

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: P401768

Luminaire Tested: **ENV-SA1E-830-U-T3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401768  
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-SA1E-830-U-T3  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5691 lumens  
Efficiency: N/A  
Efficacy: 99.5 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 - G2

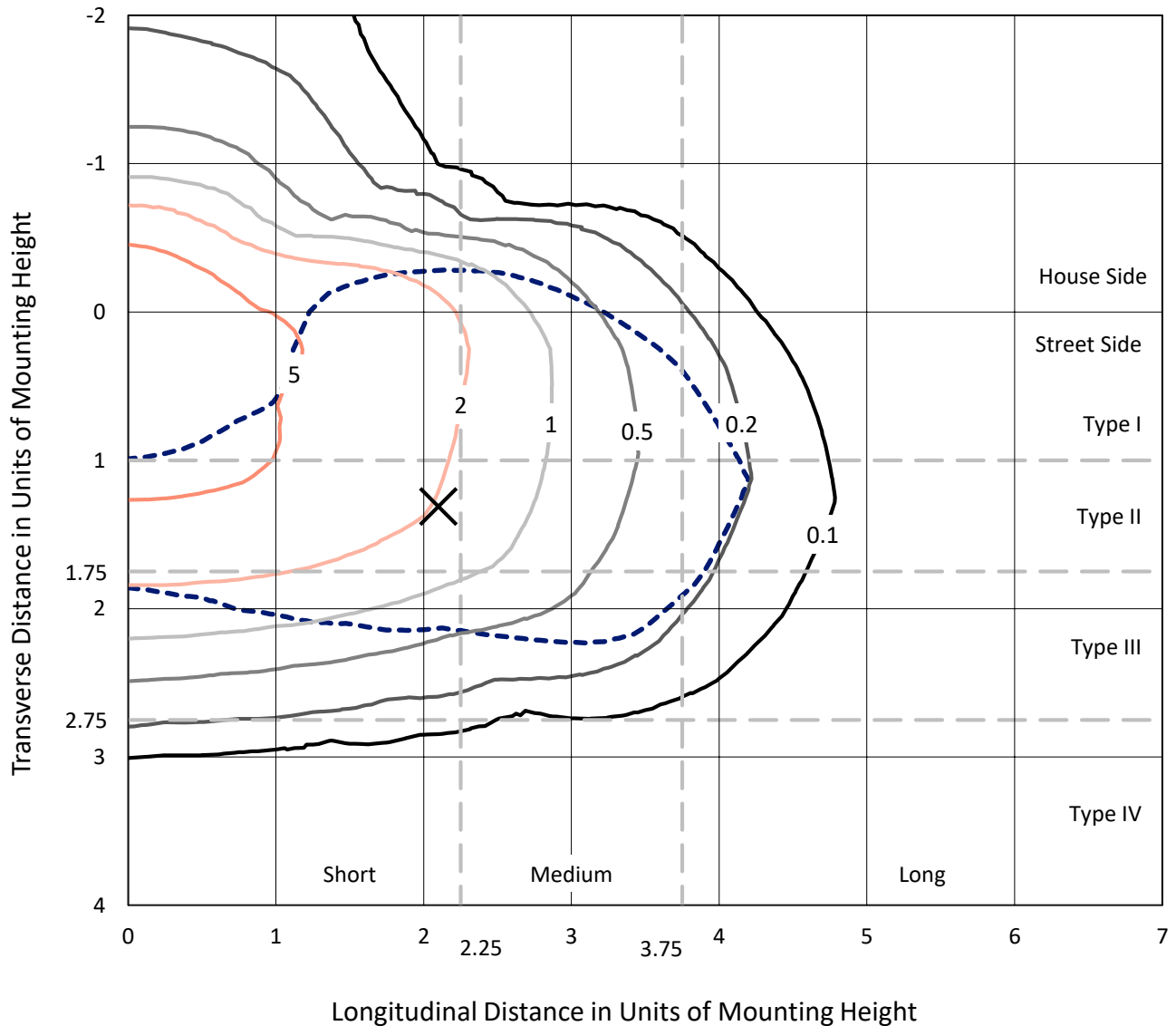
Input Watts (W): 57.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P401768  
 CATALOG NUMBER: ENV-SA1E-830-U-T3

### Iso-Footcandle Lines of Horizontal Illumination

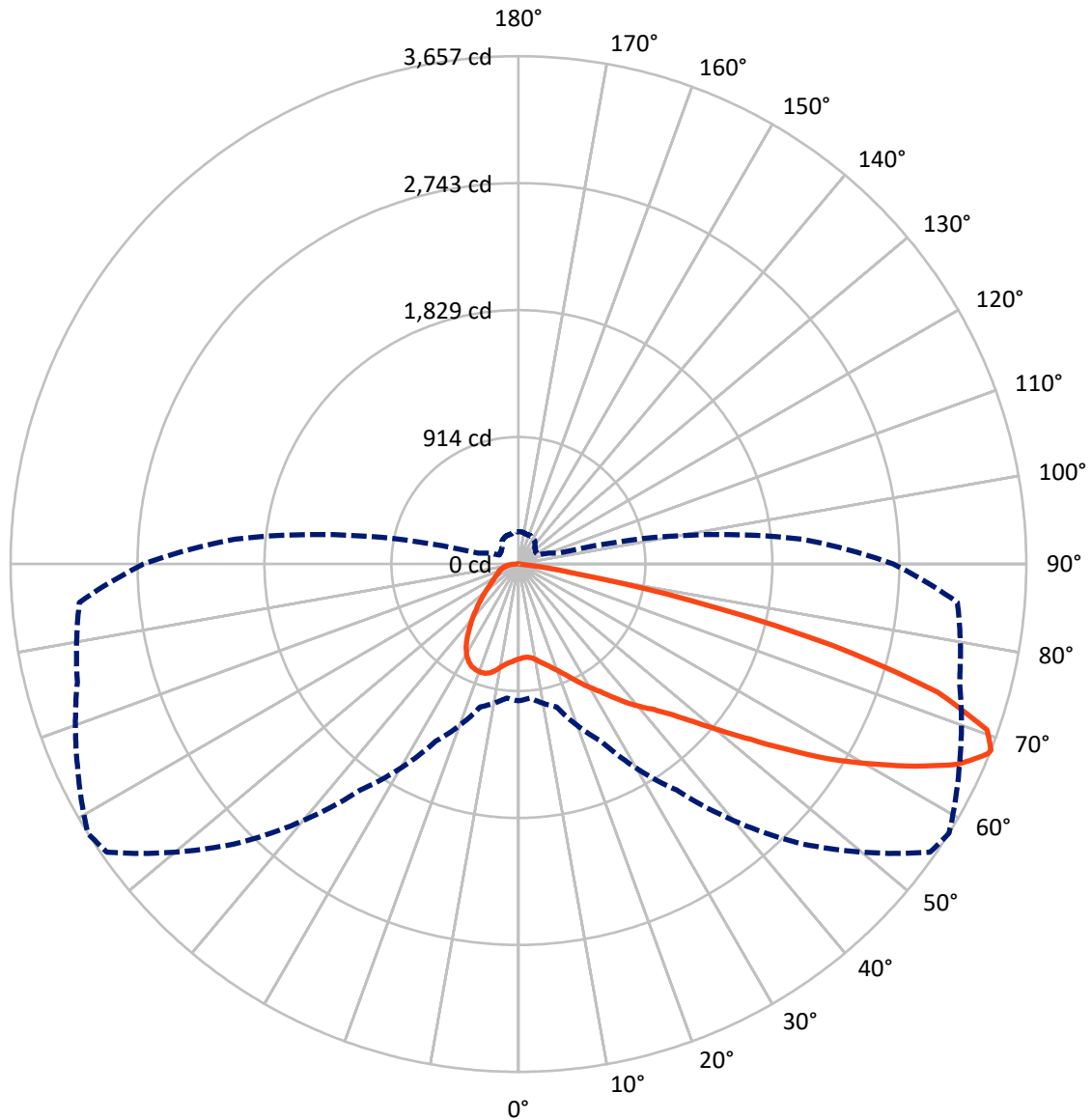
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.6 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P401768  
CATALOG NUMBER: ENV-SA1E-830-U-T3

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P401768

CATALOG NUMBER: ENV-SA1E-830-U-T3

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1332.5	0.0	1332.5
	% Fixture	23.4	0.0	23.4
<b>Street Side</b>	Lumens	4358.5	0.0	4358.5
	% Fixture	76.6	0.0	76.6
<b>Total</b>	Lumens	5691.0	0.0	5691.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	1.2
10°-20°	220.2	3.9
20°-30°	395.9	7.0
30°-40°	581.6	10.2
40°-50°	853.0	15.0
50°-60°	1275.1	22.4
60°-70°	1491.0	26.2
70°-80°	735.1	12.9
80°-90°	71.7	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°	5691.0	100.0
0°-180°	5691.0	100.0



REPORT NUMBER: P401768

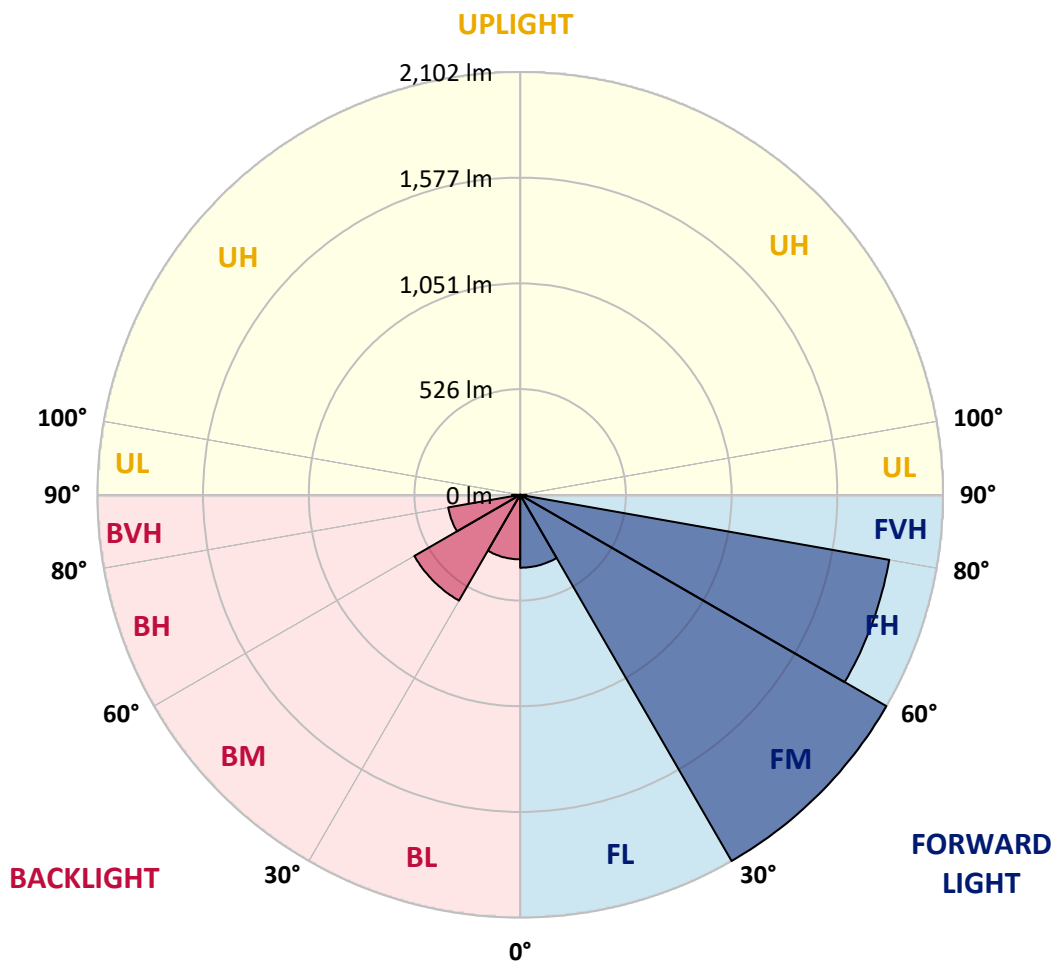
CATALOG NUMBER: ENV-SA1E-830-U-T3

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	362.5	6.4			
FM	(30°-60°)	2102.0	36.9			
FH	(60°-80°)	1863.0	32.7			G2/5000
FVH	(80°-90°)	30.9	0.5			G1/100
BL	(0°-30°)	320.9	5.6	B1/500		
BM	(30°-60°)	607.7	10.7	B1/1000		
BH	(60°-80°)	363.1	6.4	B1/500		G1/500
BVH	(80°-90°)	40.8	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-G2**

Type III Short





REPORT NUMBER: P401768

CATALOG NUMBER: ENV-SA1E-830-U-T3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4
2.5°	666.7	666.7	669.1	669.9	671.5	673.1	674.7	675.5	677.8	681.0	682.6
5°	661.2	662.0	663.5	664.3	666.7	669.9	672.3	673.9	677.8	684.2	688.2
7.5°	673.9	676.3	677.1	677.8	678.6	681.0	681.0	681.8	685.8	692.2	697.7
10°	694.5	696.1	698.5	700.9	703.3	704.9	700.1	700.9	702.5	708.8	716.8
12.5°	720.8	720.8	721.6	724.7	727.1	731.9	727.1	727.1	727.1	732.7	742.2
15°	750.2	748.6	748.6	751.8	752.5	755.7	753.3	753.3	756.5	762.1	771.6
17.5°	783.5	785.9	783.5	782.0	779.6	781.2	782.7	784.3	790.7	799.4	805.0
20°	832.0	836.0	834.4	828.0	817.7	812.9	818.5	821.7	834.4	844.7	845.5
22.5°	909.1	906.7	904.3	893.2	872.5	859.8	860.6	865.4	885.3	901.2	893.2
25°	980.6	983.0	983.0	967.1	940.1	913.9	916.2	918.6	938.5	952.8	931.3
27.5°	1067.2	1065.6	1064.9	1043.4	1010.8	985.4	971.9	978.2	992.5	998.1	956.8
30°	1157.0	1163.4	1157.0	1126.8	1095.8	1063.3	1036.2	1034.7	1041.8	1041.0	987.0
32.5°	1265.1	1259.5	1257.2	1222.2	1183.3	1140.3	1106.2	1100.6	1096.6	1091.1	1022.7
35°	1348.5	1355.7	1355.7	1325.5	1279.4	1237.3	1184.1	1179.3	1169.7	1151.5	1069.6
37.5°	1447.1	1445.5	1451.1	1416.1	1370.0	1329.5	1280.2	1266.7	1245.2	1218.2	1125.2
40°	1543.2	1547.2	1559.9	1517.8	1475.7	1443.9	1374.0	1349.3	1316.8	1292.1	1206.3
42.5°	1674.4	1679.9	1684.7	1649.7	1599.7	1571.1	1463.0	1432.0	1413.7	1408.9	1313.6
45°	1833.3	1842.8	1846.8	1815.0	1786.4	1718.1	1575.0	1546.4	1526.6	1547.2	1459.8
47.5°	1985.9	1981.1	1999.4	1998.6	2001.8	1919.9	1736.3	1693.4	1674.4	1726.8	1627.5
50°	2071.7	2078.8	2118.6	2159.1	2215.5	2156.7	1923.1	1880.2	1857.9	1923.1	1824.6
52.5°	2116.2	2125.7	2179.0	2292.6	2412.6	2384.8	2148.0	2100.3	2081.2	2144.8	2035.9
55°	2120.2	2125.7	2197.2	2373.7	2562.8	2571.5	2404.7	2359.4	2333.1	2374.5	2266.4
57.5°	2054.2	2037.5	2160.7	2385.6	2658.9	2766.2	2686.8	2654.2	2580.3	2624.8	2552.5
60°	1936.6	1953.3	2074.1	2336.3	2699.5	2918.0	2969.7	2920.4	2834.6	2852.8	2860.8
62.5°	1758.6	1780.0	1905.6	2221.9	2666.9	3046.7	3231.1	3206.5	3091.2	3081.7	3096.0
65°	1505.1	1492.4	1632.2	1971.6	2512.7	3089.7	3487.8	3477.5	3340.0	3227.9	3233.5
67.5°	1085.5	1073.6	1171.3	1521.8	2095.5	2929.9	3624.5	3647.5	3490.2	3292.3	3206.5
68°	985.4	968.7	1066.4	1406.6	1988.3	2837.7	3617.3	3657.0	3501.3	3288.3	3173.1
70°	567.4	540.4	634.9	917.8	1463.8	2388.8	3471.1	3580.8	3475.1	3211.2	2954.6
72.5°	178.0	178.0	245.6	371.1	718.4	1511.5	2969.7	3156.4	3178.7	2918.8	2455.5
75°	111.3	111.3	127.9	175.6	286.1	641.3	2048.6	2333.1	2525.4	2457.1	1790.4
77.5°	75.5	73.9	85.0	108.9	159.7	205.8	1028.3	1263.5	1544.8	1677.5	1047.4
80°	41.3	42.1	52.4	65.2	90.6	95.4	302.0	426.7	680.2	797.0	397.3
82.5°	23.8	23.0	25.4	28.6	39.7	41.3	86.6	106.5	178.0	165.3	106.5
85°	0.0	0.8	0.8	0.8	1.6	4.0	11.1	16.7	27.0	37.3	26.2
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	2.4
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: P401768

CATALOG NUMBER: ENV-SA1E-830-U-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4	683.4
2.5°	684.2	686.6	690.6	693.7	695.3	693.7	699.3	698.5	700.1	700.1	701.7
5°	691.4	694.5	701.7	705.7	709.6	711.2	717.6	719.2	722.4	723.9	723.1
7.5°	701.7	705.7	714.4	721.6	727.1	731.1	741.4	746.2	751.0	752.5	754.1
10°	720.8	726.3	735.9	744.6	752.5	758.1	766.9	773.2	778.0	779.6	781.2
12.5°	746.2	752.5	764.5	776.4	785.1	788.3	787.5	785.9	785.9	785.1	785.9
15°	775.6	782.0	797.0	808.2	809.0	798.6	784.3	777.2	775.6	775.6	776.4
17.5°	809.8	817.7	827.2	833.6	818.5	793.1	776.4	769.2	767.6	766.9	765.3
20°	848.7	853.5	856.6	848.7	815.3	785.9	766.9	756.5	748.6	747.8	744.6
22.5°	890.0	888.4	884.5	855.9	806.6	769.2	743.0	723.9	713.6	712.8	709.6
25°	920.2	913.9	901.9	857.4	790.7	742.2	704.9	674.7	661.2	654.8	656.4
27.5°	940.1	926.6	905.9	849.5	762.9	700.9	648.4	608.7	588.8	585.7	588.1
30°	963.9	942.5	909.1	829.6	723.1	642.9	574.5	534.8	523.7	518.1	519.7
32.5°	992.5	964.7	919.4	799.4	673.1	575.3	501.4	473.6	460.9	450.6	453.8
35°	1029.9	994.9	936.1	756.5	609.5	503.8	449.0	423.6	400.5	389.4	390.2
37.5°	1073.6	1033.9	950.4	706.5	540.4	449.8	403.7	373.5	344.9	323.4	319.5
40°	1143.5	1110.9	962.3	650.8	474.4	405.3	359.2	325.0	298.0	276.5	274.2
42.5°	1260.3	1203.9	963.1	584.1	418.0	367.1	322.6	285.3	255.1	236.8	236.0
45°	1397.8	1310.4	946.4	512.6	368.7	329.0	290.1	247.9	230.5	218.5	216.9
47.5°	1560.7	1432.8	909.9	445.8	326.6	291.6	256.7	231.2	218.5	209.8	209.8
50°	1746.7	1576.6	873.3	388.6	286.1	261.4	237.6	224.1	214.6	206.6	205.8
52.5°	1956.5	1746.7	861.4	330.6	252.7	233.6	231.2	218.5	210.6	205.0	203.4
55°	2206.8	1937.4	872.5	285.3	226.5	222.5	227.3	216.9	211.4	202.6	200.3
57.5°	2496.0	2123.3	860.6	247.1	208.2	212.2	222.5	216.9	212.2	201.1	197.9
60°	2768.6	2289.4	779.6	215.4	190.7	199.5	216.1	209.8	202.6	200.3	198.7
62.5°	2914.8	2343.5	621.4	190.7	177.2	186.7	205.8	197.9	193.1	198.7	199.5
65°	2916.4	2282.3	456.9	172.4	166.1	175.6	195.5	193.1	196.3	209.0	211.4
67.5°	2754.3	2096.3	322.6	155.8	155.0	166.9	200.3	216.1	218.5	231.2	231.2
68°	2698.7	2050.2	299.6	153.4	152.6	166.9	204.2	220.1	221.7	233.6	232.8
70°	2393.5	1733.2	216.9	143.8	148.6	178.8	225.7	231.2	221.7	235.2	234.4
72.5°	1870.6	1281.8	162.1	133.5	141.5	176.4	227.3	221.7	207.4	210.6	206.6
75°	1264.3	816.9	133.5	122.4	125.6	149.4	206.6	209.0	192.3	189.1	184.4
77.5°	662.0	383.0	108.1	108.9	112.0	129.5	184.4	189.9	174.8	165.3	163.7
80°	244.0	151.8	88.2	96.2	97.7	113.6	158.1	166.9	152.6	145.4	143.8
82.5°	89.0	75.5	73.1	84.2	82.6	96.9	138.3	144.6	129.5	122.4	118.4
85°	24.6	27.8	46.1	66.0	64.4	75.5	111.3	116.8	104.1	85.8	83.4
87.5°	1.6	5.6	18.3	38.9	40.5	46.9	80.3	88.2	77.1	63.6	62.8
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)