

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: P401448

Luminaire Tested: **ENV-SA1D-727-U-T4W**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401448  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-727-U-T4W  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4721 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-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

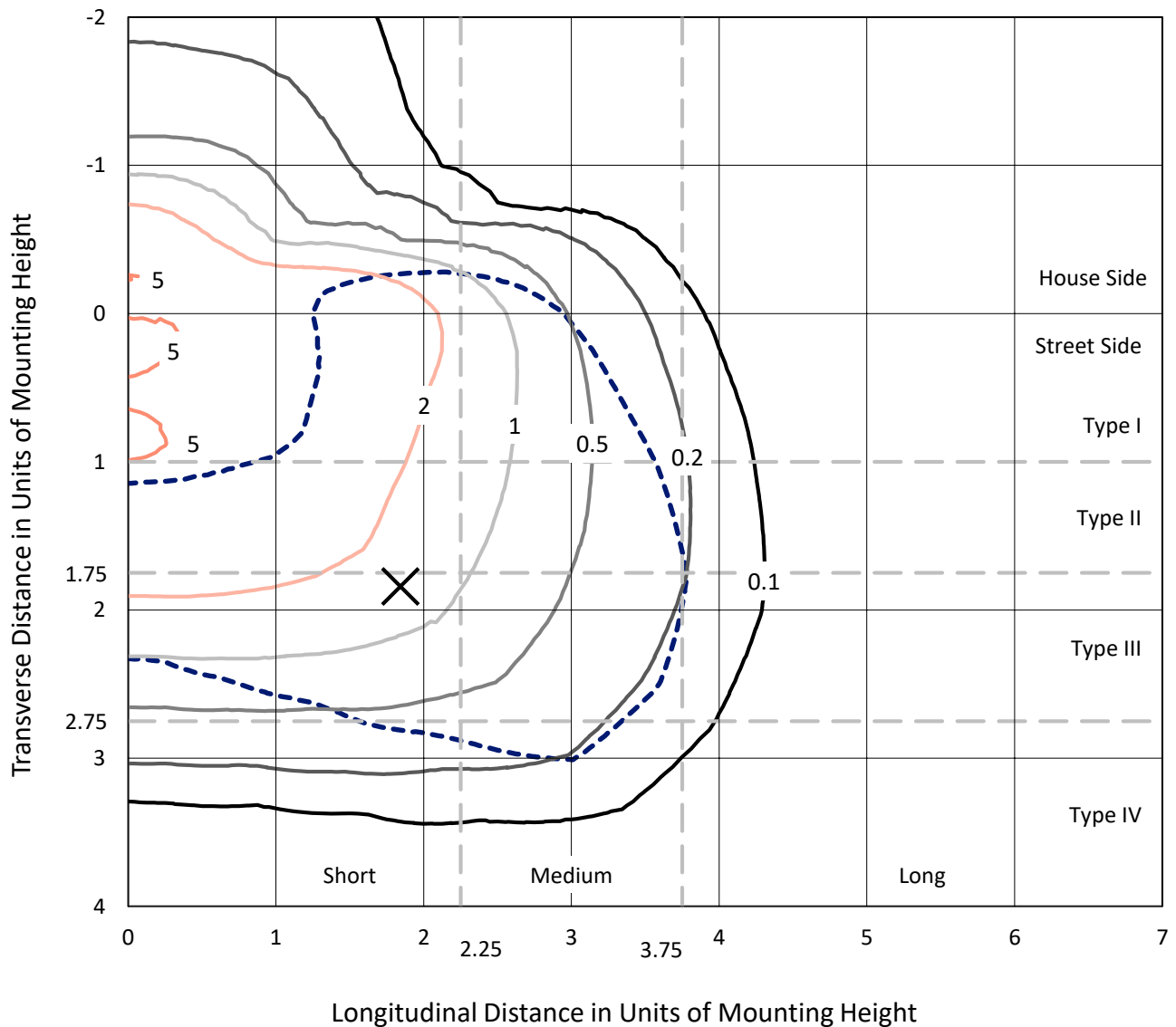


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### Iso-Footcandle Lines of Horizontal Illumination

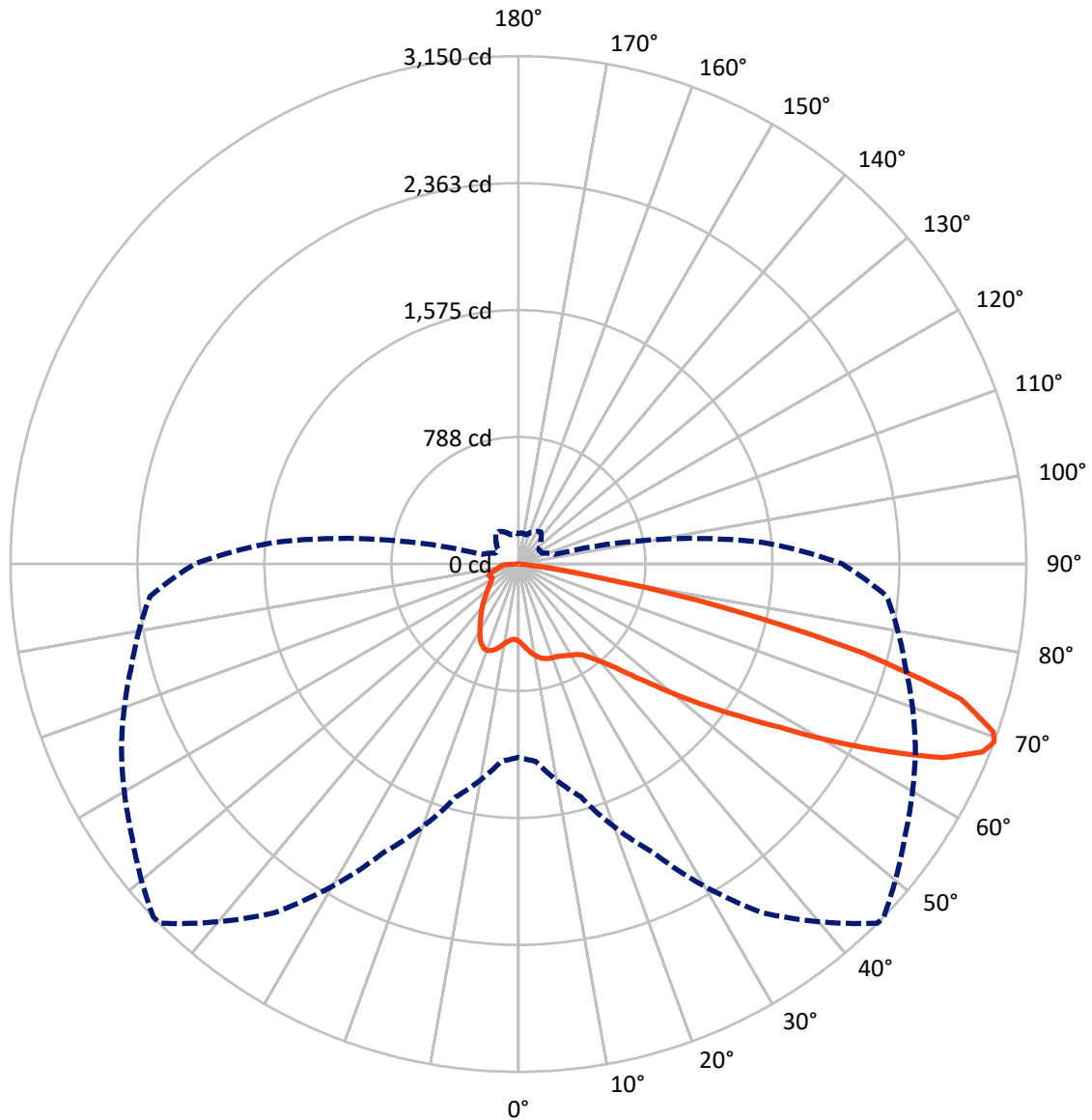
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1111.5	0.0	1111.5
	% Fixture	23.5	0.0	23.5
<b>Street Side</b>	Lumens	3609.5	0.0	3609.5
	% Fixture	76.5	0.0	76.5
<b>Total</b>	Lumens	4721.0	0.0	4721.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.8	1.0
10°-20°	161.8	3.4
20°-30°	273.4	5.8
30°-40°	395.6	8.4
40°-50°	597.3	12.7
50°-60°	1007.1	21.3
60°-70°	1385.6	29.3
70°-80°	767.8	16.3
80°-90°	83.6	1.8
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°	4721.0	100.0
0°-180°	4721.0	100.0



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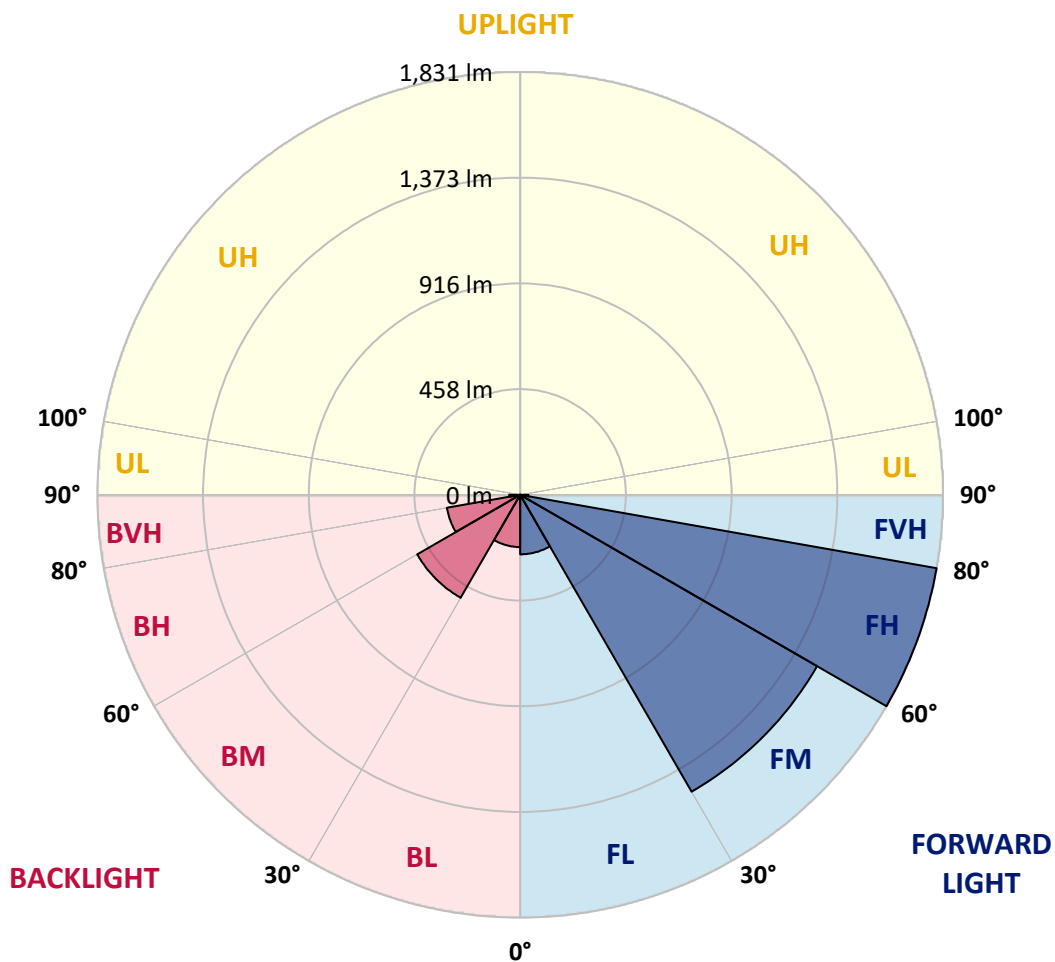
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	257.7	5.5			
FM	(30°-60°)	1484.8	31.5			
FH	(60°-80°)	1831.2	38.8			G2/5000
FVH	(80°-90°)	35.8	0.8			G1/100
BL	(0°-30°)	226.3	4.8	B1/500		
BM	(30°-60°)	515.2	10.9	B1/1000		
BH	(60°-80°)	322.2	6.8	B1/500		G1/500
BVH	(80°-90°)	47.8	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°	35°	45°	46°	55°	65°	75°	85°
0°	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2
2.5°	509.4	508.7	509.4	506.7	504.0	500.0	498.7	494.0	490.6	485.9	481.9
5°	547.0	549.0	548.3	545.0	534.2	526.2	526.2	516.1	505.4	495.3	485.9
7.5°	587.9	587.9	583.9	577.2	566.4	554.4	553.0	539.6	524.2	510.1	495.3
10°	617.4	618.8	612.7	603.4	589.9	577.2	575.8	560.4	545.6	527.5	509.4
12.5°	638.3	638.3	632.9	624.2	608.1	596.0	594.6	580.5	565.1	546.3	525.5
15°	649.0	647.6	643.0	633.6	619.5	609.4	607.4	595.3	582.5	563.8	541.6
17.5°	647.0	647.0	643.0	633.6	623.5	615.4	614.1	605.4	596.0	577.8	555.7
20°	638.3	637.6	636.2	628.9	622.1	618.8	617.4	613.4	607.4	591.9	571.1
22.5°	630.2	629.5	627.5	622.8	620.1	622.1	622.1	621.5	620.8	608.7	588.6
25°	634.9	634.2	630.2	623.5	622.8	632.2	632.9	634.9	636.2	626.2	605.4
27.5°	667.8	665.8	654.4	636.9	630.9	643.0	644.3	650.3	649.0	638.3	620.1
30°	732.2	732.9	707.4	669.8	649.7	655.0	655.7	662.4	660.4	651.7	636.9
32.5°	829.5	829.5	787.9	730.9	679.9	669.1	667.1	673.2	681.2	669.8	655.0
35°	953.0	949.7	899.3	811.4	731.5	693.3	691.9	689.3	703.4	692.6	671.1
37.5°	1077.2	1065.1	1016.1	919.5	804.0	740.3	734.9	726.8	734.9	712.1	693.3
40°	1177.2	1175.2	1134.9	1036.9	889.9	797.3	793.3	757.7	763.1	745.0	737.6
42.5°	1287.2	1288.6	1261.7	1163.1	992.6	874.5	863.8	808.7	824.2	817.4	814.1
45°	1408.0	1406.7	1386.6	1283.2	1118.1	981.9	968.5	900.7	932.2	928.2	947.0
47.5°	1500.7	1508.0	1496.6	1423.5	1267.1	1112.1	1102.0	1019.5	1067.1	1099.3	1134.9
50°	1626.8	1626.2	1595.3	1565.1	1440.3	1278.5	1268.5	1176.5	1245.0	1291.9	1357.0
52.5°	1783.2	1777.8	1714.1	1703.3	1651.0	1460.4	1451.7	1355.7	1453.7	1494.6	1626.8
55°	1881.2	1880.5	1847.6	1866.4	1867.8	1663.1	1652.3	1567.1	1677.8	1724.8	1924.8
57.5°	1963.1	1963.7	1991.3	2057.0	2101.3	1909.4	1905.4	1801.3	1913.4	1979.2	2215.4
60°	2026.2	2039.6	2116.8	2267.1	2340.9	2223.5	2206.0	2096.0	2171.1	2197.3	2437.6
62.5°	2000.7	2018.1	2169.8	2391.3	2581.2	2556.4	2550.3	2391.3	2390.6	2377.2	2603.3
65°	1799.3	1836.9	2075.8	2386.6	2739.6	2894.6	2885.9	2669.8	2594.6	2527.5	2653.0
67.5°	1472.5	1480.5	1768.4	2204.0	2738.2	3107.4	3098.0	2872.5	2721.5	2557.0	2507.4
69°	1198.7	1228.2	1494.6	1973.1	2641.6	3150.3	3150.3	2928.8	2716.8	2486.6	2293.9
70°	1036.9	1038.3	1295.3	1789.3	2510.1	3124.8	3130.9	2928.8	2678.5	2394.6	2104.7
72.5°	485.9	516.1	678.5	1167.8	2027.5	2872.5	2887.2	2735.6	2456.4	2063.1	1579.2
75°	145.6	151.0	226.2	553.7	1161.7	2212.7	2245.6	2275.8	2000.7	1518.8	972.5
77.5°	86.6	85.9	109.4	187.9	537.6	1312.1	1326.8	1455.7	1298.0	844.3	441.6
80°	42.3	43.6	58.4	91.3	201.3	476.5	524.2	680.5	575.2	330.2	161.7
82.5°	14.1	15.4	24.2	36.9	85.2	153.7	169.8	213.4	183.9	120.1	69.1
85°	0.0	0.0	0.7	1.3	4.7	11.4	11.4	25.5	38.3	42.3	22.8
87.5°	0.0	0.0	0.7	0.7	1.3	1.3	1.3	1.3	1.3	1.3	2.0
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°	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2	479.2
2.5°	479.9	478.5	475.8	473.2	471.8	468.5	469.1	467.8	467.1	467.1	467.8
5°	481.2	479.2	475.2	472.5	469.8	468.5	471.8	473.2	474.5	474.5	475.2
7.5°	489.3	485.2	480.5	477.2	477.9	479.9	485.2	489.3	491.3	492.6	494.0
10°	502.7	498.0	491.3	490.6	491.9	497.3	504.7	510.7	516.1	519.5	519.5
12.5°	516.8	510.7	505.4	506.7	512.7	520.8	528.2	534.9	539.6	543.0	543.6
15°	532.2	526.2	520.8	524.2	534.2	543.6	550.3	553.0	555.0	558.4	559.1
17.5°	546.3	540.9	536.2	545.0	553.7	561.1	563.1	561.7	559.1	561.1	562.4
20°	561.1	556.4	553.7	563.1	569.1	569.8	564.4	558.4	551.7	551.7	552.3
22.5°	579.2	573.2	571.8	576.5	574.5	566.4	553.0	543.6	534.2	532.9	534.9
25°	596.6	590.6	589.9	586.6	569.1	548.3	530.2	519.5	512.1	512.7	516.8
27.5°	614.1	610.1	610.7	592.6	553.7	522.1	498.0	489.3	491.3	492.6	496.6
30°	631.5	631.5	634.2	592.6	532.2	485.2	462.4	461.7	467.1	471.1	475.8
32.5°	651.7	657.7	653.0	585.2	503.4	447.6	429.5	430.9	436.9	443.6	447.6
35°	671.1	685.2	671.8	568.5	463.8	413.4	398.7	396.6	401.3	407.4	409.4
37.5°	702.0	724.8	687.9	542.3	422.8	383.2	368.5	363.1	358.4	363.1	362.4
40°	755.7	783.2	700.0	498.7	383.2	355.0	339.6	329.5	318.1	308.1	308.1
42.5°	841.6	859.7	706.7	445.6	343.6	326.8	311.4	296.6	279.2	261.1	261.1
45°	981.9	985.9	709.4	389.3	307.4	298.7	282.5	268.5	245.6	227.5	223.5
47.5°	1169.1	1151.7	716.1	334.9	275.8	273.8	260.4	244.3	219.5	202.7	200.7
50°	1420.8	1345.6	745.6	291.3	250.3	252.3	242.3	223.5	200.0	187.9	185.2
52.5°	1704.0	1590.6	768.5	256.4	228.2	234.2	226.8	208.7	188.6	178.5	176.5
55°	2013.4	1826.2	763.1	232.9	211.4	218.1	215.4	200.0	181.9	173.2	171.1
57.5°	2265.8	1991.9	716.1	212.1	194.6	204.0	206.7	194.6	177.9	169.8	167.8
60°	2455.0	2082.5	619.5	194.6	181.2	192.6	200.0	191.3	177.2	172.5	170.5
62.5°	2540.9	2074.5	494.0	181.2	171.1	184.6	200.7	196.6	187.2	190.6	191.3
65°	2492.6	1973.1	370.5	171.1	165.1	185.9	212.1	212.1	198.0	204.0	204.7
67.5°	2245.0	1708.0	269.8	163.8	159.1	192.6	233.6	220.1	193.3	198.0	196.0
69°	2009.4	1528.2	231.5	159.7	154.4	196.0	243.0	221.5	187.9	193.3	187.9
70°	1836.2	1365.8	208.1	156.4	152.3	196.0	245.6	220.1	185.2	189.3	183.2
72.5°	1306.7	948.3	171.1	149.7	145.0	181.2	240.9	212.8	177.9	173.2	161.7
75°	759.7	524.2	145.6	142.3	128.2	159.1	228.9	204.7	170.5	161.7	153.7
77.5°	318.8	234.2	124.2	129.5	113.4	141.6	214.1	196.6	161.7	149.7	145.6
80°	129.5	116.8	103.4	112.1	98.7	124.8	197.3	183.2	149.0	136.9	130.9
82.5°	67.8	64.4	79.2	90.6	81.9	114.8	185.9	173.8	138.3	126.2	118.8
85°	20.1	26.8	45.0	61.7	62.4	103.4	180.5	161.1	120.1	104.0	102.7
87.5°	1.3	5.4	15.4	32.2	40.9	79.2	146.3	132.2	97.3	81.9	82.5
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)