

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: STREETWORKS

Report Number: P190977

Luminaire Tested: **GAN-AF-09-LED-U-AFL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P190977  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-AF-09-LED-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55846 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B4 - U0 - G4

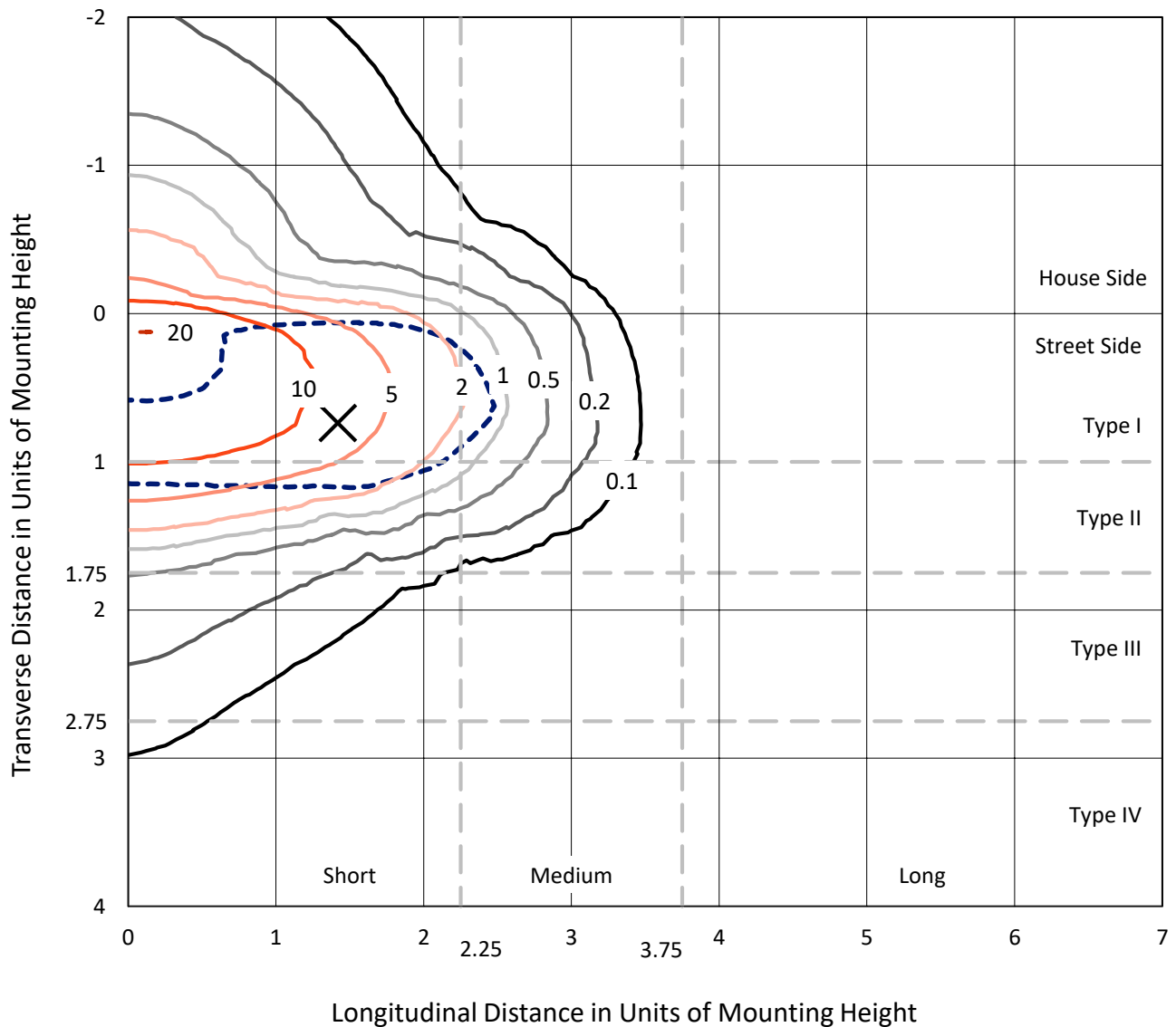
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

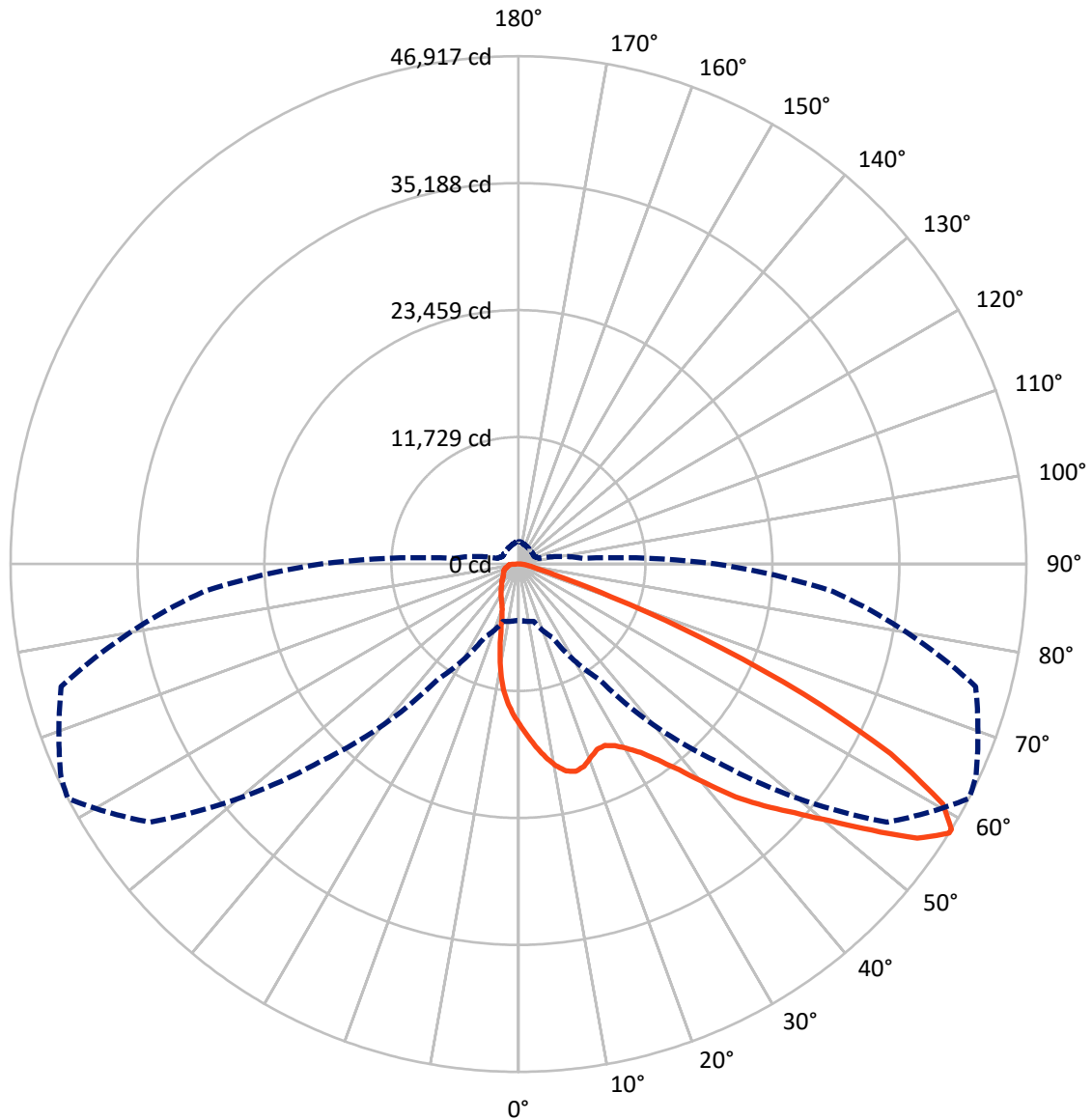


Based on 30 foot mounting height. Maximum calculated value = 20.1 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral      - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8516.7	0.0	8516.7
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	47329.2	0.0	47329.2
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	55846.0	0.0	55846.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1326.7	2.4
10°-20°	3391.3	6.1
20°-30°	5482.1	9.8
30°-40°	8702.8	15.6
40°-50°	12734.1	22.8
50°-60°	13318.8	23.8
60°-70°	7868.7	14.1
70°-80°	2216.7	4.0
80°-90°	804.8	1.4
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°	55846.0	100.0
0°-180°	55846.0	100.0

**Coefficient of Utilization**



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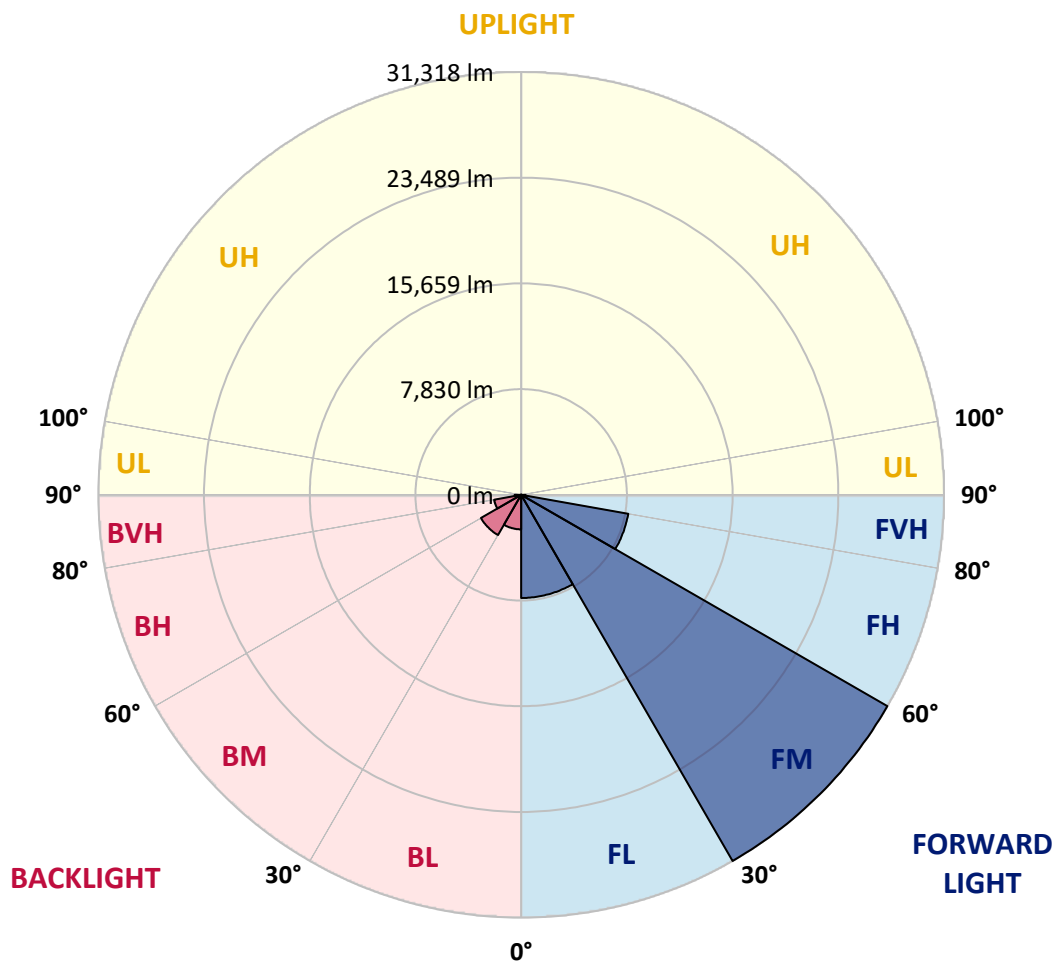
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7640.4	13.7			
FM	(30°-60°)	31318.1	56.1			
FH	(60°-80°)	8053.2	14.4			G4/12000
FVH	(80°-90°)	317.5	0.6			G3/500
BL	(0°-30°)	2559.7	4.6	B4/5000		
BM	(30°-60°)	3437.6	6.2	B3/5000		
BH	(60°-80°)	2032.2	3.6	B3/2500		G3/2500
BVH	(80°-90°)	487.3	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3
2.5°	16951.3	16814.5	16727.7	16651.5	16551.5	16338.6	16051.9	15870.5	15778.4	15465.5	15094.7
5°	18613.3	18492.3	18402.9	18300.3	18121.5	17787.6	17324.7	16956.5	16775.1	16149.2	15407.6
7.5°	18224.1	18274.0	18429.2	18700.1	18931.4	18886.7	18473.9	18005.8	17766.5	16896.1	15770.5
10°	15878.3	15965.1	16233.3	16867.1	17892.7	18944.6	19265.4	18942.0	18700.1	17635.1	16143.9
12.5°	15407.6	15405.0	15426.0	15594.4	16204.5	17685.0	19291.7	19617.8	19473.2	18339.8	16525.3
15°	15599.6	15604.8	15589.1	15660.0	15849.4	16435.9	18487.1	19878.2	19980.7	19049.8	16919.7
17.5°	16104.5	16091.3	16030.9	16030.9	16099.2	16328.0	17540.3	19636.3	20109.6	19678.3	17266.8
20°	16951.3	16890.8	16730.4	16583.2	16509.5	16633.1	17151.1	19078.7	19886.1	20227.9	17553.5
22.5°	17976.8	17929.6	17669.2	17353.6	17098.5	17096.0	17351.0	18592.2	19499.5	20746.0	17795.5
25°	19302.3	19226.0	18839.4	18334.6	17887.4	17716.5	17787.6	18568.6	19289.1	21308.8	18011.1
27.5°	20859.1	20719.7	20262.1	19533.7	18876.2	18531.8	18429.2	18997.2	19481.1	22005.6	18310.8
30°	22747.3	22586.8	22000.4	21051.0	20122.8	19557.4	19339.1	19757.2	20117.5	22855.1	18792.1
32.5°	24895.8	24664.3	23985.8	22939.2	21719.0	20856.4	20501.5	20761.8	21048.4	23878.0	19394.3
35°	27864.7	27588.6	26607.7	25164.0	23786.0	22600.0	22031.9	22221.3	22500.0	25403.2	20264.8
37.5°	29889.6	29766.0	29113.8	27756.8	26257.9	24893.1	24014.8	24125.2	24283.0	27309.8	21379.8
40°	29871.2	29921.1	29934.3	29947.4	28927.1	27620.1	26676.0	26560.3	26528.8	29403.1	22647.3
42.5°	28374.8	28580.0	29242.7	30586.4	31207.1	30607.5	29742.3	29408.3	29242.7	31869.7	23991.1
45°	26084.3	26194.8	27436.1	30060.5	32374.7	33566.0	32911.2	31859.3	31559.5	34136.6	25106.1
47.5°	24903.6	25024.5	25805.6	28666.8	32361.6	35956.4	36335.1	34331.3	33794.7	36108.9	26068.6
50°	22092.4	22344.8	23328.4	26242.2	31180.8	37055.6	39914.1	37276.5	36166.7	38028.6	27033.7
52.5°	16930.2	17319.5	18421.3	22255.4	28185.5	36511.3	42778.0	40847.7	39280.4	40016.7	27862.0
55°	10679.4	10968.6	11894.3	15717.9	22547.4	33679.0	43864.0	44710.7	43317.1	41899.6	28580.0
57.5°	5806.5	5935.3	6282.5	8678.1	14666.0	27417.6	42280.9	46909.3	46330.7	43498.4	29121.7
58°	5196.4	5283.1	5498.8	7521.0	13006.7	25705.6	41578.8	46917.1	46627.8	43732.5	29163.8
60°	3855.2	3810.5	3618.5	4291.7	7239.6	17758.6	37334.3	45039.5	45888.9	44019.1	28958.6
62.5°	3387.1	3279.3	2887.5	2842.8	3521.2	8181.2	28566.8	38580.9	40587.3	42383.4	27712.1
65°	3182.0	3066.3	2561.4	2398.3	2540.3	3460.7	16827.6	28935.0	31451.6	37423.7	24524.9
67.5°	3029.5	2879.6	2353.6	2130.1	2140.6	2287.8	6745.2	18224.1	21056.3	28414.3	19076.1
70°	2882.2	2719.1	2177.5	1919.7	1859.2	1809.3	2682.4	9122.6	11691.8	17948.0	12162.6
72.5°	2724.4	2564.0	2022.3	1754.1	1635.7	1470.0	1751.4	3731.6	5212.1	8491.4	5517.2
75°	2495.6	2350.9	1867.1	1606.7	1438.5	1217.6	1322.8	1948.6	2337.9	3381.9	2658.6
77.5°	2214.3	2095.9	1693.6	1485.8	1275.4	988.8	1017.7	1351.7	1498.9	1935.5	1580.5
80°	1591.0	1633.0	1506.8	1335.9	1136.1	802.1	781.0	986.1	1065.0	1243.9	1028.3
82.5°	1117.7	1141.3	1246.5	1091.4	938.9	631.2	575.9	694.3	741.5	817.8	554.8
85°	770.5	744.2	854.7	760.0	678.4	420.7	394.4	470.8	499.6	507.6	286.6
87.5°	462.8	462.8	494.4	407.6	365.5	218.3	213.0	268.2	286.6	273.5	157.7
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°	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3	14834.3
2.5°	14873.8	14687.1	14290.0	13971.8	13569.4	13151.3	12917.3	12667.4	12496.5	12372.9	12570.1
5°	14986.8	14605.6	13785.1	13006.7	12146.7	11252.7	10574.1	9943.1	9503.8	9230.4	9488.1
7.5°	15165.7	14579.3	13272.3	11941.6	10398.0	8909.6	7578.9	6745.2	6258.8	6019.5	6169.3
10°	15370.8	14537.2	12670.1	10497.9	8289.0	6413.9	5419.9	5083.2	4972.9	4928.2	4949.1
12.5°	15541.7	14447.7	11931.1	8751.8	6224.6	5064.8	4778.2	4770.3	4794.1	4799.3	4807.2
15°	15662.7	14316.3	10834.5	6932.0	4978.1	4615.1	4599.4	4646.8	4691.5	4709.9	4720.4
17.5°	15744.2	14045.4	9595.9	5480.4	4460.1	4396.9	4433.8	4494.2	4541.6	4554.7	4565.2
20°	15736.4	13648.3	8120.6	4570.4	4178.7	4178.7	4241.8	4289.1	4291.7	4275.9	4283.8
22.5°	15654.8	13104.0	6690.1	4086.6	3928.8	3973.6	4036.7	3992.0	3807.8	3686.9	3694.8
25°	15518.1	12454.4	5464.6	3778.9	3697.5	3776.3	3757.9	3421.3	3158.4	3040.0	3040.0
27.5°	15397.1	11686.5	4523.2	3510.7	3466.0	3563.2	3237.2	2932.2	2821.7	2766.5	2748.1
30°	15310.3	10858.2	3894.7	3253.0	3247.8	3176.7	2808.5	2724.4	2706.0	2661.3	2645.6
32.5°	15331.4	10019.3	3492.3	3026.8	3045.2	2719.1	2603.4	2621.8	2606.1	2558.7	2537.7
35°	15505.0	9222.5	3229.4	2821.7	2766.5	2456.2	2482.5	2516.7	2511.4	2445.7	2424.6
37.5°	15815.2	8467.8	3055.8	2650.8	2414.1	2324.7	2366.8	2419.4	2406.2	2361.5	2345.7
40°	16141.3	7757.8	2913.8	2516.7	2206.3	2235.2	2272.1	2301.0	2314.1	2327.3	2316.8
42.5°	16459.5	7016.1	2740.2	2379.9	2119.6	2151.2	2166.9	2195.9	2266.9	2316.8	2314.1
45°	16648.8	6319.3	2561.4	2185.3	2051.2	2069.6	2059.1	2116.9	2203.7	2285.3	2287.8
47.5°	16859.3	5777.5	2419.4	2006.5	1985.4	1998.6	1967.0	2024.9	2103.8	2203.7	2214.3
50°	17114.3	5454.1	2306.2	1864.5	1896.0	1896.0	1888.2	1940.7	2051.2	2166.9	2188.0
52.5°	17403.6	5391.0	2211.6	1761.9	1806.6	1804.0	1811.9	1890.8	2011.7	2124.9	2143.2
55°	17756.0	5561.9	2109.0	1685.6	1719.9	1730.3	1756.7	1846.1	1948.6	2077.5	2085.4
57.5°	18166.2	5909.0	2027.5	1625.2	1640.9	1675.2	1717.2	1798.8	1909.2	2051.2	2059.1
58°	18234.6	5982.6	2014.4	1619.9	1625.2	1664.6	1711.9	1790.9	1901.3	2056.4	2064.3
60°	18237.3	6227.2	1985.4	1596.2	1564.7	1630.5	1683.1	1761.9	1888.2	2074.9	2093.3
62.5°	17590.3	6224.6	1964.4	1562.0	1501.6	1583.1	1643.6	1735.6	1875.0	2119.6	2156.4
65°	15489.1	5656.6	1864.5	1509.5	1451.6	1541.1	1609.4	1717.2	1911.8	2314.1	2337.9
67.5°	12115.2	4636.2	1677.7	1435.8	1385.9	1498.9	1588.3	1714.6	1951.3	2358.8	2374.7
70°	8010.2	3468.6	1472.6	1351.7	1317.5	1449.0	1598.9	1804.0	1906.6	2264.2	2222.2
72.5°	4157.6	2435.1	1307.0	1246.5	1238.6	1404.3	1751.4	1793.4	1861.9	2130.1	2077.5
75°	2182.7	1690.9	1162.4	1130.8	1144.0	1393.8	2067.0	1746.2	1804.0	2038.0	2138.0
77.5°	1335.9	1364.8	1038.7	1025.6	1051.9	1362.2	2064.3	1685.6	1719.9	1875.0	1985.4
80°	894.2	1107.1	944.1	946.7	965.2	1246.5	1854.0	1591.0	1617.3	1772.5	1885.5
82.5°	565.4	654.8	857.3	902.0	878.3	1028.3	1575.2	1449.0	1485.8	2027.5	2143.2
85°	286.6	410.2	744.2	867.8	791.6	720.6	1278.1	1270.2	1288.6	1462.1	1527.9
87.5°	131.4	226.2	581.1	757.4	597.0	449.7	928.3	941.4	1015.1	1038.7	1038.7
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)