

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: P401932

Luminaire Tested: **ENT-SA1F-827-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401932
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-SA1F-827-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5480 lumens
Efficiency: N/A
Efficacy: 82.9 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 - G2

Input Watts (W): 66.1
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

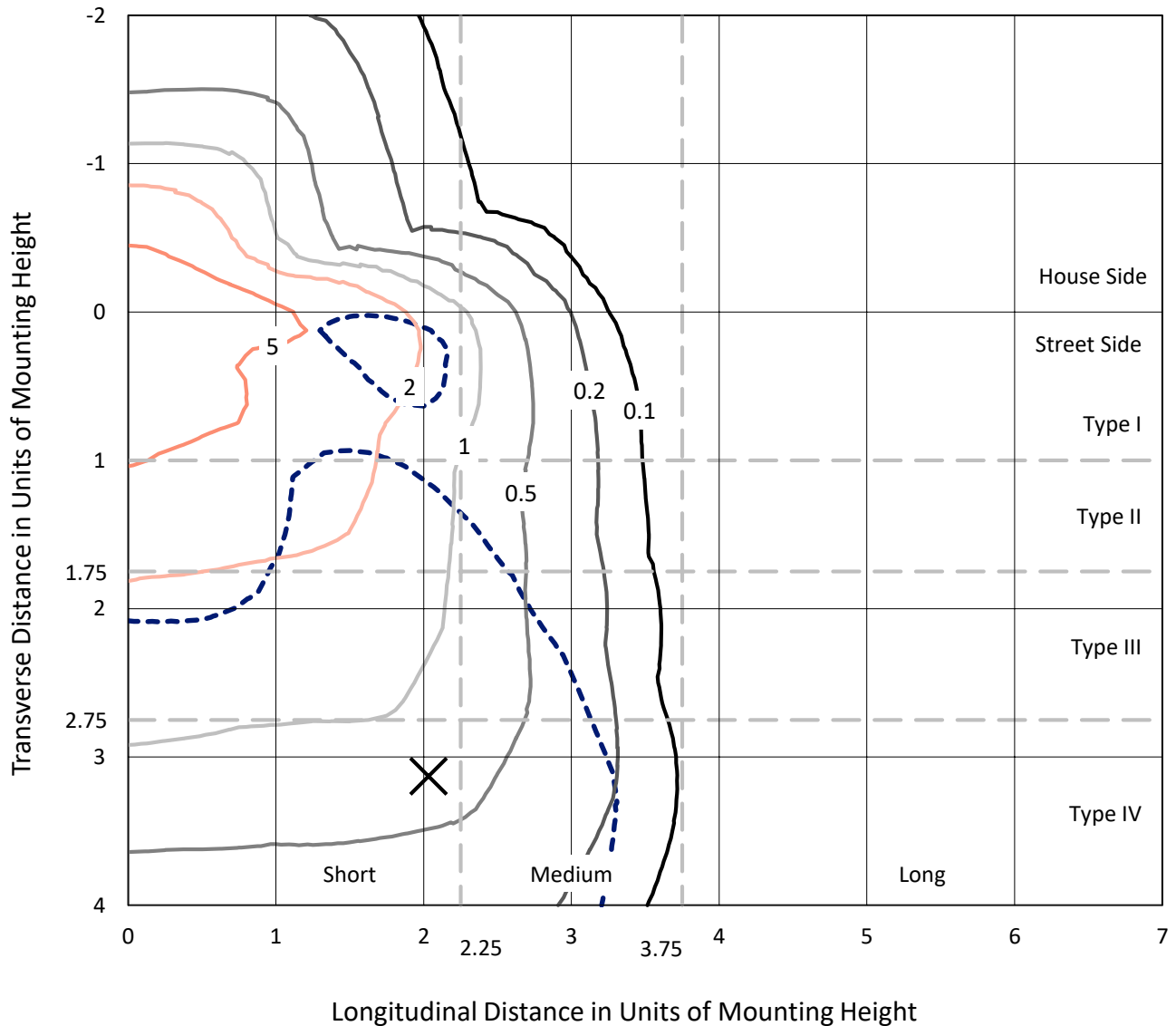


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Iso-Footcandle Lines of Horizontal Illumination

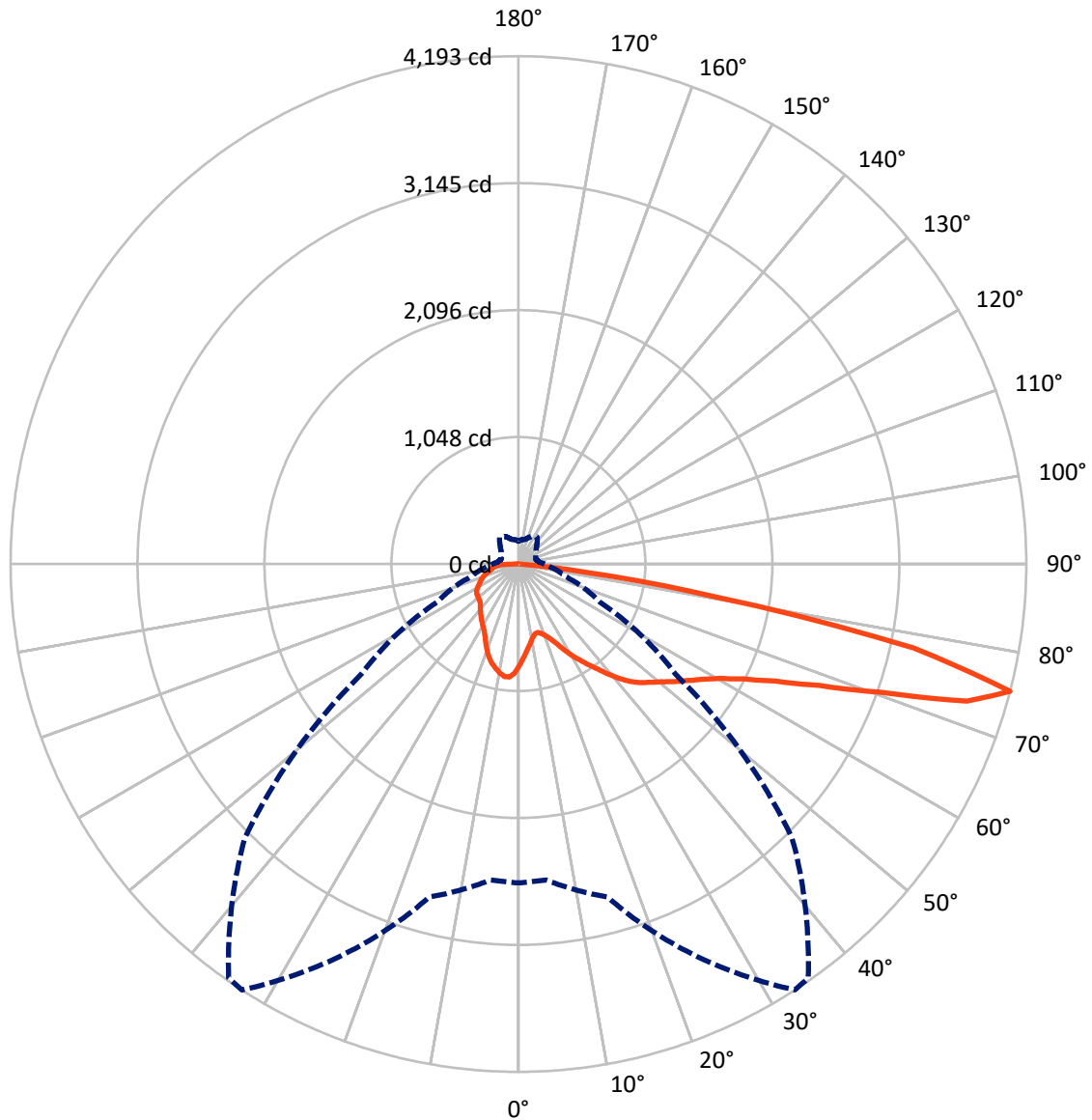
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9 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	1331.2	0.0	1331.2
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	4148.8	0.0	4148.8
	% Fixture	75.7	0.0	75.7
Total	Lumens	5480.0	0.0	5480.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	1.4
10°-20°	220.6	4.0
20°-30°	366.8	6.7
30°-40°	547.3	10.0
40°-50°	764.5	14.0
50°-60°	1020.5	18.6
60°-70°	1265.4	23.1
70°-80°	1094.0	20.0
80°-90°	122.3	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°	5480.0	100.0
0°-180°	5480.0	100.0



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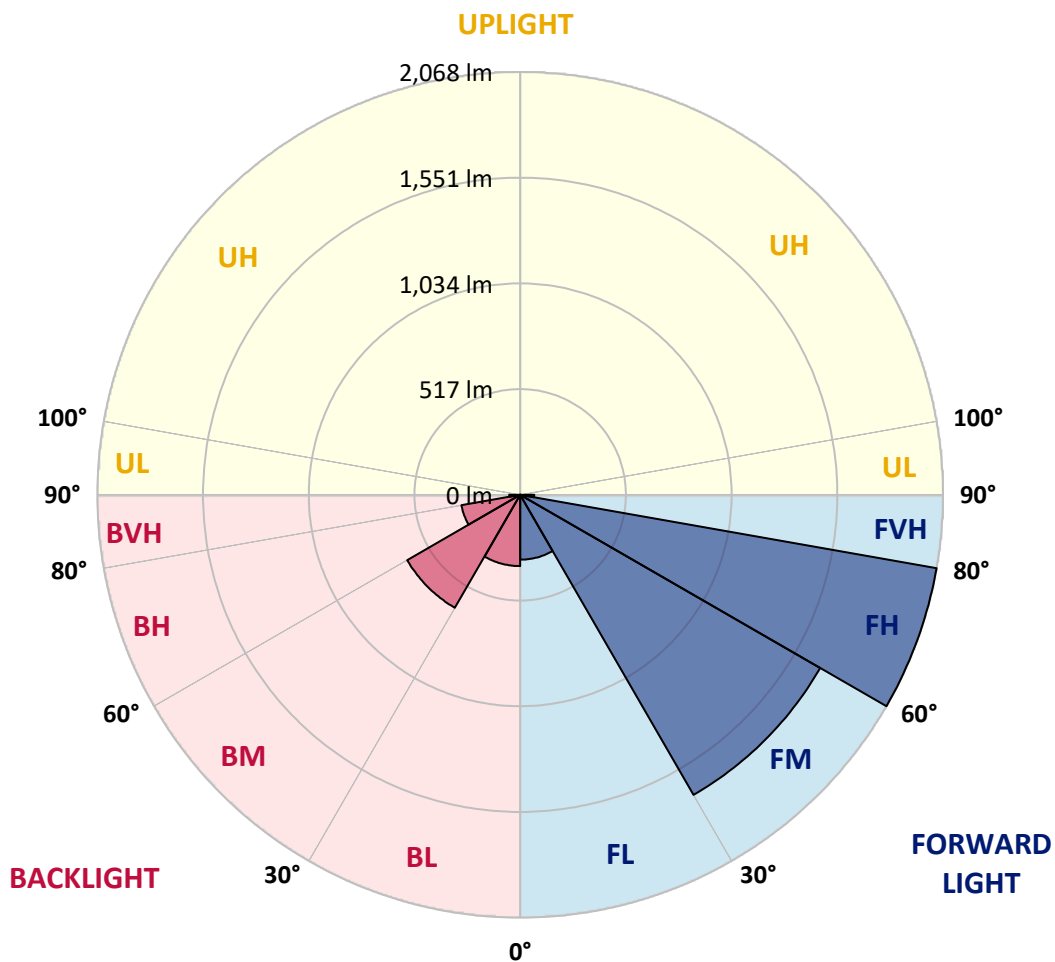
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	317.3	5.8			
FM	(30°-60°)	1694.4	30.9			
FH	(60°-80°)	2067.9	37.7			G2/5000
FVH	(80°-90°)	69.1	1.3			G1/100
BL	(0°-30°)	348.6	6.4	B1/500		
BM	(30°-60°)	637.9	11.6	B1/1000		
BH	(60°-80°)	291.5	5.3	B1/500		G1/500
BVH	(80°-90°)	53.2	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°	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7
2.5°	761.6	763.2	768.1	773.8	777.0	777.0	786.0	796.6	809.6	821.0	833.2
5°	698.1	700.6	704.6	712.0	720.9	722.5	740.4	759.1	782.7	808.0	832.4
7.5°	635.5	640.4	648.5	658.3	672.1	675.3	700.6	725.8	758.3	796.6	836.4
10°	587.5	590.7	594.8	608.6	625.7	631.4	664.8	696.5	741.2	788.4	841.3
12.5°	574.4	574.4	574.4	581.0	594.8	599.7	634.7	675.3	725.8	782.7	848.7
15°	593.2	592.3	583.4	578.5	586.7	590.7	620.8	660.7	717.7	784.4	862.5
17.5°	635.5	633.0	611.9	595.6	601.3	603.7	623.3	657.4	715.2	790.9	882.8
20°	690.8	685.1	652.6	628.1	627.3	629.0	643.6	667.2	719.3	802.3	904.8
22.5°	764.0	760.8	712.8	675.3	668.8	668.8	675.3	690.0	729.9	815.3	934.9
25°	858.4	849.5	791.7	741.2	726.6	722.5	721.7	721.7	748.6	834.8	972.3
27.5°	955.2	944.7	886.1	817.7	798.2	790.9	777.9	768.1	773.0	856.0	1017.1
30°	1042.3	1027.7	978.0	907.2	877.9	866.6	843.0	822.6	809.6	885.3	1076.5
32.5°	1090.3	1084.6	1050.4	986.2	952.8	947.9	908.9	882.0	859.2	923.5	1156.2
35°	1154.6	1147.3	1125.3	1072.4	1032.5	1020.3	991.0	959.3	922.7	974.8	1257.1
37.5°	1214.0	1209.9	1201.8	1165.2	1122.9	1110.6	1083.8	1050.4	1000.8	1050.4	1370.2
40°	1274.2	1269.3	1266.1	1253.0	1222.9	1214.8	1201.8	1162.7	1096.0	1133.4	1481.7
42.5°	1362.1	1351.5	1317.3	1316.5	1318.9	1325.5	1326.3	1283.1	1200.2	1236.8	1579.3
45°	1476.8	1447.5	1371.0	1368.6	1397.1	1414.1	1455.6	1419.0	1308.4	1342.5	1688.4
47.5°	1535.4	1505.3	1426.4	1421.5	1458.9	1484.1	1586.6	1550.8	1420.7	1461.3	1801.4
50°	1563.9	1544.3	1475.2	1490.6	1528.9	1553.3	1711.1	1682.7	1537.0	1589.9	1943.8
52.5°	1603.7	1571.2	1522.4	1554.9	1611.9	1637.1	1822.6	1817.7	1635.5	1729.8	2100.1
55°	1589.9	1572.8	1581.8	1625.7	1697.3	1734.7	1934.9	1934.9	1735.5	1879.6	2254.7
57.5°	1601.3	1589.9	1663.9	1703.0	1793.3	1847.0	2070.0	2034.2	1820.2	2004.9	2358.8
60°	1698.1	1665.6	1723.3	1800.6	1917.0	1969.1	2224.6	2138.3	1889.3	2113.1	2377.5
62.5°	1869.0	1842.9	1848.6	1937.3	2087.9	2148.1	2377.5	2230.3	1935.7	2158.6	2307.5
65°	2152.1	2139.9	2070.0	2123.7	2331.1	2385.7	2568.7	2310.0	1922.7	2124.5	2122.8
67.5°	2532.9	2484.1	2389.7	2437.7	2677.0	2732.3	2799.0	2340.1	1838.1	1920.2	1706.3
70°	2848.6	2808.0	2764.8	2890.9	3166.0	3196.1	3039.0	2311.6	1632.2	1502.8	1144.0
72.5°	3049.6	3020.3	3060.2	3431.2	3871.4	3814.5	3275.8	2112.3	1273.4	920.3	572.0
75°	2632.2	2618.4	2846.2	3598.8	4192.8	4171.6	3193.6	1580.9	738.8	405.2	260.4
77.5°	1323.8	1474.4	1714.4	2553.3	3336.0	3340.1	2327.1	760.0	310.8	227.0	179.0
80°	372.7	377.5	572.0	1052.9	1665.6	1774.6	880.4	257.9	177.4	169.2	133.4
82.5°	88.7	82.2	146.5	311.6	559.0	581.8	264.4	92.8	99.3	105.8	82.2
85°	0.8	0.8	0.8	0.8	0.8	1.6	9.8	9.8	23.6	30.1	23.6
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°	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7
2.5°	838.9	847.0	860.0	871.4	881.2	888.5	899.9	901.5	904.8	906.4	908.0
5°	846.2	861.7	886.1	907.2	921.9	925.9	935.7	934.9	935.7	935.7	934.9
7.5°	856.0	877.1	911.3	934.9	943.0	940.6	938.2	929.2	921.9	918.6	914.6
10°	868.2	892.6	932.5	949.5	945.5	932.5	917.0	900.7	887.7	881.2	879.6
12.5°	880.4	912.1	949.5	954.4	938.2	914.6	888.5	870.6	853.5	844.6	844.6
15°	900.7	935.7	963.4	953.6	924.3	894.2	858.4	834.0	814.5	802.3	801.5
17.5°	925.1	962.6	978.0	949.5	907.2	864.9	821.8	790.1	764.8	752.6	745.3
20°	955.2	990.2	985.3	936.5	882.0	829.9	776.2	738.0	712.0	698.9	696.5
22.5°	989.4	1018.7	987.8	915.4	847.8	781.1	722.5	684.3	667.2	657.4	658.3
25°	1030.9	1053.7	988.6	890.1	799.0	716.8	665.6	647.7	645.2	641.2	642.8
27.5°	1083.0	1090.3	985.3	856.0	736.4	649.3	619.2	626.5	633.0	630.6	632.2
30°	1144.8	1134.2	978.0	806.3	659.1	587.5	589.1	605.4	614.3	611.9	612.7
32.5°	1217.2	1178.2	964.2	746.1	585.8	550.0	563.1	579.3	588.3	588.3	589.1
35°	1298.6	1231.1	937.3	668.0	534.6	527.3	538.6	551.7	557.4	554.1	556.5
37.5°	1384.0	1276.6	894.2	581.0	496.3	509.4	515.9	519.1	518.3	513.4	511.0
40°	1463.8	1312.4	816.9	494.7	464.6	490.6	493.9	484.9	474.4	465.4	459.7
42.5°	1524.8	1331.2	709.5	432.1	434.5	469.5	471.9	454.0	433.7	419.9	416.6
45°	1587.5	1337.7	602.9	381.6	401.9	448.3	454.8	430.4	402.8	386.5	384.0
47.5°	1659.1	1353.9	498.0	346.6	374.3	433.7	444.3	414.2	383.2	358.8	354.8
50°	1755.1	1384.9	419.0	319.8	354.8	426.4	441.0	401.1	362.1	335.2	332.0
52.5°	1877.1	1430.4	345.8	298.6	339.3	415.0	436.1	388.1	346.6	314.1	309.2
55°	1982.1	1447.5	298.6	280.7	323.0	401.1	432.1	383.2	329.5	292.9	287.2
57.5°	2030.1	1398.7	265.3	262.8	305.9	384.0	423.9	367.0	310.8	282.3	277.5
60°	2008.1	1277.5	240.0	246.5	286.4	362.1	402.8	350.7	297.8	274.2	269.3
62.5°	1910.5	1137.5	221.3	231.1	264.4	334.4	378.4	336.0	286.4	265.3	258.7
65°	1738.8	983.7	207.5	217.2	244.9	307.6	358.8	319.0	273.4	252.2	246.5
67.5°	1419.0	782.7	192.8	203.4	228.6	285.6	340.9	305.1	258.7	244.9	240.0
70°	939.0	526.4	179.0	189.6	212.4	264.4	322.2	290.5	244.9	236.0	229.5
72.5°	431.2	283.2	164.4	174.9	193.7	240.8	298.6	268.5	226.2	220.5	210.7
75°	213.2	174.1	146.5	156.2	170.9	212.4	270.9	249.8	209.1	199.3	188.0
77.5°	155.4	130.2	126.1	135.9	148.1	188.0	241.7	230.3	192.0	178.2	171.7
80°	115.5	100.9	105.8	115.5	126.9	170.1	226.2	215.6	177.4	163.5	158.7
82.5°	70.8	67.5	81.4	92.8	106.6	156.2	215.6	196.9	159.5	146.5	140.8
85°	20.3	24.4	41.5	60.2	75.7	126.1	201.0	172.5	134.3	112.3	108.2
87.5°	0.0	2.4	13.0	27.7	44.8	83.8	154.6	135.1	102.5	83.0	79.7
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)