

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: P401218

Luminaire Tested: **ENT-SA1B-830-U-SL3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401218
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-SA1B-830-U-SL3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA 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: 2672 lumens
Efficiency: N/A
Efficacy: 105.2 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

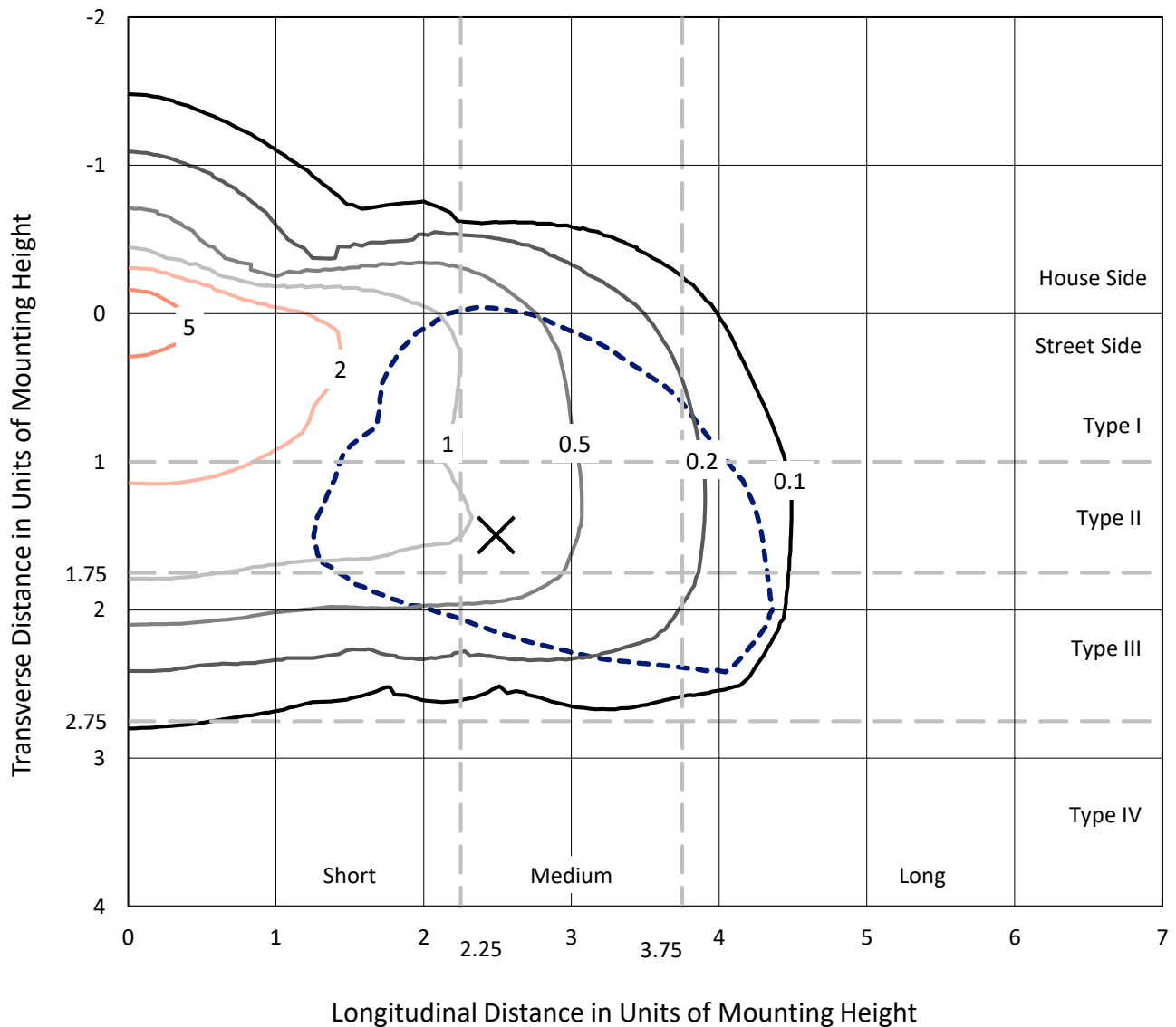
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

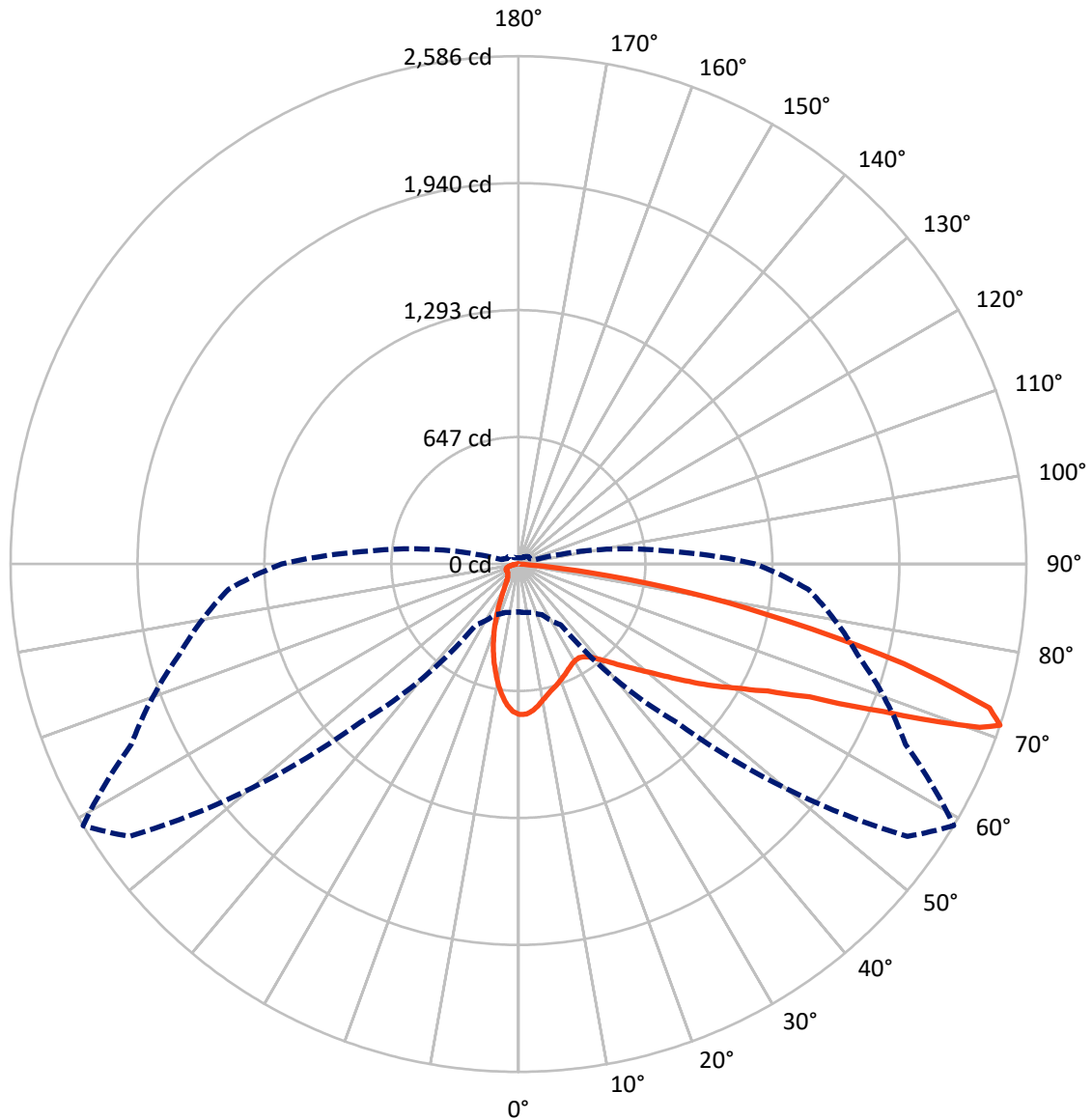
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 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	453.5	0.0	453.5
	% Fixture	17.0	0.0	17.0
Street Side	Lumens	2218.5	0.0	2218.5
	% Fixture	83.0	0.0	83.0
Total	Lumens	2672.0	0.0	2672.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	2.5
10°-20°	148.8	5.6
20°-30°	189.1	7.1
30°-40°	241.8	9.0
40°-50°	335.5	12.6
50°-60°	496.8	18.6
60°-70°	671.4	25.1
70°-80°	476.1	17.8
80°-90°	46.2	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°	2672.0	100.0
0°-180°	2672.0	100.0



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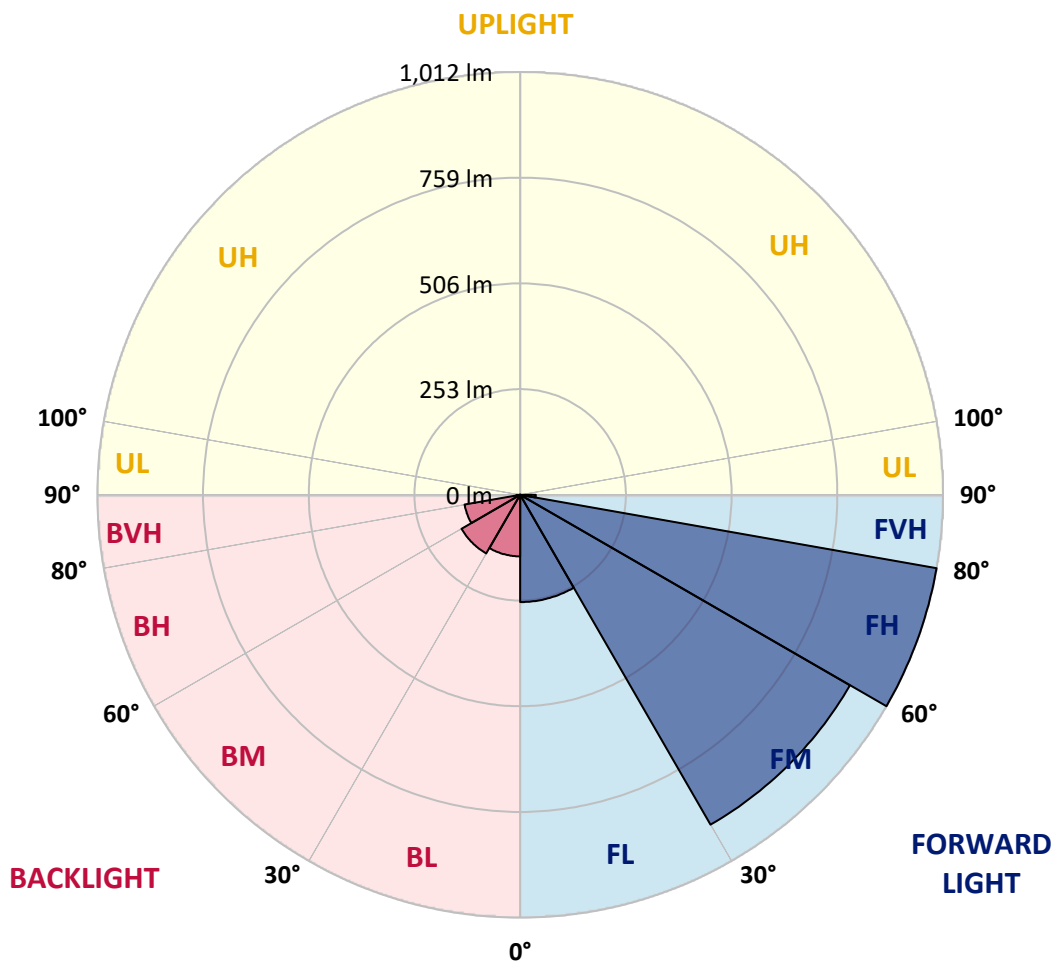
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	256.8	9.6			
FM	(30°-60°)	911.8	34.1			
FH	(60°-80°)	1012.4	37.9			G1/1800
FVH	(80°-90°)	37.4	1.4			G1/100
BL	(0°-30°)	147.3	5.5	B1/500		
BM	(30°-60°)	162.2	6.1	B0/220		
BH	(60°-80°)	135.2	5.1	B1/500		G1/500
BVH	(80°-90°)	8.8	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°	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6
2.5°	760.0	762.7	763.9	765.8	765.8	766.6	765.8	765.4	767.0	765.4	761.2
5°	726.3	727.5	731.0	734.8	738.7	746.8	749.2	750.7	754.2	755.0	750.7
7.5°	680.6	684.9	689.5	694.6	702.7	713.9	723.6	727.5	734.1	737.9	731.7
10°	641.9	644.2	646.6	655.5	668.3	683.7	693.8	701.2	711.6	716.6	710.8
12.5°	603.2	605.1	609.8	621.8	635.0	653.5	671.7	677.5	689.9	700.0	695.4
15°	573.4	573.4	576.9	590.0	604.0	628.8	650.1	659.0	674.4	688.8	683.0
17.5°	547.1	548.2	550.6	559.1	578.4	604.4	631.5	642.7	662.1	680.6	672.9
20°	532.4	531.6	533.1	537.4	552.9	580.4	612.9	626.0	650.1	675.6	663.2
22.5°	527.3	526.5	525.4	525.0	535.1	558.3	593.1	609.4	639.2	672.9	654.3
25°	531.2	531.2	527.7	521.1	525.8	541.6	575.3	592.8	627.2	671.0	646.2
27.5°	541.6	541.6	536.6	528.1	526.2	533.1	559.8	578.4	617.1	672.1	639.6
30°	556.0	555.6	550.6	543.2	537.4	535.1	552.5	569.5	610.2	677.2	636.5
32.5°	572.2	571.5	569.1	564.1	557.1	547.1	553.3	568.4	608.6	686.1	636.9
35°	591.6	590.4	591.6	588.9	582.3	571.5	567.6	579.6	616.4	702.7	643.5
37.5°	608.6	607.9	613.7	615.2	613.7	599.3	594.3	602.0	634.6	729.0	657.0
40°	623.0	623.7	634.2	645.4	647.7	635.3	631.9	638.4	664.0	761.2	681.4
42.5°	638.8	641.1	656.6	676.8	684.5	676.4	678.3	683.0	701.2	804.9	716.6
45°	654.3	659.3	680.6	706.6	726.3	726.3	732.9	737.6	749.2	859.9	768.1
47.5°	681.4	684.9	708.1	739.5	769.7	779.4	797.6	796.0	804.9	920.3	828.5
50°	716.6	722.5	746.1	778.6	816.9	844.4	865.3	868.4	871.9	982.2	900.2
52.5°	765.4	772.4	791.8	822.0	867.3	912.2	956.3	954.4	949.7	1049.6	982.2
55°	814.6	822.0	840.2	864.5	918.0	986.9	1058.9	1056.2	1034.9	1118.5	1058.1
57.5°	864.5	870.7	889.7	911.0	974.1	1075.2	1167.3	1169.2	1125.5	1195.2	1133.2
60°	885.5	894.7	941.6	982.6	1061.6	1173.1	1278.0	1283.1	1219.6	1272.6	1216.1
62.5°	791.0	802.2	879.6	990.4	1181.6	1362.1	1422.1	1425.2	1333.0	1358.2	1306.7
65°	585.4	585.0	665.2	830.9	1157.6	1615.6	1678.8	1630.0	1473.9	1471.6	1426.3
67.5°	335.3	345.4	370.9	495.6	882.0	1662.5	2135.6	2008.2	1723.7	1648.2	1585.8
70°	270.2	267.9	275.7	309.0	480.9	1367.1	2433.3	2491.4	2078.3	1792.2	1549.8
71°	243.5	247.0	254.8	285.0	379.4	1140.6	2418.6	2586.3	2175.1	1788.3	1481.3
72.5°	209.5	210.2	228.0	263.7	311.7	804.5	2236.3	2508.1	2276.5	1737.6	1380.6
75°	142.5	144.4	172.3	212.2	284.6	382.1	1600.2	2028.8	2072.1	1623.8	1140.2
77.5°	81.7	83.2	103.4	155.3	242.4	269.5	982.2	1401.9	1489.8	1187.4	611.3
80°	42.2	44.1	57.3	98.0	185.1	218.0	563.3	881.6	847.5	410.4	141.7
82.5°	11.2	12.8	16.6	35.2	89.4	142.1	249.7	364.7	260.6	85.2	51.5
85°	0.0	0.0	0.0	0.4	0.8	19.7	52.7	65.4	36.4	16.6	13.9
87.5°	0.0	0.0	0.0	0.0	0.4	0.8	0.8	0.8	0.8	1.2	1.5
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°	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6	766.6
2.5°	760.4	760.4	758.1	754.6	750.7	741.8	743.4	736.4	737.2	736.4	736.4
5°	747.2	744.9	739.1	728.3	716.3	700.4	698.1	685.3	677.9	675.6	678.3
7.5°	729.0	722.5	707.7	688.8	665.9	645.4	626.4	609.4	596.6	591.2	588.9
10°	705.0	696.9	672.9	639.6	608.2	576.1	546.3	526.9	501.4	493.6	491.3
12.5°	685.3	671.3	635.3	588.9	540.1	497.5	457.2	416.6	392.2	374.8	372.1
15°	668.3	648.5	597.0	537.0	476.2	417.4	362.8	308.2	273.7	259.0	248.6
17.5°	653.2	627.6	558.7	480.9	405.8	327.9	261.3	209.1	187.4	176.2	176.5
20°	637.7	605.1	518.8	424.7	336.1	249.7	184.7	160.3	149.4	147.1	146.0
22.5°	623.0	579.6	476.6	369.4	264.8	183.5	148.7	136.7	134.0	134.0	134.0
25°	606.3	553.6	434.0	312.8	200.6	144.8	127.8	123.5	124.3	125.8	126.2
27.5°	592.8	531.2	391.8	247.4	155.6	123.1	114.2	113.4	116.5	120.0	120.0
30°	580.8	510.7	346.1	193.2	123.9	108.0	104.9	106.1	109.2	112.3	113.4
32.5°	572.6	492.1	305.1	150.2	105.7	97.6	96.8	98.3	101.4	103.0	104.1
35°	569.1	478.5	261.0	121.2	94.1	89.8	89.4	90.6	92.1	92.5	92.1
37.5°	573.0	469.2	215.7	102.6	86.7	84.4	84.0	84.0	84.0	84.4	84.0
40°	584.2	465.8	175.0	90.6	82.1	80.1	79.0	77.8	77.0	77.0	76.7
42.5°	607.9	471.2	140.5	83.6	78.6	76.3	73.9	72.4	71.2	70.9	70.9
45°	645.8	486.3	116.9	79.0	75.5	72.0	69.3	67.8	66.6	67.0	66.6
47.5°	698.1	511.4	103.4	75.9	72.4	67.8	65.0	63.5	63.1	64.3	64.7
50°	757.3	547.1	95.2	73.6	70.1	64.3	61.2	60.0	60.4	62.7	63.1
52.5°	827.0	593.1	91.8	72.0	68.1	61.2	58.5	57.3	58.1	60.8	61.2
55°	902.1	645.8	96.8	72.8	66.2	59.2	56.1	54.6	55.8	58.1	58.5
57.5°	978.4	710.8	113.8	73.2	63.9	57.7	53.8	51.5	52.3	54.2	54.6
60°	1055.4	775.5	143.3	73.6	63.1	56.1	51.9	48.4	48.8	49.9	50.3
62.5°	1146.0	857.6	182.0	75.1	63.9	55.0	48.4	44.5	44.5	45.3	45.3
65°	1283.5	979.9	207.5	74.3	65.8	53.8	44.9	41.0	40.7	41.0	41.0
67.5°	1382.2	996.2	144.8	70.1	67.0	54.2	43.0	37.9	37.2	36.8	36.8
70°	1277.7	838.2	95.6	66.2	65.0	55.0	41.4	36.0	34.5	33.3	32.9
71°	1205.3	755.4	88.7	64.7	63.5	54.2	40.7	34.8	33.3	32.5	32.1
72.5°	1098.0	674.1	81.7	62.3	60.0	52.7	39.5	33.7	31.7	30.6	30.2
75°	867.6	516.9	71.6	57.3	51.9	43.4	36.4	31.4	29.4	27.9	27.5
77.5°	392.2	205.6	55.0	49.6	42.2	34.5	31.7	29.0	26.7	25.6	25.2
80°	109.6	78.2	40.3	39.1	31.7	26.7	25.6	24.8	24.0	22.5	22.5
82.5°	50.7	45.7	28.7	27.5	21.7	19.0	20.1	20.5	20.5	19.0	18.6
85°	13.9	15.1	13.2	14.7	13.9	12.8	14.7	15.9	16.6	15.1	13.9
87.5°	1.2	2.7	3.5	5.8	7.0	7.4	9.3	11.2	11.6	9.3	9.7
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)