

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: P401771

Luminaire Tested: **ENT-SA1E-830-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401771
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-SA1E-830-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA 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: 4169 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

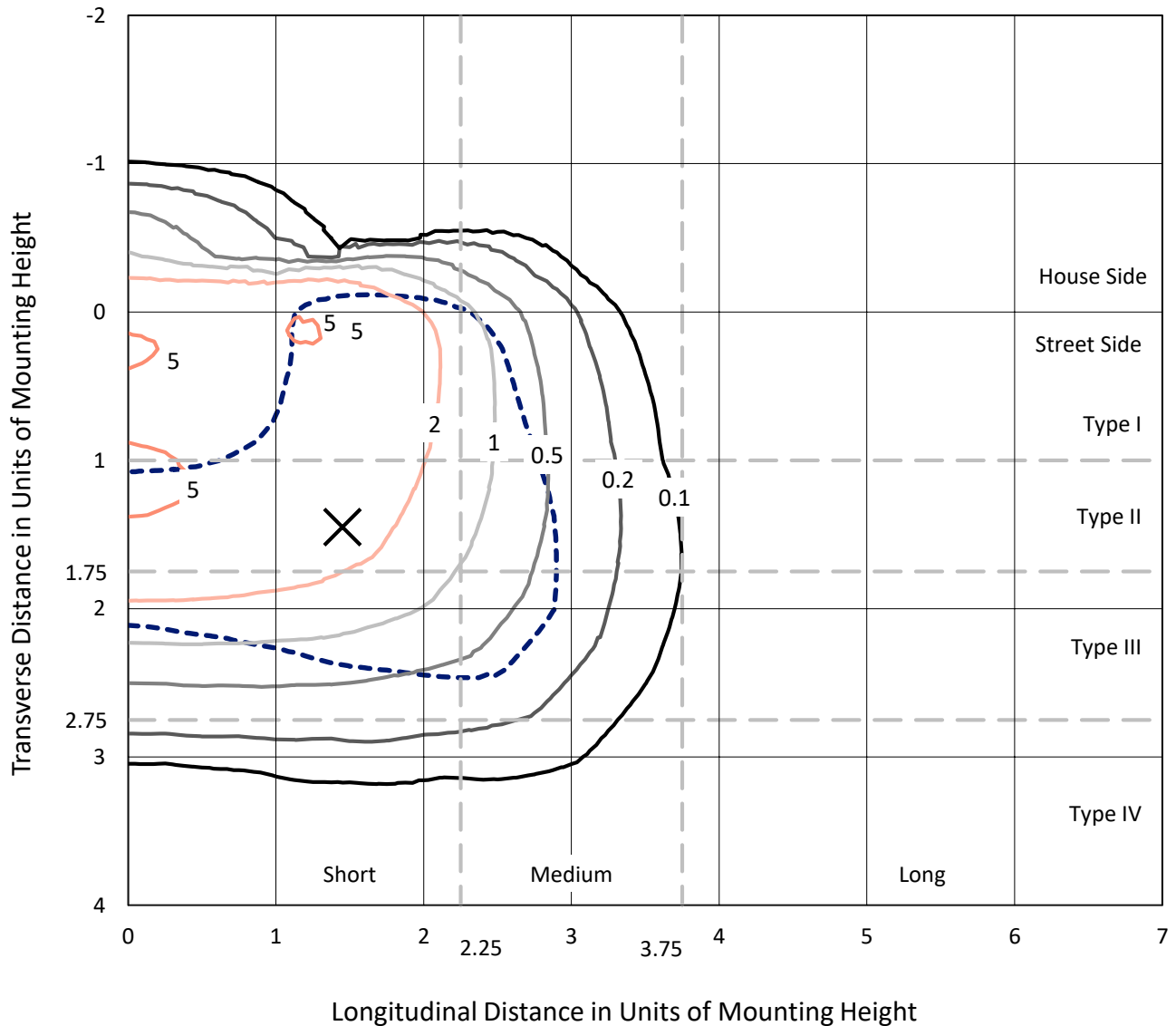
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

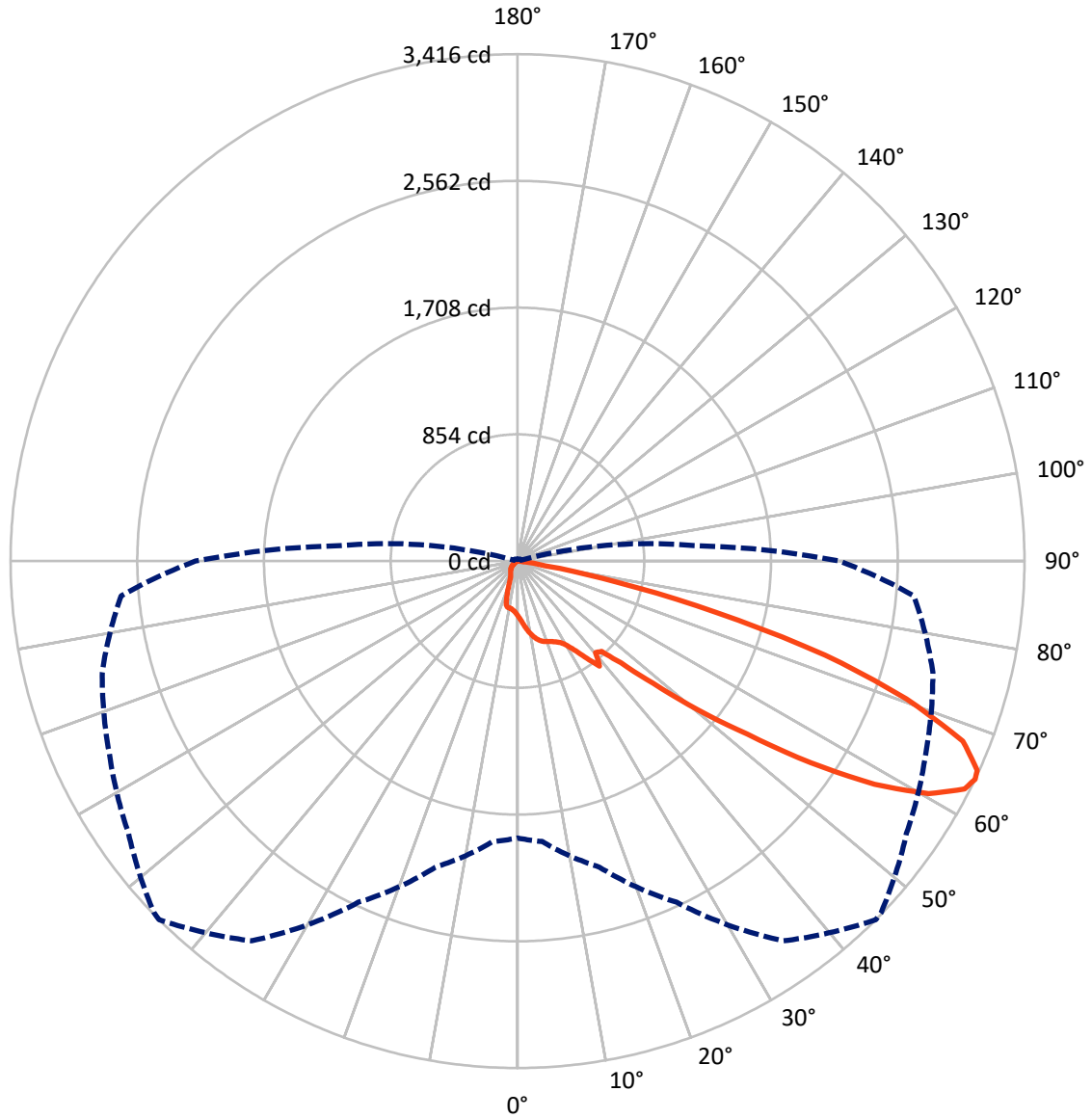
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.5 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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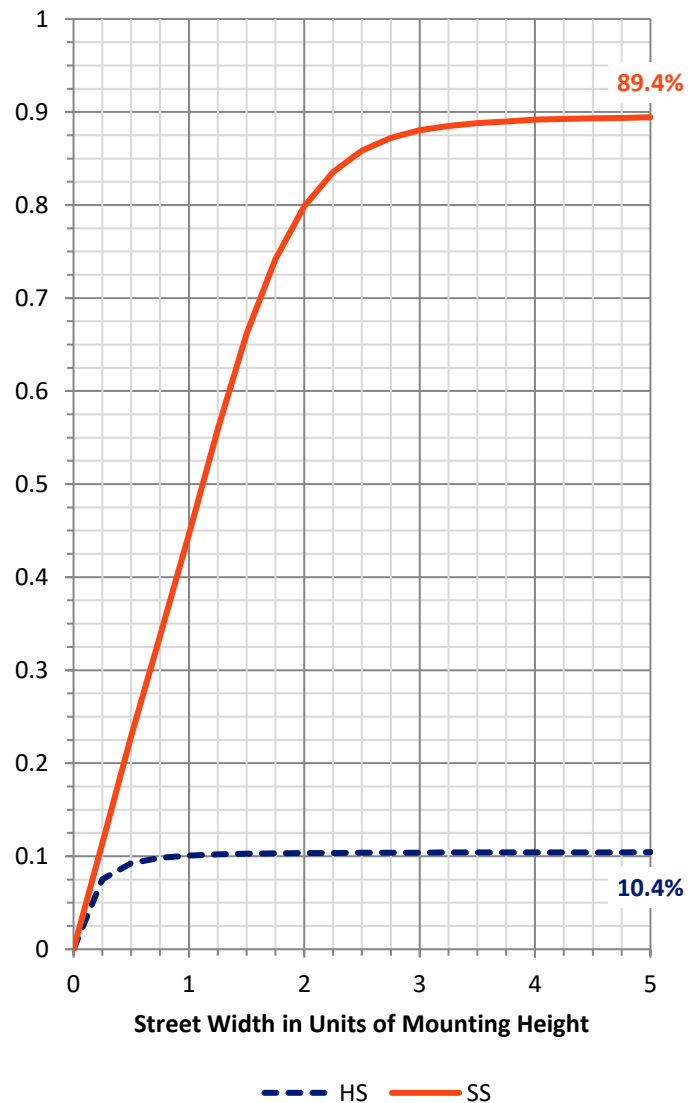
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	439.9	0.0	439.9
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	3729.1	0.0	3729.1
	% Fixture	89.4	0.0	89.4
Total	Lumens	4169.0	0.0	4169.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	0.9
10°-20°	116.9	2.8
20°-30°	190.2	4.6
30°-40°	302.2	7.2
40°-50°	575.7	13.8
50°-60°	1186.2	28.5
60°-70°	1324.9	31.8
70°-80°	418.5	10.0
80°-90°	17.0	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°	4169.0	100.0
0°-180°	4169.0	100.0



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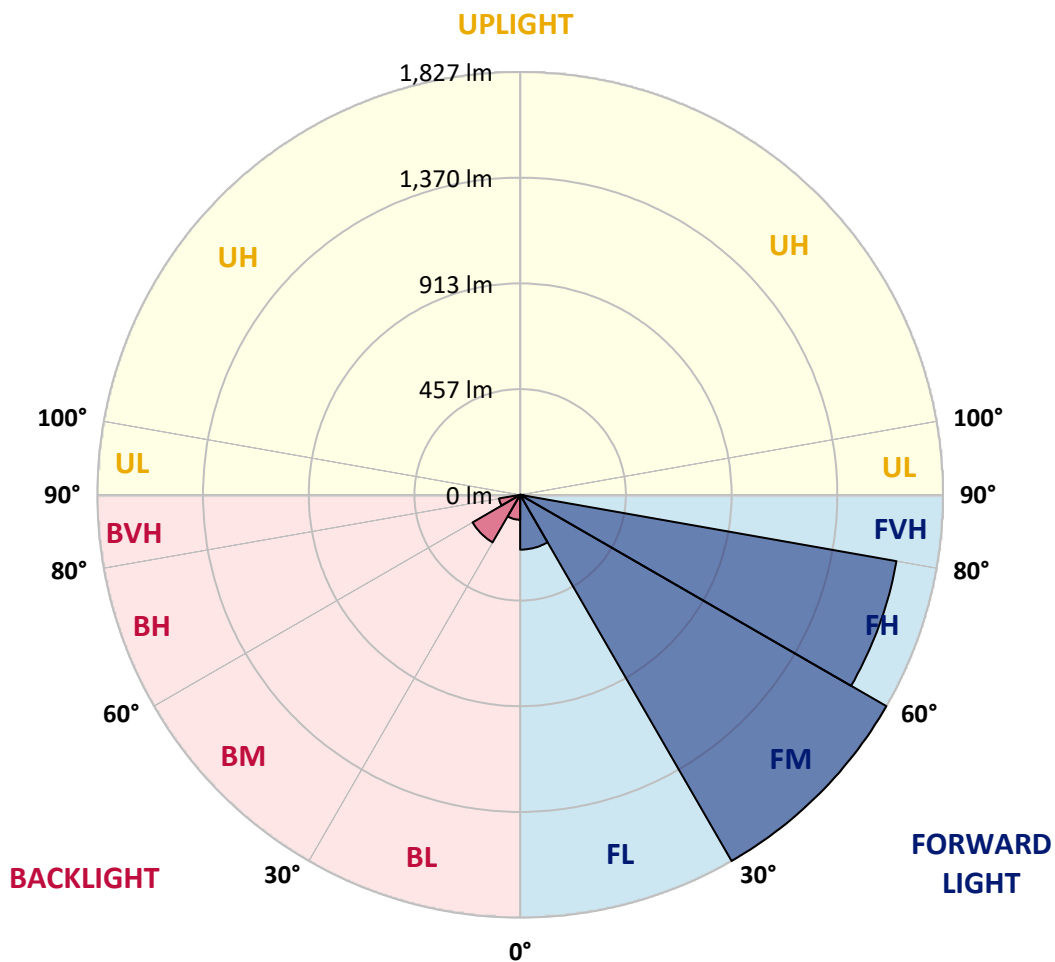
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	236.8	5.7			
FM	(30°-60°)	1826.7	43.8			
FH	(60°-80°)	1650.6	39.6			G1/1800
FVH	(80°-90°)	15.0	0.4			G1/100
BL	(0°-30°)	107.8	2.6	B0/110		
BM	(30°-60°)	237.4	5.7	B1/1000		
BH	(60°-80°)	92.7	2.2	B0/110		G0/110
BVH	(80°-90°)	2.0	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5
2.5°	407.7	409.3	406.9	403.7	400.5	395.0	395.8	388.6	383.0	379.1	372.7
5°	459.3	458.5	453.8	446.6	439.5	429.1	427.5	416.4	404.5	391.8	379.9
7.5°	511.8	509.4	504.6	495.1	481.6	468.1	464.1	448.2	430.7	411.6	391.0
10°	554.7	553.1	547.5	537.2	521.3	500.7	500.7	478.4	455.4	432.3	407.7
12.5°	589.7	588.1	581.7	569.0	549.9	531.6	529.3	509.4	484.0	456.9	426.7
15°	611.1	609.5	602.4	588.1	571.4	554.7	552.3	533.2	510.2	479.2	444.2
17.5°	616.7	615.1	609.5	596.8	584.1	569.8	566.6	549.9	530.1	498.3	462.5
20°	614.3	611.1	607.9	597.6	587.3	577.7	576.1	564.2	546.7	519.7	481.6
22.5°	607.9	604.8	602.4	595.2	589.7	588.9	587.3	580.1	569.0	545.9	510.2
25°	605.6	603.2	600.8	596.0	595.2	603.2	602.4	601.6	596.8	576.9	539.6
27.5°	619.1	618.3	612.7	604.8	608.7	622.2	623.0	627.0	623.8	611.1	582.5
30°	666.7	662.8	650.1	632.6	642.9	660.4	663.6	676.3	677.1	678.7	639.7
32.5°	731.1	724.8	703.3	681.0	687.4	720.0	720.8	740.6	782.8	756.5	670.7
35°	775.6	767.7	735.1	723.2	755.0	806.6	813.8	854.3	857.5	762.1	668.3
37.5°	900.4	888.5	828.9	756.5	787.5	898.8	906.7	899.6	832.8	754.2	702.5
40°	1067.3	1056.1	1002.9	881.3	793.9	810.6	814.6	836.0	848.7	809.8	812.2
42.5°	1284.2	1269.9	1215.1	1066.5	893.2	832.0	840.0	883.7	967.1	985.4	1079.2
45°	1505.9	1498.0	1442.4	1281.8	1074.4	978.3	982.2	1035.5	1184.9	1300.1	1379.6
47.5°	1722.9	1724.5	1676.8	1540.9	1338.2	1231.8	1227.0	1296.1	1485.3	1567.1	1648.2
50°	2028.8	2027.2	1942.2	1858.0	1699.8	1573.5	1565.5	1604.5	1786.5	1816.7	1942.2
52.5°	2376.9	2375.3	2247.4	2207.6	2140.9	1937.4	1958.9	1925.5	2056.6	2110.7	2288.7
55°	2542.2	2527.9	2473.9	2523.9	2603.4	2399.2	2396.0	2268.8	2371.3	2417.4	2583.5
57.5°	2525.5	2531.1	2582.7	2748.8	3009.5	2838.6	2843.4	2607.4	2667.0	2695.6	2817.2
60°	2430.9	2434.9	2554.9	2831.5	3212.1	3182.7	3166.0	2923.6	2884.7	2872.8	2930.8
62.5°	2160.7	2162.3	2357.0	2712.3	3210.5	3381.4	3365.5	3146.2	3024.6	2948.3	2842.6
64°	1866.7	1896.9	2135.3	2536.6	3123.9	3416.4	3407.6	3200.2	3037.3	2897.4	2680.5
65°	1625.1	1670.4	1958.9	2380.9	3026.2	3404.4	3394.1	3190.7	3019.8	2802.1	2512.8
67.5°	1108.6	1132.4	1391.5	1873.9	2653.5	3236.8	3233.6	3068.3	2829.9	2420.6	1971.6
70°	654.0	671.5	863.0	1308.1	2039.2	2780.6	2822.7	2763.1	2349.1	1738.8	1255.6
72.5°	203.4	213.8	380.7	726.3	1336.7	2166.3	2221.1	2178.2	1710.2	1086.3	696.1
75°	76.3	79.5	125.6	315.5	665.2	1385.1	1401.8	1451.9	1041.8	573.8	304.4
77.5°	42.1	42.9	62.0	118.4	292.4	680.3	696.1	689.8	553.9	271.0	97.0
80°	20.7	21.5	30.2	52.4	113.6	192.3	228.1	301.2	195.5	133.5	31.0
82.5°	7.2	6.4	13.5	23.8	38.1	51.7	58.0	83.4	81.9	73.1	11.1
85°	0.0	0.0	0.8	0.8	0.8	1.6	1.6	10.3	20.7	23.8	3.2
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6
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°	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5	369.5
2.5°	369.5	367.9	362.4	356.8	352.8	348.1	347.3	344.1	343.3	343.3	343.3
5°	373.5	368.7	358.4	349.7	341.7	334.6	331.4	328.2	325.8	325.0	325.0
7.5°	382.2	375.1	358.4	345.7	333.8	325.0	320.3	317.1	314.7	314.7	314.7
10°	395.0	383.8	363.2	345.7	331.4	320.3	313.1	308.3	305.2	304.4	305.2
12.5°	410.9	396.5	371.1	349.7	333.0	318.7	303.6	275.8	257.5	247.1	245.6
15°	426.0	409.3	379.9	355.2	335.4	303.6	248.7	205.8	177.2	168.5	166.9
17.5°	442.6	425.2	391.8	363.2	326.6	244.8	177.2	141.5	135.9	137.5	137.5
20°	463.3	442.6	404.5	371.1	281.3	174.0	129.5	124.8	126.4	129.5	129.5
22.5°	487.1	464.9	422.0	366.3	214.6	127.1	118.4	119.2	120.8	124.0	124.0
25°	518.1	495.1	441.1	330.6	149.4	111.3	112.1	112.8	115.2	118.4	119.2
27.5°	564.2	536.4	464.1	277.3	112.8	103.3	104.1	106.5	108.9	112.8	112.8
30°	613.5	579.3	484.8	213.8	98.5	94.6	95.4	97.7	101.7	104.9	106.5
32.5°	635.0	604.8	488.7	146.2	91.4	87.4	85.8	88.2	91.4	94.6	95.4
35°	646.9	634.2	469.7	105.7	85.8	81.1	77.9	77.1	77.9	80.3	80.3
37.5°	705.7	696.9	431.5	90.6	80.3	75.5	70.7	66.8	65.2	64.4	65.2
40°	818.5	799.5	381.4	83.4	75.5	69.9	63.6	57.2	51.7	49.3	49.3
42.5°	1067.3	971.1	309.9	78.7	70.7	64.4	54.8	46.1	39.7	38.1	38.1
45°	1335.1	1184.1	232.8	74.7	66.0	58.0	46.1	36.6	31.0	29.4	29.4
47.5°	1592.5	1341.4	162.9	69.9	60.4	50.9	38.1	29.4	25.4	24.6	24.6
50°	1862.7	1478.1	113.6	64.4	54.8	43.7	31.0	23.8	21.5	21.5	21.5
52.5°	2125.8	1579.0	83.4	58.8	47.7	36.6	26.2	21.5	19.9	19.9	19.9
55°	2324.5	1618.0	63.6	51.7	40.5	31.0	23.8	20.7	19.1	18.3	18.3
57.5°	2457.2	1585.4	51.7	42.9	34.2	27.0	21.5	19.1	17.5	16.7	16.7
60°	2454.0	1477.3	41.3	35.0	27.8	23.0	19.9	17.5	15.9	15.1	15.1
62.5°	2310.1	1301.7	32.6	27.8	23.0	19.9	17.5	15.9	14.3	13.5	12.7
64°	2169.5	1192.8	27.8	23.8	20.7	18.3	15.9	14.3	12.7	11.1	11.1
65°	2016.9	1089.5	25.4	21.5	18.3	16.7	15.1	13.5	11.1	9.5	9.5
67.5°	1533.7	806.6	20.7	16.7	14.3	13.5	11.9	10.3	7.9	6.4	6.4
70°	995.7	522.1	17.5	13.5	11.9	11.9	11.1	8.7	6.4	5.6	4.8
72.5°	510.2	259.9	14.3	11.1	10.3	10.3	9.5	7.2	5.6	4.8	4.0
75°	216.2	105.7	11.9	9.5	8.7	7.9	7.2	6.4	4.8	4.0	4.0
77.5°	75.5	39.7	11.1	9.5	7.2	6.4	6.4	6.4	6.4	5.6	4.8
80°	25.4	15.1	7.2	7.2	7.9	8.7	8.7	7.9	8.7	7.2	5.6
82.5°	10.3	5.6	2.4	3.2	5.6	6.4	7.2	7.2	7.2	5.6	4.8
85°	2.4	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	2.4	1.6	2.4	2.4	2.4
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)