

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: P401769

Luminaire Tested: **ENT-SA1E-830-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401769
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-SA1E-830-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 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: 3959 lumens
Efficiency: N/A
Efficacy: 69.2 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

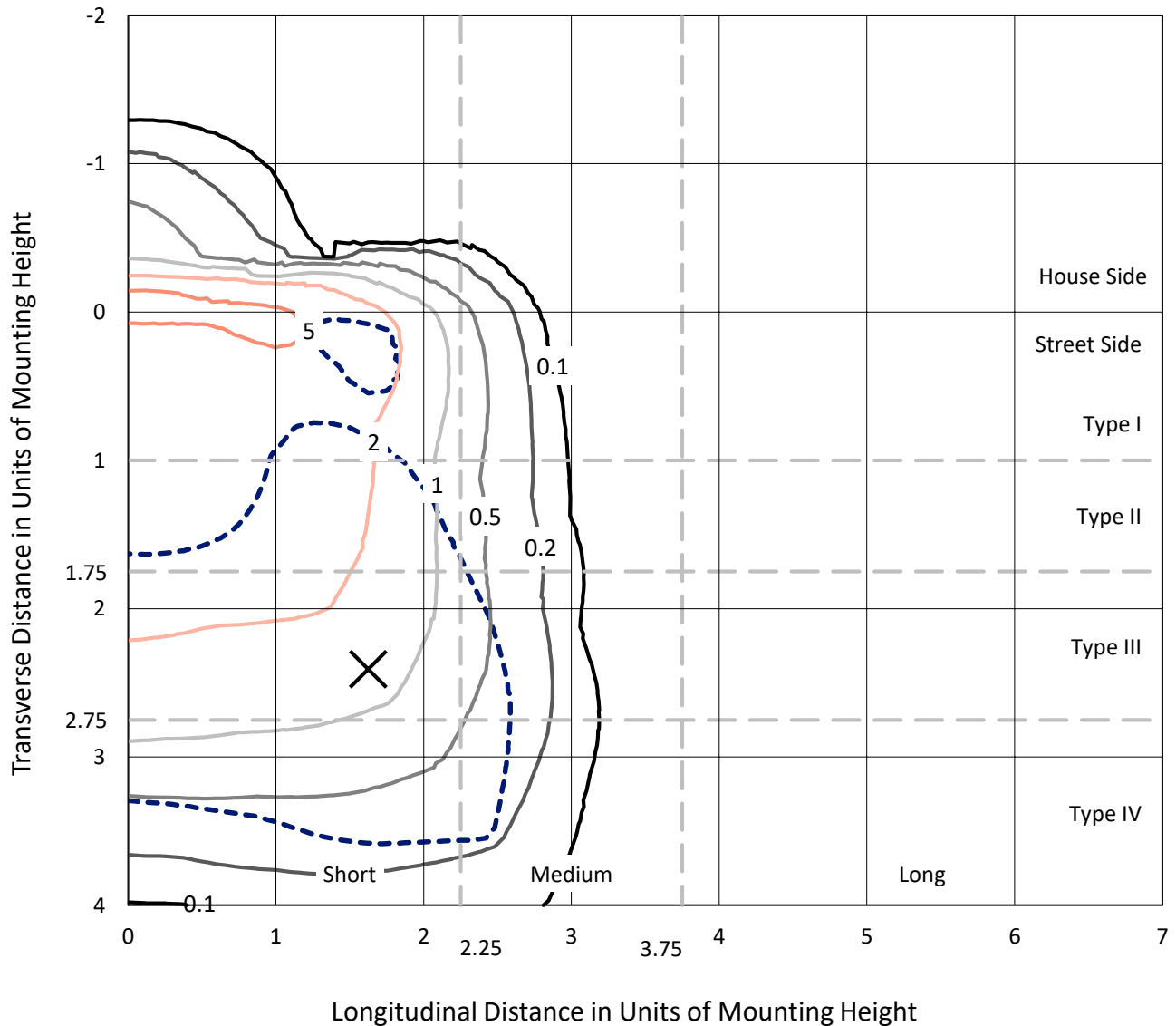
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

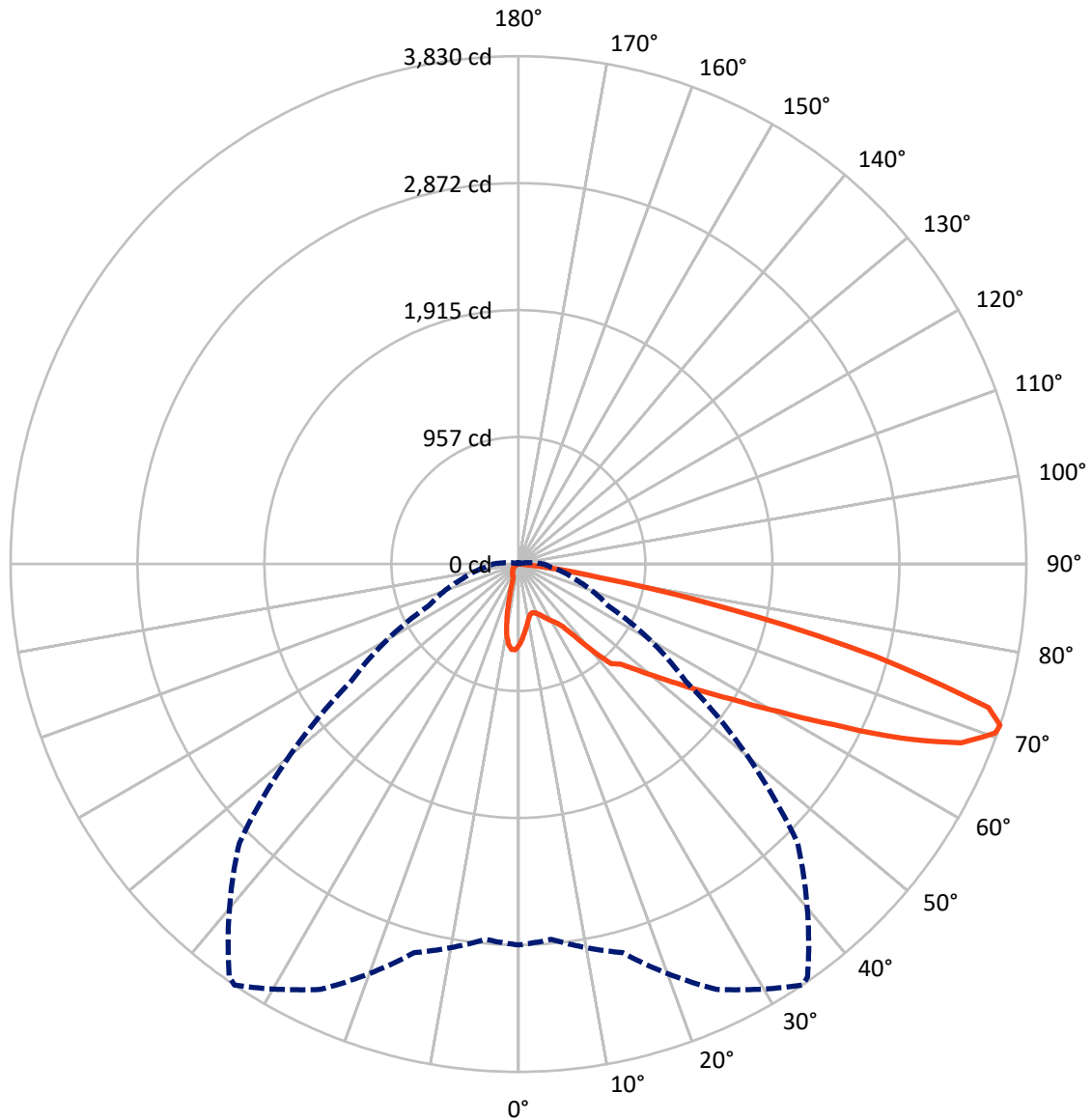
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.1 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	437.8	0.0	437.8
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	3521.2	0.0	3521.2
	% Fixture	88.9	0.0	88.9
Total	Lumens	3959.0	0.0	3959.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	1.4
10°-20°	123.9	3.1
20°-30°	185.0	4.7
30°-40°	308.9	7.8
40°-50°	557.9	14.1
50°-60°	885.2	22.4
60°-70°	1189.5	30.0
70°-80°	631.2	15.9
80°-90°	23.3	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°	3959.0	100.0
0°-180°	3959.0	100.0

Coefficient of Utilization



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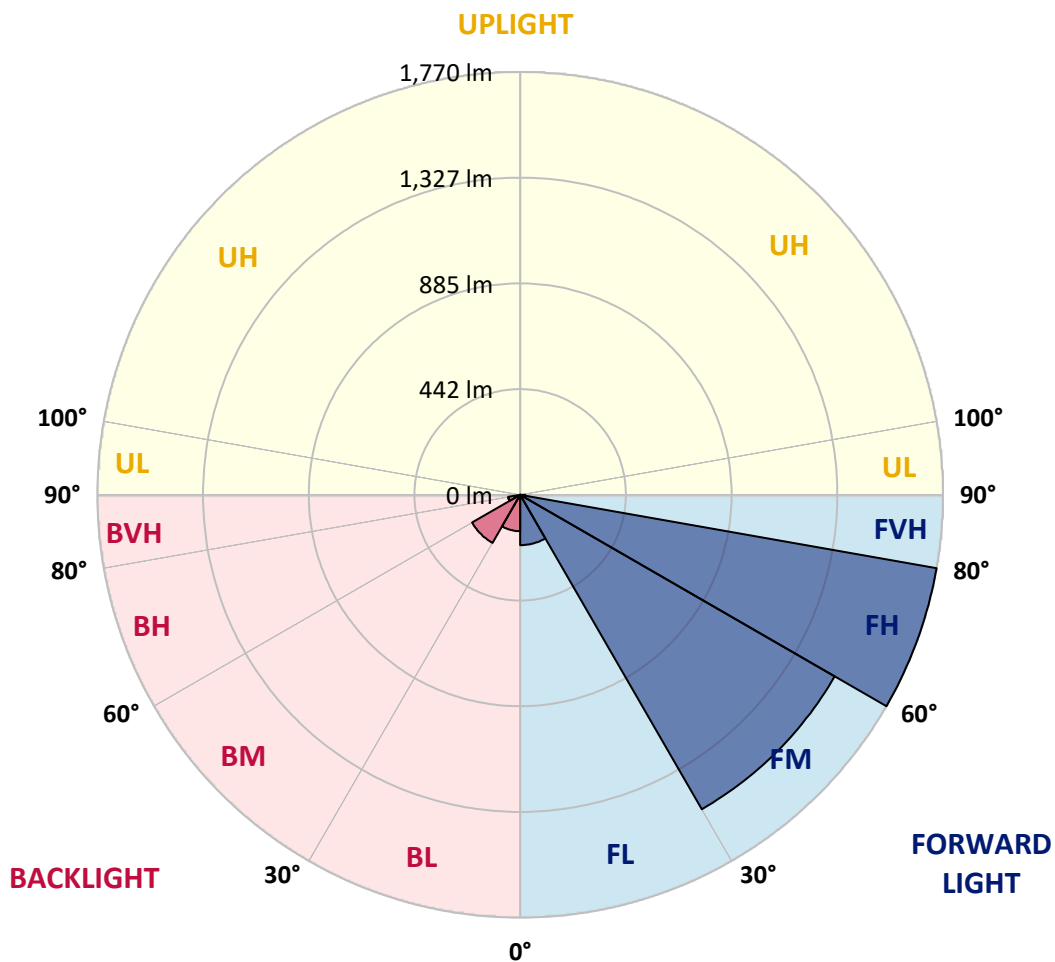
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.7	5.3			
FM	(30°-60°)	1519.7	38.4			
FH	(60°-80°)	1769.6	44.7			G1/1800
FVH	(80°-90°)	21.2	0.5			G1/100
BL	(0°-30°)	152.3	3.8	B1/500		
BM	(30°-60°)	232.3	5.9	B1/1000		
BH	(60°-80°)	51.1	1.3	B0/110		G0/110
BVH	(80°-90°)	2.1	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°	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4
2.5°	558.6	551.4	557.8	561.0	563.4	566.5	571.3	580.1	589.6	600.7	607.1
5°	487.1	491.1	493.4	502.2	510.9	512.5	527.6	545.1	567.3	589.6	608.7
7.5°	429.1	429.1	436.2	449.7	464.0	465.6	491.9	514.9	546.7	580.8	611.8
10°	383.0	384.6	390.1	403.7	421.9	425.9	455.3	487.1	526.8	571.3	615.0
12.5°	367.9	367.1	366.3	375.8	390.9	394.9	427.5	465.6	512.5	566.5	623.0
15°	377.4	375.0	369.5	371.1	380.6	384.6	413.2	451.3	503.8	565.8	636.5
17.5°	392.5	389.4	379.0	375.8	386.2	390.1	414.0	447.4	500.6	569.7	652.4
20°	410.8	407.6	391.7	387.8	398.1	401.3	425.9	454.5	502.2	577.7	673.8
22.5°	437.0	433.1	410.0	405.2	415.6	418.8	445.0	471.2	511.7	592.0	703.2
25°	468.8	464.0	434.6	428.3	441.0	444.2	470.4	495.0	527.6	611.0	740.6
27.5°	503.8	498.2	467.2	454.5	468.8	473.6	498.2	525.2	550.7	634.9	789.8
30°	535.6	529.2	499.0	484.7	499.0	501.4	530.8	561.0	588.0	675.4	862.1
32.5°	623.8	607.9	561.0	519.7	529.2	534.0	569.7	617.4	657.9	723.9	955.1
35°	755.7	742.9	685.7	614.2	580.8	582.4	628.5	688.9	707.2	780.3	1070.3
37.5°	882.8	871.7	821.6	755.7	692.1	694.5	702.4	760.4	781.9	878.0	1211.0
40°	1021.8	1004.4	964.6	901.9	858.2	847.8	808.9	849.4	896.3	1001.2	1364.3
42.5°	1086.2	1069.5	1028.2	1032.2	1027.4	1009.1	932.1	988.5	1040.9	1180.0	1533.6
45°	1192.7	1160.1	1075.1	1081.4	1075.1	1076.7	1095.7	1177.6	1222.9	1369.1	1725.1
47.5°	1291.2	1253.9	1164.9	1158.5	1186.3	1200.6	1303.1	1402.5	1406.4	1533.6	1875.2
50°	1381.0	1354.0	1272.1	1272.9	1323.8	1339.7	1544.7	1635.3	1555.0	1659.9	1992.8
52.5°	1500.2	1462.1	1388.9	1415.2	1494.6	1508.9	1785.5	1839.5	1662.3	1774.3	2085.0
55°	1610.6	1590.0	1535.9	1574.9	1696.5	1733.8	2030.2	1996.8	1737.8	1876.0	2129.5
57.5°	1791.8	1771.9	1757.6	1777.5	1940.4	1987.3	2278.1	2108.1	1796.6	1943.6	2108.9
60°	2093.8	2073.9	2031.0	2049.3	2261.4	2285.2	2472.8	2220.9	1819.6	1962.6	2027.8
62.5°	2466.4	2441.8	2372.7	2456.9	2669.8	2669.0	2674.6	2280.5	1790.2	1906.2	1814.1
65°	2802.5	2768.4	2732.6	2904.2	3163.3	3127.5	2889.1	2287.6	1697.3	1633.7	1403.3
67.5°	3047.3	3033.8	3053.6	3321.4	3600.3	3564.5	3097.3	2189.1	1412.8	1179.2	866.9
70°	3037.7	3009.9	3136.3	3563.7	3817.2	3787.8	3088.6	1799.0	942.4	624.6	363.1
71°	2873.2	2841.5	3033.8	3539.9	3829.9	3802.1	2977.3	1539.1	745.3	441.0	239.2
72.5°	2220.1	2316.2	2622.2	3284.8	3707.6	3671.8	2674.6	1178.4	472.0	255.1	120.0
75°	939.2	991.7	1556.6	2344.8	2781.1	2762.8	1802.9	544.3	216.9	115.2	46.1
77.5°	241.6	238.4	476.8	1006.0	1619.4	1648.0	831.1	186.7	112.8	81.8	26.2
80°	46.9	50.9	135.9	349.6	618.2	634.9	271.0	81.8	75.5	64.4	13.5
82.5°	4.8	5.6	23.8	108.1	207.4	200.2	59.6	31.0	46.1	43.7	6.4
85°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	3.2	11.1	11.9	1.6
87.5°	0.0	0.0	0.8	0.8	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°	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4	613.4
2.5°	611.8	619.0	626.9	632.5	638.1	638.9	646.8	645.2	647.6	648.4	647.6
5°	619.0	628.5	643.6	651.6	654.7	649.2	647.6	638.9	635.7	631.7	627.7
7.5°	626.9	638.9	656.3	660.3	649.2	628.5	611.8	590.4	570.5	557.8	559.4
10°	635.7	650.8	665.1	654.7	626.1	585.6	538.7	491.1	448.9	433.1	438.6
12.5°	646.8	665.1	671.4	642.8	587.2	505.4	420.3	348.0	304.3	278.1	274.9
15°	663.5	681.8	674.6	623.8	525.2	397.3	291.6	218.5	176.4	162.9	155.7
17.5°	684.1	701.6	674.6	589.6	437.0	284.5	177.2	132.7	119.2	116.0	116.8
20°	709.6	726.3	671.4	537.9	336.9	174.8	118.4	109.7	109.7	109.7	108.9
22.5°	743.7	752.5	666.7	469.6	232.0	118.4	104.9	104.1	104.9	104.9	104.9
25°	785.1	783.5	657.9	387.8	146.2	100.9	100.1	100.1	100.9	101.7	101.7
27.5°	839.9	823.2	642.8	290.0	103.3	93.8	95.4	96.9	98.5	100.1	100.1
30°	916.2	875.6	618.2	196.3	87.4	86.6	89.8	94.6	96.9	98.5	98.5
32.5°	998.0	929.7	576.1	125.5	80.3	79.5	82.6	89.8	96.1	97.7	97.7
35°	1101.3	987.7	513.3	90.6	75.5	73.9	77.1	83.4	93.0	97.7	97.7
37.5°	1210.2	1049.7	421.9	76.3	70.7	69.1	71.5	76.3	87.4	96.1	96.9
40°	1326.2	1104.5	317.0	70.7	66.0	65.2	66.0	70.7	79.5	91.4	93.8
42.5°	1443.0	1150.6	221.7	65.2	62.0	60.4	62.0	65.2	73.1	83.4	85.0
45°	1571.7	1201.4	147.8	60.4	58.8	57.2	58.8	61.2	66.7	72.3	73.1
47.5°	1665.5	1219.7	101.7	54.8	54.0	54.8	55.6	57.2	60.4	61.2	60.4
50°	1727.4	1210.2	73.1	49.3	50.1	52.4	52.4	53.2	53.2	50.9	50.1
52.5°	1772.7	1175.2	56.4	42.1	46.9	49.3	49.3	47.7	46.1	42.9	42.1
55°	1777.5	1096.5	44.5	36.6	42.1	46.1	45.3	42.1	38.9	35.8	35.8
57.5°	1717.1	977.3	36.6	31.0	36.6	40.5	38.9	35.8	31.8	29.4	29.4
60°	1619.4	855.0	31.0	26.2	30.2	34.2	31.8	29.4	25.4	23.0	23.0
62.5°	1439.0	734.2	25.4	21.5	24.6	27.0	26.2	23.8	19.9	18.3	17.5
65°	1102.9	558.6	19.1	16.7	19.1	22.2	20.7	18.3	15.9	13.5	12.7
67.5°	662.7	336.1	15.1	12.7	15.1	17.5	15.9	13.5	11.1	9.5	9.5
70°	280.5	143.8	11.9	9.5	11.1	13.5	12.7	11.1	8.7	7.9	7.9
71°	190.7	102.5	10.3	8.7	10.3	12.7	11.9	10.3	8.7	7.9	7.9
72.5°	97.7	52.4	8.7	7.2	9.5	11.1	11.1	9.5	7.9	7.9	7.9
75°	35.0	22.2	7.2	6.4	7.9	7.9	8.7	8.7	8.7	8.7	7.9
77.5°	19.9	13.5	6.4	6.4	6.4	7.2	8.7	9.5	10.3	10.3	9.5
80°	11.1	7.2	4.0	4.8	6.4	7.2	8.7	9.5	11.1	11.1	10.3
82.5°	5.6	2.4	0.8	2.4	4.0	6.4	7.2	7.9	9.5	8.7	8.7
85°	0.8	0.0	0.0	0.8	2.4	3.2	4.8	6.4	7.9	7.9	7.2
87.5°	0.0	0.0	0.0	0.0	0.8	1.6	2.4	4.0	5.6	6.4	5.6
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)