

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: P400972

Luminaire Tested: **ENT-SA1A-740-U-T3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400972  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1A-740-U-T3  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2783 lumens  
Efficiency: N/A  
Efficacy: 138.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

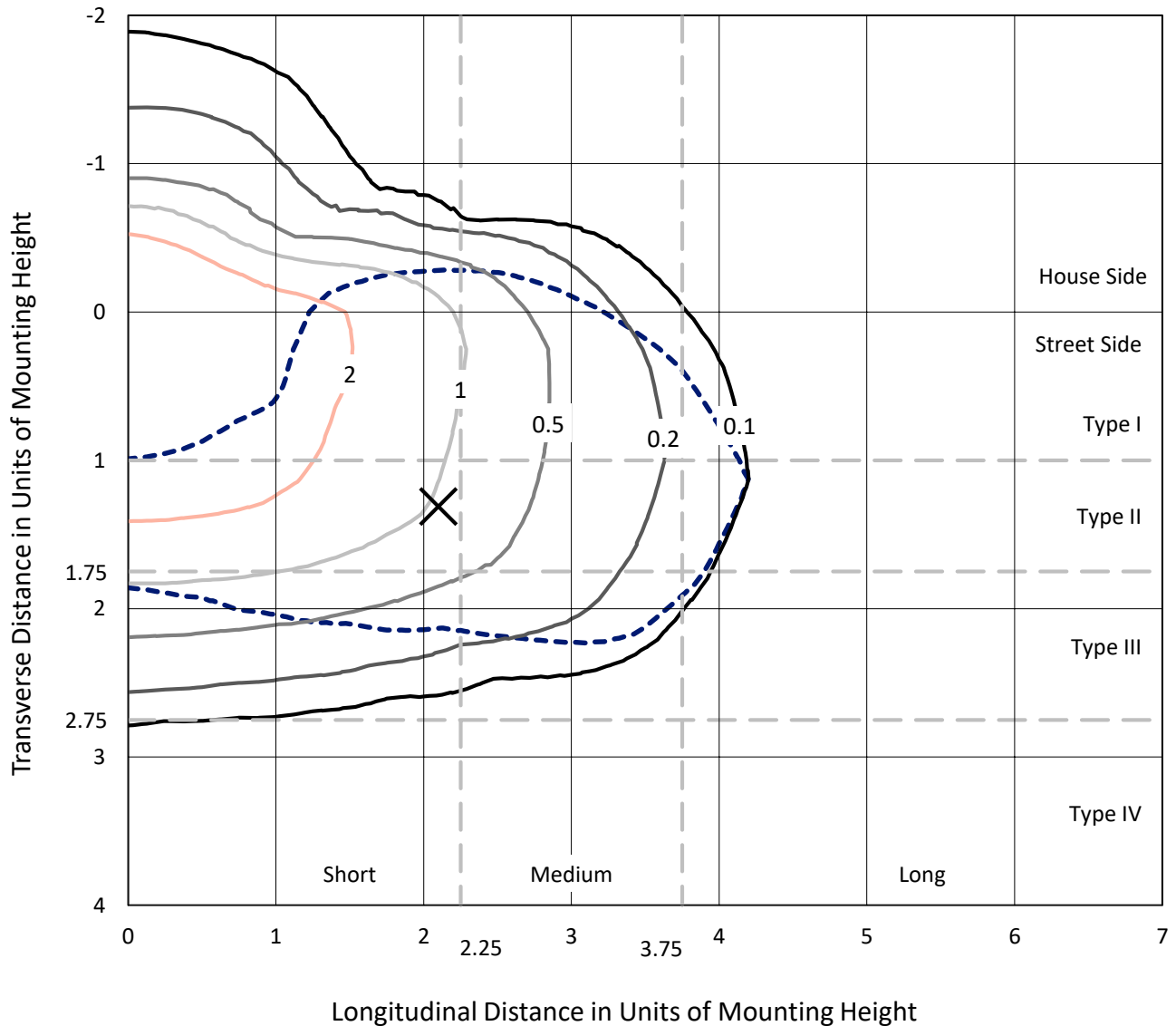
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

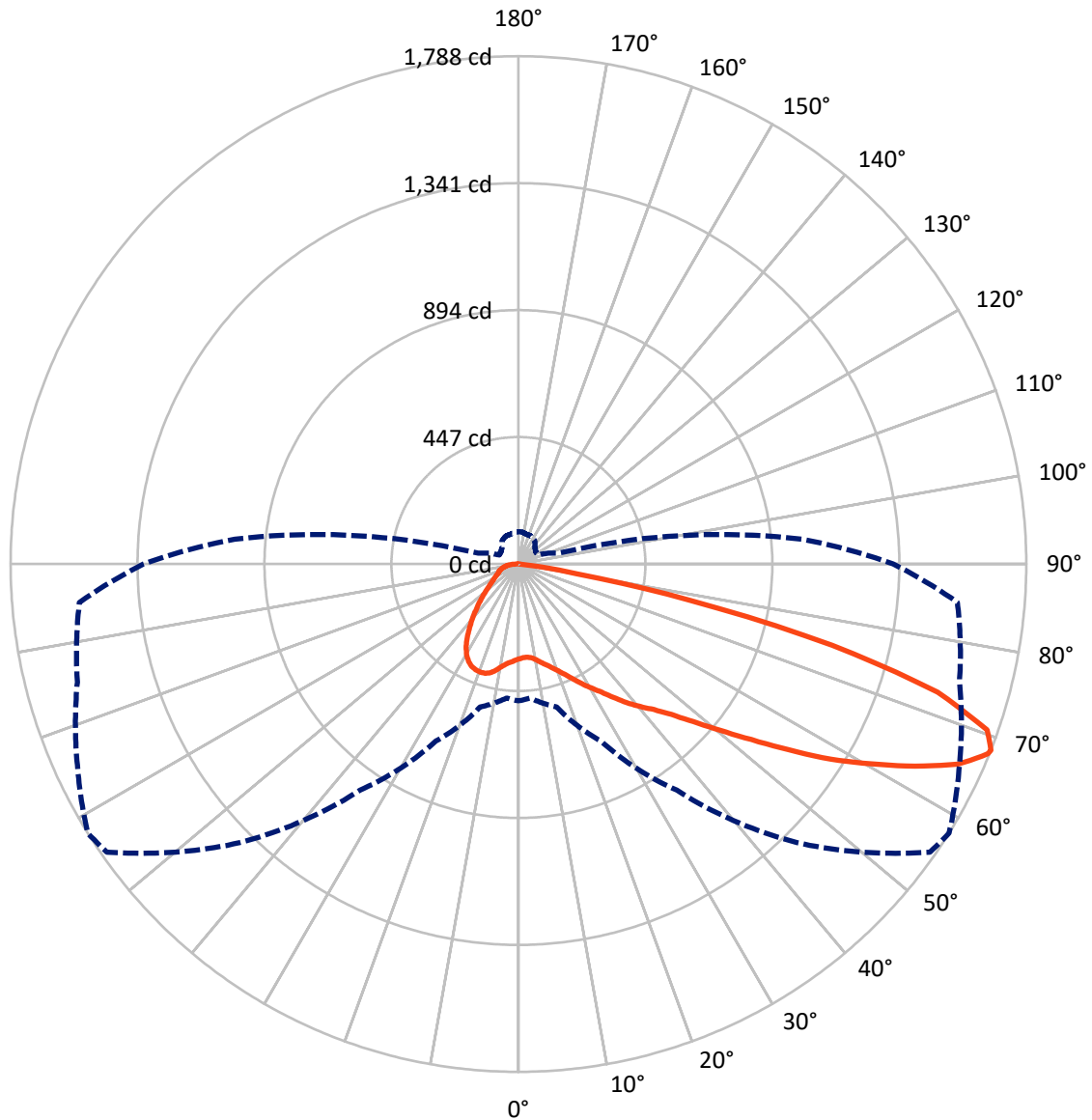
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	651.6	0.0	651.6
	% Fixture	23.4	0.0	23.4
<b>Street Side</b>	Lumens	2131.4	0.0	2131.4
	% Fixture	76.6	0.0	76.6
<b>Total</b>	Lumens	2783.0	0.0	2783.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.9	1.2
10°-20°	107.7	3.9
20°-30°	193.6	7.0
30°-40°	284.4	10.2
40°-50°	417.1	15.0
50°-60°	623.6	22.4
60°-70°	729.1	26.2
70°-80°	359.5	12.9
80°-90°	35.1	1.3
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°	2783.0	100.0
0°-180°	2783.0	100.0



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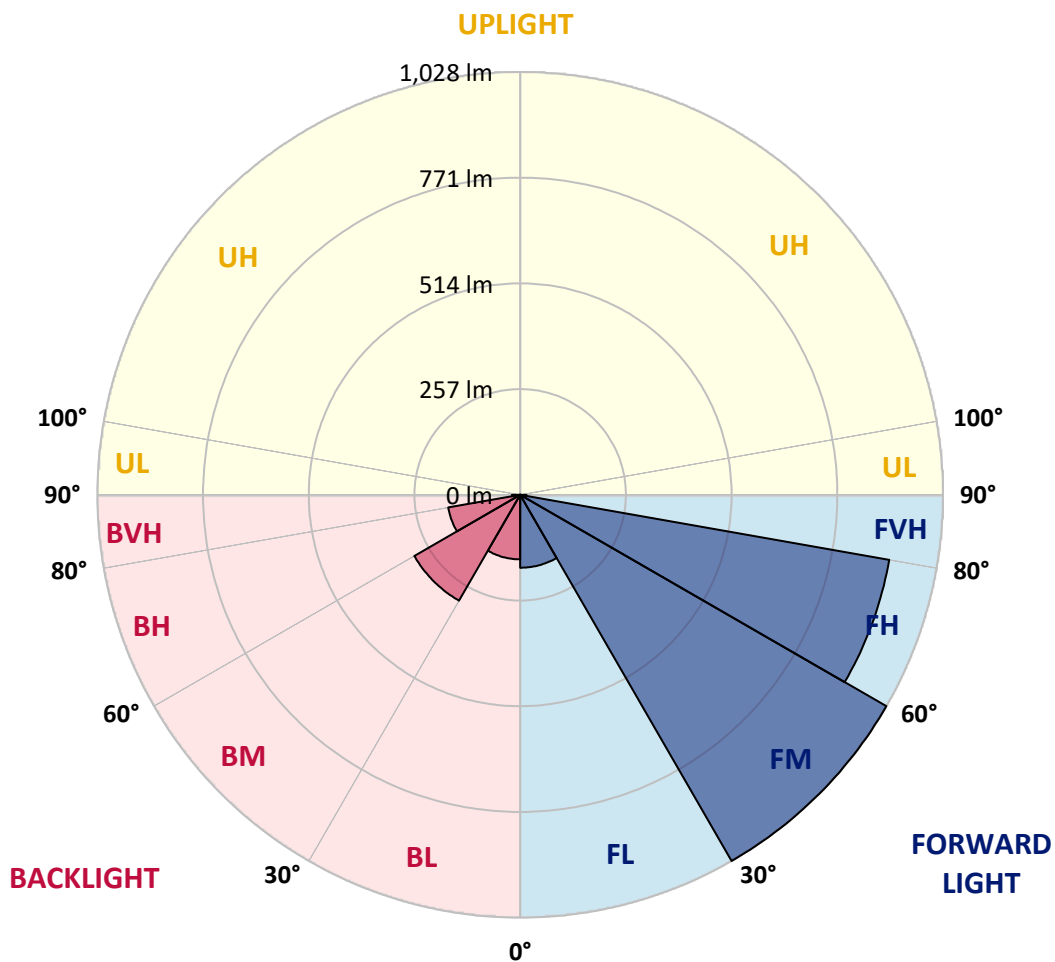
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	177.3	6.4			
FM (30°-60°)	1027.9	36.9			
FH (60°-80°)	911.0	32.7			G1/1800
FVH (80°-90°)	15.1	0.5			G1/100
BL (0°-30°)	156.9	5.6	B1/500		
BM (30°-60°)	297.2	10.7	B1/1000		
BH (60°-80°)	177.5	6.4	B1/500		G1/500
BVH (80°-90°)	20.0	0.7			G1/100
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°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	326.0	326.0	327.2	327.6	328.4	329.1	329.9	330.3	331.5	333.0	333.8
5°	323.3	323.7	324.5	324.9	326.0	327.6	328.8	329.5	331.5	334.6	336.5
7.5°	329.5	330.7	331.1	331.5	331.9	333.0	333.0	333.4	335.4	338.5	341.2
10°	339.6	340.4	341.6	342.7	343.9	344.7	342.4	342.7	343.5	346.6	350.5
12.5°	352.5	352.5	352.9	354.4	355.6	357.9	355.6	355.6	355.6	358.3	363.0
15°	366.8	366.1	366.1	367.6	368.0	369.6	368.4	368.4	370.0	372.7	377.3
17.5°	383.2	384.3	383.2	382.4	381.2	382.0	382.8	383.6	386.7	390.9	393.7
20°	406.9	408.8	408.0	404.9	399.9	397.5	400.3	401.8	408.0	413.1	413.5
22.5°	444.6	443.4	442.2	436.8	426.7	420.5	420.9	423.2	432.9	440.7	436.8
25°	479.5	480.7	480.7	472.9	459.7	446.9	448.1	449.2	458.9	465.9	455.4
27.5°	521.9	521.1	520.7	510.2	494.3	481.9	475.3	478.4	485.4	488.1	467.9
30°	565.8	568.9	565.8	551.0	535.9	520.0	506.7	506.0	509.5	509.1	482.6
32.5°	618.7	615.9	614.8	597.7	578.6	557.6	540.9	538.2	536.3	533.6	500.1
35°	659.5	663.0	663.0	648.2	625.7	605.1	579.0	576.7	572.0	563.1	523.1
37.5°	707.7	706.9	709.6	692.5	670.0	650.1	626.0	619.4	608.9	595.7	550.3
40°	754.7	756.6	762.8	742.2	721.6	706.1	671.9	659.9	643.9	631.9	589.9
42.5°	818.8	821.5	823.8	806.7	782.3	768.3	715.4	700.3	691.3	689.0	642.4
45°	896.5	901.2	903.1	887.6	873.6	840.2	770.2	756.2	746.5	756.6	713.9
47.5°	971.1	968.8	977.7	977.3	978.9	938.9	849.1	828.1	818.8	844.4	795.9
50°	1013.1	1016.6	1036.0	1055.8	1083.4	1054.7	940.4	919.4	908.6	940.4	892.2
52.5°	1034.9	1039.5	1065.6	1121.1	1179.8	1166.2	1050.4	1027.1	1017.8	1048.8	995.6
55°	1036.8	1039.5	1074.5	1160.8	1253.3	1257.5	1175.9	1153.8	1140.9	1161.2	1108.3
57.5°	1004.5	996.4	1056.6	1166.6	1300.3	1352.7	1313.9	1297.9	1261.8	1283.6	1248.2
60°	947.0	955.2	1014.3	1142.5	1320.1	1427.0	1452.2	1428.1	1386.2	1395.1	1399.0
62.5°	860.0	870.5	931.9	1086.5	1304.2	1489.9	1580.1	1568.0	1511.7	1507.0	1514.0
65°	736.0	729.8	798.2	964.1	1228.8	1510.9	1705.6	1700.5	1633.3	1578.5	1581.2
67.5°	530.8	525.0	572.8	744.2	1024.8	1432.8	1772.4	1783.7	1706.8	1610.0	1568.0
68°	481.9	473.7	521.5	687.8	972.3	1387.7	1768.9	1788.4	1712.2	1608.0	1551.7
70°	277.5	264.3	310.5	448.8	715.8	1168.1	1697.4	1751.1	1699.4	1570.4	1444.8
72.5°	87.0	87.0	120.1	181.5	351.3	739.1	1452.2	1543.5	1554.4	1427.3	1200.8
75°	54.4	54.4	62.6	85.9	139.9	313.6	1001.8	1140.9	1235.0	1201.6	875.5
77.5°	36.9	36.1	41.6	53.2	78.1	100.6	502.9	617.9	755.4	820.3	512.2
80°	20.2	20.6	25.6	31.9	44.3	46.6	147.7	208.7	332.6	389.8	194.3
82.5°	11.7	11.3	12.4	14.0	19.4	20.2	42.4	52.1	87.0	80.8	52.1
85°	0.0	0.4	0.4	0.4	0.8	1.9	5.4	8.2	13.2	18.3	12.8
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	0.8	0.8	1.2
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°	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2	334.2
2.5°	334.6	335.8	337.7	339.3	340.0	339.3	342.0	341.6	342.4	342.4	343.1
5°	338.1	339.6	343.1	345.1	347.0	347.8	350.9	351.7	353.2	354.0	353.6
7.5°	343.1	345.1	349.4	352.9	355.6	357.5	362.6	364.9	367.2	368.0	368.8
10°	352.5	355.2	359.8	364.1	368.0	370.7	375.0	378.1	380.4	381.2	382.0
12.5°	364.9	368.0	373.8	379.7	383.9	385.5	385.1	384.3	384.3	383.9	384.3
15°	379.3	382.4	389.8	395.2	395.6	390.5	383.6	380.1	379.3	379.3	379.7
17.5°	396.0	399.9	404.5	407.6	400.3	387.8	379.7	376.2	375.4	375.0	374.2
20°	415.0	417.4	418.9	415.0	398.7	384.3	375.0	370.0	366.1	365.7	364.1
22.5°	435.2	434.5	432.5	418.5	394.4	376.2	363.3	354.0	349.0	348.6	347.0
25°	450.0	446.9	441.1	419.3	386.7	363.0	344.7	329.9	323.3	320.2	321.0
27.5°	459.7	453.1	443.0	415.4	373.1	342.7	317.1	297.7	288.0	286.4	287.6
30°	471.4	460.9	444.6	405.7	353.6	314.4	281.0	261.5	256.1	253.4	254.1
32.5°	485.4	471.8	449.6	390.9	329.1	281.4	245.2	231.6	225.4	220.3	221.9
35°	503.6	486.5	457.8	370.0	298.1	246.4	219.6	207.1	195.9	190.4	190.8
37.5°	525.0	505.6	464.8	345.5	264.3	220.0	197.4	182.6	168.7	158.2	156.2
40°	559.2	543.3	470.6	318.3	232.0	198.2	175.6	158.9	145.7	135.2	134.1
42.5°	616.3	588.7	471.0	285.6	204.4	179.5	157.8	139.5	124.7	115.8	115.4
45°	683.6	640.8	462.8	250.7	180.3	160.9	141.8	121.2	112.7	106.9	106.1
47.5°	763.2	700.7	445.0	218.0	159.7	142.6	125.5	113.1	106.9	102.6	102.6
50°	854.2	771.0	427.1	190.0	139.9	127.9	116.2	109.6	104.9	101.0	100.6
52.5°	956.7	854.2	421.2	161.7	123.6	114.2	113.1	106.9	103.0	100.3	99.5
55°	1079.2	947.4	426.7	139.5	110.8	108.8	111.1	106.1	103.4	99.1	97.9
57.5°	1220.6	1038.4	420.9	120.9	101.8	103.8	108.8	106.1	103.8	98.3	96.8
60°	1353.9	1119.6	381.2	105.3	93.3	97.5	105.7	102.6	99.1	97.9	97.2
62.5°	1425.4	1146.0	303.9	93.3	86.7	91.3	100.6	96.8	94.4	97.2	97.5
65°	1426.2	1116.1	223.4	84.3	81.2	85.9	95.6	94.4	96.0	102.2	103.4
67.5°	1346.9	1025.1	157.8	76.2	75.8	81.6	97.9	105.7	106.9	113.1	113.1
68°	1319.7	1002.6	146.5	75.0	74.6	81.6	99.9	107.6	108.4	114.2	113.9
70°	1170.5	847.5	106.1	70.3	72.7	87.4	110.4	113.1	108.4	115.0	114.6
72.5°	914.8	626.8	79.3	65.3	69.2	86.3	111.1	108.4	101.4	103.0	101.0
75°	618.3	399.5	65.3	59.8	61.4	73.1	101.0	102.2	94.0	92.5	90.2
77.5°	323.7	187.3	52.9	53.2	54.8	63.3	90.2	92.9	85.5	80.8	80.1
80°	119.3	74.2	43.1	47.0	47.8	55.6	77.3	81.6	74.6	71.1	70.3
82.5°	43.5	36.9	35.8	41.2	40.4	47.4	67.6	70.7	63.3	59.8	57.9
85°	12.0	13.6	22.5	32.3	31.5	36.9	54.4	57.1	50.9	42.0	40.8
87.5°	0.8	2.7	8.9	19.0	19.8	22.9	39.2	43.1	37.7	31.1	30.7
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)