

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: P401038

Luminaire Tested: **ENT-SA1A-830-U-SL3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-830-U-SL3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2131 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

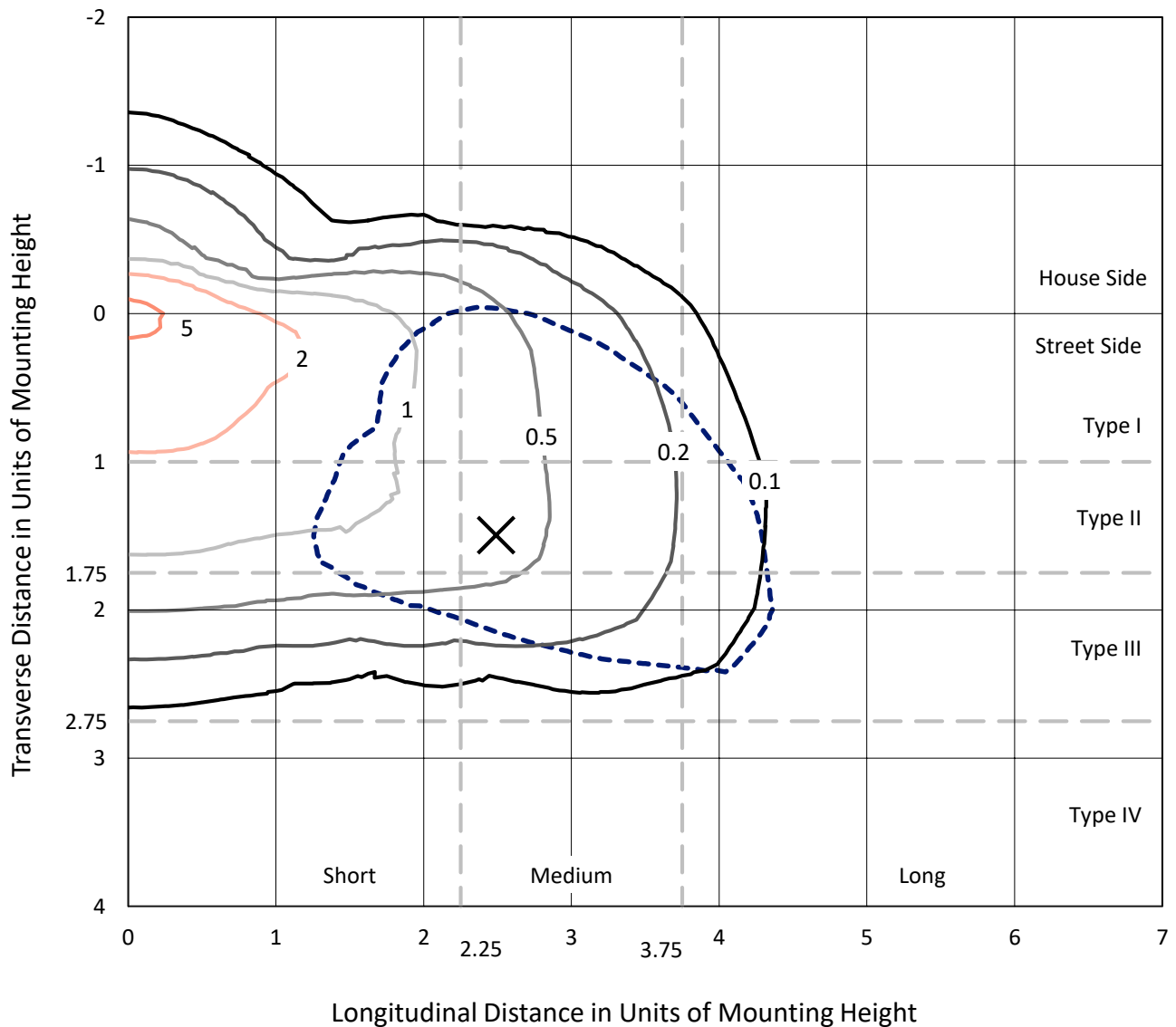
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

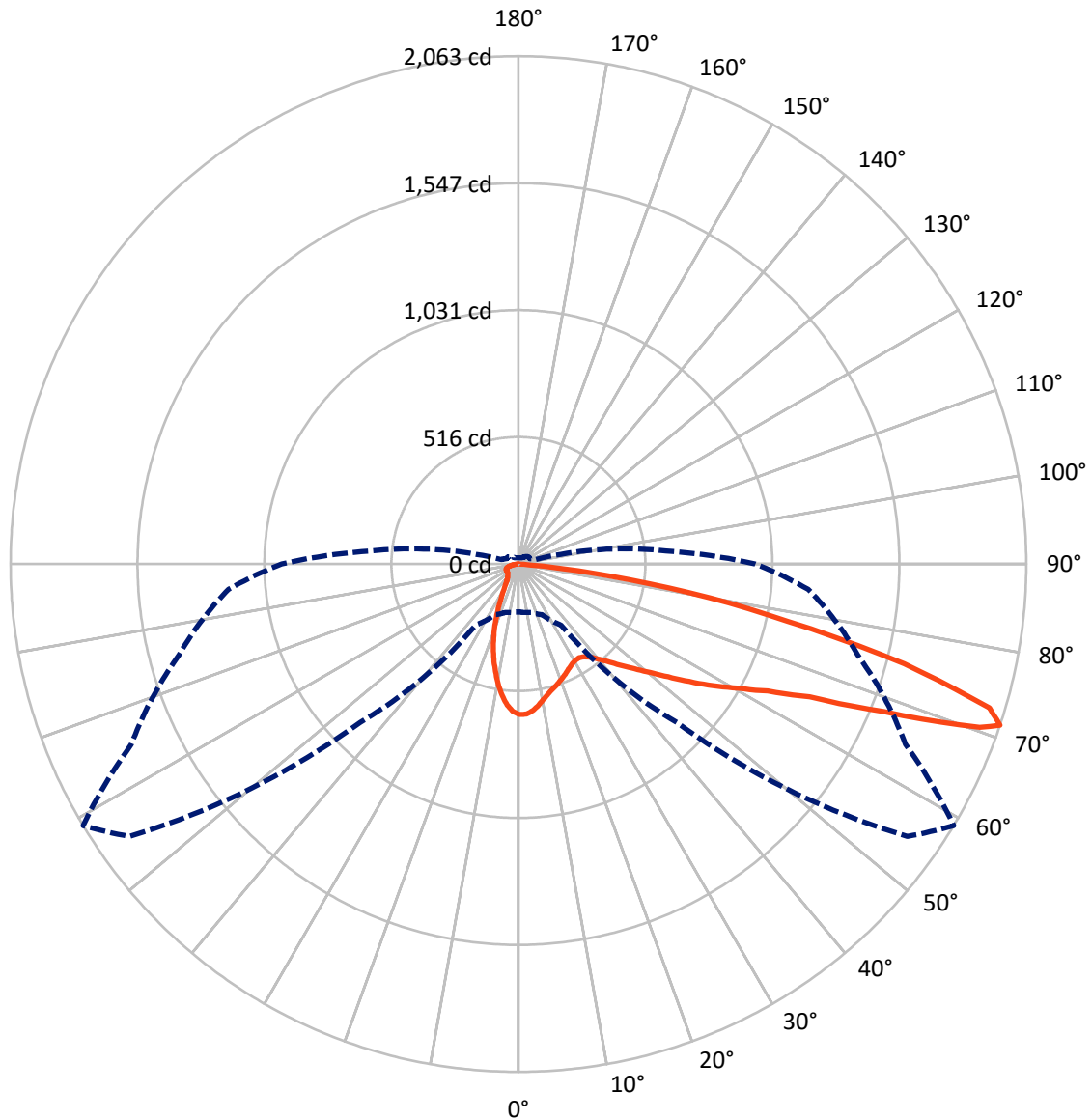


Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	361.7	0.0	361.7
	% Fixture	17.0	0.0	17.0
Street Side	Lumens	1769.3	0.0	1769.3
	% Fixture	83.0	0.0	83.0
Total	Lumens	2131.0	0.0	2131.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	2.5
10°-20°	118.7	5.6
20°-30°	150.8	7.1
30°-40°	192.8	9.0
40°-50°	267.6	12.6
50°-60°	396.2	18.6
60°-70°	535.5	25.1
70°-80°	379.7	17.8
80°-90°	36.9	1.7
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°	2131.0	100.0
0°-180°	2131.0	100.0



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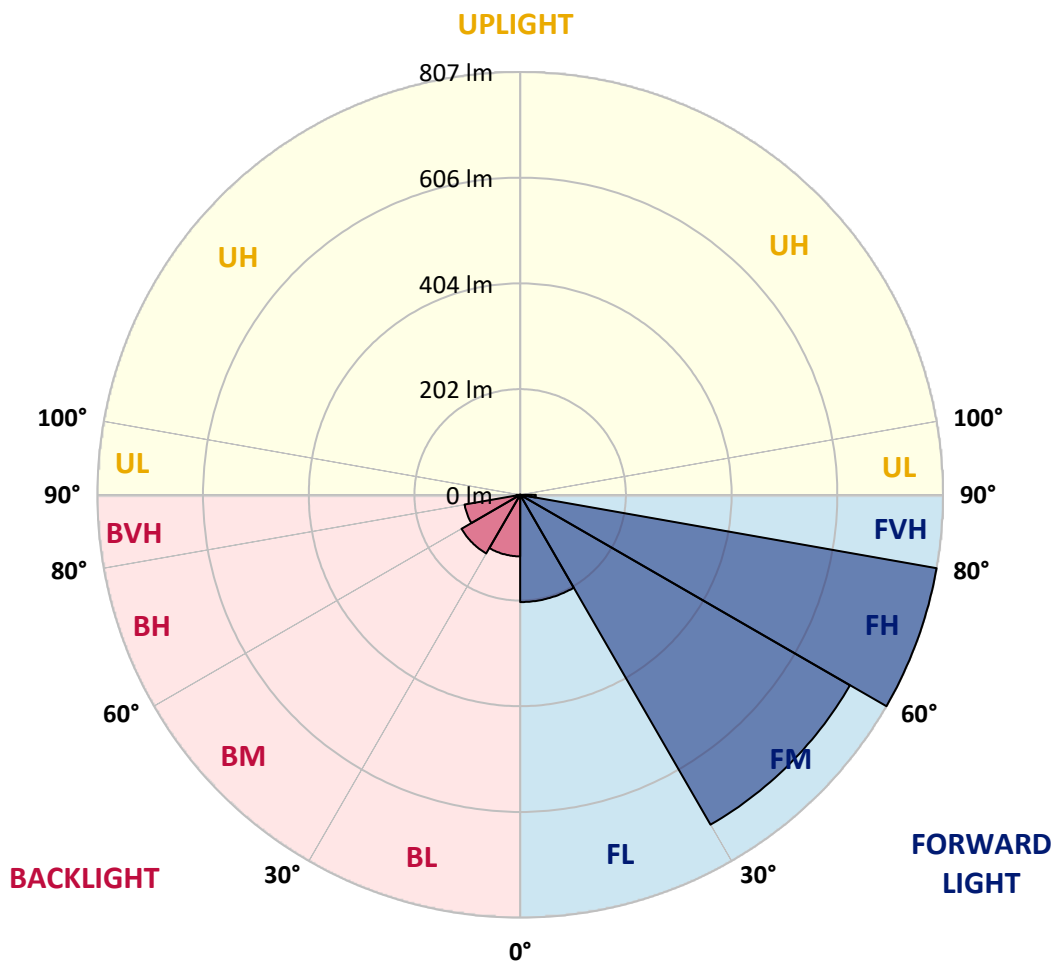
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	204.8	9.6			
FM	(30°-60°)	727.2	34.1			
FH	(60°-80°)	807.4	37.9			G1/1800
FVH	(80°-90°)	29.9	1.4			G1/100
BL	(0°-30°)	117.5	5.5	B1/500		
BM	(30°-60°)	129.4	6.1	B0/220		
BH	(60°-80°)	107.8	5.1	B0/110		G0/110
BVH	(80°-90°)	7.0	0.3			G0/10
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4
2.5°	606.1	608.3	609.2	610.8	610.8	611.4	610.8	610.5	611.7	610.5	607.1
5°	579.3	580.2	583.0	586.1	589.1	595.6	597.5	598.7	601.5	602.1	598.7
7.5°	542.8	546.2	549.9	553.9	560.4	569.4	577.1	580.2	585.4	588.5	583.6
10°	512.0	513.8	515.7	522.8	532.9	545.3	553.3	559.2	567.5	571.5	566.9
12.5°	481.1	482.6	486.3	495.9	506.4	521.2	535.7	540.4	550.2	558.3	554.6
15°	457.3	457.3	460.1	470.6	481.7	501.5	518.4	525.5	537.9	549.3	544.7
17.5°	436.3	437.2	439.1	445.9	461.3	482.0	503.6	512.6	528.0	542.8	536.7
20°	424.6	424.0	425.2	428.6	440.9	462.9	488.8	499.3	518.4	538.8	528.9
22.5°	420.6	419.9	419.0	418.7	426.7	445.3	473.0	486.0	509.8	536.7	521.8
25°	423.6	423.6	420.9	415.6	419.3	432.0	458.8	472.7	500.2	535.1	515.3
27.5°	432.0	432.0	428.0	421.2	419.6	425.2	446.5	461.3	492.2	536.0	510.1
30°	443.4	443.1	439.1	433.2	428.6	426.7	440.6	454.2	486.6	540.1	507.6
32.5°	456.4	455.8	453.9	449.9	444.3	436.3	441.2	453.3	485.4	547.2	507.9
35°	471.8	470.9	471.8	469.7	464.4	455.8	452.7	462.2	491.6	560.4	513.2
37.5°	485.4	484.8	489.4	490.6	489.4	478.0	474.0	480.1	506.1	581.4	524.0
40°	496.8	497.4	505.8	514.7	516.6	506.7	503.9	509.2	529.6	607.1	543.4
42.5°	509.5	511.3	523.7	539.7	545.9	539.4	541.0	544.7	559.2	641.9	571.5
45°	521.8	525.8	542.8	563.5	579.3	579.3	584.5	588.2	597.5	685.8	612.6
47.5°	543.4	546.2	564.8	589.8	613.8	621.6	636.1	634.8	641.9	734.0	660.8
50°	571.5	576.2	595.0	621.0	651.5	673.4	690.1	692.6	695.4	783.4	717.9
52.5°	610.5	616.0	631.4	655.5	691.7	727.5	762.7	761.1	757.4	837.1	783.4
55°	649.7	655.5	670.0	689.5	732.1	787.1	844.5	842.3	825.4	892.1	843.9
57.5°	689.5	694.4	709.6	726.6	776.9	857.5	931.0	932.5	897.6	953.2	903.8
60°	706.2	713.6	750.9	783.7	846.7	935.6	1019.3	1023.3	972.6	1015.0	969.9
62.5°	630.8	639.8	701.5	789.9	942.4	1086.3	1134.1	1136.6	1063.1	1083.2	1042.1
65°	466.9	466.6	530.5	662.6	923.2	1288.5	1338.9	1300.0	1175.5	1173.7	1137.5
67.5°	267.4	275.4	295.8	395.2	703.4	1325.9	1703.2	1601.6	1374.7	1314.5	1264.8
70°	215.5	213.7	219.8	246.4	383.5	1090.3	1940.7	1987.0	1657.5	1429.3	1236.0
71°	194.2	197.0	203.2	227.3	302.6	909.7	1928.9	2062.6	1734.7	1426.2	1181.4
72.5°	167.0	167.7	181.9	210.3	248.6	641.6	1783.5	2000.3	1815.6	1385.8	1101.1
75°	113.6	115.2	137.4	169.2	227.0	304.8	1276.2	1618.0	1652.6	1295.0	909.3
77.5°	65.2	66.4	82.4	123.8	193.3	214.9	783.4	1118.1	1188.2	947.0	487.6
80°	33.7	35.2	45.7	78.1	147.6	173.8	449.3	703.1	675.9	327.3	113.0
82.5°	9.0	10.2	13.3	28.1	71.3	113.3	199.2	290.9	207.8	67.9	41.1
85°	0.0	0.0	0.0	0.3	0.6	15.7	42.0	52.2	29.0	13.3	11.1
87.5°	0.0	0.0	0.0	0.0	0.3	0.6	0.6	0.6	0.6	0.9	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°	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4
2.5°	606.4	606.4	604.6	601.8	598.7	591.6	592.9	587.3	587.9	587.3	587.3
5°	595.9	594.1	589.5	580.8	571.2	558.6	556.7	546.5	540.7	538.8	541.0
7.5°	581.4	576.2	564.4	549.3	531.1	514.7	499.6	486.0	475.8	471.5	469.7
10°	562.3	555.8	536.7	510.1	485.1	459.5	435.7	420.2	399.9	393.7	391.8
12.5°	546.5	535.4	506.7	469.7	430.7	396.8	364.7	332.2	312.8	298.9	296.7
15°	532.9	517.2	476.1	428.3	379.8	332.9	289.3	245.8	218.3	206.6	198.2
17.5°	520.9	500.5	445.6	383.5	323.6	261.5	208.4	166.7	149.4	140.5	140.8
20°	508.6	482.6	413.8	338.7	268.0	199.2	147.3	127.8	119.2	117.3	116.4
22.5°	496.8	462.2	380.1	294.6	211.2	146.4	118.6	109.0	106.8	106.8	106.8
25°	483.5	441.6	346.1	249.5	159.9	115.5	101.9	98.5	99.1	100.4	100.7
27.5°	472.7	423.6	312.5	197.3	124.1	98.2	91.1	90.5	92.9	95.7	95.7
30°	463.2	407.3	276.0	154.1	98.8	86.1	83.7	84.6	87.1	89.5	90.5
32.5°	456.7	392.5	243.3	119.8	84.3	77.8	77.2	78.4	80.9	82.1	83.1
35°	453.9	381.6	208.1	96.6	75.0	71.6	71.3	72.3	73.5	73.8	73.5
37.5°	457.0	374.2	172.0	81.8	69.2	67.3	67.0	67.0	67.0	67.3	67.0
40°	465.9	371.5	139.6	72.3	65.5	63.9	63.0	62.1	61.4	61.4	61.1
42.5°	484.8	375.8	112.1	66.7	62.7	60.8	59.0	57.7	56.8	56.5	56.5
45°	515.0	387.8	93.3	63.0	60.2	57.4	55.3	54.0	53.1	53.4	53.1
47.5°	556.7	407.9	82.4	60.5	57.7	54.0	51.9	50.6	50.3	51.3	51.6
50°	604.0	436.3	76.0	58.7	55.9	51.3	48.8	47.9	48.2	50.0	50.3
52.5°	659.5	473.0	73.2	57.4	54.3	48.8	46.6	45.7	46.3	48.5	48.8
55°	719.5	515.0	77.2	58.1	52.8	47.2	44.8	43.5	44.5	46.3	46.6
57.5°	780.3	566.9	90.8	58.4	50.9	46.0	42.9	41.1	41.7	43.2	43.5
60°	841.7	618.5	114.2	58.7	50.3	44.8	41.4	38.6	38.9	39.8	40.1
62.5°	914.0	683.9	145.1	59.9	50.9	43.8	38.6	35.5	35.5	36.1	36.1
65°	1023.6	781.5	165.5	59.3	52.5	42.9	35.8	32.7	32.4	32.7	32.7
67.5°	1102.3	794.5	115.5	55.9	53.4	43.2	34.3	30.3	29.6	29.3	29.3
70°	1019.0	668.5	76.3	52.8	51.9	43.8	33.0	28.7	27.5	26.6	26.2
71°	961.2	602.4	70.7	51.6	50.6	43.2	32.4	27.8	26.6	25.9	25.6
72.5°	875.7	537.6	65.2	49.7	47.9	42.0	31.5	26.9	25.3	24.4	24.1
75°	692.0	412.2	57.1	45.7	41.4	34.6	29.0	25.0	23.5	22.2	21.9
77.5°	312.8	164.0	43.8	39.5	33.7	27.5	25.3	23.2	21.3	20.4	20.1
80°	87.4	62.4	32.1	31.2	25.3	21.3	20.4	19.8	19.1	17.9	17.9
82.5°	40.4	36.4	22.8	21.9	17.3	15.1	16.1	16.4	16.4	15.1	14.8
85°	11.1	12.0	10.5	11.7	11.1	10.2	11.7	12.7	13.3	12.0	11.1
87.5°	0.9	2.2	2.8	4.6	5.6	5.9	7.4	9.0	9.3	7.4	7.7
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)