

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: P400914

Luminaire Tested: **ENT-SA1A-730-U-SL4**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400914
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-730-U-SL4
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2361 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

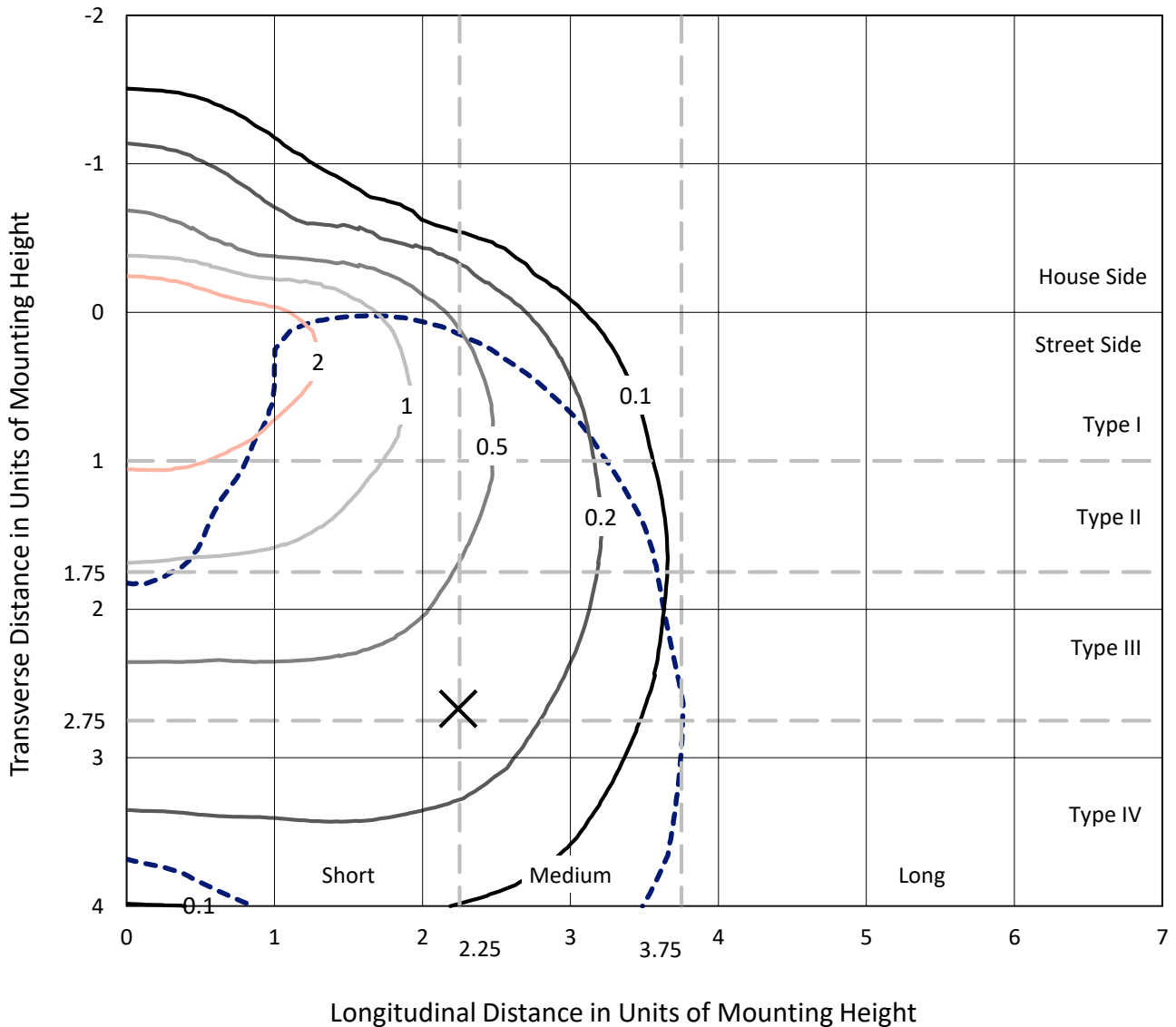
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

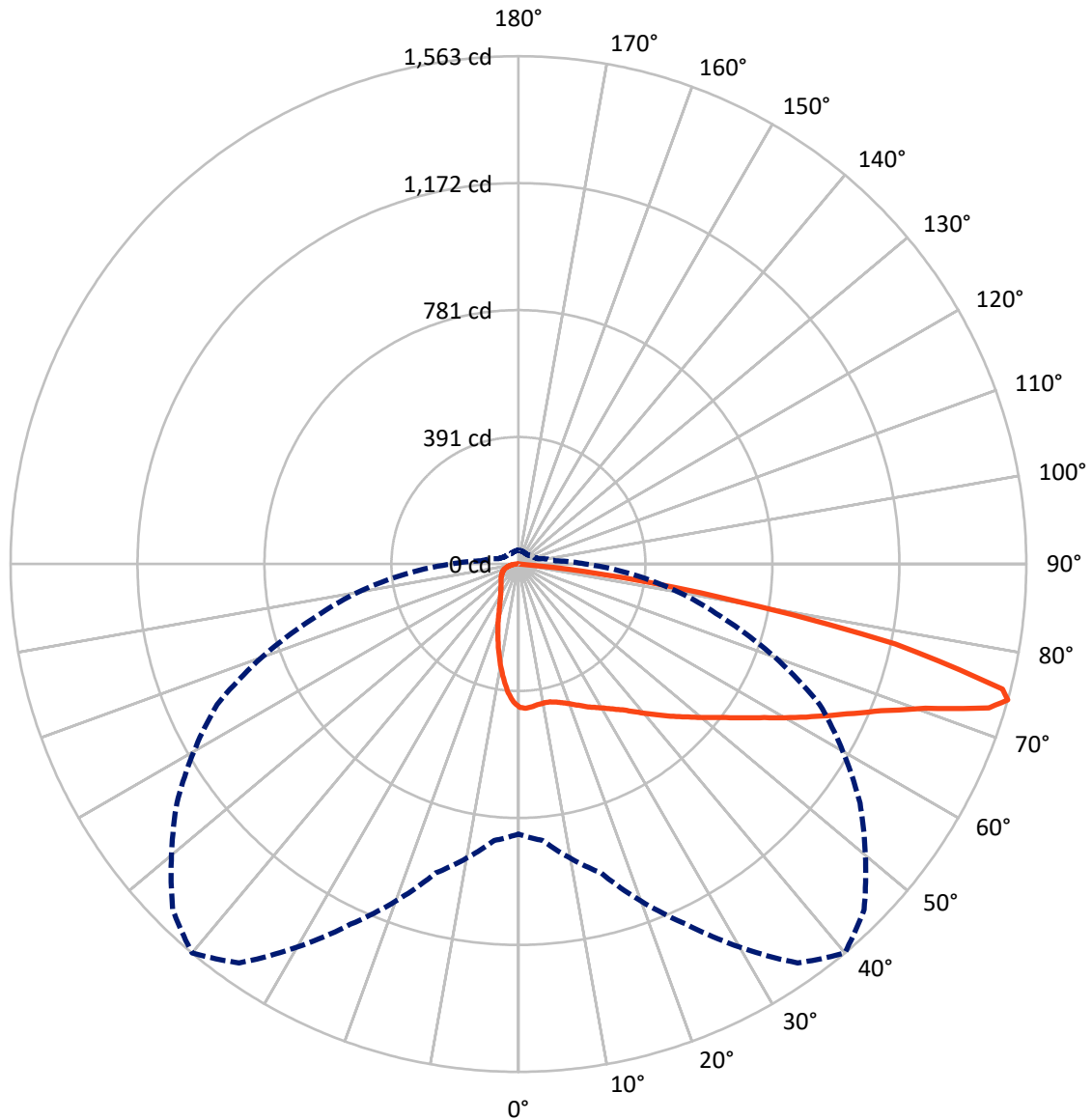


Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	368.1	0.0	368.1
	% Fixture	15.6	0.0	15.6
Street Side	Lumens	1992.9	0.0	1992.9
	% Fixture	84.4	0.0	84.4
Total	Lumens	2361.0	0.0	2361.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	1.6
10°-20°	100.2	4.2
20°-30°	153.7	6.5
30°-40°	221.9	9.4
40°-50°	319.3	13.5
50°-60°	440.9	18.7
60°-70°	555.9	23.5
70°-80°	482.0	20.4
80°-90°	48.3	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°	2361.0	100.0
0°-180°	2361.0	100.0



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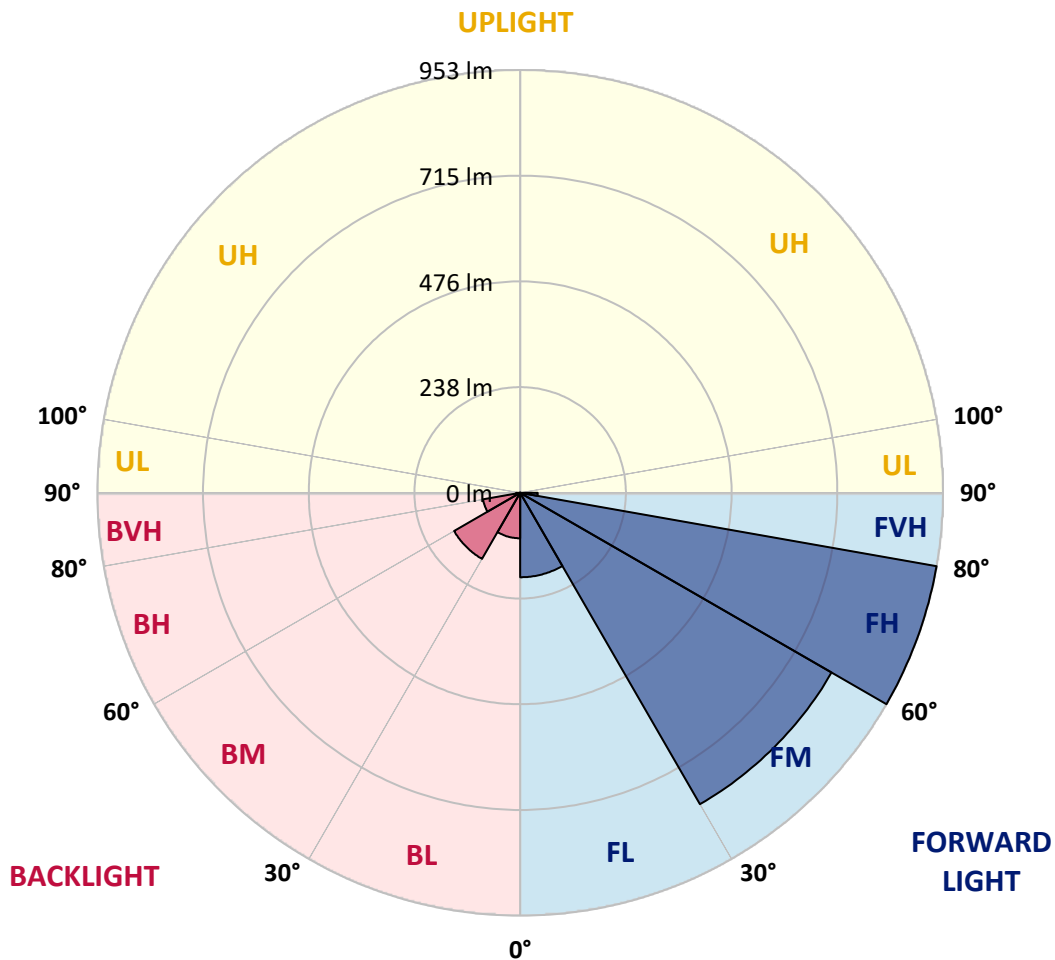
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.3	8.1			
FM	(30°-60°)	810.2	34.3			
FH	(60°-80°)	952.9	40.4			G1/1800
FVH	(80°-90°)	39.5	1.7			G1/100
BL	(0°-30°)	102.4	4.3	B0/110		
BM	(30°-60°)	171.9	7.3	B0/220		
BH	(60°-80°)	85.0	3.6	B0/110		G0/110
BVH	(80°-90°)	8.8	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7
2.5°	446.4	446.0	447.1	446.4	445.3	444.6	444.3	442.1	441.4	439.3	436.5
5°	444.6	444.6	444.6	443.9	441.8	441.1	440.4	437.2	435.0	431.5	426.2
7.5°	438.6	439.6	439.3	438.9	437.2	436.5	435.4	431.5	428.7	423.4	416.6
10°	432.9	432.9	433.3	434.7	434.0	434.3	434.0	429.7	425.8	419.1	410.6
12.5°	424.8	426.2	428.3	432.2	434.0	435.4	435.4	432.2	428.0	419.8	409.9
15°	419.8	421.6	426.9	434.0	438.2	440.7	441.4	437.5	432.2	424.1	413.1
17.5°	417.7	419.8	429.7	439.6	447.1	449.2	449.6	445.3	439.6	429.7	417.0
20°	419.8	422.3	435.4	448.9	457.7	459.5	460.2	454.2	447.1	437.5	420.9
22.5°	428.0	431.5	446.0	460.5	469.7	472.2	471.5	463.0	455.9	445.7	425.8
25°	445.7	447.8	460.9	476.5	483.5	486.4	484.6	475.0	465.8	455.6	432.9
27.5°	466.2	469.0	482.8	494.5	499.1	499.8	498.1	488.1	477.9	469.4	443.9
30°	491.0	493.5	504.8	513.6	514.0	514.3	513.3	502.0	493.5	486.7	459.8
32.5°	517.2	517.5	529.2	533.5	530.6	531.7	530.6	518.2	512.2	510.1	480.7
35°	541.2	541.6	553.6	555.0	550.4	550.8	552.9	538.4	538.4	543.4	511.9
37.5°	564.3	565.3	575.9	574.5	572.7	575.9	578.8	566.4	573.5	587.6	549.7
40°	581.6	584.1	598.2	597.5	601.4	604.6	607.1	600.7	612.0	639.7	596.5
42.5°	592.9	597.9	618.1	623.0	629.7	635.4	639.7	639.3	659.1	697.4	646.0
45°	604.6	609.6	636.5	648.5	659.8	668.7	676.8	681.1	712.6	758.2	703.7
47.5°	618.8	623.0	653.1	676.8	691.3	703.4	717.9	727.1	767.1	820.2	757.2
50°	640.4	643.2	670.1	706.9	725.3	742.0	760.0	778.8	825.8	883.5	803.9
52.5°	668.3	670.1	689.9	737.4	766.7	784.4	811.3	836.1	885.7	940.9	842.1
55°	700.2	698.8	714.0	773.8	808.1	834.7	868.0	893.1	948.7	990.8	872.6
57.5°	732.0	731.0	743.0	808.9	860.5	891.7	926.0	952.6	1006.4	1037.5	894.5
60°	762.5	758.6	775.6	849.9	923.9	959.7	990.4	1014.9	1060.9	1071.2	906.2
62.5°	789.4	789.4	814.2	900.5	999.7	1031.9	1056.3	1072.6	1112.9	1095.9	901.6
65°	814.2	817.4	852.7	957.2	1078.2	1111.2	1132.4	1138.8	1164.6	1097.0	862.7
67.5°	842.1	847.1	897.0	1023.4	1168.9	1203.9	1222.3	1220.2	1201.4	1080.7	779.1
70°	869.4	877.5	951.9	1108.7	1280.7	1328.2	1348.3	1306.6	1220.5	990.4	647.1
72.5°	889.2	903.0	996.8	1194.0	1441.1	1514.0	1505.9	1330.3	1131.0	816.3	489.6
74°	831.2	854.2	984.4	1223.4	1498.8	1562.8	1504.4	1283.2	1023.0	657.3	346.9
75°	763.5	785.8	921.8	1211.7	1509.7	1538.4	1431.5	1200.4	917.5	509.4	226.6
77.5°	565.3	582.7	708.0	955.4	1194.0	1185.5	1065.8	813.5	452.0	153.6	95.6
80°	249.6	262.7	349.4	480.7	646.7	644.3	600.0	373.8	145.8	80.4	58.4
82.5°	75.4	75.0	100.5	140.2	245.7	250.3	212.7	128.9	69.7	33.3	28.3
85°	0.4	0.4	0.4	0.4	1.1	9.2	7.8	24.8	12.7	6.0	10.3
87.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0
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°	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7	440.7
2.5°	434.7	434.3	433.3	430.8	429.0	423.7	425.5	421.9	421.6	420.9	420.5
5°	423.7	422.3	418.1	413.1	407.4	398.6	395.8	390.4	387.3	386.2	386.9
7.5°	412.4	409.2	401.1	390.4	379.1	366.0	356.5	349.0	343.7	341.9	339.5
10°	405.3	400.0	386.2	368.5	350.1	331.7	315.8	304.8	296.6	290.3	290.3
12.5°	402.8	395.8	375.6	349.7	323.2	297.0	274.0	259.5	245.7	238.9	237.9
15°	404.3	394.3	366.7	332.7	297.3	263.4	235.0	214.2	201.1	192.9	195.8
17.5°	405.7	393.3	357.5	314.7	272.2	232.9	200.0	176.3	160.4	156.1	154.3
20°	407.4	391.2	345.8	295.2	246.4	203.5	168.9	144.8	132.7	127.4	127.4
22.5°	409.9	388.3	333.8	273.6	219.8	174.9	142.7	124.6	115.0	111.9	111.9
25°	413.5	386.6	321.4	252.0	194.7	152.2	125.3	111.2	106.2	104.1	103.7
27.5°	420.2	386.9	309.4	230.1	169.9	133.1	112.9	103.7	99.8	98.8	98.4
30°	430.4	390.4	296.6	206.7	148.0	118.6	104.4	98.1	95.6	94.9	94.9
32.5°	444.6	396.8	286.0	185.8	131.7	106.9	97.3	93.1	91.7	91.0	91.3
35°	466.6	407.8	273.3	166.7	116.5	98.8	91.7	88.5	87.4	87.4	87.8
37.5°	495.2	424.8	260.9	149.0	106.2	91.7	86.4	84.6	83.5	84.2	84.6
40°	531.3	445.0	249.2	133.1	97.7	86.0	81.8	80.4	80.0	80.7	81.4
42.5°	570.3	469.4	238.6	120.0	91.0	81.4	77.9	77.2	76.8	77.2	78.2
45°	615.6	497.3	229.7	110.1	86.0	77.5	74.3	73.6	73.3	74.0	74.7
47.5°	657.3	522.5	222.7	103.4	81.8	74.7	71.5	70.4	70.4	70.4	71.2
50°	691.3	542.3	218.4	98.8	78.2	71.5	68.7	67.6	67.3	66.9	67.3
52.5°	720.7	557.2	217.0	95.9	75.4	68.7	65.8	65.1	64.4	63.7	64.1
55°	740.2	564.6	214.2	93.5	72.9	65.5	63.0	62.3	61.6	60.5	60.5
57.5°	751.5	563.9	207.8	92.0	71.5	62.7	60.2	60.2	59.5	57.7	58.1
60°	752.6	551.5	192.2	90.3	70.4	59.8	57.0	57.7	57.7	56.3	56.3
62.5°	734.5	518.9	162.1	85.7	69.0	57.7	54.5	56.3	57.0	55.6	55.6
65°	678.9	442.1	130.3	78.9	65.5	55.2	51.7	55.2	57.3	56.3	55.9
67.5°	572.4	350.1	107.6	71.5	61.6	52.0	48.8	53.5	56.3	56.3	55.9
70°	459.5	265.8	88.5	63.4	55.6	48.1	45.7	49.6	52.0	52.7	52.7
72.5°	316.5	162.5	71.9	54.5	48.8	43.5	41.4	43.9	45.3	46.7	46.4
74°	204.2	114.0	63.0	49.6	44.6	40.0	38.9	40.0	40.7	42.1	42.5
75°	136.6	93.1	58.8	46.0	42.1	37.5	36.8	37.9	38.6	39.6	39.6
77.5°	78.6	66.5	47.4	38.2	35.0	32.2	31.9	32.2	33.3	34.3	34.0
80°	54.5	50.6	37.5	29.7	27.6	26.2	26.5	26.9	28.7	29.0	28.7
82.5°	32.9	36.5	26.5	22.3	20.9	20.5	21.6	22.3	23.7	24.1	23.7
85°	13.1	17.3	13.1	12.4	13.8	15.2	17.0	18.1	18.8	18.8	18.8
87.5°	0.0	2.5	3.2	5.0	7.8	9.2	12.0	13.1	13.8	13.5	13.1
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)