

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: P401408

Luminaire Tested: **ENT-SA1C-830-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401408
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1C-830-U-T3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3650 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

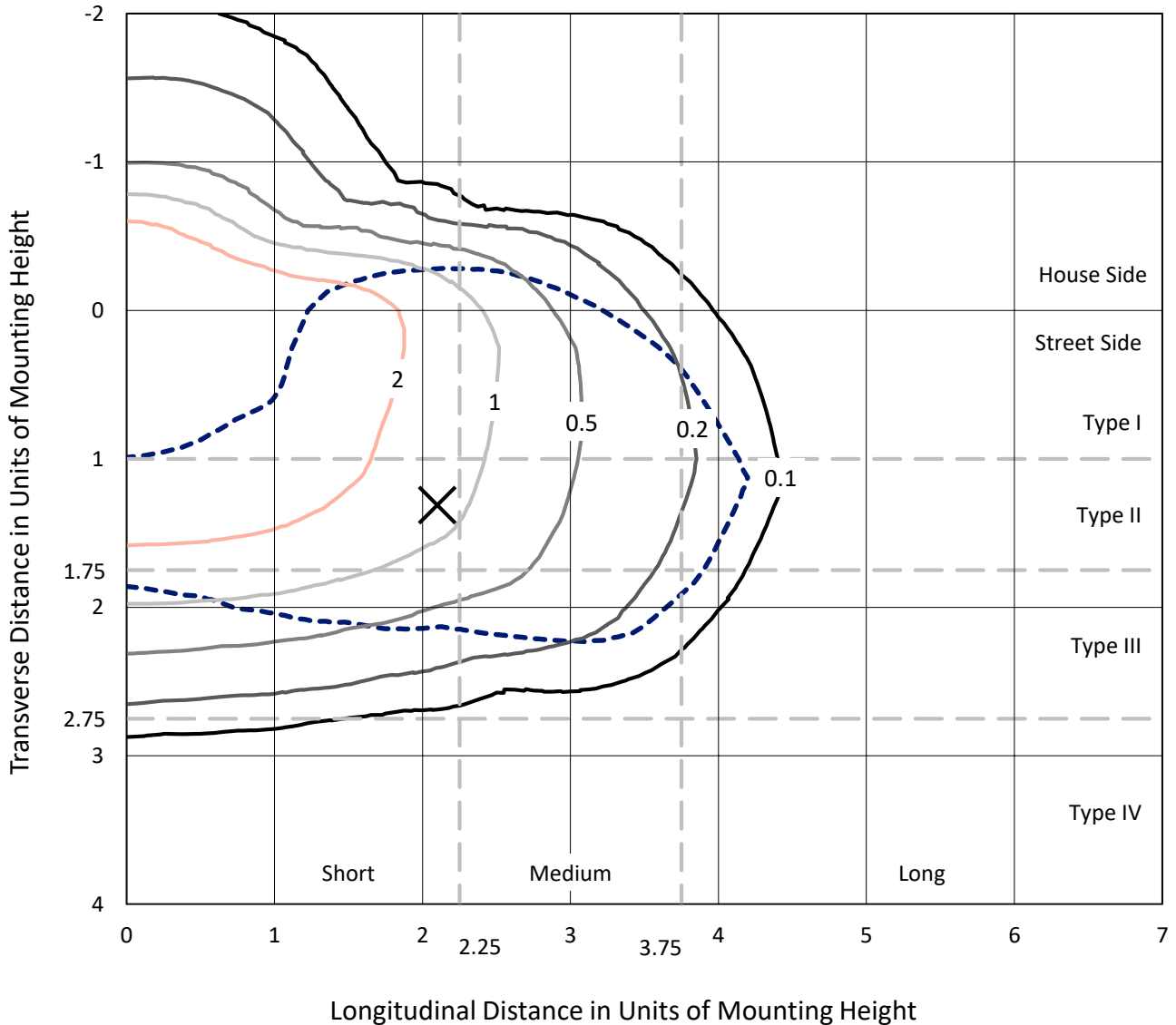
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

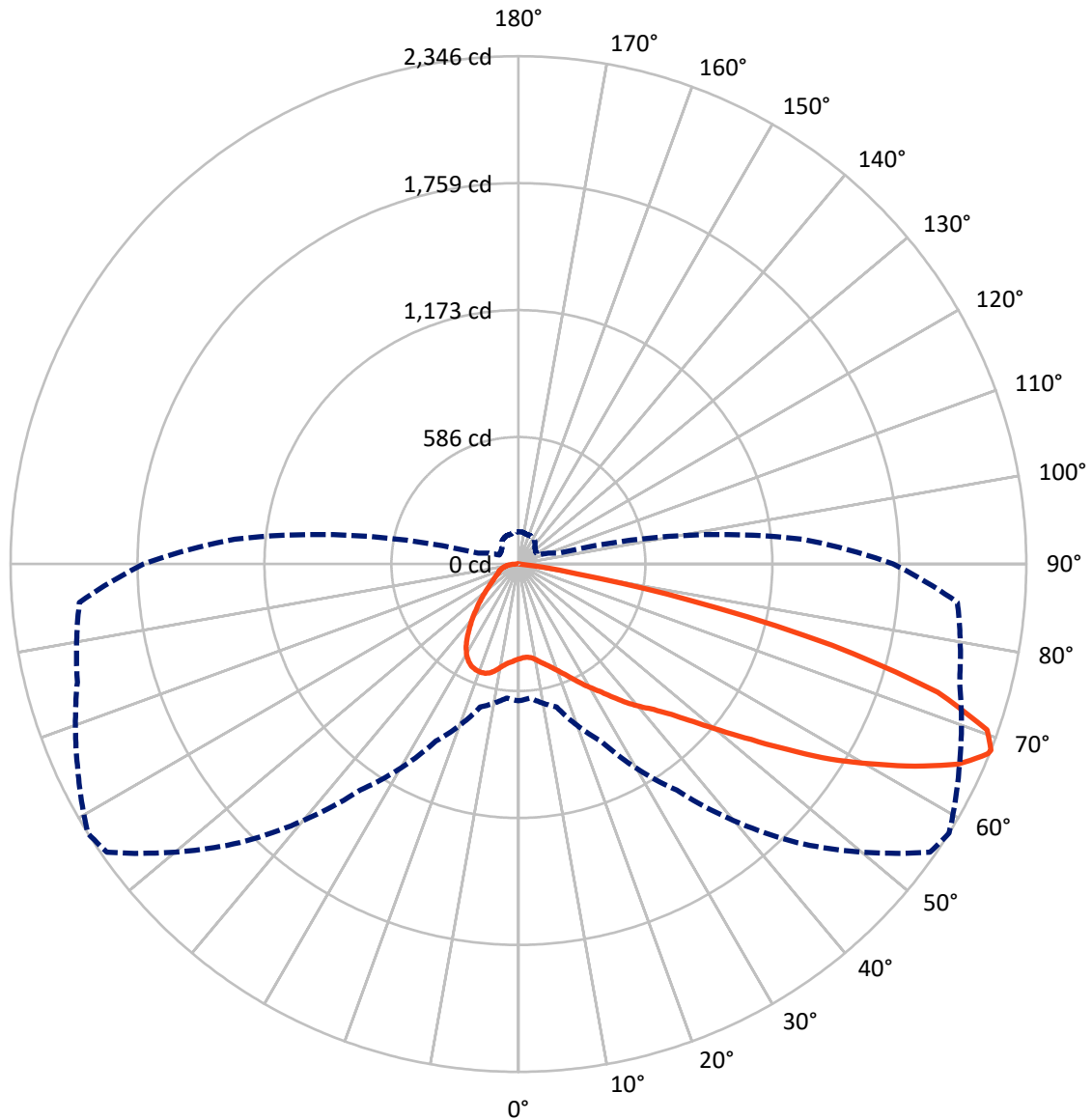
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	854.6	0.0	854.6
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	2795.4	0.0	2795.4
	% Fixture	76.6	0.0	76.6
Total	Lumens	3650.0	0.0	3650.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.2	1.2
10°-20°	141.2	3.9
20°-30°	253.9	7.0
30°-40°	373.0	10.2
40°-50°	547.1	15.0
50°-60°	817.8	22.4
60°-70°	956.3	26.2
70°-80°	471.5	12.9
80°-90°	46.0	1.3
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°	3650.0	100.0
0°-180°	3650.0	100.0



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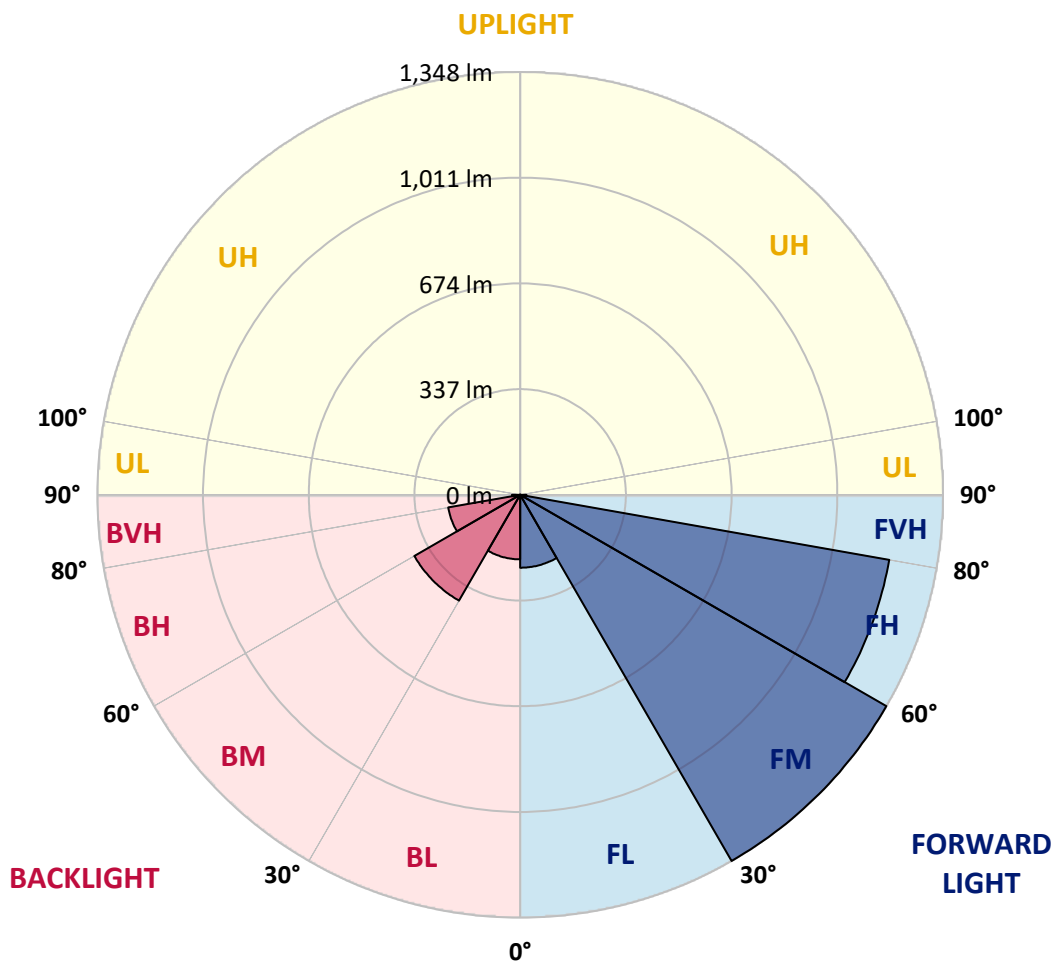
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	232.5	6.4			
FM	(30°-60°)	1348.2	36.9			
FH	(60°-80°)	1194.9	32.7			G1/1800
FVH	(80°-90°)	19.8	0.5			G1/100
BL	(0°-30°)	205.8	5.6	B1/500		
BM	(30°-60°)	389.8	10.7	B1/1000		
BH	(60°-80°)	232.9	6.4	B1/500		G1/500
BVH	(80°-90°)	26.2	0.7			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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	427.6	427.6	429.1	429.7	430.7	431.7	432.7	433.2	434.7	436.8	437.8
5°	424.0	424.6	425.6	426.1	427.6	429.7	431.2	432.2	434.7	438.8	441.4
7.5°	432.2	433.7	434.2	434.7	435.3	436.8	436.8	437.3	439.8	443.9	447.5
10°	445.5	446.5	448.0	449.5	451.1	452.1	449.0	449.5	450.5	454.6	459.7
12.5°	462.3	462.3	462.8	464.8	466.3	469.4	466.3	466.3	466.3	469.9	476.0
15°	481.1	480.1	480.1	482.1	482.7	484.7	483.2	483.2	485.2	488.8	494.9
17.5°	502.5	504.1	502.5	501.5	500.0	501.0	502.0	503.0	507.1	512.7	516.3
20°	533.6	536.2	535.2	531.1	524.4	521.4	525.0	527.0	535.2	541.8	542.3
22.5°	583.1	581.5	580.0	572.9	559.6	551.5	552.0	555.0	567.8	578.0	572.9
25°	628.9	630.5	630.5	620.3	602.9	586.1	587.6	589.2	601.9	611.1	597.3
27.5°	684.5	683.5	683.0	669.2	648.3	632.0	623.3	627.4	636.6	640.1	613.6
30°	742.1	746.2	742.1	722.7	702.8	681.9	664.6	663.6	668.2	667.7	633.0
32.5°	811.4	807.8	806.3	783.9	758.9	731.4	709.5	705.9	703.3	699.8	655.9
35°	864.9	869.5	869.5	850.1	820.6	793.6	759.4	756.3	750.2	738.5	686.0
37.5°	928.1	927.1	930.7	908.2	878.7	852.7	821.1	812.4	798.7	781.3	721.7
40°	989.8	992.3	1000.5	973.5	946.5	926.1	881.2	865.4	844.5	828.7	773.7
42.5°	1073.9	1077.4	1080.5	1058.1	1026.0	1007.6	938.3	918.4	906.7	903.6	842.5
45°	1175.8	1181.9	1184.5	1164.1	1145.7	1101.9	1010.2	991.8	979.1	992.3	936.3
47.5°	1273.7	1270.6	1282.3	1281.8	1283.9	1231.4	1113.6	1086.1	1073.9	1107.5	1043.8
50°	1328.7	1333.3	1358.8	1384.8	1421.0	1383.2	1233.4	1205.9	1191.6	1233.4	1170.2
52.5°	1357.2	1363.4	1397.5	1470.4	1547.4	1529.5	1377.6	1347.1	1334.8	1375.6	1305.8
55°	1359.8	1363.4	1409.2	1522.4	1643.7	1649.3	1542.3	1513.2	1496.4	1522.9	1453.6
57.5°	1317.5	1306.8	1385.8	1530.0	1705.4	1774.2	1723.2	1702.3	1654.9	1683.4	1637.1
60°	1242.1	1252.8	1330.2	1498.4	1731.3	1871.5	1904.6	1873.0	1818.0	1829.7	1834.8
62.5°	1127.9	1141.7	1222.2	1425.0	1710.4	1954.1	2072.3	2056.5	1982.6	1976.5	1985.7
65°	965.3	957.2	1046.9	1264.5	1611.6	1981.6	2236.9	2230.3	2142.1	2070.3	2073.8
67.5°	696.2	688.6	751.3	976.0	1344.0	1879.2	2324.6	2339.4	2238.5	2111.6	2056.5
68°	632.0	621.3	684.0	902.1	1275.2	1820.0	2320.0	2345.5	2245.6	2109.0	2035.1
70°	363.9	346.6	407.2	588.7	938.8	1532.1	2226.2	2296.6	2228.8	2059.6	1895.0
72.5°	114.2	114.2	157.5	238.0	460.7	969.4	1904.6	2024.4	2038.7	1872.0	1574.9
75°	71.4	71.4	82.1	112.6	183.5	411.3	1313.9	1496.4	1619.7	1575.9	1148.3
77.5°	48.4	47.4	54.5	69.8	102.4	132.0	659.5	810.4	990.8	1075.9	671.7
80°	26.5	27.0	33.6	41.8	58.1	61.2	193.7	273.7	436.3	511.2	254.8
82.5°	15.3	14.8	16.3	18.3	25.5	26.5	55.6	68.3	114.2	106.0	68.3
85°	0.0	0.5	0.5	0.5	1.0	2.5	7.1	10.7	17.3	24.0	16.8
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	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°	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3	438.3
2.5°	438.8	440.4	442.9	444.9	446.0	444.9	448.5	448.0	449.0	449.0	450.0
5°	443.4	445.5	450.0	452.6	455.1	456.2	460.2	461.3	463.3	464.3	463.8
7.5°	450.0	452.6	458.2	462.8	466.3	468.9	475.5	478.6	481.6	482.7	483.7
10°	462.3	465.8	472.0	477.6	482.7	486.2	491.8	495.9	499.0	500.0	501.0
12.5°	478.6	482.7	490.3	497.9	503.6	505.6	505.1	504.1	504.1	503.6	504.1
15°	497.4	501.5	511.2	518.3	518.8	512.2	503.0	498.5	497.4	497.4	497.9
17.5°	519.4	524.4	530.6	534.6	525.0	508.6	497.9	493.4	492.3	491.8	490.8
20°	544.3	547.4	549.4	544.3	522.9	504.1	491.8	485.2	480.1	479.6	477.6
22.5°	570.8	569.8	567.3	548.9	517.3	493.4	476.5	464.3	457.7	457.2	455.1
25°	590.2	586.1	578.5	549.9	507.1	476.0	452.1	432.7	424.0	420.0	421.0
27.5°	602.9	594.3	581.0	544.8	489.3	449.5	415.9	390.4	377.7	375.6	377.2
30°	618.2	604.5	583.1	532.1	463.8	412.3	368.5	343.0	335.9	332.3	333.3
32.5°	636.6	618.7	589.7	512.7	431.7	369.0	321.6	303.8	295.6	289.0	291.0
35°	660.5	638.1	600.4	485.2	390.9	323.1	288.0	271.7	256.9	249.7	250.2
37.5°	688.6	663.1	609.6	453.1	346.6	288.5	258.9	239.5	221.2	207.4	204.9
40°	733.4	712.5	617.2	417.4	304.3	259.9	230.4	208.5	191.1	177.4	175.8
42.5°	808.3	772.1	617.7	374.6	268.1	235.5	206.9	183.0	163.6	151.9	151.4
45°	896.5	840.4	607.0	328.7	236.5	211.0	186.0	159.0	147.8	140.2	139.1
47.5°	1001.0	918.9	583.6	285.9	209.5	187.0	164.6	148.3	140.2	134.6	134.6
50°	1120.3	1011.2	560.1	249.2	183.5	167.7	152.4	143.7	137.6	132.5	132.0
52.5°	1254.8	1120.3	552.5	212.0	162.1	149.8	148.3	140.2	135.1	131.5	130.5
55°	1415.4	1242.6	559.6	183.0	145.3	142.7	145.8	139.1	135.6	130.0	128.4
57.5°	1600.9	1361.8	552.0	158.5	133.5	136.1	142.7	139.1	136.1	128.9	126.9
60°	1775.7	1468.4	500.0	138.1	122.3	127.9	138.6	134.6	130.0	128.4	127.4
62.5°	1869.5	1503.0	398.6	122.3	113.7	119.8	132.0	126.9	123.8	127.4	127.9
65°	1870.5	1463.8	293.1	110.6	106.5	112.6	125.4	123.8	125.9	134.0	135.6
67.5°	1766.5	1344.5	206.9	99.9	99.4	107.0	128.4	138.6	140.2	148.3	148.3
68°	1730.8	1314.9	192.1	98.4	97.9	107.0	131.0	141.2	142.2	149.8	149.3
70°	1535.1	1111.6	139.1	92.3	95.3	114.7	144.7	148.3	142.2	150.9	150.4
72.5°	1199.8	822.1	104.0	85.6	90.7	113.1	145.8	142.2	133.0	135.1	132.5
75°	810.9	523.9	85.6	78.5	80.5	95.8	132.5	134.0	123.3	121.3	118.2
77.5°	424.6	245.7	69.3	69.8	71.9	83.1	118.2	121.8	112.1	106.0	105.0
80°	156.5	97.3	56.6	61.7	62.7	72.9	101.4	107.0	97.9	93.3	92.3
82.5°	57.1	48.4	46.9	54.0	53.0	62.2	88.7	92.8	83.1	78.5	75.9
85°	15.8	17.8	29.6	42.3	41.3	48.4	71.4	74.9	66.8	55.0	53.5
87.5°	1.0	3.6	11.7	25.0	26.0	30.1	51.5	56.6	49.4	40.8	40.3
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)