

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: P401573

Luminaire Tested: **ENT-SA1D-827-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401573
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-827-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3095 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G1

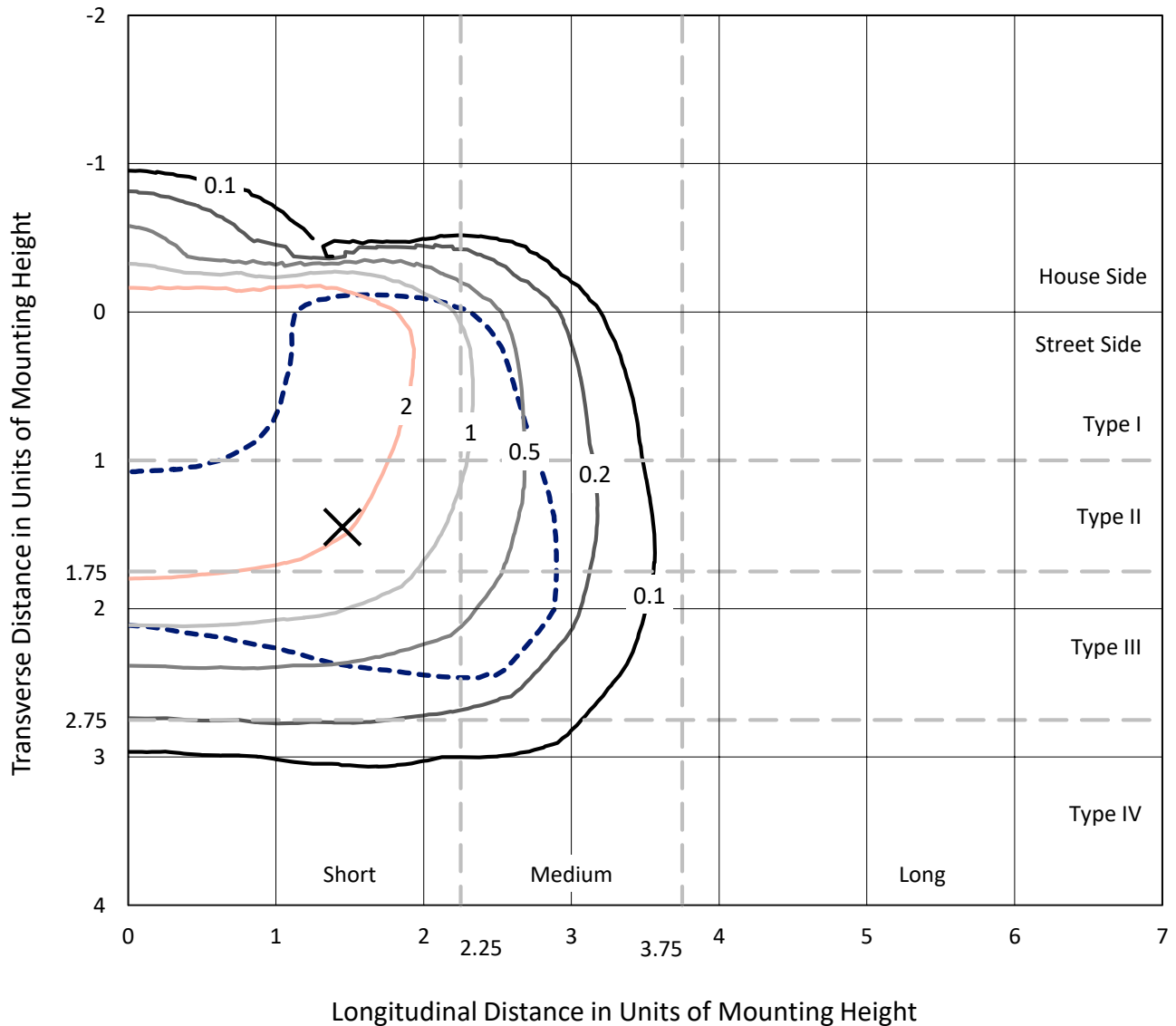
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

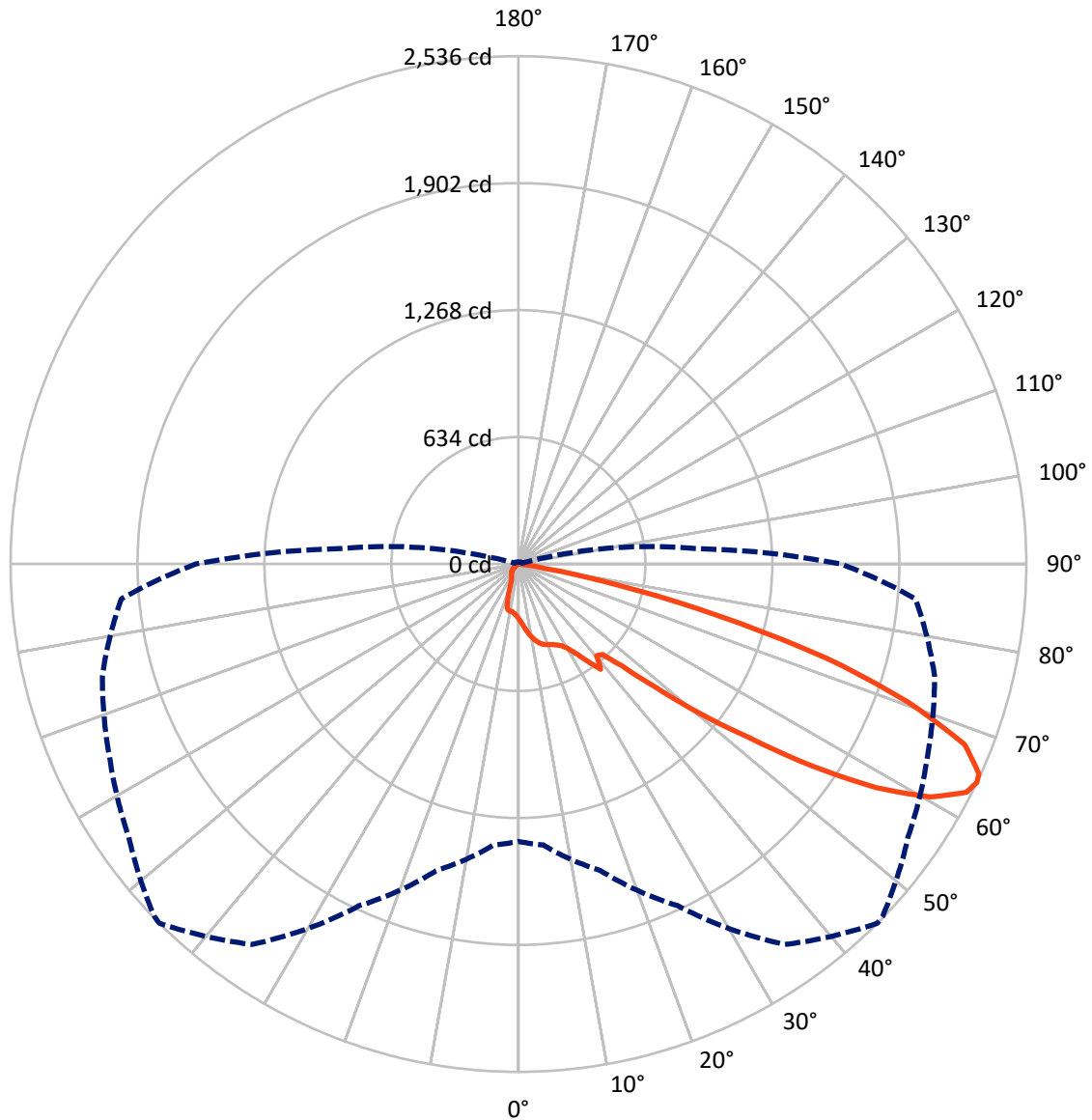
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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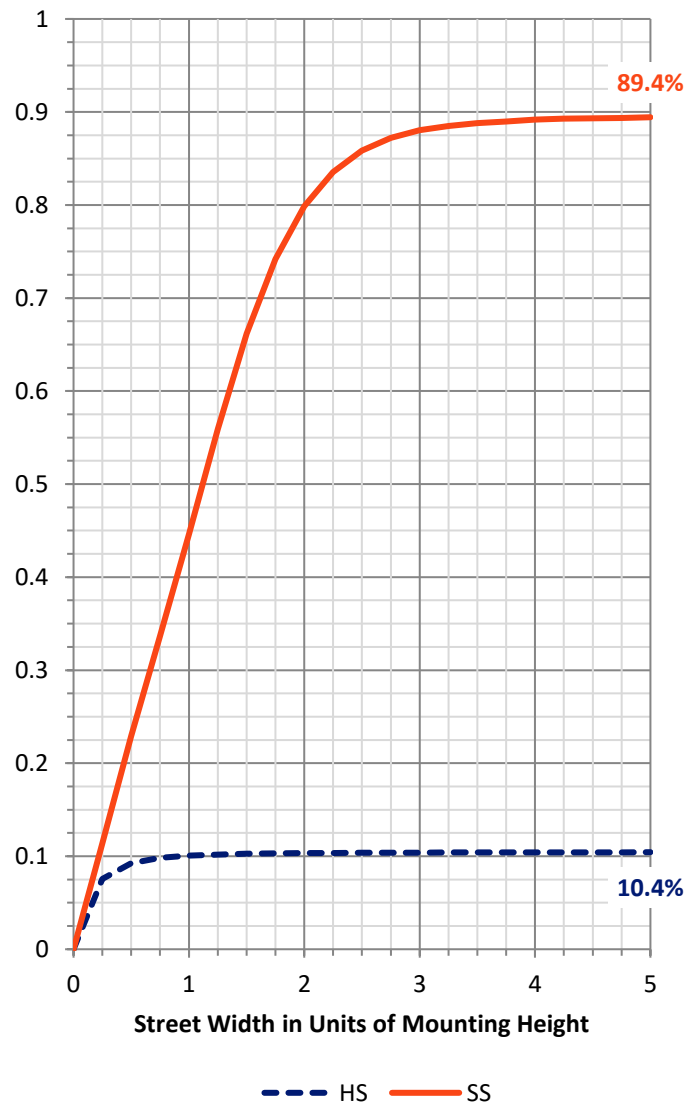
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	326.6	0.0	326.6
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	2768.4	0.0	2768.4
	% Fixture	89.4	0.0	89.4
Total	Lumens	3095.0	0.0	3095.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.8	0.9
10°-20°	86.8	2.8
20°-30°	141.2	4.6
30°-40°	224.4	7.2
40°-50°	427.4	13.8
50°-60°	880.6	28.5
60°-70°	983.5	31.8
70°-80°	310.6	10.0
80°-90°	12.6	0.4
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°	3095.0	100.0
0°-180°	3095.0	100.0



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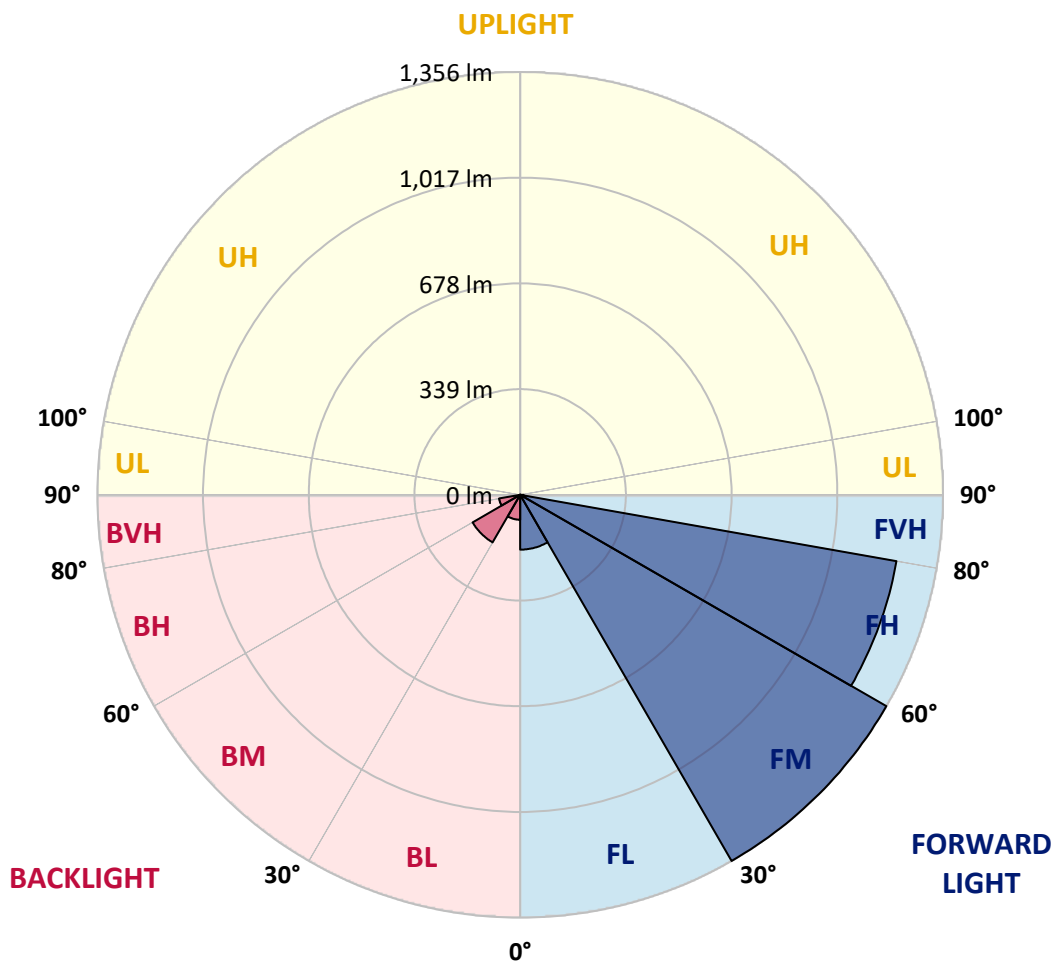
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	175.8	5.7			
FM	(30°-60°)	1356.1	43.8			
FH	(60°-80°)	1225.4	39.6			G1/1800
FVH	(80°-90°)	11.1	0.4			G1/100
BL	(0°-30°)	80.0	2.6	B0/110		
BM	(30°-60°)	176.2	5.7	B0/220		
BH	(60°-80°)	68.8	2.2	B0/110		G0/110
BVH	(80°-90°)	1.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3
2.5°	302.7	303.8	302.1	299.7	297.3	293.2	293.8	288.5	284.4	281.4	276.7
5°	341.0	340.4	336.9	331.6	326.2	318.6	317.4	309.1	300.3	290.9	282.0
7.5°	379.9	378.2	374.6	367.5	357.5	347.5	344.5	332.7	319.8	305.6	290.3
10°	411.8	410.6	406.5	398.8	387.0	371.7	371.7	355.2	338.0	320.9	302.7
12.5°	437.8	436.6	431.9	422.4	408.3	394.7	392.9	378.2	359.3	339.2	316.8
15°	453.7	452.5	447.2	436.6	424.2	411.8	410.0	395.9	378.8	355.7	329.8
17.5°	457.8	456.6	452.5	443.1	433.6	423.0	420.6	408.3	393.5	369.9	343.4
20°	456.0	453.7	451.3	443.7	436.0	428.9	427.7	418.9	405.9	385.8	357.5
22.5°	451.3	449.0	447.2	441.9	437.8	437.2	436.0	430.7	422.4	405.3	378.8
25°	449.6	447.8	446.0	442.5	441.9	447.8	447.2	446.6	443.1	428.3	400.6
27.5°	459.6	459.0	454.9	449.0	451.9	461.9	462.5	465.5	463.1	453.7	432.4
30°	495.0	492.0	482.6	469.6	477.3	490.3	492.6	502.1	502.6	503.8	474.9
32.5°	542.8	538.0	522.1	505.6	510.3	534.5	535.1	549.8	581.1	561.6	497.9
35°	575.8	569.9	545.7	536.9	560.5	598.8	604.1	634.2	636.6	565.8	496.2
37.5°	668.4	659.6	615.3	561.6	584.7	667.2	673.1	667.8	618.3	559.9	521.5
40°	792.3	784.1	744.5	654.3	589.4	601.8	604.7	620.6	630.1	601.2	602.9
42.5°	953.4	942.8	902.1	791.7	663.1	617.7	623.6	656.0	718.0	731.6	801.2
45°	1118.0	1112.1	1070.8	951.6	797.6	726.2	729.2	768.7	879.6	965.2	1024.2
47.5°	1279.0	1280.2	1244.8	1143.9	993.5	914.4	910.9	962.2	1102.6	1163.4	1223.6
50°	1506.2	1505.0	1441.9	1379.3	1261.9	1168.1	1162.2	1191.1	1326.2	1348.7	1441.9
52.5°	1764.6	1763.4	1668.4	1638.9	1589.4	1438.3	1454.3	1429.5	1526.8	1566.9	1699.1
55°	1887.3	1876.7	1836.6	1873.7	1932.7	1781.1	1778.7	1684.3	1760.4	1794.7	1918.0
57.5°	1874.9	1879.0	1917.4	2040.7	2234.2	2107.3	2110.9	1935.7	1979.9	2001.2	2091.4
60°	1804.7	1807.6	1896.7	2102.0	2384.6	2362.8	2350.4	2170.5	2141.6	2132.7	2175.8
62.5°	1604.1	1605.3	1749.8	2013.5	2383.4	2510.3	2498.5	2335.7	2245.4	2188.8	2110.3
64°	1385.8	1408.2	1585.2	1883.2	2319.1	2536.2	2529.8	2375.8	2254.8	2151.0	1989.9
65°	1206.5	1240.1	1454.3	1767.5	2246.6	2527.4	2519.7	2368.7	2241.9	2080.2	1865.5
67.5°	823.0	840.7	1033.0	1391.1	1969.9	2402.9	2400.6	2277.8	2100.9	1797.0	1463.7
70°	485.5	498.5	640.7	971.1	1513.8	2064.3	2095.5	2051.3	1743.9	1290.8	932.1
72.5°	151.0	158.7	282.6	539.2	992.3	1608.2	1648.9	1617.1	1269.6	806.5	516.8
75°	56.6	59.0	93.2	234.2	493.8	1028.3	1040.7	1077.9	773.4	426.0	226.0
77.5°	31.3	31.9	46.0	87.9	217.1	505.0	516.8	512.1	411.2	201.2	72.0
80°	15.3	15.9	22.4	38.9	84.4	142.8	169.3	223.6	145.1	99.1	23.0
82.5°	5.3	4.7	10.0	17.7	28.3	38.3	43.1	61.9	60.8	54.3	8.3
85°	0.0	0.0	0.6	0.6	0.6	1.2	1.2	7.7	15.3	17.7	2.4
87.5°	0.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.2
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°	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3	274.3
2.5°	274.3	273.2	269.0	264.9	261.9	258.4	257.8	255.5	254.9	254.9	254.9
5°	277.3	273.7	266.1	259.6	253.7	248.4	246.0	243.7	241.9	241.3	241.3
7.5°	283.8	278.5	266.1	256.6	247.8	241.3	237.8	235.4	233.6	233.6	233.6
10°	293.2	285.0	269.6	256.6	246.0	237.8	232.4	228.9	226.5	226.0	226.5
12.5°	305.0	294.4	275.5	259.6	247.2	236.6	225.4	204.7	191.1	183.5	182.3
15°	316.2	303.8	282.0	263.7	249.0	225.4	184.7	152.8	131.6	125.1	123.9
17.5°	328.6	315.6	290.9	269.6	242.5	181.7	131.6	105.0	100.9	102.1	102.1
20°	343.9	328.6	300.3	275.5	208.8	129.2	96.2	92.6	93.8	96.2	96.2
22.5°	361.6	345.1	313.3	272.0	159.3	94.4	87.9	88.5	89.7	92.0	92.0
25°	384.7	367.5	327.4	245.4	110.9	82.6	83.2	83.8	85.5	87.9	88.5
27.5°	418.9	398.2	344.5	205.9	83.8	76.7	77.3	79.1	80.8	83.8	83.8
30°	455.5	430.1	359.9	158.7	73.2	70.2	70.8	72.6	75.5	77.9	79.1
32.5°	471.4	449.0	362.8	108.6	67.8	64.9	63.7	65.5	67.8	70.2	70.8
35°	480.2	470.8	348.7	78.5	63.7	60.2	57.8	57.2	57.8	59.6	59.6
37.5°	523.9	517.4	320.3	67.3	59.6	56.0	52.5	49.6	48.4	47.8	48.4
40°	607.7	593.5	283.2	61.9	56.0	51.9	47.2	42.5	38.3	36.6	36.6
42.5°	792.3	720.9	230.1	58.4	52.5	47.8	40.7	34.2	29.5	28.3	28.3
45°	991.1	879.0	172.9	55.5	49.0	43.1	34.2	27.1	23.0	21.8	21.8
47.5°	1182.3	995.9	120.9	51.9	44.8	37.8	28.3	21.8	18.9	18.3	18.3
50°	1382.9	1097.3	84.4	47.8	40.7	32.4	23.0	17.7	15.9	15.9	15.9
52.5°	1578.1	1172.3	61.9	43.7	35.4	27.1	19.5	15.9	14.7	14.7	14.7
55°	1725.6	1201.2	47.2	38.3	30.1	23.0	17.7	15.3	14.2	13.6	13.6
57.5°	1824.2	1177.0	38.3	31.9	25.4	20.1	15.9	14.2	13.0	12.4	12.4
60°	1821.8	1096.7	30.7	26.0	20.6	17.1	14.7	13.0	11.8	11.2	11.2
62.5°	1715.0	966.4	24.2	20.6	17.1	14.7	13.0	11.8	10.6	10.0	9.4
64°	1610.6	885.5	20.6	17.7	15.3	13.6	11.8	10.6	9.4	8.3	8.3
65°	1497.3	808.8	18.9	15.9	13.6	12.4	11.2	10.0	8.3	7.1	7.1
67.5°	1138.6	598.8	15.3	12.4	10.6	10.0	8.8	7.7	5.9	4.7	4.7
70°	739.2	387.6	13.0	10.0	8.8	8.8	8.3	6.5	4.7	4.1	3.5
72.5°	378.8	192.9	10.6	8.3	7.7	7.7	7.1	5.3	4.1	3.5	2.9
75°	160.5	78.5	8.8	7.1	6.5	5.9	5.3	4.7	3.5	2.9	2.9
77.5°	56.0	29.5	8.3	7.1	5.3	4.7	4.7	4.7	4.7	4.1	3.5
80°	18.9	11.2	5.3	5.3	5.9	6.5	6.5	5.9	6.5	5.3	4.1
82.5°	7.7	4.1	1.8	2.4	4.1	4.7	5.3	5.3	5.3	4.1	3.5
85°	1.8	1.2	1.2	1.8	1.8	2.4	2.4	2.9	2.9	2.4	2.4
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.2	1.8	1.8	1.8
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)