

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: P401196

Luminaire Tested: **ENT-SA1B-760-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401196
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-760-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 5700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3428 lumens
Efficiency: N/A
Efficacy: 135.0 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

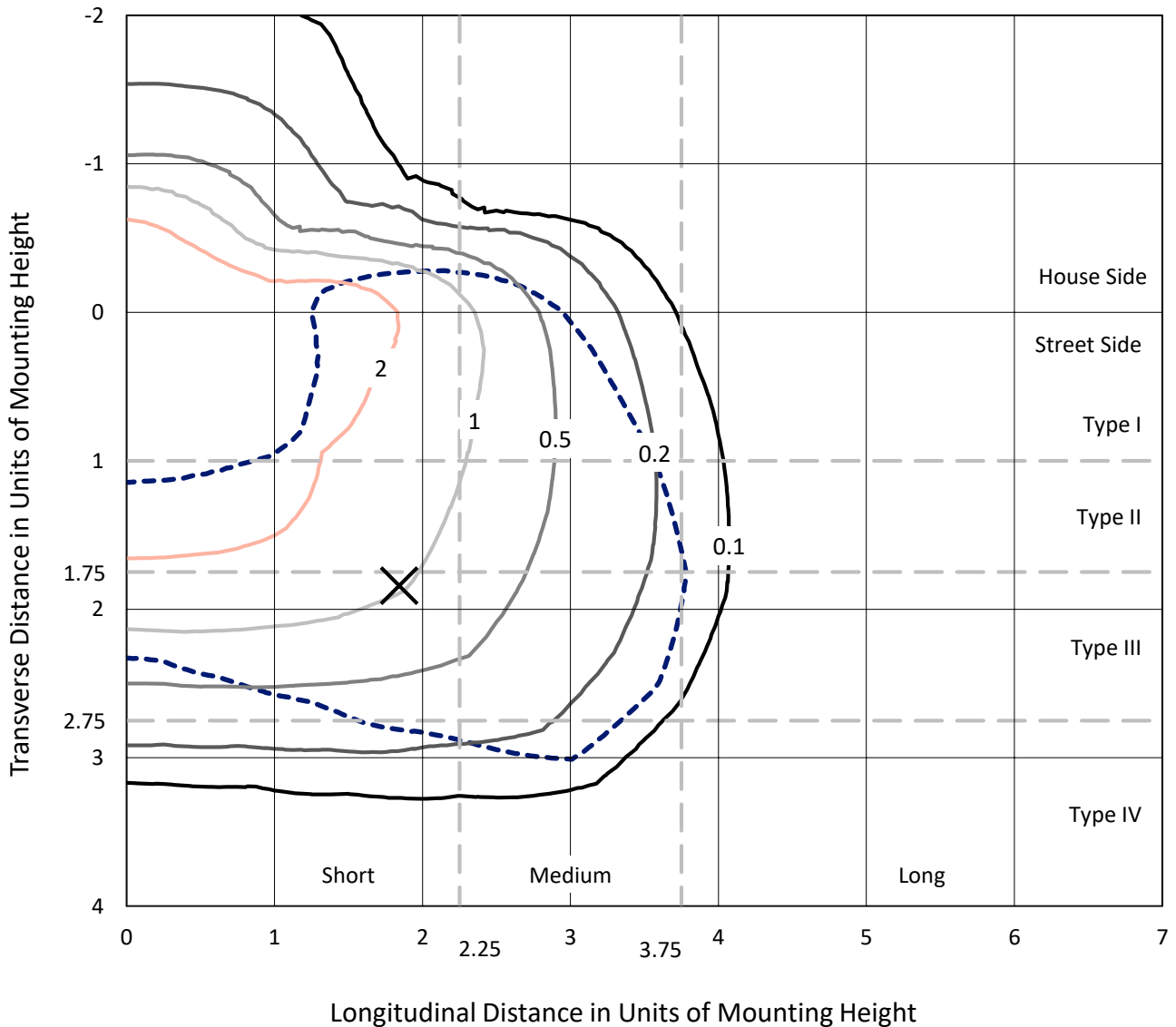
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

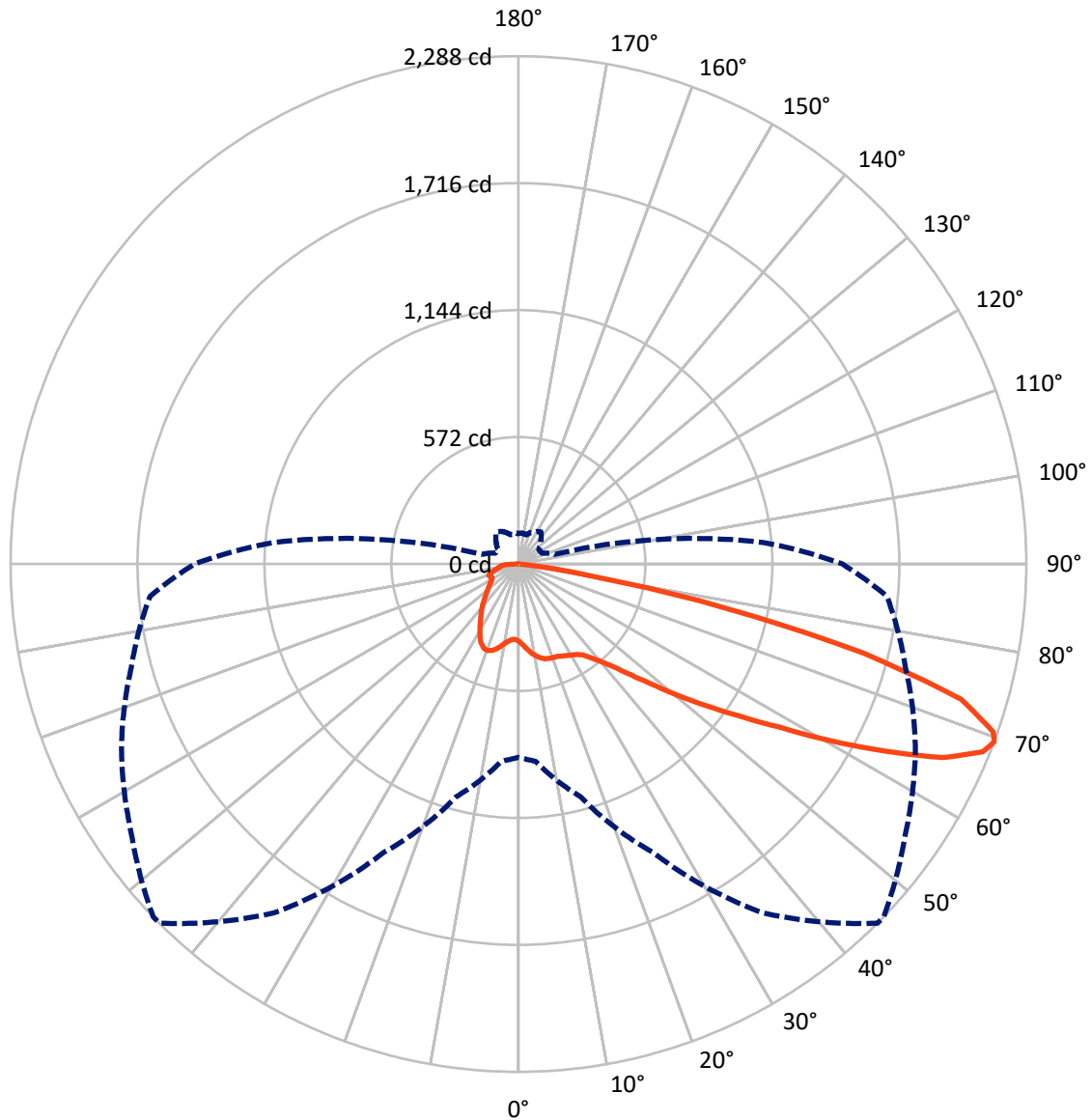
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 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	807.1	0.0	807.1
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	2620.9	0.0	2620.9
	% Fixture	76.5	0.0	76.5
Total	Lumens	3428.0	0.0	3428.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.0
10°-20°	117.5	3.4
20°-30°	198.5	5.8
30°-40°	287.2	8.4
40°-50°	433.7	12.7
50°-60°	731.3	21.3
60°-70°	1006.1	29.3
70°-80°	557.5	16.3
80°-90°	60.7	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°	3428.0	100.0
0°-180°	3428.0	100.0



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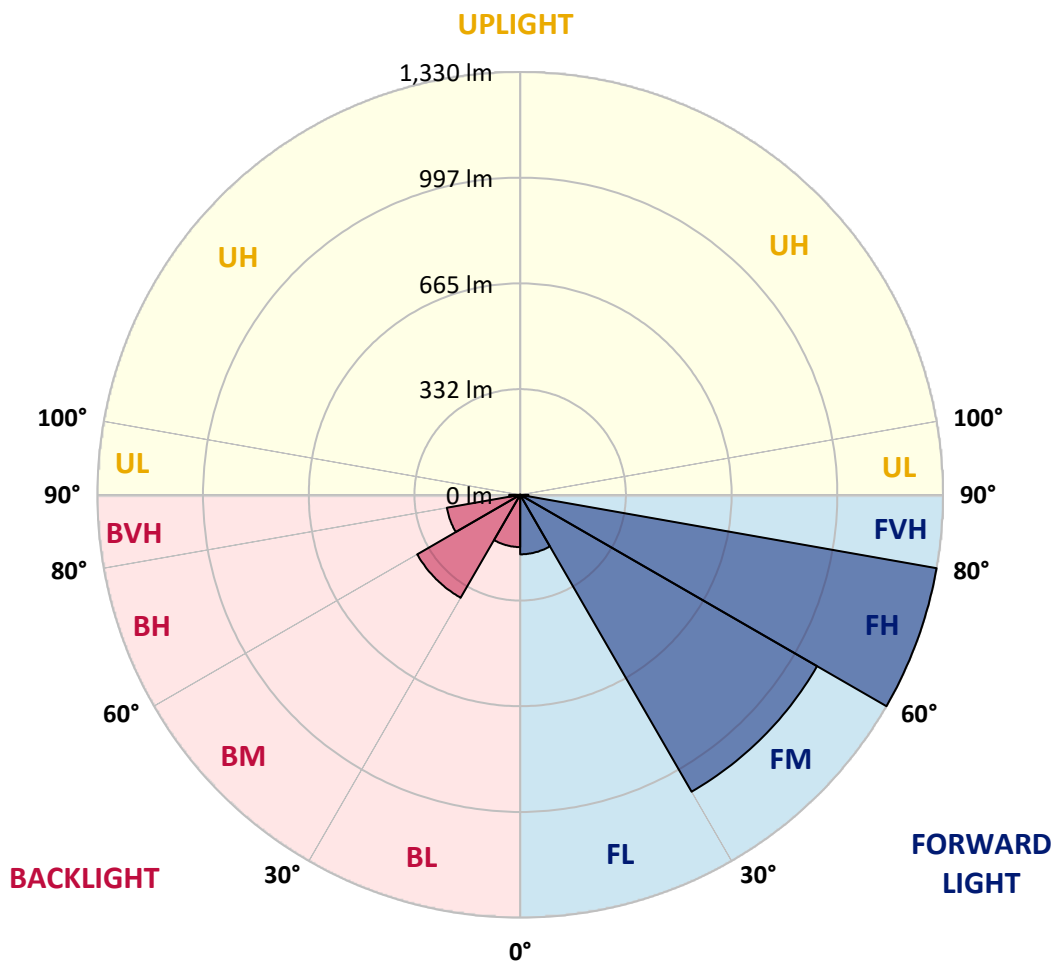
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	187.1	5.5			
FM	(30°-60°)	1078.1	31.5			
FH	(60°-80°)	1329.7	38.8			G1/1800
FVH	(80°-90°)	26.0	0.8			G1/100
BL	(0°-30°)	164.3	4.8	B1/500		
BM	(30°-60°)	374.1	10.9	B1/1000		
BH	(60°-80°)	233.9	6.8	B1/500		G1/500
BVH	(80°-90°)	34.7	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°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	369.9	369.4	369.9	367.9	366.0	363.1	362.1	358.7	356.2	352.8	349.9
5°	397.2	398.6	398.1	395.7	387.9	382.1	382.1	374.8	367.0	359.6	352.8
7.5°	426.9	426.9	424.0	419.1	411.3	402.5	401.6	391.8	380.6	370.4	359.6
10°	448.3	449.3	444.9	438.1	428.4	419.1	418.1	406.9	396.2	383.0	369.9
12.5°	463.4	463.4	459.5	453.2	441.5	432.7	431.8	421.5	410.3	396.7	381.6
15°	471.2	470.3	466.9	460.0	449.8	442.5	441.0	432.3	423.0	409.4	393.3
17.5°	469.8	469.8	466.9	460.0	452.7	446.9	445.9	439.6	432.7	419.6	403.5
20°	463.4	463.0	462.0	456.6	451.8	449.3	448.3	445.4	441.0	429.8	414.7
22.5°	457.6	457.1	455.6	452.2	450.3	451.8	451.8	451.3	450.8	442.0	427.4
25°	461.0	460.5	457.6	452.7	452.2	459.1	459.5	461.0	462.0	454.7	439.6
27.5°	484.9	483.4	475.1	462.5	458.1	466.9	467.8	472.2	471.2	463.4	450.3
30°	531.7	532.2	513.6	486.4	471.7	475.6	476.1	481.0	479.5	473.2	462.5
32.5°	602.3	602.3	572.1	530.7	493.7	485.9	484.4	488.8	494.6	486.4	475.6
35°	692.0	689.6	653.0	589.2	531.2	503.4	502.4	500.5	510.7	502.9	487.3
37.5°	782.2	773.4	737.8	667.6	583.8	537.5	533.6	527.8	533.6	517.1	503.4
40°	854.8	853.3	824.1	752.9	646.2	578.9	576.0	550.2	554.1	540.9	535.6
42.5°	934.7	935.7	916.2	844.5	720.8	635.0	627.2	587.2	598.4	593.6	591.1
45°	1022.4	1021.4	1006.8	931.8	811.9	713.0	703.2	654.0	676.9	674.0	687.6
47.5°	1089.7	1095.0	1086.7	1033.6	920.1	807.5	800.2	740.2	774.8	798.2	824.1
50°	1181.3	1180.8	1158.4	1136.4	1045.8	928.4	921.0	854.3	904.0	938.1	985.4
52.5°	1294.8	1290.9	1244.6	1236.8	1198.8	1060.4	1054.1	984.4	1055.5	1085.3	1181.3
55°	1366.0	1365.5	1341.6	1355.3	1356.2	1207.6	1199.8	1137.9	1218.3	1252.4	1397.6
57.5°	1425.4	1425.9	1445.9	1493.7	1525.8	1386.4	1383.5	1308.0	1389.4	1437.1	1608.7
60°	1471.2	1481.0	1537.0	1646.2	1699.8	1614.5	1601.8	1521.9	1576.5	1595.5	1770.0
62.5°	1452.7	1465.4	1575.5	1736.3	1874.3	1856.2	1851.8	1736.3	1735.9	1726.1	1890.3
65°	1306.5	1333.8	1507.3	1732.9	1989.3	2101.8	2095.5	1938.6	1884.0	1835.3	1926.4
67.5°	1069.2	1075.0	1284.1	1600.4	1988.3	2256.3	2249.5	2085.8	1976.1	1856.7	1820.6
69°	870.4	891.8	1085.3	1432.7	1918.1	2287.5	2287.5	2126.7	1972.7	1805.5	1665.7
70°	752.9	753.9	940.5	1299.2	1822.6	2269.0	2273.4	2126.7	1944.9	1738.8	1528.3
72.5°	352.8	374.8	492.7	847.9	1472.2	2085.8	2096.5	1986.3	1783.6	1498.0	1146.7
75°	105.7	109.6	164.2	402.0	843.6	1606.7	1630.6	1652.5	1452.7	1102.8	706.1
77.5°	62.9	62.4	79.4	136.5	390.3	952.7	963.4	1057.0	942.5	613.1	320.7
80°	30.7	31.7	42.4	66.3	146.2	346.0	380.6	494.1	417.6	239.8	117.4
82.5°	10.2	11.2	17.5	26.8	61.9	111.6	123.3	155.0	133.5	87.2	50.2
85°	0.0	0.0	0.5	1.0	3.4	8.3	8.3	18.5	27.8	30.7	16.6
87.5°	0.0	0.0	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	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°	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0	348.0
2.5°	348.4	347.5	345.5	343.6	342.6	340.2	340.6	339.7	339.2	339.2	339.7
5°	349.4	348.0	345.0	343.1	341.1	340.2	342.6	343.6	344.5	344.5	345.0
7.5°	355.3	352.3	348.9	346.5	347.0	348.4	352.3	355.3	356.7	357.7	358.7
10°	365.0	361.6	356.7	356.2	357.2	361.1	366.5	370.9	374.8	377.2	377.2
12.5°	375.2	370.9	367.0	367.9	372.3	378.2	383.5	388.4	391.8	394.2	394.7
15°	386.4	382.1	378.2	380.6	387.9	394.7	399.6	401.6	403.0	405.5	405.9
17.5°	396.7	392.8	389.4	395.7	402.0	407.4	408.9	407.9	405.9	407.4	408.4
20°	407.4	404.0	402.0	408.9	413.3	413.7	409.8	405.5	400.6	400.6	401.1
22.5°	420.6	416.2	415.2	418.6	417.2	411.3	401.6	394.7	387.9	386.9	388.4
25°	433.2	428.8	428.4	425.9	413.3	398.1	385.0	377.2	371.8	372.3	375.2
27.5°	445.9	443.0	443.5	430.3	402.0	379.1	361.6	355.3	356.7	357.7	360.6
30°	458.6	458.6	460.5	430.3	386.4	352.3	335.8	335.3	339.2	342.1	345.5
32.5°	473.2	477.6	474.2	424.9	365.5	325.0	311.9	312.9	317.2	322.1	325.0
35°	487.3	497.6	487.8	412.8	336.7	300.2	289.5	288.0	291.4	295.8	297.3
37.5°	509.7	526.3	499.5	393.8	307.0	278.3	267.5	263.6	260.2	263.6	263.2
40°	548.7	568.7	508.3	362.1	278.3	257.8	246.6	239.3	231.0	223.7	223.7
42.5°	611.1	624.3	513.2	323.6	249.5	237.3	226.1	215.4	202.7	189.6	189.6
45°	713.0	715.9	515.1	282.6	223.2	216.9	205.2	194.9	178.4	165.2	162.3
47.5°	848.9	836.2	520.0	243.2	200.3	198.8	189.1	177.4	159.4	147.2	145.7
50°	1031.7	977.1	541.4	211.5	181.8	183.2	175.9	162.3	145.2	136.5	134.5
52.5°	1237.3	1155.0	558.0	186.2	165.7	170.1	164.7	151.6	136.9	129.6	128.2
55°	1462.0	1326.0	554.1	169.1	153.5	158.4	156.4	145.2	132.1	125.7	124.3
57.5°	1645.2	1446.4	520.0	154.0	141.3	148.1	150.1	141.3	129.1	123.3	121.8
60°	1782.6	1512.2	449.8	141.3	131.6	139.9	145.2	138.9	128.7	125.2	123.8
62.5°	1845.0	1506.3	358.7	131.6	124.3	134.0	145.7	142.8	136.0	138.4	138.9
65°	1809.9	1432.7	269.0	124.3	119.9	135.0	154.0	154.0	143.8	148.1	148.6
67.5°	1630.1	1240.2	195.9	118.9	115.5	139.9	169.6	159.8	140.3	143.8	142.3
69°	1459.1	1109.6	168.1	116.0	112.1	142.3	176.4	160.8	136.5	140.3	136.5
70°	1333.3	991.7	151.1	113.5	110.6	142.3	178.4	159.8	134.5	137.4	133.0
72.5°	948.8	688.6	124.3	108.7	105.3	131.6	174.9	154.5	129.1	125.7	117.4
75°	551.7	380.6	105.7	103.3	93.1	115.5	166.2	148.6	123.8	117.4	111.6
77.5°	231.5	170.1	90.2	94.1	82.4	102.8	155.5	142.8	117.4	108.7	105.7
80°	94.1	84.8	75.0	81.4	71.6	90.6	143.3	133.0	108.2	99.4	95.0
82.5°	49.2	46.8	57.5	65.8	59.5	83.3	135.0	126.2	100.4	91.6	86.3
85°	14.6	19.5	32.7	44.8	45.3	75.0	131.1	117.0	87.2	75.5	74.6
87.5°	1.0	3.9	11.2	23.4	29.7	57.5	106.2	96.0	70.7	59.5	59.9
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)