

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: P401844

Luminaire Tested: **ENT-SA1F-735-U-T4W**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401844  
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: ENT-SA1F-735-U-T4W  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7314 lumens  
Efficiency: N/A  
Efficacy: 110.7 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): 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

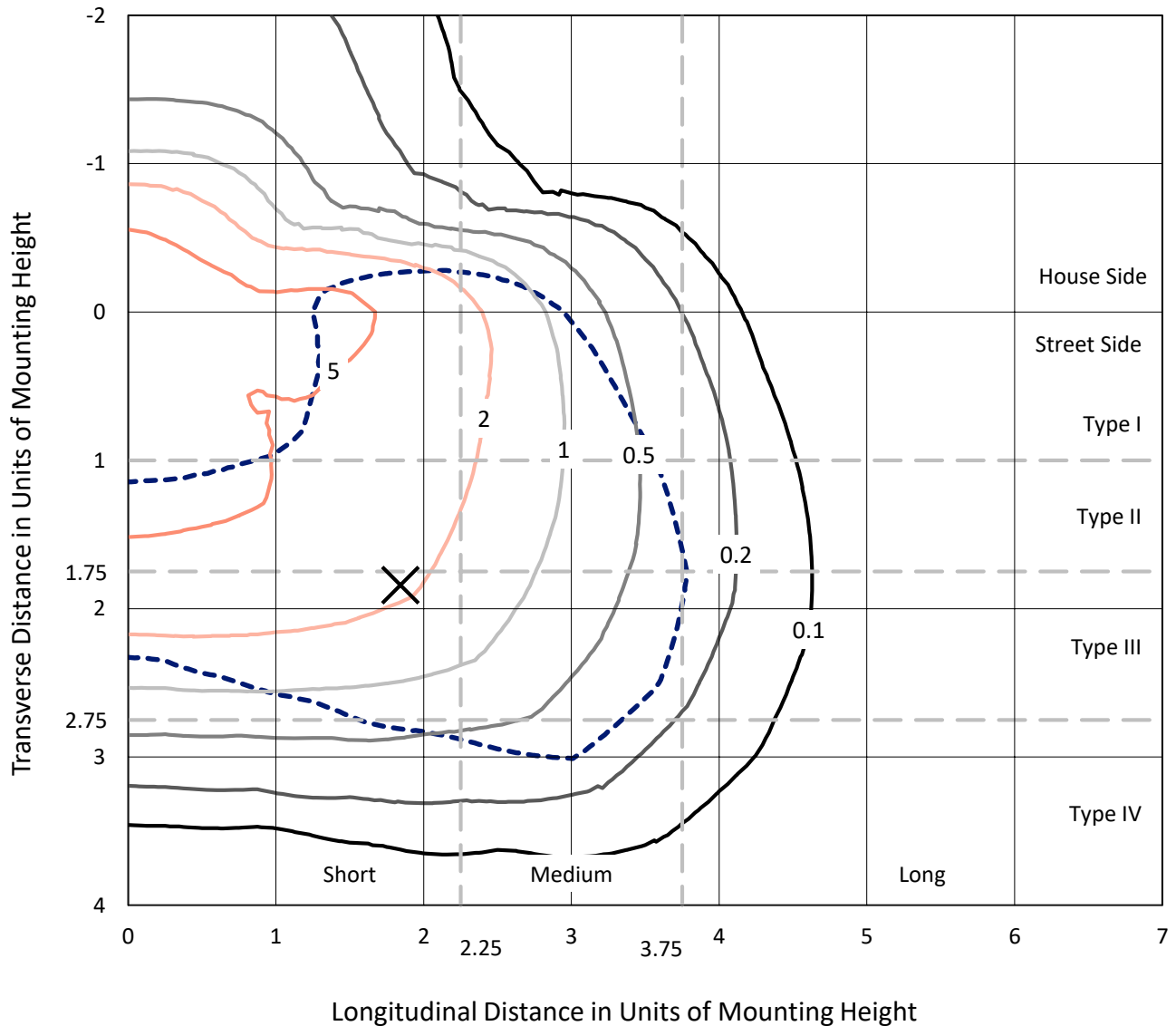


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

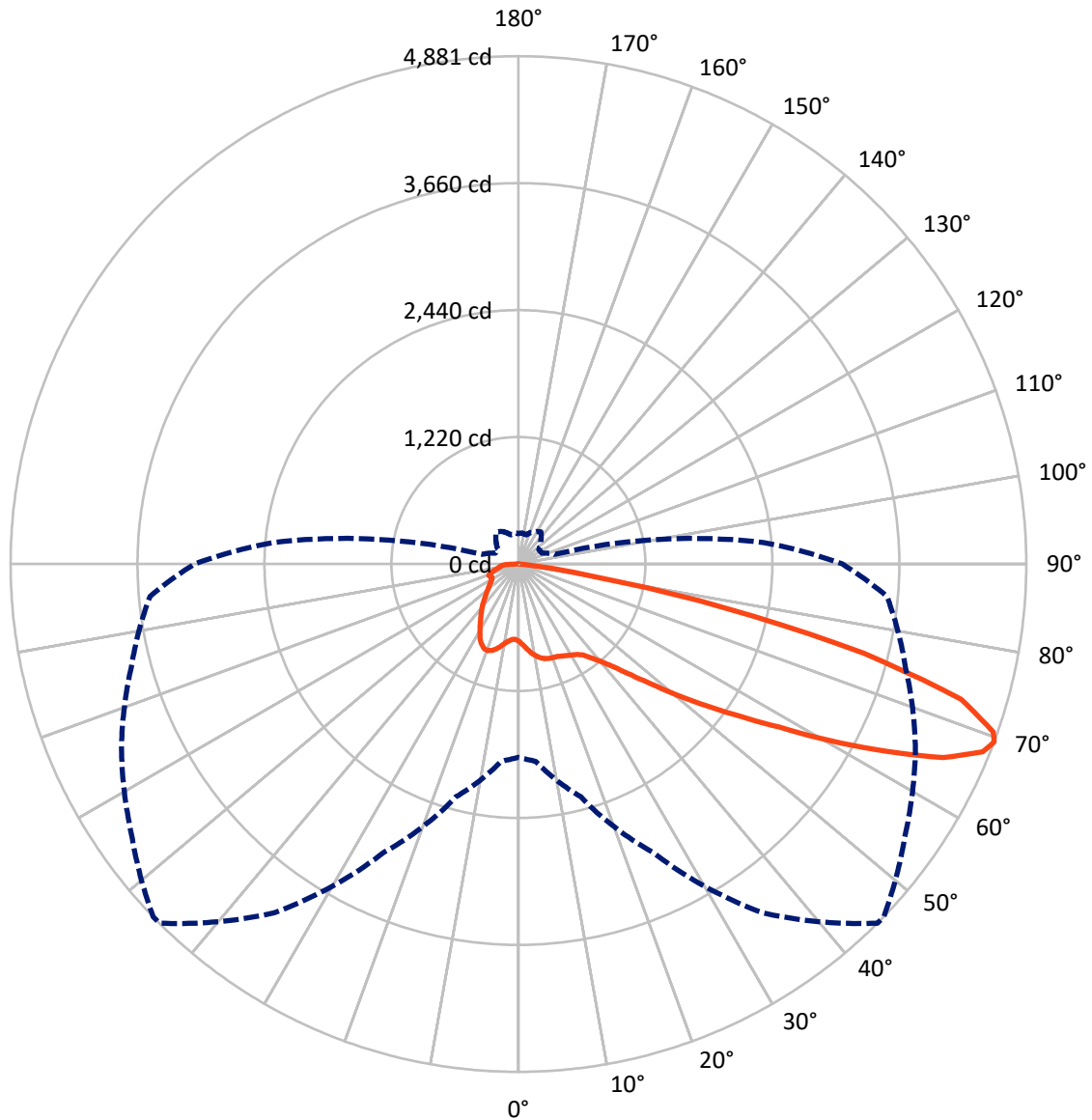


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc  
 Type IV - Short - Semi-Cutoff

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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	1722.0	0.0	1722.0
	% Fixture	23.5	0.0	23.5
<b>Street Side</b>	Lumens	5592.0	0.0	5592.0
	% Fixture	76.5	0.0	76.5
<b>Total</b>	Lumens	7314.0	0.0	7314.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	1.0
10°-20°	250.7	3.4
20°-30°	423.6	5.8
30°-40°	612.9	8.4
40°-50°	925.4	12.7
50°-60°	1560.3	21.3
60°-70°	2146.6	29.3
70°-80°	1189.5	16.3
80°-90°	129.5	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°	7314.0	100.0
0°-180°	7314.0	100.0



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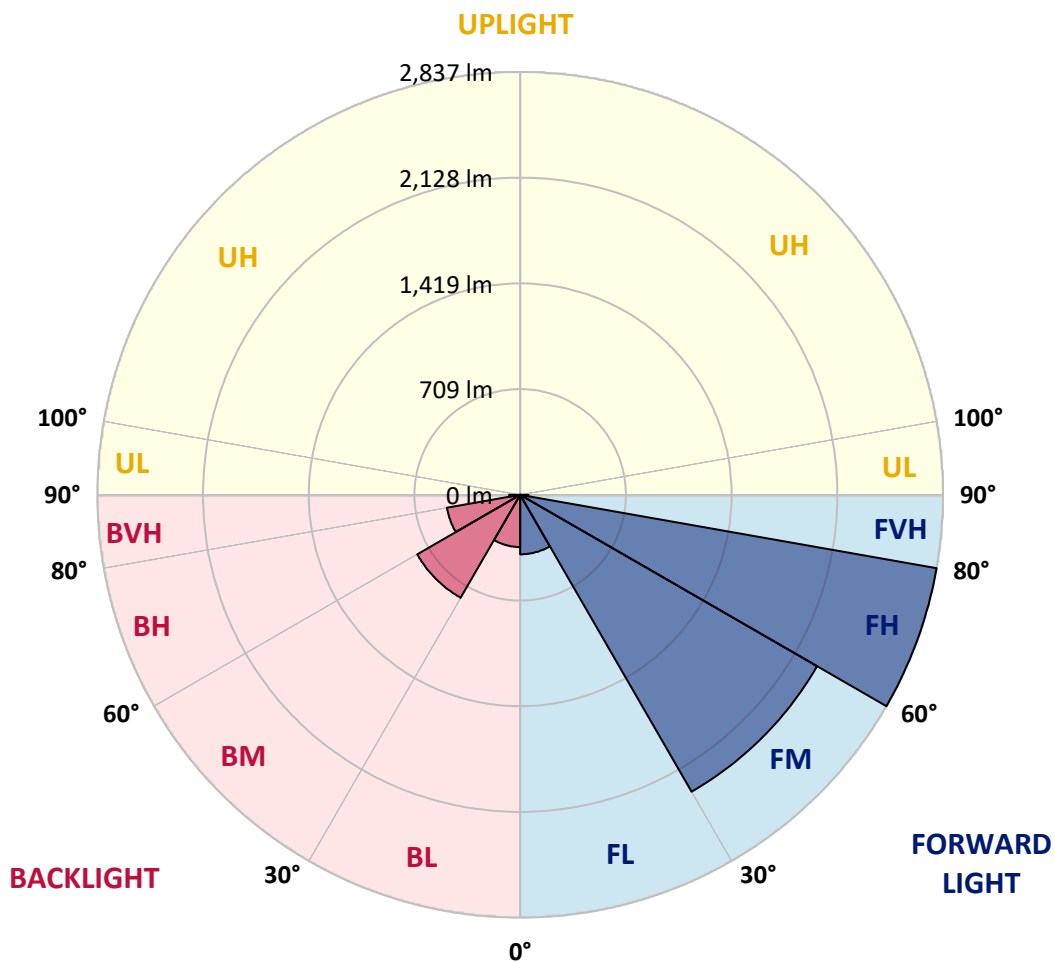
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	399.2	5.5			
FM	(30°-60°)	2300.3	31.5			
FH	(60°-80°)	2837.0	38.8			G2/5000
FVH	(80°-90°)	55.4	0.8			G1/100
BL	(0°-30°)	350.6	4.8	B1/500		
BM	(30°-60°)	798.2	10.9	B1/1000		
BH	(60°-80°)	499.1	6.8	B1/500		G1/500
BVH	(80°-90°)	74.1	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°	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4
2.5°	789.2	788.1	789.2	785.0	780.9	774.6	772.5	765.3	760.1	752.8	746.5
5°	847.4	850.5	849.5	844.3	827.6	815.2	815.2	799.6	782.9	767.3	752.8
7.5°	910.8	910.8	904.6	894.2	877.6	858.8	856.8	836.0	812.1	790.2	767.3
10°	956.6	958.7	949.3	934.7	913.9	894.2	892.1	868.2	845.3	817.3	789.2
12.5°	988.8	988.8	980.5	967.0	942.0	923.3	921.2	899.4	875.5	846.4	814.1
15°	1005.4	1003.4	996.1	981.5	959.7	944.1	941.0	922.3	902.5	873.4	839.1
17.5°	1002.3	1002.3	996.1	981.5	965.9	953.5	951.4	937.9	923.3	895.2	860.9
20°	988.8	987.8	985.7	974.3	963.9	958.7	956.6	950.3	941.0	917.1	884.8
22.5°	976.3	975.3	972.2	964.9	960.7	963.9	963.9	962.8	961.8	943.1	911.9
25°	983.6	982.6	976.3	965.9	964.9	979.5	980.5	983.6	985.7	970.1	937.9
27.5°	1034.6	1031.4	1013.8	986.7	977.4	996.1	998.2	1007.5	1005.4	988.8	960.7
30°	1134.4	1135.4	1095.9	1037.7	1006.5	1014.8	1015.8	1026.2	1023.1	1009.6	986.7
32.5°	1285.1	1285.1	1220.7	1132.3	1053.3	1036.6	1033.5	1042.9	1055.4	1037.7	1014.8
35°	1476.5	1471.3	1393.3	1257.1	1133.3	1074.1	1072.0	1067.8	1089.7	1073.0	1039.8
37.5°	1668.8	1650.1	1574.2	1424.5	1245.6	1146.9	1138.5	1126.1	1138.5	1103.2	1074.1
40°	1823.7	1820.6	1758.2	1606.4	1378.7	1235.2	1229.0	1173.9	1182.2	1154.1	1142.7
42.5°	1994.3	1996.3	1954.7	1801.9	1537.8	1354.8	1338.2	1252.9	1276.8	1266.4	1261.2
45°	2181.4	2179.3	2148.1	1988.0	1732.2	1521.2	1500.4	1395.4	1444.2	1438.0	1467.1
47.5°	2324.9	2336.3	2318.7	2205.3	1963.1	1722.9	1707.3	1579.4	1653.2	1703.1	1758.2
50°	2520.4	2519.3	2471.5	2424.7	2231.3	1980.7	1965.1	1822.7	1928.8	2001.5	2102.4
52.5°	2762.6	2754.3	2655.5	2638.9	2557.8	2262.5	2249.0	2100.3	2252.1	2315.5	2520.4
55°	2914.4	2913.4	2862.5	2891.6	2893.6	2576.5	2559.9	2427.8	2599.4	2672.2	2982.0
57.5°	3041.3	3042.3	3085.0	3186.9	3255.5	2958.1	2951.9	2790.7	2964.4	3066.3	3432.2
60°	3139.0	3159.8	3279.4	3512.3	3626.7	3444.7	3417.7	3247.2	3363.6	3404.2	3776.4
62.5°	3099.5	3126.6	3361.5	3704.7	3998.9	3960.4	3951.1	3704.7	3703.6	3682.8	4033.2
65°	2787.6	2845.8	3216.0	3697.4	4244.3	4484.5	4471.0	4136.2	4019.7	3915.7	4110.2
67.5°	2281.2	2293.7	2739.8	3414.6	4242.2	4814.1	4799.5	4450.2	4216.2	3961.5	3884.5
69°	1857.0	1902.8	2315.5	3056.9	4092.5	4880.6	4880.6	4537.5	4208.9	3852.3	3553.9
70°	1606.4	1608.5	2006.7	2772.0	3888.7	4841.1	4850.5	4537.5	4149.7	3709.9	3260.7
72.5°	752.8	799.6	1051.2	1809.2	3141.1	4450.2	4473.0	4238.1	3805.5	3196.2	2446.6
75°	225.6	233.9	350.4	857.8	1799.8	3428.1	3479.0	3525.8	3099.5	2353.0	1506.6
77.5°	134.1	133.1	169.5	291.1	832.8	2032.7	2055.6	2255.2	2010.9	1308.0	684.2
80°	65.5	67.6	90.5	141.4	311.9	738.2	812.1	1054.3	891.1	511.6	250.6
82.5°	21.8	23.9	37.4	57.2	132.0	238.1	263.1	330.6	284.9	186.1	107.1
85°	0.0	0.0	1.0	2.1	7.3	17.7	17.7	39.5	59.3	65.5	35.4
87.5°	0.0	0.0	1.0	1.0	2.1	2.1	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°	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4	742.4
2.5°	743.4	741.3	737.2	733.0	731.0	725.8	726.8	724.7	723.7	723.7	724.7
5°	745.5	742.4	736.1	732.0	727.8	725.8	731.0	733.0	735.1	735.1	736.1
7.5°	758.0	751.7	744.5	739.3	740.3	743.4	751.7	758.0	761.1	763.2	765.3
10°	778.8	771.5	761.1	760.1	762.1	770.5	781.9	791.3	799.6	804.8	804.8
12.5°	800.6	791.3	782.9	785.0	794.4	806.9	818.3	828.7	836.0	841.2	842.2
15°	824.5	815.2	806.9	812.1	827.6	842.2	852.6	856.8	859.9	865.1	866.1
17.5°	846.4	838.0	830.8	844.3	857.8	869.2	872.4	870.3	866.1	869.2	871.3
20°	869.2	862.0	857.8	872.4	881.7	882.8	874.4	865.1	854.7	854.7	855.7
22.5°	897.3	888.0	885.9	893.2	890.0	877.6	856.8	842.2	827.6	825.6	828.7
25°	924.3	915.0	913.9	908.7	881.7	849.5	821.4	804.8	793.3	794.4	800.6
27.5°	951.4	945.1	946.2	918.1	857.8	808.9	771.5	758.0	761.1	763.2	769.4
30°	978.4	978.4	982.6	918.1	824.5	751.7	716.4	715.4	723.7	729.9	737.2
32.5°	1009.6	1019.0	1011.7	906.7	779.8	693.5	665.4	667.5	676.9	687.3	693.5
35°	1039.8	1061.6	1040.8	880.7	718.5	640.5	617.6	614.5	621.8	631.1	634.3
37.5°	1087.6	1122.9	1065.8	840.1	655.0	593.7	570.8	562.5	555.2	562.5	561.5
40°	1170.8	1213.4	1084.5	772.5	593.7	550.0	526.1	510.5	492.8	477.2	477.2
42.5°	1303.9	1331.9	1094.9	690.4	532.4	506.4	482.4	459.6	432.5	404.5	404.5
45°	1521.2	1527.4	1099.0	603.1	476.2	462.7	437.7	415.9	380.6	352.5	346.2
47.5°	1811.3	1784.2	1109.4	518.8	427.3	424.2	403.4	378.5	340.0	314.0	310.9
50°	2201.2	2084.7	1155.2	451.3	387.8	390.9	375.4	346.2	309.8	291.1	287.0
52.5°	2639.9	2464.2	1190.5	397.2	353.5	362.9	351.4	323.4	292.2	276.6	273.5
55°	3119.3	2829.2	1182.2	360.8	327.5	337.9	333.8	309.8	281.8	268.3	265.1
57.5°	3510.2	3086.0	1109.4	328.6	301.5	316.1	320.2	301.5	275.5	263.1	259.9
60°	3803.4	3226.4	959.7	301.5	280.7	298.4	309.8	296.3	274.5	267.2	264.1
62.5°	3936.5	3213.9	765.3	280.7	265.1	285.9	310.9	304.6	290.1	295.3	296.3
65°	3861.7	3056.9	573.9	265.1	255.8	288.0	328.6	328.6	306.7	316.1	317.1
67.5°	3478.0	2646.2	418.0	253.7	246.4	298.4	361.8	341.0	299.5	306.7	303.6
69°	3113.0	2367.5	358.7	247.5	239.1	303.6	376.4	343.1	291.1	299.5	291.1
70°	2844.8	2115.9	322.3	242.3	236.0	303.6	380.6	341.0	287.0	293.2	283.9
72.5°	2024.4	1469.2	265.1	231.9	224.6	280.7	373.3	329.6	275.5	268.3	250.6
75°	1177.0	812.1	225.6	220.4	198.6	246.4	354.6	317.1	264.1	250.6	238.1
77.5°	493.9	362.9	192.4	200.7	175.7	219.4	331.7	304.6	250.6	231.9	225.6
80°	200.7	180.9	160.1	173.6	152.8	193.4	305.7	283.9	230.8	212.1	202.8
82.5°	105.0	99.8	122.7	140.4	126.9	177.8	288.0	269.3	214.2	195.5	184.0
85°	31.2	41.6	69.7	95.7	96.7	160.1	279.7	249.5	186.1	161.2	159.1
87.5°	2.1	8.3	23.9	49.9	63.4	122.7	226.7	204.8	150.8	126.9	127.9
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)