

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: P401841

Luminaire Tested: **ENV-SA1F-735-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401841
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-735-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 5180 lumens
Efficiency: N/A
Efficacy: 78.4 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

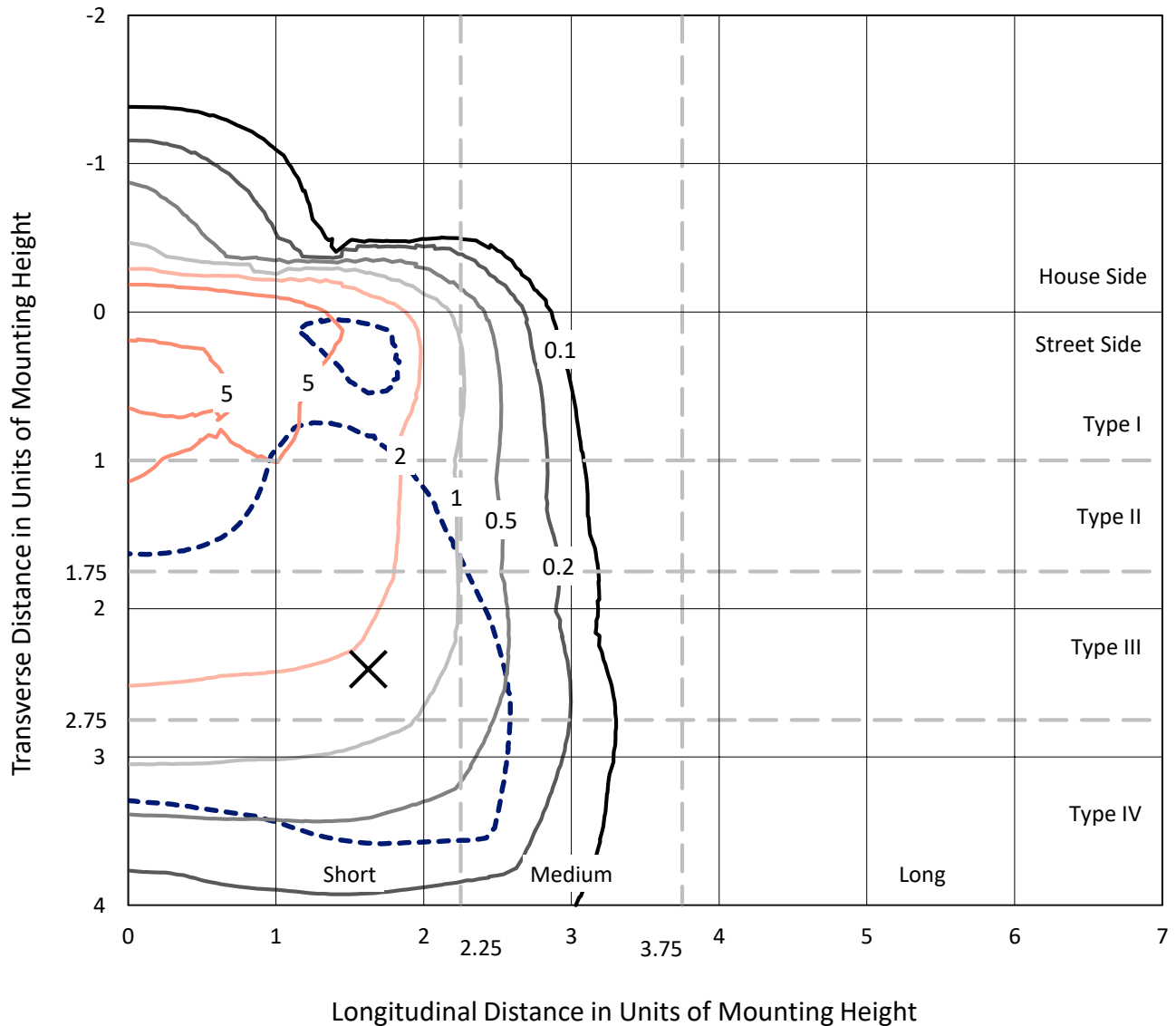
Input Watts (W): 66.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

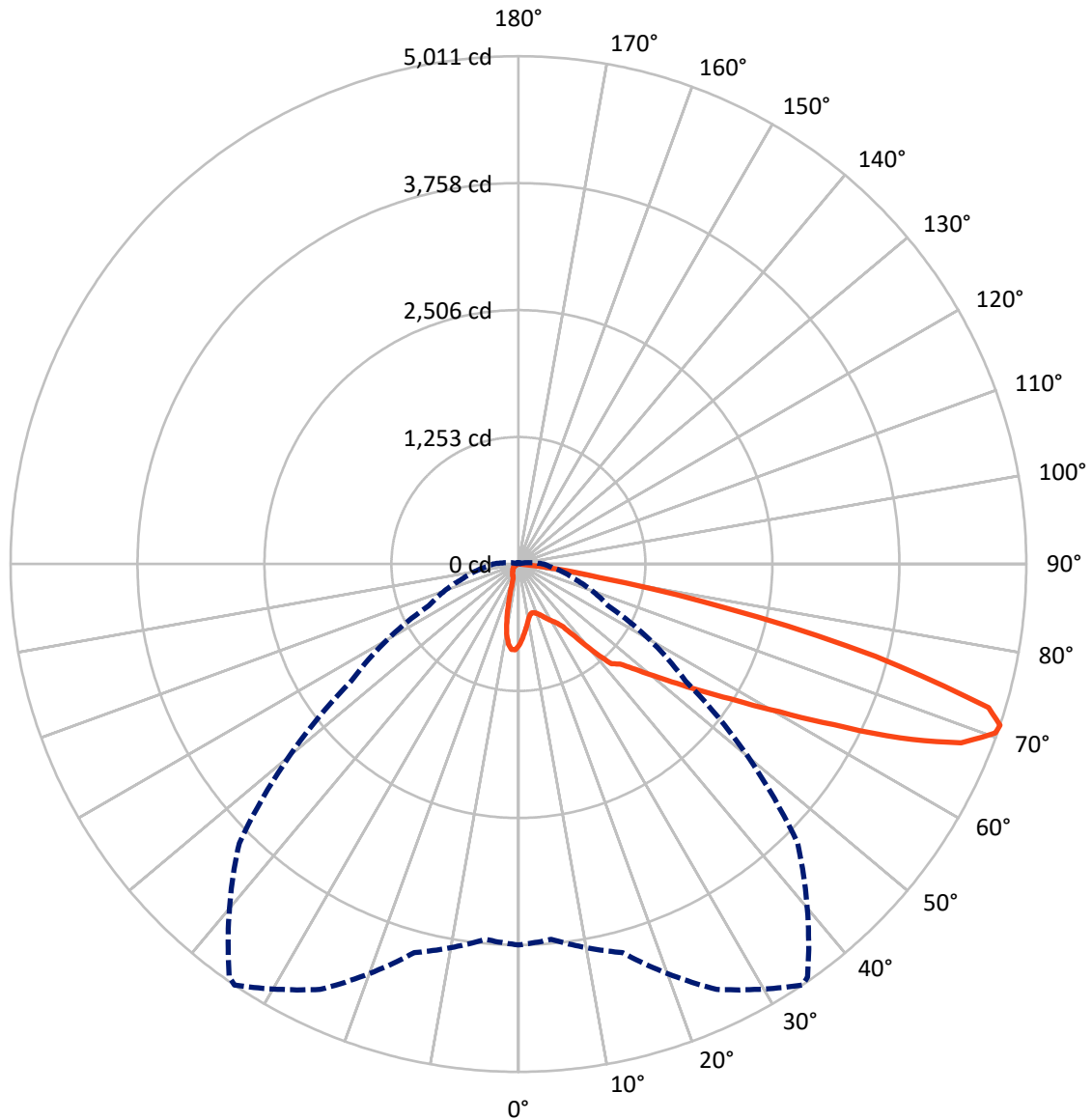
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 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	572.8	0.0	572.8
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	4607.2	0.0	4607.2
	% Fixture	88.9	0.0	88.9
Total	Lumens	5180.0	0.0	5180.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	1.4
10°-20°	162.1	3.1
20°-30°	242.0	4.7
30°-40°	404.2	7.8
40°-50°	730.0	14.1
50°-60°	1158.2	22.4
60°-70°	1556.4	30.0
70°-80°	825.8	15.9
80°-90°	30.5	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°	5180.0	100.0
0°-180°	5180.0	100.0



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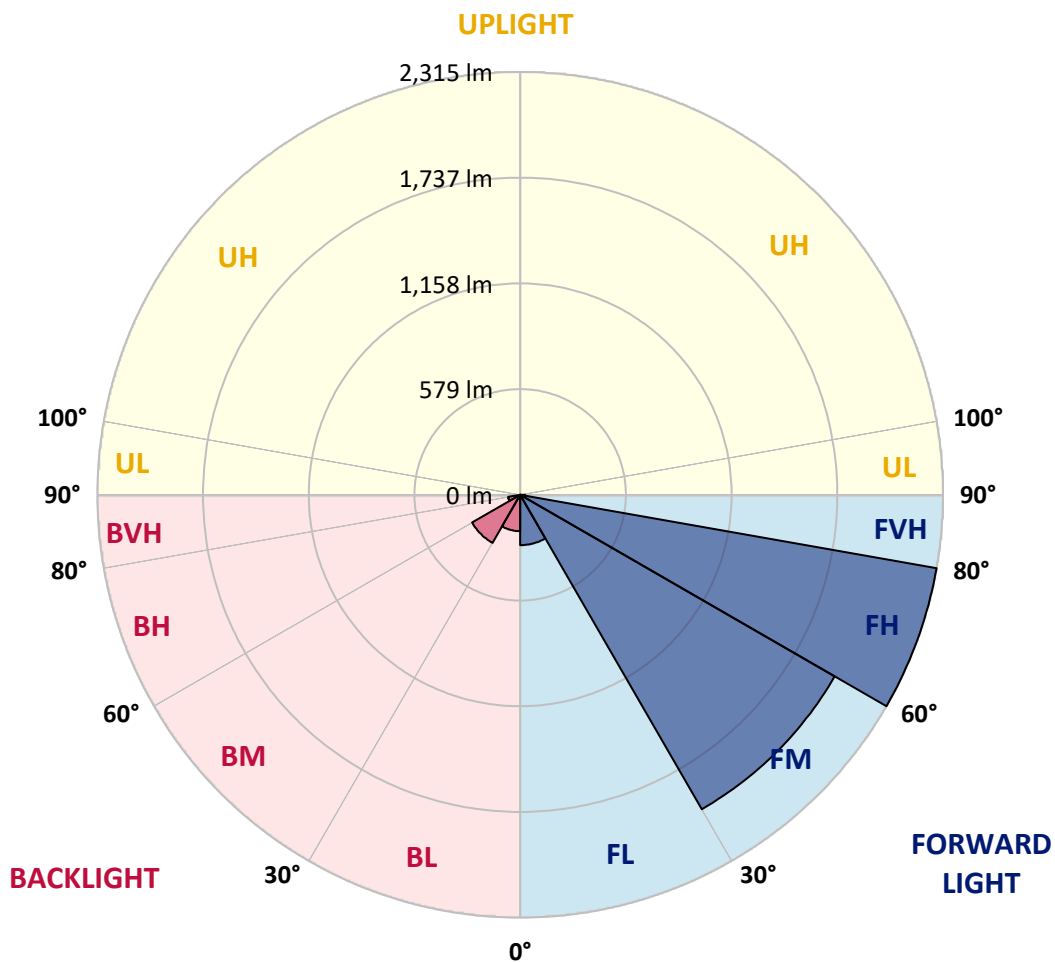
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	275.7	5.3			
FM	(30°-60°)	1988.5	38.4			
FH	(60°-80°)	2315.4	44.7			G2/5000
FVH	(80°-90°)	27.7	0.5			G1/100
BL	(0°-30°)	199.2	3.8	B1/500		
BM	(30°-60°)	303.9	5.9	B1/1000		
BH	(60°-80°)	66.9	1.3	B0/110		G0/110
BVH	(80°-90°)	2.8	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°	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6
2.5°	730.9	721.5	729.8	734.0	737.1	741.3	747.5	758.9	771.4	786.0	794.3
5°	637.3	642.5	645.6	657.1	668.5	670.6	690.3	713.2	742.3	771.4	796.4
7.5°	561.4	561.4	570.8	588.4	607.2	609.2	643.5	673.7	715.3	760.0	800.5
10°	501.1	503.2	510.5	528.1	552.1	557.3	595.7	637.3	689.3	747.5	804.7
12.5°	481.4	480.3	479.3	491.8	511.5	516.7	559.3	609.2	670.6	741.3	815.1
15°	493.8	490.7	483.4	485.5	498.0	503.2	540.6	590.5	659.1	740.2	832.8
17.5°	513.6	509.4	495.9	491.8	505.3	510.5	541.7	585.3	655.0	745.4	853.6
20°	537.5	533.3	512.5	507.4	520.9	525.0	557.3	594.7	657.1	755.8	881.6
22.5°	571.8	566.6	536.5	530.2	543.7	547.9	582.2	616.5	669.5	774.5	920.1
25°	613.4	607.2	568.7	560.4	577.0	581.2	615.5	647.7	690.3	799.5	969.0
27.5°	659.1	651.9	611.3	594.7	613.4	619.6	651.9	687.2	720.5	830.7	1033.4
30°	700.7	692.4	652.9	634.2	652.9	656.0	694.5	734.0	769.3	883.7	1128.0
32.5°	816.1	795.3	734.0	679.9	692.4	698.6	745.4	807.8	860.8	947.1	1249.7
35°	988.7	972.1	897.2	803.7	760.0	762.1	822.4	901.4	925.3	1020.9	1400.4
37.5°	1155.1	1140.5	1075.0	988.7	905.5	908.7	919.1	994.9	1023.0	1148.8	1584.4
40°	1337.0	1314.1	1262.1	1180.0	1122.8	1109.3	1058.4	1111.4	1172.7	1310.0	1785.1
42.5°	1421.2	1399.4	1345.3	1350.5	1344.3	1320.4	1219.5	1293.3	1361.9	1543.9	2006.5
45°	1560.5	1517.9	1406.7	1415.0	1406.7	1408.7	1433.7	1540.8	1600.0	1791.3	2257.1
47.5°	1689.4	1640.6	1524.1	1515.8	1552.2	1570.9	1705.0	1835.0	1840.2	2006.5	2453.6
50°	1806.9	1771.6	1664.5	1665.5	1732.1	1752.9	2021.1	2139.6	2034.6	2171.8	2607.5
52.5°	1962.9	1913.0	1817.3	1851.6	1955.6	1974.3	2336.1	2406.8	2175.0	2321.5	2728.1
55°	2107.4	2080.3	2009.7	2060.6	2219.7	2268.5	2656.3	2612.7	2273.7	2454.6	2786.3
57.5°	2344.4	2318.4	2299.7	2325.7	2538.8	2600.2	2980.7	2758.2	2350.7	2543.0	2759.2
60°	2739.5	2713.5	2657.4	2681.3	2958.9	2990.0	3235.4	2905.8	2380.8	2567.9	2653.2
62.5°	3227.1	3194.9	3104.4	3214.6	3493.2	3492.2	3499.5	2983.8	2342.3	2494.1	2373.5
65°	3666.9	3622.2	3575.4	3799.9	4138.9	4092.1	3780.2	2993.2	2220.7	2137.5	1836.0
67.5°	3987.1	3969.4	3995.4	4345.8	4710.7	4663.9	4052.6	2864.2	1848.5	1542.8	1134.3
70°	3974.6	3938.2	4103.5	4662.9	4994.5	4956.0	4041.1	2353.8	1233.0	817.2	475.1
71°	3759.4	3717.8	3969.4	4631.7	5011.1	4974.7	3895.6	2013.8	975.2	577.0	312.9
72.5°	2904.8	3030.6	3430.9	4297.9	4851.0	4804.2	3499.5	1541.8	617.6	333.7	157.0
75°	1228.9	1297.5	2036.7	3068.0	3638.8	3614.9	2359.0	712.2	283.8	150.7	60.3
77.5°	316.1	311.9	623.8	1316.2	2118.8	2156.2	1087.5	244.3	147.6	107.1	34.3
80°	61.3	66.5	177.8	457.4	808.9	830.7	354.5	107.1	98.8	84.2	17.7
82.5°	6.2	7.3	31.2	141.4	271.3	262.0	78.0	40.5	60.3	57.2	8.3
85°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	4.2	14.6	15.6	2.1
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°	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6	802.6
2.5°	800.5	809.9	820.3	827.6	834.8	835.9	846.3	844.2	847.3	848.4	847.3
5°	809.9	822.4	842.1	852.5	856.7	849.4	847.3	835.9	831.7	826.5	821.3
7.5°	820.3	835.9	858.8	864.0	849.4	822.4	800.5	772.5	746.5	729.8	731.9
10°	831.7	851.5	870.2	856.7	819.2	766.2	704.9	642.5	587.4	566.6	573.9
12.5°	846.3	870.2	878.5	841.1	768.3	661.2	550.0	455.4	398.2	363.9	359.7
15°	868.1	892.0	882.7	816.1	687.2	519.8	381.6	285.9	230.8	213.1	203.8
17.5°	895.1	918.0	882.7	771.4	571.8	372.2	231.8	173.6	155.9	151.8	152.8
20°	928.4	950.2	878.5	703.8	440.8	228.7	154.9	143.5	143.5	143.5	142.4
22.5°	973.1	984.6	872.3	614.4	303.6	154.9	137.2	136.2	137.2	137.2	137.2
25°	1027.2	1025.1	860.8	507.4	191.3	132.0	131.0	131.0	132.0	133.1	133.1
27.5°	1098.9	1077.1	841.1	379.5	135.2	122.7	124.8	126.8	128.9	131.0	131.0
30°	1198.7	1145.7	808.9	256.8	114.4	113.3	117.5	123.7	126.8	128.9	128.9
32.5°	1305.8	1216.4	753.7	164.3	105.0	104.0	108.1	117.5	125.8	127.9	127.9
35°	1441.0	1292.3	671.6	118.5	98.8	96.7	100.8	109.2	121.6	127.9	127.9
37.5°	1583.4	1373.4	552.1	99.8	92.5	90.4	93.6	99.8	114.4	125.8	126.8
40°	1735.2	1445.1	414.8	92.5	86.3	85.3	86.3	92.5	104.0	119.6	122.7
42.5°	1888.0	1505.4	290.1	85.3	81.1	79.0	81.1	85.3	95.6	109.2	111.2
45°	2056.4	1572.0	193.4	79.0	76.9	74.9	76.9	80.1	87.3	94.6	95.6
47.5°	2179.1	1595.9	133.1	71.7	70.7	71.7	72.8	74.9	79.0	80.1	79.0
50°	2260.2	1583.4	95.6	64.5	65.5	68.6	68.6	69.7	69.7	66.5	65.5
52.5°	2319.5	1537.6	73.8	55.1	61.3	64.5	64.5	62.4	60.3	56.1	55.1
55°	2325.7	1434.7	58.2	47.8	55.1	60.3	59.3	55.1	50.9	46.8	46.8
57.5°	2246.7	1278.8	47.8	40.5	47.8	53.0	50.9	46.8	41.6	38.5	38.5
60°	2118.8	1118.7	40.5	34.3	39.5	44.7	41.6	38.5	33.3	30.1	30.1
62.5°	1882.8	960.6	33.3	28.1	32.2	35.3	34.3	31.2	26.0	23.9	22.9
65°	1443.0	730.9	25.0	21.8	25.0	29.1	27.0	23.9	20.8	17.7	16.6
67.5°	867.1	439.8	19.8	16.6	19.8	22.9	20.8	17.7	14.6	12.5	12.5
70°	367.0	188.2	15.6	12.5	14.6	17.7	16.6	14.6	11.4	10.4	10.4
71°	249.5	134.1	13.5	11.4	13.5	16.6	15.6	13.5	11.4	10.4	10.4
72.5°	127.9	68.6	11.4	9.4	12.5	14.6	14.6	12.5	10.4	10.4	10.4
75°	45.7	29.1	9.4	8.3	10.4	10.4	11.4	11.4	11.4	11.4	10.4
77.5°	26.0	17.7	8.3	8.3	8.3	9.4	11.4	12.5	13.5	13.5	12.5
80°	14.6	9.4	5.2	6.2	8.3	9.4	11.4	12.5	14.6	14.6	13.5
82.5°	7.3	3.1	1.0	3.1	5.2	8.3	9.4	10.4	12.5	11.4	11.4
85°	1.0	0.0	0.0	1.0	3.1	4.2	6.2	8.3	10.4	10.4	9.4
87.5°	0.0	0.0	0.0	0.0	1.0	2.1	3.1	5.2	7.3	8.3	7.3
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)