

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: P401216

Luminaire Tested: **ENT-SA1B-830-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401216
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-830-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2691 lumens
Efficiency: N/A
Efficacy: 105.9 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

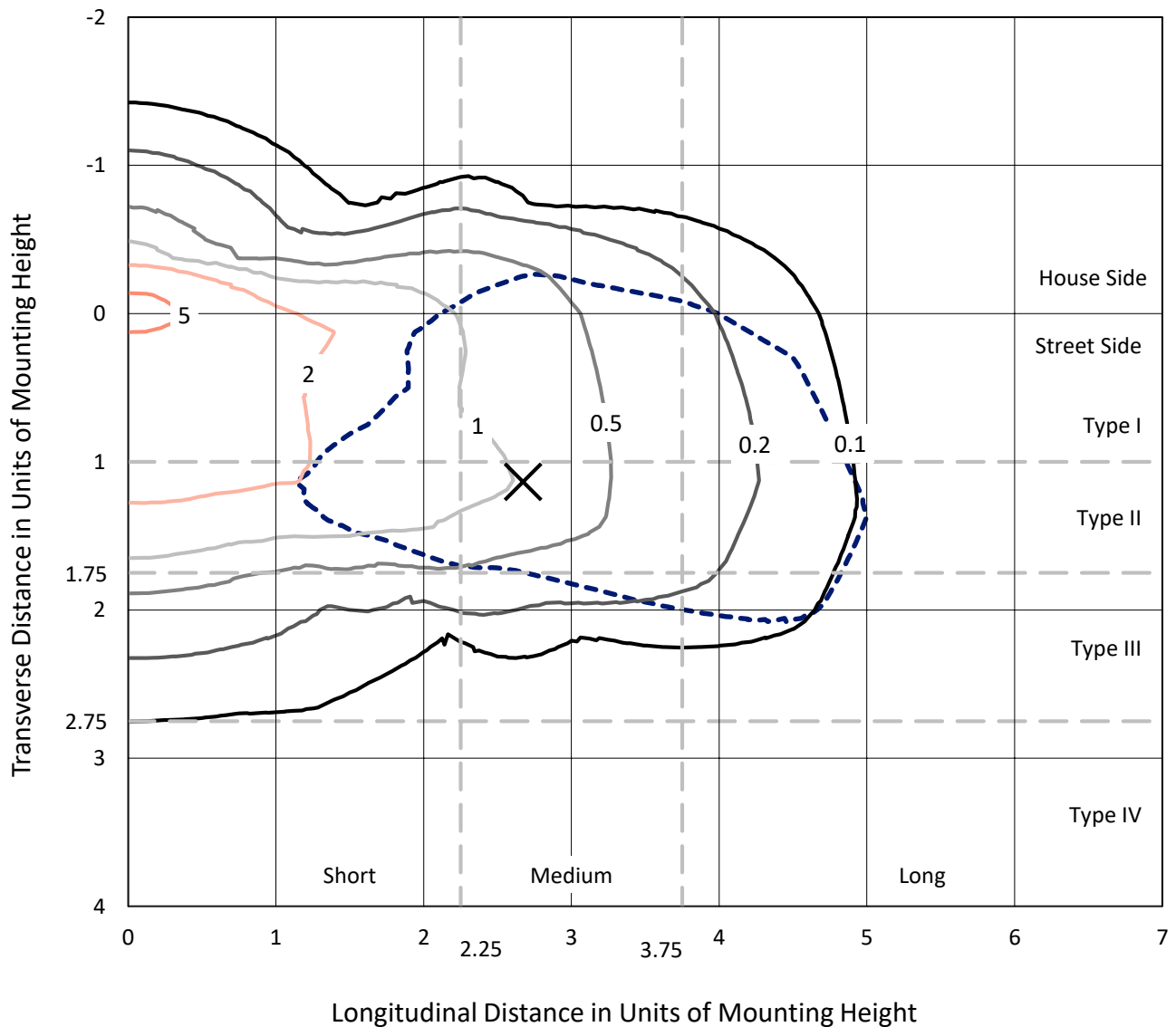
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

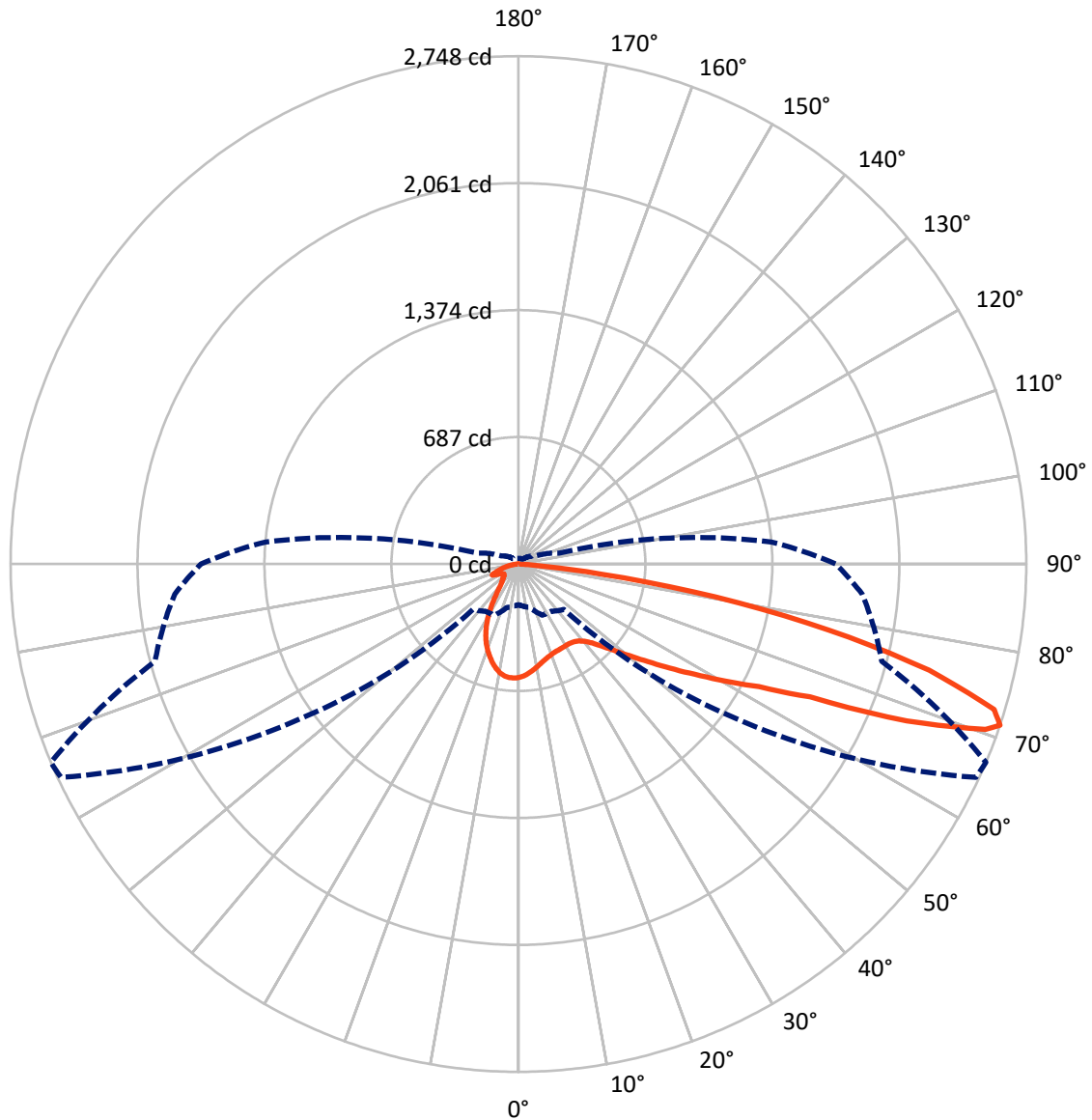
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	551.3	0.0	551.3
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	2139.7	0.0	2139.7
	% Fixture	79.5	0.0	79.5
Total	Lumens	2691.0	0.0	2691.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	2.0
10°-20°	133.6	5.0
20°-30°	180.4	6.7
30°-40°	237.6	8.8
40°-50°	338.4	12.6
50°-60°	517.0	19.2
60°-70°	645.6	24.0
70°-80°	521.1	19.4
80°-90°	62.8	2.3
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°	2691.0	100.0
0°-180°	2691.0	100.0



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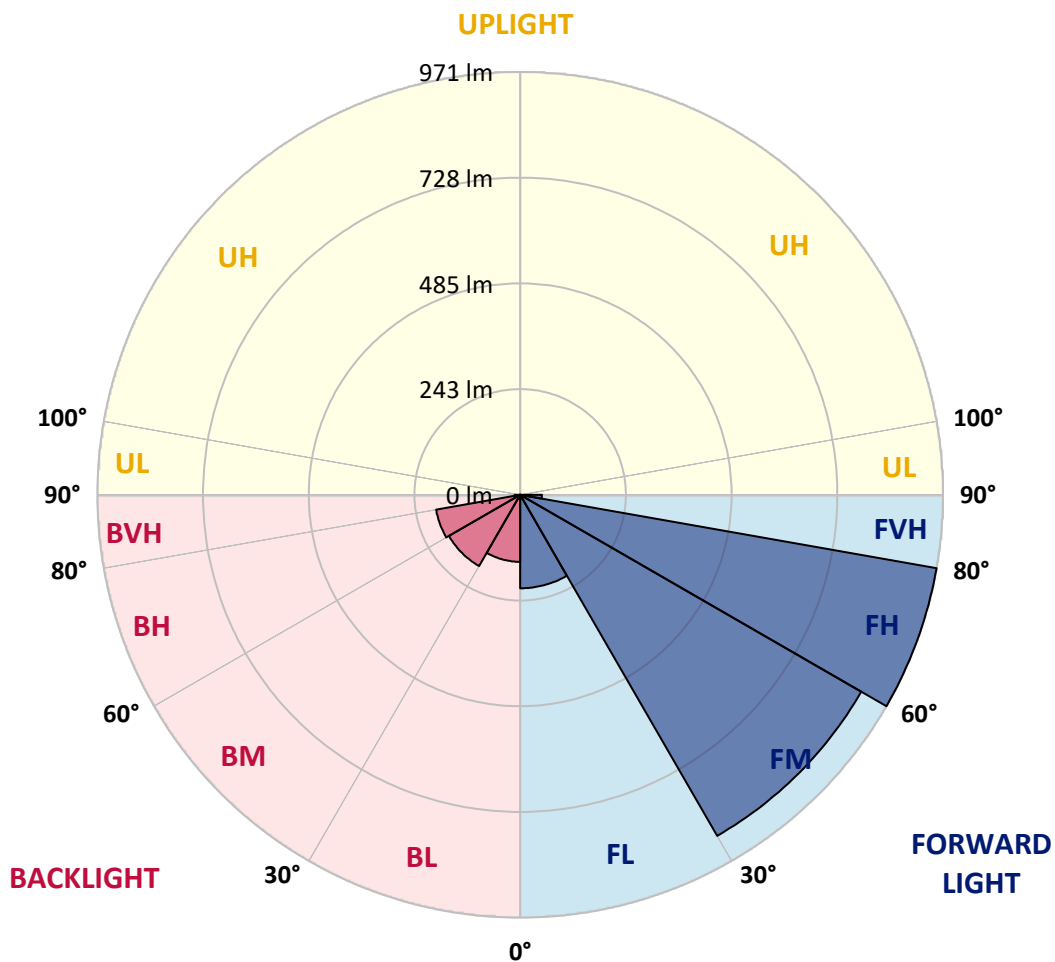
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	214.6	8.0			
FM	(30°-60°)	904.2	33.6			
FH	(60°-80°)	970.8	36.1			G1/1800
FVH	(80°-90°)	50.1	1.9			G1/100
BL	(0°-30°)	153.8	5.7	B1/500		
BM	(30°-60°)	188.9	7.0	B0/220		
BH	(60°-80°)	195.9	7.3	B1/500		G1/500
BVH	(80°-90°)	12.7	0.5			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6
2.5°	578.8	581.5	581.9	587.3	589.2	595.4	598.9	604.7	605.5	609.0	611.3
5°	541.2	541.6	543.9	548.5	555.9	567.1	575.7	590.0	592.7	602.8	611.7
7.5°	507.5	509.4	513.3	520.3	528.8	542.0	555.1	574.9	578.8	595.0	612.1
10°	484.6	486.6	489.7	497.4	505.9	520.6	536.5	559.4	563.6	586.1	610.9
12.5°	466.4	468.3	470.7	479.2	488.5	503.2	519.5	545.1	549.3	575.3	608.2
15°	454.4	454.8	457.9	464.9	475.3	489.7	505.9	532.3	537.3	566.7	607.4
17.5°	447.0	447.8	450.5	456.0	465.3	479.2	495.1	521.8	527.6	559.8	607.8
20°	447.4	448.2	449.8	451.7	458.3	470.3	486.9	514.1	519.9	555.5	610.5
22.5°	455.6	456.0	456.3	453.6	456.0	464.5	480.7	508.6	514.8	553.6	613.6
25°	471.1	471.1	470.3	464.1	459.1	462.5	477.3	506.7	512.9	552.0	616.7
27.5°	492.4	493.9	490.0	482.7	471.1	465.3	476.5	505.2	511.3	552.0	618.3
30°	521.4	522.2	520.6	511.0	492.0	476.1	478.8	504.0	510.2	551.3	618.7
32.5°	550.9	553.2	555.1	546.6	523.7	495.5	488.1	505.5	511.0	550.9	617.5
35°	580.7	582.2	591.5	590.0	565.2	524.5	503.2	511.7	516.4	552.8	618.3
37.5°	606.3	609.7	623.3	633.8	614.4	564.0	529.2	525.3	528.0	562.5	622.5
40°	633.8	638.8	658.9	678.7	670.2	613.6	566.0	549.7	548.9	580.3	633.0
42.5°	664.8	670.6	696.5	725.2	727.9	676.8	615.2	584.2	583.4	610.9	655.8
45°	701.2	706.6	741.8	775.9	792.6	747.3	675.6	633.0	633.4	653.5	692.3
47.5°	746.1	754.6	788.7	832.1	861.9	826.7	748.8	701.2	698.1	717.8	751.9
50°	809.2	816.2	844.5	886.7	939.0	922.8	841.0	783.3	781.0	790.3	831.7
52.5°	875.5	877.8	891.4	935.1	1023.1	1039.4	954.5	885.2	876.3	881.3	930.9
55°	879.4	884.4	893.3	948.7	1098.6	1179.2	1079.6	1005.3	993.6	990.2	1043.6
57.5°	798.8	806.9	818.5	890.2	1101.7	1340.7	1257.5	1145.5	1124.6	1107.1	1164.1
60°	628.0	638.4	659.7	747.7	1023.1	1432.9	1554.2	1302.8	1284.2	1224.9	1281.9
62.5°	454.0	458.3	478.8	518.3	812.0	1438.4	1863.3	1508.1	1462.0	1339.6	1383.4
65°	365.7	372.7	378.9	378.5	480.7	1275.7	2068.6	1873.4	1734.3	1467.8	1494.9
67.5°	301.4	303.7	318.8	345.2	327.0	787.9	2089.2	2407.2	2266.2	1640.6	1627.4
70°	251.8	252.6	267.7	314.9	313.0	406.8	1751.8	2714.4	2680.3	1924.1	1834.7
71°	220.4	227.0	243.7	304.9	311.5	347.5	1488.3	2730.7	2747.7	2035.3	1866.8
72.5°	173.5	173.5	197.2	279.7	314.2	320.8	1096.7	2642.0	2691.2	2161.6	1811.0
75°	101.9	101.1	113.9	194.9	321.1	319.6	598.9	2195.7	2295.3	2184.5	1676.2
77.5°	57.3	58.5	65.5	108.5	254.9	306.8	344.0	1598.7	1716.1	1827.3	1417.4
80°	26.3	27.9	32.9	52.7	150.3	265.0	245.6	1038.2	1082.7	1098.2	669.8
82.5°	7.0	7.7	10.1	20.1	58.1	180.5	181.7	434.6	449.0	259.5	143.7
85°	0.0	0.0	0.0	0.0	0.8	22.1	51.5	78.3	65.1	34.5	29.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.2	1.5	1.5	1.5	1.9
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°	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.6
2.5°	613.2	614.8	617.5	617.1	616.3	611.7	614.4	611.7	611.3	610.1	610.5
5°	614.8	617.1	618.7	615.2	609.4	599.3	595.8	586.9	581.1	578.0	576.4
7.5°	617.1	618.7	617.9	608.2	593.1	574.1	557.8	545.1	531.5	529.2	528.4
10°	617.1	618.7	612.5	593.9	567.9	538.1	513.3	492.4	471.4	463.7	464.9
12.5°	615.6	616.3	602.0	572.2	534.6	493.9	459.1	424.6	397.8	381.6	378.5
15°	614.4	613.2	588.1	545.1	495.1	444.7	392.0	345.5	313.8	292.5	289.8
17.5°	614.4	610.1	571.4	514.1	452.1	382.7	313.0	262.6	227.4	215.0	214.6
20°	615.2	605.9	553.6	481.9	398.6	309.1	233.6	190.6	177.4	175.5	175.9
22.5°	615.9	600.1	534.2	445.5	339.0	230.5	167.0	151.5	152.6	157.3	156.9
25°	615.2	592.3	511.3	404.8	273.9	166.2	134.8	130.9	137.9	143.3	144.9
27.5°	613.2	582.2	486.9	356.4	208.8	130.9	117.8	117.4	124.4	129.4	129.0
30°	607.4	570.2	458.7	305.3	150.7	111.6	106.1	107.3	112.0	116.6	116.6
32.5°	601.2	556.7	428.8	249.5	115.8	101.1	99.2	99.6	102.7	106.1	105.8
35°	594.6	543.5	398.2	191.4	101.5	94.9	94.1	93.7	94.9	95.7	95.7
37.5°	590.8	531.9	364.5	144.1	93.7	91.0	89.5	87.9	87.5	86.8	86.0
40°	592.3	524.1	332.0	111.6	89.1	86.8	84.5	82.1	80.6	79.8	79.4
42.5°	603.2	521.8	296.0	96.1	84.8	82.9	79.8	75.9	74.4	74.4	74.0
45°	628.3	528.8	262.3	88.3	81.0	78.6	73.6	70.9	69.7	70.1	70.1
47.5°	667.9	548.5	232.0	84.5	78.3	74.8	69.0	66.2	65.5	65.9	65.9
50°	727.1	585.7	201.1	81.0	75.2	70.5	65.5	62.4	61.2	61.2	61.2
52.5°	813.9	646.9	178.6	78.6	72.4	67.0	62.0	58.5	56.9	56.9	56.6
55°	919.7	726.7	170.1	77.1	69.0	63.9	58.5	55.0	52.7	51.9	52.3
57.5°	1035.5	830.2	182.5	76.7	65.1	60.4	55.0	50.7	48.4	48.0	47.6
60°	1154.8	932.8	218.1	74.8	62.0	56.2	51.1	47.3	44.9	44.2	43.8
62.5°	1257.8	1035.1	277.0	73.2	59.7	52.3	46.9	43.4	41.5	40.3	40.3
65°	1382.2	1152.5	366.9	75.2	58.5	48.4	43.0	39.9	38.4	37.2	37.2
67.5°	1551.9	1326.4	435.0	84.5	61.2	45.3	38.7	36.4	35.3	34.5	34.5
70°	1718.8	1424.0	302.5	99.2	68.2	42.6	34.9	33.3	32.5	31.8	31.8
71°	1716.5	1371.7	227.4	102.7	70.5	41.8	33.3	32.2	31.4	31.0	30.6
72.5°	1630.5	1247.0	163.1	99.6	69.3	39.5	31.4	30.2	29.4	29.4	29.1
75°	1462.4	1099.0	127.4	83.3	58.1	35.3	27.9	27.1	26.3	26.0	26.3
77.5°	1198.2	879.4	100.3	65.9	44.2	29.1	24.8	23.6	23.2	22.9	23.2
80°	550.5	383.1	73.2	51.1	32.9	23.2	20.9	20.5	20.1	19.8	19.8
82.5°	132.5	107.3	39.1	34.1	22.5	17.8	16.7	16.7	16.7	16.3	16.3
85°	29.1	29.1	15.9	15.9	13.6	12.4	13.2	13.2	13.2	12.4	12.4
87.5°	1.5	4.6	5.0	7.4	7.7	7.4	8.9	9.3	8.9	8.5	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)