

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: P401446

Luminaire Tested: **ENT-SA1D-727-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401446
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-727-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4521 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

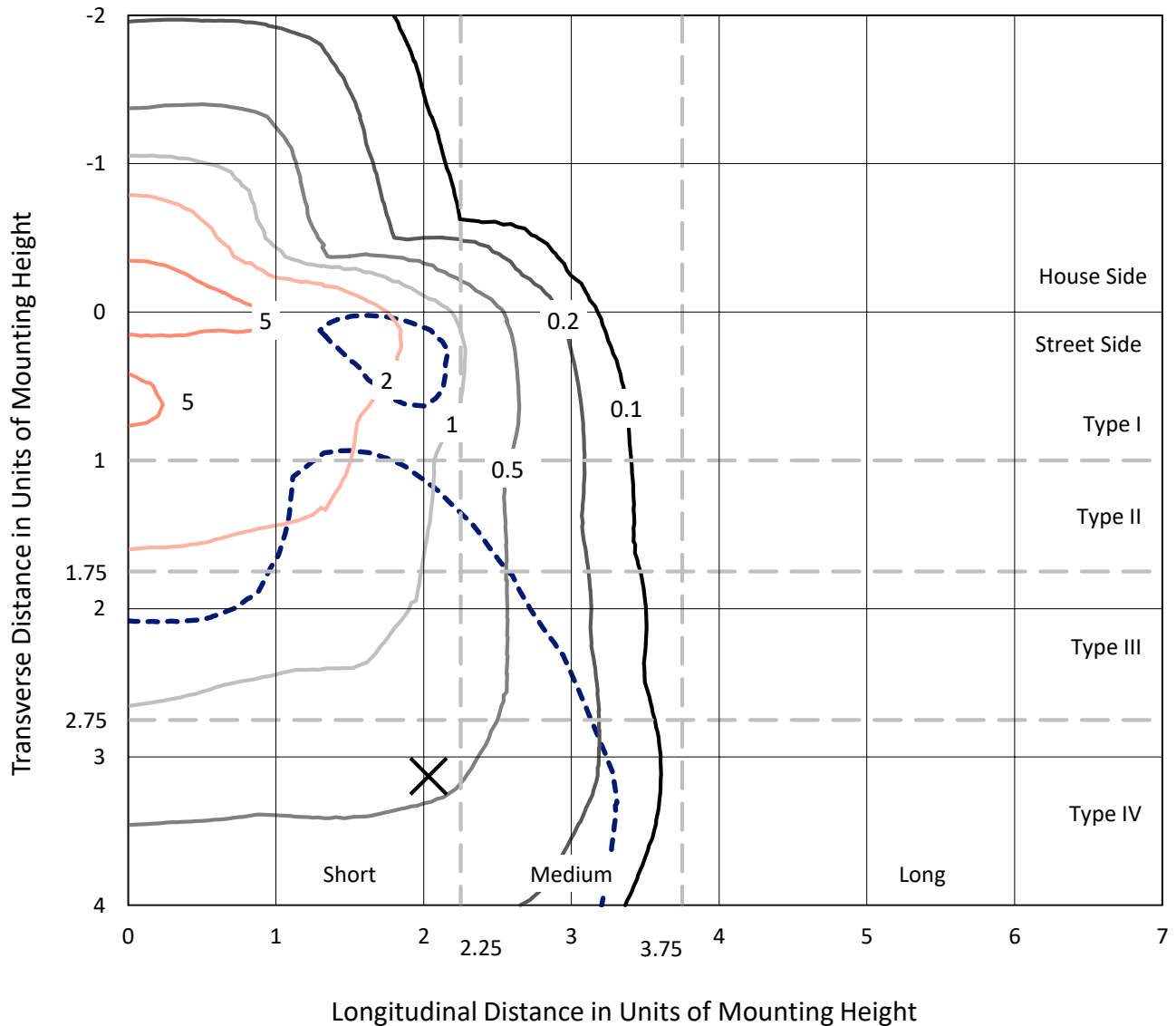
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

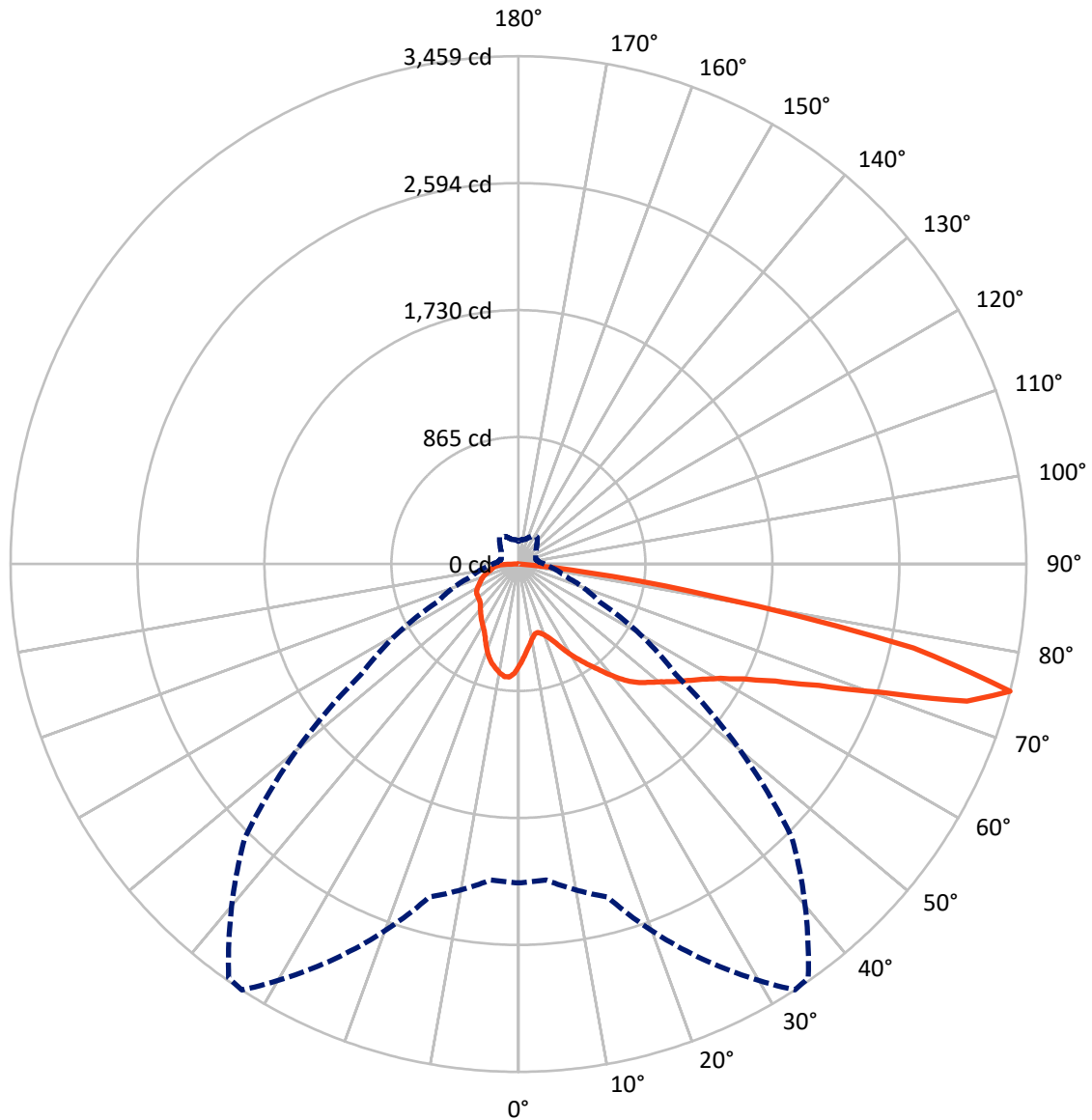
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1098.3	0.0	1098.3
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	3422.7	0.0	3422.7
	% Fixture	75.7	0.0	75.7
Total	Lumens	4521.0	0.0	4521.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.7	1.4
10°-20°	182.0	4.0
20°-30°	302.6	6.7
30°-40°	451.5	10.0
40°-50°	630.7	14.0
50°-60°	841.9	18.6
60°-70°	1043.9	23.1
70°-80°	902.6	20.0
80°-90°	100.9	2.2
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°	4521.0	100.0
0°-180°	4521.0	100.0



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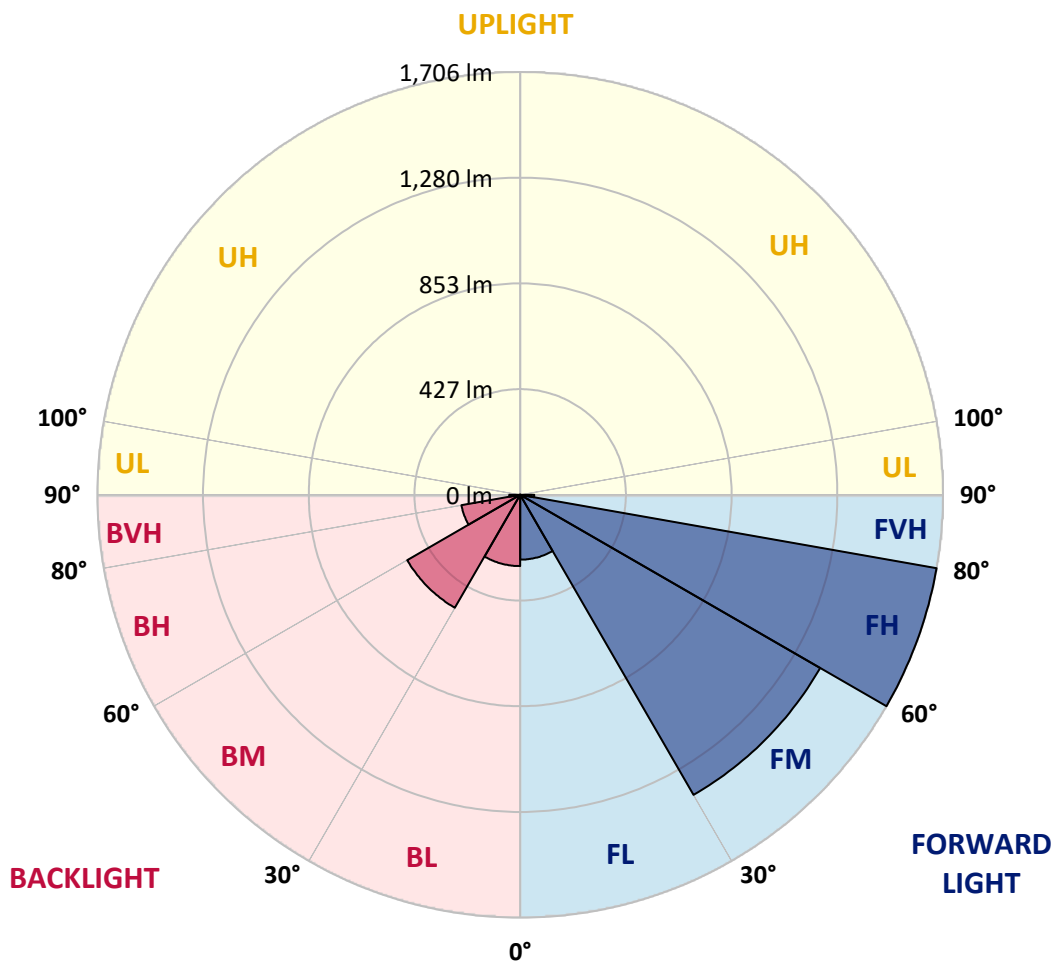
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	261.8	5.8			
FM	(30°-60°)	1397.9	30.9			
FH	(60°-80°)	1706.0	37.7			G1/1800
FVH	(80°-90°)	57.0	1.3			G1/100
BL	(0°-30°)	287.6	6.4	B1/500		
BM	(30°-60°)	526.3	11.6	B1/1000		
BH	(60°-80°)	240.5	5.3	B1/500		G1/500
BVH	(80°-90°)	43.9	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°	33°	35°	45°	55°	65°	75°	85°
0°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	628.3	629.7	633.7	638.4	641.1	641.1	648.4	657.2	667.9	677.3	687.4
5°	576.0	578.0	581.3	587.4	594.7	596.1	610.9	626.3	645.8	666.6	686.7
7.5°	524.3	528.3	535.0	543.1	554.5	557.2	578.0	598.8	625.6	657.2	690.1
10°	484.7	487.3	490.7	502.1	516.2	520.9	548.4	574.6	611.5	650.5	694.1
12.5°	473.9	473.9	473.9	479.3	490.7	494.7	523.6	557.2	598.8	645.8	700.1
15°	489.4	488.7	481.3	477.3	484.0	487.3	512.2	545.1	592.1	647.1	711.5
17.5°	524.3	522.2	504.8	491.4	496.1	498.1	514.2	542.4	590.0	652.5	728.3
20°	569.9	565.2	538.4	518.2	517.6	518.9	531.0	550.4	593.4	661.9	746.5
22.5°	630.3	627.6	588.0	557.2	551.8	551.8	557.2	569.2	602.1	672.6	771.3
25°	708.2	700.8	653.1	611.5	599.4	596.1	595.4	595.4	617.6	688.7	802.2
27.5°	788.1	779.3	731.0	674.6	658.5	652.5	641.7	633.7	637.7	706.2	839.1
30°	859.9	847.8	806.9	748.5	724.3	714.9	695.4	678.7	667.9	730.3	888.1
32.5°	899.5	894.8	866.6	813.6	786.1	782.0	749.8	727.7	708.9	761.9	953.9
35°	952.5	946.5	928.4	884.7	851.8	841.8	817.6	791.4	761.2	804.2	1037.1
37.5°	1001.5	998.2	991.5	961.3	926.4	916.3	894.1	866.6	825.7	866.6	1130.4
40°	1051.2	1047.2	1044.5	1033.8	1008.9	1002.2	991.5	959.2	904.2	935.1	1222.4
42.5°	1123.7	1115.0	1086.8	1086.1	1088.1	1093.5	1094.2	1058.6	990.1	1020.3	1302.9
45°	1218.4	1194.2	1131.1	1129.1	1152.6	1166.7	1200.9	1170.7	1079.4	1107.6	1392.9
47.5°	1266.7	1241.9	1176.7	1172.7	1203.6	1224.4	1309.0	1279.4	1172.0	1205.6	1486.2
50°	1290.2	1274.1	1217.0	1229.8	1261.3	1281.5	1411.7	1388.2	1268.0	1311.7	1603.7
52.5°	1323.1	1296.2	1255.9	1282.8	1329.8	1350.6	1503.6	1499.6	1349.3	1427.1	1732.6
55°	1311.7	1297.6	1305.0	1341.2	1400.3	1431.2	1596.3	1596.3	1431.8	1550.6	1860.1
57.5°	1321.1	1311.7	1372.8	1405.0	1479.5	1523.8	1707.7	1678.2	1501.6	1654.0	1946.0
60°	1400.9	1374.1	1421.8	1485.5	1581.5	1624.5	1835.3	1764.1	1558.7	1743.3	1961.5
62.5°	1541.9	1520.4	1525.1	1598.3	1722.5	1772.2	1961.5	1840.0	1597.0	1780.9	1903.7
65°	1775.5	1765.4	1707.7	1752.0	1923.2	1968.2	2119.2	1905.7	1586.2	1752.7	1751.3
67.5°	2089.7	2049.4	1971.5	2011.1	2208.5	2254.1	2309.2	1930.6	1516.4	1584.2	1407.7
70°	2350.1	2316.6	2281.0	2385.0	2611.9	2636.8	2507.2	1907.1	1346.6	1239.8	943.8
72.5°	2515.9	2491.8	2524.7	2830.8	3193.9	3146.9	2702.5	1742.6	1050.5	759.2	471.9
75°	2171.6	2160.2	2348.1	2969.0	3459.1	3441.6	2634.7	1304.3	609.5	334.3	214.8
77.5°	1092.2	1216.3	1414.4	2106.5	2752.2	2755.6	1919.8	627.0	256.4	187.3	147.7
80°	307.4	311.5	471.9	868.6	1374.1	1464.0	726.3	212.8	146.3	139.6	110.1
82.5°	73.2	67.8	120.8	257.1	461.2	480.0	218.2	76.5	81.9	87.3	67.8
85°	0.7	0.7	0.7	0.7	0.7	1.3	8.1	8.1	19.5	24.8	19.5
87.5°	0.0	0.0	0.0	0.7	0.7	0.7	0.0	0.0	0.0	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°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	692.1	698.8	709.5	718.9	727.0	733.0	742.4	743.8	746.5	747.8	749.1
5°	698.1	710.9	731.0	748.5	760.6	763.9	772.0	771.3	772.0	772.0	771.3
7.5°	706.2	723.6	751.8	771.3	778.0	776.0	774.0	766.6	760.6	757.9	754.5
10°	716.2	736.4	769.3	783.4	780.0	769.3	756.5	743.1	732.4	727.0	725.6
12.5°	726.3	752.5	783.4	787.4	774.0	754.5	733.0	718.3	704.2	696.8	696.8
15°	743.1	772.0	794.8	786.7	762.6	737.7	708.2	688.1	671.9	661.9	661.2
17.5°	763.2	794.1	806.9	783.4	748.5	713.6	678.0	651.8	631.0	620.9	614.9
20°	788.1	816.9	812.9	772.6	727.7	684.7	640.4	608.8	587.4	576.6	574.6
22.5°	816.3	840.4	814.9	755.2	699.5	644.4	596.1	564.5	550.4	542.4	543.1
25°	850.5	869.3	815.6	734.4	659.2	591.4	549.1	534.3	532.3	529.0	530.3
27.5°	893.5	899.5	812.9	706.2	607.5	535.7	510.8	516.9	522.2	520.2	521.6
30°	944.5	935.8	806.9	665.2	543.7	484.7	486.0	499.4	506.8	504.8	505.5
32.5°	1004.2	972.0	795.5	615.6	483.3	453.8	464.5	477.9	485.3	485.3	486.0
35°	1071.3	1015.6	773.3	551.1	441.0	435.0	444.4	455.1	459.8	457.1	459.1
37.5°	1141.8	1053.2	737.7	479.3	409.5	420.2	425.6	428.3	427.6	423.6	421.6
40°	1207.6	1082.8	674.0	408.1	383.3	404.8	407.5	400.1	391.4	384.0	379.3
42.5°	1258.0	1098.2	585.3	356.4	358.5	387.3	389.3	374.6	357.8	346.4	343.7
45°	1309.7	1103.6	497.4	314.8	331.6	369.9	375.2	355.1	332.3	318.9	316.8
47.5°	1368.7	1117.0	410.8	286.0	308.8	357.8	366.5	341.7	316.2	296.0	292.7
50°	1447.9	1142.5	345.7	263.8	292.7	351.7	363.8	330.9	298.7	276.6	273.9
52.5°	1548.6	1180.1	285.3	246.4	279.9	342.3	359.8	320.2	286.0	259.1	255.1
55°	1635.2	1194.2	246.4	231.6	266.5	330.9	356.4	316.2	271.9	241.7	237.0
57.5°	1674.8	1153.9	218.8	216.8	252.4	316.8	349.7	302.7	256.4	232.9	228.9
60°	1656.7	1053.9	198.0	203.4	236.3	298.7	332.3	289.3	245.7	226.2	222.2
62.5°	1576.1	938.4	182.6	190.6	218.2	275.9	312.1	277.2	236.3	218.8	213.5
65°	1434.5	811.6	171.2	179.2	202.1	253.7	296.0	263.1	225.5	208.1	203.4
67.5°	1170.7	645.8	159.1	167.8	188.6	235.6	281.3	251.7	213.5	202.1	198.0
70°	774.6	434.3	147.7	156.4	175.2	218.2	265.8	239.6	202.1	194.7	189.3
72.5°	355.8	233.6	135.6	144.3	159.8	198.7	246.4	221.5	186.6	181.9	173.9
75°	175.9	143.7	120.8	128.9	141.0	175.2	223.5	206.1	172.5	164.5	155.1
77.5°	128.2	107.4	104.0	112.1	122.2	155.1	199.4	190.0	158.4	147.0	141.6
80°	95.3	83.2	87.3	95.3	104.7	140.3	186.6	177.9	146.3	134.9	130.9
82.5°	58.4	55.7	67.1	76.5	87.9	128.9	177.9	162.4	131.6	120.8	116.1
85°	16.8	20.1	34.2	49.7	62.4	104.0	165.8	142.3	110.8	92.6	89.3
87.5°	0.0	2.0	10.7	22.8	36.9	69.1	127.5	111.4	84.6	68.5	65.8
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)