

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: P401482

Luminaire Tested: **ENT-SA1D-735-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401482
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-735-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 5078 lumens
Efficiency: N/A
Efficacy: 117.8 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 - G2

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

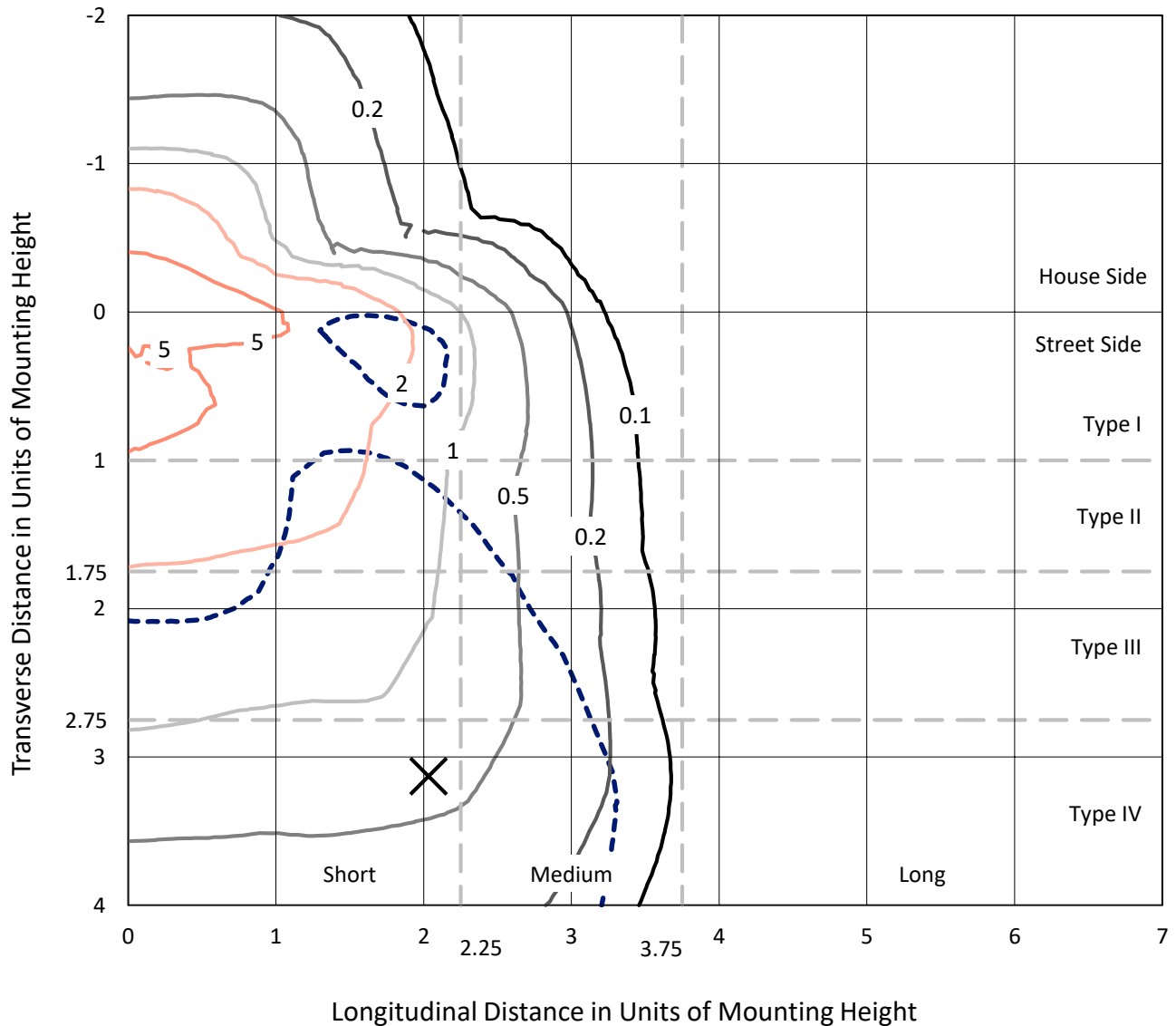


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

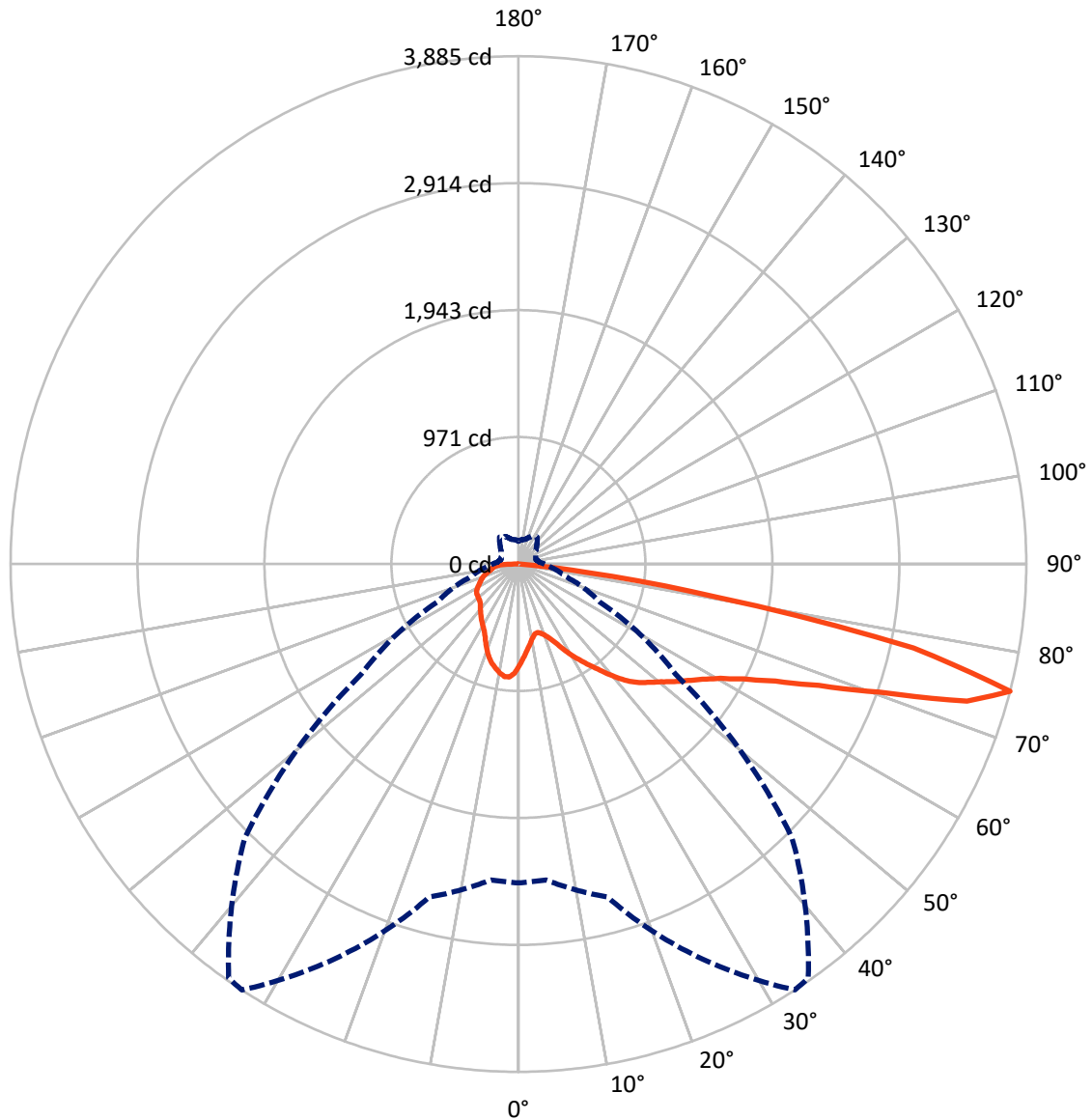


Based on 10 foot mounting height. Maximum calculated value = 8.3 fc
 Type IV - Short - Non-Cutoff

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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	1233.6	0.0	1233.6
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	3844.4	0.0	3844.4
	% Fixture	75.7	0.0	75.7
Total	Lumens	5078.0	0.0	5078.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	1.4
10°-20°	204.5	4.0
20°-30°	339.9	6.7
30°-40°	507.1	10.0
40°-50°	708.4	14.0
50°-60°	945.7	18.6
60°-70°	1172.5	23.1
70°-80°	1013.8	20.0
80°-90°	113.3	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°	5078.0	100.0
0°-180°	5078.0	100.0



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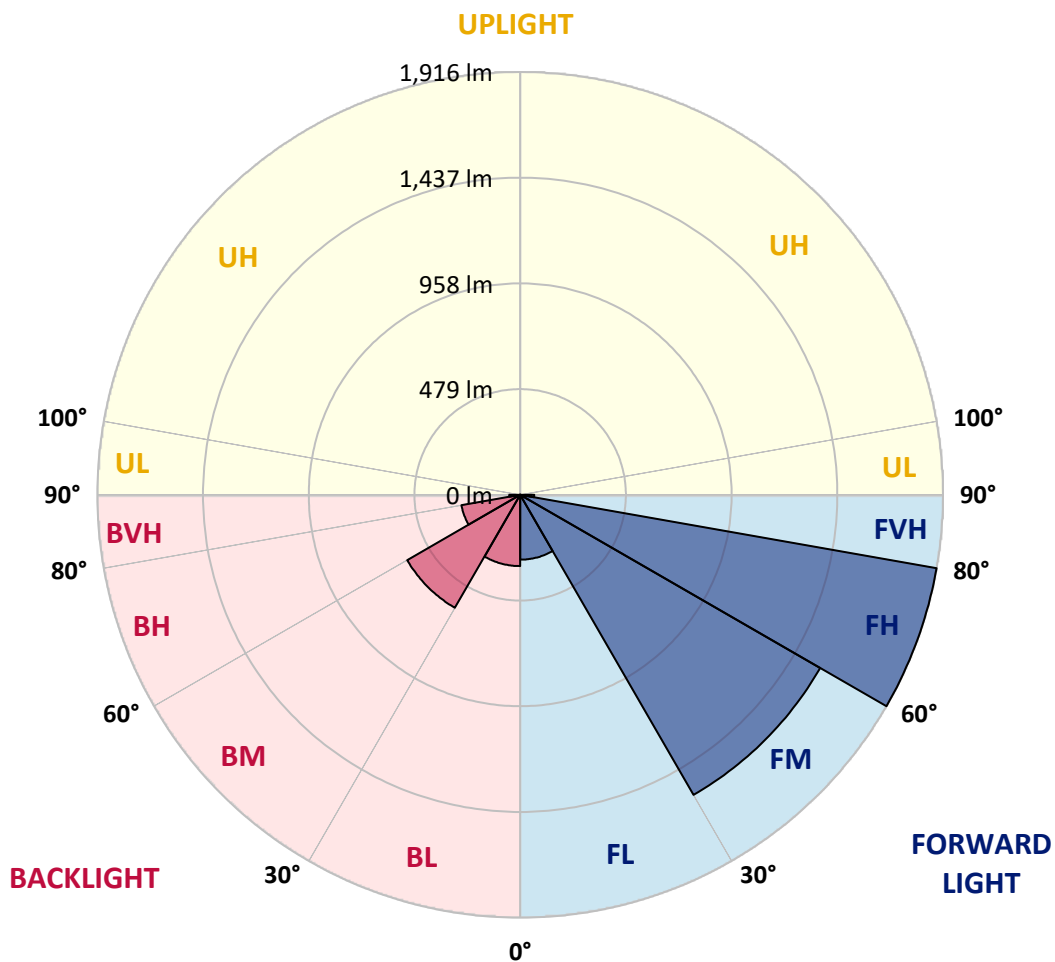
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	294.0	5.8			
FM	(30°-60°)	1570.1	30.9			
FH	(60°-80°)	1916.2	37.7			G2/5000
FVH	(80°-90°)	64.1	1.3			G1/100
BL	(0°-30°)	323.1	6.4	B1/500		
BM	(30°-60°)	591.1	11.6	B1/1000		
BH	(60°-80°)	270.1	5.3	B1/500		G1/500
BVH	(80°-90°)	49.3	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1
2.5°	705.7	707.2	711.8	717.0	720.0	720.0	728.3	738.1	750.2	760.8	772.1
5°	646.9	649.2	652.9	659.7	668.0	669.5	686.1	703.5	725.3	748.7	771.3
7.5°	588.9	593.4	600.9	610.0	622.8	625.8	649.2	672.5	702.7	738.1	775.1
10°	544.4	547.4	551.2	564.0	579.8	585.1	616.0	645.4	686.9	730.6	779.6
12.5°	532.3	532.3	532.3	538.3	551.2	555.7	588.1	625.8	672.5	725.3	786.4
15°	549.6	548.9	540.6	536.1	543.6	547.4	575.3	612.2	665.0	726.8	799.2
17.5°	588.9	586.6	567.0	551.9	557.2	559.4	577.5	609.2	662.7	732.9	818.1
20°	640.1	634.8	604.7	582.1	581.3	582.8	596.4	618.3	666.5	743.4	838.4
22.5°	708.0	705.0	660.5	625.8	619.8	619.8	625.8	639.4	676.3	755.5	866.3
25°	795.4	787.1	733.6	686.9	673.3	669.5	668.8	668.8	693.7	773.6	901.0
27.5°	885.2	875.4	821.1	757.7	739.6	732.9	720.8	711.8	716.3	793.2	942.5
30°	965.8	952.3	906.3	840.7	813.5	803.0	781.1	762.3	750.2	820.3	997.5
32.5°	1010.3	1005.0	973.4	913.8	882.9	878.4	842.2	817.3	796.2	855.8	1071.4
35°	1069.9	1063.1	1042.7	993.7	956.8	945.5	918.3	888.9	855.0	903.3	1164.9
37.5°	1124.9	1121.2	1113.6	1079.7	1040.5	1029.2	1004.3	973.4	927.4	973.4	1269.7
40°	1180.7	1176.2	1173.2	1161.1	1133.2	1125.7	1113.6	1077.4	1015.6	1050.3	1373.0
42.5°	1262.2	1252.4	1220.7	1219.9	1222.2	1228.2	1229.0	1189.0	1112.1	1146.0	1463.5
45°	1368.5	1341.3	1270.4	1268.2	1294.6	1310.4	1348.9	1314.9	1212.4	1244.1	1564.5
47.5°	1422.7	1394.9	1321.7	1317.2	1351.9	1375.2	1470.3	1437.1	1316.4	1354.1	1669.3
50°	1449.1	1431.0	1367.0	1381.3	1416.7	1439.3	1585.6	1559.2	1424.3	1473.3	1801.2
52.5°	1486.1	1455.9	1410.7	1440.8	1493.6	1517.0	1688.9	1684.4	1515.5	1602.9	1946.0
55°	1473.3	1457.4	1465.7	1506.4	1572.8	1607.5	1793.0	1793.0	1608.2	1741.7	2089.3
57.5°	1483.8	1473.3	1541.9	1578.1	1661.8	1711.5	1918.1	1884.9	1686.6	1857.8	2185.8
60°	1573.5	1543.4	1596.9	1668.5	1776.4	1824.6	2061.4	1981.4	1750.7	1958.1	2203.1
62.5°	1731.9	1707.8	1713.0	1795.2	1934.7	1990.5	2203.1	2066.6	1793.7	2000.3	2138.3
65°	1994.3	1983.0	1918.1	1967.9	2160.1	2210.7	2380.3	2140.5	1781.6	1968.6	1967.1
67.5°	2347.1	2301.9	2214.4	2258.9	2480.6	2531.8	2593.7	2168.4	1703.2	1779.4	1581.1
70°	2639.7	2602.0	2562.0	2678.9	2933.7	2961.6	2816.1	2142.0	1512.5	1392.6	1060.1
72.5°	2825.9	2798.8	2835.7	3179.5	3587.4	3534.6	3035.5	1957.3	1180.0	852.7	530.0
75°	2439.1	2426.3	2637.4	3334.8	3885.2	3865.6	2959.3	1465.0	684.6	375.5	241.3
77.5°	1226.7	1366.2	1588.6	2366.0	3091.3	3095.1	2156.4	704.2	288.0	210.4	165.9
80°	345.3	349.8	530.0	975.6	1543.4	1644.4	815.8	239.0	164.4	156.8	123.7
82.5°	82.2	76.2	135.7	288.8	518.0	539.1	245.0	86.0	92.0	98.0	76.2
85°	0.8	0.8	0.8	0.8	0.8	1.5	9.0	9.0	21.9	27.9	21.9
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	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°	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1	778.1
2.5°	777.3	784.9	797.0	807.5	816.6	823.3	833.9	835.4	838.4	839.9	841.4
5°	784.1	798.5	821.1	840.7	854.3	858.0	867.1	866.3	867.1	867.1	866.3
7.5°	793.2	812.8	844.5	866.3	873.9	871.6	869.3	861.0	854.3	851.2	847.5
10°	804.5	827.1	864.1	879.9	876.1	864.1	849.7	834.6	822.6	816.6	815.0
12.5°	815.8	845.2	879.9	884.4	869.3	847.5	823.3	806.8	790.9	782.6	782.6
15°	834.6	867.1	892.7	883.7	856.5	828.6	795.4	772.8	754.7	743.4	742.7
17.5°	857.3	892.0	906.3	879.9	840.7	801.5	761.5	732.1	708.7	697.4	690.6
20°	885.2	917.6	913.1	867.8	817.3	769.1	719.3	683.9	659.7	647.7	645.4
22.5°	916.8	944.0	915.3	848.2	785.6	723.8	669.5	634.1	618.3	609.2	610.0
25°	955.3	976.4	916.1	824.8	740.4	664.3	616.8	600.2	597.9	594.1	595.6
27.5°	1003.5	1010.3	913.1	793.2	682.3	601.7	573.8	580.6	586.6	584.3	585.8
30°	1060.8	1051.0	906.3	747.2	610.7	544.4	545.9	561.0	569.3	567.0	567.7
32.5°	1127.9	1091.8	893.5	691.4	542.9	509.7	521.8	536.8	545.1	545.1	545.9
35°	1203.3	1140.8	868.6	619.0	495.4	488.6	499.1	511.2	516.5	513.5	515.7
37.5°	1282.5	1183.0	828.6	538.3	459.9	472.0	478.0	481.0	480.3	475.8	473.5
40°	1356.4	1216.2	757.0	458.4	430.5	454.6	457.7	449.4	439.6	431.3	426.0
42.5°	1412.9	1233.5	657.5	400.4	402.6	435.0	437.3	420.7	401.9	389.1	386.0
45°	1471.0	1239.5	558.7	353.6	372.5	415.4	421.5	398.9	373.2	358.1	355.9
47.5°	1537.4	1254.6	461.4	321.2	346.8	401.9	411.7	383.8	355.1	332.5	328.7
50°	1626.3	1283.3	388.3	296.3	328.7	395.1	408.7	371.7	335.5	310.6	307.6
52.5°	1739.4	1325.5	320.4	276.7	314.4	384.5	404.1	359.6	321.2	291.0	286.5
55°	1836.7	1341.3	276.7	260.1	299.3	371.7	400.4	355.1	305.4	271.4	266.2
57.5°	1881.2	1296.1	245.8	243.5	283.5	355.9	392.8	340.0	288.0	261.6	257.1
60°	1860.8	1183.7	222.4	228.5	265.4	335.5	373.2	325.0	276.0	254.1	249.6
62.5°	1770.3	1054.1	205.1	214.1	245.0	309.9	350.6	311.4	265.4	245.8	239.8
65°	1611.2	911.6	192.3	201.3	226.9	285.0	332.5	295.6	253.3	233.7	228.5
67.5°	1314.9	725.3	178.7	188.5	211.9	264.6	315.9	282.7	239.8	226.9	222.4
70°	870.1	487.8	165.9	175.7	196.8	245.0	298.6	269.2	226.9	218.7	212.6
72.5°	399.6	262.4	152.3	162.1	179.4	223.2	276.7	248.8	209.6	204.3	195.3
75°	197.5	161.4	135.7	144.8	158.3	196.8	251.1	231.5	193.8	184.7	174.2
77.5°	144.0	120.6	116.9	125.9	137.2	174.2	223.9	213.4	177.9	165.1	159.1
80°	107.1	93.5	98.0	107.1	117.6	157.6	209.6	199.8	164.4	151.5	147.0
82.5°	65.6	62.6	75.4	86.0	98.8	144.8	199.8	182.5	147.8	135.7	130.4
85°	18.8	22.6	38.5	55.8	70.1	116.9	186.2	159.8	124.4	104.0	100.3
87.5°	0.0	2.3	12.1	25.6	41.5	77.7	143.3	125.2	95.0	76.9	73.9
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)