

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: P401088

Luminaire Tested: **ENT-SA1B-727-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401088
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-SA1B-727-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2867 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
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

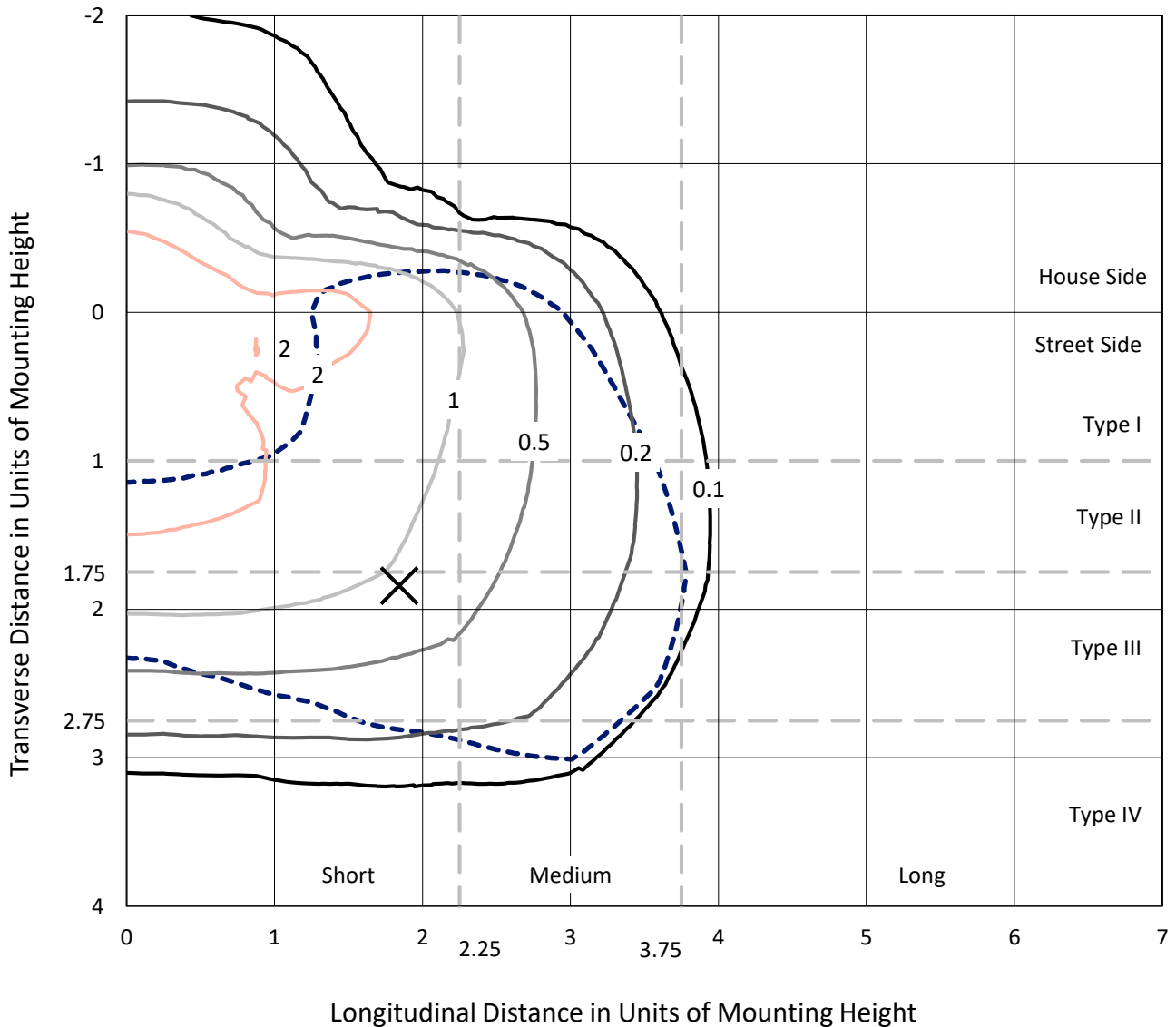


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

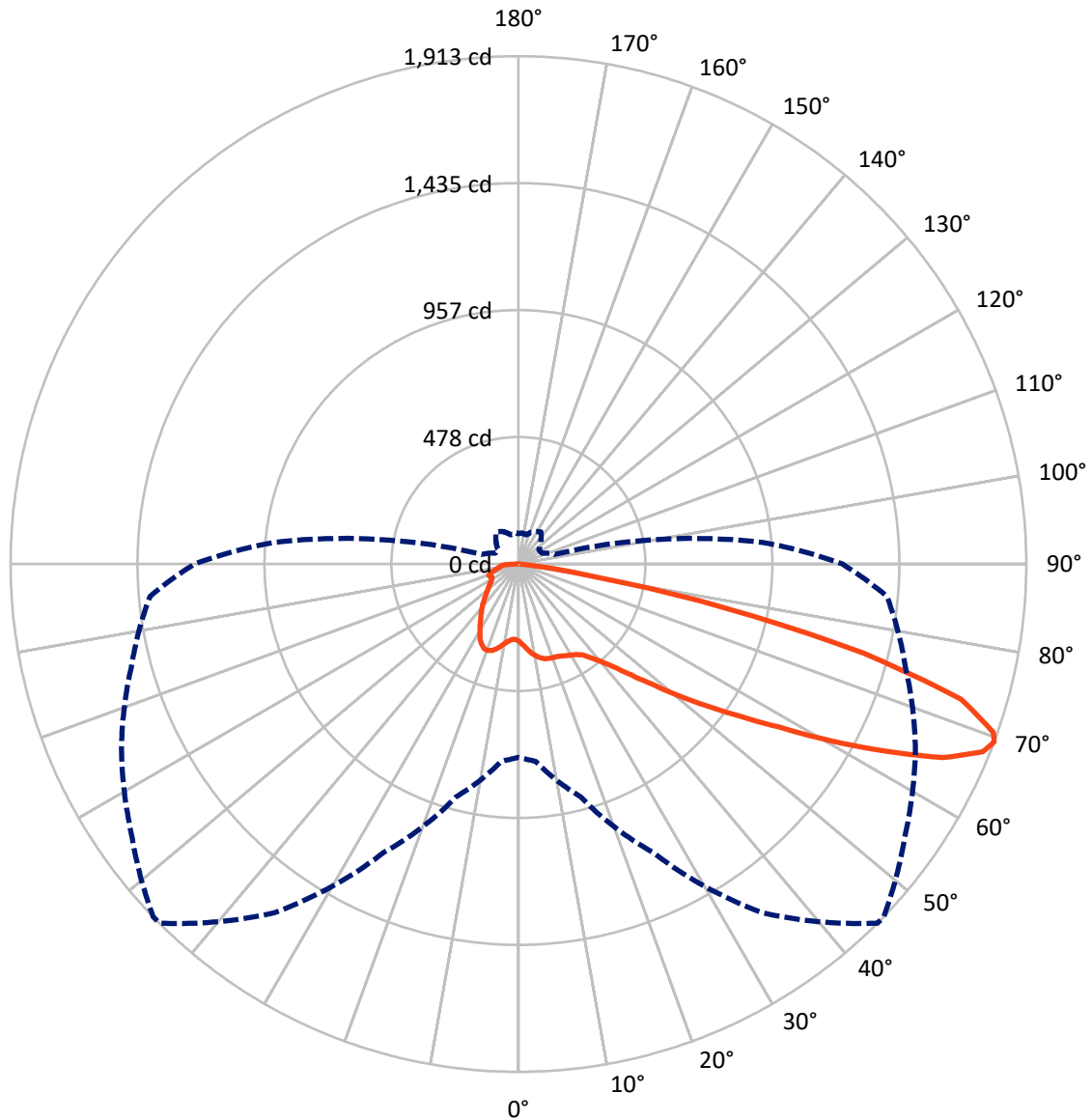


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

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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	675.0	0.0	675.0
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	2192.0	0.0	2192.0
	% Fixture	76.5	0.0	76.5
Total	Lumens	2867.0	0.0	2867.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	1.0
10°-20°	98.3	3.4
20°-30°	166.0	5.8
30°-40°	240.2	8.4
40°-50°	362.7	12.7
50°-60°	611.6	21.3
60°-70°	841.4	29.3
70°-80°	466.3	16.3
80°-90°	50.8	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°	2867.0	100.0
0°-180°	2867.0	100.0



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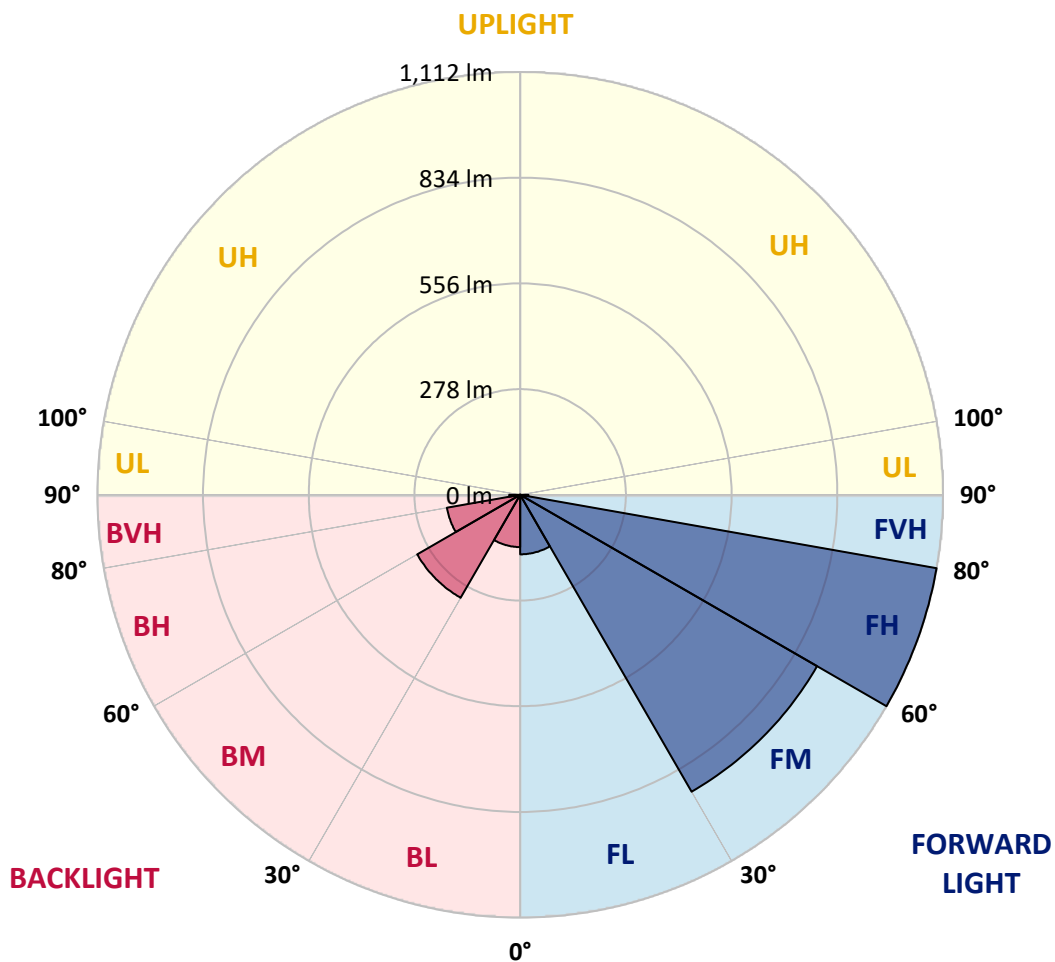
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	156.5	5.5			
FM	(30°-60°)	901.7	31.5			
FH	(60°-80°)	1112.1	38.8			G1/1800
FVH	(80°-90°)	21.7	0.8			G1/100
BL	(0°-30°)	137.4	4.8	B1/500		
BM	(30°-60°)	312.9	10.9	B1/1000		
BH	(60°-80°)	195.6	6.8	B1/500		G1/500
BVH	(80°-90°)	29.0	1.0			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0
2.5°	309.3	308.9	309.3	307.7	306.1	303.6	302.8	300.0	297.9	295.1	292.6
5°	332.2	333.4	333.0	330.9	324.4	319.5	319.5	313.4	306.9	300.8	295.1
7.5°	357.0	357.0	354.6	350.5	344.0	336.7	335.8	327.7	318.3	309.8	300.8
10°	375.0	375.8	372.1	366.4	358.3	350.5	349.7	340.3	331.4	320.4	309.3
12.5°	387.6	387.6	384.3	379.0	369.3	361.9	361.1	352.6	343.2	331.8	319.1
15°	394.1	393.3	390.5	384.7	376.2	370.1	368.9	361.5	353.8	342.4	328.9
17.5°	392.9	392.9	390.5	384.7	378.6	373.7	372.9	367.6	361.9	350.9	337.5
20°	387.6	387.2	386.4	381.9	377.8	375.8	375.0	372.5	368.9	359.5	346.8
22.5°	382.7	382.3	381.1	378.2	376.6	377.8	377.8	377.4	377.0	369.7	357.4
25°	385.6	385.2	382.7	378.6	378.2	383.9	384.3	385.6	386.4	380.3	367.6
27.5°	405.5	404.3	397.4	386.8	383.1	390.5	391.3	394.9	394.1	387.6	376.6
30°	444.7	445.1	429.6	406.8	394.5	397.8	398.2	402.3	401.1	395.8	386.8
32.5°	503.8	503.8	478.5	443.8	412.9	406.4	405.1	408.8	413.7	406.8	397.8
35°	578.8	576.7	546.1	492.8	444.3	421.0	420.2	418.6	427.1	420.6	407.6
37.5°	654.2	646.8	617.1	558.4	488.3	449.6	446.3	441.4	446.3	432.4	421.0
40°	714.9	713.7	689.2	629.7	540.4	484.2	481.8	460.2	463.4	452.4	447.9
42.5°	781.7	782.5	766.2	706.3	602.8	531.1	524.5	491.1	500.5	496.4	494.4
45°	855.1	854.3	842.0	779.3	679.0	596.3	588.1	547.0	566.1	563.7	575.1
47.5°	911.3	915.8	908.9	864.5	769.5	675.3	669.2	619.1	648.0	667.6	689.2
50°	988.0	987.5	968.8	950.5	874.7	776.4	770.3	714.5	756.0	784.6	824.1
52.5°	1082.9	1079.7	1040.9	1034.4	1002.6	886.9	881.6	823.3	882.8	907.7	988.0
55°	1142.4	1142.0	1122.0	1133.5	1134.3	1010.0	1003.4	951.7	1018.9	1047.5	1168.9
57.5°	1192.2	1192.6	1209.3	1249.2	1276.1	1159.5	1157.1	1093.9	1162.0	1201.9	1345.4
60°	1230.5	1238.6	1285.5	1376.8	1421.6	1350.3	1339.7	1272.9	1318.5	1334.4	1480.3
62.5°	1215.0	1225.6	1317.7	1452.2	1567.5	1552.4	1548.8	1452.2	1451.8	1443.6	1581.0
65°	1092.7	1115.5	1260.6	1449.3	1663.7	1757.9	1752.6	1621.3	1575.7	1534.9	1611.1
67.5°	894.2	899.1	1074.0	1338.5	1662.9	1887.1	1881.4	1744.4	1652.7	1552.9	1522.7
69°	727.9	745.9	907.7	1198.3	1604.2	1913.1	1913.1	1778.6	1649.9	1510.1	1393.1
70°	629.7	630.5	786.6	1086.6	1524.3	1897.7	1901.3	1778.6	1626.6	1454.2	1278.1
72.5°	295.1	313.4	412.1	709.2	1231.3	1744.4	1753.4	1661.3	1491.7	1252.9	959.0
75°	88.4	91.7	137.4	336.2	705.5	1343.8	1363.7	1382.1	1215.0	922.3	590.6
77.5°	52.6	52.2	66.4	114.1	326.5	796.8	805.8	884.0	788.2	512.7	268.2
80°	25.7	26.5	35.5	55.4	122.3	289.4	318.3	413.3	349.3	200.5	98.2
82.5°	8.6	9.4	14.7	22.4	51.8	93.3	103.1	129.6	111.7	73.0	42.0
85°	0.0	0.0	0.4	0.8	2.9	6.9	6.9	15.5	23.2	25.7	13.9
87.5°	0.0	0.0	0.4	0.4	0.8	0.8	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°	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0	291.0
2.5°	291.4	290.6	289.0	287.3	286.5	284.5	284.9	284.1	283.7	283.7	284.1
5°	292.2	291.0	288.6	286.9	285.3	284.5	286.5	287.3	288.2	288.2	288.6
7.5°	297.1	294.7	291.8	289.8	290.2	291.4	294.7	297.1	298.3	299.2	300.0
10°	305.3	302.4	298.3	297.9	298.8	302.0	306.5	310.2	313.4	315.5	315.5
12.5°	313.8	310.2	306.9	307.7	311.4	316.3	320.8	324.8	327.7	329.7	330.1
15°	323.2	319.5	316.3	318.3	324.4	330.1	334.2	335.8	337.1	339.1	339.5
17.5°	331.8	328.5	325.7	330.9	336.2	340.7	342.0	341.1	339.5	340.7	341.5
20°	340.7	337.9	336.2	342.0	345.6	346.0	342.8	339.1	335.0	335.0	335.4
22.5°	351.7	348.1	347.3	350.1	348.9	344.0	335.8	330.1	324.4	323.6	324.8
25°	362.3	358.7	358.3	356.2	345.6	333.0	322.0	315.5	311.0	311.4	313.8
27.5°	372.9	370.5	370.9	359.9	336.2	317.1	302.4	297.1	298.3	299.2	301.6
30°	383.5	383.5	385.2	359.9	323.2	294.7	280.8	280.4	283.7	286.1	289.0
32.5°	395.8	399.4	396.6	355.4	305.7	271.9	260.8	261.7	265.3	269.4	271.9
35°	407.6	416.1	408.0	345.2	281.6	251.1	242.1	240.9	243.7	247.4	248.6
37.5°	426.3	440.2	417.8	329.3	256.8	232.7	223.8	220.5	217.6	220.5	220.1
40°	458.9	475.6	425.1	302.8	232.7	215.6	206.2	200.1	193.2	187.1	187.1
42.5°	511.1	522.1	429.2	270.6	208.7	198.5	189.1	180.1	169.6	158.5	158.5
45°	596.3	598.7	430.8	236.4	186.7	181.4	171.6	163.0	149.2	138.2	135.7
47.5°	710.0	699.4	434.9	203.4	167.5	166.3	158.1	148.4	133.3	123.1	121.9
50°	862.8	817.2	452.8	176.9	152.0	153.2	147.1	135.7	121.5	114.1	112.5
52.5°	1034.8	965.9	466.7	155.7	138.6	142.2	137.8	126.8	114.5	108.4	107.2
55°	1222.7	1109.0	463.4	141.4	128.4	132.5	130.8	121.5	110.5	105.2	103.9
57.5°	1376.0	1209.7	434.9	128.8	118.2	123.9	125.5	118.2	108.0	103.1	101.9
60°	1490.9	1264.7	376.2	118.2	110.0	117.0	121.5	116.2	107.6	104.7	103.5
62.5°	1543.1	1259.8	300.0	110.0	103.9	112.1	121.9	119.4	113.7	115.8	116.2
65°	1513.7	1198.3	225.0	103.9	100.3	112.9	128.8	128.8	120.2	123.9	124.3
67.5°	1363.3	1037.3	163.8	99.4	96.6	117.0	141.8	133.7	117.4	120.2	119.0
69°	1220.3	928.0	140.6	97.0	93.7	119.0	147.5	134.5	114.1	117.4	114.1
70°	1115.1	829.4	126.3	95.0	92.5	119.0	149.2	133.7	112.5	114.9	111.3
72.5°	793.5	575.9	103.9	90.9	88.0	110.0	146.3	129.2	108.0	105.2	98.2
75°	461.4	318.3	88.4	86.4	77.8	96.6	139.0	124.3	103.5	98.2	93.3
77.5°	193.6	142.2	75.4	78.7	68.9	86.0	130.0	119.4	98.2	90.9	88.4
80°	78.7	70.9	62.8	68.1	59.9	75.8	119.8	111.3	90.5	83.1	79.5
82.5°	41.2	39.1	48.1	55.0	49.7	69.7	112.9	105.6	84.0	76.6	72.1
85°	12.2	16.3	27.3	37.5	37.9	62.8	109.6	97.8	73.0	63.2	62.4
87.5°	0.8	3.3	9.4	19.6	24.9	48.1	88.9	80.3	59.1	49.7	50.1
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)