

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: P401766

Luminaire Tested: **ENT-SA1E-830-U-T2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401766
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: ENT-SA1E-830-U-T2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5563 lumens
Efficiency: N/A
Efficacy: 97.3 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 - G2

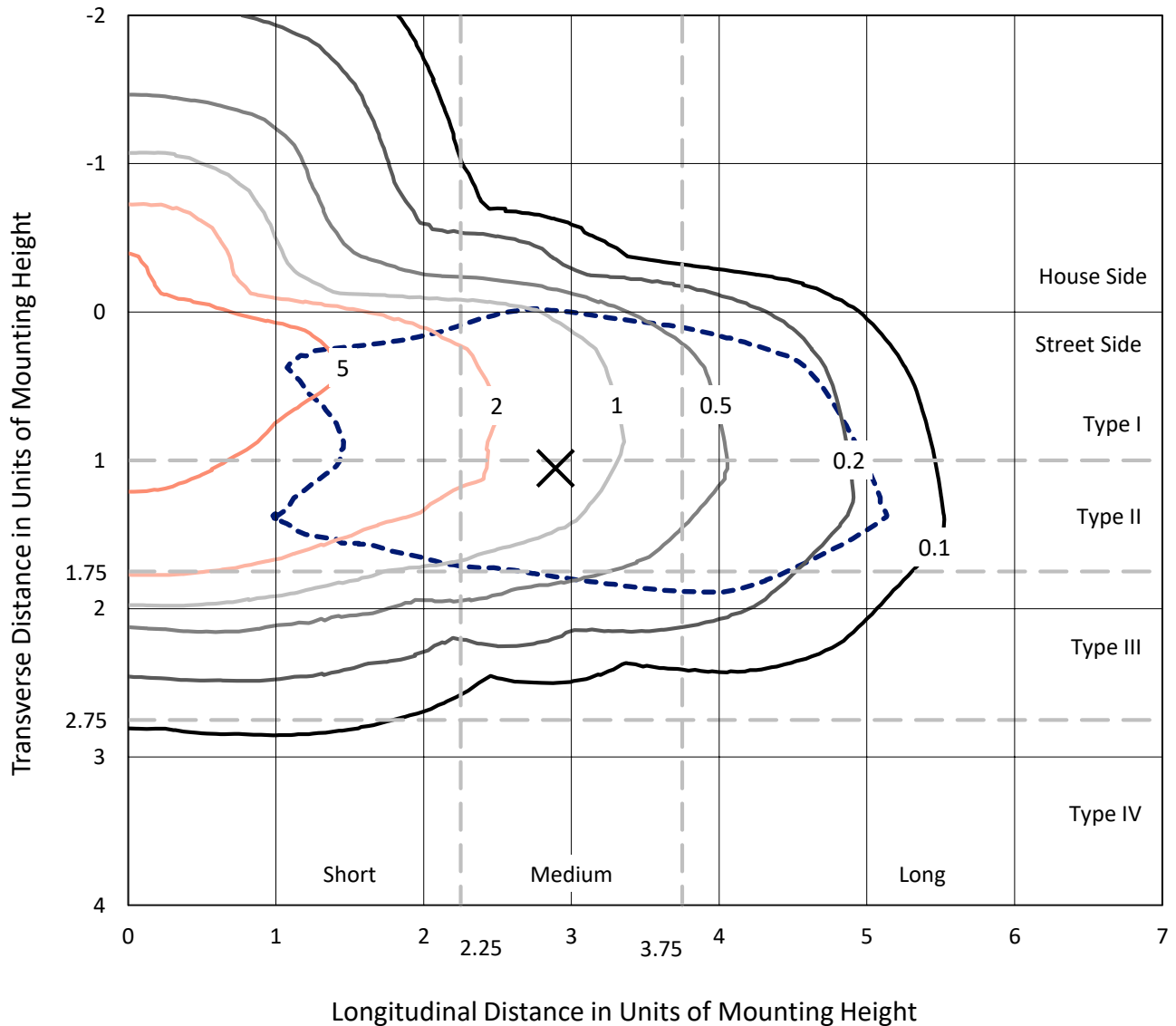
Input Watts (W): 57.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P401766
 CATALOG NUMBER: ENT-SA1E-830-U-T2

Iso-Footcandle Lines of Horizontal Illumination

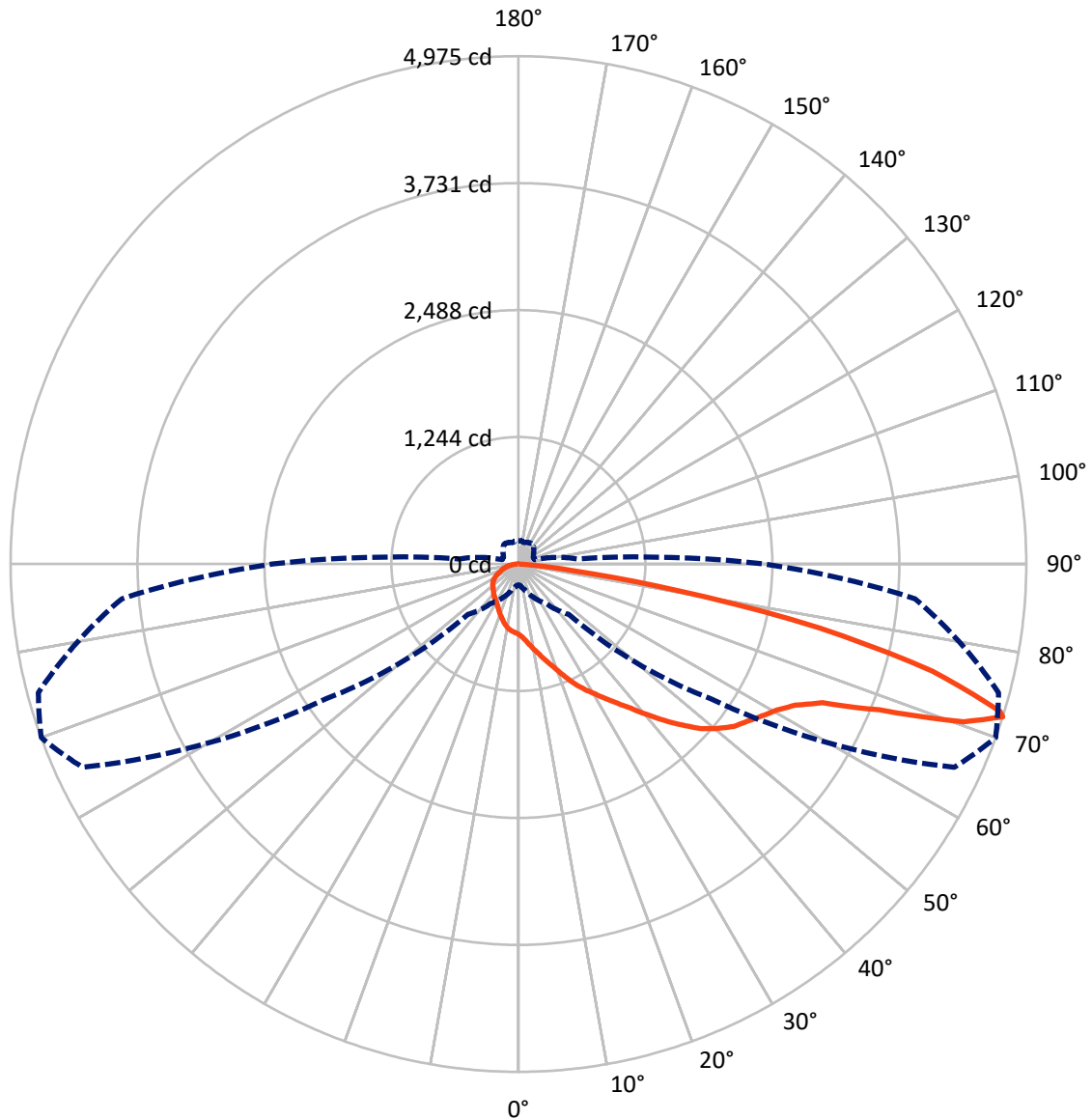
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P401766
CATALOG NUMBER: ENT-SA1E-830-U-T2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P401766

CATALOG NUMBER: ENT-SA1E-830-U-T2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1033.7	0.0	1033.7
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	4529.3	0.0	4529.3
	% Fixture	81.4	0.0	81.4
Total	Lumens	5563.0	0.0	5563.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.3	1.2
10°-20°	222.2	4.0
20°-30°	393.4	7.1
30°-40°	584.9	10.5
40°-50°	848.6	15.3
50°-60°	1159.3	20.8
60°-70°	1269.3	22.8
70°-80°	902.8	16.2
80°-90°	113.3	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°	5563.0	100.0
0°-180°	5563.0	100.0



REPORT NUMBER: P401766

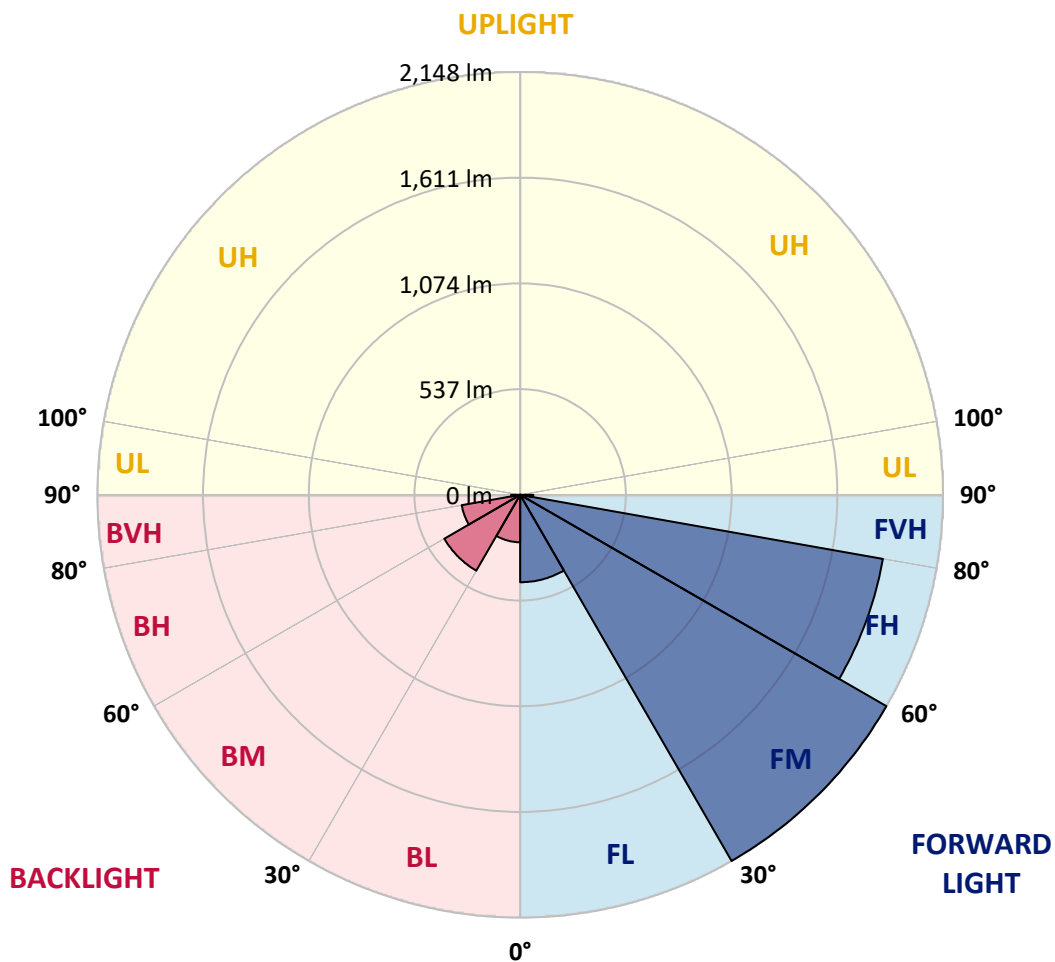
CATALOG NUMBER: ENT-SA1E-830-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	444.0	8.0			
FM	(30°-60°)	2147.7	38.6			
FH	(60°-80°)	1870.7	33.6			G2/5000
FVH	(80°-90°)	67.0	1.2			G1/100
BL	(0°-30°)	240.9	4.3	B1/500		
BM	(30°-60°)	445.1	8.0	B1/1000		
BH	(60°-80°)	301.4	5.4	B1/500		G1/500
BVH	(80°-90°)	46.4	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-G2

Type III Medium





REPORT NUMBER: P401766

CATALOG NUMBER: ENT-SA1E-830-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9
2.5°	766.0	762.0	762.8	755.7	751.7	742.2	731.8	720.7	715.2	711.2	697.7
5°	840.7	840.7	843.9	838.3	823.2	807.3	789.1	764.4	754.1	739.8	712.8
7.5°	902.7	904.3	904.3	902.7	889.2	871.7	847.9	817.7	801.0	780.3	738.2
10°	934.5	938.4	941.6	944.0	942.4	932.1	905.1	874.1	851.0	824.0	767.6
12.5°	950.4	952.0	957.5	969.4	979.0	986.9	967.1	930.5	907.5	874.9	799.4
15°	967.9	967.9	973.4	988.5	1006.8	1028.2	1025.9	997.3	972.6	932.1	839.9
17.5°	979.0	982.2	992.5	1008.4	1033.8	1069.6	1087.8	1071.9	1040.2	997.3	883.6
20°	972.6	975.0	995.7	1026.7	1059.2	1105.3	1151.4	1151.4	1121.2	1071.9	932.1
22.5°	984.5	988.5	1002.8	1032.2	1076.7	1136.3	1211.8	1238.0	1211.8	1157.8	988.5
25°	1030.6	1029.0	1041.0	1052.9	1091.0	1164.9	1263.4	1331.0	1307.2	1247.6	1043.3
27.5°	1097.4	1097.4	1103.7	1102.9	1116.4	1188.8	1308.7	1412.8	1393.0	1321.5	1088.6
30°	1174.5	1176.0	1174.5	1173.7	1171.3	1221.3	1349.3	1485.9	1475.6	1404.9	1130.0
32.5°	1268.2	1272.2	1265.8	1249.9	1240.4	1268.2	1383.4	1567.8	1571.0	1487.5	1170.5
35°	1385.8	1392.2	1368.3	1345.3	1321.5	1334.2	1423.2	1644.9	1676.7	1581.3	1219.7
37.5°	1503.4	1513.8	1509.8	1447.8	1414.4	1413.6	1482.0	1741.0	1794.3	1703.7	1289.7
40°	1602.8	1611.5	1616.3	1559.8	1513.8	1512.2	1568.6	1841.1	1938.9	1844.3	1372.3
42.5°	1668.7	1676.7	1691.0	1657.6	1614.7	1634.5	1663.9	1940.5	2094.6	2016.0	1474.0
45°	1740.2	1746.6	1755.3	1736.3	1714.0	1771.2	1784.7	2050.9	2250.4	2200.3	1593.2
47.5°	1816.5	1822.9	1827.6	1813.3	1805.4	1885.6	1903.1	2163.8	2407.7	2391.0	1709.2
50°	1900.7	1903.1	1907.9	1900.7	1903.1	1989.7	2000.9	2263.1	2532.5	2589.7	1830.0
52.5°	2045.4	2048.5	2050.1	2016.0	2004.0	2055.7	2079.5	2368.8	2642.1	2755.0	1936.5
55°	2159.8	2170.9	2221.0	2198.7	2170.1	2102.6	2144.7	2453.8	2720.0	2909.1	2047.7
57.5°	2066.0	2091.4	2216.2	2321.1	2401.3	2240.0	2221.8	2541.2	2809.8	3041.8	2177.3
60°	1793.5	1830.8	2012.0	2230.5	2490.3	2555.5	2379.9	2650.1	2907.5	3180.1	2316.3
62.5°	1243.6	1281.7	1532.0	1880.9	2340.2	2735.9	2813.0	2843.2	3043.4	3321.5	2497.5
65°	596.0	634.9	841.5	1209.4	1848.3	2619.9	3317.5	3243.6	3272.3	3501.1	2764.5
67.5°	379.0	399.7	480.7	658.7	1075.1	2040.6	3498.7	4041.5	3814.2	3915.1	3296.1
70°	277.3	282.1	352.0	456.1	638.1	1191.9	3089.5	4805.1	4627.1	4616.0	3937.4
72°	205.0	213.0	267.0	363.9	472.0	696.9	2298.8	4712.1	4975.1	4869.4	3899.2
72.5°	193.1	199.5	246.3	344.1	445.8	611.9	2059.7	4604.0	4932.2	4876.6	3826.1
75°	140.6	145.4	168.5	244.7	344.9	354.4	1099.8	3533.7	4188.5	4655.7	3468.5
77.5°	96.9	100.1	112.0	150.2	236.0	240.0	466.4	2412.5	3022.7	3722.8	2667.5
80°	58.8	60.4	67.5	81.8	150.2	142.2	192.3	1261.1	1577.3	2023.9	1237.2
82.5°	24.6	25.4	29.4	32.6	63.6	67.5	77.9	411.6	522.1	632.5	356.8
85°	0.0	0.0	0.8	0.8	1.6	7.2	11.1	50.9	77.1	92.2	64.4
87.5°	0.0	0.0	0.8	0.8	0.8	1.6	1.6	2.4	3.2	3.2	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401766

CATALOG NUMBER: ENT-SA1E-830-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9	688.9
2.5°	691.3	688.1	678.6	670.7	664.3	654.0	653.2	645.2	645.2	642.8	641.3
5°	702.4	692.1	673.0	655.6	642.8	627.8	620.6	611.9	606.3	603.1	603.9
7.5°	716.7	699.3	666.7	637.3	613.4	594.4	583.3	576.1	572.1	570.5	570.5
10°	736.6	709.6	656.4	611.9	581.7	567.4	561.8	561.0	561.8	562.6	563.4
12.5°	758.9	716.7	637.3	581.7	557.8	552.3	555.4	562.6	568.9	571.3	571.3
15°	781.9	721.5	611.1	553.9	539.5	545.1	556.2	569.7	580.1	586.4	588.0
17.5°	805.7	722.3	583.3	528.4	523.7	538.0	557.8	579.3	596.0	606.3	607.9
20°	831.2	720.7	550.7	505.4	507.8	531.6	559.4	588.8	611.1	624.6	626.2
22.5°	859.0	714.4	518.9	483.1	494.3	525.2	557.8	592.0	615.8	631.7	634.9
25°	886.0	701.7	487.1	463.3	484.7	518.9	549.9	579.3	602.3	617.4	621.4
27.5°	900.3	674.6	456.9	448.2	477.6	509.4	531.6	551.5	564.2	573.7	577.7
30°	902.7	636.5	432.3	437.8	469.6	495.8	508.6	511.7	509.4	512.5	508.6
32.5°	897.9	595.2	412.4	429.9	456.9	476.8	480.0	470.4	456.1	436.2	437.0
35°	894.7	549.9	396.5	418.8	440.2	452.9	447.4	432.3	405.3	381.4	379.8
37.5°	900.3	508.6	383.0	404.5	418.8	424.3	416.4	396.5	372.7	352.0	349.6
40°	916.2	478.4	370.3	388.6	395.7	399.7	390.2	372.7	363.1	348.0	345.7
42.5°	947.2	457.7	358.4	371.1	374.3	378.2	368.7	356.8	365.5	362.3	362.3
45°	990.1	448.2	348.0	354.4	357.6	363.9	358.4	348.0	357.6	339.3	336.1
47.5°	1045.7	451.3	340.9	337.7	347.3	358.4	352.0	339.3	336.1	303.5	298.0
50°	1104.5	468.0	333.7	324.2	336.1	351.2	343.3	323.4	304.3	287.7	284.5
52.5°	1173.7	495.8	327.4	309.1	323.4	343.3	337.7	316.3	296.4	284.5	282.1
55°	1249.9	522.9	319.4	291.6	306.7	340.9	339.3	311.5	285.3	279.7	278.1
57.5°	1335.8	545.1	309.9	271.8	290.0	333.7	332.2	300.4	282.1	277.3	276.5
60°	1443.0	571.3	293.2	248.7	273.4	320.2	318.6	294.8	274.9	271.0	269.4
62.5°	1589.2	619.8	264.6	227.3	255.9	296.4	305.9	283.7	264.6	263.8	263.8
65°	1830.0	713.6	235.2	209.0	236.0	273.4	289.2	271.0	255.1	259.0	259.0
67.5°	2285.3	839.9	205.0	191.5	216.9	251.1	274.9	258.3	244.7	252.7	252.7
70°	2636.6	793.0	181.2	174.8	197.9	231.2	256.7	244.7	232.0	245.5	243.9
72°	2405.3	580.9	165.3	161.3	182.0	214.5	240.8	232.0	218.5	229.6	226.5
72.5°	2309.2	527.6	160.5	157.3	177.2	211.4	237.6	228.9	214.5	225.7	220.9
75°	2014.4	445.0	139.9	138.3	157.3	189.9	216.9	212.2	197.9	204.2	199.5
77.5°	1667.1	375.1	117.6	120.8	134.3	169.3	195.5	190.7	177.2	176.4	175.6
80°	781.9	209.0	96.9	99.3	112.8	144.6	168.5	165.3	152.6	151.0	148.6
82.5°	226.5	100.1	74.7	76.3	90.6	118.4	144.6	143.0	133.5	131.1	125.6
85°	42.1	32.6	40.5	47.7	66.0	98.5	131.9	128.7	114.4	104.1	96.1
87.5°	2.4	6.4	13.5	23.0	42.1	73.9	106.5	104.1	91.4	78.7	79.5
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)