

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: P401840

Luminaire Tested: **ENV-SA1F-735-U-T3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401840  
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-SA1F-735-U-T3  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7447 lumens  
Efficiency: N/A  
Efficacy: 112.7 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

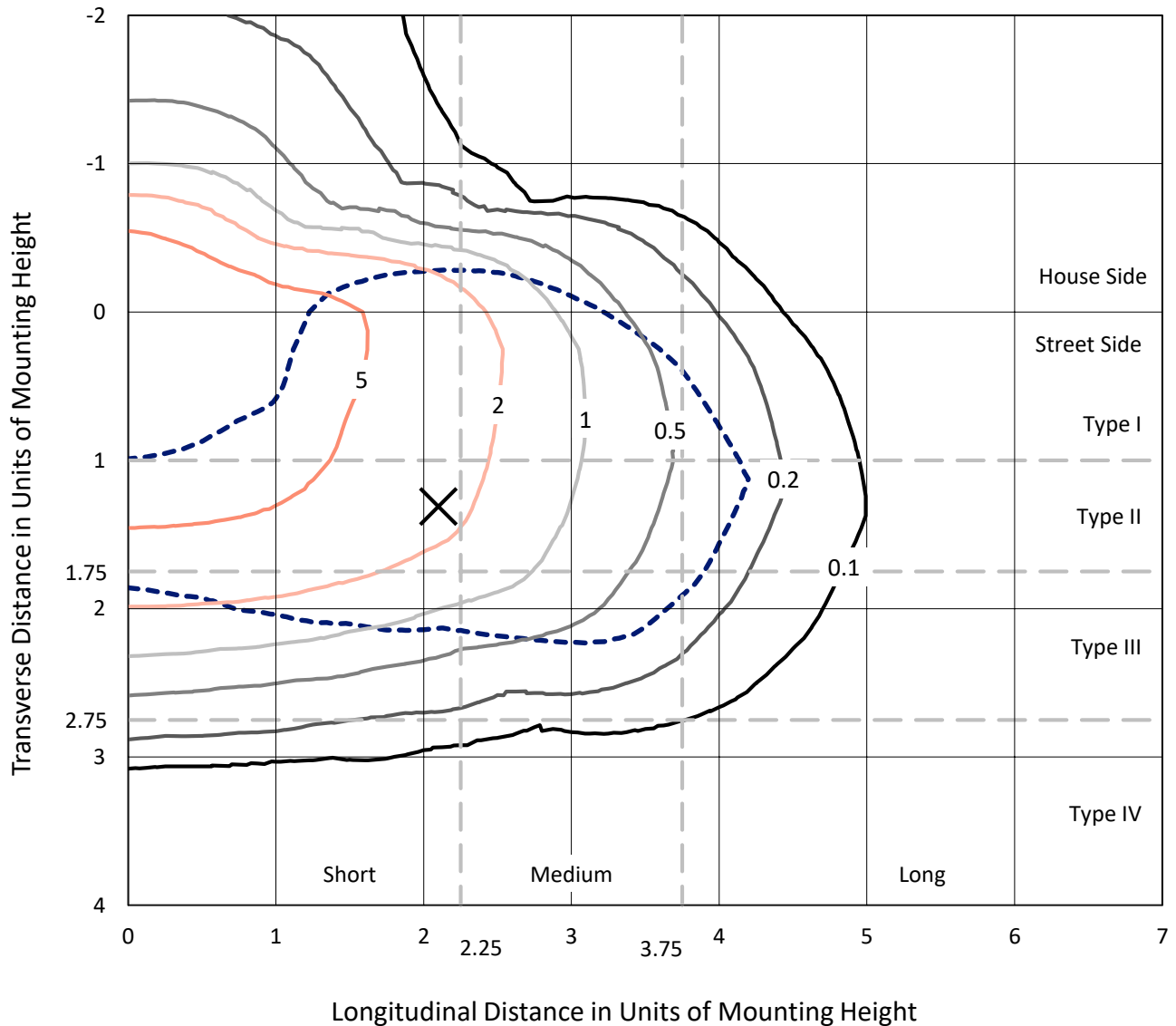
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

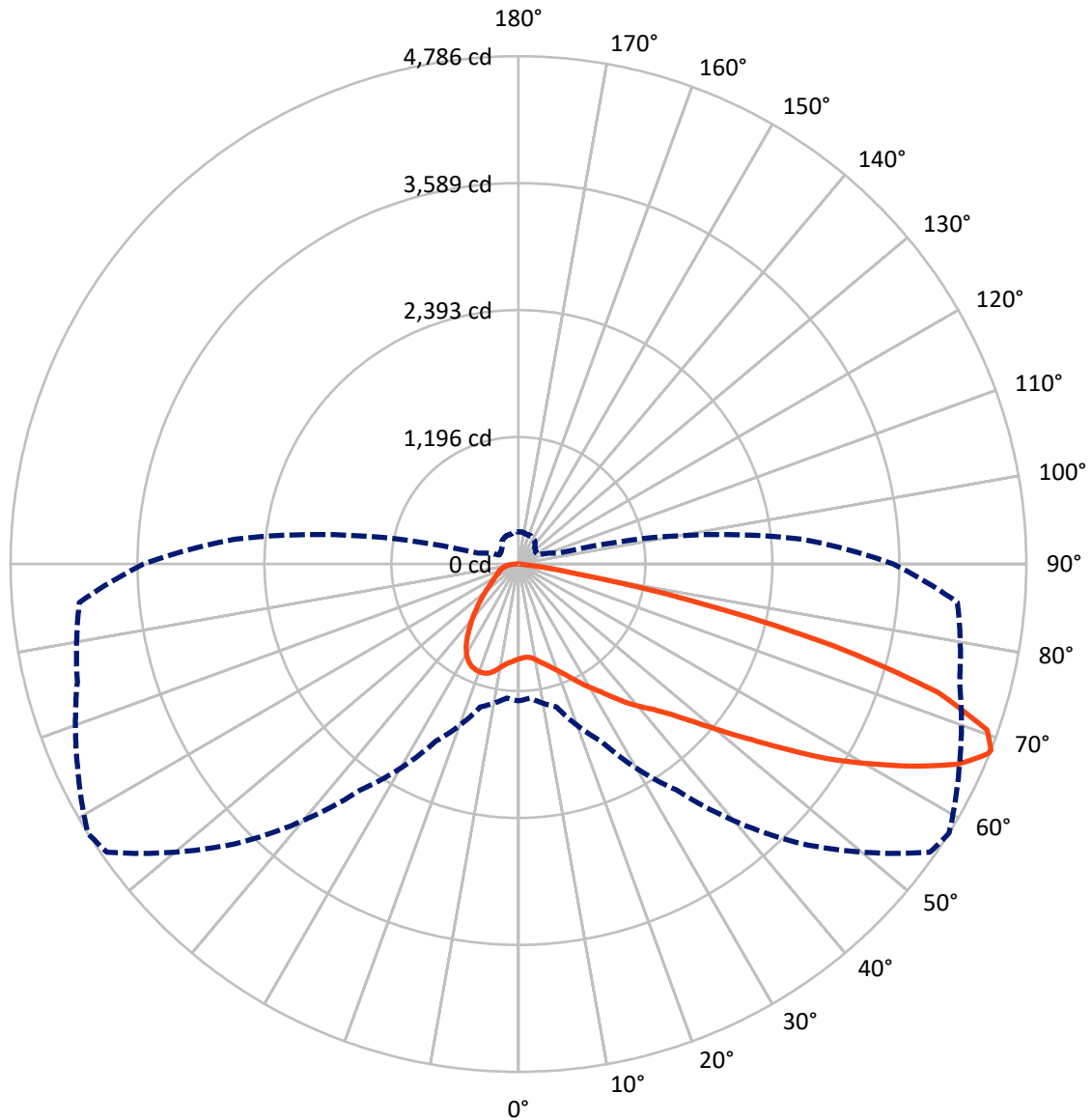
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 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	1743.7	0.0	1743.7
	% Fixture	23.4	0.0	23.4
<b>Street Side</b>	Lumens	5703.3	0.0	5703.3
	% Fixture	76.6	0.0	76.6
<b>Total</b>	Lumens	7447.0	0.0	7447.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.1	1.2
10°-20°	288.1	3.9
20°-30°	518.1	7.0
30°-40°	761.1	10.2
40°-50°	1116.2	15.0
50°-60°	1668.6	22.4
60°-70°	1951.0	26.2
70°-80°	961.9	12.9
80°-90°	93.9	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°	7447.0	100.0
0°-180°	7447.0	100.0



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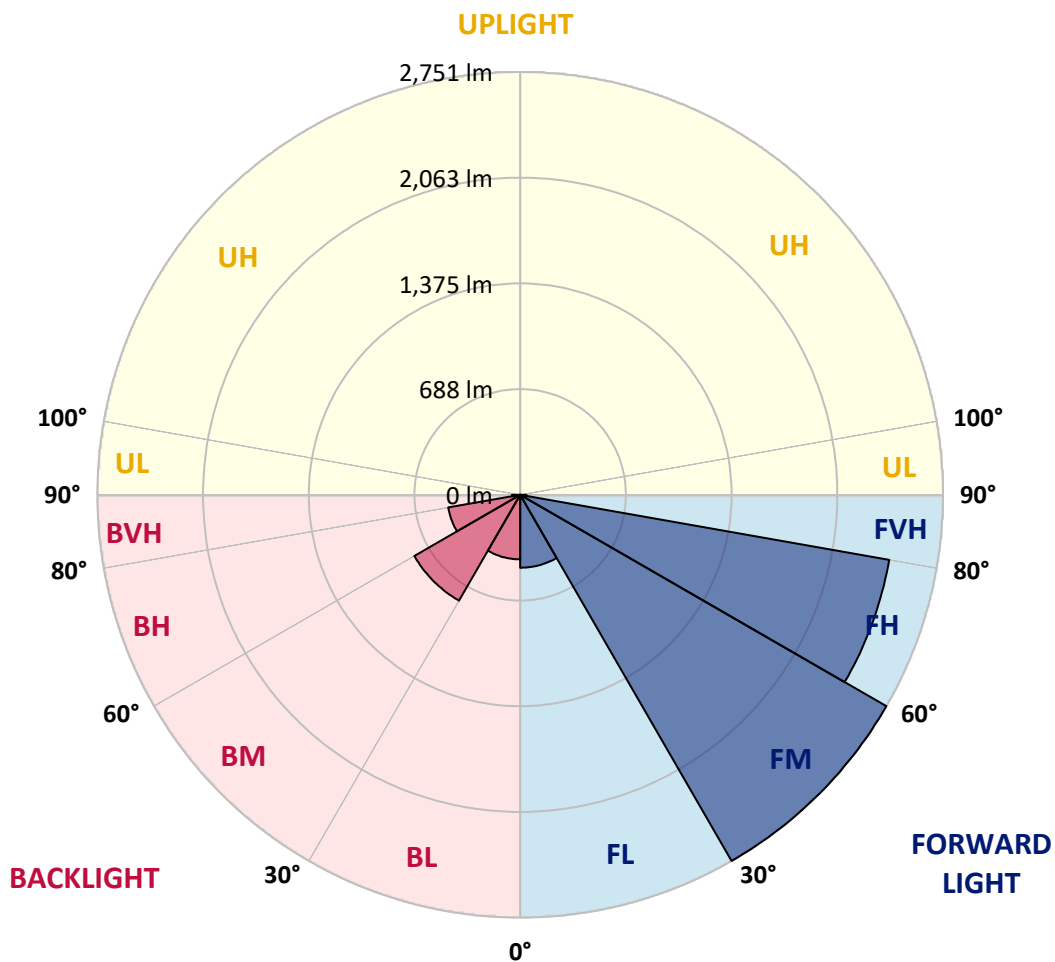
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	474.4	6.4			
FM (30°-60°)	2750.6	36.9			
FH (60°-80°)	2437.9	32.7			G2/5000
FVH (80°-90°)	40.4	0.5			G1/100
BL (0°-30°)	419.9	5.6	B1/500		
BM (30°-60°)	795.3	10.7	B1/1000		
BH (60°-80°)	475.1	6.4	B1/500		G1/500
BVH (80°-90°)	53.4	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	872.4	872.4	875.6	876.6	878.7	880.8	882.8	883.9	887.0	891.2	893.2
5°	865.2	866.2	868.3	869.3	872.4	876.6	879.7	881.8	887.0	895.3	900.5
7.5°	881.8	884.9	886.0	887.0	888.0	891.2	891.2	892.2	897.4	905.7	913.0
10°	908.8	910.9	914.0	917.2	920.3	922.4	916.1	917.2	919.2	927.6	938.0
12.5°	943.2	943.2	944.2	948.4	951.5	957.7	951.5	951.5	951.5	958.8	971.2
15°	981.6	979.6	979.6	983.7	984.8	988.9	985.8	985.8	990.0	997.2	1009.7
17.5°	1025.3	1028.4	1025.3	1023.2	1020.1	1022.2	1024.3	1026.3	1034.7	1046.1	1053.4
20°	1088.7	1093.9	1091.9	1083.5	1070.0	1063.8	1071.1	1075.2	1091.9	1105.4	1106.4
22.5°	1189.6	1186.5	1183.4	1168.8	1141.8	1125.1	1126.2	1132.4	1158.4	1179.2	1168.8
25°	1283.2	1286.3	1286.3	1265.5	1230.2	1195.8	1199.0	1202.1	1228.1	1246.8	1218.7
27.5°	1396.5	1394.5	1393.4	1365.3	1322.7	1289.4	1271.8	1280.1	1298.8	1306.1	1252.0
30°	1514.0	1522.4	1514.0	1474.5	1434.0	1391.3	1356.0	1353.9	1363.3	1362.2	1291.5
32.5°	1655.5	1648.2	1645.1	1599.3	1548.4	1492.2	1447.5	1440.2	1435.0	1427.7	1338.3
35°	1764.7	1774.0	1774.0	1734.5	1674.2	1619.1	1549.4	1543.2	1530.7	1506.8	1399.7
37.5°	1893.6	1891.5	1898.8	1853.0	1792.7	1739.7	1675.2	1657.5	1629.5	1594.1	1472.4
40°	2019.4	2024.6	2041.3	1986.1	1931.0	1889.4	1797.9	1765.7	1723.1	1690.8	1578.5
42.5°	2191.0	2198.3	2204.5	2158.8	2093.2	2055.8	1914.4	1873.8	1849.9	1843.7	1718.9
45°	2399.0	2411.4	2416.6	2375.1	2337.6	2248.2	2061.0	2023.6	1997.6	2024.6	1910.2
47.5°	2598.6	2592.4	2616.3	2615.3	2619.4	2512.3	2272.1	2216.0	2191.0	2259.6	2129.6
50°	2710.9	2720.3	2772.3	2825.3	2899.1	2822.2	2516.5	2460.3	2431.2	2516.5	2387.5
52.5°	2769.2	2781.6	2851.3	3000.0	3157.0	3120.6	2810.8	2748.4	2723.4	2806.6	2664.1
55°	2774.4	2781.6	2875.2	3106.1	3353.6	3365.0	3146.6	3087.4	3053.0	3107.1	2965.7
57.5°	2688.1	2666.2	2827.4	3121.7	3479.4	3619.8	3515.8	3473.1	3376.4	3434.7	3340.0
60°	2534.2	2556.0	2714.0	3057.2	3532.4	3818.4	3886.0	3821.5	3709.2	3733.1	3743.5
62.5°	2301.2	2329.3	2493.6	2907.5	3489.8	3986.8	4228.1	4195.9	4045.1	4032.6	4051.3
65°	1969.5	1952.9	2135.9	2579.9	3288.1	4043.0	4564.0	4550.4	4370.6	4223.9	4231.2
67.5°	1420.5	1404.9	1532.8	1991.3	2742.1	3834.0	4742.8	4773.0	4567.1	4308.2	4195.9
68°	1289.4	1267.6	1395.5	1840.6	2601.7	3713.4	4733.5	4785.5	4581.6	4303.0	4152.2
70°	742.5	707.1	830.9	1201.0	1915.4	3125.8	4542.1	4685.6	4547.3	4202.1	3866.2
72.5°	232.9	232.9	321.3	485.6	940.0	1977.8	3886.0	4130.3	4159.5	3819.4	3213.2
75°	145.6	145.6	167.4	229.8	374.4	839.2	2680.8	3053.0	3304.7	3215.3	2342.8
77.5°	98.8	96.7	111.3	142.5	209.0	269.3	1345.6	1653.4	2021.5	2195.2	1370.5
80°	54.1	55.1	68.6	85.3	118.5	124.8	395.1	558.4	890.1	1043.0	519.9
82.5°	31.2	30.2	33.3	37.4	52.0	54.1	113.3	139.3	232.9	216.3	139.3
85°	0.0	1.0	1.0	1.0	2.1	5.2	14.6	21.8	35.4	48.9	34.3
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	2.1	2.1	2.1	2.1	3.1
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°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	895.3	898.4	903.6	907.8	909.9	907.8	915.1	914.0	916.1	916.1	918.2
5°	904.7	908.8	918.2	923.4	928.6	930.7	939.0	941.1	945.2	947.3	946.3
7.5°	918.2	923.4	934.8	944.2	951.5	956.7	970.2	976.4	982.7	984.8	986.8
10°	943.2	950.4	962.9	974.4	984.8	992.0	1003.5	1011.8	1018.0	1020.1	1022.2
12.5°	976.4	984.8	1000.4	1015.9	1027.4	1031.5	1030.5	1028.4	1028.4	1027.4	1028.4
15°	1014.9	1023.2	1043.0	1057.5	1058.6	1045.1	1026.3	1017.0	1014.9	1014.9	1015.9
17.5°	1059.6	1070.0	1082.5	1090.8	1071.1	1037.8	1015.9	1006.6	1004.5	1003.5	1001.4
20°	1110.6	1116.8	1121.0	1110.6	1066.9	1028.4	1003.5	990.0	979.6	978.5	974.4
22.5°	1164.6	1162.6	1157.4	1119.9	1055.5	1006.6	972.3	947.3	933.8	932.8	928.6
25°	1204.2	1195.8	1180.2	1122.0	1034.7	971.2	922.4	882.8	865.2	856.8	858.9
27.5°	1230.2	1212.5	1185.4	1111.6	998.3	917.2	848.5	796.5	770.5	766.4	769.5
30°	1261.4	1233.3	1189.6	1085.6	946.3	841.3	751.8	699.8	685.3	678.0	680.1
32.5°	1298.8	1262.4	1203.1	1046.1	880.8	752.9	656.2	619.8	603.1	589.6	593.8
35°	1347.7	1301.9	1225.0	990.0	797.6	659.3	587.5	554.2	524.1	509.5	510.6
37.5°	1404.9	1352.9	1243.7	924.4	707.1	588.6	528.3	488.7	451.3	423.2	418.0
40°	1496.4	1453.7	1259.3	851.6	620.8	530.3	470.0	425.3	389.9	361.9	358.8
42.5°	1649.2	1575.4	1260.3	764.3	547.0	480.4	422.2	373.3	333.8	309.9	308.8
45°	1829.1	1714.7	1238.5	670.7	482.5	430.5	379.6	324.4	301.6	286.0	283.9
47.5°	2042.3	1874.9	1190.6	583.4	427.4	381.6	335.9	302.6	286.0	274.5	274.5
50°	2285.6	2063.1	1142.8	508.5	374.4	342.1	310.9	293.2	280.8	270.4	269.3
52.5°	2560.1	2285.6	1127.2	432.6	330.7	305.7	302.6	286.0	275.6	268.3	266.2
55°	2887.7	2535.2	1141.8	373.3	296.4	291.2	297.4	283.9	276.6	265.2	262.0
57.5°	3266.2	2778.5	1126.2	323.4	272.4	277.6	291.2	283.9	277.6	263.1	258.9
60°	3622.9	2995.9	1020.1	281.8	249.6	261.0	282.8	274.5	265.2	262.0	260.0
62.5°	3814.2	3066.6	813.2	249.6	231.9	244.4	269.3	258.9	252.7	260.0	261.0
65°	3816.3	2986.5	597.9	225.7	217.3	229.8	255.8	252.7	256.8	273.5	276.6
67.5°	3604.2	2743.2	422.2	203.8	202.8	218.4	262.0	282.8	286.0	302.6	302.6
68°	3531.4	2682.9	392.0	200.7	199.7	218.4	267.2	288.0	290.1	305.7	304.7
70°	3132.1	2267.9	283.9	188.2	194.5	234.0	295.3	302.6	290.1	307.8	306.8
72.5°	2447.8	1677.3	212.1	174.7	185.1	230.9	297.4	290.1	271.4	275.6	270.4
75°	1654.4	1069.0	174.7	160.1	164.3	195.5	270.4	273.5	251.6	247.5	241.2
77.5°	866.2	501.2	141.4	142.5	146.6	169.5	241.2	248.5	228.8	216.3	214.2
80°	319.2	198.6	115.4	125.8	127.9	148.7	206.9	218.4	199.7	190.3	188.2
82.5°	116.5	98.8	95.7	110.2	108.1	126.9	180.9	189.3	169.5	160.1	154.9
85°	32.2	36.4	60.3	86.3	84.2	98.8	145.6	152.9	136.2	112.3	109.2
87.5°	2.1	7.3	23.9	51.0	53.0	61.4	105.0	115.4	100.9	83.2	82.1
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)