

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: P234783

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8696 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

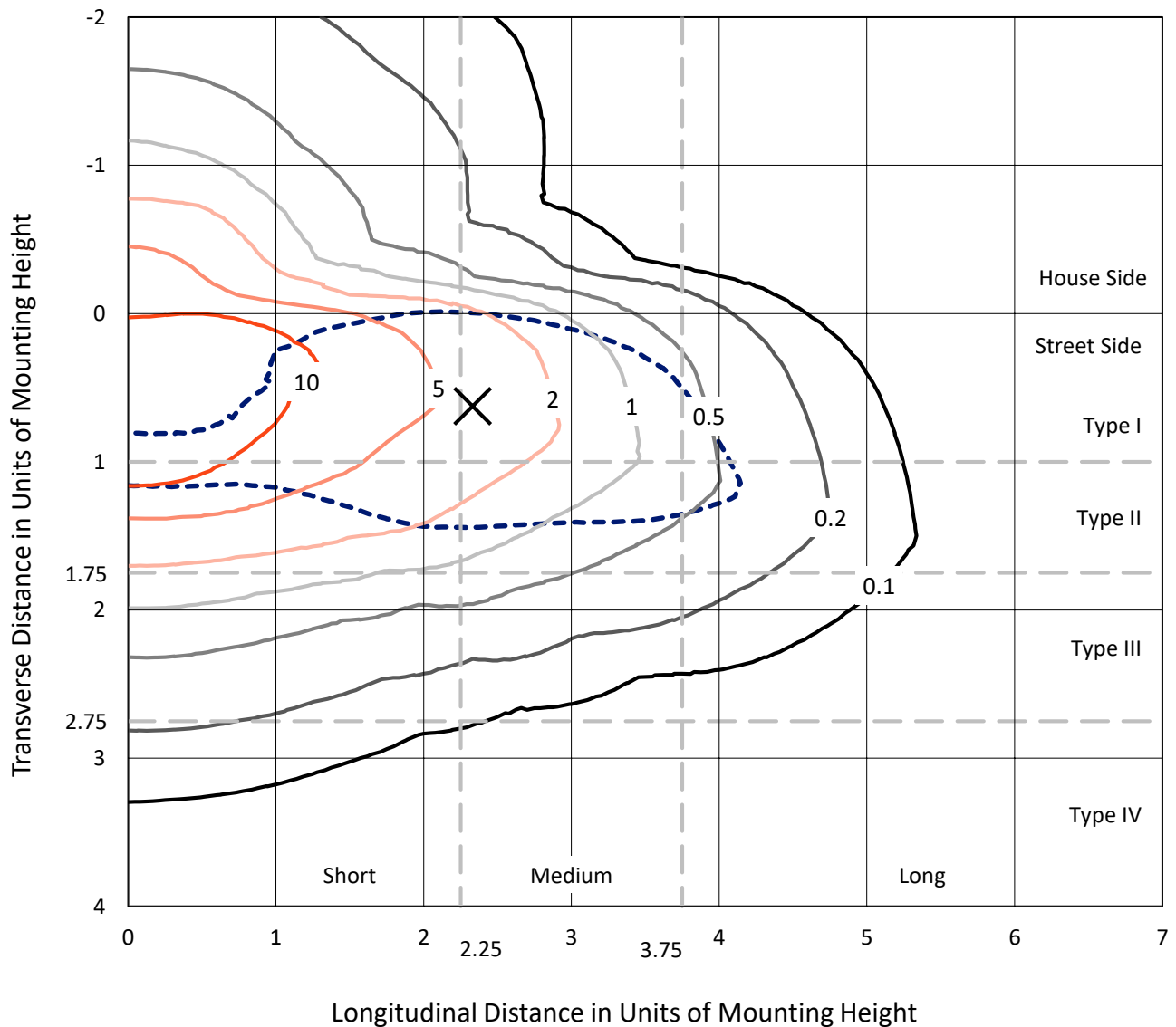
Input Watts (W): 83
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

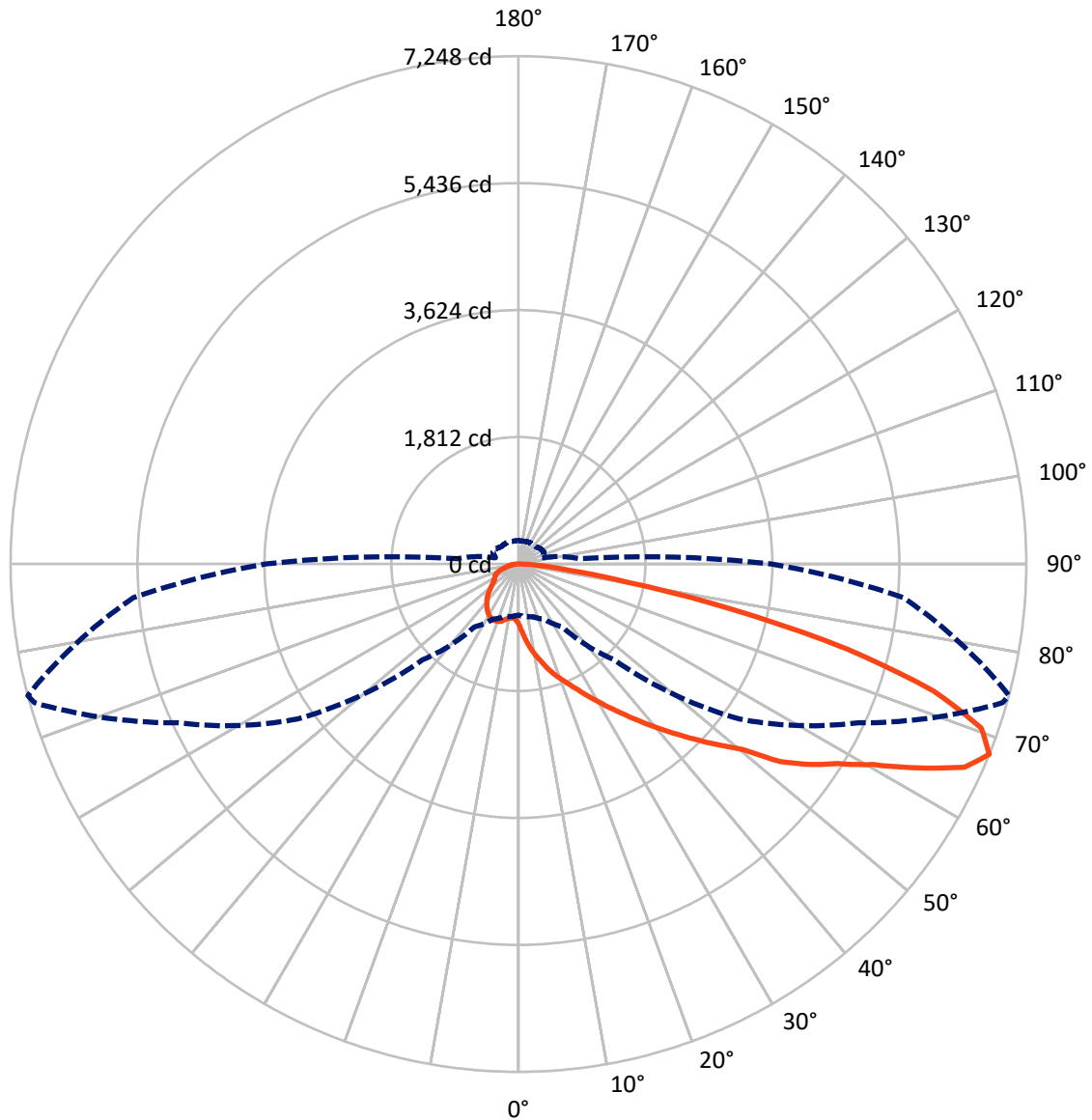
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1485.0	0.0	1485.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	7211.0	0.0	7211.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	8696.0	0.0	8696.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.2
10°-20°	365.8	4.2
20°-30°	667.3	7.7
30°-40°	1095.2	12.6
40°-50°	1583.9	18.2
50°-60°	1866.6	21.5
60°-70°	1813.9	20.9
70°-80°	1008.3	11.6
80°-90°	193.9	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°	8696.0	100.0
0°-180°	8696.0	100.0



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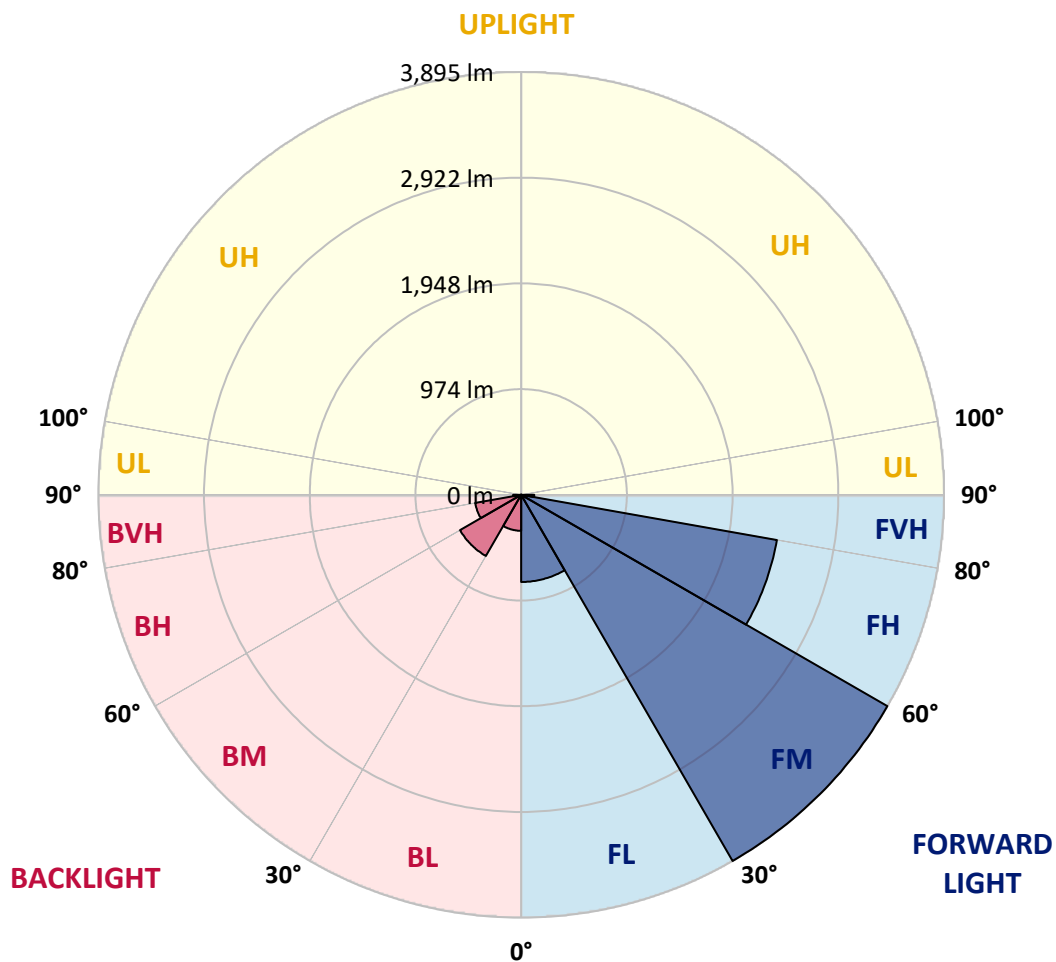
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	802.9	9.2			
FM (30°-60°)	3895.3	44.8			
FH (60°-80°)	2392.2	27.5			G2/5000
FVH (80°-90°)	120.7	1.4			G2/225
BL (0°-30°)	331.4	3.8	B1/500		
BM (30°-60°)	650.3	7.5	B1/1000		
BH (60°-80°)	430.0	4.9	B1/500		G1/500
BVH (80°-90°)	73.2	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7
2.5°	1221.6	1225.3	1218.0	1201.6	1178.0	1134.4	1096.2	1028.9	968.9	961.7	898.0
5°	1436.1	1439.8	1430.7	1410.7	1385.2	1338.0	1285.3	1198.0	1101.7	1083.5	948.9
7.5°	1583.4	1585.2	1574.3	1554.3	1534.3	1487.0	1434.3	1336.2	1218.0	1203.5	1014.4
10°	1708.8	1712.5	1697.9	1685.2	1663.4	1616.1	1561.6	1458.0	1336.2	1316.2	1081.7
12.5°	1825.2	1828.8	1819.7	1808.8	1801.5	1757.9	1697.9	1574.3	1443.4	1421.6	1161.6
15°	1903.3	1907.0	1908.8	1923.3	1932.4	1901.5	1841.5	1707.0	1559.8	1539.8	1256.2
17.5°	1881.5	1890.6	1917.9	1970.6	2027.0	2028.8	1979.7	1837.9	1674.3	1652.5	1352.5
20°	1817.9	1825.2	1857.9	1937.9	2048.8	2112.4	2108.8	1970.6	1781.5	1757.9	1441.6
22.5°	1870.6	1879.7	1879.7	1928.8	2037.9	2156.0	2203.3	2101.5	1888.8	1867.0	1530.7
25°	2096.0	2101.5	2063.3	2043.3	2083.3	2192.4	2281.5	2243.3	2019.7	1994.2	1627.0
27.5°	2410.5	2401.5	2354.2	2274.2	2230.6	2259.7	2350.6	2377.8	2170.6	2139.7	1727.0
30°	2723.2	2717.8	2663.2	2556.0	2457.8	2396.0	2426.9	2497.8	2334.2	2297.8	1823.4
32.5°	3015.9	3006.8	2946.8	2821.4	2710.5	2596.0	2536.0	2606.9	2508.7	2466.9	1930.6
35°	3285.0	3261.3	3201.3	3070.4	2955.9	2846.8	2699.6	2710.5	2697.8	2654.1	2048.8
37.5°	3503.1	3484.9	3419.5	3297.7	3175.9	3072.3	2917.7	2828.7	2901.4	2859.6	2185.1
40°	3695.8	3675.8	3608.5	3486.7	3374.0	3275.9	3154.1	2972.3	3130.4	3083.2	2337.8
42.5°	3841.2	3826.7	3772.2	3652.2	3543.1	3454.0	3394.0	3154.1	3368.6	3323.1	2505.1
45°	3919.4	3904.9	3875.8	3779.4	3679.4	3610.4	3615.8	3370.4	3617.6	3579.5	2703.2
47.5°	3823.1	3834.0	3859.4	3841.2	3779.4	3746.7	3814.0	3594.0	3895.8	3859.4	2917.7
50°	3564.9	3575.8	3677.6	3803.1	3824.9	3864.9	3992.1	3852.1	4190.3	4161.2	3183.2
52.5°	2930.5	2990.5	3272.2	3572.2	3777.6	3943.0	4190.3	4235.7	4686.6	4686.6	3652.2
55°	2214.2	2266.9	2588.7	3112.3	3594.0	3950.3	4335.7	4495.7	5044.7	5052.0	3897.6
57.5°	1794.3	1827.0	1985.2	2521.4	3208.6	3859.4	4508.4	4719.3	5342.8	5375.6	4213.9
60°	1456.1	1474.3	1577.9	1950.6	2676.0	3614.0	4632.0	5039.2	5768.2	5813.7	4617.5
62.5°	1170.7	1188.9	1258.0	1481.6	2099.7	3154.1	4610.2	5371.9	6335.4	6409.9	5146.5
65°	934.4	954.4	999.8	1138.0	1556.1	2583.2	4386.6	5542.8	6922.6	6995.3	5497.4
67.5°	729.0	747.2	778.1	869.0	1096.2	1932.4	3857.6	5362.8	7186.2	7248.0	5515.5
70°	550.8	559.9	585.4	643.5	783.5	1283.4	3019.5	4759.3	6949.9	7006.2	5152.0
72.5°	427.2	425.4	439.9	469.0	547.2	883.5	2001.5	3870.3	6144.5	6202.7	4395.7
75°	349.0	347.2	356.3	365.4	396.3	592.6	1181.6	2914.1	4959.3	4848.4	3297.7
77.5°	294.5	292.7	301.8	303.6	316.3	409.0	672.6	1917.9	3308.6	3117.7	1857.9
80°	249.1	247.2	258.1	261.8	270.9	300.0	387.2	1038.0	1661.6	1574.3	887.1
82.5°	187.2	194.5	214.5	223.6	234.5	221.8	240.0	458.1	770.8	736.3	385.4
85°	90.9	107.3	161.8	180.0	192.7	140.0	163.6	216.3	347.2	330.9	156.3
87.5°	30.9	27.3	96.3	114.5	125.4	63.6	90.9	120.0	143.6	130.9	49.1
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°	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7	861.7
2.5°	870.8	843.5	803.5	772.6	752.6	736.3	729.0	727.2	723.5	721.7	721.7
5°	889.0	839.9	778.1	745.3	736.3	729.0	732.6	734.4	734.4	734.4	734.4
7.5°	916.2	847.1	772.6	750.8	749.0	749.0	759.9	765.3	769.0	769.0	769.0
10°	952.6	859.9	781.7	763.5	769.0	772.6	785.3	792.6	796.2	798.1	799.9
12.5°	1001.7	887.1	799.9	785.3	792.6	794.4	803.5	807.2	810.8	812.6	812.6
15°	1067.1	927.1	829.0	810.8	812.6	810.8	810.8	807.2	805.3	805.3	809.0
17.5°	1134.4	965.3	854.4	829.0	821.7	807.2	796.2	787.2	781.7	778.1	779.9
20°	1201.6	999.8	869.0	832.6	812.6	789.0	769.0	756.2	749.0	741.7	745.3
22.5°	1268.9	1032.6	874.4	821.7	792.6	758.1	736.3	716.3	699.9	689.0	690.8
25°	1343.4	1068.9	874.4	809.0	765.3	729.0	701.7	669.0	645.4	636.3	639.9
27.5°	1418.0	1099.8	865.3	785.3	734.4	698.1	658.1	619.9	605.4	599.9	601.7
30°	1492.5	1123.5	845.3	756.2	701.7	661.7	609.0	583.5	565.4	550.8	552.6
32.5°	1567.0	1139.8	818.1	719.9	667.2	616.3	572.6	543.6	510.8	492.7	494.5
35°	1652.5	1152.6	785.3	683.5	629.0	576.3	543.6	496.3	461.7	447.2	443.6
37.5°	1741.6	1161.6	750.8	643.5	590.8	547.2	514.5	456.3	423.6	403.6	401.8
40°	1837.9	1165.3	709.0	601.7	554.5	529.0	476.3	432.7	376.3	363.6	363.6
42.5°	1952.4	1163.5	667.2	559.9	514.5	487.2	449.0	429.0	379.9	367.2	359.9
45°	2083.3	1163.5	621.7	510.8	474.5	434.5	418.1	405.4	372.7	378.1	381.8
47.5°	2232.4	1159.8	567.2	470.8	441.8	407.2	398.1	370.9	358.1	361.8	365.4
50°	2437.8	1165.3	518.1	438.1	418.1	389.0	378.1	363.6	358.1	359.9	358.1
52.5°	2723.2	1147.1	470.8	418.1	399.9	361.8	361.8	359.9	361.8	359.9	359.9
55°	2879.6	1107.1	436.3	407.2	387.2	349.0	356.3	359.9	363.6	361.8	361.8
57.5°	3101.4	1079.8	409.0	399.9	379.9	345.4	352.7	359.9	361.8	359.9	359.9
60°	3363.1	1061.7	390.9	401.8	374.5	345.4	354.5	359.9	358.1	356.3	356.3
62.5°	3666.7	1054.4	378.1	407.2	369.0	347.2	354.5	359.9	352.7	350.9	350.9
65°	3781.2	988.9	361.8	410.8	372.7	347.2	352.7	354.5	345.4	343.6	341.8
67.5°	3604.9	876.2	338.1	403.6	383.6	347.2	347.2	345.4	334.5	332.7	329.0
70°	3210.4	727.2	301.8	379.9	390.9	349.0	339.9	330.9	320.0	320.0	312.7
72.5°	2628.7	572.6	254.5	338.1	385.4	354.5	325.4	312.7	300.0	300.0	292.7
75°	1894.3	427.2	203.6	281.8	361.8	352.7	307.2	290.9	276.3	274.5	265.4
77.5°	1079.8	300.0	165.4	220.0	321.8	343.6	290.9	265.4	249.1	243.6	238.1
80°	554.5	201.8	134.5	172.7	267.2	318.1	278.1	236.3	218.1	209.1	200.0
82.5°	263.6	134.5	103.6	127.3	201.8	278.1	261.8	203.6	183.6	172.7	161.8
85°	118.2	80.0	69.1	81.8	143.6	216.3	230.9	167.2	143.6	180.0	132.7
87.5°	38.2	36.4	36.4	38.2	69.1	94.5	169.1	123.6	114.5	94.5	80.0
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)