

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: P401824

Luminaire Tested: **ENT-SA1F-730-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1F-730-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6789 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-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

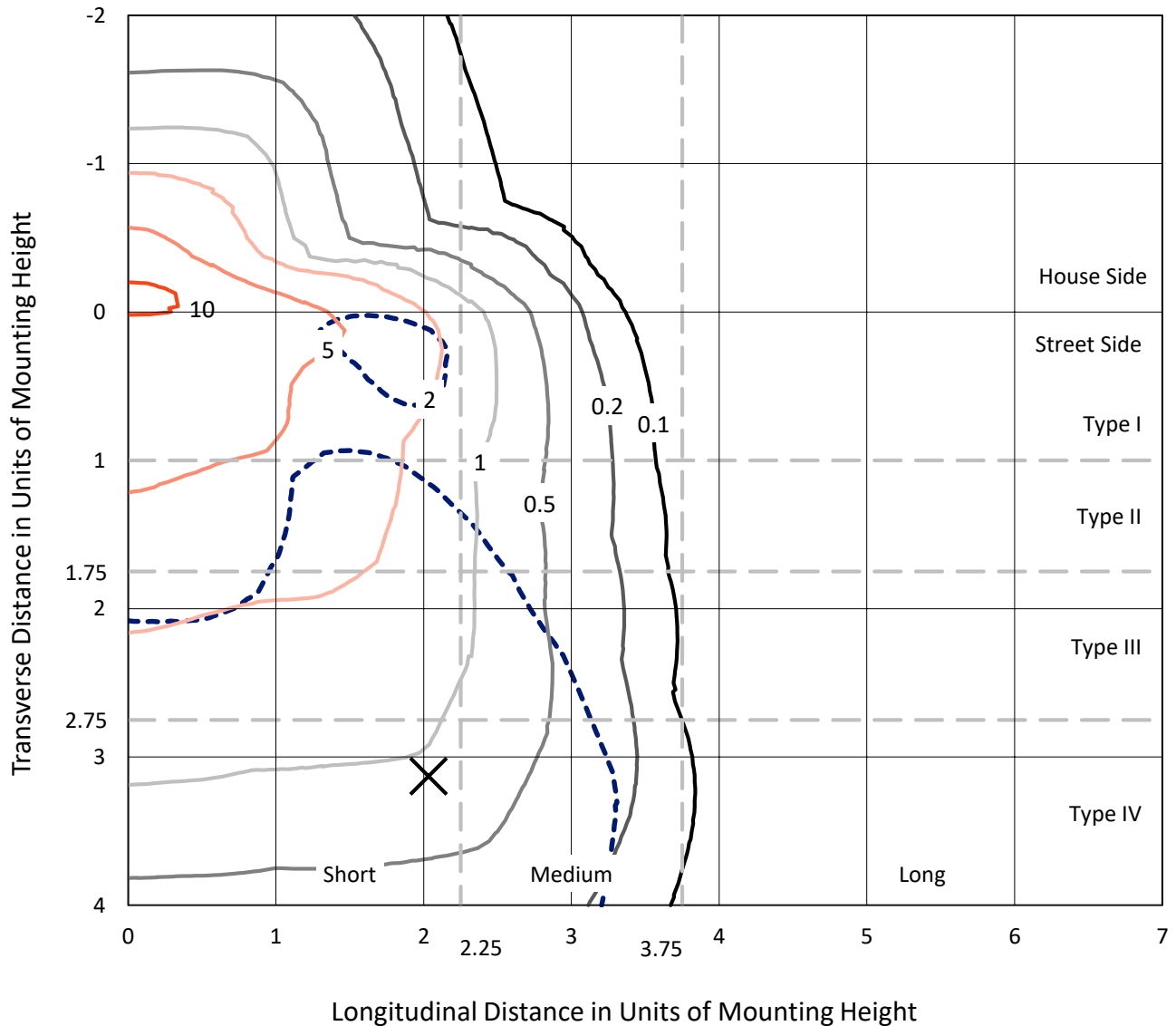


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

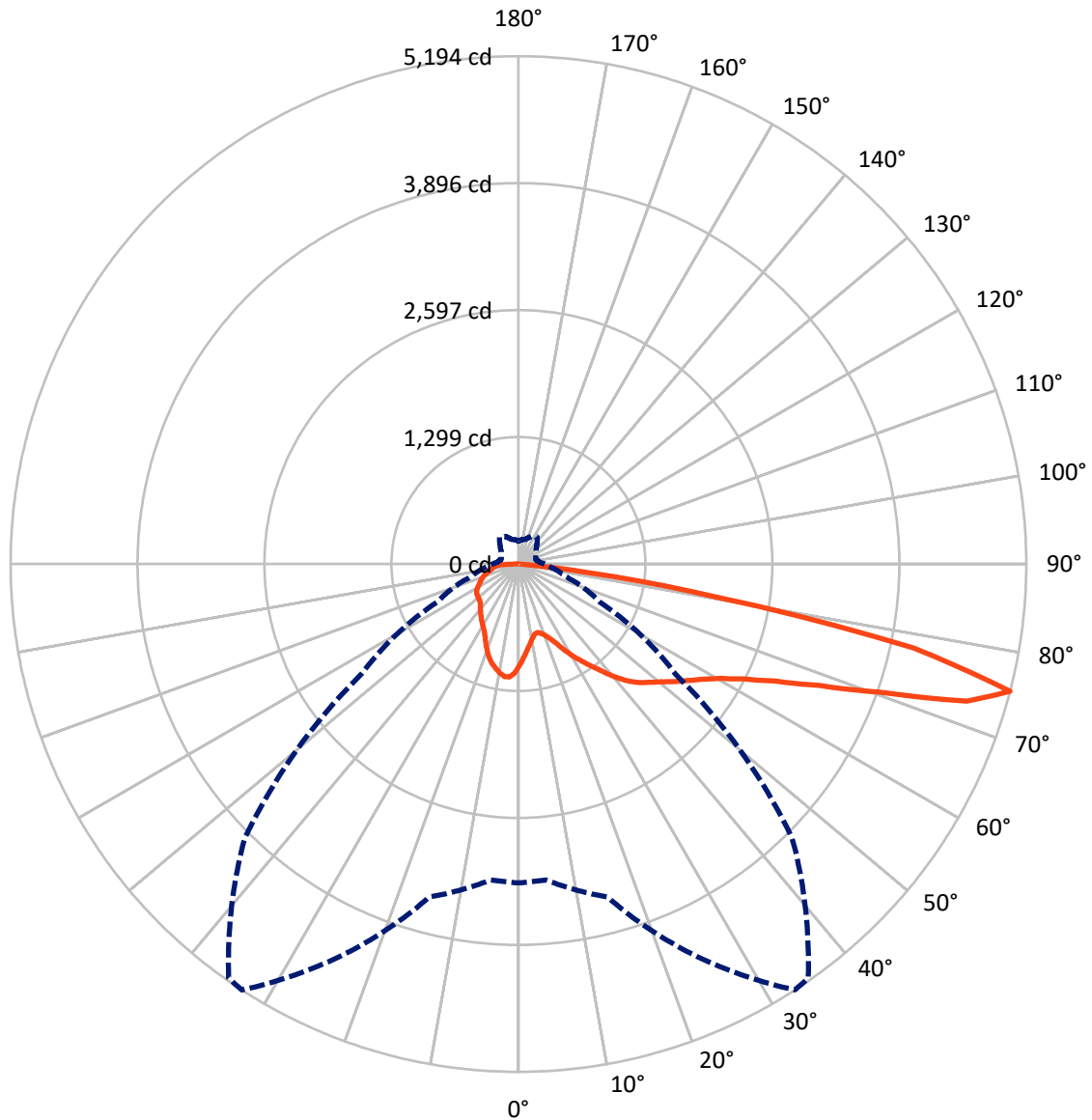


Based on 10 foot mounting height. Maximum calculated value = 11.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1649.2	0.0	1649.2
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	5139.8	0.0	5139.8
	% Fixture	75.7	0.0	75.7
Total	Lumens	6789.0	0.0	6789.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	1.4
10°-20°	273.3	4.0
20°-30°	454.5	6.7
30°-40°	678.0	10.0
40°-50°	947.2	14.0
50°-60°	1264.3	18.6
60°-70°	1567.6	23.1
70°-80°	1355.4	20.0
80°-90°	151.5	2.2
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°	6789.0	100.0
0°-180°	6789.0	100.0



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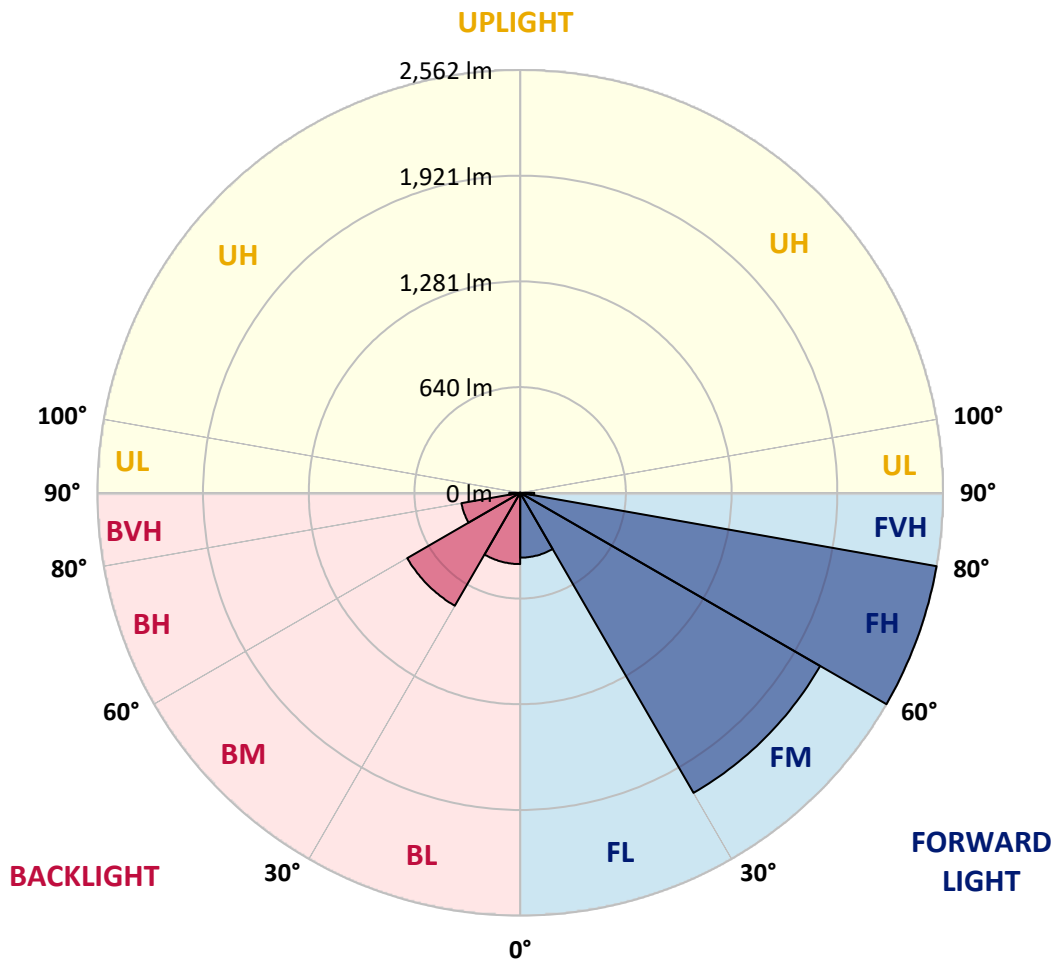
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	393.1	5.8			
FM	(30°-60°)	2099.2	30.9			
FH	(60°-80°)	2561.9	37.7			G2/5000
FVH	(80°-90°)	85.6	1.3			G1/100
BL	(0°-30°)	431.9	6.4	B1/500		
BM	(30°-60°)	790.3	11.6	B1/1000		
BH	(60°-80°)	361.1	5.3	B1/500		G1/500
BVH	(80°-90°)	65.9	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°	33°	35°	45°	55°	65°	75°	85°
0°	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3
2.5°	943.5	945.5	951.6	958.6	962.7	962.7	973.7	986.9	1003.0	1017.1	1032.2
5°	864.9	867.9	872.9	882.0	893.1	895.1	917.3	940.5	969.7	1001.0	1031.2
7.5°	787.3	793.3	803.4	815.5	832.6	836.7	867.9	899.2	939.5	986.9	1036.2
10°	727.8	731.8	736.9	754.0	775.2	782.2	823.6	862.9	918.3	976.8	1042.3
12.5°	711.7	711.7	711.7	719.7	736.9	742.9	786.3	836.7	899.2	969.7	1051.4
15°	734.8	733.8	722.8	716.7	726.8	731.8	769.1	818.5	889.1	971.7	1068.5
17.5°	787.3	784.2	758.0	737.9	744.9	748.0	772.1	814.5	886.1	979.8	1093.7
20°	855.8	848.8	808.4	778.2	777.2	779.2	797.3	826.6	891.1	993.9	1120.9
22.5°	946.5	942.5	883.0	836.7	828.6	828.6	836.7	854.8	904.2	1010.0	1158.2
25°	1063.5	1052.4	980.8	918.3	900.2	895.1	894.1	894.1	927.4	1034.2	1204.6
27.5°	1183.4	1170.3	1097.7	1013.1	988.9	979.8	963.7	951.6	957.6	1060.4	1260.0
30°	1291.3	1273.1	1211.6	1123.9	1087.7	1073.5	1044.3	1019.1	1003.0	1096.7	1333.6
32.5°	1350.7	1343.7	1301.4	1221.7	1180.4	1174.3	1126.0	1092.7	1064.5	1144.1	1432.4
35°	1430.4	1421.3	1394.1	1328.6	1279.2	1264.1	1227.8	1188.5	1143.1	1207.6	1557.4
37.5°	1504.0	1498.9	1488.8	1443.5	1391.1	1375.9	1342.7	1301.4	1239.9	1301.4	1697.5
40°	1578.6	1572.5	1568.5	1552.4	1515.1	1505.0	1488.8	1440.5	1357.8	1404.2	1835.6
42.5°	1687.4	1674.3	1632.0	1631.0	1634.0	1642.1	1643.1	1589.6	1486.8	1532.2	1956.6
45°	1829.6	1793.3	1698.5	1695.5	1730.8	1751.9	1803.4	1758.0	1620.9	1663.2	2091.6
47.5°	1902.1	1864.8	1767.1	1761.0	1807.4	1838.6	1965.6	1921.3	1760.0	1810.4	2231.8
50°	1937.4	1913.2	1827.5	1846.7	1894.1	1924.3	2119.9	2084.6	1904.2	1969.7	2408.2
52.5°	1986.8	1946.5	1886.0	1926.3	1996.9	2028.1	2258.0	2251.9	2026.1	2143.1	2601.7
55°	1969.7	1948.5	1959.6	2014.0	2102.7	2149.1	2397.1	2397.1	2150.1	2328.5	2793.2
57.5°	1983.8	1969.7	2061.4	2109.8	2221.7	2288.2	2564.4	2520.1	2254.9	2483.8	2922.3
60°	2103.7	2063.4	2135.0	2230.8	2374.9	2439.4	2755.9	2649.1	2340.6	2617.8	2945.4
62.5°	2315.4	2283.2	2290.2	2400.1	2586.6	2661.2	2945.4	2763.0	2398.1	2674.3	2858.7
65°	2666.2	2651.1	2564.4	2630.9	2888.0	2955.5	3182.3	2861.8	2382.0	2631.9	2629.9
67.5°	3138.0	3077.5	2960.6	3020.0	3316.4	3384.9	3467.6	2899.1	2277.1	2378.9	2113.8
70°	3529.1	3478.7	3425.3	3581.5	3922.2	3959.5	3765.0	2863.8	2022.1	1861.8	1417.3
72.5°	3778.1	3741.8	3791.2	4250.8	4796.2	4725.6	4058.3	2616.8	1577.6	1140.1	708.6
75°	3260.9	3243.8	3526.1	4458.5	5194.3	5168.1	3956.5	1958.6	915.3	502.0	322.6
77.5°	1640.1	1826.5	2123.9	3163.2	4132.9	4137.9	2882.9	941.5	385.1	281.2	221.8
80°	461.7	467.7	708.6	1304.4	2063.4	2198.5	1090.7	319.5	219.7	209.7	165.3
82.5°	109.9	101.8	181.4	386.1	692.5	720.7	327.6	114.9	123.0	131.0	101.8
85°	1.0	1.0	1.0	1.0	1.0	2.0	12.1	12.1	29.2	37.3	29.2
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
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°	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3	1040.3
2.5°	1039.3	1049.4	1065.5	1079.6	1091.7	1100.8	1114.9	1116.9	1120.9	1122.9	1125.0
5°	1048.3	1067.5	1097.7	1123.9	1142.1	1147.1	1159.2	1158.2	1159.2	1159.2	1158.2
7.5°	1060.4	1086.6	1129.0	1158.2	1168.3	1165.3	1162.2	1151.2	1142.1	1138.1	1133.0
10°	1075.6	1105.8	1155.2	1176.4	1171.3	1155.2	1136.0	1115.9	1099.8	1091.7	1089.7
12.5°	1090.7	1130.0	1176.4	1182.4	1162.2	1133.0	1100.8	1078.6	1057.4	1046.3	1046.3
15°	1115.9	1159.2	1193.5	1181.4	1145.1	1107.8	1063.5	1033.2	1009.0	993.9	992.9
17.5°	1146.1	1192.5	1211.6	1176.4	1123.9	1071.5	1018.1	978.8	947.5	932.4	923.3
20°	1183.4	1226.8	1220.7	1160.2	1092.7	1028.2	961.7	914.3	882.0	865.9	862.9
22.5°	1225.8	1262.0	1223.7	1134.0	1050.4	967.7	895.1	847.7	826.6	814.5	815.5
25°	1277.2	1305.4	1224.7	1102.8	989.9	888.1	824.6	802.4	799.4	794.3	796.3
27.5°	1341.7	1350.7	1220.7	1060.4	912.3	804.4	767.1	776.2	784.2	781.2	783.2
30°	1418.3	1405.2	1211.6	998.9	816.5	727.8	729.8	750.0	761.1	758.0	759.0
32.5°	1508.0	1459.6	1194.5	924.4	725.8	681.4	697.6	717.7	728.8	728.8	729.8
35°	1608.8	1525.1	1161.2	827.6	662.3	653.2	667.3	683.4	690.5	686.5	689.5
37.5°	1714.6	1581.6	1107.8	719.7	614.9	631.0	639.1	643.1	642.1	636.1	633.0
40°	1813.4	1625.9	1012.1	612.9	575.6	607.8	611.9	600.8	587.7	576.6	569.5
42.5°	1889.0	1649.1	879.0	535.3	538.3	581.6	584.7	562.5	537.3	520.1	516.1
45°	1966.6	1657.2	746.9	472.8	498.0	555.4	563.5	533.2	499.0	478.8	475.8
47.5°	2055.4	1677.3	616.9	429.4	463.7	537.3	550.4	513.1	474.8	444.5	439.5
50°	2174.3	1715.7	519.1	396.2	439.5	528.2	546.3	497.0	448.6	415.3	411.3
52.5°	2325.5	1772.1	428.4	369.9	420.3	514.1	540.3	480.8	429.4	389.1	383.0
55°	2455.5	1793.3	369.9	347.8	400.2	497.0	535.3	474.8	408.2	362.9	355.8
57.5°	2515.0	1732.8	328.6	325.6	379.0	475.8	525.2	454.6	385.1	349.8	343.7
60°	2487.8	1582.6	297.4	305.4	354.8	448.6	499.0	434.5	368.9	339.7	333.7
62.5°	2366.8	1409.2	274.2	286.3	327.6	414.3	468.7	416.3	354.8	328.6	320.6
65°	2154.1	1218.7	257.0	269.1	303.4	381.0	444.5	395.1	338.7	312.5	305.4
67.5°	1758.0	969.7	238.9	252.0	283.3	353.8	422.4	378.0	320.6	303.4	297.4
70°	1163.3	652.2	221.8	234.9	263.1	327.6	399.2	359.9	303.4	292.3	284.3
72.5°	534.3	350.8	203.6	216.7	239.9	298.4	369.9	332.6	280.2	273.2	261.1
75°	264.1	215.7	181.4	193.5	211.7	263.1	335.7	309.5	259.1	247.0	232.9
77.5°	192.5	161.3	156.2	168.3	183.5	232.9	299.4	285.3	237.9	220.8	212.7
80°	143.1	125.0	131.0	143.1	157.3	210.7	280.2	267.1	219.7	202.6	196.6
82.5°	87.7	83.7	100.8	114.9	132.1	193.5	267.1	243.9	197.6	181.4	174.4
85°	25.2	30.2	51.4	74.6	93.7	156.2	249.0	213.7	166.3	139.1	134.1
87.5°	0.0	3.0	16.1	34.3	55.4	103.8	191.5	167.3	127.0	102.8	98.8
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)