

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: P401568

Luminaire Tested: **ENV-SA1D-827-U-T2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401568  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-827-U-T2  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4131 lumens  
Efficiency: N/A  
Efficacy: 95.8 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

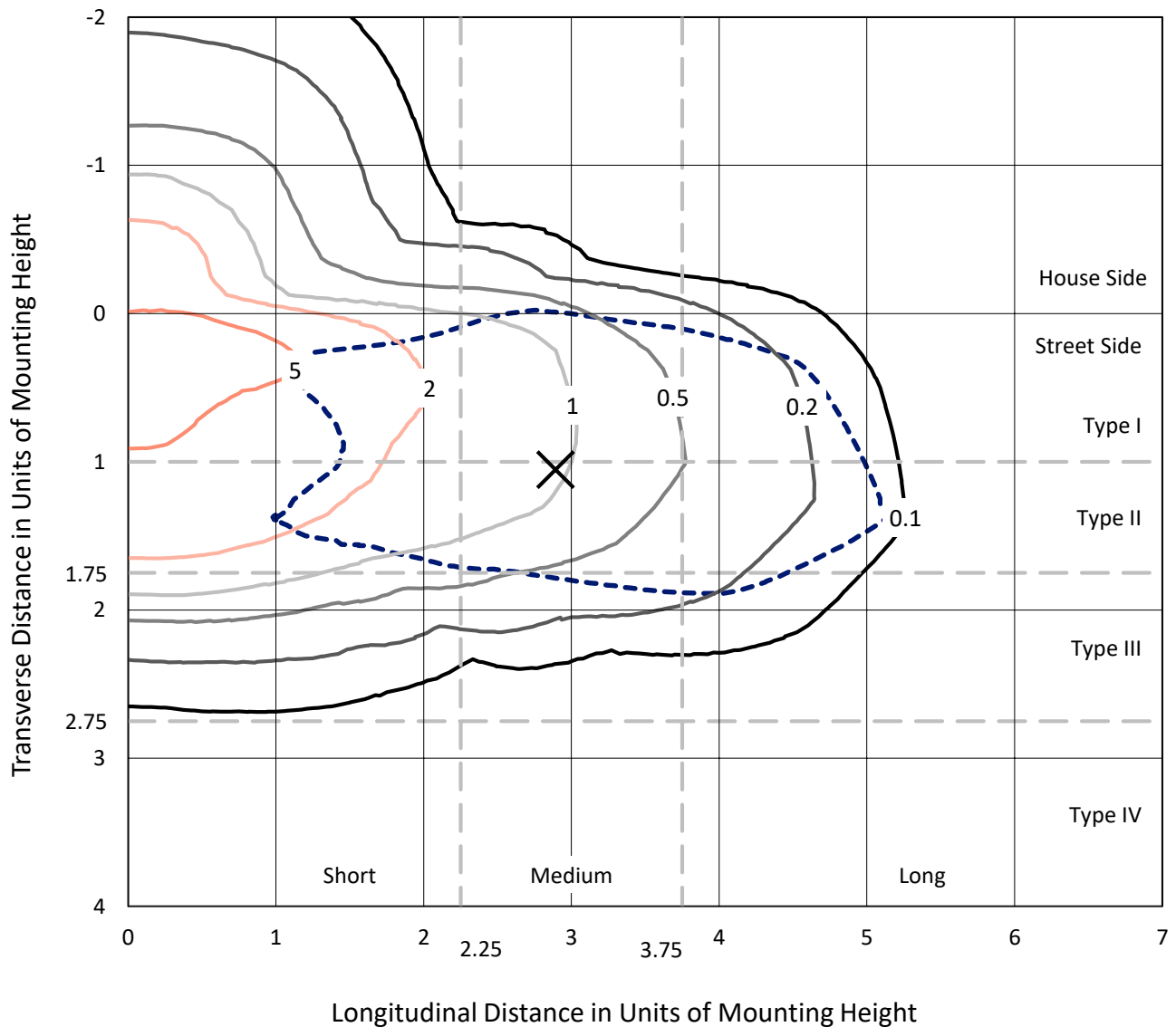
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

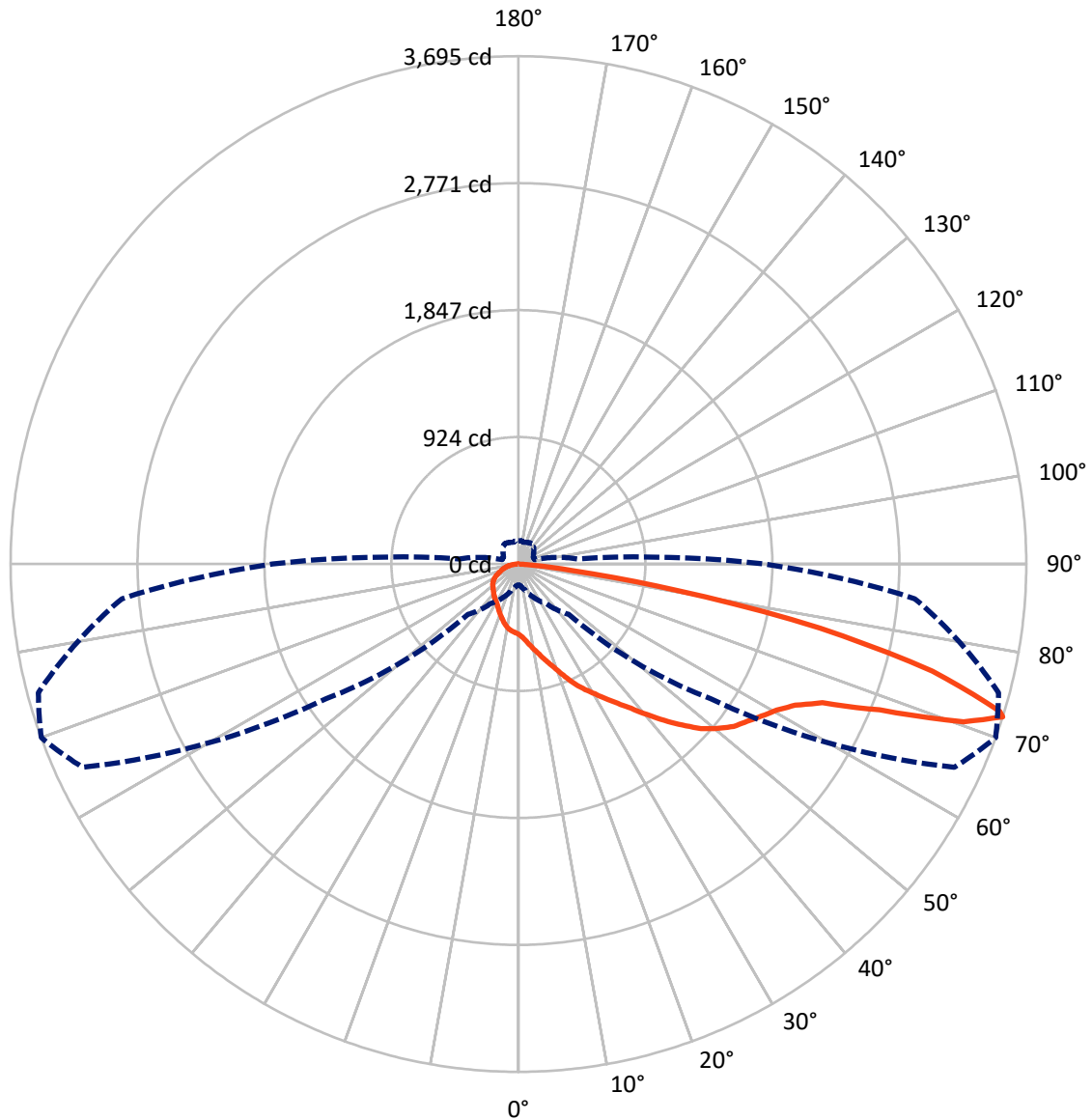
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	767.6	0.0	767.6
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	3363.4	0.0	3363.4
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	4131.0	0.0	4131.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.4	1.2
10°-20°	165.0	4.0
20°-30°	292.2	7.1
30°-40°	434.3	10.5
40°-50°	630.1	15.3
50°-60°	860.9	20.8
60°-70°	942.5	22.8
70°-80°	670.4	16.2
80°-90°	84.2	2.0
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°	4131.0	100.0
0°-180°	4131.0	100.0



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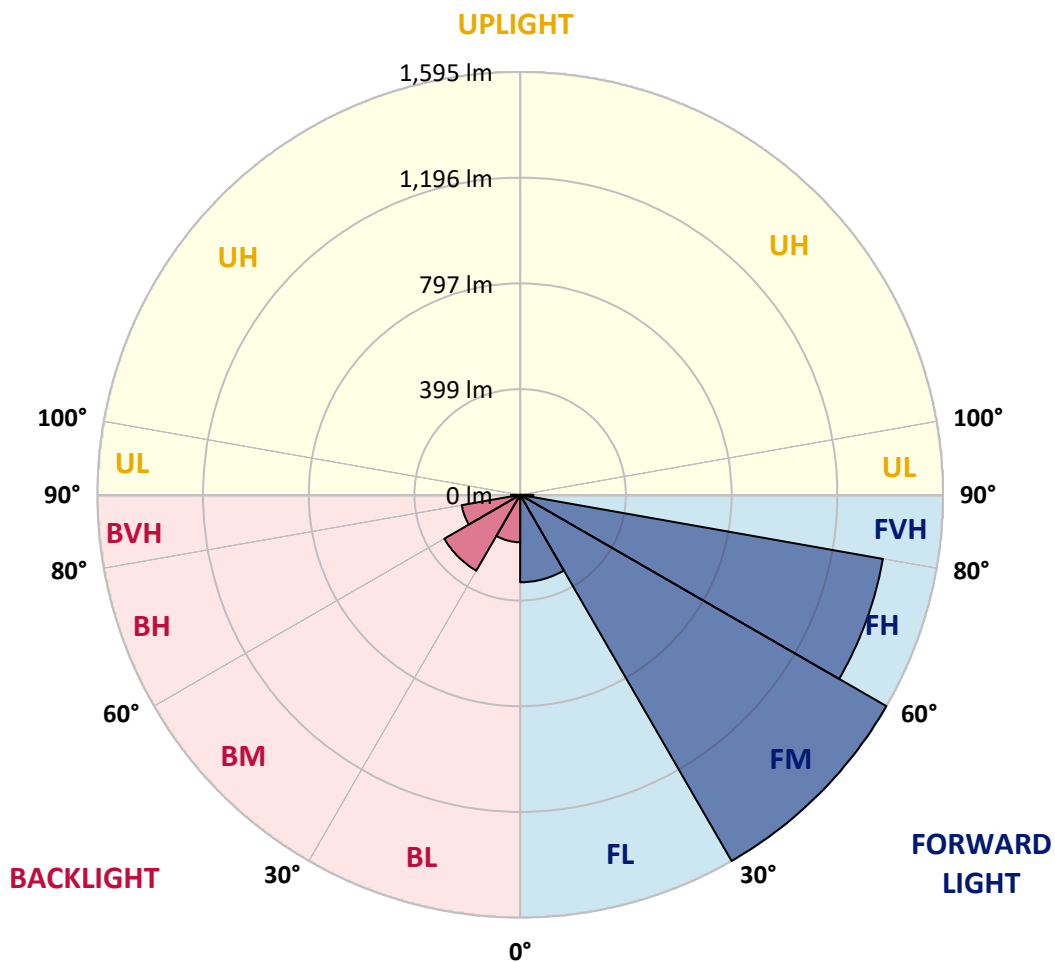
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	329.7	8.0			
FM	(30°-60°)	1594.8	38.6			
FH	(60°-80°)	1389.2	33.6			G1/1800
FVH	(80°-90°)	49.7	1.2			G1/100
BL	(0°-30°)	178.9	4.3	B1/500		
BM	(30°-60°)	330.5	8.0	B1/1000		
BH	(60°-80°)	223.8	5.4	B1/500		G1/500
BVH	(80°-90°)	34.5	0.8			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°	70°	75°	85°
0°	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6
2.5°	568.8	565.9	566.5	561.2	558.2	551.1	543.5	535.2	531.1	528.1	518.1
5°	624.3	624.3	626.7	622.5	611.3	599.5	585.9	567.7	560.0	549.4	529.3
7.5°	670.3	671.5	671.5	670.3	660.3	647.3	629.6	607.2	594.8	579.5	548.2
10°	693.9	696.9	699.2	701.0	699.8	692.2	672.1	649.1	632.0	611.9	570.0
12.5°	705.7	706.9	711.0	719.9	727.0	732.9	718.1	691.0	673.9	649.7	593.6
15°	718.7	718.7	722.8	734.1	747.6	763.6	761.8	740.5	722.3	692.2	623.7
17.5°	727.0	729.3	737.0	748.8	767.7	794.2	807.8	796.0	772.4	740.5	656.2
20°	722.3	724.0	739.4	762.4	786.6	820.8	855.0	855.0	832.6	796.0	692.2
22.5°	731.1	734.1	744.7	766.5	799.6	843.8	899.9	919.3	899.9	859.7	734.1
25°	765.3	764.1	773.0	781.8	810.2	865.0	938.2	988.4	970.7	926.4	774.8
27.5°	814.9	814.9	819.6	819.0	829.1	882.8	971.9	1049.2	1034.4	981.3	808.4
30°	872.1	873.3	872.1	871.5	869.8	906.9	1001.9	1103.4	1095.8	1043.3	839.1
32.5°	941.8	944.7	940.0	928.2	921.1	941.8	1027.3	1164.2	1166.6	1104.6	869.2
35°	1029.1	1033.8	1016.1	999.0	981.3	990.7	1056.8	1221.5	1245.1	1174.2	905.8
37.5°	1116.4	1124.1	1121.1	1075.1	1050.3	1049.7	1100.5	1292.9	1332.4	1265.1	957.7
40°	1190.2	1196.7	1200.2	1158.3	1124.1	1122.9	1164.8	1367.2	1439.8	1369.6	1019.1
42.5°	1239.2	1245.1	1255.7	1230.9	1199.0	1213.8	1235.6	1441.0	1555.4	1497.0	1094.6
45°	1292.3	1297.0	1303.5	1289.3	1272.8	1315.3	1325.3	1523.0	1671.1	1633.9	1183.1
47.5°	1348.9	1353.6	1357.2	1346.6	1340.6	1400.2	1413.2	1606.8	1787.9	1775.5	1269.3
50°	1411.5	1413.2	1416.8	1411.5	1413.2	1477.5	1485.8	1680.5	1880.6	1923.1	1358.9
52.5°	1518.9	1521.2	1522.4	1497.0	1488.2	1526.5	1544.2	1759.0	1962.0	2045.8	1438.0
55°	1603.8	1612.1	1649.3	1632.7	1611.5	1561.3	1592.6	1822.2	2019.8	2160.3	1520.6
57.5°	1534.2	1553.1	1645.7	1723.6	1783.2	1663.4	1649.8	1887.1	2086.5	2258.8	1616.8
60°	1331.8	1359.5	1494.1	1656.3	1849.3	1897.7	1767.3	1967.9	2159.1	2361.5	1720.1
62.5°	923.5	951.8	1137.7	1396.7	1737.8	2031.6	2088.9	2111.3	2260.0	2466.5	1854.6
65°	442.6	471.5	624.9	898.1	1372.5	1945.5	2463.6	2408.7	2429.9	2599.9	2052.9
67.5°	281.5	296.8	357.0	489.2	798.4	1515.3	2598.1	3001.1	2832.4	2907.3	2447.6
70°	205.9	209.5	261.4	338.7	473.8	885.1	2294.2	3568.2	3436.0	3427.7	2923.8
72°	152.2	158.1	198.3	270.3	350.5	517.5	1707.1	3499.1	3694.5	3616.0	2895.5
72.5°	143.4	148.1	182.9	255.5	331.0	454.4	1529.5	3418.9	3662.6	3621.3	2841.2
75°	104.4	108.0	125.1	181.7	256.1	263.2	816.7	2624.1	3110.3	3457.2	2575.7
77.5°	72.0	74.3	83.2	111.5	175.3	178.2	346.4	1791.5	2244.6	2764.5	1980.9
80°	43.7	44.8	50.2	60.8	111.5	105.6	142.8	936.4	1171.3	1502.9	918.7
82.5°	18.3	18.9	21.8	24.2	47.2	50.2	57.8	305.7	387.7	469.7	264.9
85°	0.0	0.0	0.6	0.6	1.2	5.3	8.3	37.8	57.2	68.4	47.8
87.5°	0.0	0.0	0.6	0.6	0.6	1.2	1.2	1.8	2.4	2.4	3.5
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°	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6	511.6
2.5°	513.4	511.0	503.9	498.0	493.3	485.6	485.0	479.1	479.1	477.4	476.2
5°	521.6	514.0	499.8	486.8	477.4	466.2	460.8	454.4	450.2	447.9	448.5
7.5°	532.2	519.3	495.1	473.2	455.5	441.4	433.1	427.8	424.9	423.7	423.7
10°	547.0	526.9	487.4	454.4	431.9	421.3	417.2	416.6	417.2	417.8	418.4
12.5°	563.5	532.2	473.2	431.9	414.2	410.1	412.5	417.8	422.5	424.3	424.3
15°	580.6	535.8	453.8	411.3	400.7	404.8	413.1	423.1	430.8	435.5	436.7
17.5°	598.3	536.4	433.1	392.4	388.9	399.5	414.2	430.2	442.6	450.2	451.4
20°	617.2	535.2	408.9	375.3	377.1	394.8	415.4	437.2	453.8	463.8	465.0
22.5°	637.9	530.5	385.3	358.8	367.0	390.0	414.2	439.6	457.3	469.1	471.5
25°	657.9	521.0	361.7	344.0	359.9	385.3	408.3	430.2	447.3	458.5	461.4
27.5°	668.6	501.0	339.3	332.8	354.6	378.2	394.8	409.5	419.0	426.0	429.0
30°	670.3	472.6	321.0	325.1	348.7	368.2	377.6	380.0	378.2	380.6	377.6
32.5°	666.8	442.0	306.2	319.2	339.3	354.0	356.4	349.3	338.7	324.0	324.5
35°	664.4	408.3	294.4	311.0	326.9	336.3	332.2	321.0	300.9	283.2	282.1
37.5°	668.6	377.6	284.4	300.3	311.0	315.1	309.2	294.4	276.7	261.4	259.6
40°	680.4	355.2	275.0	288.5	293.9	296.8	289.7	276.7	269.7	258.5	256.7
42.5°	703.4	339.9	266.1	275.6	277.9	280.9	273.8	264.9	271.4	269.1	269.1
45°	735.2	332.8	258.5	263.2	265.5	270.3	266.1	258.5	265.5	252.0	249.6
47.5°	776.5	335.2	253.1	250.8	257.9	266.1	261.4	252.0	249.6	225.4	221.3
50°	820.2	347.6	247.8	240.8	249.6	260.8	254.9	240.2	226.0	213.6	211.2
52.5°	871.5	368.2	243.1	229.5	240.2	254.9	250.8	234.8	220.1	211.2	209.5
55°	928.2	388.3	237.2	216.6	227.8	253.1	252.0	231.3	211.8	207.7	206.5
57.5°	991.9	404.8	230.1	201.8	215.4	247.8	246.7	223.0	209.5	205.9	205.3
60°	1071.6	424.3	217.7	184.7	203.0	237.8	236.6	218.9	204.2	201.2	200.0
62.5°	1180.1	460.3	196.5	168.8	190.0	220.1	227.2	210.7	196.5	195.9	195.9
65°	1358.9	529.9	174.7	155.2	175.3	203.0	214.8	201.2	189.4	192.4	192.4
67.5°	1697.1	623.7	152.2	142.2	161.1	186.5	204.2	191.8	181.7	187.6	187.6
70°	1957.9	588.9	134.5	129.8	146.9	171.7	190.6	181.7	172.3	182.3	181.2
72°	1786.2	431.3	122.7	119.8	135.1	159.3	178.8	172.3	162.3	170.5	168.2
72.5°	1714.8	391.8	119.2	116.8	131.6	157.0	176.4	169.9	159.3	167.6	164.0
75°	1495.8	330.4	103.9	102.7	116.8	141.0	161.1	157.5	146.9	151.6	148.1
77.5°	1238.0	278.5	87.3	89.7	99.7	125.7	145.2	141.6	131.6	131.0	130.4
80°	580.6	155.2	72.0	73.8	83.8	107.4	125.1	122.7	113.3	112.1	110.3
82.5°	168.2	74.3	55.5	56.6	67.3	87.9	107.4	106.2	99.1	97.4	93.2
85°	31.3	24.2	30.1	35.4	49.0	73.2	98.0	95.6	85.0	77.3	71.4
87.5°	1.8	4.7	10.0	17.1	31.3	54.9	79.1	77.3	67.9	58.4	59.0
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)