

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: P401880

Luminaire Tested: **ENT-SA1F-740-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401880
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-740-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7785 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - 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

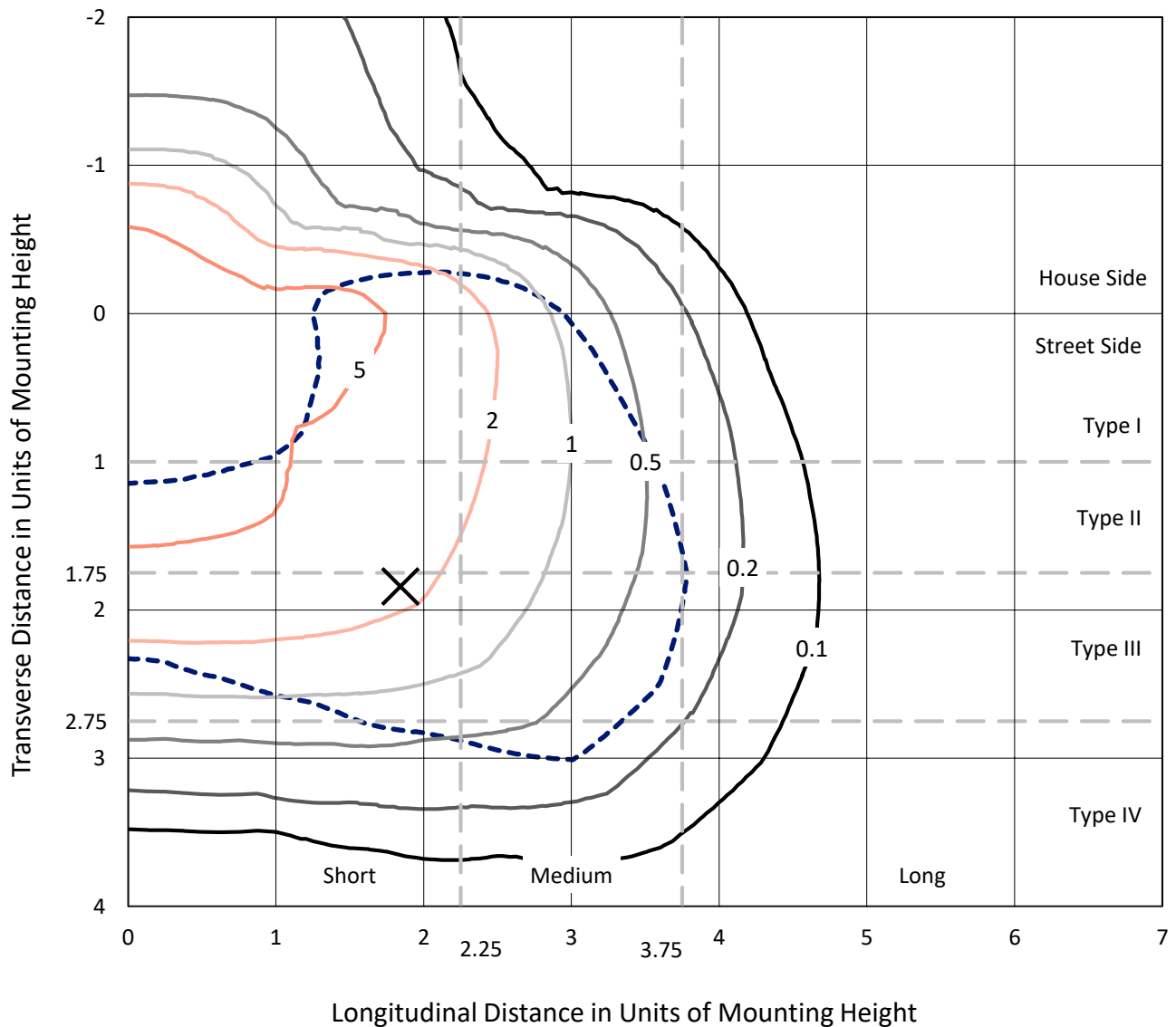


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

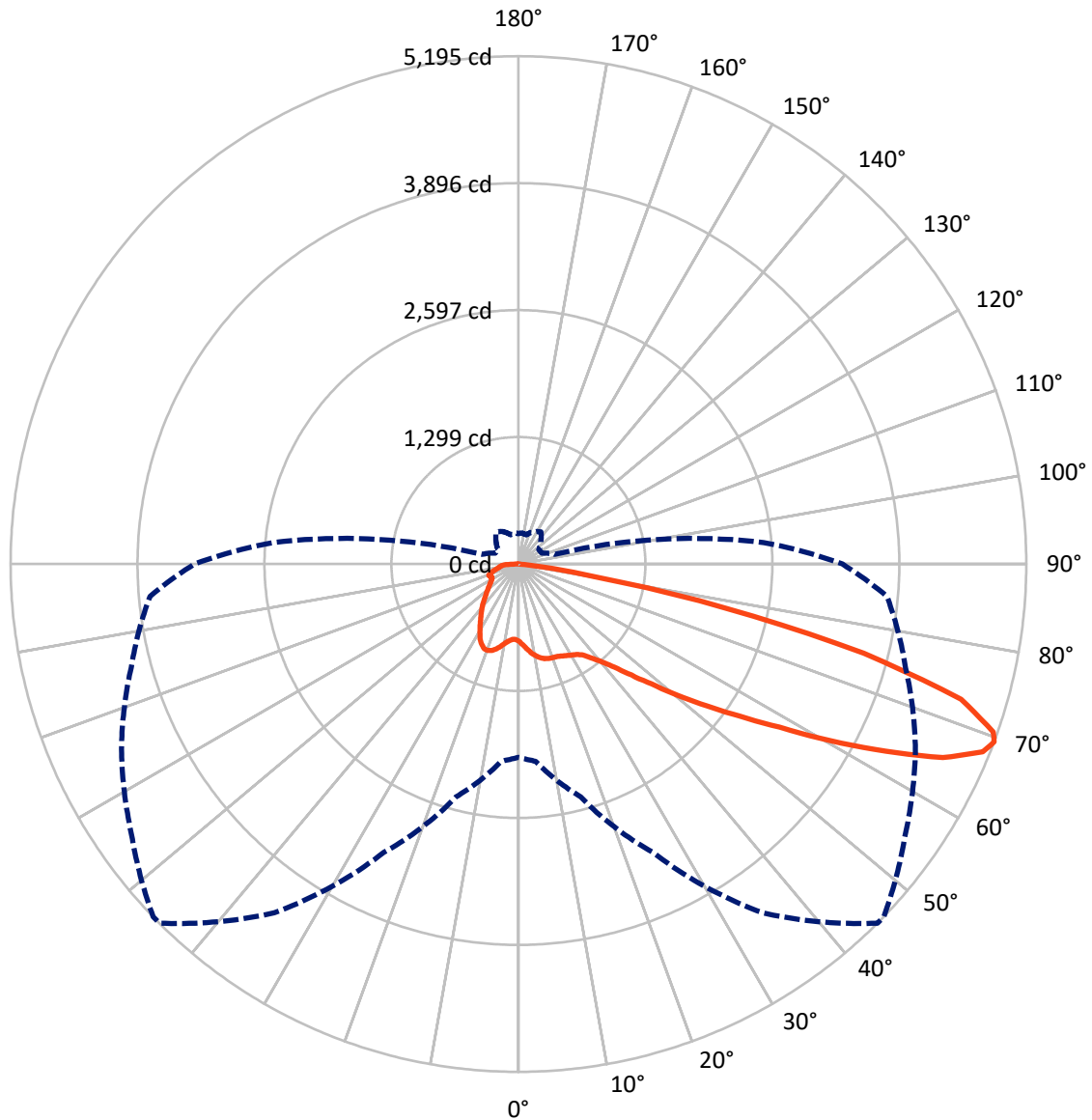


Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type IV - Short - Semi-Cutoff

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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
House Side	Lumens	1832.9	0.0	1832.9
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	5952.1	0.0	5952.1
	% Fixture	76.5	0.0	76.5
Total	Lumens	7785.0	0.0	7785.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.5	1.0
10°-20°	266.8	3.4
20°-30°	450.8	5.8
30°-40°	652.3	8.4
40°-50°	985.0	12.7
50°-60°	1660.8	21.3
60°-70°	2284.8	29.3
70°-80°	1266.1	16.3
80°-90°	137.8	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°	7785.0	100.0
0°-180°	7785.0	100.0

Coefficient of Utilization



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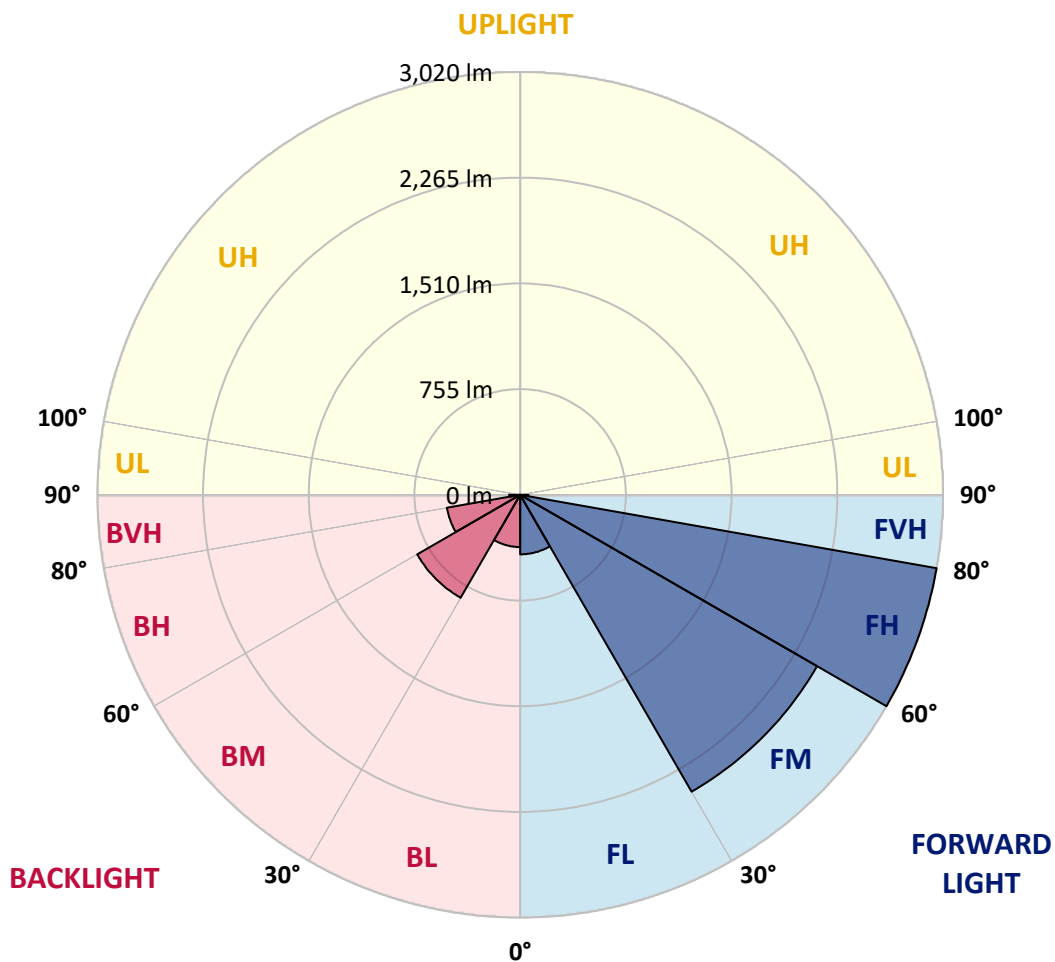
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	424.9	5.5			
FM	(30°-60°)	2448.5	31.5			
FH	(60°-80°)	3019.7	38.8			G2/5000
FVH	(80°-90°)	59.0	0.8			G1/100
BL	(0°-30°)	373.2	4.8	B1/500		
BM	(30°-60°)	849.6	10.9	B1/1000		
BH	(60°-80°)	531.2	6.8	B2/1000		G2/1000
BVH	(80°-90°)	78.8	1.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2
2.5°	840.0	838.9	840.0	835.6	831.1	824.5	822.3	814.5	809.0	801.3	794.6
5°	902.0	905.3	904.2	898.7	880.9	867.7	867.7	851.1	833.4	816.8	801.3
7.5°	969.5	969.5	962.8	951.8	934.1	914.1	911.9	889.8	864.3	841.1	816.8
10°	1018.2	1020.4	1010.4	994.9	972.8	951.8	949.6	924.1	899.8	869.9	840.0
12.5°	1052.5	1052.5	1043.6	1029.2	1002.7	982.8	980.6	957.3	931.9	900.9	866.6
15°	1070.2	1068.0	1060.2	1044.7	1021.5	1004.9	1001.6	981.7	960.6	929.6	893.1
17.5°	1066.9	1066.9	1060.2	1044.7	1028.1	1014.9	1012.6	998.3	982.8	952.9	916.4
20°	1052.5	1051.4	1049.2	1037.0	1025.9	1020.4	1018.2	1011.5	1001.6	976.1	941.8
22.5°	1039.2	1038.1	1034.8	1027.0	1022.6	1025.9	1025.9	1024.8	1023.7	1003.8	970.6
25°	1047.0	1045.8	1039.2	1028.1	1027.0	1042.5	1043.6	1047.0	1049.2	1032.6	998.3
27.5°	1101.2	1097.9	1079.0	1050.3	1040.3	1060.2	1062.4	1072.4	1070.2	1052.5	1022.6
30°	1207.4	1208.5	1166.5	1104.5	1071.3	1080.2	1081.3	1092.3	1089.0	1074.6	1050.3
32.5°	1367.9	1367.9	1299.3	1205.2	1121.1	1103.4	1100.1	1110.0	1123.3	1104.5	1080.2
35°	1571.5	1566.0	1483.0	1338.0	1206.3	1143.2	1141.0	1136.6	1159.8	1142.1	1106.7
37.5°	1776.3	1756.4	1675.6	1516.2	1325.8	1220.7	1211.9	1198.6	1211.9	1174.2	1143.2
40°	1941.2	1937.9	1871.5	1709.9	1467.5	1314.8	1308.1	1249.5	1258.3	1228.5	1216.3
42.5°	2122.7	2124.9	2080.6	1917.9	1636.8	1442.1	1424.3	1333.6	1359.0	1348.0	1342.4
45°	2321.9	2319.7	2286.5	2116.0	1843.8	1619.1	1597.0	1485.2	1537.2	1530.6	1561.6
47.5°	2474.6	2486.8	2468.0	2347.3	2089.5	1833.8	1817.2	1681.1	1759.7	1812.8	1871.5
50°	2682.7	2681.6	2630.7	2580.9	2375.0	2108.3	2091.7	1940.1	2053.0	2130.4	2237.8
52.5°	2940.5	2931.7	2826.6	2808.8	2722.5	2408.2	2393.8	2235.6	2397.1	2464.7	2682.7
55°	3102.1	3101.0	3046.8	3077.8	3080.0	2742.4	2724.7	2584.2	2766.8	2844.3	3174.1
57.5°	3237.1	3238.3	3283.6	3392.1	3465.1	3148.6	3142.0	2970.4	3155.2	3263.7	3653.3
60°	3341.2	3363.3	3490.6	3738.5	3860.2	3666.6	3637.8	3456.3	3580.2	3623.4	4019.6
62.5°	3299.1	3327.9	3578.0	3943.2	4256.4	4215.5	4205.5	3943.2	3942.1	3920.0	4293.0
65°	2967.1	3029.1	3423.1	3935.5	4517.6	4773.3	4758.9	4402.5	4278.6	4167.9	4374.9
67.5°	2428.1	2441.4	2916.2	3634.5	4515.4	5124.1	5108.6	4736.7	4487.7	4216.6	4134.7
69°	1976.6	2025.3	2464.7	3253.7	4356.0	5194.9	5194.9	4829.7	4480.0	4100.4	3782.8
70°	1709.9	1712.1	2136.0	2950.5	4139.1	5152.9	5162.8	4829.7	4416.9	3948.8	3470.7
72.5°	801.3	851.1	1118.9	1925.7	3343.4	4736.7	4761.1	4511.0	4050.6	3402.0	2604.1
75°	240.2	249.0	373.0	913.0	1915.7	3648.8	3703.1	3752.9	3299.1	2504.5	1603.6
77.5°	142.8	141.7	180.4	309.9	886.5	2163.6	2188.0	2400.5	2140.4	1392.2	728.2
80°	69.7	71.9	96.3	150.5	332.0	785.8	864.3	1122.2	948.5	544.5	266.7
82.5°	23.2	25.5	39.8	60.9	140.6	253.4	280.0	351.9	303.2	198.1	114.0
85°	0.0	0.0	1.1	2.2	7.7	18.8	18.8	42.1	63.1	69.7	37.6
87.5°	0.0	0.0	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	3.3
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°	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2	790.2
2.5°	791.3	789.1	784.7	780.2	778.0	772.5	773.6	771.4	770.3	770.3	771.4
5°	793.5	790.2	783.6	779.1	774.7	772.5	778.0	780.2	782.4	782.4	783.6
7.5°	806.8	800.2	792.4	786.9	788.0	791.3	800.2	806.8	810.1	812.3	814.5
10°	828.9	821.2	810.1	809.0	811.2	820.1	832.3	842.2	851.1	856.6	856.6
12.5°	852.2	842.2	833.4	835.6	845.5	858.8	871.0	882.1	889.8	895.3	896.4
15°	877.6	867.7	858.8	864.3	880.9	896.4	907.5	911.9	915.3	920.8	921.9
17.5°	900.9	892.0	884.3	898.7	913.0	925.2	928.5	926.3	921.9	925.2	927.4
20°	925.2	917.5	913.0	928.5	938.5	939.6	930.7	920.8	909.7	909.7	910.8
22.5°	955.1	945.1	942.9	950.7	947.3	934.1	911.9	896.4	880.9	878.7	882.1
25°	983.9	973.9	972.8	967.3	938.5	904.2	874.3	856.6	844.4	845.5	852.2
27.5°	1012.6	1006.0	1007.1	977.2	913.0	861.0	821.2	806.8	810.1	812.3	819.0
30°	1041.4	1041.4	1045.8	977.2	877.6	800.2	762.5	761.4	770.3	776.9	784.7
32.5°	1074.6	1084.6	1076.8	965.1	830.0	738.2	708.3	710.5	720.5	731.5	738.2
35°	1106.7	1130.0	1107.8	937.4	764.7	681.7	657.4	654.1	661.8	671.8	675.1
37.5°	1157.6	1195.3	1134.4	894.2	697.2	631.9	607.6	598.7	591.0	598.7	597.6
40°	1246.2	1291.5	1154.3	822.3	631.9	585.5	560.0	543.4	524.6	508.0	508.0
42.5°	1387.8	1417.7	1165.4	734.9	566.6	539.0	513.5	489.2	460.4	430.5	430.5
45°	1619.1	1625.8	1169.8	641.9	506.9	492.5	465.9	442.7	405.1	375.2	368.5
47.5°	1927.9	1899.1	1180.9	552.3	454.9	451.5	429.4	402.8	361.9	334.2	330.9
50°	2342.9	2219.0	1229.6	480.3	412.8	416.1	399.5	368.5	329.8	309.9	305.5
52.5°	2810.0	2622.9	1267.2	422.8	376.3	386.2	374.1	344.2	311.0	294.4	291.1
55°	3320.2	3011.4	1258.3	384.0	348.6	359.7	355.3	329.8	299.9	285.5	282.2
57.5°	3736.3	3284.7	1180.9	349.7	320.9	336.4	340.9	320.9	293.3	280.0	276.7
60°	4048.4	3434.1	1021.5	320.9	298.8	317.6	329.8	315.4	292.2	284.4	281.1
62.5°	4190.0	3420.9	814.5	298.8	282.2	304.3	330.9	324.3	308.8	314.3	315.4
65°	4110.3	3253.7	610.9	282.2	272.3	306.6	349.7	349.7	326.5	336.4	337.5
67.5°	3702.0	2816.6	444.9	270.0	262.3	317.6	385.1	363.0	318.7	326.5	323.2
69°	3313.5	2520.0	381.8	263.4	254.5	323.2	400.6	365.2	309.9	318.7	309.9
70°	3028.0	2252.2	343.1	257.9	251.2	323.2	405.1	363.0	305.5	312.1	302.1
72.5°	2154.8	1563.8	282.2	246.8	239.1	298.8	397.3	350.8	293.3	285.5	266.7
75°	1252.8	864.3	240.2	234.6	211.4	262.3	377.4	337.5	281.1	266.7	253.4
77.5°	525.7	386.2	204.7	213.6	187.0	233.5	353.0	324.3	266.7	246.8	240.2
80°	213.6	192.6	170.4	184.8	162.7	205.8	325.4	302.1	245.7	225.8	215.8
82.5°	111.8	106.2	130.6	149.4	135.0	189.2	306.6	286.6	228.0	208.1	195.9
85°	33.2	44.3	74.2	101.8	102.9	170.4	297.7	265.6	198.1	171.5	169.3
87.5°	2.2	8.9	25.5	53.1	67.5	130.6	241.3	218.0	160.5	135.0	136.1
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)