

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: P401927

Luminaire Tested: **ENV-SA1F-827-U-T2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401927  
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-827-U-T2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 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: 4331 lumens  
Efficiency: N/A  
Efficacy: 65.5 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): 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

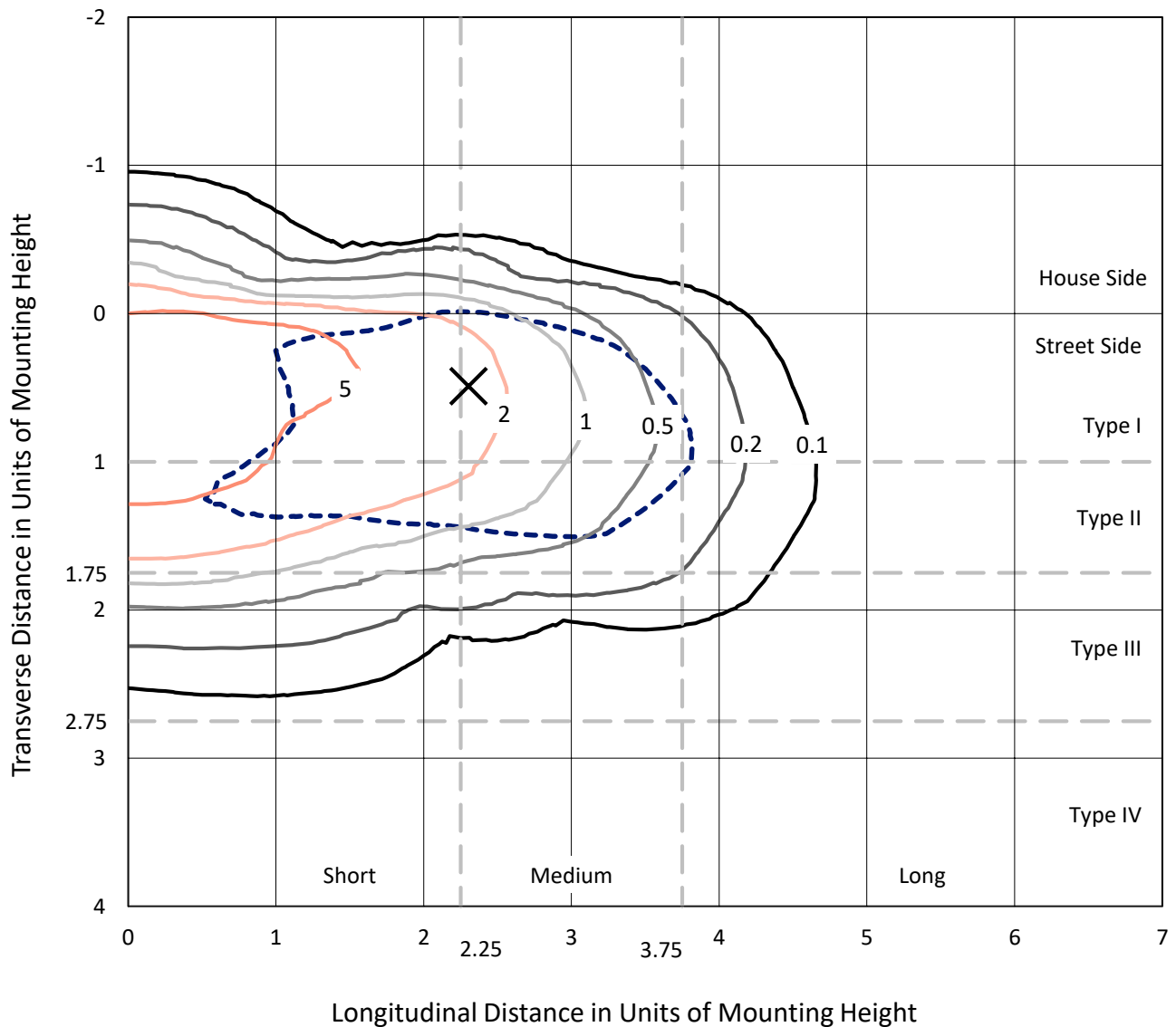


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

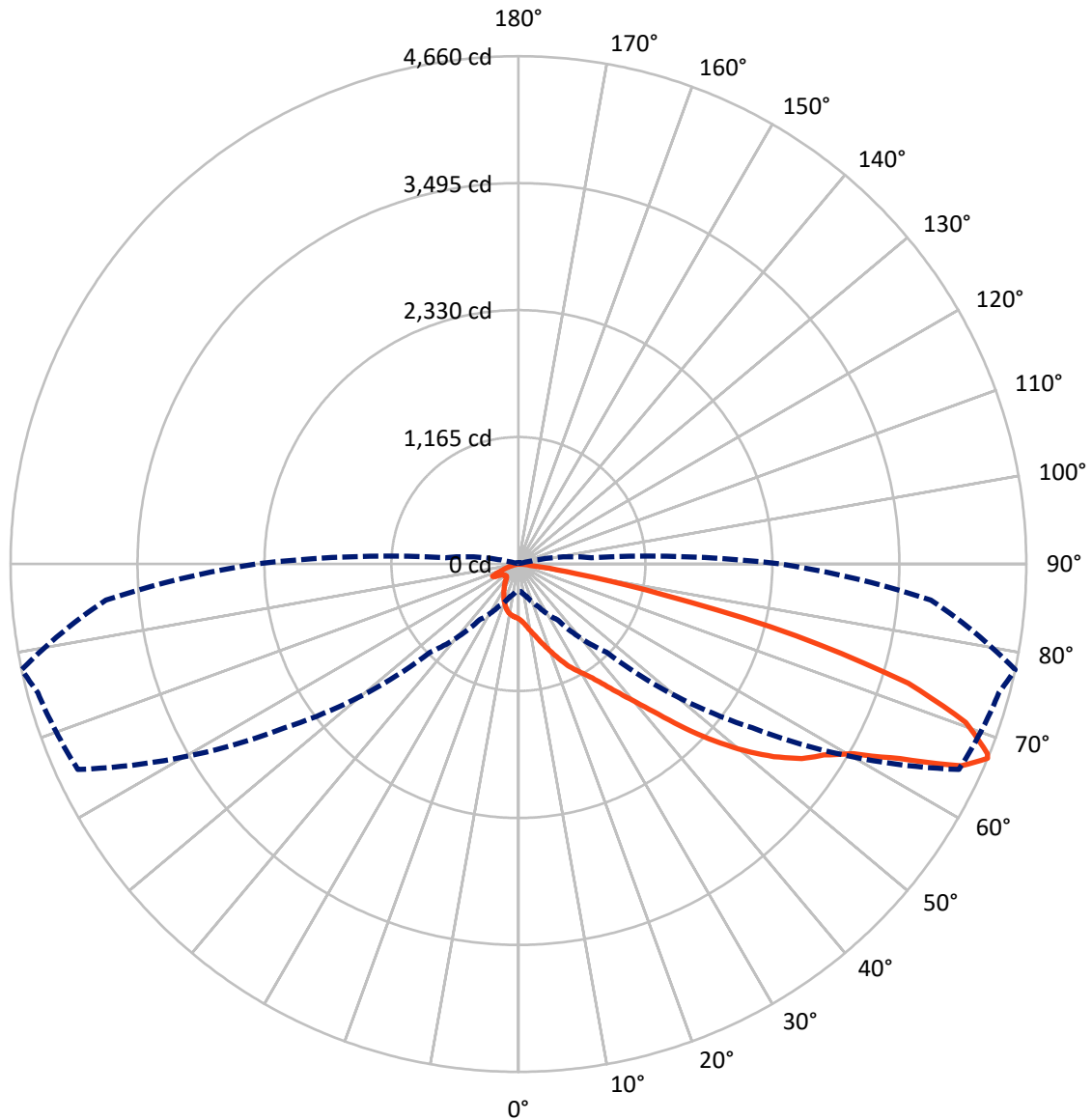


Based on 10 foot mounting height. Maximum calculated value = 7.9 fc  
 Type II - Medium - Semi-Cutoff

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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	305.6	0.0	305.6
	% Fixture	7.1	0.0	7.1
<b>Street Side</b>	Lumens	4025.4	0.0	4025.4
	% Fixture	92.9	0.0	92.9
<b>Total</b>	Lumens	4331.0	0.0	4331.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.5	1.1
10°-20°	138.8	3.2
20°-30°	245.3	5.7
30°-40°	432.5	10.0
40°-50°	743.3	17.2
50°-60°	1119.0	25.8
60°-70°	1101.1	25.4
70°-80°	481.1	11.1
80°-90°	21.3	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°	4331.0	100.0
0°-180°	4331.0	100.0

**Coefficient of Utilization**



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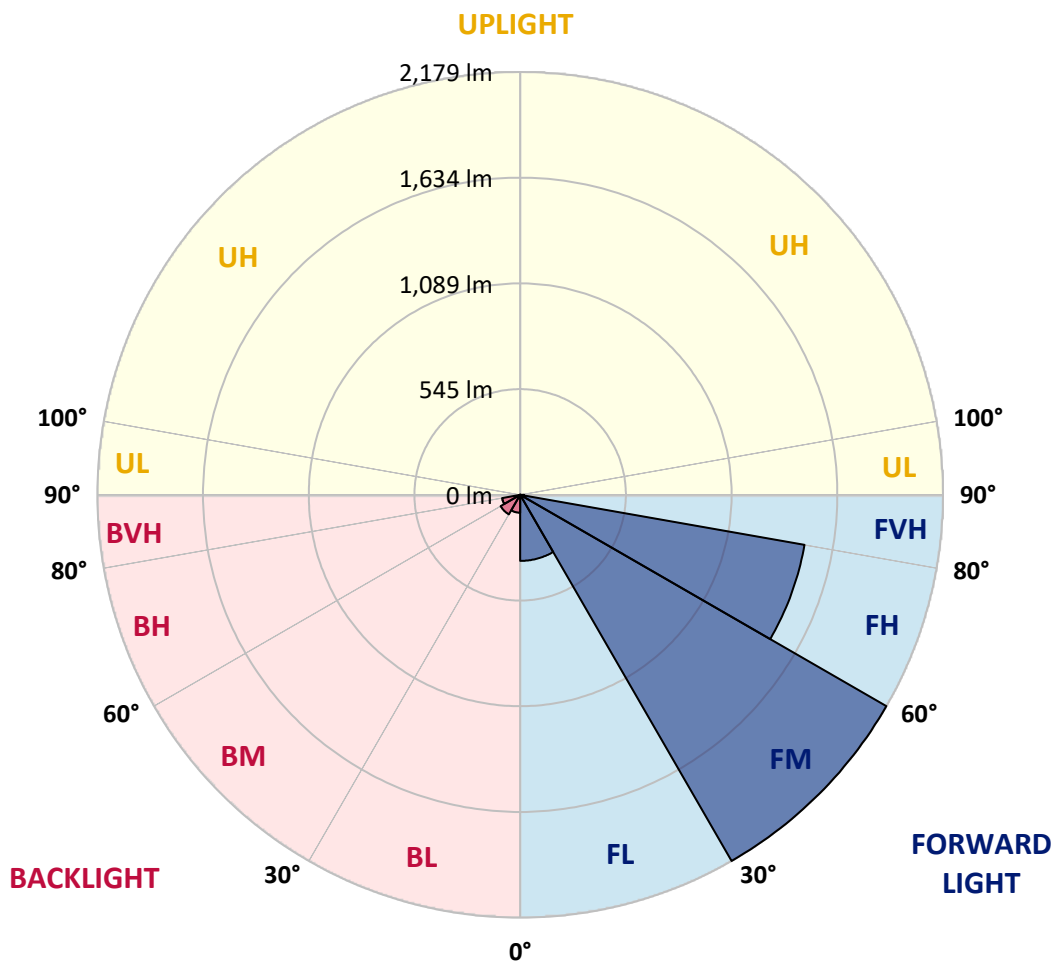
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	340.3	7.9			
FM (30°-60°)	2178.5	50.3			
FH (60°-80°)	1487.5	34.3			G1/1800
FVH (80°-90°)	19.1	0.4			G1/100
BL (0°-30°)	92.3	2.1	B0/110		
BM (30°-60°)	116.3	2.7	B0/220		
BH (60°-80°)	94.8	2.2	B0/110		G0/110
BVH (80°-90°)	2.2	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°	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	576.9	579.3	576.1	573.6	567.1	559.0	550.9	538.7	525.6	520.8	512.6
5°	647.7	647.7	647.7	641.2	635.5	620.0	601.3	582.6	558.2	549.2	530.5
7.5°	685.1	685.9	688.4	688.4	685.1	674.5	654.2	633.0	596.4	584.2	554.1
10°	689.2	692.4	699.0	708.7	716.0	721.7	709.5	686.7	642.8	628.2	584.2
12.5°	678.6	680.2	690.8	708.7	732.3	755.9	756.7	742.9	694.1	673.7	620.8
15°	654.2	656.6	672.1	700.6	737.2	779.5	803.9	799.8	754.3	730.7	661.5
17.5°	615.1	617.6	637.1	679.4	733.1	795.0	847.0	867.4	813.7	790.9	703.0
20°	613.5	614.3	621.7	653.4	716.9	803.9	889.4	937.4	886.1	861.7	751.8
22.5°	717.7	711.2	694.9	674.5	702.2	801.5	927.6	1011.4	975.6	937.4	808.0
25°	834.0	836.5	818.6	770.6	735.6	797.4	956.9	1095.2	1059.4	1021.2	865.8
27.5°	956.1	952.0	936.5	892.6	834.0	826.7	978.0	1162.7	1140.0	1093.6	917.0
30°	1074.9	1071.6	1060.2	1015.5	952.0	902.4	994.3	1223.8	1216.5	1165.2	958.5
32.5°	1210.8	1216.5	1201.8	1143.2	1065.9	1004.9	1029.3	1288.1	1309.2	1246.6	1001.6
35°	1368.6	1368.6	1338.5	1284.8	1205.1	1119.6	1099.3	1358.8	1427.2	1359.7	1070.0
37.5°	1498.8	1509.4	1491.5	1414.2	1339.3	1249.8	1205.9	1445.9	1572.8	1504.5	1161.9
40°	1601.3	1619.2	1620.0	1543.5	1474.4	1415.8	1354.8	1568.8	1755.9	1668.0	1271.8
42.5°	1696.5	1699.8	1713.6	1669.7	1600.5	1585.0	1522.4	1714.4	1984.6	1881.2	1418.2
45°	1817.8	1824.3	1816.1	1783.6	1724.2	1744.5	1709.5	1899.1	2241.7	2154.6	1590.7
47.5°	1996.0	2011.4	1999.2	1940.6	1868.2	1906.5	1881.2	2083.0	2532.2	2426.4	1777.9
50°	2162.8	2175.0	2188.0	2169.3	2096.9	2060.2	2029.3	2277.5	2781.2	2691.7	1961.8
52.5°	2180.7	2192.1	2263.7	2329.6	2377.6	2281.6	2184.7	2474.4	3011.4	2936.6	2130.2
55°	2064.3	2071.6	2191.2	2321.4	2541.9	2574.5	2413.4	2668.9	3204.3	3153.0	2243.3
57.5°	1740.5	1771.4	1941.4	2140.8	2501.3	2748.6	2738.0	2895.1	3329.6	3306.0	2389.0
60°	1143.2	1177.4	1380.8	1682.7	2201.8	2702.2	3094.4	3234.4	3505.3	3531.4	2644.5
62.5°	592.4	632.2	811.2	1078.9	1595.6	2353.2	3215.7	3791.7	3842.2	3930.9	3100.1
65°	338.5	346.6	436.1	632.2	987.8	1685.1	3070.0	4343.4	4285.6	4465.5	3681.9
67°	251.4	251.4	314.1	429.6	625.7	1145.7	2618.4	4459.8	4564.7	4659.9	3799.1
67.5°	225.4	237.6	291.3	396.3	561.4	1016.3	2450.0	4428.9	4582.6	4642.0	3758.4
70°	154.6	162.7	209.1	284.0	378.4	528.9	1606.2	3917.1	4415.0	4354.8	3406.1
72.5°	92.8	96.0	138.3	204.2	282.3	283.2	876.3	2973.2	3741.3	3740.5	2782.0
75°	57.8	61.0	81.4	136.7	197.7	177.4	405.2	2022.8	2686.8	2634.7	1864.1
77.5°	32.5	37.4	48.8	74.9	125.3	113.1	170.9	1133.5	1451.6	1362.1	926.0
80°	13.0	15.5	27.7	35.8	70.8	67.5	70.0	398.7	587.5	529.7	310.0
82.5°	3.3	4.1	9.8	17.1	27.7	27.7	22.0	109.0	139.1	129.4	79.7
85°	0.0	0.0	0.8	0.8	0.8	1.6	5.7	12.2	14.6	17.1	13.0
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	1.6	2.4	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9	502.9
2.5°	506.1	500.4	489.0	476.8	464.6	454.8	446.7	435.3	433.7	433.7	433.7
5°	516.7	503.7	477.6	451.6	425.6	402.0	384.9	371.0	358.8	354.8	358.0
7.5°	532.1	508.5	463.0	417.4	376.7	343.4	319.0	299.4	290.5	285.6	281.5
10°	552.5	515.9	443.5	376.7	325.5	285.6	259.6	240.8	231.9	226.2	227.0
12.5°	574.5	521.6	419.0	332.8	275.8	239.2	217.3	201.8	187.1	178.2	180.6
15°	596.4	525.6	388.9	292.1	237.6	205.0	174.1	146.5	136.7	135.1	134.3
17.5°	620.8	524.8	355.6	253.9	205.0	159.5	128.6	125.3	124.5	124.5	123.7
20°	646.1	520.8	317.3	222.1	172.5	121.2	116.4	114.7	112.3	111.5	110.7
22.5°	673.7	513.4	282.3	194.5	128.6	110.7	104.2	99.3	95.2	92.8	93.6
25°	699.0	499.6	248.2	168.4	109.8	99.3	90.3	83.0	78.9	75.7	76.5
27.5°	716.0	475.2	218.9	135.9	100.9	87.9	77.3	70.0	64.3	61.8	61.8
30°	717.7	440.2	192.8	111.5	91.9	77.3	65.9	57.8	54.5	52.9	52.1
32.5°	716.0	404.4	173.3	102.5	83.8	67.5	56.1	50.4	47.2	45.6	45.6
35°	724.2	367.8	155.4	94.4	74.9	59.4	49.6	43.9	41.5	39.9	39.9
37.5°	748.6	342.6	136.7	86.3	66.7	52.1	44.8	39.9	37.4	35.8	35.8
40°	781.9	321.4	113.9	78.1	58.6	47.2	40.7	36.6	33.4	31.7	31.7
42.5°	840.5	313.3	95.2	70.0	51.3	42.3	37.4	32.5	29.3	27.7	27.7
45°	927.6	317.3	87.1	62.7	46.4	38.2	33.4	28.5	25.2	24.4	24.4
47.5°	1023.6	334.4	81.4	56.1	42.3	35.8	30.1	25.2	22.0	21.2	21.2
50°	1131.0	361.3	76.5	49.6	38.2	32.5	26.9	22.0	19.5	18.7	18.7
52.5°	1233.5	395.4	71.6	44.8	35.8	29.3	23.6	19.5	17.9	17.1	17.1
55°	1311.7	417.4	67.5	41.5	33.4	26.9	21.2	18.7	16.3	15.5	15.5
57.5°	1420.7	454.0	62.7	37.4	30.1	24.4	19.5	17.1	14.6	14.6	14.6
60°	1642.0	552.5	55.3	34.2	26.9	22.0	18.7	15.5	13.8	13.0	13.0
62.5°	2040.7	715.2	48.0	31.7	23.6	19.5	16.3	13.8	12.2	10.6	10.6
65°	2424.8	782.8	40.7	27.7	21.2	17.1	14.6	12.2	9.0	7.3	7.3
67°	2403.6	669.7	34.2	23.6	17.9	15.5	12.2	9.8	6.5	4.1	4.1
67.5°	2346.7	623.3	33.4	22.8	17.1	14.6	12.2	9.0	5.7	3.3	3.3
70°	1994.3	436.1	26.0	17.9	14.6	13.0	9.8	6.5	3.3	1.6	1.6
72.5°	1620.0	345.8	20.3	14.6	12.2	9.8	8.1	4.1	2.4	0.8	0.8
75°	1145.7	212.4	17.9	13.0	9.8	7.3	6.5	4.1	2.4	1.6	0.8
77.5°	565.5	97.6	14.6	11.4	9.0	7.3	5.7	4.9	4.1	3.3	1.6
80°	166.0	31.7	9.8	8.1	8.1	7.3	6.5	5.7	4.9	4.1	2.4
82.5°	37.4	11.4	3.3	4.1	5.7	5.7	5.7	4.1	3.3	1.6	0.8
85°	4.9	2.4	2.4	2.4	3.3	3.3	2.4	1.6	1.6	0.0	0.0
87.5°	1.6	1.6	1.6	2.4	2.4	2.4	1.6	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)