

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: P401819

Luminaire Tested: **ENV-SA1F-730-U-T2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401819  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1F-730-U-T2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5366 lumens  
Efficiency: N/A  
Efficacy: 81.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 66.1  
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

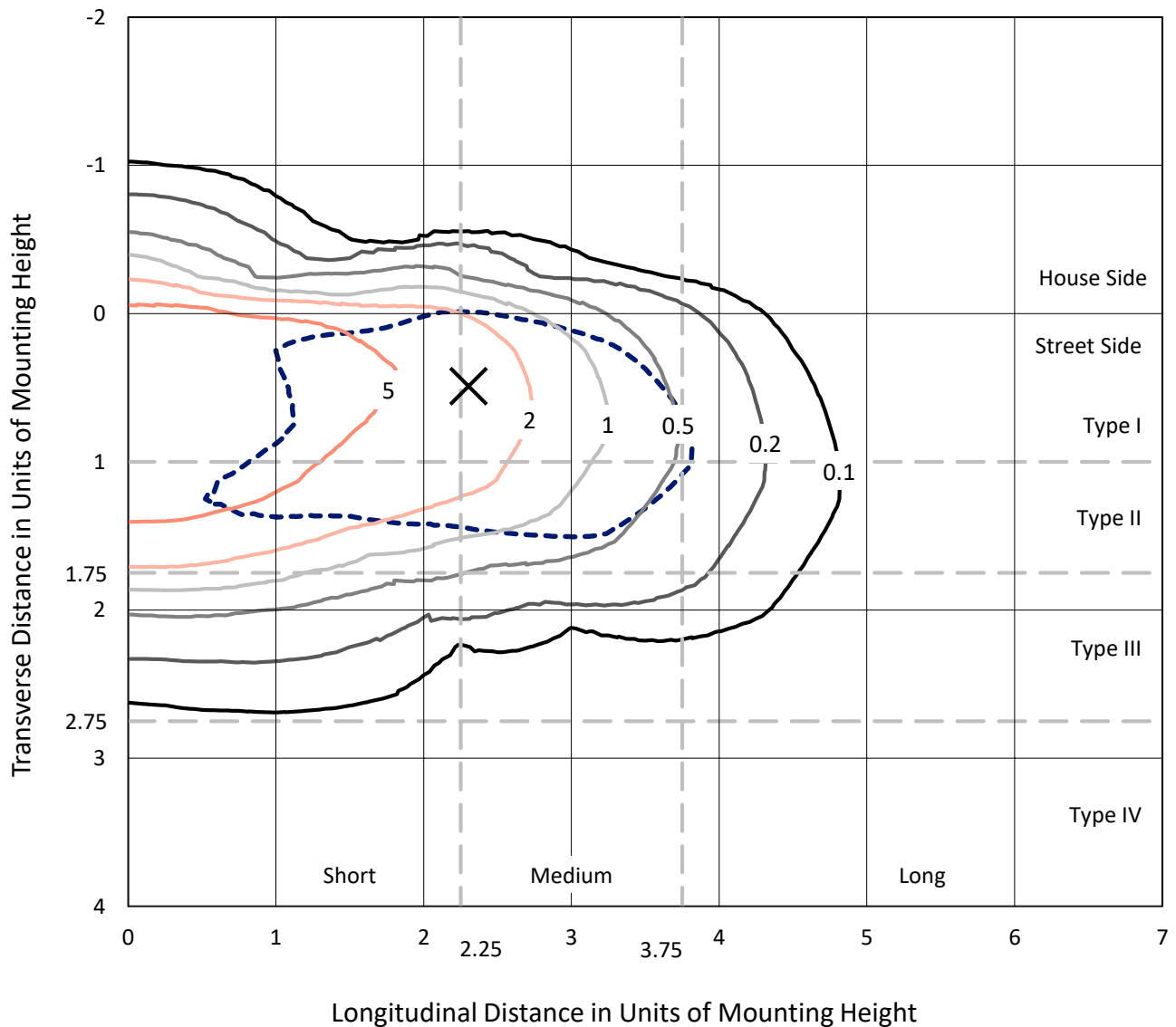


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

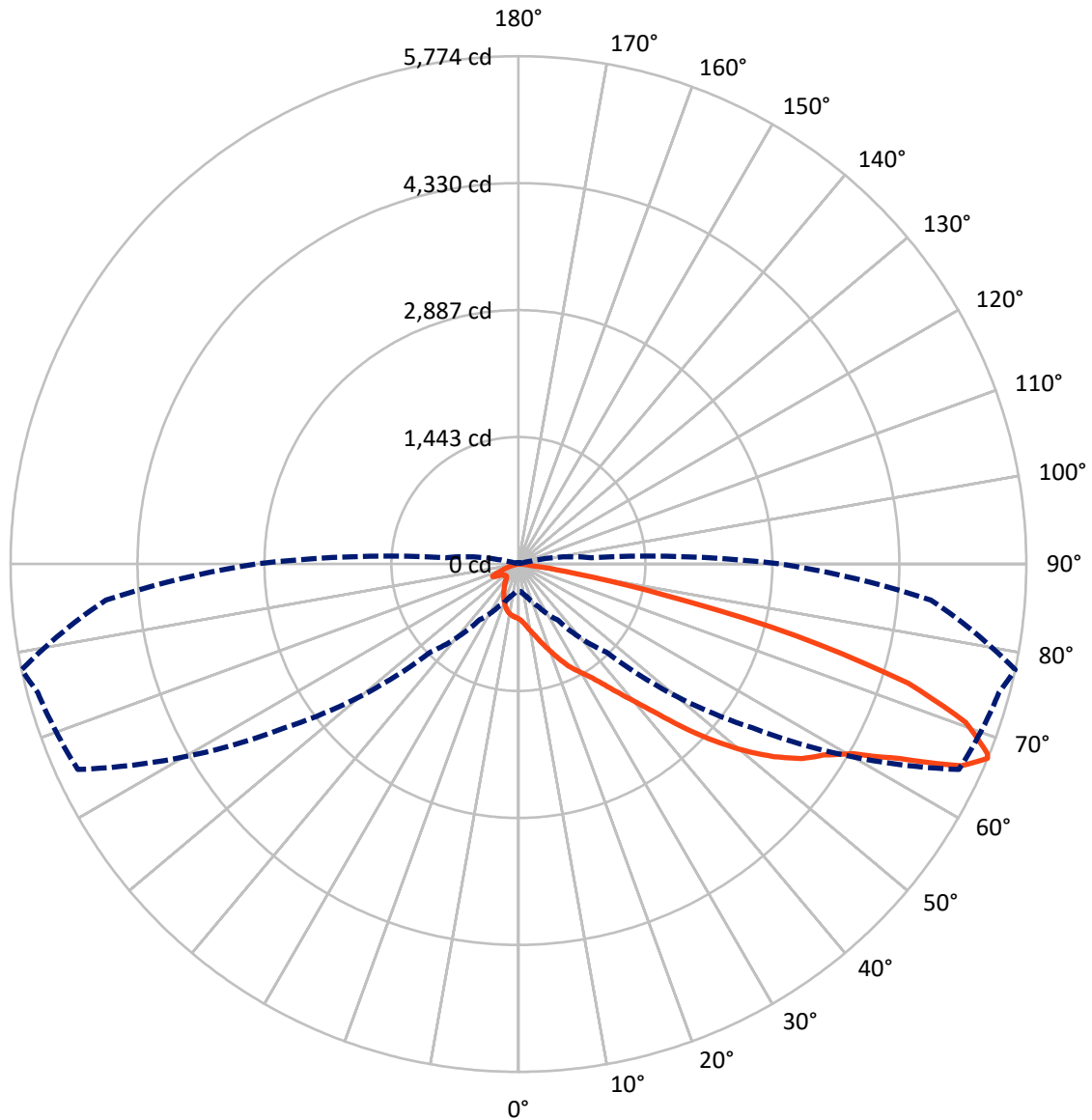


Based on 10 foot mounting height. Maximum calculated value = 9.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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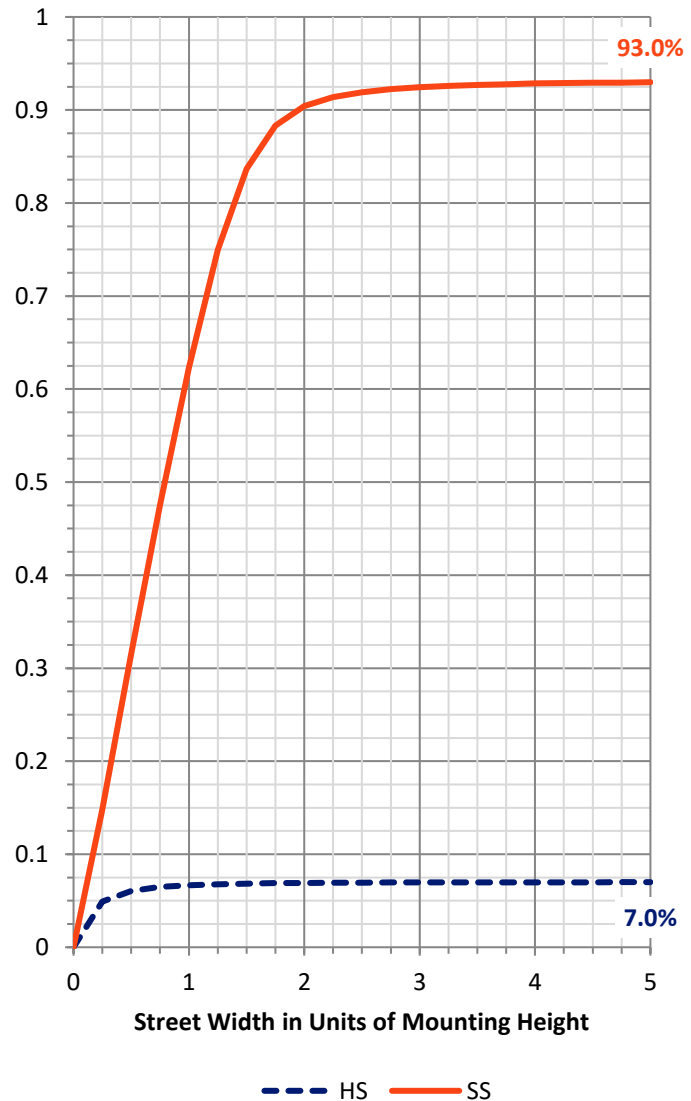
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	378.6	0.0	378.6
	% Fixture	7.1	0.0	7.1
<b>Street Side</b>	Lumens	4987.4	0.0	4987.4
	% Fixture	92.9	0.0	92.9
<b>Total</b>	Lumens	5366.0	0.0	5366.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	1.1
10°-20°	172.0	3.2
20°-30°	303.9	5.7
30°-40°	535.9	10.0
40°-50°	921.0	17.2
50°-60°	1386.4	25.8
60°-70°	1364.3	25.4
70°-80°	596.1	11.1
80°-90°	26.4	0.5
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°	5366.0	100.0
0°-180°	5366.0	100.0



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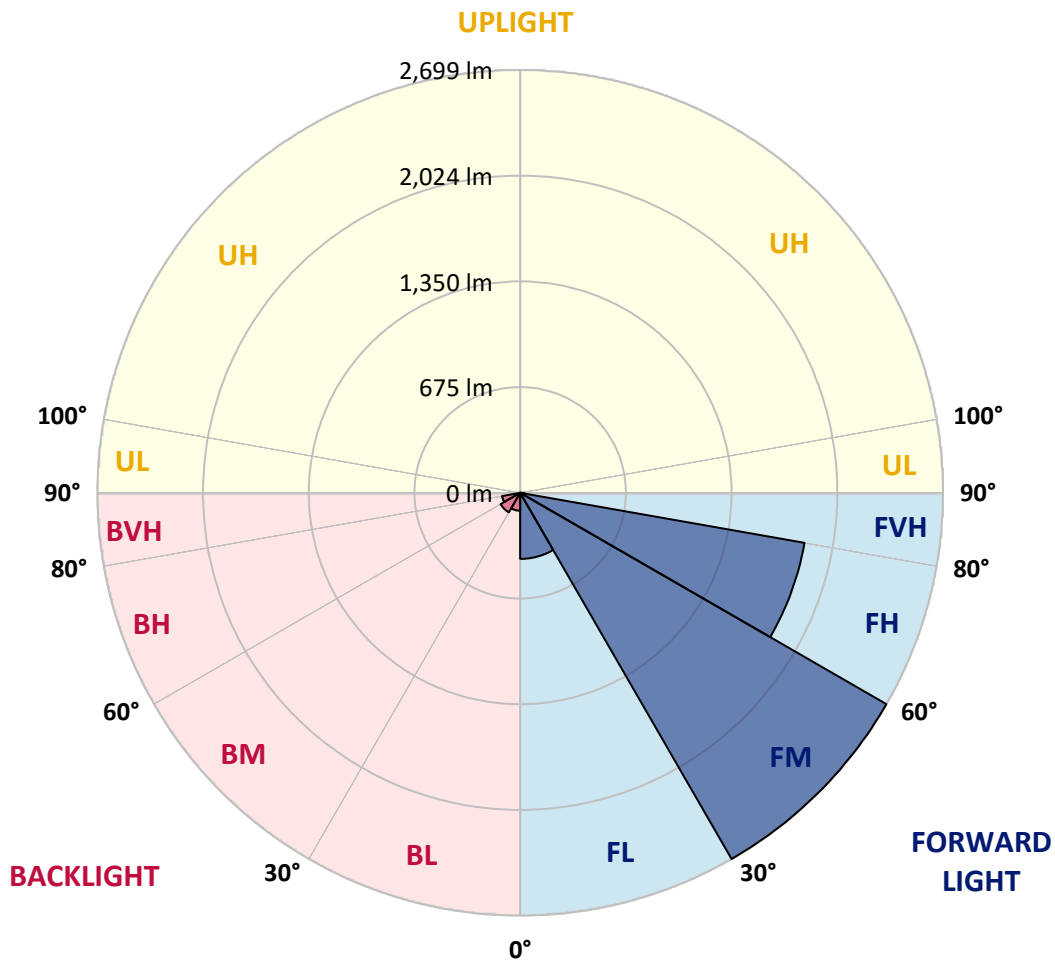
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	421.6	7.9			
FM	(30°-60°)	2699.2	50.3			
FH	(60°-80°)	1843.0	34.3			G2/5000
FVH	(80°-90°)	23.7	0.4			G1/100
BL	(0°-30°)	114.4	2.1	B1/500		
BM	(30°-60°)	144.0	2.7	B0/220		
BH	(60°-80°)	117.4	2.2	B1/500		G1/500
BVH	(80°-90°)	2.7	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-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
2.5°	714.8	717.8	713.8	710.7	702.7	692.6	682.5	667.4	651.3	645.2	635.1
5°	802.5	802.5	802.5	794.4	787.3	768.2	745.0	721.8	691.6	680.5	657.3
7.5°	848.8	849.9	852.9	852.9	848.8	835.7	810.5	784.3	739.0	723.8	686.5
10°	853.9	857.9	866.0	878.1	887.2	894.2	879.1	850.9	796.4	778.3	723.8
12.5°	840.8	842.8	855.9	878.1	907.3	936.6	937.6	920.4	859.9	834.7	769.2
15°	810.5	813.6	832.7	868.0	913.4	965.8	996.0	991.0	934.5	905.3	819.6
17.5°	762.1	765.2	789.4	841.8	908.3	984.9	1049.5	1074.7	1008.1	979.9	871.0
20°	760.1	761.1	770.2	809.5	888.2	996.0	1101.9	1161.4	1097.9	1067.6	931.5
22.5°	889.2	881.1	860.9	835.7	870.0	993.0	1149.3	1253.1	1208.7	1161.4	1001.1
25°	1033.3	1036.4	1014.2	954.7	911.3	988.0	1185.6	1356.9	1312.6	1265.2	1072.6
27.5°	1184.6	1179.5	1160.4	1105.9	1033.3	1024.3	1211.8	1440.6	1412.4	1354.9	1136.2
30°	1331.7	1327.7	1313.6	1258.1	1179.5	1118.0	1231.9	1516.2	1507.2	1443.6	1187.6
32.5°	1500.1	1507.2	1489.0	1416.4	1320.6	1245.0	1275.3	1595.9	1622.1	1544.5	1241.0
35°	1695.7	1695.7	1658.4	1591.8	1493.0	1387.2	1362.0	1683.6	1768.3	1684.6	1325.7
37.5°	1857.0	1870.1	1847.9	1752.1	1659.4	1548.5	1494.0	1791.4	1948.7	1864.0	1439.6
40°	1984.0	2006.2	2007.2	1912.4	1826.7	1754.1	1678.5	1943.7	2175.5	2066.7	1575.7
42.5°	2101.9	2106.0	2123.1	2068.7	1983.0	1963.8	1886.2	2124.1	2458.8	2330.8	1757.2
45°	2252.2	2260.2	2250.1	2209.8	2136.2	2161.4	2118.1	2353.0	2777.4	2669.5	1970.9
47.5°	2472.9	2492.1	2477.0	2404.4	2314.7	2362.0	2330.8	2580.8	3137.3	3006.2	2202.8
50°	2679.6	2694.7	2710.9	2687.7	2597.9	2552.6	2514.3	2821.8	3445.8	3334.9	2430.6
52.5°	2701.8	2715.9	2804.6	2886.3	2945.8	2826.8	2706.8	3065.7	3731.1	3638.3	2639.3
55°	2557.6	2566.7	2714.9	2876.2	3149.4	3189.7	2990.1	3306.7	3970.0	3906.5	2779.4
57.5°	2156.4	2194.7	2405.4	2652.4	3099.0	3405.5	3392.4	3586.9	4125.3	4096.0	2959.9
60°	1416.4	1458.8	1710.8	2084.8	2728.0	3348.0	3833.9	4007.3	4343.0	4375.3	3276.4
62.5°	733.9	783.3	1005.1	1336.8	1976.9	2915.5	3984.1	4697.9	4760.4	4870.3	3841.0
65°	419.4	429.5	540.4	783.3	1223.9	2087.8	3803.7	5381.4	5309.8	5532.6	4561.8
67°	311.5	311.5	389.1	532.3	775.3	1419.4	3244.2	5525.6	5655.6	5773.5	4707.0
67.5°	279.3	294.4	360.9	491.0	695.6	1259.2	3035.5	5487.2	5677.8	5751.4	4656.5
70°	191.5	201.6	259.1	351.8	468.8	655.3	1990.0	4853.1	5470.1	5395.5	4220.0
72.5°	114.9	119.0	171.4	253.0	349.8	350.8	1085.8	3683.7	4635.4	4634.4	3446.8
75°	71.6	75.6	100.8	169.4	245.0	219.8	502.0	2506.2	3328.8	3264.3	2309.6
77.5°	40.3	46.4	60.5	92.7	155.3	140.1	211.7	1404.3	1798.5	1687.6	1147.2
80°	16.1	19.2	34.3	44.4	87.7	83.7	86.7	494.0	727.9	656.3	384.1
82.5°	4.0	5.0	12.1	21.2	34.3	34.3	27.2	135.1	172.4	160.3	98.8
85°	0.0	0.0	1.0	1.0	1.0	2.0	7.1	15.1	18.1	21.2	16.1
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	2.0	3.0	3.0	3.0	3.0
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°	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
2.5°	627.1	620.0	605.9	590.8	575.6	563.5	553.5	539.3	537.3	537.3	537.3
5°	640.2	624.0	591.8	559.5	527.3	498.0	476.8	459.7	444.6	439.5	443.6
7.5°	659.3	630.1	573.6	517.2	466.8	425.4	395.2	371.0	359.9	353.9	348.8
10°	684.5	639.2	549.4	466.8	403.3	353.9	321.6	298.4	287.3	280.3	281.3
12.5°	711.7	646.2	519.2	412.3	341.8	296.4	269.2	250.0	231.9	220.8	223.8
15°	739.0	651.3	481.9	361.9	294.4	254.0	215.7	181.5	169.4	167.3	166.3
17.5°	769.2	650.2	440.6	314.5	254.0	197.6	159.3	155.3	154.2	154.2	153.2
20°	800.5	645.2	393.2	275.2	213.7	150.2	144.2	142.1	139.1	138.1	137.1
22.5°	834.7	636.1	349.8	240.9	159.3	137.1	129.0	123.0	118.0	114.9	115.9
25°	866.0	619.0	307.5	208.7	136.1	123.0	111.9	102.8	97.8	93.8	94.8
27.5°	887.2	588.7	271.2	168.4	125.0	108.9	95.8	86.7	79.6	76.6	76.6
30°	889.2	545.4	238.9	138.1	113.9	95.8	81.7	71.6	67.5	65.5	64.5
32.5°	887.2	501.0	214.7	127.0	103.8	83.7	69.6	62.5	58.5	56.5	56.5
35°	897.2	455.7	192.6	116.9	92.7	73.6	61.5	54.4	51.4	49.4	49.4
37.5°	927.5	424.4	169.4	106.9	82.7	64.5	55.4	49.4	46.4	44.4	44.4
40°	968.8	398.2	141.1	96.8	72.6	58.5	50.4	45.4	41.3	39.3	39.3
42.5°	1041.4	388.1	118.0	86.7	63.5	52.4	46.4	40.3	36.3	34.3	34.3
45°	1149.3	393.2	107.9	77.6	57.5	47.4	41.3	35.3	31.3	30.2	30.2
47.5°	1268.2	414.3	100.8	69.6	52.4	44.4	37.3	31.3	27.2	26.2	26.2
50°	1401.3	447.6	94.8	61.5	47.4	40.3	33.3	27.2	24.2	23.2	23.2
52.5°	1528.3	490.0	88.7	55.4	44.4	36.3	29.2	24.2	22.2	21.2	21.2
55°	1625.1	517.2	83.7	51.4	41.3	33.3	26.2	23.2	20.2	19.2	19.2
57.5°	1760.2	562.5	77.6	46.4	37.3	30.2	24.2	21.2	18.1	18.1	18.1
60°	2034.4	684.5	68.6	42.3	33.3	27.2	23.2	19.2	17.1	16.1	16.1
62.5°	2528.4	886.1	59.5	39.3	29.2	24.2	20.2	17.1	15.1	13.1	13.1
65°	3004.2	969.8	50.4	34.3	26.2	21.2	18.1	15.1	11.1	9.1	9.1
67°	2978.0	829.7	42.3	29.2	22.2	19.2	15.1	12.1	8.1	5.0	5.0
67.5°	2907.4	772.2	41.3	28.2	21.2	18.1	15.1	11.1	7.1	4.0	4.0
70°	2470.9	540.4	32.3	22.2	18.1	16.1	12.1	8.1	4.0	2.0	2.0
72.5°	2007.2	428.5	25.2	18.1	15.1	12.1	10.1	5.0	3.0	1.0	1.0
75°	1419.4	263.1	22.2	16.1	12.1	9.1	8.1	5.0	3.0	2.0	1.0
77.5°	700.6	121.0	18.1	14.1	11.1	9.1	7.1	6.0	5.0	4.0	2.0
80°	205.7	39.3	12.1	10.1	10.1	9.1	8.1	7.1	6.0	5.0	3.0
82.5°	46.4	14.1	4.0	5.0	7.1	7.1	7.1	5.0	4.0	2.0	1.0
85°	6.0	3.0	3.0	3.0	4.0	4.0	3.0	2.0	2.0	0.0	0.0
87.5°	2.0	2.0	2.0	3.0	3.0	3.0	2.0	1.0	1.0	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)