

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: P400836

Luminaire Tested: **ENT-SA1-760-U-T4W-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400836
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-760-U-T4W-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 772 lumens
Efficiency: N/A
Efficacy: 59.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

Input Watts (W): 13
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

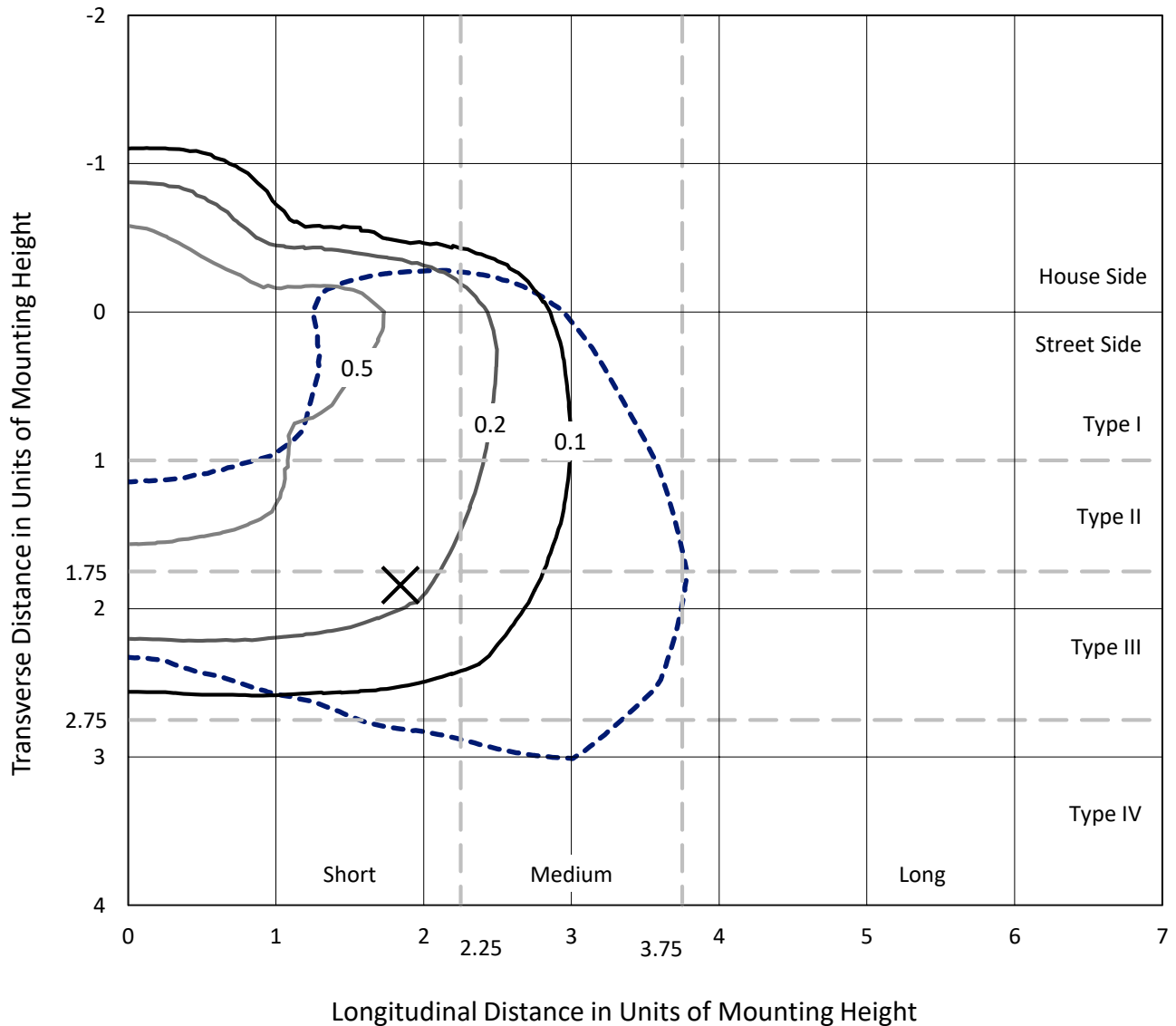


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Iso-Footcandle Lines of Horizontal Illumination

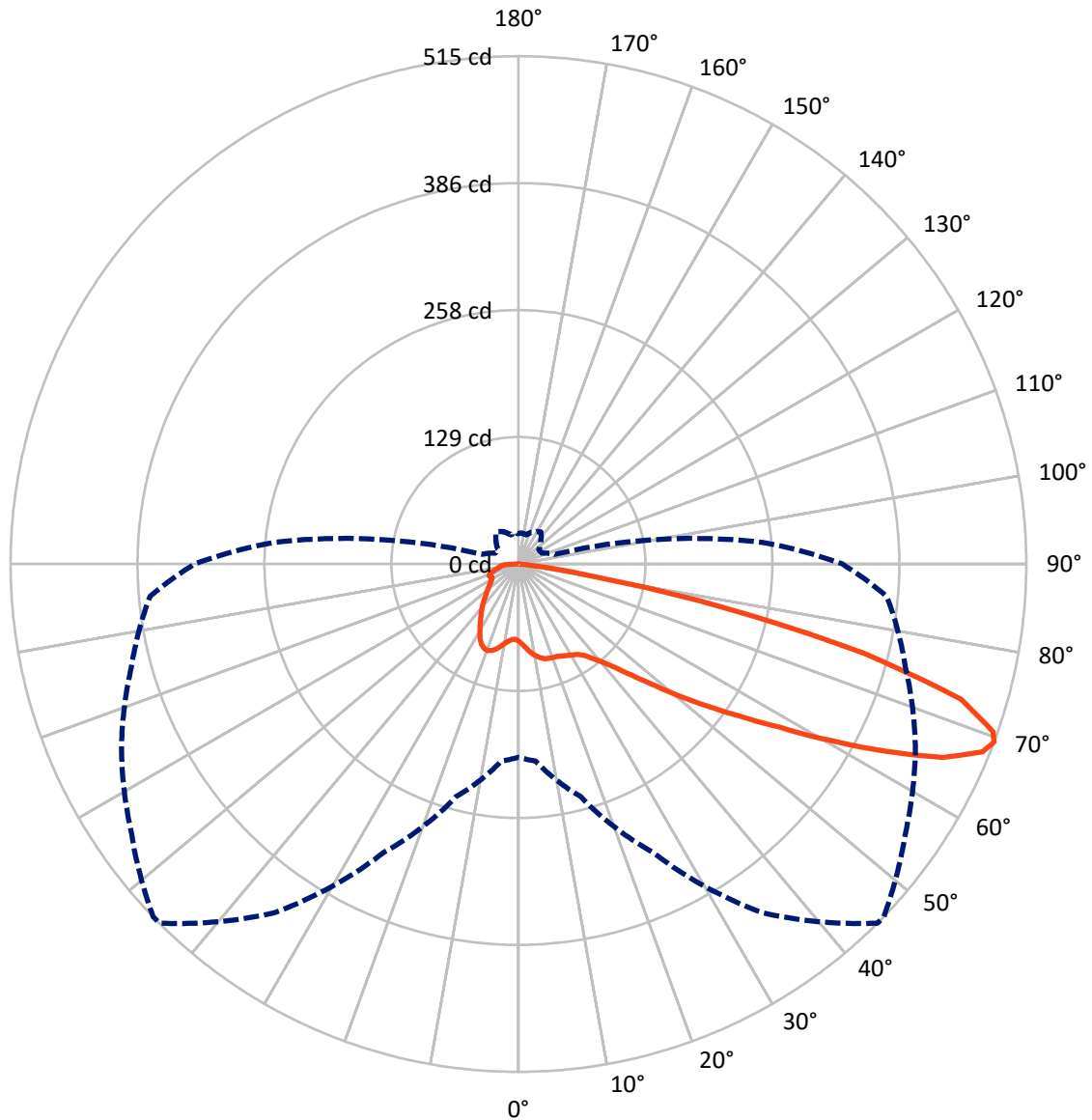
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	181.8	0.0	181.8
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	590.2	0.0	590.2
	% Fixture	76.5	0.0	76.5
Total	Lumens	772.0	0.0	772.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.0	1.0
10°-20°	26.5	3.4
20°-30°	44.7	5.8
30°-40°	64.7	8.4
40°-50°	97.7	12.7
50°-60°	164.7	21.3
60°-70°	226.6	29.3
70°-80°	125.6	16.3
80°-90°	13.7	1.8
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°	772.0	100.0
0°-180°	772.0	100.0



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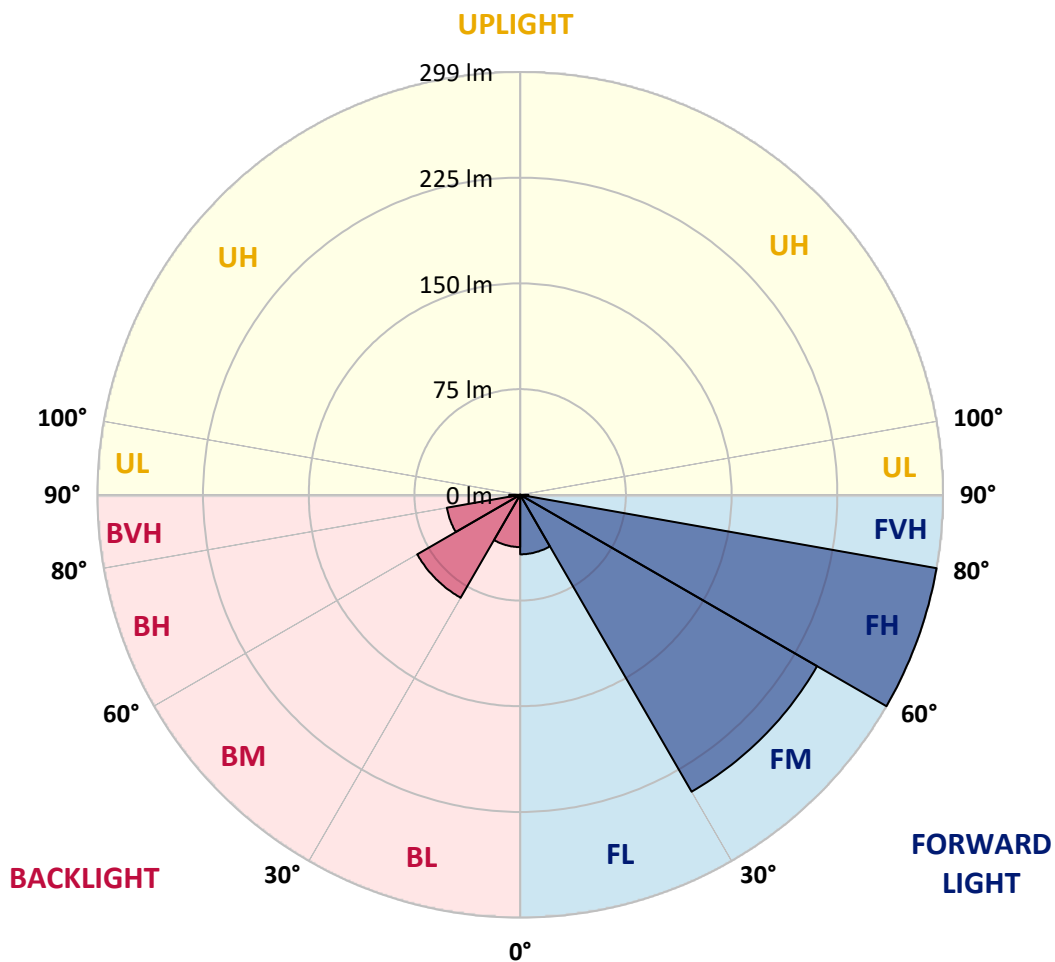
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	42.1	5.5			
FM	(30°-60°)	242.8	31.5			
FH	(60°-80°)	299.4	38.8			G0/660
FVH	(80°-90°)	5.8	0.8			G0/10
BL	(0°-30°)	37.0	4.8	B0/110		
BM	(30°-60°)	84.3	10.9	B0/220		
BH	(60°-80°)	52.7	6.8	B0/110		G0/110
BVH	(80°-90°)	7.8	1.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
2.5°	83.3	83.2	83.3	82.9	82.4	81.8	81.5	80.8	80.2	79.5	78.8
5°	89.4	89.8	89.7	89.1	87.4	86.0	86.0	84.4	82.6	81.0	79.5
7.5°	96.1	96.1	95.5	94.4	92.6	90.7	90.4	88.2	85.7	83.4	81.0
10°	101.0	101.2	100.2	98.7	96.5	94.4	94.2	91.6	89.2	86.3	83.3
12.5°	104.4	104.4	103.5	102.1	99.4	97.5	97.2	94.9	92.4	89.3	85.9
15°	106.1	105.9	105.1	103.6	101.3	99.7	99.3	97.3	95.3	92.2	88.6
17.5°	105.8	105.8	105.1	103.6	102.0	100.6	100.4	99.0	97.5	94.5	90.9
20°	104.4	104.3	104.0	102.8	101.7	101.2	101.0	100.3	99.3	96.8	93.4
22.5°	103.1	102.9	102.6	101.8	101.4	101.7	101.7	101.6	101.5	99.5	96.2
25°	103.8	103.7	103.1	102.0	101.8	103.4	103.5	103.8	104.0	102.4	99.0
27.5°	109.2	108.9	107.0	104.2	103.2	105.1	105.4	106.3	106.1	104.4	101.4
30°	119.7	119.8	115.7	109.5	106.2	107.1	107.2	108.3	108.0	106.6	104.2
32.5°	135.6	135.6	128.8	119.5	111.2	109.4	109.1	110.1	111.4	109.5	107.1
35°	155.8	155.3	147.1	132.7	119.6	113.4	113.1	112.7	115.0	113.3	109.7
37.5°	176.1	174.2	166.2	150.4	131.5	121.1	120.2	118.9	120.2	116.4	113.4
40°	192.5	192.2	185.6	169.6	145.5	130.4	129.7	123.9	124.8	121.8	120.6
42.5°	210.5	210.7	206.3	190.2	162.3	143.0	141.2	132.2	134.8	133.7	133.1
45°	230.3	230.0	226.7	209.8	182.8	160.6	158.4	147.3	152.4	151.8	154.9
47.5°	245.4	246.6	244.7	232.8	207.2	181.9	180.2	166.7	174.5	179.8	185.6
50°	266.0	265.9	260.9	255.9	235.5	209.1	207.4	192.4	203.6	211.3	221.9
52.5°	291.6	290.7	280.3	278.5	270.0	238.8	237.4	221.7	237.7	244.4	266.0
55°	307.6	307.5	302.1	305.2	305.4	272.0	270.2	256.3	274.4	282.1	314.8
57.5°	321.0	321.1	325.6	336.4	343.6	312.2	311.6	294.6	312.9	323.6	362.3
60°	331.3	333.5	346.1	370.7	382.8	363.6	360.7	342.7	355.0	359.3	398.6
62.5°	327.2	330.0	354.8	391.0	422.1	418.0	417.0	391.0	390.9	388.7	425.7
65°	294.2	300.4	339.4	390.3	448.0	473.3	471.9	436.6	424.3	413.3	433.8
67.5°	240.8	242.1	289.2	360.4	447.8	508.1	506.6	469.7	445.0	418.1	410.0
69°	196.0	200.8	244.4	322.7	432.0	515.2	515.2	478.9	444.3	406.6	375.1
70°	169.6	169.8	211.8	292.6	410.5	511.0	512.0	478.9	438.0	391.6	344.2
72.5°	79.5	84.4	111.0	191.0	331.5	469.7	472.1	447.3	401.7	337.4	258.2
75°	23.8	24.7	37.0	90.5	190.0	361.8	367.2	372.2	327.2	248.4	159.0
77.5°	14.2	14.0	17.9	30.7	87.9	214.6	217.0	238.0	212.3	138.1	72.2
80°	6.9	7.1	9.5	14.9	32.9	77.9	85.7	111.3	94.1	54.0	26.4
82.5°	2.3	2.5	4.0	6.0	13.9	25.1	27.8	34.9	30.1	19.6	11.3
85°	0.0	0.0	0.1	0.2	0.8	1.9	1.9	4.2	6.3	6.9	3.7
87.5°	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
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°	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
2.5°	78.5	78.3	77.8	77.4	77.2	76.6	76.7	76.5	76.4	76.4	76.5
5°	78.7	78.4	77.7	77.3	76.8	76.6	77.2	77.4	77.6	77.6	77.7
7.5°	80.0	79.3	78.6	78.0	78.1	78.5	79.3	80.0	80.3	80.6	80.8
10°	82.2	81.4	80.3	80.2	80.4	81.3	82.5	83.5	84.4	84.9	84.9
12.5°	84.5	83.5	82.6	82.9	83.8	85.2	86.4	87.5	88.2	88.8	88.9
15°	87.0	86.0	85.2	85.7	87.4	88.9	90.0	90.4	90.8	91.3	91.4
17.5°	89.3	88.5	87.7	89.1	90.5	91.7	92.1	91.9	91.4	91.7	92.0
20°	91.7	91.0	90.5	92.1	93.1	93.2	92.3	91.3	90.2	90.2	90.3
22.5°	94.7	93.7	93.5	94.3	93.9	92.6	90.4	88.9	87.4	87.1	87.5
25°	97.6	96.6	96.5	95.9	93.1	89.7	86.7	84.9	83.7	83.8	84.5
27.5°	100.4	99.8	99.9	96.9	90.5	85.4	81.4	80.0	80.3	80.6	81.2
30°	103.3	103.3	103.7	96.9	87.0	79.3	75.6	75.5	76.4	77.0	77.8
32.5°	106.6	107.6	106.8	95.7	82.3	73.2	70.2	70.5	71.4	72.5	73.2
35°	109.7	112.1	109.9	93.0	75.8	67.6	65.2	64.9	65.6	66.6	66.9
37.5°	114.8	118.5	112.5	88.7	69.1	62.7	60.3	59.4	58.6	59.4	59.3
40°	123.6	128.1	114.5	81.5	62.7	58.1	55.5	53.9	52.0	50.4	50.4
42.5°	137.6	140.6	115.6	72.9	56.2	53.4	50.9	48.5	45.7	42.7	42.7
45°	160.6	161.2	116.0	63.7	50.3	48.8	46.2	43.9	40.2	37.2	36.5
47.5°	191.2	188.3	117.1	54.8	45.1	44.8	42.6	39.9	35.9	33.1	32.8
50°	232.3	220.0	121.9	47.6	40.9	41.3	39.6	36.5	32.7	30.7	30.3
52.5°	278.6	260.1	125.7	41.9	37.3	38.3	37.1	34.1	30.8	29.2	28.9
55°	329.2	298.6	124.8	38.1	34.6	35.7	35.2	32.7	29.7	28.3	28.0
57.5°	370.5	325.7	117.1	34.7	31.8	33.4	33.8	31.8	29.1	27.8	27.4
60°	401.5	340.5	101.3	31.8	29.6	31.5	32.7	31.3	29.0	28.2	27.9
62.5°	415.5	339.2	80.8	29.6	28.0	30.2	32.8	32.2	30.6	31.2	31.3
65°	407.6	322.7	60.6	28.0	27.0	30.4	34.7	34.7	32.4	33.4	33.5
67.5°	367.1	279.3	44.1	26.8	26.0	31.5	38.2	36.0	31.6	32.4	32.0
69°	328.6	249.9	37.9	26.1	25.2	32.0	39.7	36.2	30.7	31.6	30.7
70°	300.3	223.3	34.0	25.6	24.9	32.0	40.2	36.0	30.3	30.9	30.0
72.5°	213.7	155.1	28.0	24.5	23.7	29.6	39.4	34.8	29.1	28.3	26.4
75°	124.2	85.7	23.8	23.3	21.0	26.0	37.4	33.5	27.9	26.4	25.1
77.5°	52.1	38.3	20.3	21.2	18.5	23.2	35.0	32.2	26.4	24.5	23.8
80°	21.2	19.1	16.9	18.3	16.1	20.4	32.3	30.0	24.4	22.4	21.4
82.5°	11.1	10.5	13.0	14.8	13.4	18.8	30.4	28.4	22.6	20.6	19.4
85°	3.3	4.4	7.4	10.1	10.2	16.9	29.5	26.3	19.6	17.0	16.8
87.5°	0.2	0.9	2.5	5.3	6.7	13.0	23.9	21.6	15.9	13.4	13.5
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)