

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: P401477

Luminaire Tested: **ENV-SA1D-735-U-T2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401477  
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-SA1D-735-U-T2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 800mA 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: 4013 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-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

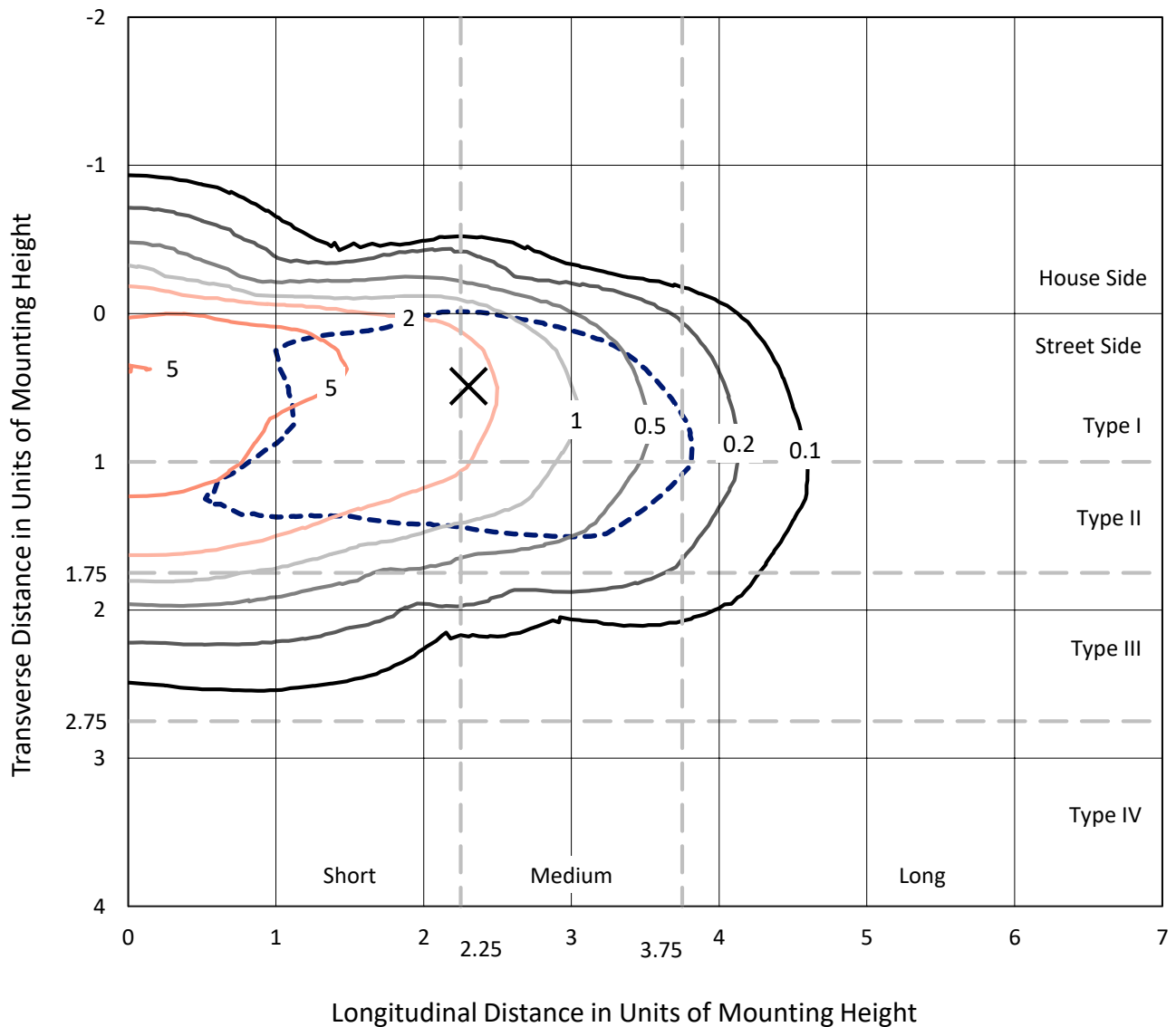


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

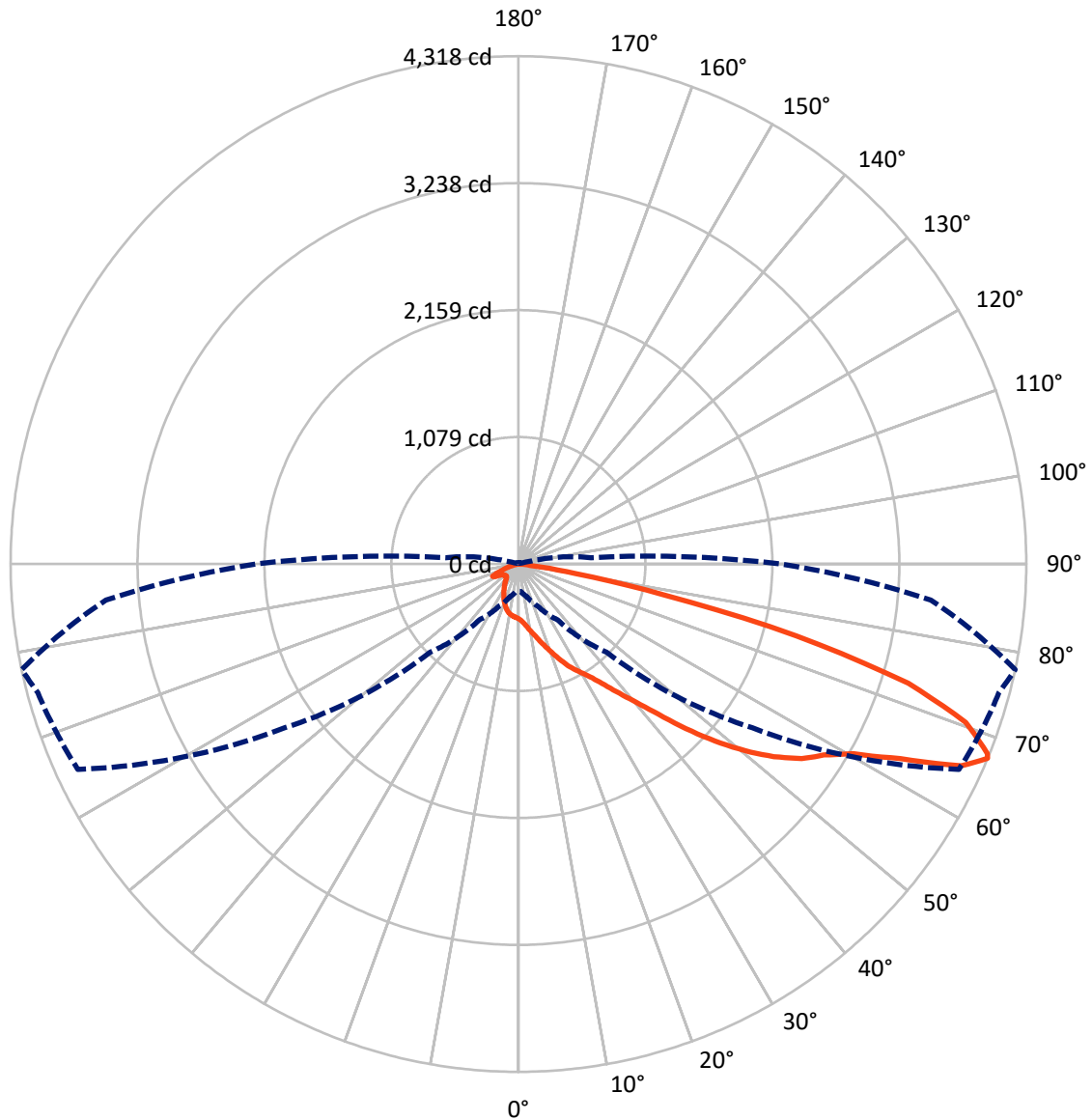


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Medium - Semi-Cutoff

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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	283.1	0.0	283.1
	% Fixture	7.1	0.0	7.1
<b>Street Side</b>	Lumens	3729.9	0.0	3729.9
	% Fixture	92.9	0.0	92.9
<b>Total</b>	Lumens	4013.0	0.0	4013.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.9	1.1
10°-20°	128.6	3.2
20°-30°	227.3	5.7
30°-40°	400.8	10.0
40°-50°	688.7	17.2
50°-60°	1036.8	25.8
60°-70°	1020.3	25.4
70°-80°	445.8	11.1
80°-90°	19.8	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°	4013.0	100.0
0°-180°	4013.0	100.0



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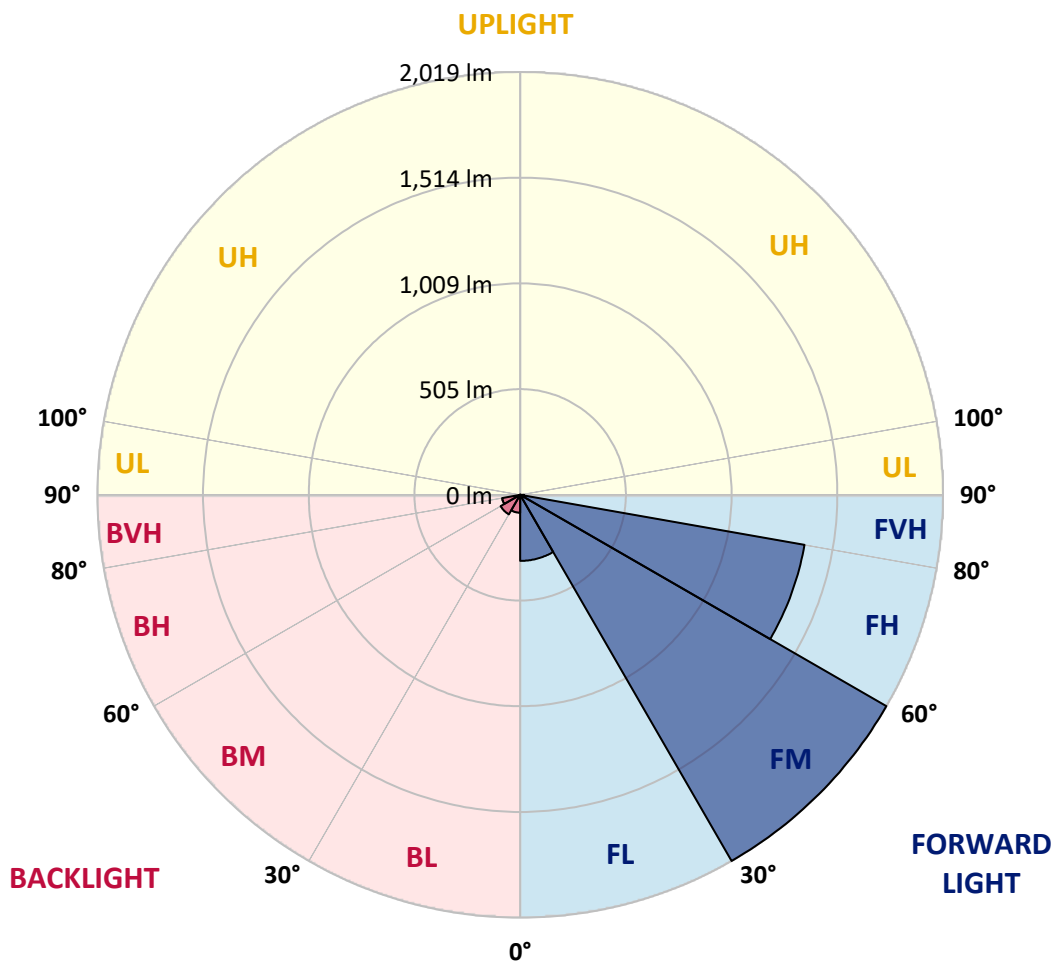
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	315.3	7.9			
FM	(30°-60°)	2018.6	50.3			
FH	(60°-80°)	1378.3	34.3			G1/1800
FVH	(80°-90°)	17.7	0.4			G1/100
BL	(0°-30°)	85.5	2.1	B0/110		
BM	(30°-60°)	107.7	2.7	B0/220		
BH	(60°-80°)	87.8	2.2	B0/110		G0/110
BVH	(80°-90°)	2.0	0.1			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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9
2.5°	534.5	536.8	533.8	531.5	525.5	518.0	510.4	499.1	487.0	482.5	475.0
5°	600.1	600.1	600.1	594.1	588.8	574.5	557.2	539.8	517.2	508.9	491.6
7.5°	634.8	635.6	637.8	637.8	634.8	625.0	606.2	586.6	552.6	541.3	513.4
10°	638.6	641.6	647.6	656.7	663.5	668.7	657.4	636.3	595.6	582.0	541.3
12.5°	628.8	630.3	640.1	656.7	678.5	700.4	701.2	688.3	643.1	624.3	575.3
15°	606.2	608.4	622.8	649.1	683.1	722.3	744.9	741.1	698.9	677.0	612.9
17.5°	570.0	572.2	590.3	629.5	679.3	736.6	784.8	803.7	753.9	732.8	651.4
20°	568.5	569.2	576.0	605.4	664.2	744.9	824.1	868.5	821.0	798.4	696.6
22.5°	665.0	658.9	643.9	625.0	650.6	742.6	859.5	937.1	904.0	868.5	748.7
25°	772.8	775.0	758.5	714.0	681.6	738.9	886.6	1014.8	981.6	946.2	802.2
27.5°	885.9	882.1	867.8	827.1	772.8	766.0	906.2	1077.4	1056.3	1013.3	849.7
30°	995.9	992.9	982.4	940.9	882.1	836.1	921.3	1133.9	1127.1	1079.6	888.1
32.5°	1121.9	1127.1	1113.6	1059.3	987.7	931.1	953.7	1193.5	1213.1	1155.0	928.1
35°	1268.1	1268.1	1240.2	1190.5	1116.6	1037.4	1018.6	1259.1	1322.4	1259.8	991.4
37.5°	1388.7	1398.6	1382.0	1310.3	1241.0	1158.0	1117.3	1339.7	1457.4	1394.0	1076.6
40°	1483.7	1500.3	1501.1	1430.2	1366.1	1311.8	1255.3	1453.6	1627.0	1545.6	1178.4
42.5°	1572.0	1575.0	1587.8	1547.1	1483.0	1468.7	1410.6	1588.5	1838.8	1743.1	1314.1
45°	1684.3	1690.3	1682.8	1652.6	1597.6	1616.4	1584.0	1759.7	2077.1	1996.4	1473.9
47.5°	1849.4	1863.7	1852.4	1798.1	1731.0	1766.5	1743.1	1930.1	2346.2	2248.2	1647.3
50°	2004.0	2015.3	2027.3	2010.0	1942.9	1909.0	1880.3	2110.3	2577.0	2494.0	1817.7
52.5°	2020.5	2031.1	2097.4	2158.5	2203.0	2114.0	2024.3	2292.7	2790.3	2721.0	1973.8
55°	1912.7	1919.5	2030.3	2151.0	2355.3	2385.5	2236.2	2472.9	2969.0	2921.5	2078.6
57.5°	1612.7	1641.3	1798.9	1983.6	2317.6	2546.8	2537.0	2682.5	3085.1	3063.2	2213.6
60°	1059.3	1090.9	1279.4	1559.1	2040.1	2503.8	2867.2	2996.9	3248.0	3272.1	2450.3
62.5°	548.9	585.8	751.7	999.7	1478.5	2180.4	2979.6	3513.3	3560.1	3642.3	2872.5
65°	313.6	321.2	404.1	585.8	915.3	1561.4	2844.6	4024.5	3971.0	4137.6	3411.6
67°	233.0	233.0	291.0	398.1	579.8	1061.5	2426.2	4132.3	4229.6	4317.8	3520.1
67.5°	208.8	220.1	269.9	367.2	520.2	941.7	2270.1	4103.7	4246.2	4301.2	3482.4
70°	143.2	150.8	193.8	263.1	350.6	490.1	1488.3	3629.4	4090.9	4035.1	3156.0
72.5°	85.9	89.0	128.2	189.2	261.6	262.4	812.0	2754.9	3466.6	3465.8	2577.7
75°	53.5	56.5	75.4	126.7	183.2	164.4	375.5	1874.3	2489.5	2441.2	1727.3
77.5°	30.2	34.7	45.2	69.4	116.1	104.8	158.3	1050.2	1345.0	1262.1	858.0
80°	12.1	14.3	25.6	33.2	65.6	62.6	64.8	369.4	544.3	490.8	287.2
82.5°	3.0	3.8	9.0	15.8	25.6	25.6	20.4	101.0	128.9	119.9	73.9
85°	0.0	0.0	0.8	0.8	0.8	1.5	5.3	11.3	13.6	15.8	12.1
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	1.5	2.3	2.3	2.3	2.3
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°	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9	465.9
2.5°	468.9	463.7	453.1	441.8	430.5	421.4	413.9	403.4	401.8	401.8	401.8
5°	478.7	466.7	442.6	418.4	394.3	372.4	356.6	343.8	332.5	328.7	331.7
7.5°	493.1	471.2	429.0	386.8	349.1	318.2	295.5	277.4	269.2	264.6	260.9
10°	511.9	478.0	410.9	349.1	301.6	264.6	240.5	223.2	214.9	209.6	210.3
12.5°	532.3	483.3	388.3	308.4	255.6	221.7	201.3	187.0	173.4	165.1	167.4
15°	552.6	487.0	360.4	270.7	220.1	190.0	161.3	135.7	126.7	125.2	124.4
17.5°	575.3	486.3	329.5	235.2	190.0	147.8	119.1	116.1	115.4	115.4	114.6
20°	598.6	482.5	294.0	205.8	159.8	112.3	107.8	106.3	104.0	103.3	102.5
22.5°	624.3	475.7	261.6	180.2	119.1	102.5	96.5	92.0	88.2	85.9	86.7
25°	647.6	462.9	230.0	156.1	101.8	92.0	83.7	76.9	73.1	70.1	70.9
27.5°	663.5	440.3	202.8	125.9	93.5	81.4	71.6	64.8	59.6	57.3	57.3
30°	665.0	407.9	178.7	103.3	85.2	71.6	61.1	53.5	50.5	49.0	48.3
32.5°	663.5	374.7	160.6	95.0	77.7	62.6	52.0	46.7	43.7	42.2	42.2
35°	671.0	340.8	144.0	87.5	69.4	55.0	46.0	40.7	38.5	36.9	36.9
37.5°	693.6	317.4	126.7	79.9	61.8	48.3	41.5	36.9	34.7	33.2	33.2
40°	724.5	297.8	105.6	72.4	54.3	43.7	37.7	33.9	30.9	29.4	29.4
42.5°	778.8	290.3	88.2	64.8	47.5	39.2	34.7	30.2	27.1	25.6	25.6
45°	859.5	294.0	80.7	58.1	43.0	35.4	30.9	26.4	23.4	22.6	22.6
47.5°	948.5	309.9	75.4	52.0	39.2	33.2	27.9	23.4	20.4	19.6	19.6
50°	1048.0	334.7	70.9	46.0	35.4	30.2	24.9	20.4	18.1	17.3	17.3
52.5°	1143.0	366.4	66.3	41.5	33.2	27.1	21.9	18.1	16.6	15.8	15.8
55°	1215.3	386.8	62.6	38.5	30.9	24.9	19.6	17.3	15.1	14.3	14.3
57.5°	1316.4	420.7	58.1	34.7	27.9	22.6	18.1	15.8	13.6	13.6	13.6
60°	1521.4	511.9	51.3	31.7	24.9	20.4	17.3	14.3	12.8	12.1	12.1
62.5°	1890.9	662.7	44.5	29.4	21.9	18.1	15.1	12.8	11.3	9.8	9.8
65°	2246.7	725.3	37.7	25.6	19.6	15.8	13.6	11.3	8.3	6.8	6.8
67°	2227.1	620.5	31.7	21.9	16.6	14.3	11.3	9.0	6.0	3.8	3.8
67.5°	2174.4	577.5	30.9	21.1	15.8	13.6	11.3	8.3	5.3	3.0	3.0
70°	1847.9	404.1	24.1	16.6	13.6	12.1	9.0	6.0	3.0	1.5	1.5
72.5°	1501.1	320.4	18.8	13.6	11.3	9.0	7.5	3.8	2.3	0.8	0.8
75°	1061.5	196.8	16.6	12.1	9.0	6.8	6.0	3.8	2.3	1.5	0.8
77.5°	524.0	90.5	13.6	10.6	8.3	6.8	5.3	4.5	3.8	3.0	1.5
80°	153.8	29.4	9.0	7.5	7.5	6.8	6.0	5.3	4.5	3.8	2.3
82.5°	34.7	10.6	3.0	3.8	5.3	5.3	5.3	3.8	3.0	1.5	0.8
85°	4.5	2.3	2.3	2.3	3.0	3.0	2.3	1.5	1.5	0.0	0.0
87.5°	1.5	1.5	1.5	2.3	2.3	2.3	1.5	0.8	0.8	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)