

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: P231168

Luminaire Tested: **ARCH-M-AF48-60-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-60-D-U-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8925.2 lumens
Efficiency: N/A
Efficacy: 141.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 63
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

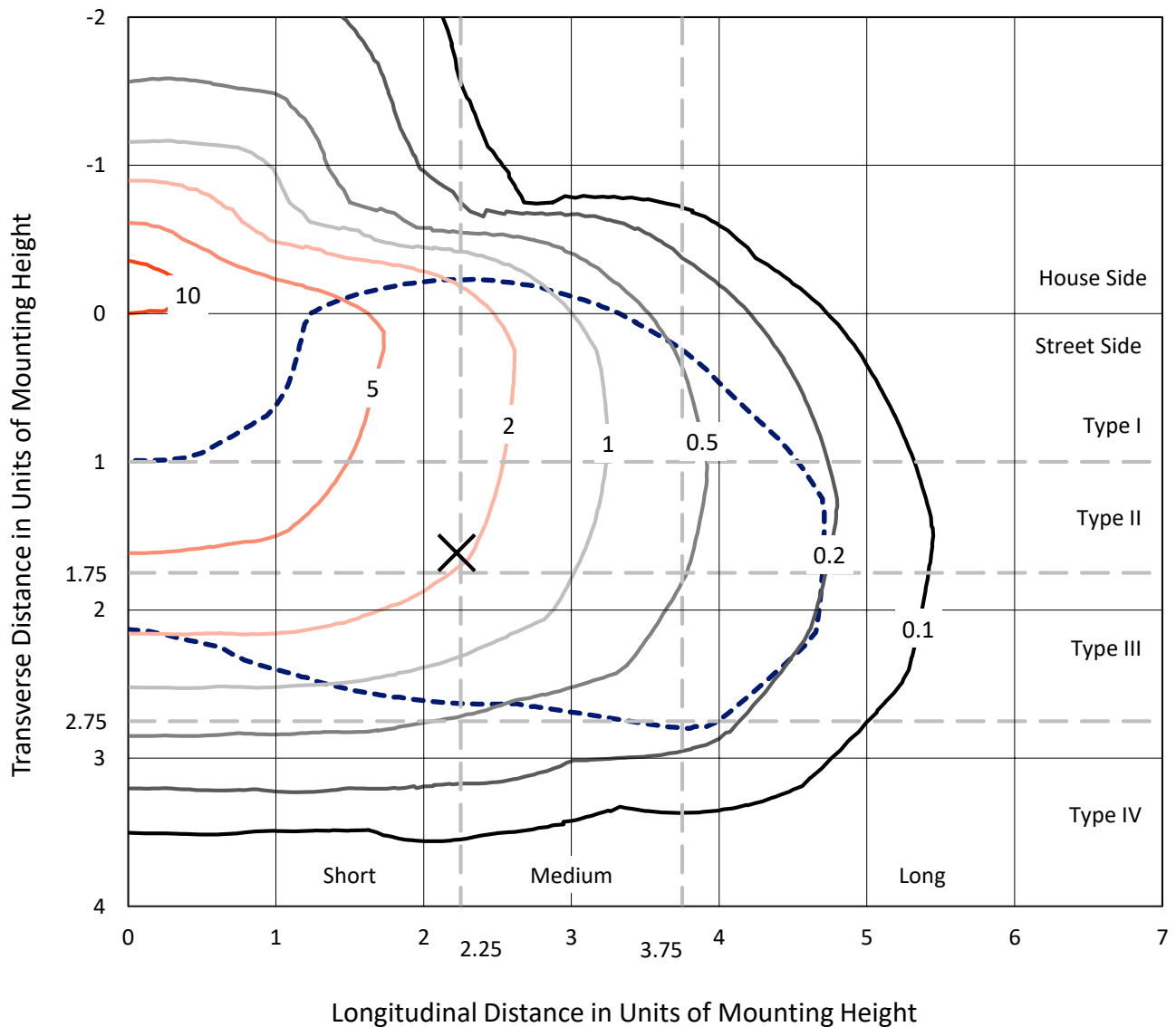


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

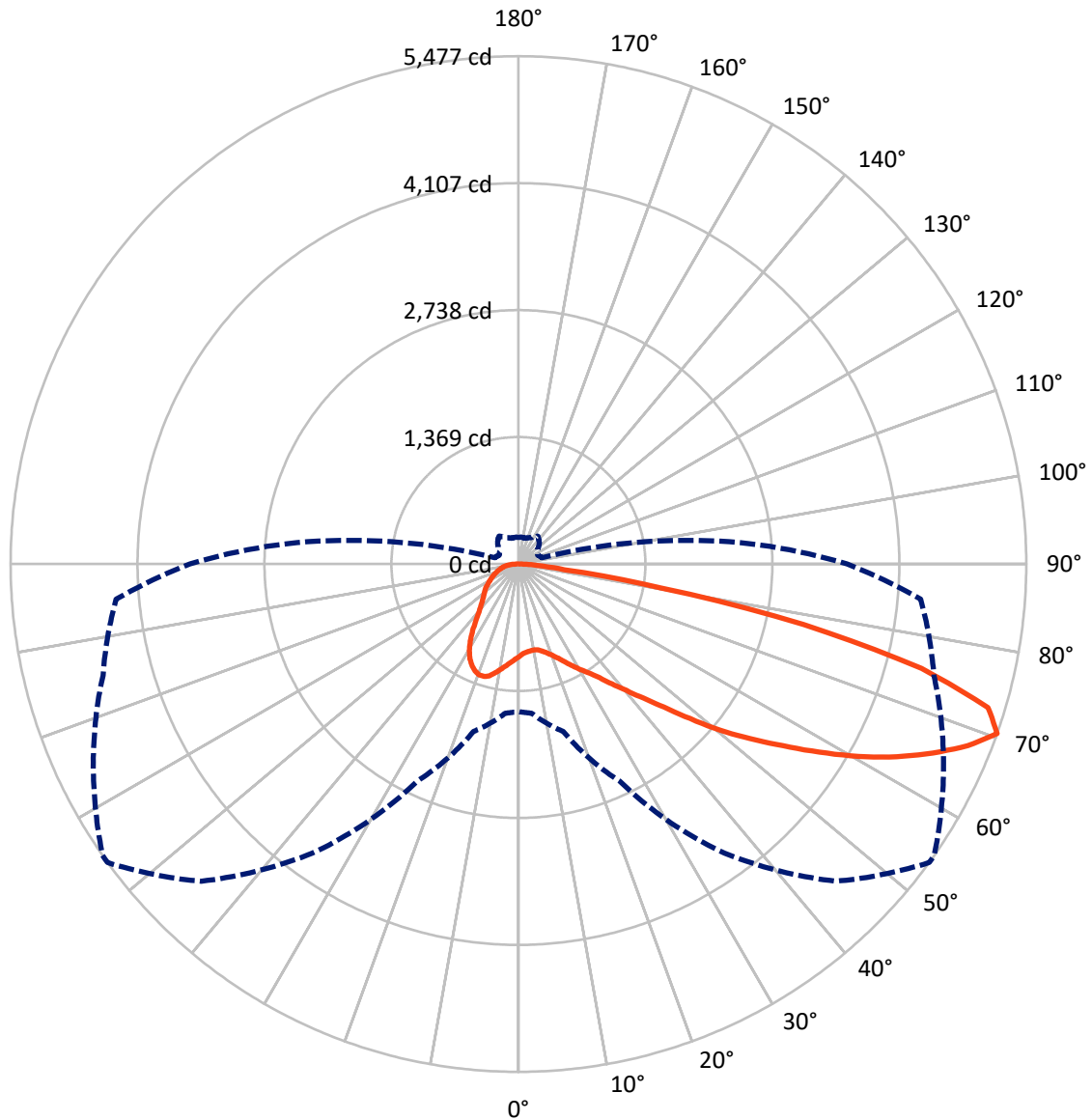


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2024.2	0.0	2024.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	6901.0	0.0	6901.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	8925.2	0.0	8925.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.0	1.1
10°-20°	313.1	3.5
20°-30°	544.0	6.1
30°-40°	795.0	8.9
40°-50°	1247.7	14.0
50°-60°	1918.7	21.5
60°-70°	2344.2	26.3
70°-80°	1453.4	16.3
80°-90°	211.1	2.4
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°	8925.2	100.0
0°-180°	8925.2	100.0

Coefficient of Utilization



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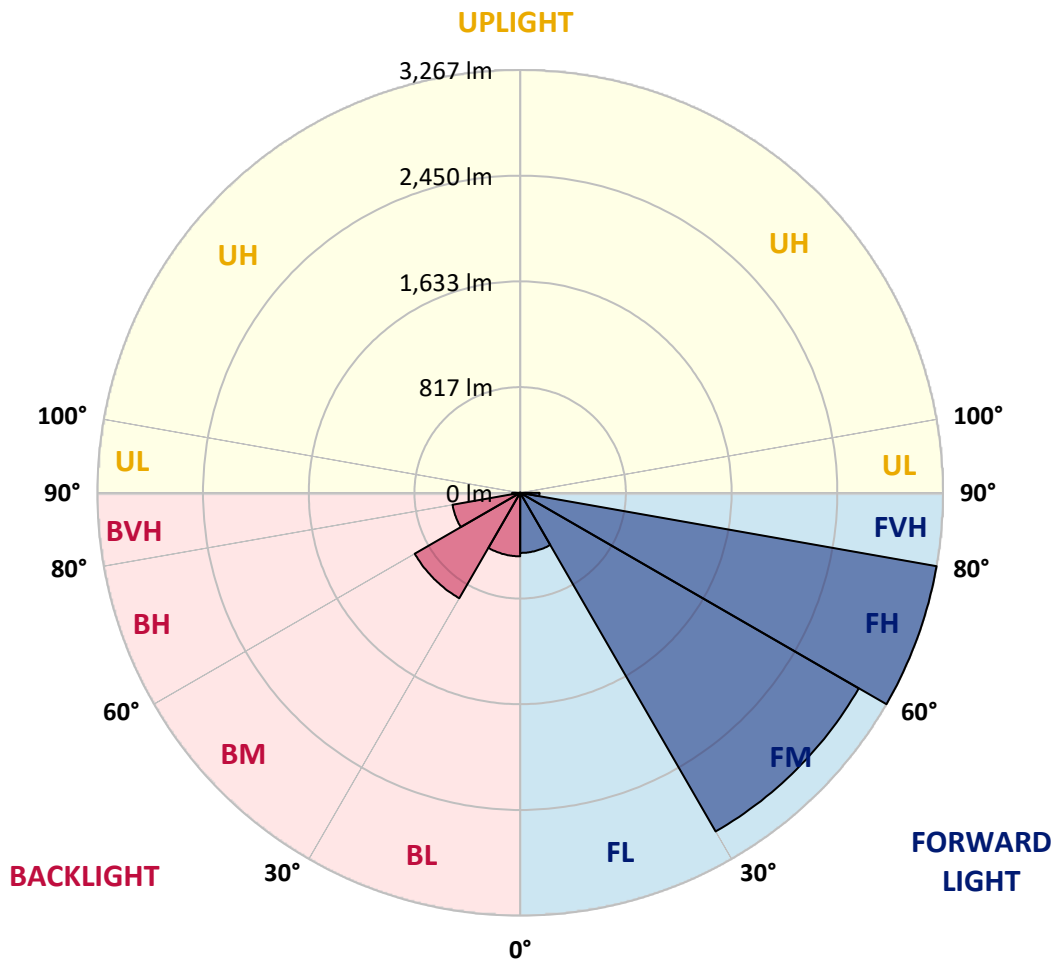
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	464.4	5.2			
FM	(30°-60°)	3020.8	33.8			
FH	(60°-80°)	3266.8	36.6			G2/5000
FVH	(80°-90°)	149.1	1.7			G2/225
BL	(0°-30°)	490.7	5.5	B1/500		
BM	(30°-60°)	940.6	10.5	B1/1000		
BH	(60°-80°)	530.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	62.0	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6
2.5°	959.3	956.0	956.0	961.0	962.6	967.5	967.5	969.1	974.1	982.2	992.1
5°	930.0	928.3	930.0	936.4	939.7	949.5	952.8	954.4	964.2	977.3	992.1
7.5°	900.5	898.9	902.1	912.0	921.8	936.4	944.6	946.2	961.0	979.0	998.6
10°	890.7	889.0	894.0	902.1	912.0	928.3	941.3	943.0	964.2	985.5	1013.2
12.5°	903.8	902.1	907.1	915.2	925.1	936.4	951.1	952.8	980.6	1008.3	1037.8
15°	936.4	936.4	938.0	943.0	952.8	962.6	975.7	977.3	1006.7	1039.4	1068.8
17.5°	987.1	983.9	983.9	982.2	988.8	993.7	1010.0	1011.6	1042.7	1072.1	1101.5
20°	1049.2	1047.6	1041.1	1032.9	1031.2	1034.5	1050.9	1052.5	1083.5	1108.1	1135.9
22.5°	1124.4	1126.1	1111.3	1093.3	1085.1	1090.1	1104.8	1106.4	1129.3	1150.5	1175.1
25°	1224.1	1219.2	1198.0	1171.8	1155.4	1155.4	1170.2	1170.2	1191.4	1204.5	1220.8
27.5°	1318.9	1309.1	1289.4	1251.9	1225.7	1230.6	1245.3	1245.3	1265.0	1269.9	1278.0
30°	1421.8	1412.1	1387.5	1340.2	1305.8	1302.5	1320.5	1318.9	1345.0	1343.4	1336.9
32.5°	1547.7	1542.8	1501.9	1441.4	1395.7	1384.3	1400.6	1402.3	1418.5	1413.6	1392.4
35°	1724.2	1722.5	1685.0	1578.7	1518.3	1497.0	1506.8	1506.8	1518.3	1505.2	1469.3
37.5°	1946.5	1949.7	1917.0	1760.1	1675.2	1639.2	1640.8	1639.2	1642.4	1627.7	1590.2
40°	2168.8	2176.8	2175.2	1985.6	1877.8	1815.7	1792.8	1789.6	1797.7	1791.2	1755.3
42.5°	2461.2	2480.9	2435.1	2263.5	2142.6	2037.9	1975.8	1967.6	1985.6	1993.8	1959.6
45°	2765.2	2758.7	2686.8	2562.6	2453.0	2319.0	2201.4	2188.3	2201.4	2225.9	2189.9
47.5°	2923.8	2918.9	2900.9	2838.8	2822.4	2668.8	2490.7	2479.2	2454.7	2489.0	2446.6
50°	3185.3	3190.2	3116.6	3110.1	3178.7	3093.7	2817.5	2791.4	2747.2	2775.1	2739.1
52.5°	3374.8	3353.5	3307.8	3365.0	3579.1	3533.4	3124.8	3113.4	3072.4	3066.0	3049.6
55°	3451.6	3451.6	3459.8	3592.2	3897.7	3837.3	3458.2	3469.6	3414.0	3368.3	3389.5
57.5°	3474.6	3484.3	3554.5	3773.6	4272.0	4074.3	3825.8	3842.2	3762.1	3670.7	3737.7
60°	3361.7	3391.2	3559.5	3876.6	4482.9	4326.0	4213.2	4218.1	4102.0	3968.0	4085.8
62.5°	3072.4	3108.4	3409.2	3919.0	4448.5	4584.1	4579.3	4590.7	4432.2	4265.5	4412.6
65°	2717.9	2753.8	3074.1	3799.8	4422.4	4768.9	4914.4	4945.4	4741.1	4517.1	4616.9
67.5°	2196.5	2243.8	2547.9	3397.7	4295.0	4920.9	5228.1	5260.8	4979.7	4648.0	4598.9
70°	1591.8	1614.7	1869.6	2582.2	3775.2	4837.5	5476.6	5474.9	5058.2	4638.2	4353.8
72.5°	766.5	784.5	1005.0	1603.3	2699.9	4105.3	5296.7	5327.8	4950.3	4496.0	3793.2
75°	315.4	333.4	406.9	676.6	1416.9	2713.0	4489.4	4563.0	4496.0	4035.0	2967.9
77.5°	196.1	202.6	238.7	349.7	647.2	1266.6	3142.7	3242.4	3562.7	3232.6	1959.6
80°	147.1	152.0	178.1	245.1	408.6	467.4	1560.7	1686.6	2158.9	1854.9	887.4
82.5°	122.5	124.2	142.2	178.1	277.8	268.0	500.1	557.3	1006.7	707.7	305.7
85°	114.4	117.6	127.5	127.5	176.5	168.4	207.6	217.4	292.6	241.8	106.2
87.5°	58.8	55.5	112.7	99.7	91.6	81.7	88.3	94.8	109.5	116.0	47.4
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°	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6	998.6
2.5°	995.3	1000.1	1008.3	1016.5	1026.3	1037.8	1044.3	1052.5	1059.1	1055.8	1054.2
5°	1000.1	1008.3	1026.3	1042.7	1062.3	1085.1	1099.9	1116.2	1129.3	1132.6	1127.7
7.5°	1008.3	1023.1	1047.6	1077.0	1103.2	1132.6	1155.4	1178.3	1194.7	1198.0	1198.0
10°	1028.0	1044.3	1077.0	1116.2	1147.2	1178.3	1204.5	1222.4	1237.2	1243.7	1243.7
12.5°	1055.8	1075.3	1114.6	1162.0	1196.3	1225.7	1240.4	1248.6	1255.2	1261.7	1263.3
15°	1088.4	1109.7	1157.1	1207.7	1243.7	1258.4	1258.4	1256.8	1256.8	1260.1	1263.3
17.5°	1121.2	1144.0	1193.1	1247.0	1269.9	1261.7	1250.3	1245.3	1242.1	1240.4	1245.3
20°	1155.4	1178.3	1227.3	1278.0	1271.5	1237.2	1220.8	1209.3	1199.6	1194.7	1201.3
22.5°	1193.1	1214.2	1265.0	1299.2	1250.3	1198.0	1166.9	1148.9	1132.6	1122.8	1129.3
25°	1237.2	1258.4	1307.4	1305.8	1212.6	1139.1	1090.1	1060.7	1042.7	1032.9	1032.9
27.5°	1289.4	1307.4	1354.8	1289.4	1160.3	1060.7	988.8	961.0	956.0	947.9	947.9
30°	1343.4	1358.1	1399.0	1251.9	1088.4	957.7	879.2	866.1	867.8	859.7	861.3
32.5°	1399.0	1413.6	1425.1	1196.3	995.3	841.7	789.4	779.6	778.0	771.4	764.9
35°	1477.4	1498.6	1428.3	1121.2	882.5	745.2	707.7	697.9	688.0	665.1	665.1
37.5°	1596.7	1619.6	1420.2	1028.0	766.5	670.0	635.8	622.7	606.3	583.5	575.3
40°	1760.1	1760.1	1402.3	923.4	673.3	609.6	576.9	560.6	542.6	519.7	514.9
42.5°	1953.0	1907.2	1374.4	817.1	604.7	568.8	539.3	521.3	500.1	473.9	470.7
45°	2178.5	2054.3	1335.3	722.4	554.0	544.2	526.2	495.2	459.2	431.5	426.6
47.5°	2397.5	2186.7	1297.6	655.3	511.6	534.4	519.7	467.4	418.4	379.1	374.3
50°	2637.8	2304.4	1253.5	599.8	478.8	527.8	511.6	426.6	372.7	344.8	341.6
52.5°	2878.0	2423.7	1206.2	540.9	451.0	514.9	491.9	397.1	371.0	333.4	328.5
55°	3131.4	2562.6	1150.5	475.6	418.4	488.7	465.7	395.5	382.4	333.4	321.9
57.5°	3378.1	2716.2	1060.7	411.8	382.4	449.4	455.9	385.7	357.9	330.1	317.0
60°	3651.0	2879.6	912.0	357.9	351.4	416.8	442.9	364.5	330.1	320.3	313.7
62.5°	3870.0	3026.7	712.6	320.3	325.2	390.6	426.6	351.4	318.6	310.5	308.9
65°	3964.8	3030.0	511.6	287.7	299.1	366.1	410.2	339.9	308.9	305.7	304.0
67.5°	3865.1	2863.2	359.6	256.6	271.3	343.2	388.9	328.5	299.1	300.7	297.5
70°	3543.2	2512.0	263.1	227.2	245.1	318.6	366.1	313.7	287.7	290.9	286.0
72.5°	2964.6	1957.9	210.8	202.6	223.9	292.6	343.2	297.5	269.6	271.3	261.5
75°	2189.9	1297.6	176.5	181.4	199.4	268.0	313.7	276.2	250.0	243.5	237.0
77.5°	1302.5	666.8	145.5	158.6	178.1	238.7	281.1	250.0	228.8	217.4	212.5
80°	537.7	269.6	119.3	134.0	155.3	212.5	248.4	219.0	204.3	192.8	186.3
82.5°	214.1	132.4	94.8	109.5	130.7	184.6	217.4	192.8	178.1	170.0	152.0
85°	81.7	65.4	63.7	76.8	98.1	142.2	179.7	161.8	150.4	129.1	124.2
87.5°	32.7	29.5	29.5	37.5	55.5	89.9	129.1	112.7	117.6	93.2	94.8
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)