

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: P401570

Luminaire Tested: **ENV-SA1D-827-U-T3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401570  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1D-827-U-T3  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4226 lumens  
Efficiency: N/A  
Efficacy: 98.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

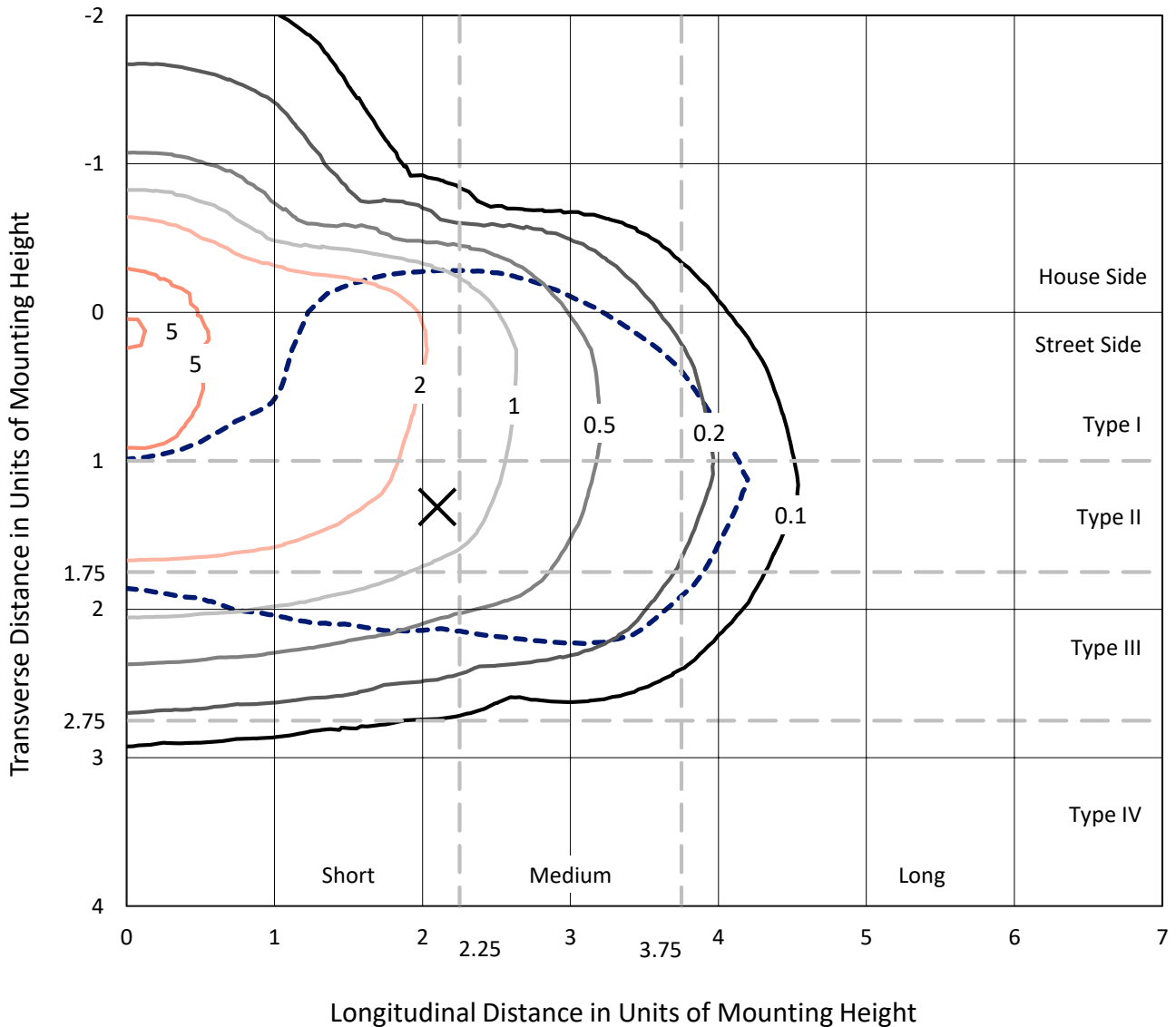
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

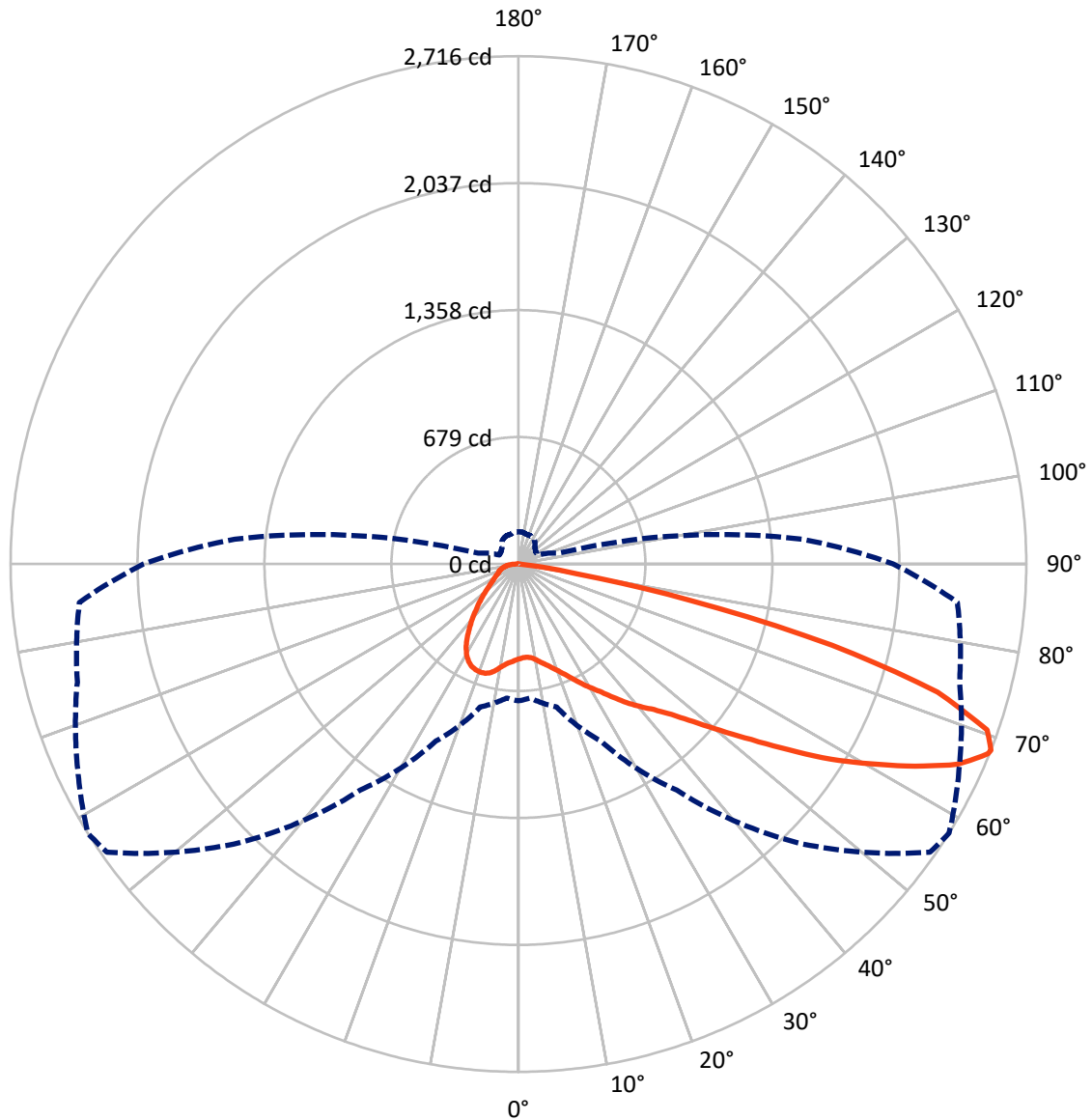
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	989.5	0.0	989.5
	% Fixture	23.4	0.0	23.4
<b>Street Side</b>	Lumens	3236.5	0.0	3236.5
	% Fixture	76.6	0.0	76.6
<b>Total</b>	Lumens	4226.0	0.0	4226.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.0	1.2
10°-20°	163.5	3.9
20°-30°	294.0	7.0
30°-40°	431.9	10.2
40°-50°	633.4	15.0
50°-60°	946.9	22.4
60°-70°	1107.2	26.2
70°-80°	545.9	12.9
80°-90°	53.3	1.3
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°	4226.0	100.0
0°-180°	4226.0	100.0



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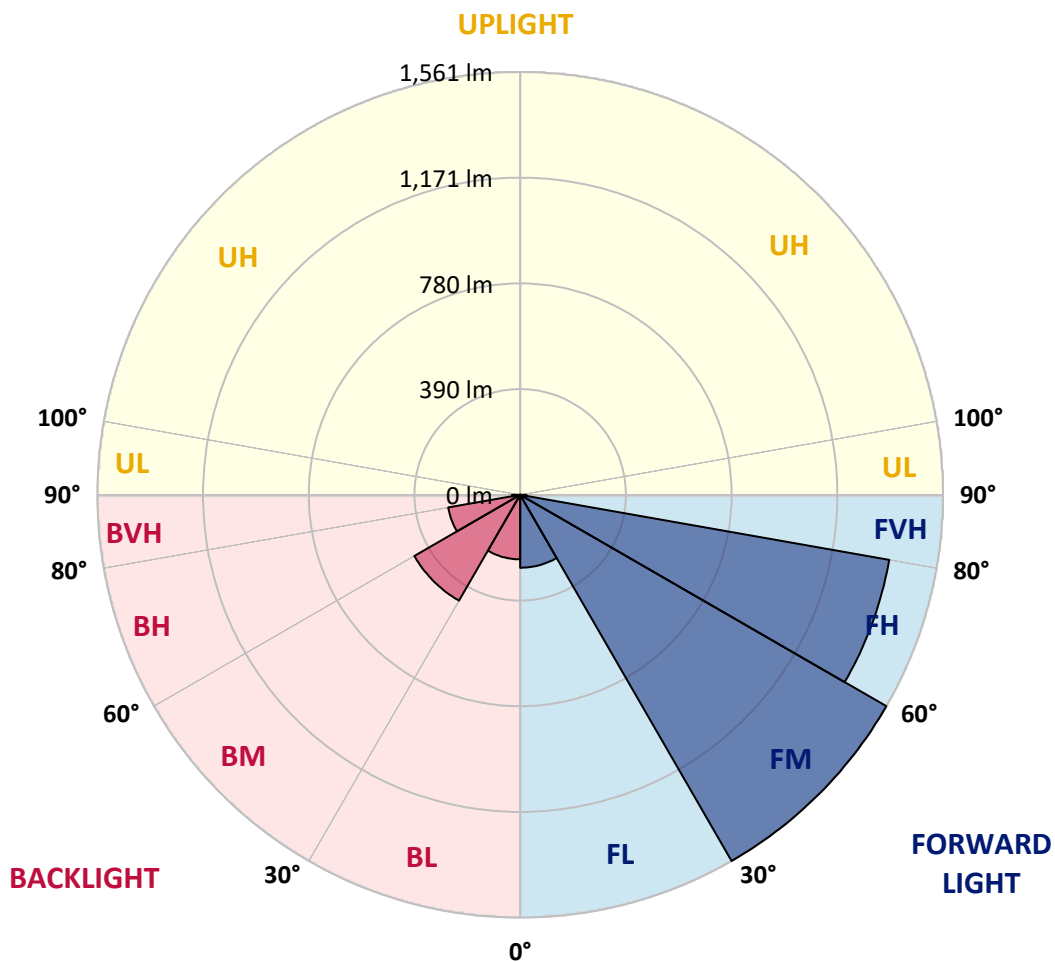
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	269.2	6.4			
FM	(30°-60°)	1560.9	36.9			
FH	(60°-80°)	1383.4	32.7			G1/1800
FVH	(80°-90°)	22.9	0.5			G1/100
BL	(0°-30°)	238.3	5.6	B1/500		
BM	(30°-60°)	451.3	10.7	B1/1000		
BH	(60°-80°)	269.6	6.4	B1/500		G1/500
BVH	(80°-90°)	30.3	0.7			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 Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5
2.5°	495.1	495.1	496.9	497.5	498.6	499.8	501.0	501.6	503.4	505.7	506.9
5°	491.0	491.6	492.7	493.3	495.1	497.5	499.2	500.4	503.4	508.1	511.0
7.5°	500.4	502.2	502.8	503.4	503.9	505.7	505.7	506.3	509.3	514.0	518.1
10°	515.7	516.9	518.7	520.5	522.2	523.4	519.9	520.5	521.6	526.4	532.3
12.5°	535.2	535.2	535.8	538.2	539.9	543.5	539.9	539.9	539.9	544.1	551.2
15°	557.1	555.9	555.9	558.2	558.8	561.2	559.4	559.4	561.8	565.9	573.0
17.5°	581.8	583.6	581.8	580.7	578.9	580.1	581.2	582.4	587.1	593.6	597.8
20°	617.8	620.8	619.6	614.9	607.2	603.7	607.8	610.2	619.6	627.3	627.9
22.5°	675.1	673.3	671.5	663.3	647.9	638.5	639.1	642.6	657.4	669.2	663.3
25°	728.2	730.0	730.0	718.2	698.1	678.6	680.4	682.2	696.9	707.5	691.6
27.5°	792.5	791.3	790.7	774.8	750.6	731.7	721.7	726.4	737.0	741.2	710.5
30°	859.2	863.9	859.2	836.8	813.7	789.6	769.5	768.3	773.6	773.0	732.9
32.5°	939.4	935.3	933.5	907.6	878.7	846.8	821.4	817.3	814.3	810.2	759.5
35°	1001.4	1006.7	1006.7	984.3	950.1	918.8	879.2	875.7	868.6	855.1	794.3
37.5°	1074.6	1073.4	1077.5	1051.6	1017.3	987.2	950.6	940.6	924.7	904.6	835.6
40°	1146.0	1148.9	1158.4	1127.1	1095.8	1072.2	1020.3	1002.0	977.8	959.5	895.8
42.5°	1243.3	1247.5	1251.0	1225.0	1187.9	1166.6	1086.4	1063.4	1049.8	1046.2	975.4
45°	1361.4	1368.4	1371.4	1347.8	1326.5	1275.8	1169.6	1148.3	1133.6	1148.9	1084.0
47.5°	1474.7	1471.1	1484.7	1484.1	1486.5	1425.7	1289.4	1257.5	1243.3	1282.3	1208.5
50°	1538.4	1543.7	1573.2	1603.3	1645.2	1601.5	1428.0	1396.2	1379.7	1428.0	1354.9
52.5°	1571.4	1578.5	1618.1	1702.4	1791.5	1770.9	1595.0	1559.6	1545.5	1592.7	1511.8
55°	1574.4	1578.5	1631.6	1762.6	1903.1	1909.6	1785.6	1752.0	1732.5	1763.2	1683.0
57.5°	1525.4	1513.0	1604.5	1771.5	1974.5	2054.1	1995.1	1970.9	1916.1	1949.1	1895.4
60°	1438.1	1450.5	1540.2	1734.9	2004.6	2166.8	2205.2	2168.6	2104.9	2118.5	2124.4
62.5°	1305.9	1321.8	1415.1	1649.9	1980.4	2262.4	2399.3	2381.1	2295.5	2288.4	2299.0
65°	1117.6	1108.2	1212.1	1464.0	1865.9	2294.3	2589.9	2582.3	2480.2	2397.0	2401.1
67.5°	806.1	797.2	869.8	1130.0	1556.1	2175.7	2691.4	2708.6	2591.7	2444.8	2381.1
68°	731.7	719.3	791.9	1044.5	1476.4	2107.2	2686.1	2715.6	2600.0	2441.8	2356.3
70°	421.3	401.3	471.5	681.6	1087.0	1773.8	2577.6	2659.0	2580.5	2384.6	2194.0
72.5°	132.2	132.2	182.3	275.6	533.4	1122.4	2205.2	2343.9	2360.4	2167.4	1823.4
75°	82.6	82.6	95.0	130.4	212.4	476.2	1521.3	1732.5	1875.3	1824.6	1329.5
77.5°	56.1	54.9	63.1	80.8	118.6	152.8	763.6	938.3	1147.2	1245.7	777.8
80°	30.7	31.3	38.9	48.4	67.3	70.8	224.2	316.9	505.1	591.9	295.0
82.5°	17.7	17.1	18.9	21.2	29.5	30.7	64.3	79.1	132.2	122.7	79.1
85°	0.0	0.6	0.6	0.6	1.2	3.0	8.3	12.4	20.1	27.7	19.5
87.5°	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.2	1.2	1.2	1.8
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°	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5	507.5
2.5°	508.1	509.8	512.8	515.2	516.3	515.2	519.3	518.7	519.9	519.9	521.1
5°	513.4	515.7	521.1	524.0	527.0	528.1	532.9	534.0	536.4	537.6	537.0
7.5°	521.1	524.0	530.5	535.8	539.9	542.9	550.6	554.1	557.6	558.8	560.0
10°	535.2	539.4	546.4	552.9	558.8	563.0	569.4	574.2	577.7	578.9	580.1
12.5°	554.1	558.8	567.7	576.5	583.0	585.4	584.8	583.6	583.6	583.0	583.6
15°	575.9	580.7	591.9	600.1	600.7	593.0	582.4	577.1	575.9	575.9	576.5
17.5°	601.3	607.2	614.3	619.0	607.8	588.9	576.5	571.2	570.0	569.4	568.3
20°	630.2	633.8	636.1	630.2	605.4	583.6	569.4	561.8	555.9	555.3	552.9
22.5°	660.9	659.7	656.8	635.5	599.0	571.2	551.7	537.6	529.9	529.3	527.0
25°	683.3	678.6	669.8	636.7	587.1	551.2	523.4	501.0	491.0	486.2	487.4
27.5°	698.1	688.1	672.7	630.8	566.5	520.5	481.5	452.0	437.3	434.9	436.7
30°	715.8	699.9	675.1	616.1	537.0	477.4	426.6	397.1	388.9	384.7	385.9
32.5°	737.0	716.4	682.7	593.6	499.8	427.2	372.4	351.7	342.3	334.6	336.9
35°	764.8	738.8	695.1	561.8	452.6	374.1	333.4	314.5	297.4	289.1	289.7
37.5°	797.2	767.7	705.8	524.6	401.3	334.0	299.8	277.3	256.1	240.2	237.2
40°	849.2	825.0	714.6	483.3	352.3	301.0	266.7	241.4	221.3	205.4	203.6
42.5°	935.9	894.0	715.2	433.7	310.4	272.6	239.6	211.8	189.4	175.8	175.3
45°	1038.0	973.1	702.8	380.6	273.8	244.3	215.4	184.1	171.1	162.3	161.1
47.5°	1159.0	1063.9	675.7	331.0	242.5	216.6	190.6	171.7	162.3	155.8	155.8
50°	1297.0	1170.8	648.5	288.6	212.4	194.1	176.4	166.4	159.3	153.4	152.8
52.5°	1452.8	1297.0	639.7	245.5	187.7	173.5	171.7	162.3	156.4	152.2	151.1
55°	1638.7	1438.7	647.9	211.8	168.2	165.2	168.8	161.1	157.0	150.5	148.7
57.5°	1853.5	1576.7	639.1	183.5	154.6	157.6	165.2	161.1	157.6	149.3	146.9
60°	2055.9	1700.1	578.9	159.9	141.6	148.1	160.5	155.8	150.5	148.7	147.5
62.5°	2164.5	1740.2	461.5	141.6	131.6	138.7	152.8	146.9	143.4	147.5	148.1
65°	2165.7	1694.8	339.3	128.1	123.3	130.4	145.2	143.4	145.8	155.2	157.0
67.5°	2045.3	1556.7	239.6	115.7	115.1	123.9	148.7	160.5	162.3	171.7	171.7
68°	2004.0	1522.5	222.5	113.9	113.3	123.9	151.7	163.5	164.6	173.5	172.9
70°	1777.4	1287.0	161.1	106.8	110.3	132.8	167.6	171.7	164.6	174.7	174.1
72.5°	1389.1	951.8	120.4	99.1	105.0	131.0	168.8	164.6	154.0	156.4	153.4
75°	938.8	606.6	99.1	90.9	93.2	110.9	153.4	155.2	142.8	140.4	136.9
77.5°	491.6	284.4	80.3	80.8	83.2	96.2	136.9	141.0	129.8	122.7	121.6
80°	181.2	112.7	65.5	71.4	72.6	84.4	117.4	123.9	113.3	108.0	106.8
82.5°	66.1	56.1	54.3	62.6	61.4	72.0	102.7	107.4	96.2	90.9	87.9
85°	18.3	20.7	34.2	49.0	47.8	56.1	82.6	86.7	77.3	63.7	62.0
87.5°	1.2	4.1	13.6	28.9	30.1	34.8	59.6	65.5	57.2	47.2	46.6
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)