

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: P401479

Luminaire Tested: **ENT-SA1D-735-U-T3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401479
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-735-U-T3-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4075 lumens
Efficiency: N/A
Efficacy: 94.5 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): 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

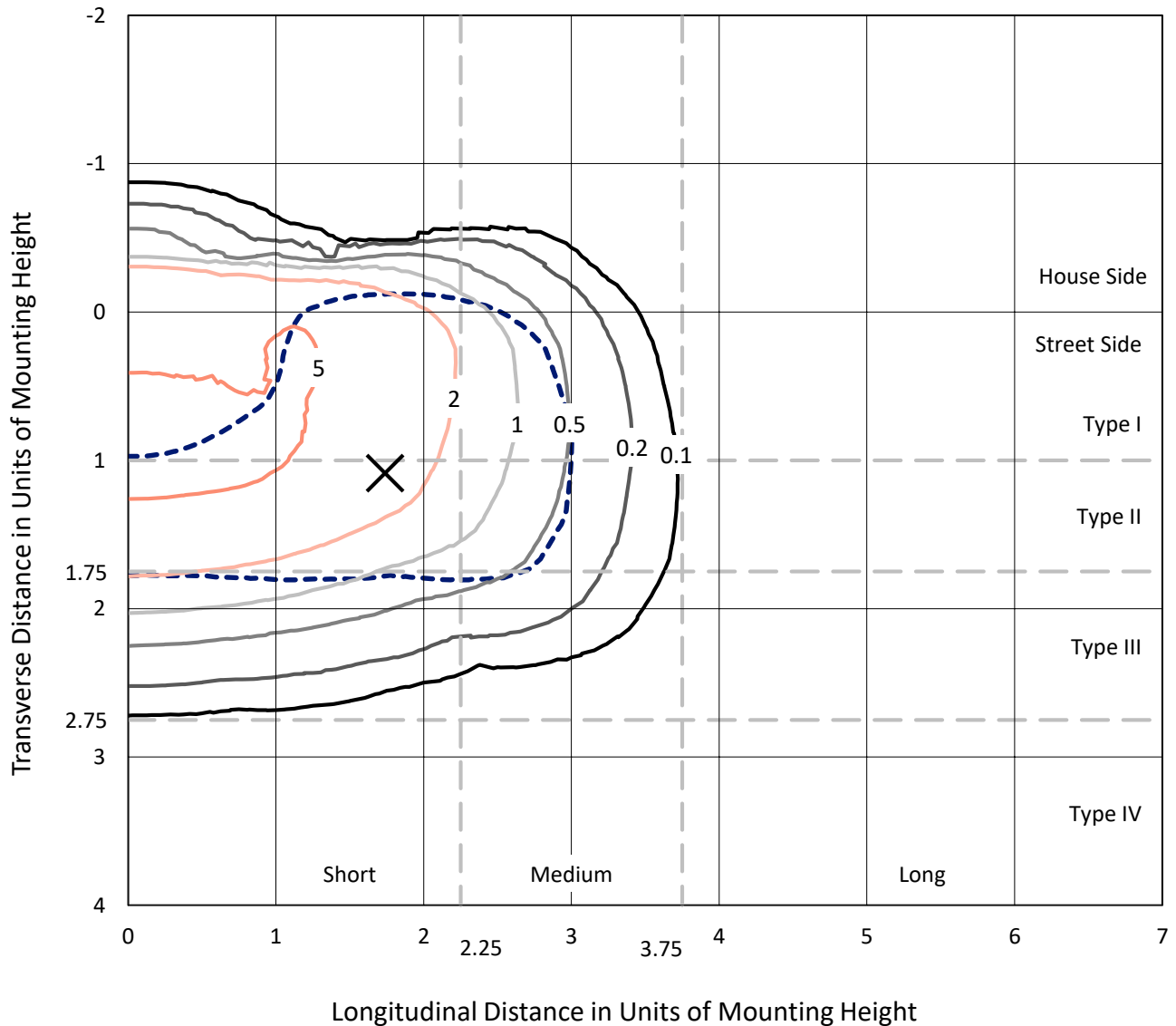


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

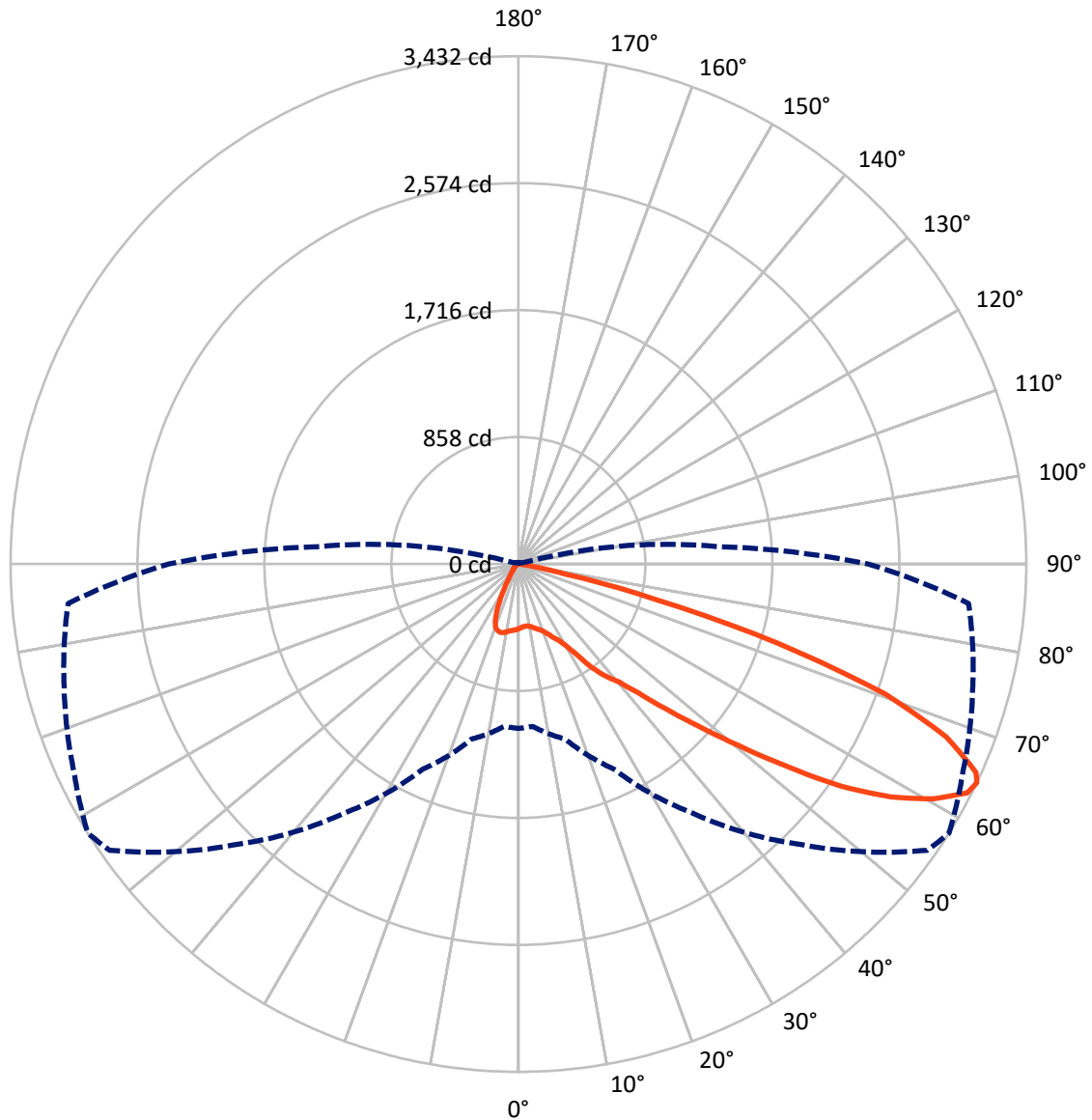


Based on 10 foot mounting height. Maximum calculated value = 6.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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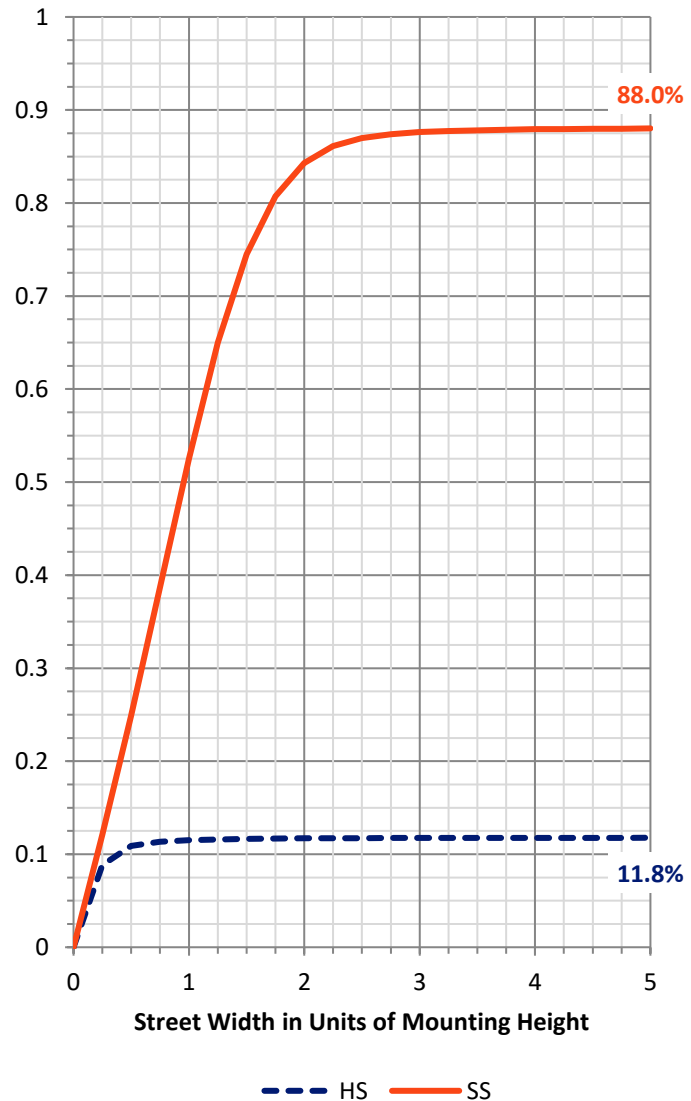
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	485.8	0.0	485.8
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	3589.2	0.0	3589.2
	% Fixture	88.1	0.0	88.1
Total	Lumens	4075.0	0.0	4075.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	1.0
10°-20°	120.2	3.0
20°-30°	216.0	5.3
30°-40°	378.7	9.3
40°-50°	692.4	17.0
50°-60°	1184.5	29.1
60°-70°	1149.1	28.2
70°-80°	284.6	7.0
80°-90°	8.1	0.2
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°	4075.0	100.0
0°-180°	4075.0	100.0



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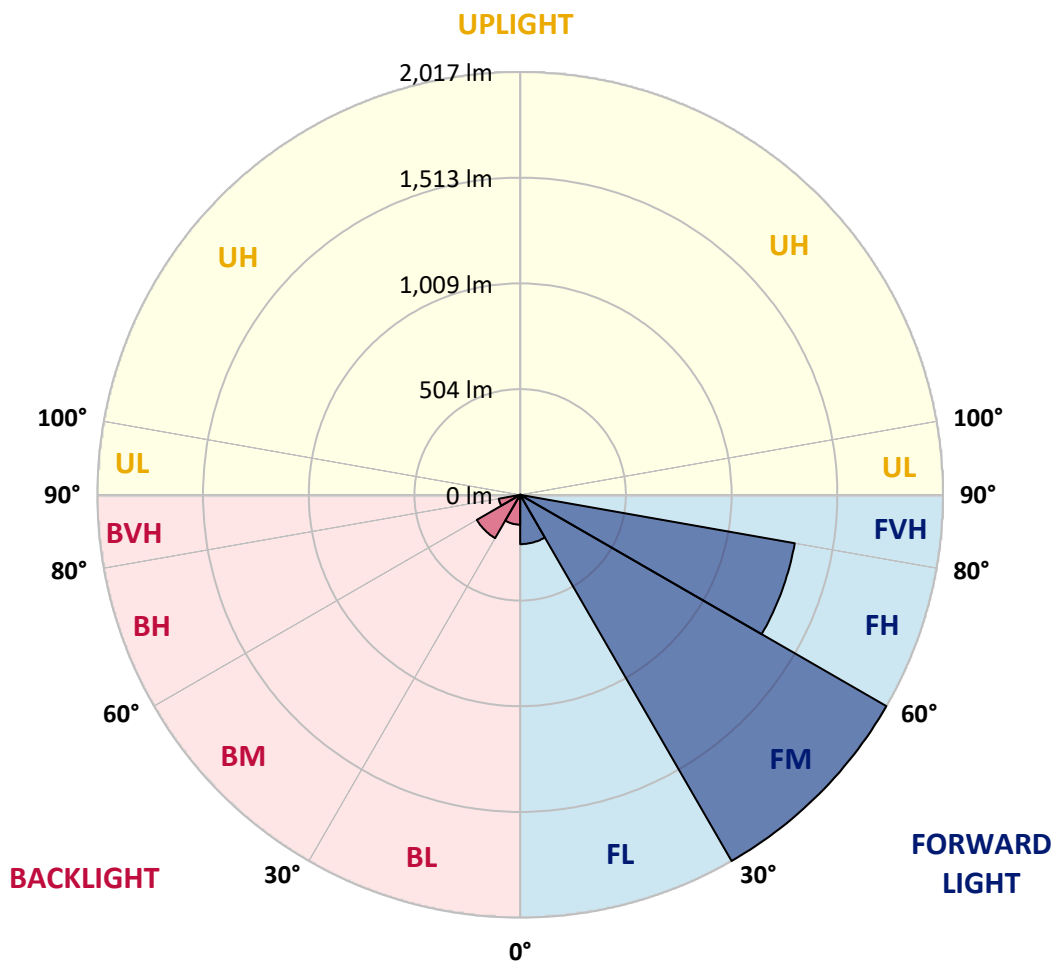
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	235.3	5.8			
FM	(30°-60°)	2017.0	49.5			
FH	(60°-80°)	1330.0	32.6			G1/1800
FVH	(80°-90°)	6.9	0.2			G0/10
BL	(0°-30°)	142.3	3.5	B1/500		
BM	(30°-60°)	238.6	5.9	B1/1000		
BH	(60°-80°)	103.7	2.5	B0/110		G0/110
BVH	(80°-90°)	1.2	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°	55°	58°	65°	75°	85°
0°	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5
2.5°	418.4	418.4	419.9	420.7	422.9	425.2	428.2	429.0	430.5	434.2	435.7
5°	395.8	396.5	398.1	401.8	407.1	413.1	420.7	422.9	429.0	436.5	441.8
7.5°	386.7	387.5	389.8	394.3	401.1	410.1	419.2	422.2	430.5	442.5	450.1
10°	385.2	385.2	388.3	395.0	403.3	414.6	424.4	428.2	439.5	453.8	465.9
12.5°	385.2	385.2	389.0	397.3	407.1	421.4	435.0	440.3	453.1	471.2	486.3
15°	392.0	393.5	395.8	401.1	412.4	428.2	447.1	453.1	468.9	490.8	509.6
17.5°	440.3	438.8	431.2	424.4	422.2	435.7	458.4	466.7	490.0	517.9	538.3
20°	533.8	533.0	519.4	486.3	456.9	449.3	475.7	485.5	519.4	556.4	571.4
22.5°	646.8	650.6	629.5	585.0	524.7	486.3	501.3	514.9	558.6	603.1	612.2
25°	759.2	763.7	744.1	688.3	614.4	547.3	536.8	548.8	598.6	643.1	639.3
27.5°	891.8	888.1	868.5	805.2	719.2	629.5	584.3	586.5	625.0	674.7	662.7
30°	989.1	983.8	965.0	922.0	841.3	738.8	652.1	645.3	656.6	711.7	698.9
32.5°	1078.1	1081.8	1067.5	1010.2	934.1	851.1	753.9	735.8	731.3	778.0	756.9
35°	1166.3	1165.5	1160.2	1109.7	1035.1	956.7	875.3	862.4	860.9	906.2	848.9
37.5°	1271.8	1266.5	1256.7	1205.5	1145.9	1071.3	984.6	964.2	960.5	969.5	902.4
40°	1384.9	1391.7	1375.8	1322.3	1257.5	1201.7	1080.3	1049.4	1023.8	1050.2	1007.2
42.5°	1553.0	1558.3	1530.4	1493.4	1409.8	1357.7	1234.9	1192.6	1180.6	1220.5	1172.3
45°	1764.1	1754.3	1735.4	1709.8	1640.5	1561.3	1433.1	1393.2	1380.4	1449.0	1369.8
47.5°	1928.4	1926.9	1927.7	1922.4	1911.9	1816.9	1664.6	1637.4	1624.6	1723.4	1635.9
50°	2032.5	2038.5	2064.1	2129.7	2178.0	2138.0	1959.3	1926.2	1916.4	2018.9	1900.5
52.5°	2110.9	2125.2	2168.2	2297.8	2452.4	2466.0	2318.2	2271.5	2248.8	2277.5	2113.1
55°	2150.8	2157.6	2223.2	2414.7	2656.7	2753.9	2692.1	2652.9	2561.7	2507.4	2362.7
57.5°	2057.4	2046.8	2159.9	2403.4	2762.2	2986.1	3012.5	2968.0	2821.8	2779.6	2665.7
60°	1812.3	1807.8	1935.2	2227.7	2670.3	3040.4	3250.0	3222.1	3087.9	2987.6	2880.6
62.5°	1382.6	1390.2	1525.1	1822.9	2342.3	2884.4	3381.9	3404.5	3262.1	3112.8	3039.7
64°	1110.5	1101.4	1225.1	1528.1	2055.1	2676.3	3372.1	3431.7	3314.8	3178.4	3054.0
65°	932.6	913.0	1031.3	1305.7	1812.3	2525.5	3302.8	3398.5	3318.6	3194.2	3002.0
67.5°	490.8	501.3	551.8	793.1	1223.6	1909.6	2974.1	3118.8	3151.2	2977.8	2616.0
70°	220.1	221.6	254.1	404.8	677.0	1238.6	2392.1	2626.5	2644.6	2446.4	1895.3
72.5°	73.1	73.9	112.3	162.1	284.2	573.7	1615.6	1828.9	1868.1	1586.2	1028.3
75°	45.2	46.7	59.6	87.5	131.9	200.5	818.7	963.5	971.8	703.4	373.9
77.5°	28.6	30.2	36.2	52.0	72.4	76.1	268.4	324.9	367.9	253.3	116.1
80°	18.1	18.1	23.4	31.7	37.7	32.4	73.1	96.5	116.1	85.2	39.2
82.5°	6.8	6.8	12.1	17.3	15.8	11.3	19.6	25.6	44.5	42.2	18.8
85°	0.0	0.0	0.8	1.5	0.8	1.5	3.8	5.3	8.3	12.1	6.0
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.5	1.5	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5	436.5
2.5°	438.0	439.5	442.5	443.3	444.0	441.8	444.0	441.8	443.3	443.3	443.3
5°	444.8	447.1	449.3	450.1	449.3	444.0	445.5	441.8	441.0	441.0	441.0
7.5°	453.8	456.1	459.9	457.6	453.1	445.5	444.8	439.5	437.3	437.3	438.0
10°	470.4	472.7	474.2	469.7	460.6	449.3	441.0	429.7	424.4	422.2	422.2
12.5°	491.5	493.8	493.0	485.5	468.9	445.5	422.2	400.3	384.5	378.5	372.4
15°	514.2	517.2	515.7	499.8	468.2	426.7	381.5	330.2	298.5	278.2	274.4
17.5°	540.5	543.6	536.0	507.4	456.9	386.7	300.8	231.4	185.5	168.1	167.4
20°	573.0	571.4	553.4	508.1	436.5	312.9	201.3	144.7	125.1	120.6	119.9
22.5°	609.9	603.1	569.9	503.6	380.7	212.6	129.7	114.6	112.3	110.8	110.8
25°	631.0	618.9	576.0	490.8	293.3	135.7	110.1	107.1	104.0	101.0	100.3
27.5°	647.6	629.5	578.2	448.6	195.3	104.0	99.5	96.5	92.0	87.5	86.7
30°	677.7	650.6	582.0	374.7	119.9	89.0	86.7	81.4	74.6	70.1	68.6
32.5°	732.0	692.8	597.1	280.4	87.5	78.4	72.4	65.6	58.0	53.5	53.5
35°	790.1	732.8	604.6	184.7	76.1	68.6	59.6	51.3	44.5	40.7	40.0
37.5°	843.6	790.1	602.4	113.1	67.8	58.8	49.0	40.7	34.7	31.7	31.7
40°	952.9	890.3	571.4	77.7	59.6	49.8	40.0	31.7	27.9	25.6	25.6
42.5°	1109.0	1000.4	502.8	66.3	52.0	41.5	31.7	26.4	23.4	21.1	21.1
45°	1283.9	1121.8	401.1	59.6	45.2	34.7	26.4	21.9	18.8	18.1	18.1
47.5°	1513.0	1268.8	294.8	53.5	39.2	29.4	21.9	18.1	16.6	15.8	15.8
50°	1713.6	1387.9	201.3	46.7	34.7	24.9	18.8	16.6	15.1	14.3	14.3
52.5°	1896.0	1470.8	132.7	40.7	30.9	20.4	17.3	15.1	14.3	13.6	13.6
55°	2110.9	1534.2	89.7	35.4	27.1	18.8	16.6	15.1	13.6	13.6	12.8
57.5°	2293.3	1571.9	64.1	30.2	24.1	17.3	15.8	14.3	12.8	12.1	12.1
60°	2399.6	1527.4	46.7	26.4	21.1	15.8	14.3	12.8	12.1	11.3	11.3
62.5°	2429.0	1441.4	36.2	22.6	18.1	14.3	12.8	11.3	10.6	9.8	9.8
64°	2361.2	1349.5	30.9	19.6	15.8	12.8	12.1	10.6	9.0	7.5	7.5
65°	2265.4	1264.3	27.9	18.1	14.3	12.1	11.3	9.8	7.5	6.0	6.0
67.5°	1887.7	1007.9	22.6	15.1	11.3	10.6	9.0	7.5	5.3	3.8	3.8
70°	1340.4	704.9	17.3	12.1	9.8	9.8	8.3	6.0	3.0	1.5	1.5
72.5°	709.4	366.4	14.3	9.8	7.5	7.5	6.8	3.8	2.3	1.5	0.8
75°	248.0	120.6	12.1	8.3	6.8	5.3	4.5	3.0	2.3	1.5	0.8
77.5°	75.4	40.0	10.6	8.3	6.0	4.5	5.3	4.5	4.5	3.0	2.3
80°	24.1	14.3	6.0	5.3	6.0	6.0	5.3	4.5	5.3	3.8	3.0
82.5°	9.0	5.3	2.3	3.0	3.0	3.8	3.8	3.0	2.3	0.8	0.0
85°	3.0	2.3	1.5	2.3	2.3	2.3	1.5	1.5	0.8	0.0	0.0
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	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

(END OF REPORT)