

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: P401411

Luminaire Tested: **ENT-SA1C-830-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401411
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-SA1C-830-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA 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: 2673 lumens
Efficiency: N/A
Efficacy: 80.3 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

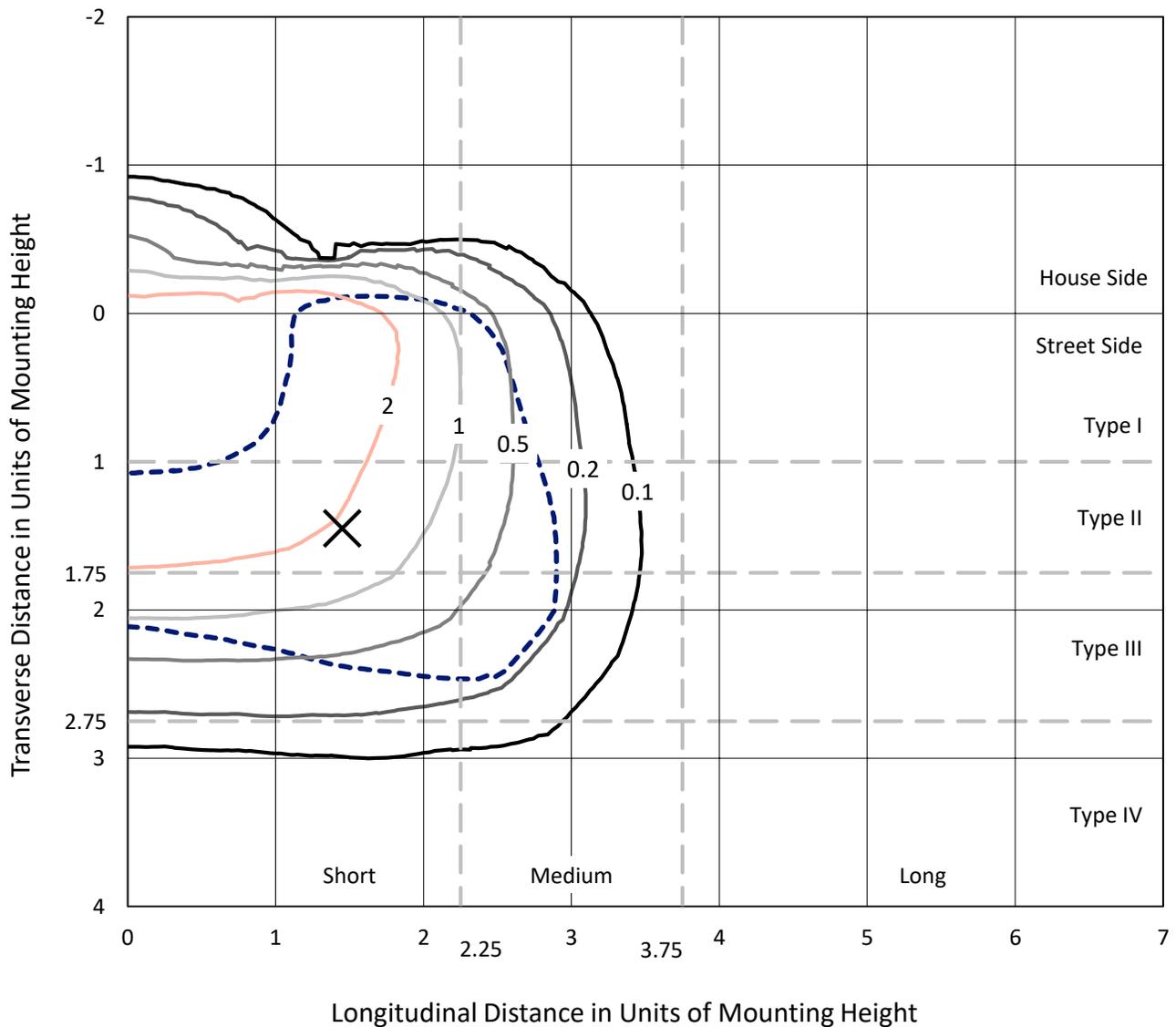
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

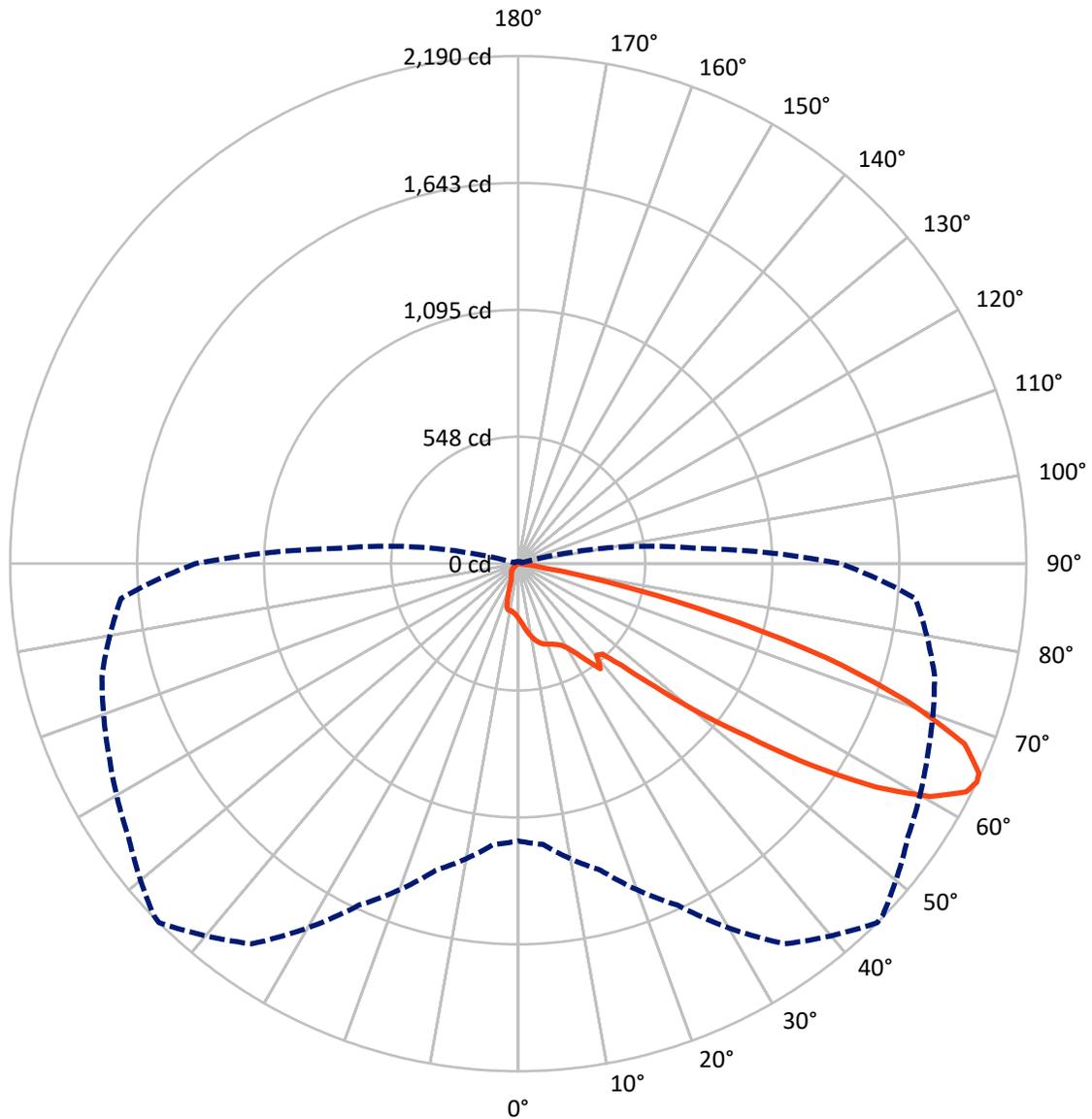
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 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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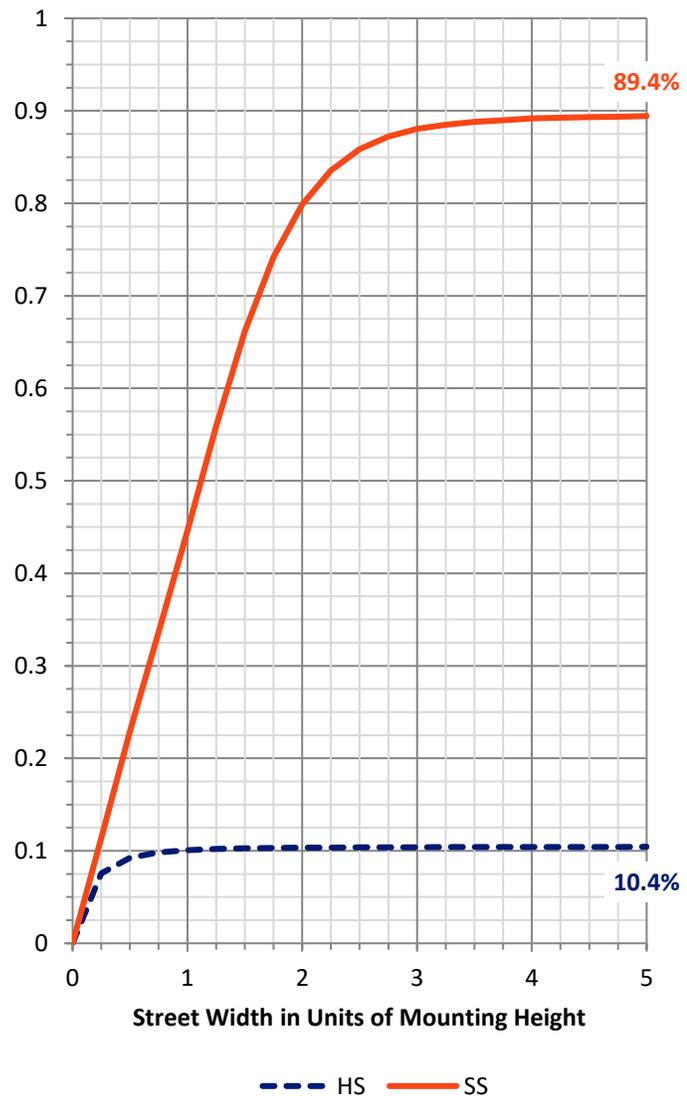
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	282.1	0.0	282.1
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	2391.0	0.0	2391.0
	% Fixture	89.4	0.0	89.4
Total	Lumens	2673.0	0.0	2673.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	0.9
10°-20°	74.9	2.8
20°-30°	122.0	4.6
30°-40°	193.8	7.2
40°-50°	369.1	13.8
50°-60°	760.6	28.5
60°-70°	849.4	31.8
70°-80°	268.3	10.0
80°-90°	10.9	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°	2673.0	100.0
0°-180°	2673.0	100.0



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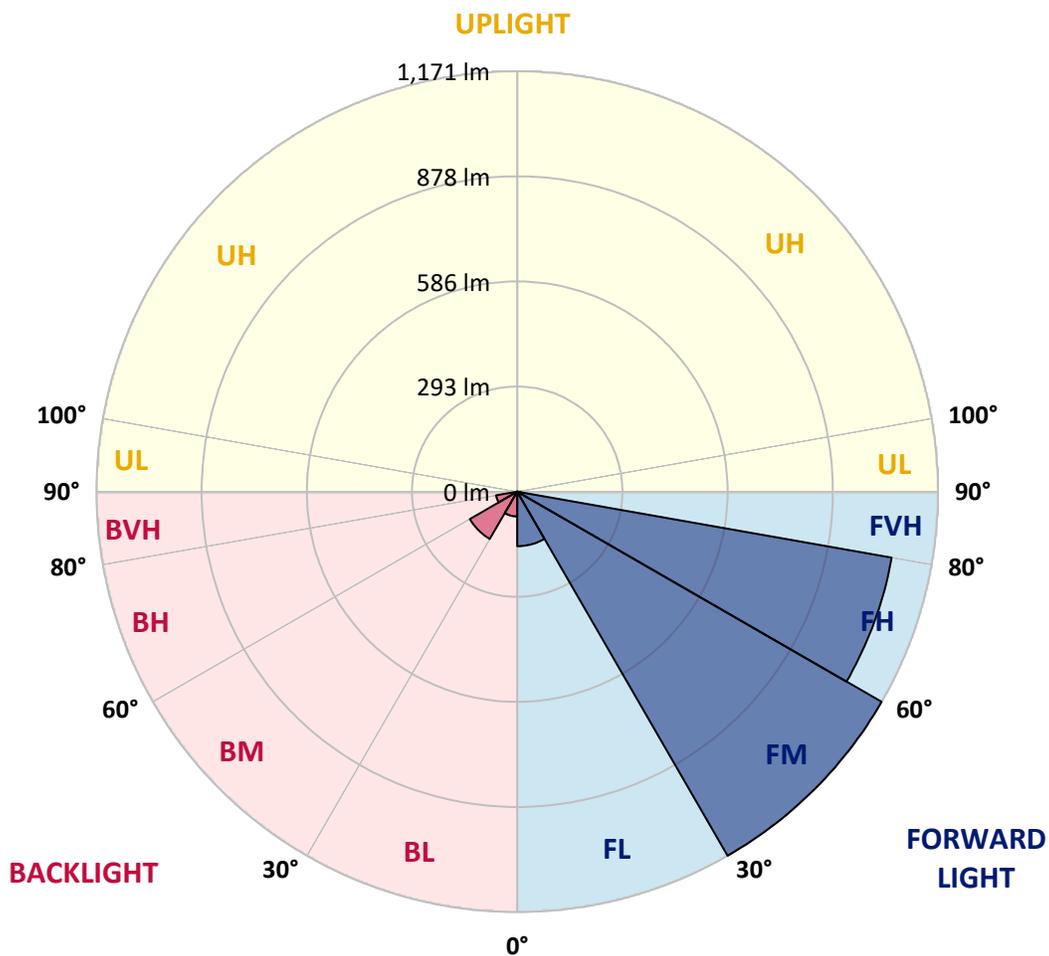
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	151.8	5.7			
FM (30°-60°)	1171.2	43.8			
FH (60°-80°)	1058.3	39.6			G1/1800
FVH (80°-90°)	9.6	0.4			G0/10
BL (0°-30°)	69.1	2.6	B0/110		
BM (30°-60°)	152.2	5.7	B0/220		
BH (60°-80°)	59.5	2.2	B0/110		G0/110
BVH (80°-90°)	1.3	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°	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9
2.5°	261.4	262.4	260.9	258.8	256.8	253.2	253.7	249.2	245.6	243.0	239.0
5°	294.5	294.0	290.9	286.4	281.8	275.1	274.1	267.0	259.3	251.2	243.6
7.5°	328.1	326.6	323.5	317.4	308.8	300.1	297.6	287.4	276.2	263.9	250.7
10°	355.6	354.6	351.1	344.4	334.2	321.0	321.0	306.7	292.0	277.2	261.4
12.5°	378.1	377.0	373.0	364.8	352.6	340.9	339.3	326.6	310.3	293.0	273.6
15°	391.8	390.8	386.2	377.0	366.3	355.6	354.1	341.9	327.1	307.2	284.8
17.5°	395.4	394.4	390.8	382.7	374.5	365.3	363.3	352.6	339.9	319.5	296.5
20°	393.9	391.8	389.8	383.2	376.5	370.4	369.4	361.8	350.6	333.2	308.8
22.5°	389.8	387.7	386.2	381.6	378.1	377.6	376.5	372.0	364.8	350.0	327.1
25°	388.3	386.7	385.2	382.1	381.6	386.7	386.2	385.7	382.7	369.9	346.0
27.5°	396.9	396.4	392.8	387.7	390.3	399.0	399.5	402.0	400.0	391.8	373.5
30°	427.5	424.9	416.8	405.6	412.2	423.4	425.5	433.6	434.1	435.1	410.2
32.5°	468.8	464.7	450.9	436.7	440.7	461.6	462.1	474.9	501.9	485.1	430.0
35°	497.3	492.2	471.3	463.7	484.0	517.2	521.7	547.7	549.8	488.6	428.5
37.5°	577.3	569.6	531.4	485.1	504.9	576.3	581.4	576.8	534.0	483.5	450.4
40°	684.3	677.2	643.0	565.1	509.0	519.7	522.3	536.0	544.2	519.2	520.7
42.5°	823.4	814.2	779.1	683.8	572.7	533.5	538.6	566.6	620.1	631.8	691.9
45°	965.5	960.4	924.8	821.9	688.9	627.2	629.8	663.9	759.7	833.6	884.5
47.5°	1104.6	1105.7	1075.1	988.0	858.0	789.8	786.7	831.0	952.3	1004.8	1056.7
50°	1300.8	1299.8	1245.3	1191.3	1089.9	1008.9	1003.8	1028.7	1145.4	1164.8	1245.3
52.5°	1524.0	1523.0	1440.9	1415.4	1372.6	1242.2	1256.0	1234.6	1318.6	1353.3	1467.4
55°	1630.0	1620.8	1586.1	1618.2	1669.2	1538.2	1536.2	1454.7	1520.4	1550.0	1656.5
57.5°	1619.3	1622.8	1655.9	1762.4	1929.6	1820.0	1823.1	1671.7	1710.0	1728.3	1806.3
60°	1558.6	1561.2	1638.1	1815.4	2059.5	2040.6	2029.9	1874.5	1849.6	1841.9	1879.1
62.5°	1385.4	1386.4	1511.2	1739.0	2058.5	2168.0	2157.8	2017.2	1939.2	1890.3	1822.6
64°	1196.9	1216.2	1369.1	1626.4	2002.9	2190.4	2184.8	2051.8	1947.4	1857.7	1718.6
65°	1042.0	1071.0	1256.0	1526.5	1940.3	2182.8	2176.2	2045.7	1936.2	1796.6	1611.1
67.5°	710.8	726.1	892.2	1201.5	1701.3	2075.3	2073.2	1967.3	1814.4	1552.0	1264.1
70°	419.3	430.5	553.3	838.7	1307.4	1782.8	1809.8	1771.6	1506.1	1114.8	805.0
72.5°	130.4	137.1	244.1	465.7	857.0	1389.0	1424.1	1396.6	1096.5	696.5	446.3
75°	48.9	51.0	80.5	202.3	426.5	888.1	898.8	930.9	668.0	367.9	195.1
77.5°	27.0	27.5	39.7	75.9	187.5	436.2	446.3	442.3	355.1	173.7	62.2
80°	13.2	13.8	19.4	33.6	72.9	123.3	146.2	193.1	125.3	85.6	19.9
82.5°	4.6	4.1	8.7	15.3	24.5	33.1	37.2	53.5	52.5	46.9	7.1
85°	0.0	0.0	0.5	0.5	0.5	1.0	1.0	6.6	13.2	15.3	2.0
87.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0
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°	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9	236.9
2.5°	236.9	235.9	232.3	228.8	226.2	223.2	222.7	220.6	220.1	220.1	220.1
5°	239.5	236.4	229.8	224.2	219.1	214.5	212.5	210.4	208.9	208.4	208.4
7.5°	245.1	240.5	229.8	221.6	214.0	208.4	205.3	203.3	201.8	201.8	201.8
10°	253.2	246.1	232.9	221.6	212.5	205.3	200.8	197.7	195.7	195.1	195.7
12.5°	263.4	254.3	237.9	224.2	213.5	204.3	194.6	176.8	165.1	158.5	157.4
15°	273.1	262.4	243.6	227.8	215.0	194.6	159.5	132.0	113.6	108.0	107.0
17.5°	283.8	272.6	251.2	232.9	209.4	156.9	113.6	90.7	87.1	88.1	88.1
20°	297.1	283.8	259.3	237.9	180.4	111.6	83.1	80.0	81.0	83.1	83.1
22.5°	312.3	298.1	270.6	234.9	137.6	81.5	75.9	76.4	77.4	79.5	79.5
25°	332.2	317.4	282.8	212.0	95.8	71.3	71.8	72.4	73.9	75.9	76.4
27.5°	361.8	343.9	297.6	177.8	72.4	66.2	66.7	68.3	69.8	72.4	72.4
30°	393.4	371.4	310.8	137.1	63.2	60.6	61.1	62.7	65.2	67.3	68.3
32.5°	407.1	387.7	313.4	93.8	58.6	56.0	55.0	56.6	58.6	60.6	61.1
35°	414.8	406.6	301.1	67.8	55.0	52.0	49.9	49.4	49.9	51.5	51.5
37.5°	452.5	446.9	276.7	58.1	51.5	48.4	45.3	42.8	41.8	41.3	41.8
40°	524.8	512.6	244.6	53.5	48.4	44.8	40.8	36.7	33.1	31.6	31.6
42.5°	684.3	622.6	198.7	50.4	45.3	41.3	35.2	29.6	25.5	24.5	24.5
45°	856.0	759.2	149.3	47.9	42.3	37.2	29.6	23.4	19.9	18.9	18.9
47.5°	1021.1	860.1	104.5	44.8	38.7	32.6	24.5	18.9	16.3	15.8	15.8
50°	1194.3	947.7	72.9	41.3	35.2	28.0	19.9	15.3	13.8	13.8	13.8
52.5°	1363.0	1012.4	53.5	37.7	30.6	23.4	16.8	13.8	12.7	12.7	12.7
55°	1490.3	1037.4	40.8	33.1	26.0	19.9	15.3	13.2	12.2	11.7	11.7
57.5°	1575.4	1016.5	33.1	27.5	21.9	17.3	13.8	12.2	11.2	10.7	10.7
60°	1573.4	947.2	26.5	22.4	17.8	14.8	12.7	11.2	10.2	9.7	9.7
62.5°	1481.2	834.6	20.9	17.8	14.8	12.7	11.2	10.2	9.2	8.7	8.2
64°	1391.0	764.8	17.8	15.3	13.2	11.7	10.2	9.2	8.2	7.1	7.1
65°	1293.2	698.6	16.3	13.8	11.7	10.7	9.7	8.7	7.1	6.1	6.1
67.5°	983.4	517.2	13.2	10.7	9.2	8.7	7.6	6.6	5.1	4.1	4.1
70°	638.4	334.8	11.2	8.7	7.6	7.6	7.1	5.6	4.1	3.6	3.1
72.5°	327.1	166.6	9.2	7.1	6.6	6.6	6.1	4.6	3.6	3.1	2.5
75°	138.6	67.8	7.6	6.1	5.6	5.1	4.6	4.1	3.1	2.5	2.5
77.5°	48.4	25.5	7.1	6.1	4.6	4.1	4.1	4.1	4.1	3.6	3.1
80°	16.3	9.7	4.6	4.6	5.1	5.6	5.6	5.1	5.6	4.6	3.6
82.5°	6.6	3.6	1.5	2.0	3.6	4.1	4.6	4.6	4.6	3.6	3.1
85°	1.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5	1.5	1.5
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)