

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: P401558

Luminaire Tested: **ENT-SA1D-827-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401558
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1D-827-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4099 lumens
Efficiency: N/A
Efficacy: 95.1 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

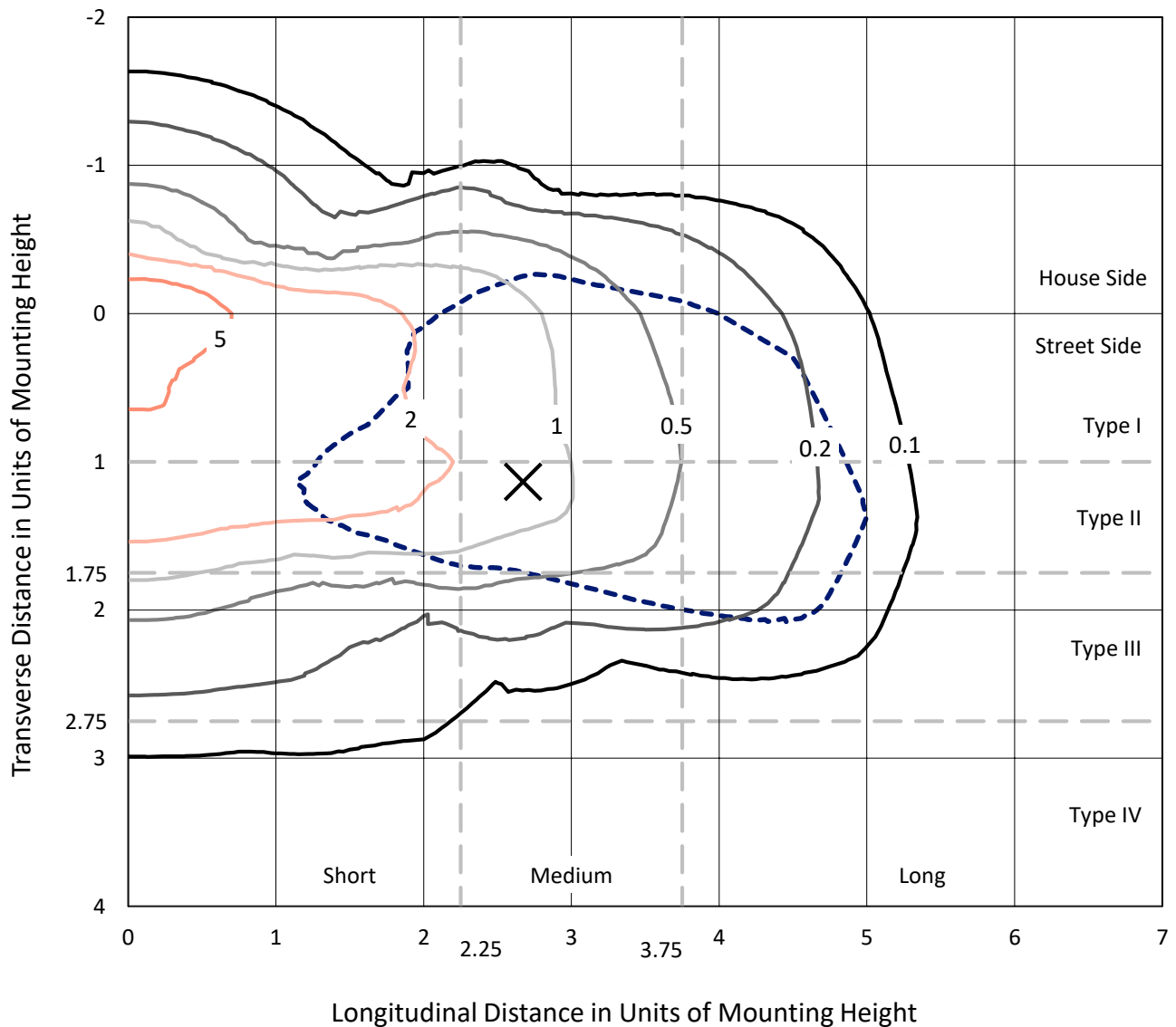


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

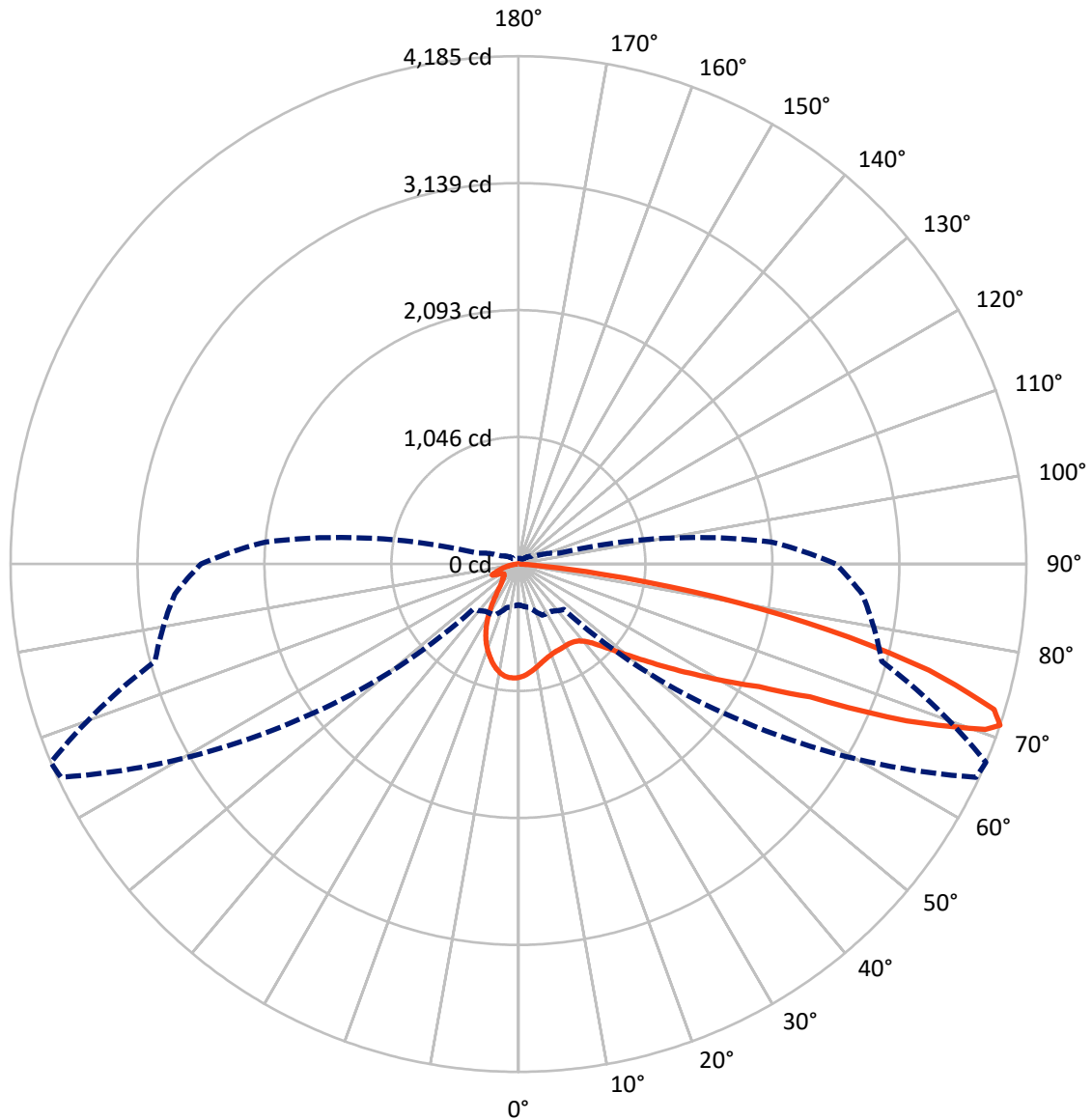


Based on 10 foot mounting height. Maximum calculated value = 9.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	839.8	0.0	839.8
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	3259.2	0.0	3259.2
	% Fixture	79.5	0.0	79.5
Total	Lumens	4099.0	0.0	4099.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	2.0
10°-20°	203.5	5.0
20°-30°	274.8	6.7
30°-40°	361.9	8.8
40°-50°	515.5	12.6
50°-60°	787.6	19.2
60°-70°	983.4	24.0
70°-80°	793.8	19.4
80°-90°	95.7	2.3
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°	4099.0	100.0
0°-180°	4099.0	100.0



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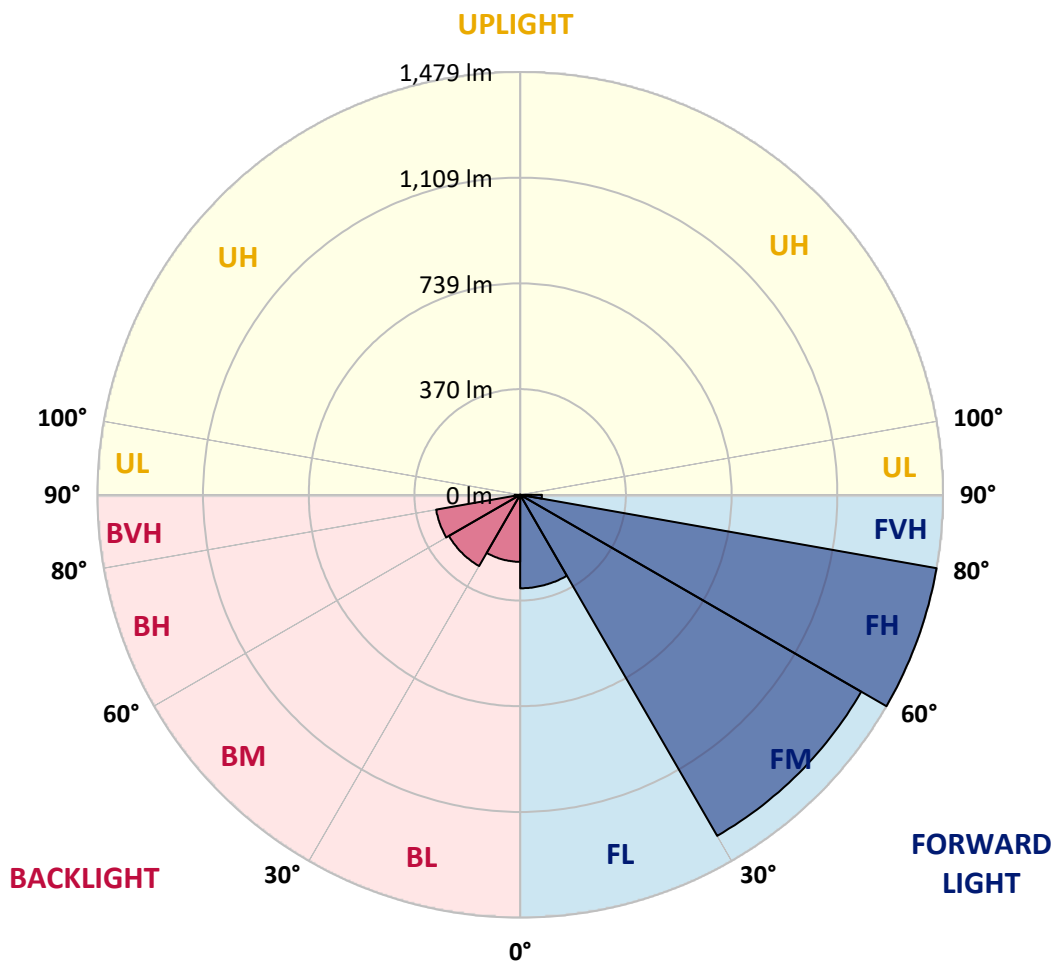
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	326.9	8.0			
FM	(30°-60°)	1377.3	33.6			
FH	(60°-80°)	1478.7	36.1			G1/1800
FVH	(80°-90°)	76.3	1.9			G1/100
BL	(0°-30°)	234.3	5.7	B1/500		
BM	(30°-60°)	287.7	7.0	B1/1000		
BH	(60°-80°)	298.4	7.3	B1/500		G1/500
BVH	(80°-90°)	19.4	0.5			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°	67°	75°	85°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	881.6	885.7	886.3	894.6	897.5	906.9	912.3	921.1	922.3	927.6	931.1
5°	824.3	824.9	828.5	835.5	846.8	863.9	876.9	898.7	902.8	918.2	931.7
7.5°	773.0	776.0	781.9	792.5	805.5	825.5	845.6	875.7	881.6	906.4	932.3
10°	738.2	741.1	745.9	757.7	770.6	793.1	817.3	852.1	858.6	892.8	930.6
12.5°	710.5	713.4	716.9	729.9	744.1	766.5	791.3	830.2	836.7	876.3	926.4
15°	692.2	692.7	697.5	708.1	724.0	745.9	770.6	810.8	818.4	863.3	925.2
17.5°	680.9	682.1	686.3	694.5	708.7	729.9	754.1	794.8	803.7	852.7	925.8
20°	681.5	682.7	685.1	688.0	698.1	716.4	741.7	783.0	791.9	846.2	930.0
22.5°	693.9	694.5	695.1	691.0	694.5	707.5	732.3	774.8	784.2	843.2	934.7
25°	717.5	717.5	716.4	706.9	699.2	704.6	727.0	771.8	781.3	840.9	939.4
27.5°	750.0	752.3	746.4	735.2	717.5	708.7	725.8	769.5	778.9	840.9	941.8
30°	794.2	795.4	793.1	778.3	749.4	725.2	729.3	767.7	777.1	839.7	942.4
32.5°	839.1	842.6	845.6	832.6	797.8	754.7	743.5	770.0	778.3	839.1	940.6
35°	884.5	886.9	901.0	898.7	860.9	799.0	766.5	779.5	786.6	842.0	941.8
37.5°	923.5	928.8	949.4	965.4	935.9	859.2	806.0	800.1	804.3	856.8	948.3
40°	965.4	973.0	1003.7	1033.8	1020.8	934.7	862.1	837.3	836.1	883.9	964.2
42.5°	1012.6	1021.4	1061.0	1104.6	1108.8	1030.9	937.0	889.8	888.7	930.6	999.0
45°	1068.0	1076.3	1130.0	1181.9	1207.3	1138.3	1029.1	964.2	964.8	995.5	1054.5
47.5°	1136.5	1149.5	1201.4	1267.5	1312.9	1259.2	1140.6	1068.0	1063.3	1093.4	1145.3
50°	1232.7	1243.3	1286.4	1350.7	1430.3	1405.6	1281.1	1193.1	1189.6	1203.8	1266.9
52.5°	1333.6	1337.1	1357.8	1424.4	1558.4	1583.2	1453.9	1348.3	1334.8	1342.4	1418.0
55°	1339.5	1347.1	1360.7	1445.1	1673.5	1796.2	1644.5	1531.2	1513.5	1508.2	1589.7
57.5°	1216.7	1229.1	1246.8	1356.0	1678.2	2042.3	1915.4	1744.9	1713.0	1686.4	1773.2
60°	956.5	972.4	1004.9	1138.8	1558.4	2182.7	2367.4	1984.4	1956.1	1865.8	1952.6
62.5°	691.6	698.1	729.3	789.5	1236.8	2191.0	2838.3	2297.2	2226.9	2040.5	2107.2
65°	557.0	567.7	577.1	576.5	732.3	1943.1	3151.0	2853.6	2641.8	2235.8	2277.1
67.5°	459.1	462.6	485.6	525.8	498.0	1200.2	3182.3	3666.7	3451.9	2499.0	2478.9
70°	383.5	384.7	407.7	479.7	476.8	619.6	2668.3	4134.7	4082.7	2930.9	2794.6
71°	335.8	345.8	371.2	464.4	474.4	529.3	2267.1	4159.4	4185.4	3100.3	2843.6
72.5°	264.4	264.4	300.3	426.0	478.6	488.6	1670.5	4024.3	4099.3	3292.6	2758.6
75°	155.2	154.0	173.5	296.8	489.2	486.8	912.3	3344.6	3496.2	3327.4	2553.3
77.5°	87.3	89.1	99.7	165.2	388.3	467.3	524.0	2435.2	2614.0	2783.4	2159.1
80°	40.1	42.5	50.2	80.3	228.9	403.6	374.1	1581.4	1649.3	1672.9	1020.2
82.5°	10.6	11.8	15.3	30.7	88.5	275.0	276.7	662.1	683.9	395.4	218.9
85°	0.0	0.0	0.0	0.0	1.2	33.6	78.5	119.2	99.1	52.5	44.8
87.5°	0.0	0.0	0.0	0.0	0.0	1.2	1.8	2.4	2.4	2.4	3.0
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°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	934.1	936.5	940.6	940.0	938.8	931.7	935.9	931.7	931.1	929.4	930.0
5°	936.5	940.0	942.4	937.0	928.2	912.8	907.5	894.0	885.1	880.4	878.0
7.5°	940.0	942.4	941.2	926.4	903.4	874.5	849.7	830.2	809.6	806.0	804.9
10°	940.0	942.4	932.9	904.6	865.1	819.6	781.9	750.0	718.1	706.3	708.1
12.5°	937.6	938.8	917.0	871.5	814.3	752.3	699.2	646.7	606.0	581.2	576.5
15°	935.9	934.1	895.7	830.2	754.1	677.4	597.2	526.3	478.0	445.5	441.4
17.5°	935.9	929.4	870.4	783.0	688.6	583.0	476.8	400.1	346.4	327.5	326.9
20°	937.0	922.9	843.2	734.1	607.2	470.9	355.8	290.3	270.3	267.3	267.9
22.5°	938.2	914.0	813.7	678.6	516.3	351.1	254.3	230.7	232.5	239.6	239.0
25°	937.0	902.2	778.9	616.6	417.2	253.1	205.3	199.4	210.1	218.3	220.7
27.5°	934.1	886.9	741.7	542.9	318.1	199.4	179.4	178.8	189.4	197.1	196.5
30°	925.2	868.6	698.7	465.0	229.5	169.9	161.7	163.5	170.5	177.6	177.6
32.5°	915.8	847.9	653.2	380.0	176.4	154.0	151.1	151.6	156.4	161.7	161.1
35°	905.8	827.9	606.6	291.5	154.6	144.6	143.4	142.8	144.6	145.7	145.7
37.5°	899.9	810.2	555.3	219.5	142.8	138.7	136.3	133.9	133.4	132.2	131.0
40°	902.2	798.4	505.7	169.9	135.7	132.2	128.6	125.1	122.7	121.6	121.0
42.5°	918.7	794.8	450.8	146.3	129.2	126.3	121.6	115.7	113.3	113.3	112.7
45°	957.1	805.5	399.5	134.5	123.3	119.8	112.1	108.0	106.2	106.8	106.8
47.5°	1017.3	835.5	353.5	128.6	119.2	113.9	105.0	100.9	99.7	100.3	100.3
50°	1107.6	892.2	306.2	123.3	114.5	107.4	99.7	95.0	93.2	93.2	93.2
52.5°	1239.8	985.4	272.0	119.8	110.3	102.1	94.4	89.1	86.7	86.7	86.2
55°	1400.8	1107.0	259.0	117.4	105.0	97.4	89.1	83.8	80.3	79.1	79.7
57.5°	1577.3	1264.5	277.9	116.8	99.1	92.1	83.8	77.3	73.8	73.2	72.6
60°	1759.0	1420.9	332.2	113.9	94.4	85.6	77.9	72.0	68.4	67.3	66.7
62.5°	1916.0	1576.7	421.9	111.5	90.9	79.7	71.4	66.1	63.1	61.4	61.4
65°	2105.4	1755.5	558.8	114.5	89.1	73.8	65.5	60.8	58.4	56.6	56.6
67.5°	2363.8	2020.4	662.7	128.6	93.2	69.0	59.0	55.5	53.7	52.5	52.5
70°	2618.2	2169.1	460.8	151.1	103.9	64.9	53.1	50.7	49.6	48.4	48.4
71°	2614.6	2089.5	346.4	156.4	107.4	63.7	50.7	49.0	47.8	47.2	46.6
72.5°	2483.6	1899.5	248.4	151.6	105.6	60.2	47.8	46.0	44.8	44.8	44.3
75°	2227.5	1674.0	194.1	126.9	88.5	53.7	42.5	41.3	40.1	39.5	40.1
77.5°	1825.1	1339.5	152.8	100.3	67.3	44.3	37.8	36.0	35.4	34.8	35.4
80°	838.5	583.6	111.5	77.9	50.2	35.4	31.9	31.3	30.7	30.1	30.1
82.5°	201.8	163.5	59.6	51.9	34.2	27.1	25.4	25.4	25.4	24.8	24.8
85°	44.3	44.3	24.2	24.2	20.7	18.9	20.1	20.1	20.1	18.9	18.9
87.5°	2.4	7.1	7.7	11.2	11.8	11.2	13.6	14.2	13.6	13.0	12.4
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)