

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: P400848

Luminaire Tested: **ENT-SA1-827-U-T2-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-827-U-T2-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 565 lumens
Efficiency: N/A
Efficacy: 43.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G0

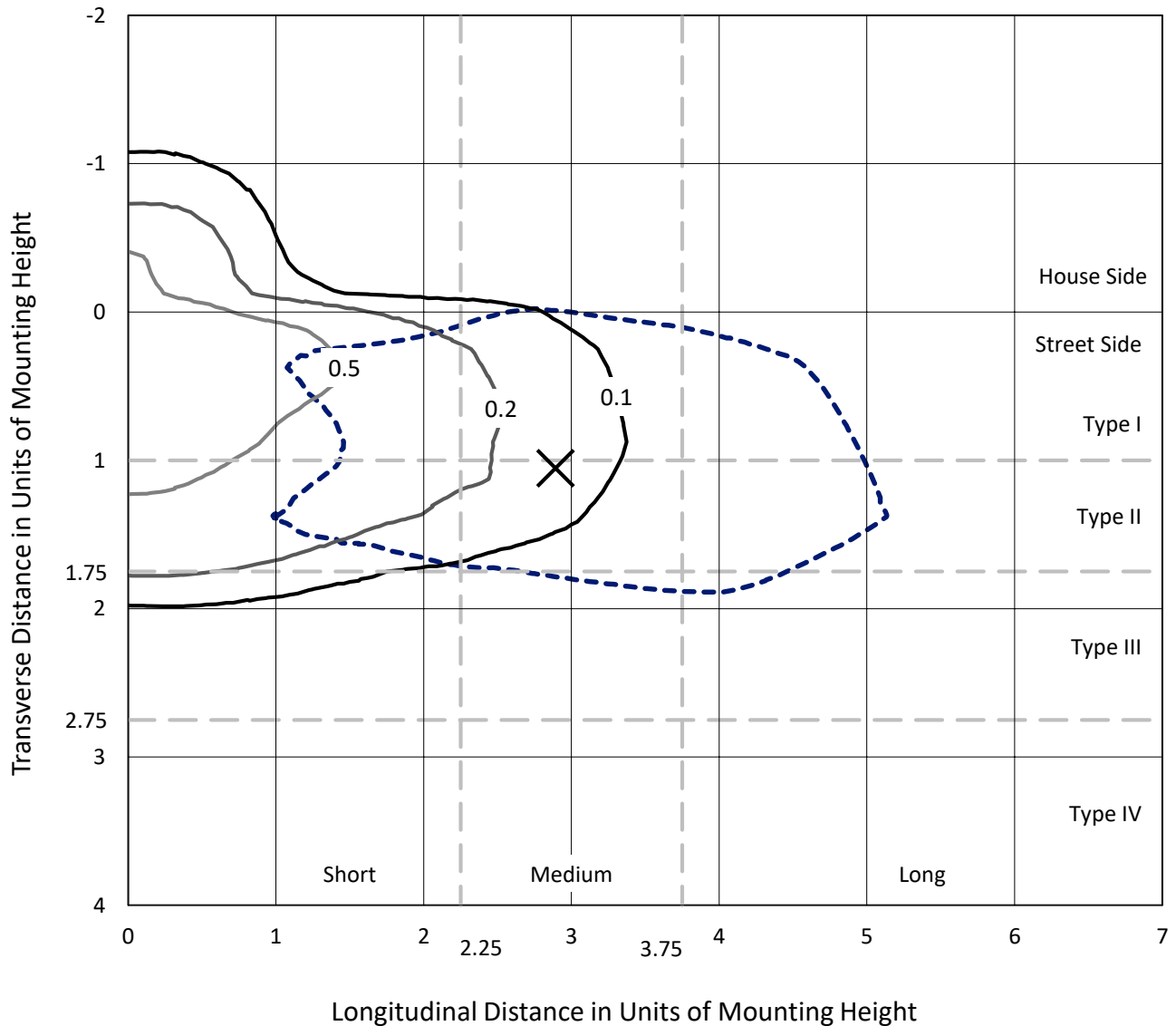
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

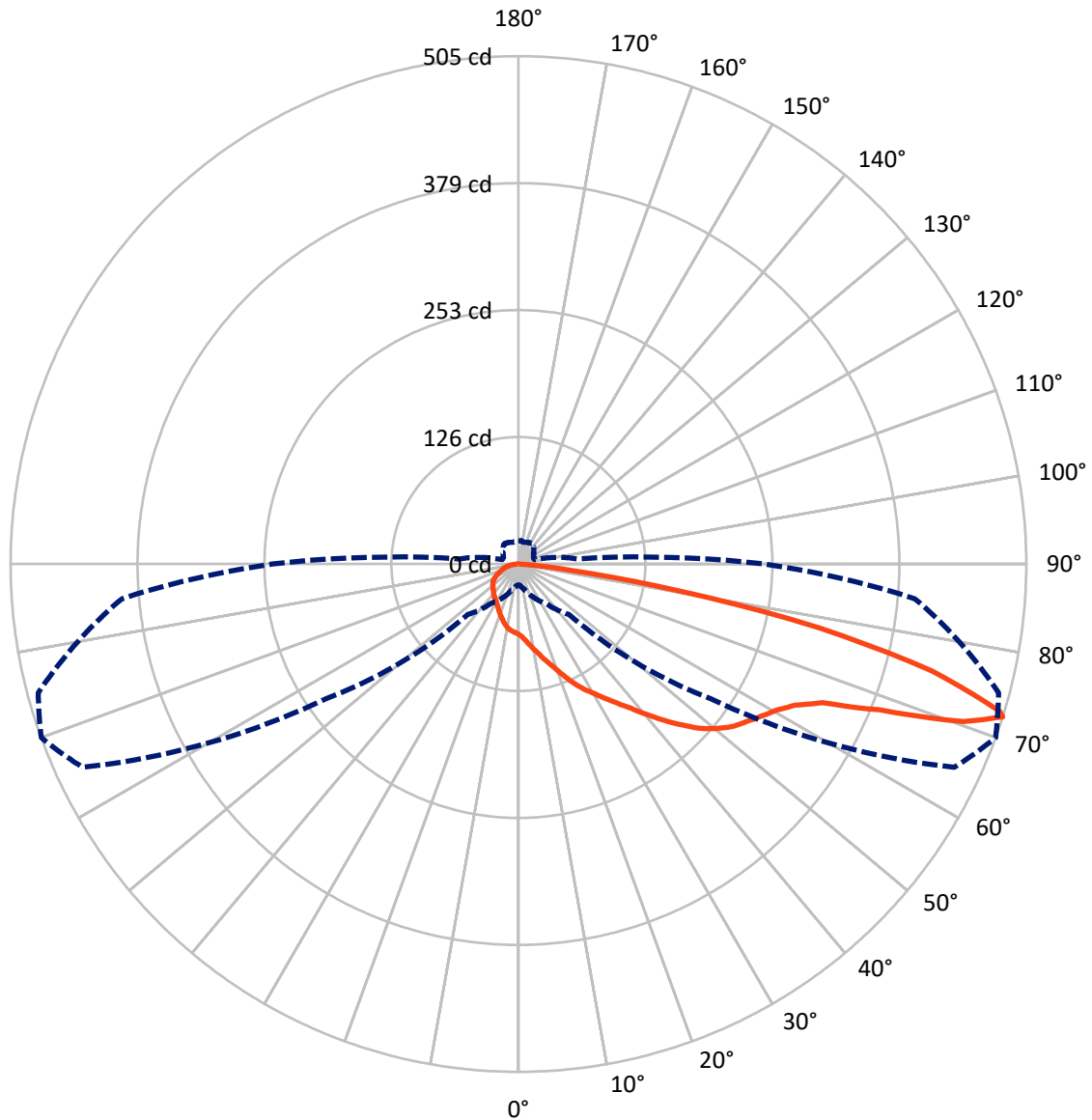
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	105.0	0.0	105.0
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	460.0	0.0	460.0
	% Fixture	81.4	0.0	81.4
Total	Lumens	565.0	0.0	565.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.0	1.2
10°-20°	22.6	4.0
20°-30°	40.0	7.1
30°-40°	59.4	10.5
40°-50°	86.2	15.3
50°-60°	117.7	20.8
60°-70°	128.9	22.8
70°-80°	91.7	16.2
80°-90°	11.5	2.0
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°	565.0	100.0
0°-180°	565.0	100.0



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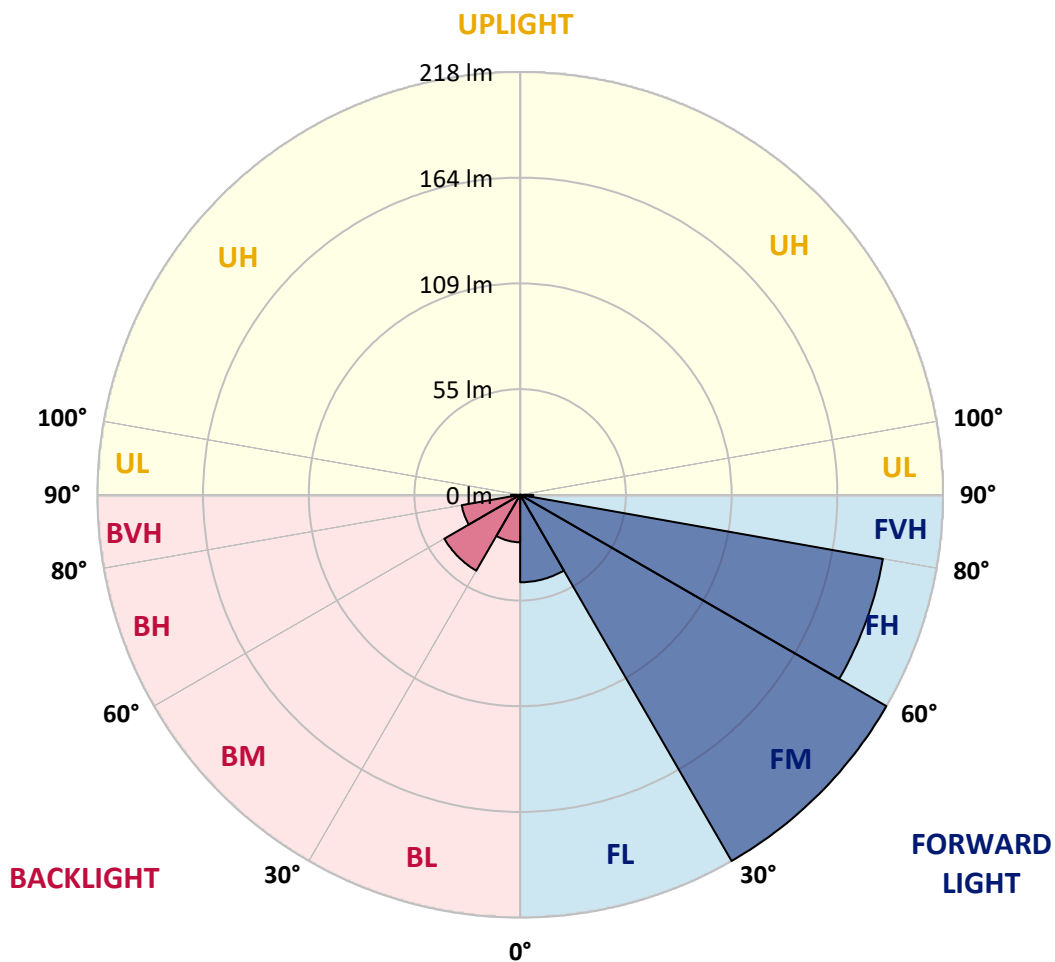
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	45.1	8.0			
FM (30°-60°)	218.1	38.6			
FH (60°-80°)	190.0	33.6			G0/660
FVH (80°-90°)	6.8	1.2			G0/10
BL (0°-30°)	24.5	4.3	B0/110		
BM (30°-60°)	45.2	8.0	B0/220		
BH (60°-80°)	30.6	5.4	B0/110		G0/110
BVH (80°-90°)	4.7	0.8			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
2.5°	77.8	77.4	77.5	76.8	76.3	75.4	74.3	73.2	72.6	72.2	70.9
5°	85.4	85.4	85.7	85.1	83.6	82.0	80.1	77.6	76.6	75.1	72.4
7.5°	91.7	91.8	91.8	91.7	90.3	88.5	86.1	83.0	81.4	79.3	75.0
10°	94.9	95.3	95.6	95.9	95.7	94.7	91.9	88.8	86.4	83.7	78.0
12.5°	96.5	96.7	97.2	98.5	99.4	100.2	98.2	94.5	92.2	88.9	81.2
15°	98.3	98.3	98.9	100.4	102.3	104.4	104.2	101.3	98.8	94.7	85.3
17.5°	99.4	99.8	100.8	102.4	105.0	108.6	110.5	108.9	105.6	101.3	89.7
20°	98.8	99.0	101.1	104.3	107.6	112.3	116.9	116.9	113.9	108.9	94.7
22.5°	100.0	100.4	101.8	104.8	109.4	115.4	123.1	125.7	123.1	117.6	100.4
25°	104.7	104.5	105.7	106.9	110.8	118.3	128.3	135.2	132.8	126.7	106.0
27.5°	111.5	111.5	112.1	112.0	113.4	120.7	132.9	143.5	141.5	134.2	110.6
30°	119.3	119.4	119.3	119.2	119.0	124.0	137.0	150.9	149.9	142.7	114.8
32.5°	128.8	129.2	128.6	126.9	126.0	128.8	140.5	159.2	159.6	151.1	118.9
35°	140.7	141.4	139.0	136.6	134.2	135.5	144.5	167.1	170.3	160.6	123.9
37.5°	152.7	153.7	153.3	147.0	143.7	143.6	150.5	176.8	182.2	173.0	131.0
40°	162.8	163.7	164.2	158.4	153.7	153.6	159.3	187.0	196.9	187.3	139.4
42.5°	169.5	170.3	171.7	168.4	164.0	166.0	169.0	197.1	212.7	204.7	149.7
45°	176.7	177.4	178.3	176.3	174.1	179.9	181.3	208.3	228.6	223.5	161.8
47.5°	184.5	185.1	185.6	184.2	183.4	191.5	193.3	219.8	244.5	242.8	173.6
50°	193.0	193.3	193.8	193.0	193.3	202.1	203.2	229.8	257.2	263.0	185.9
52.5°	207.7	208.1	208.2	204.7	203.5	208.8	211.2	240.6	268.3	279.8	196.7
55°	219.4	220.5	225.6	223.3	220.4	213.5	217.8	249.2	276.3	295.5	208.0
57.5°	209.8	212.4	225.1	235.7	243.9	227.5	225.7	258.1	285.4	308.9	221.1
60°	182.2	185.9	204.3	226.5	252.9	259.5	241.7	269.2	295.3	323.0	235.3
62.5°	126.3	130.2	155.6	191.0	237.7	277.9	285.7	288.8	309.1	337.3	253.7
65°	60.5	64.5	85.5	122.8	187.7	266.1	336.9	329.4	332.3	355.6	280.8
67.5°	38.5	40.6	48.8	66.9	109.2	207.3	355.3	410.5	387.4	397.6	334.8
70°	28.2	28.7	35.8	46.3	64.8	121.1	313.8	488.0	469.9	468.8	399.9
72°	20.8	21.6	27.1	37.0	47.9	70.8	233.5	478.6	505.3	494.6	396.0
72.5°	19.6	20.3	25.0	34.9	45.3	62.1	209.2	467.6	500.9	495.3	388.6
75°	14.3	14.8	17.1	24.9	35.0	36.0	111.7	358.9	425.4	472.9	352.3
77.5°	9.8	10.2	11.4	15.3	24.0	24.4	47.4	245.0	307.0	378.1	270.9
80°	6.0	6.1	6.9	8.3	15.3	14.4	19.5	128.1	160.2	205.6	125.7
82.5°	2.5	2.6	3.0	3.3	6.5	6.9	7.9	41.8	53.0	64.2	36.2
85°	0.0	0.0	0.1	0.1	0.2	0.7	1.1	5.2	7.8	9.4	6.5
87.5°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.5
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°	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
2.5°	70.2	69.9	68.9	68.1	67.5	66.4	66.3	65.5	65.5	65.3	65.1
5°	71.3	70.3	68.4	66.6	65.3	63.8	63.0	62.1	61.6	61.3	61.3
7.5°	72.8	71.0	67.7	64.7	62.3	60.4	59.2	58.5	58.1	57.9	57.9
10°	74.8	72.1	66.7	62.1	59.1	57.6	57.1	57.0	57.1	57.1	57.2
12.5°	77.1	72.8	64.7	59.1	56.7	56.1	56.4	57.1	57.8	58.0	58.0
15°	79.4	73.3	62.1	56.3	54.8	55.4	56.5	57.9	58.9	59.6	59.7
17.5°	81.8	73.4	59.2	53.7	53.2	54.6	56.7	58.8	60.5	61.6	61.7
20°	84.4	73.2	55.9	51.3	51.6	54.0	56.8	59.8	62.1	63.4	63.6
22.5°	87.2	72.6	52.7	49.1	50.2	53.3	56.7	60.1	62.5	64.2	64.5
25°	90.0	71.3	49.5	47.1	49.2	52.7	55.8	58.8	61.2	62.7	63.1
27.5°	91.4	68.5	46.4	45.5	48.5	51.7	54.0	56.0	57.3	58.3	58.7
30°	91.7	64.6	43.9	44.5	47.7	50.4	51.7	52.0	51.7	52.1	51.7
32.5°	91.2	60.4	41.9	43.7	46.4	48.4	48.7	47.8	46.3	44.3	44.4
35°	90.9	55.8	40.3	42.5	44.7	46.0	45.4	43.9	41.2	38.7	38.6
37.5°	91.4	51.7	38.9	41.1	42.5	43.1	42.3	40.3	37.9	35.8	35.5
40°	93.1	48.6	37.6	39.5	40.2	40.6	39.6	37.9	36.9	35.3	35.1
42.5°	96.2	46.5	36.4	37.7	38.0	38.4	37.4	36.2	37.1	36.8	36.8
45°	100.6	45.5	35.3	36.0	36.3	37.0	36.4	35.3	36.3	34.5	34.1
47.5°	106.2	45.8	34.6	34.3	35.3	36.4	35.8	34.5	34.1	30.8	30.3
50°	112.2	47.5	33.9	32.9	34.1	35.7	34.9	32.8	30.9	29.2	28.9
52.5°	119.2	50.4	33.3	31.4	32.8	34.9	34.3	32.1	30.1	28.9	28.7
55°	126.9	53.1	32.4	29.6	31.2	34.6	34.5	31.6	29.0	28.4	28.2
57.5°	135.7	55.4	31.5	27.6	29.5	33.9	33.7	30.5	28.7	28.2	28.1
60°	146.6	58.0	29.8	25.3	27.8	32.5	32.4	29.9	27.9	27.5	27.4
62.5°	161.4	62.9	26.9	23.1	26.0	30.1	31.1	28.8	26.9	26.8	26.8
65°	185.9	72.5	23.9	21.2	24.0	27.8	29.4	27.5	25.9	26.3	26.3
67.5°	232.1	85.3	20.8	19.4	22.0	25.5	27.9	26.2	24.9	25.7	25.7
70°	267.8	80.5	18.4	17.8	20.1	23.5	26.1	24.9	23.6	24.9	24.8
72°	244.3	59.0	16.8	16.4	18.5	21.8	24.5	23.6	22.2	23.3	23.0
72.5°	234.5	53.6	16.3	16.0	18.0	21.5	24.1	23.2	21.8	22.9	22.4
75°	204.6	45.2	14.2	14.0	16.0	19.3	22.0	21.5	20.1	20.7	20.3
77.5°	169.3	38.1	11.9	12.3	13.6	17.2	19.9	19.4	18.0	17.9	17.8
80°	79.4	21.2	9.8	10.1	11.5	14.7	17.1	16.8	15.5	15.3	15.1
82.5°	23.0	10.2	7.6	7.7	9.2	12.0	14.7	14.5	13.6	13.3	12.8
85°	4.3	3.3	4.1	4.8	6.7	10.0	13.4	13.1	11.6	10.6	9.8
87.5°	0.2	0.6	1.4	2.3	4.3	7.5	10.8	10.6	9.3	8.0	8.1
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)