.8	2143.7	1038.1	614.2	333.1
72.5°	3092.1	3226.0	3652.1	4575.1	5163.8	5114.0	3725.1	1641.2	657.4	355.2	167.1
75°	1308.1	1381.1	2168.0	3265.8	3873.4	3848.0	2511.1	758.1	302.1	160.5	64.2
77.5°	336.4	332.0	664.0	1401.1	2255.4	2295.3	1157.6	260.1	157.2	114.0	36.5
80°	65.3	70.8	189.2	486.9	861.0	884.2	377.4	114.0	105.1	89.6	18.8
82.5°	6.6	7.7	33.2	150.5	288.8	278.9	83.0	43.2	64.2	60.9	8.9
85°	0.0	0.0	1.1	1.1	1.1	1.1	1.1	4.4	15.5	16.6	2.2
87.5°	0.0	0.0	1.1	1.1	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°	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4	854.4
2.5°	852.2	862.1	873.2	880.9	888.7	889.8	900.8	898.6	902.0	903.1	902.0
5°	862.1	875.4	896.4	907.5	911.9	904.2	902.0	889.8	885.4	879.8	874.3
7.5°	873.2	889.8	914.1	919.7	904.2	875.4	852.2	822.3	794.6	776.9	779.1
10°	885.4	906.4	926.3	911.9	872.1	815.6	750.3	683.9	625.3	603.1	610.9
12.5°	900.8	926.3	935.2	895.3	817.8	703.9	585.4	484.7	423.9	387.3	382.9
15°	924.1	949.5	939.6	868.8	731.5	553.3	406.2	304.3	245.7	226.9	216.9
17.5°	952.9	977.2	939.6	821.2	608.7	396.2	246.8	184.8	166.0	161.6	162.7
20°	988.3	1011.5	935.2	749.2	469.2	243.5	164.9	152.7	152.7	152.7	151.6
22.5°	1035.9	1048.0	928.5	654.1	323.2	164.9	146.1	145.0	146.1	146.1	146.1
25°	1093.4	1091.2	916.3	540.1	203.6	140.5	139.4	139.4	140.5	141.7	141.7
27.5°	1169.8	1146.5	895.3	403.9	143.9	130.6	132.8	135.0	137.2	139.4	139.4
30°	1276.0	1219.6	861.0	273.4	121.7	120.6	125.1	131.7	135.0	137.2	137.2
32.5°	1390.0	1294.8	802.4	174.9	111.8	110.7	115.1	125.1	133.9	136.1	136.1
35°	1533.9	1375.6	714.9	126.2	105.1	102.9	107.3	116.2	129.5	136.1	136.1
37.5°	1685.5	1461.9	587.7	106.2	98.5	96.3	99.6	106.2	121.7	133.9	135.0
40°	1847.1	1538.3	441.6	98.5	91.9	90.7	91.9	98.5	110.7	127.3	130.6
42.5°	2009.7	1602.5	308.8	90.7	86.3	84.1	86.3	90.7	101.8	116.2	118.4
45°	2189.0	1673.3	205.8	84.1	81.9	79.7	81.9	85.2	93.0	100.7	101.8
47.5°	2319.6	1698.8	141.7	76.4	75.3	76.4	77.5	79.7	84.1	85.2	84.1
50°	2405.9	1685.5	101.8	68.6	69.7	73.0	73.0	74.1	74.1	70.8	69.7
52.5°	2469.0	1636.8	78.6	58.7	65.3	68.6	68.6	66.4	64.2	59.8	58.7
55°	2475.7	1527.2	62.0	50.9	58.7	64.2	63.1	58.7	54.2	49.8	49.8
57.5°	2391.6	1361.2	50.9	43.2	50.9	56.4	54.2	49.8	44.3	40.9	40.9
60°	2255.4	1190.8	43.2	36.5	42.1	47.6	44.3	40.9	35.4	32.1	32.1
62.5°	2004.2	1022.6	35.4	29.9	34.3	37.6	36.5	33.2	27.7	25.5	24.3
65°	1536.1	778.0	26.6	23.2	26.6	31.0	28.8	25.5	22.1	18.8	17.7
67.5°	923.0	468.1	21.0	17.7	21.0	24.3	22.1	18.8	15.5	13.3	13.3
70°	390.7	200.3	16.6	13.3	15.5	18.8	17.7	15.5	12.2	11.1	11.1
71°	265.6	142.8	14.4	12.2	14.4	17.7	16.6	14.4	12.2	11.1	11.1
72.5°	136.1	73.0	12.2	10.0	13.3	15.5	15.5	13.3	11.1	11.1	11.1
75°	48.7	31.0	10.0	8.9	11.1	11.1	12.2	12.2	12.2	12.2	11.1
77.5°	27.7	18.8	8.9	8.9	8.9	10.0	12.2	13.3	14.4	14.4	13.3
80°	15.5	10.0	5.5	6.6	8.9	10.0	12.2	13.3	15.5	15.5	14.4
82.5°	7.7	3.3	1.1	3.3	5.5	8.9	10.0	11.1	13.3	12.2	12.2
85°	1.1	0.0	0.0	1.1	3.3	4.4	6.6	8.9	11.1	11.1	10.0
87.5°	0.0	0.0	0.0	0.0	1.1	2.2	3.3	5.5	7.7	8.9	7.7
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)