

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: P265797

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265797
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-AF48-90-D-U-T2R-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10758 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

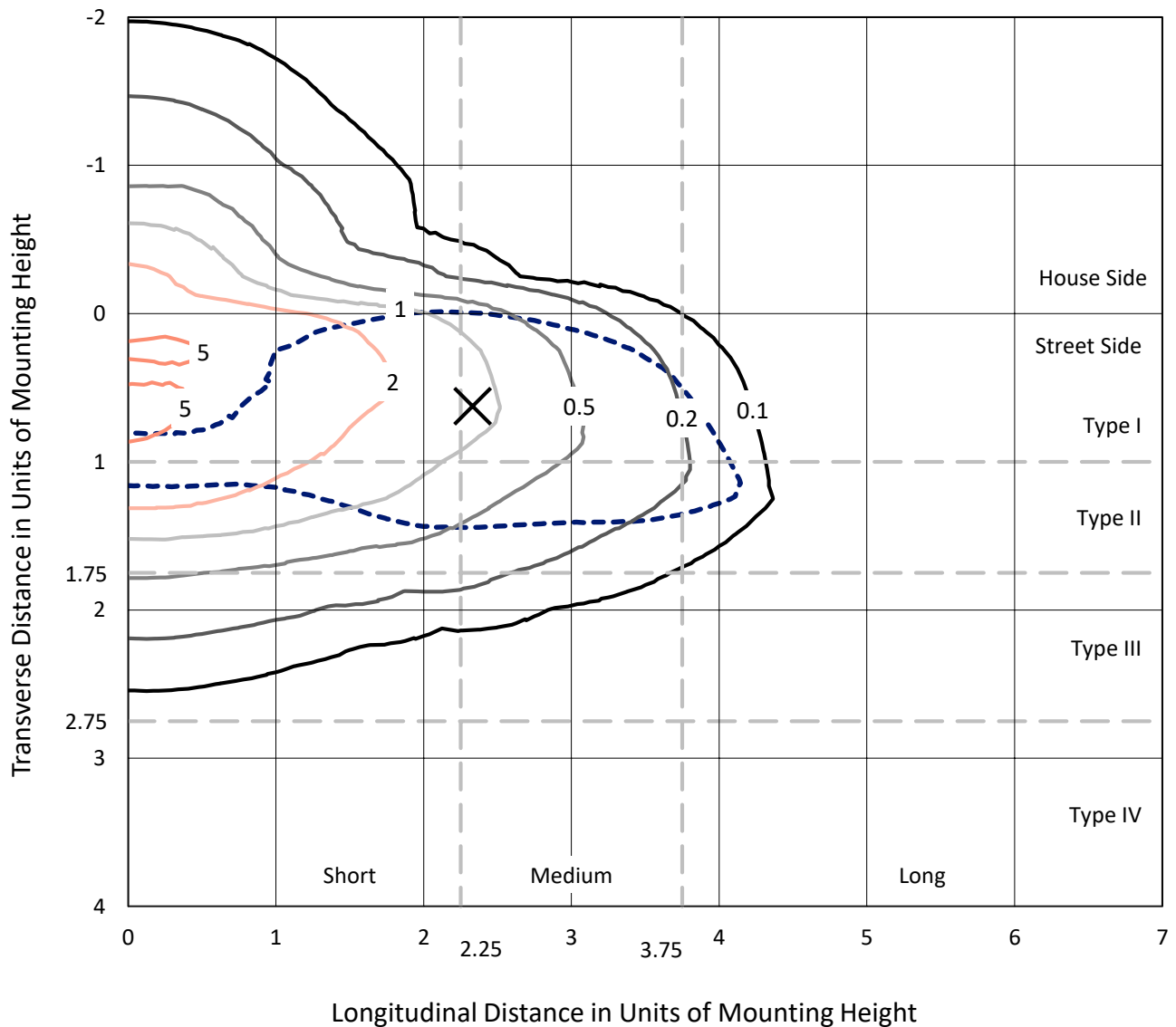
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

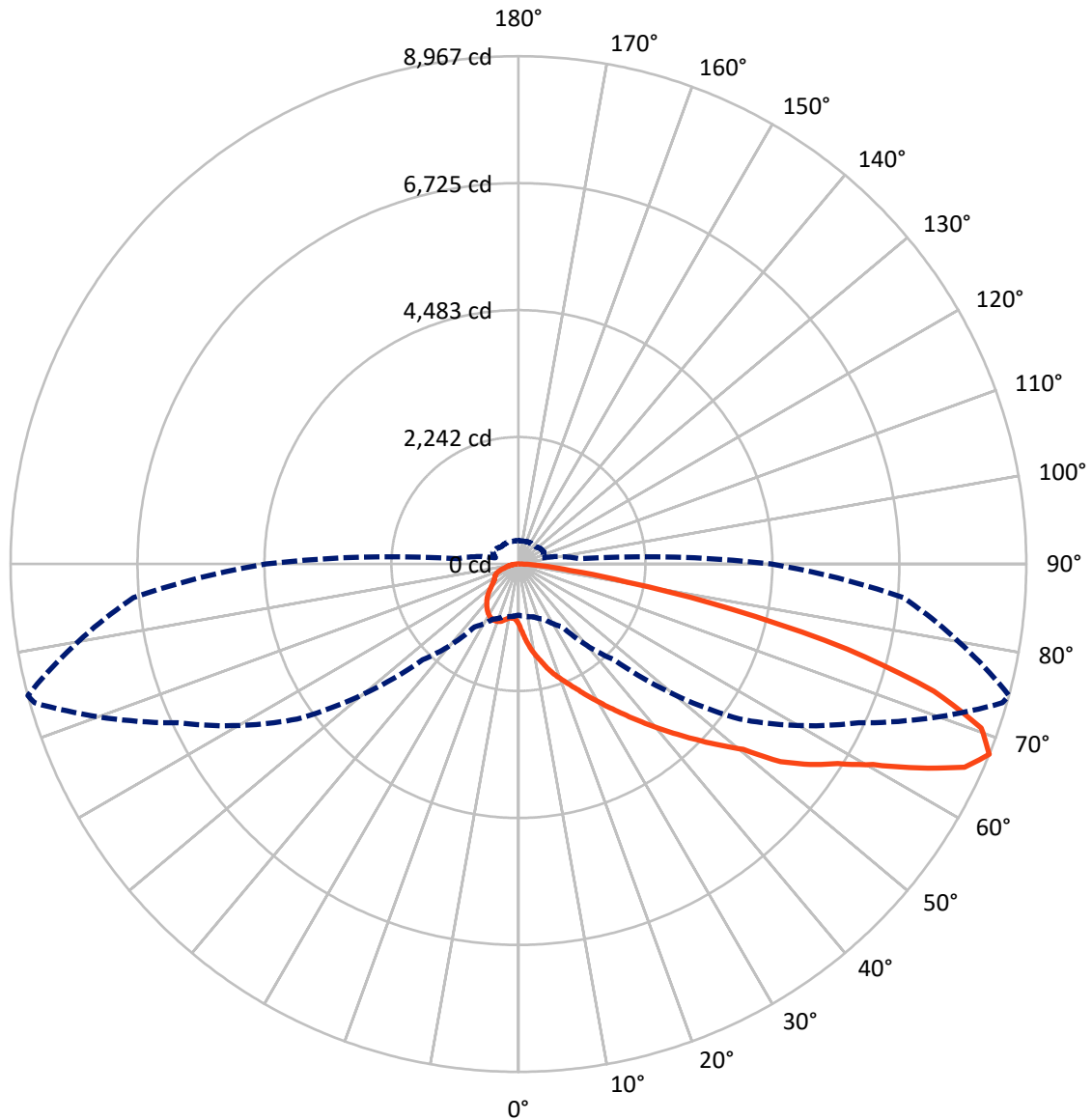
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.6 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	1837.1	0.0	1837.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8921.0	0.0	8921.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	10758.0	0.0	10758.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.2	1.2
10°-20°	452.6	4.2
20°-30°	825.5	7.7
30°-40°	1354.9	12.6
40°-50°	1959.4	18.2
50°-60°	2309.2	21.5
60°-70°	2244.0	20.9
70°-80°	1247.3	11.6
80°-90°	239.8	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°	10758.0	100.0
0°-180°	10758.0	100.0

Coefficient of Utilization



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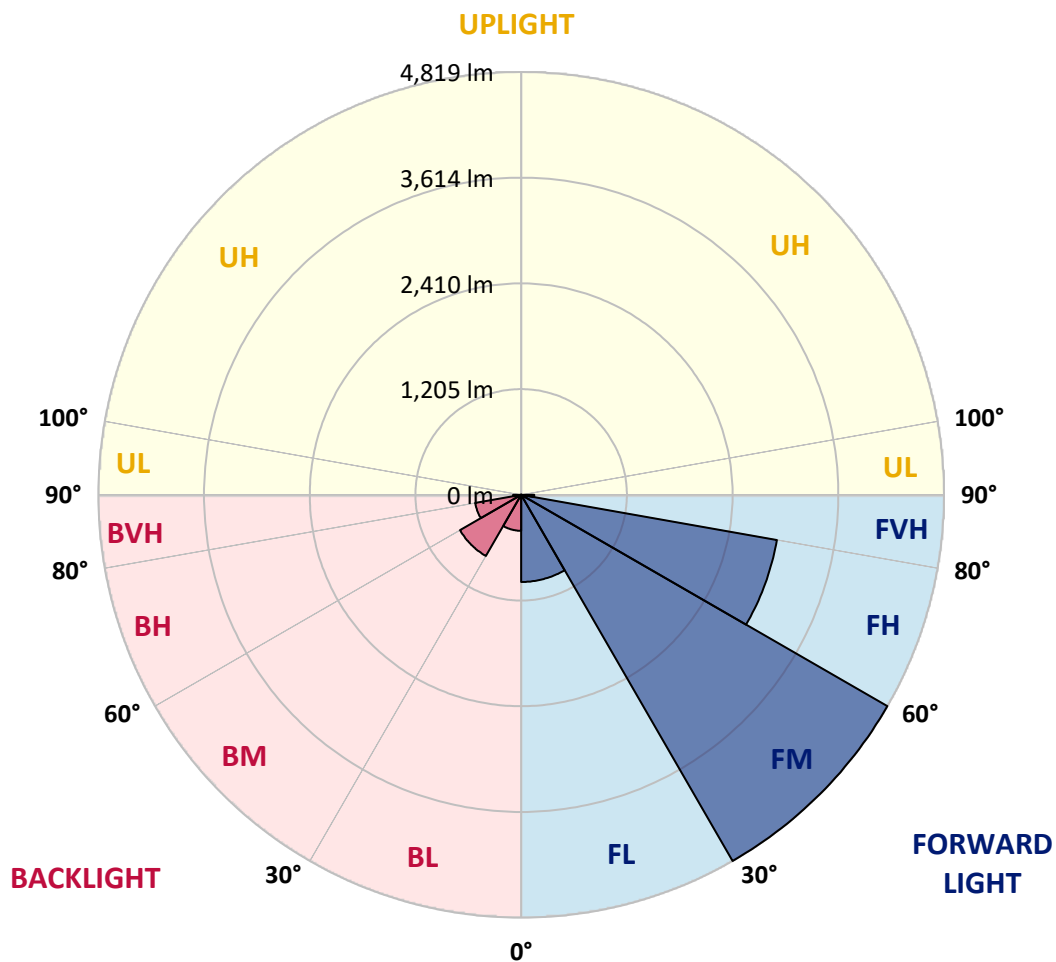
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	993.3	9.2			
FM (30°-60°)	4819.0	44.8			
FH (60°-80°)	2959.4	27.5			G2/5000
FVH (80°-90°)	149.3	1.4			G2/225
BL (0°-30°)	410.0	3.8	B1/500		
BM (30°-60°)	804.5	7.5	B1/1000		
BH (60°-80°)	531.9	4.9	B2/1000		G2/1000
BVH (80°-90°)	90.6	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0
2.5°	1511.3	1515.8	1506.7	1486.5	1457.3	1403.3	1356.1	1272.9	1198.7	1189.7	1111.1
5°	1776.7	1781.2	1769.9	1745.1	1713.7	1655.2	1590.0	1482.1	1362.9	1340.5	1173.9
7.5°	1958.8	1961.1	1947.6	1922.9	1898.1	1839.6	1774.4	1653.1	1506.7	1488.9	1254.9
10°	2114.0	2118.6	2100.5	2084.7	2057.7	1999.4	1931.8	1803.6	1653.1	1628.3	1338.1
12.5°	2258.0	2262.6	2251.2	2237.8	2228.8	2174.7	2100.5	1947.6	1785.7	1758.7	1437.1
15°	2354.6	2359.2	2361.5	2379.4	2390.7	2352.4	2278.2	2111.7	1929.6	1904.9	1554.1
17.5°	2327.7	2338.9	2372.7	2437.9	2507.6	2509.9	2449.0	2273.7	2071.3	2044.4	1673.3
20°	2248.9	2258.0	2298.5	2397.3	2534.6	2613.3	2608.8	2437.9	2204.0	2174.7	1783.5
22.5°	2314.3	2325.4	2325.4	2386.2	2521.2	2667.2	2725.7	2599.9	2336.8	2309.7	1893.6
25°	2593.0	2599.9	2552.5	2527.8	2577.3	2712.3	2822.5	2775.3	2498.6	2467.1	2012.8
27.5°	2982.2	2971.0	2912.5	2813.5	2759.6	2795.4	2908.0	2941.7	2685.3	2647.0	2136.4
30°	3369.0	3362.3	3294.8	3162.0	3040.7	2964.1	3002.3	3090.1	2887.7	2842.6	2255.7
32.5°	3731.0	3719.8	3645.6	3490.5	3353.3	3211.5	3137.3	3225.1	3103.6	3051.8	2388.5
35°	4063.9	4034.6	3960.4	3798.6	3656.8	3521.9	3339.7	3353.3	3337.6	3283.6	2534.6
37.5°	4333.8	4311.2	4230.3	4079.7	3928.9	3800.8	3609.6	3499.3	3589.4	3537.6	2703.3
40°	4572.2	4547.4	4464.1	4313.5	4174.2	4052.7	3902.0	3677.1	3872.8	3814.3	2892.3
42.5°	4752.0	4734.1	4666.6	4518.1	4383.3	4273.1	4198.9	3902.0	4167.3	4111.2	3099.2
45°	4848.8	4830.7	4794.9	4675.6	4551.9	4466.5	4473.2	4169.7	4475.4	4428.3	3344.2
47.5°	4729.5	4743.1	4774.6	4752.0	4675.6	4635.2	4718.3	4446.3	4819.5	4774.6	3609.6
50°	4410.3	4423.8	4549.6	4704.9	4731.8	4781.3	4938.7	4765.6	5183.8	5147.8	3938.0
52.5°	3625.4	3699.6	4048.1	4419.2	4673.3	4878.1	5183.8	5240.2	5797.9	5797.9	4518.1
55°	2739.2	2804.5	3202.5	3850.2	4446.3	4887.0	5363.8	5561.8	6241.0	6249.9	4821.8
57.5°	2219.7	2260.2	2455.8	3119.4	3969.4	4774.6	5577.4	5838.4	6609.6	6650.2	5213.1
60°	1801.5	1823.9	1952.0	2413.1	3310.6	4471.0	5730.4	6234.1	7136.0	7192.2	5712.4
62.5°	1448.3	1470.9	1556.4	1832.9	2597.5	3902.0	5703.3	6645.8	7837.7	7929.9	6366.8
65°	1155.9	1180.7	1237.0	1407.9	1925.1	3195.8	5426.8	6857.1	8564.1	8654.0	6800.9
67.5°	901.9	924.4	962.5	1075.0	1356.1	2390.7	4772.3	6634.5	8890.2	8966.6	6823.3
70°	681.5	692.8	724.2	796.2	969.4	1587.8	3735.5	5887.9	8597.9	8667.6	6373.7
72.5°	528.6	526.2	544.3	580.2	677.0	1093.0	2476.1	4788.1	7601.5	7673.5	5438.0
75°	431.8	429.6	440.8	452.0	490.3	733.1	1461.8	3605.1	6135.2	5998.1	4079.7
77.5°	364.4	362.0	373.3	375.6	391.3	506.0	832.1	2372.7	4093.1	3857.1	2298.5
80°	308.1	305.9	319.3	323.8	335.1	371.1	479.1	1284.1	2055.5	1947.6	1097.5
82.5°	231.7	240.7	265.4	276.6	290.2	274.4	296.9	566.7	953.6	910.8	476.8
85°	112.5	132.7	200.1	222.6	238.4	173.2	202.4	267.6	429.6	409.3	193.4
87.5°	38.3	33.7	119.1	141.8	155.1	78.7	112.5	148.4	177.7	162.0	60.7
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°	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0
2.5°	1077.2	1043.6	994.1	955.7	931.1	910.8	901.9	899.7	895.2	892.8	892.8
5°	1099.7	1039.0	962.5	922.1	910.8	901.9	906.3	908.5	908.5	908.5	908.5
7.5°	1133.5	1048.1	955.7	928.8	926.6	926.6	940.0	946.9	951.3	951.3	951.3
10°	1178.4	1063.8	967.0	944.6	951.3	955.7	971.5	980.6	985.0	987.2	989.6
12.5°	1239.2	1097.5	989.6	971.5	980.6	982.7	994.1	998.6	1003.0	1005.4	1005.4
15°	1320.1	1147.0	1025.5	1003.0	1005.4	1003.0	1003.0	998.6	996.3	996.3	1000.8
17.5°	1403.3	1194.1	1057.0	1025.5	1016.5	998.6	985.0	973.9	967.0	962.5	964.8
20°	1486.5	1237.0	1075.0	1030.0	1005.4	976.1	951.3	935.6	926.6	917.6	922.1
22.5°	1569.8	1277.4	1081.7	1016.5	980.6	937.8	910.8	886.1	865.8	852.3	854.6
25°	1662.0	1322.3	1081.7	1000.8	946.9	901.9	868.1	827.6	798.5	787.2	791.6
27.5°	1754.2	1360.7	1070.5	971.5	908.5	863.6	814.1	767.0	748.8	742.2	744.4
30°	1846.3	1389.9	1045.7	935.6	868.1	818.6	753.4	721.9	699.4	681.5	683.7
32.5°	1938.6	1410.1	1012.0	890.6	825.4	762.4	708.5	672.4	632.0	609.5	611.7
35°	2044.4	1425.9	971.5	845.7	778.1	713.0	672.4	614.0	571.2	553.3	548.8
37.5°	2154.6	1437.1	928.8	796.2	731.0	677.0	636.4	564.5	524.0	499.3	497.0
40°	2273.7	1441.6	877.0	744.4	685.9	654.4	589.2	535.3	465.5	449.8	449.8
42.5°	2415.5	1439.4	825.4	692.8	636.4	602.8	555.5	530.8	470.1	454.4	445.3
45°	2577.3	1439.4	769.2	632.0	587.0	537.5	517.2	501.6	461.0	467.7	472.2
47.5°	2761.7	1434.9	701.7	582.6	546.4	503.8	492.5	458.8	443.0	447.5	452.0
50°	3015.9	1441.6	641.0	541.9	517.2	481.3	467.7	449.8	443.0	445.3	443.0
52.5°	3369.0	1419.1	582.6	517.2	494.7	447.5	447.5	445.3	447.5	445.3	445.3
55°	3562.4	1369.6	539.7	503.8	479.1	431.8	440.8	445.3	449.8	447.5	447.5
57.5°	3836.8	1335.9	506.0	494.7	470.1	427.4	436.2	445.3	447.5	445.3	445.3
60°	4160.6	1313.4	483.6	497.0	463.3	427.4	438.6	445.3	443.0	440.8	440.8
62.5°	4536.3	1304.3	467.7	503.8	456.6	429.6	438.6	445.3	436.2	434.1	434.1
65°	4677.8	1223.4	447.5	508.4	461.0	429.6	436.2	438.6	427.4	425.1	422.8
67.5°	4459.7	1084.1	418.3	499.3	474.6	429.6	429.6	427.4	413.8	411.6	407.0
70°	3971.6	899.7	373.3	470.1	483.6	431.8	420.5	409.3	395.9	395.9	386.8
72.5°	3252.0	708.5	314.9	418.3	476.8	438.6	402.6	386.8	371.1	371.1	362.0
75°	2343.4	528.6	251.9	348.6	447.5	436.2	380.1	359.9	341.9	339.6	328.3
77.5°	1335.9	371.1	204.6	272.1	398.0	425.1	359.9	328.3	308.1	301.3	294.6
80°	685.9	249.5	166.5	213.6	330.5	393.5	344.1	292.4	269.9	258.6	247.5
82.5°	326.2	166.5	128.2	157.5	249.5	344.1	323.8	251.9	227.1	213.6	200.1
85°	146.2	99.0	85.5	101.1	177.7	267.6	285.7	206.9	177.7	222.6	164.2
87.5°	47.3	44.9	44.9	47.3	85.5	117.0	209.1	152.9	141.8	117.0	99.0
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)