

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: P400724

Luminaire Tested: **ENT-SA1-727-U-T3-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400724
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-SA1-727-U-T3-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 657 lumens
Efficiency: N/A
Efficacy: 50.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: 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

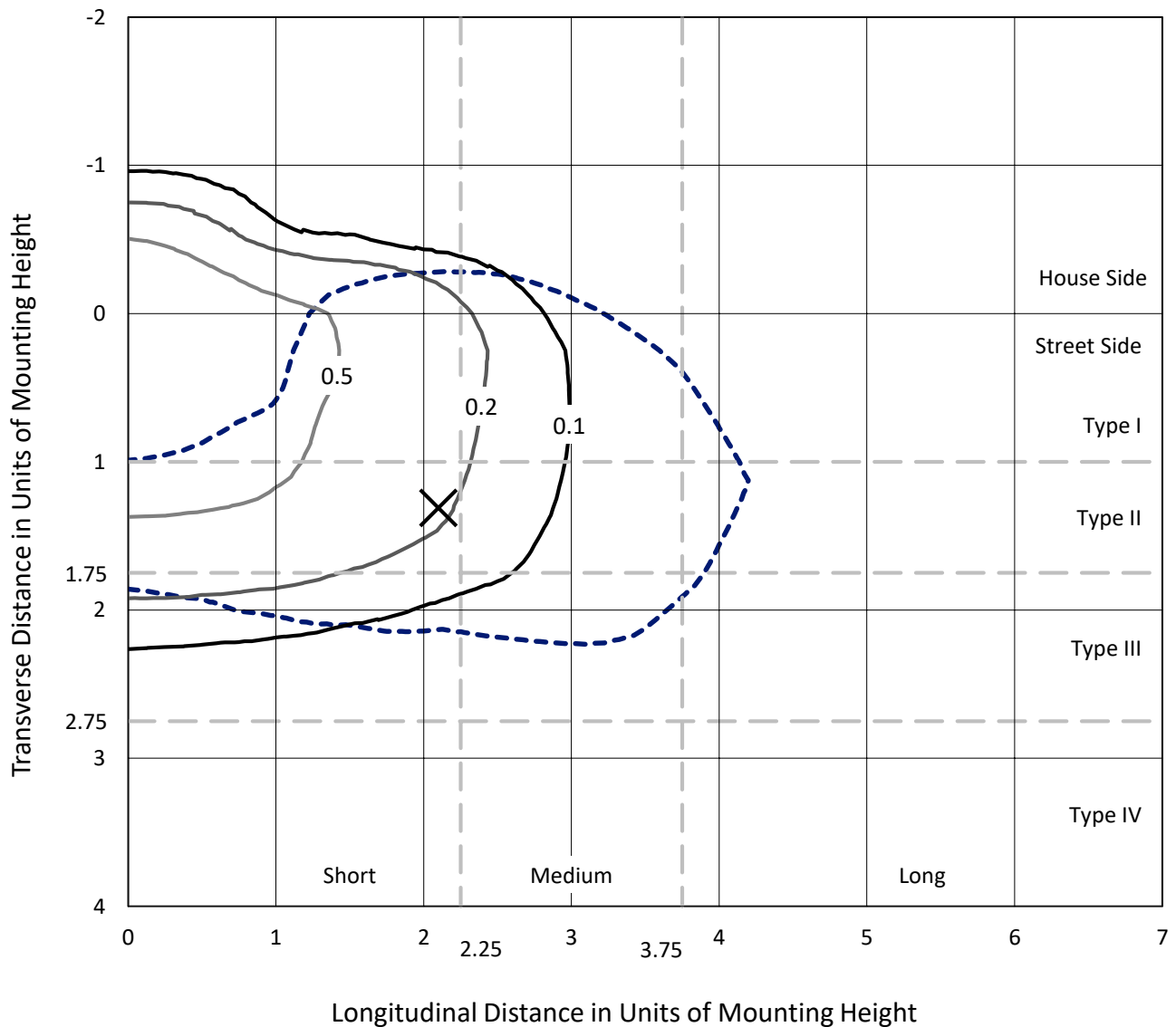


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Iso-Footcandle Lines of Horizontal Illumination

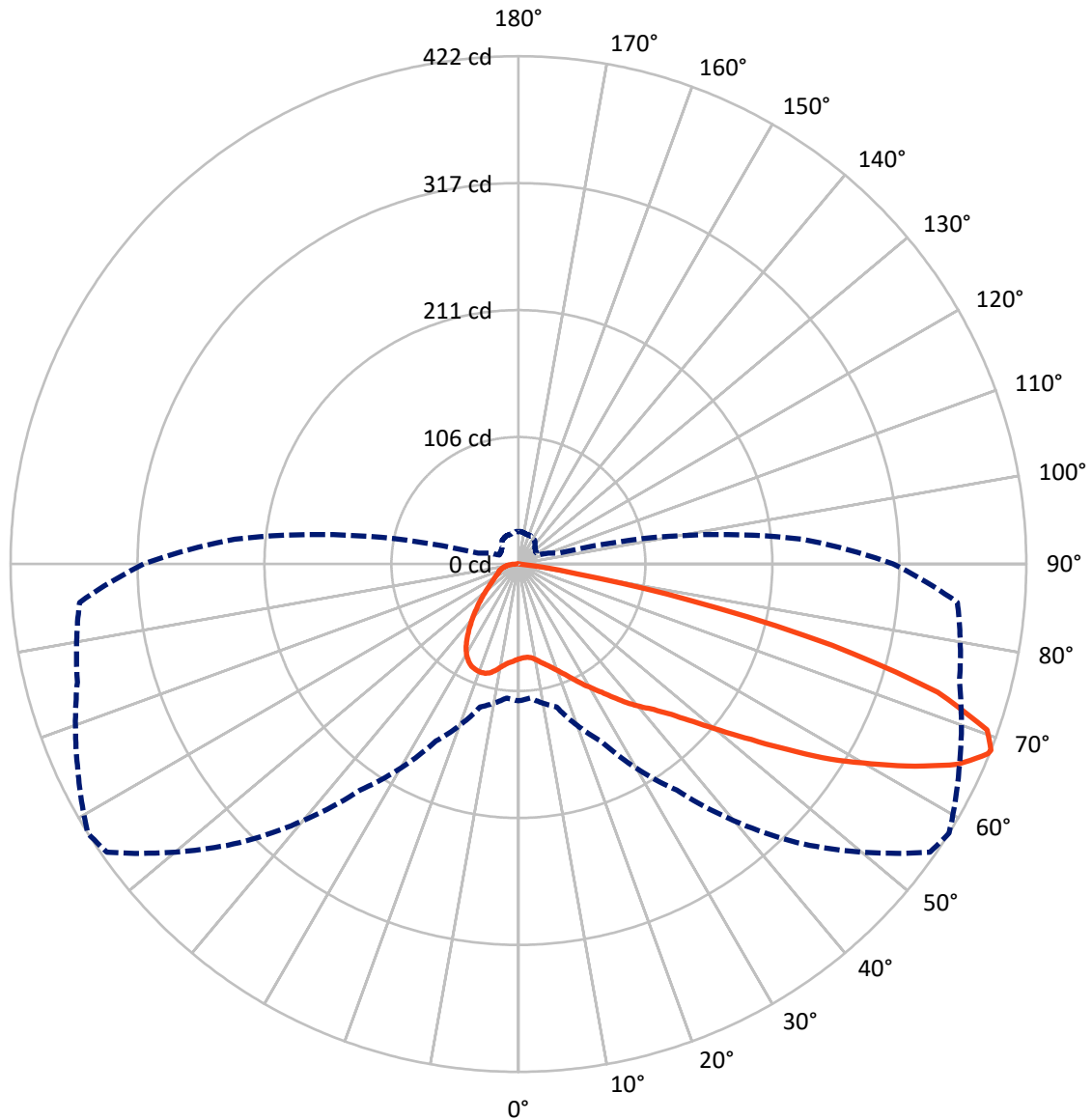
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 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
House Side	Lumens	153.8	0.0	153.8
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	503.2	0.0	503.2
	% Fixture	76.6	0.0	76.6
Total	Lumens	657.0	0.0	657.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.8	1.2
10°-20°	25.4	3.9
20°-30°	45.7	7.0
30°-40°	67.1	10.2
40°-50°	98.5	15.0
50°-60°	147.2	22.4
60°-70°	172.1	26.2
70°-80°	84.9	12.9
80°-90°	8.3	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°	657.0	100.0
0°-180°	657.0	100.0



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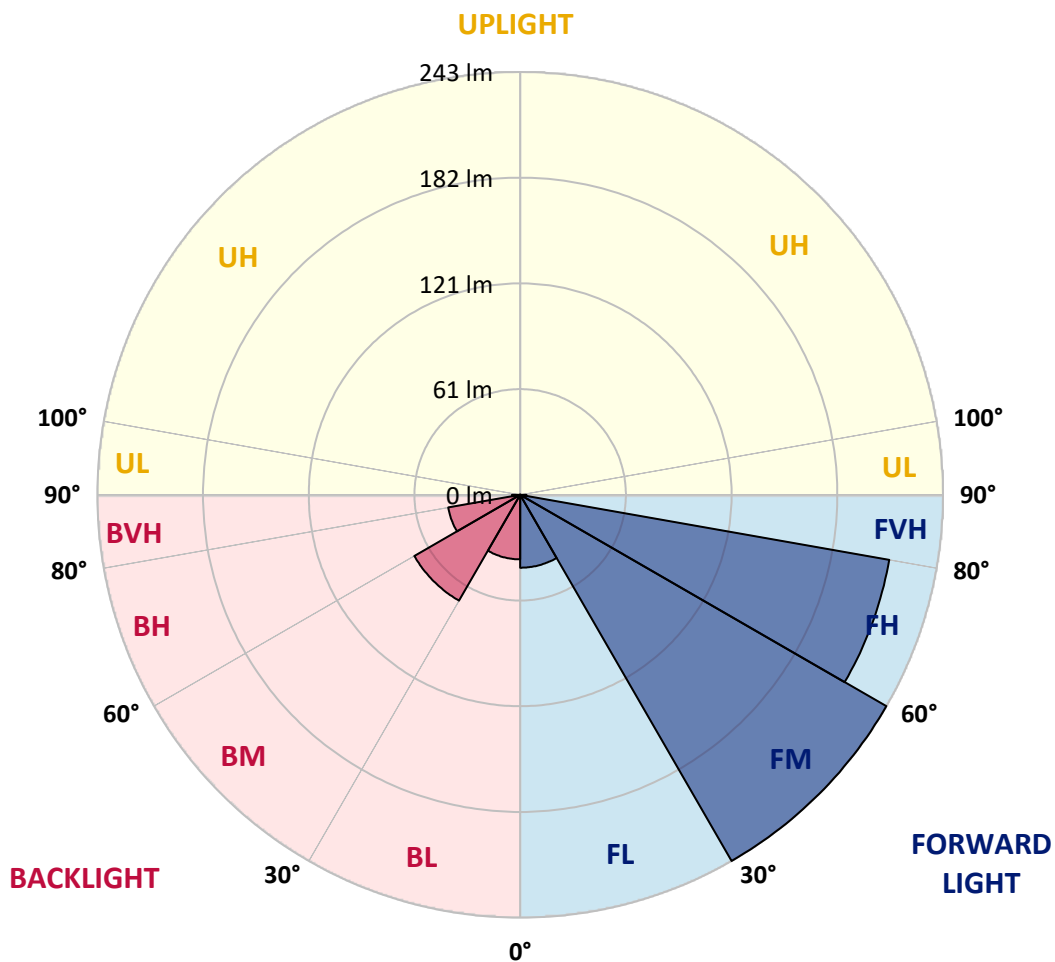
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	41.9	6.4			
FM (30°-60°)	242.7	36.9			
FH (60°-80°)	215.1	32.7			G0/660
FVH (80°-90°)	3.6	0.5			G0/10
BL (0°-30°)	37.0	5.6	B0/110		
BM (30°-60°)	70.2	10.7	B0/220		
BH (60°-80°)	41.9	6.4	B0/110		G0/110
BVH (80°-90°)	4.7	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
2.5°	77.0	77.0	77.2	77.3	77.5	77.7	77.9	78.0	78.3	78.6	78.8
5°	76.3	76.4	76.6	76.7	77.0	77.3	77.6	77.8	78.3	79.0	79.4
7.5°	77.8	78.1	78.2	78.3	78.3	78.6	78.6	78.7	79.2	79.9	80.5
10°	80.2	80.4	80.6	80.9	81.2	81.4	80.8	80.9	81.1	81.8	82.7
12.5°	83.2	83.2	83.3	83.7	83.9	84.5	83.9	83.9	83.9	84.6	85.7
15°	86.6	86.4	86.4	86.8	86.9	87.2	87.0	87.0	87.3	88.0	89.1
17.5°	90.5	90.7	90.5	90.3	90.0	90.2	90.4	90.5	91.3	92.3	92.9
20°	96.1	96.5	96.3	95.6	94.4	93.9	94.5	94.9	96.3	97.5	97.6
22.5°	105.0	104.7	104.4	103.1	100.7	99.3	99.4	99.9	102.2	104.0	103.1
25°	113.2	113.5	113.5	111.6	108.5	105.5	105.8	106.1	108.3	110.0	107.5
27.5°	123.2	123.0	122.9	120.5	116.7	113.8	112.2	112.9	114.6	115.2	110.5
30°	133.6	134.3	133.6	130.1	126.5	122.7	119.6	119.4	120.3	120.2	113.9
32.5°	146.1	145.4	145.1	141.1	136.6	131.6	127.7	127.1	126.6	126.0	118.1
35°	155.7	156.5	156.5	153.0	147.7	142.8	136.7	136.1	135.0	132.9	123.5
37.5°	167.1	166.9	167.5	163.5	158.2	153.5	147.8	146.2	143.8	140.6	129.9
40°	178.2	178.6	180.1	175.2	170.4	166.7	158.6	155.8	152.0	149.2	139.3
42.5°	193.3	193.9	194.5	190.5	184.7	181.4	168.9	165.3	163.2	162.7	151.6
45°	211.6	212.7	213.2	209.5	206.2	198.3	181.8	178.5	176.2	178.6	168.5
47.5°	229.3	228.7	230.8	230.7	231.1	221.6	200.5	195.5	193.3	199.4	187.9
50°	239.2	240.0	244.6	249.3	255.8	249.0	222.0	217.1	214.5	222.0	210.6
52.5°	244.3	245.4	251.6	264.7	278.5	275.3	248.0	242.5	240.3	247.6	235.0
55°	244.8	245.4	253.7	274.0	295.9	296.9	277.6	272.4	269.3	274.1	261.6
57.5°	237.1	235.2	249.4	275.4	307.0	319.3	310.2	306.4	297.9	303.0	294.7
60°	223.6	225.5	239.4	269.7	311.6	336.9	342.8	337.1	327.2	329.3	330.3
62.5°	203.0	205.5	220.0	256.5	307.9	351.7	373.0	370.2	356.9	355.8	357.4
65°	173.8	172.3	188.4	227.6	290.1	356.7	402.6	401.5	385.6	372.6	373.3
67.5°	125.3	123.9	135.2	175.7	241.9	338.2	418.4	421.1	402.9	380.1	370.2
68°	113.8	111.8	123.1	162.4	229.5	327.6	417.6	422.2	404.2	379.6	366.3
70°	65.5	62.4	73.3	106.0	169.0	275.8	400.7	413.4	401.2	370.7	341.1
72.5°	20.5	20.5	28.3	42.8	82.9	174.5	342.8	364.4	367.0	337.0	283.5
75°	12.8	12.8	14.8	20.3	33.0	74.0	236.5	269.3	291.6	283.7	206.7
77.5°	8.7	8.5	9.8	12.6	18.4	23.8	118.7	145.9	178.3	193.7	120.9
80°	4.8	4.9	6.1	7.5	10.5	11.0	34.9	49.3	78.5	92.0	45.9
82.5°	2.8	2.7	2.9	3.3	4.6	4.8	10.0	12.3	20.5	19.1	12.3
85°	0.0	0.1	0.1	0.1	0.2	0.5	1.3	1.9	3.1	4.3	3.0
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	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°	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
2.5°	79.0	79.3	79.7	80.1	80.3	80.1	80.7	80.6	80.8	80.8	81.0
5°	79.8	80.2	81.0	81.5	81.9	82.1	82.8	83.0	83.4	83.6	83.5
7.5°	81.0	81.5	82.5	83.3	83.9	84.4	85.6	86.1	86.7	86.9	87.1
10°	83.2	83.9	85.0	86.0	86.9	87.5	88.5	89.3	89.8	90.0	90.2
12.5°	86.1	86.9	88.3	89.6	90.6	91.0	90.9	90.7	90.7	90.6	90.7
15°	89.5	90.3	92.0	93.3	93.4	92.2	90.5	89.7	89.5	89.5	89.6
17.5°	93.5	94.4	95.5	96.2	94.5	91.6	89.6	88.8	88.6	88.5	88.3
20°	98.0	98.5	98.9	98.0	94.1	90.7	88.5	87.3	86.4	86.3	86.0
22.5°	102.7	102.6	102.1	98.8	93.1	88.8	85.8	83.6	82.4	82.3	81.9
25°	106.2	105.5	104.1	99.0	91.3	85.7	81.4	77.9	76.3	75.6	75.8
27.5°	108.5	107.0	104.6	98.1	88.1	80.9	74.9	70.3	68.0	67.6	67.9
30°	111.3	108.8	105.0	95.8	83.5	74.2	66.3	61.7	60.5	59.8	60.0
32.5°	114.6	111.4	106.1	92.3	77.7	66.4	57.9	54.7	53.2	52.0	52.4
35°	118.9	114.9	108.1	87.3	70.4	58.2	51.8	48.9	46.2	45.0	45.0
37.5°	123.9	119.4	109.7	81.6	62.4	51.9	46.6	43.1	39.8	37.3	36.9
40°	132.0	128.3	111.1	75.1	54.8	46.8	41.5	37.5	34.4	31.9	31.7
42.5°	145.5	139.0	111.2	67.4	48.3	42.4	37.2	32.9	29.4	27.3	27.2
45°	161.4	151.3	109.3	59.2	42.6	38.0	33.5	28.6	26.6	25.2	25.0
47.5°	180.2	165.4	105.0	51.5	37.7	33.7	29.6	26.7	25.2	24.2	24.2
50°	201.6	182.0	100.8	44.9	33.0	30.2	27.4	25.9	24.8	23.9	23.8
52.5°	225.9	201.6	99.4	38.2	29.2	27.0	26.7	25.2	24.3	23.7	23.5
55°	254.8	223.7	100.7	32.9	26.1	25.7	26.2	25.0	24.4	23.4	23.1
57.5°	288.2	245.1	99.4	28.5	24.0	24.5	25.7	25.0	24.5	23.2	22.8
60°	319.6	264.3	90.0	24.9	22.0	23.0	25.0	24.2	23.4	23.1	22.9
62.5°	336.5	270.5	71.7	22.0	20.5	21.6	23.8	22.8	22.3	22.9	23.0
65°	336.7	263.5	52.8	19.9	19.2	20.3	22.6	22.3	22.7	24.1	24.4
67.5°	318.0	242.0	37.2	18.0	17.9	19.3	23.1	25.0	25.2	26.7	26.7
68°	311.6	236.7	34.6	17.7	17.6	19.3	23.6	25.4	25.6	27.0	26.9
70°	276.3	200.1	25.0	16.6	17.2	20.6	26.1	26.7	25.6	27.2	27.1
72.5°	216.0	148.0	18.7	15.4	16.3	20.4	26.2	25.6	23.9	24.3	23.9
75°	146.0	94.3	15.4	14.1	14.5	17.2	23.9	24.1	22.2	21.8	21.3
77.5°	76.4	44.2	12.5	12.6	12.9	15.0	21.3	21.9	20.2	19.1	18.9
80°	28.2	17.5	10.2	11.1	11.3	13.1	18.3	19.3	17.6	16.8	16.6
82.5°	10.3	8.7	8.4	9.7	9.5	11.2	16.0	16.7	15.0	14.1	13.7
85°	2.8	3.2	5.3	7.6	7.4	8.7	12.8	13.5	12.0	9.9	9.6
87.5°	0.2	0.6	2.1	4.5	4.7	5.4	9.3	10.2	8.9	7.3	7.2
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)