

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: P401822

Luminaire Tested: **ENT-SA1F-730-U-T3**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401822  
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: ENT-SA1F-730-U-T3  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7219 lumens  
Efficiency: N/A  
Efficacy: 109.2 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

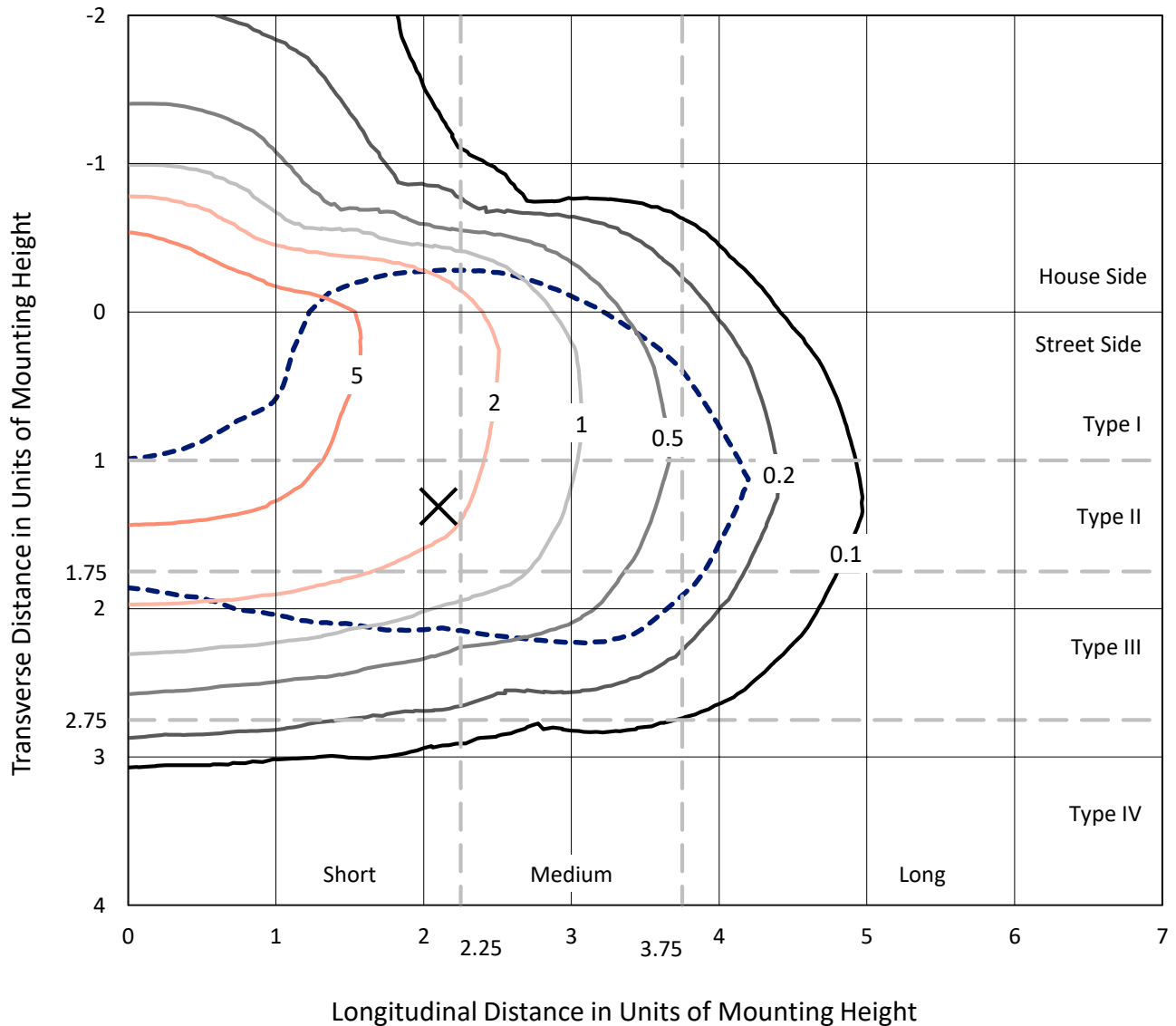
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

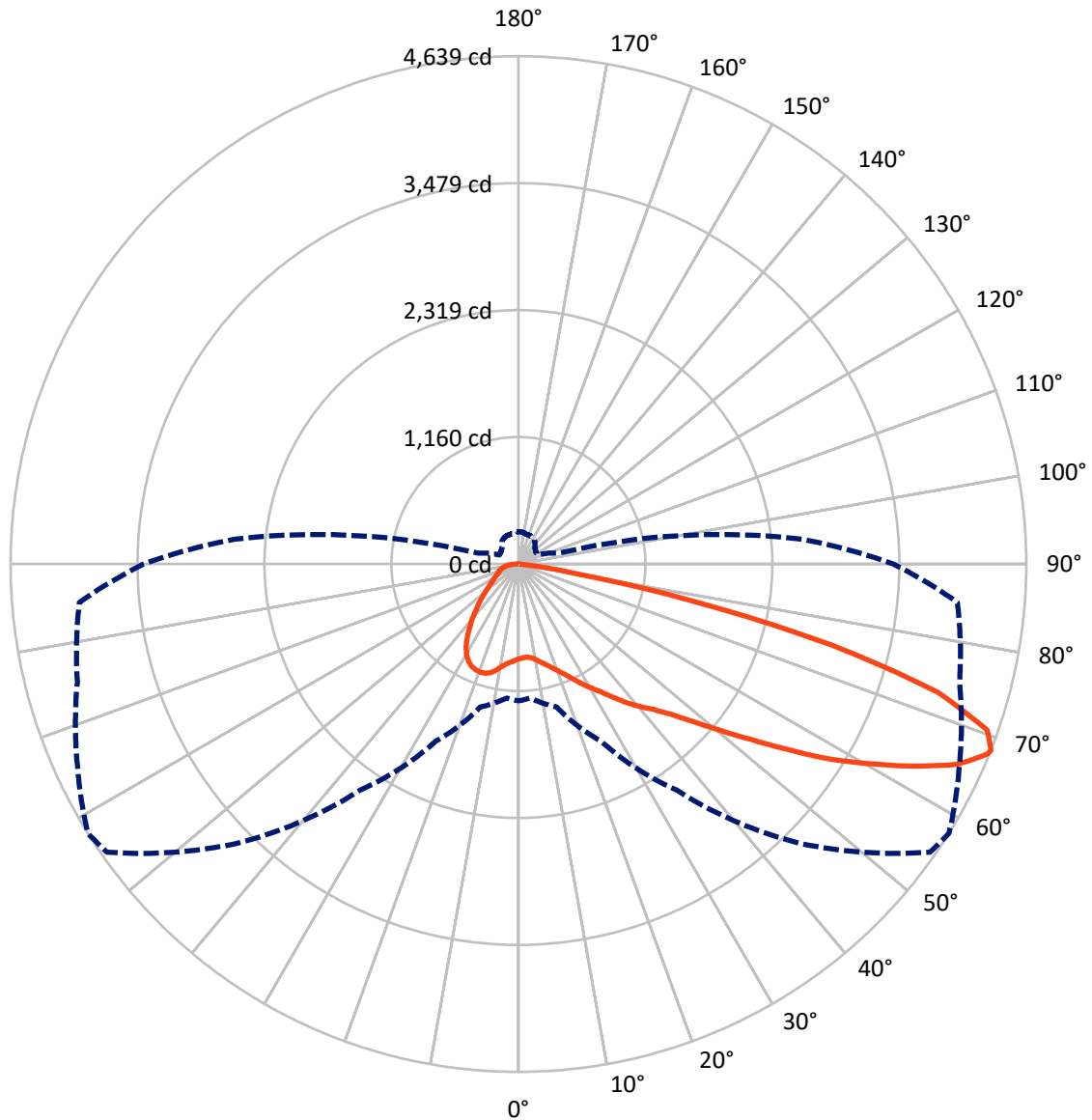
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 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	1690.3	0.0	1690.3
	% Fixture	23.4	0.0	23.4
<b>Street Side</b>	Lumens	5528.7	0.0	5528.7
	% Fixture	76.6	0.0	76.6
<b>Total</b>	Lumens	7219.0	0.0	7219.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.4	1.2
10°-20°	279.3	3.9
20°-30°	502.2	7.0
30°-40°	737.8	10.2
40°-50°	1082.1	15.0
50°-60°	1617.5	22.4
60°-70°	1891.3	26.2
70°-80°	932.5	12.9
80°-90°	91.0	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°	7219.0	100.0
0°-180°	7219.0	100.0

**Coefficient of Utilization**



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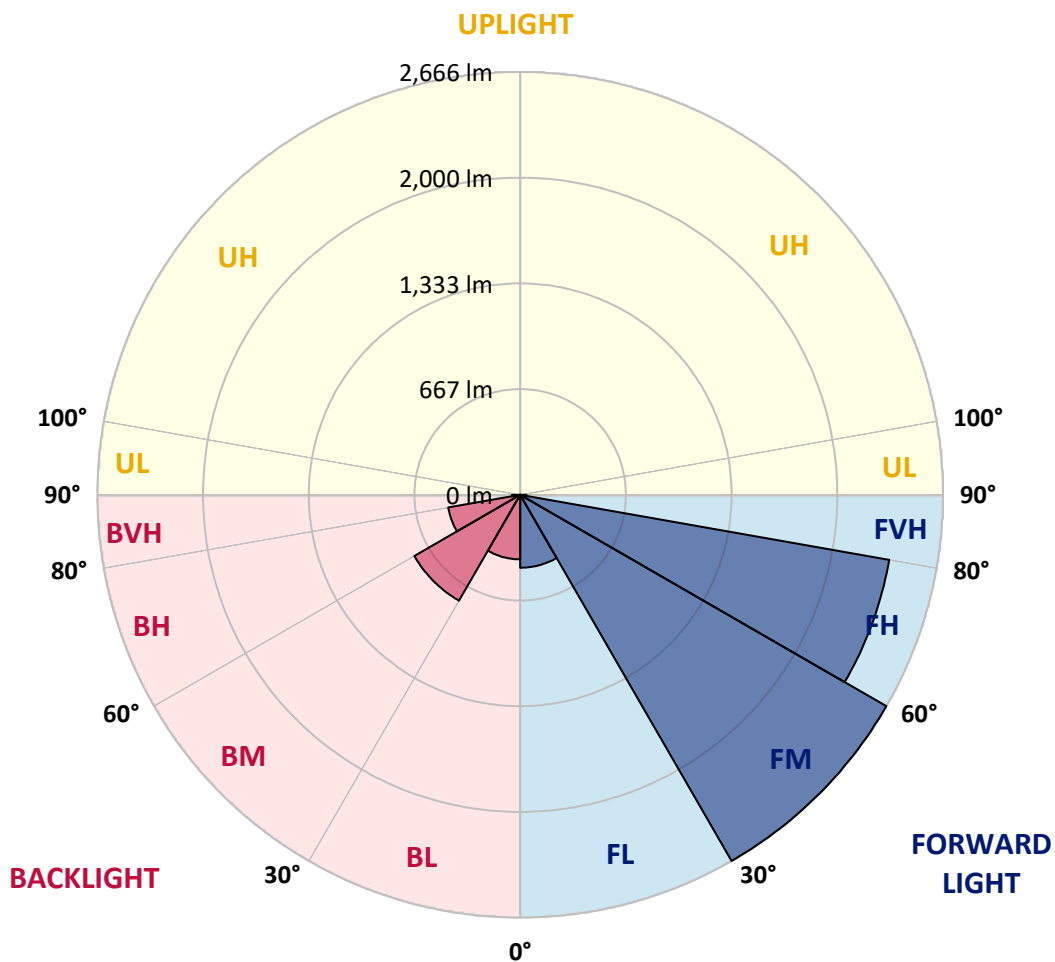
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	459.9	6.4			
FM (30°-60°)	2666.4	36.9			
FH (60°-80°)	2363.2	32.7			G2/5000
FVH (80°-90°)	39.2	0.5			G1/100
BL (0°-30°)	407.0	5.6	B1/500		
BM (30°-60°)	770.9	10.7	B1/1000		
BH (60°-80°)	460.6	6.4	B1/500		G1/500
BVH (80°-90°)	51.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	845.7	845.7	848.8	849.8	851.8	853.8	855.8	856.8	859.8	863.9	865.9
5°	838.7	839.7	841.7	842.7	845.7	849.8	852.8	854.8	859.8	867.9	873.0
7.5°	854.8	857.8	858.8	859.8	860.9	863.9	863.9	864.9	869.9	878.0	885.0
10°	881.0	883.0	886.1	889.1	892.1	894.1	888.1	889.1	891.1	899.2	909.2
12.5°	914.3	914.3	915.3	919.3	922.3	928.4	922.3	922.3	922.3	929.4	941.5
15°	951.6	949.6	949.6	953.6	954.6	958.6	955.6	955.6	959.6	966.7	978.8
17.5°	993.9	996.9	993.9	991.9	988.9	990.9	992.9	994.9	1003.0	1014.1	1021.1
20°	1055.4	1060.4	1058.4	1050.4	1037.3	1031.2	1038.3	1042.3	1058.4	1071.5	1072.5
22.5°	1153.2	1150.2	1147.1	1133.0	1106.8	1090.7	1091.7	1097.7	1122.9	1143.1	1133.0
25°	1243.9	1246.9	1246.9	1226.8	1192.5	1159.2	1162.3	1165.3	1190.5	1208.6	1181.4
27.5°	1353.8	1351.8	1350.8	1323.5	1282.2	1250.0	1232.8	1240.9	1259.0	1266.1	1213.7
30°	1467.7	1475.8	1467.7	1429.4	1390.1	1348.7	1314.5	1312.5	1321.5	1320.5	1252.0
32.5°	1604.8	1597.7	1594.7	1550.3	1501.0	1446.5	1403.2	1396.1	1391.1	1384.0	1297.3
35°	1710.6	1719.7	1719.7	1681.4	1622.9	1569.5	1502.0	1495.9	1483.8	1460.6	1356.8
37.5°	1835.6	1833.6	1840.7	1796.3	1737.8	1686.4	1623.9	1606.8	1579.6	1545.3	1427.4
40°	1957.6	1962.6	1978.8	1925.3	1871.9	1831.6	1742.9	1711.6	1670.3	1639.1	1530.2
42.5°	2123.9	2131.0	2137.0	2092.7	2029.2	1992.9	1855.8	1816.5	1793.3	1787.2	1666.3
45°	2325.5	2337.6	2342.7	2302.3	2266.0	2179.4	1997.9	1961.6	1936.4	1962.6	1851.7
47.5°	2519.1	2513.0	2536.2	2535.2	2539.2	2435.4	2202.5	2148.1	2123.9	2190.4	2064.4
50°	2627.9	2637.0	2687.4	2738.8	2810.4	2735.8	2439.4	2385.0	2356.8	2439.4	2314.4
52.5°	2684.4	2696.5	2764.0	2908.2	3060.4	3025.1	2724.7	2664.2	2640.0	2720.7	2582.6
55°	2689.4	2696.5	2787.2	3011.0	3250.9	3262.0	3050.3	2992.8	2959.6	3012.0	2874.9
57.5°	2605.8	2584.6	2740.8	3026.1	3372.9	3508.9	3408.1	3366.8	3273.1	3329.5	3237.8
60°	2456.6	2477.7	2631.0	2963.6	3424.3	3701.5	3767.0	3704.5	3595.6	3618.8	3628.9
62.5°	2230.8	2258.0	2417.3	2818.4	3382.9	3864.8	4098.6	4067.4	3921.2	3909.1	3927.3
65°	1909.2	1893.1	2070.5	2500.9	3187.4	3919.2	4424.2	4411.1	4236.7	4094.6	4101.7
67.5°	1377.0	1361.8	1485.8	1930.4	2658.2	3716.6	4597.6	4626.8	4427.3	4176.3	4067.4
68°	1250.0	1228.8	1352.8	1784.2	2522.1	3599.7	4588.5	4638.9	4441.4	4171.2	4025.1
70°	719.7	685.5	805.4	1164.3	1856.8	3030.1	4403.1	4542.2	4408.1	4073.4	3747.8
72.5°	225.8	225.8	311.5	470.7	911.3	1917.3	3767.0	4003.9	4032.1	3702.5	3114.8
75°	141.1	141.1	162.3	222.8	362.9	813.5	2598.7	2959.6	3203.5	3116.8	2271.1
77.5°	95.8	93.7	107.9	138.1	202.6	261.1	1304.4	1602.8	1959.6	2127.9	1328.6
80°	52.4	53.4	66.5	82.7	114.9	121.0	383.1	541.3	862.9	1011.1	504.0
82.5°	30.2	29.2	32.3	36.3	50.4	52.4	109.9	135.1	225.8	209.7	135.1
85°	0.0	1.0	1.0	1.0	2.0	5.0	14.1	21.2	34.3	47.4	33.3
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0
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°	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9	866.9
2.5°	867.9	870.9	876.0	880.0	882.0	880.0	887.1	886.1	888.1	888.1	890.1
5°	877.0	881.0	890.1	895.1	900.2	902.2	910.2	912.3	916.3	918.3	917.3
7.5°	890.1	895.1	906.2	915.3	922.3	927.4	940.5	946.5	952.6	954.6	956.6
10°	914.3	921.3	933.4	944.5	954.6	961.7	972.7	980.8	986.9	988.9	990.9
12.5°	946.5	954.6	969.7	984.8	995.9	1000.0	999.0	996.9	996.9	995.9	996.9
15°	983.8	991.9	1011.1	1025.2	1026.2	1013.1	994.9	985.9	983.8	983.8	984.8
17.5°	1027.2	1037.3	1049.4	1057.4	1038.3	1006.0	984.8	975.8	973.8	972.7	970.7
20°	1076.6	1082.6	1086.7	1076.6	1034.2	996.9	972.7	959.6	949.6	948.6	944.5
22.5°	1129.0	1127.0	1121.9	1085.6	1023.1	975.8	942.5	918.3	905.2	904.2	900.2
25°	1167.3	1159.2	1144.1	1087.7	1003.0	941.5	894.1	855.8	838.7	830.6	832.6
27.5°	1192.5	1175.4	1149.2	1077.6	967.7	889.1	822.6	772.1	746.9	742.9	745.9
30°	1222.7	1195.5	1153.2	1052.4	917.3	815.5	728.8	678.4	664.3	657.2	659.3
32.5°	1259.0	1223.7	1166.3	1014.1	853.8	729.8	636.1	600.8	584.7	571.6	575.6
35°	1306.4	1262.1	1187.5	959.6	773.2	639.1	569.5	537.3	508.0	493.9	494.9
37.5°	1361.8	1311.4	1205.6	896.1	685.5	570.5	512.1	473.8	437.5	410.3	405.2
40°	1450.6	1409.2	1220.7	825.6	601.8	514.1	455.6	412.3	378.0	350.8	347.8
42.5°	1598.7	1527.2	1221.7	740.9	530.2	465.7	409.3	361.9	323.6	300.4	299.4
45°	1773.1	1662.2	1200.6	650.2	467.7	417.3	367.9	314.5	292.3	277.2	275.2
47.5°	1979.8	1817.5	1154.2	565.5	414.3	369.9	325.6	293.3	277.2	266.1	266.1
50°	2215.6	1999.9	1107.8	492.9	362.9	331.6	301.4	284.3	272.2	262.1	261.1
52.5°	2481.8	2215.6	1092.7	419.3	320.6	296.4	293.3	277.2	267.1	260.1	258.1
55°	2799.3	2457.6	1106.8	361.9	287.3	282.2	288.3	275.2	268.1	257.0	254.0
57.5°	3166.2	2693.5	1091.7	313.5	264.1	269.1	282.2	275.2	269.1	255.0	251.0
60°	3512.0	2904.1	988.9	273.2	241.9	253.0	274.2	266.1	257.0	254.0	252.0
62.5°	3697.4	2972.7	788.3	241.9	224.8	236.9	261.1	251.0	245.0	252.0	253.0
65°	3699.5	2895.1	579.6	218.7	210.7	222.8	248.0	245.0	249.0	265.1	268.1
67.5°	3493.8	2659.2	409.3	197.6	196.6	211.7	254.0	274.2	277.2	293.3	293.3
68°	3423.3	2600.7	380.0	194.5	193.5	211.7	259.1	279.2	281.2	296.4	295.4
70°	3036.2	2198.5	275.2	182.5	188.5	226.8	286.3	293.3	281.2	298.4	297.4
72.5°	2372.9	1625.9	205.6	169.3	179.4	223.8	288.3	281.2	263.1	267.1	262.1
75°	1603.8	1036.3	169.3	155.2	159.3	189.5	262.1	265.1	243.9	239.9	233.9
77.5°	839.7	485.9	137.1	138.1	142.1	164.3	233.9	240.9	221.8	209.7	207.7
80°	309.5	192.5	111.9	122.0	124.0	144.1	200.6	211.7	193.5	184.5	182.5
82.5°	112.9	95.8	92.7	106.9	104.8	123.0	175.4	183.5	164.3	155.2	150.2
85°	31.2	35.3	58.5	83.7	81.7	95.8	141.1	148.2	132.1	108.9	105.8
87.5°	2.0	7.1	23.2	49.4	51.4	59.5	101.8	111.9	97.8	80.6	79.6
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)