

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: P231027

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231027
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 11448.9 lumens
Efficiency: N/A
Efficacy: 137.9 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): 83
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

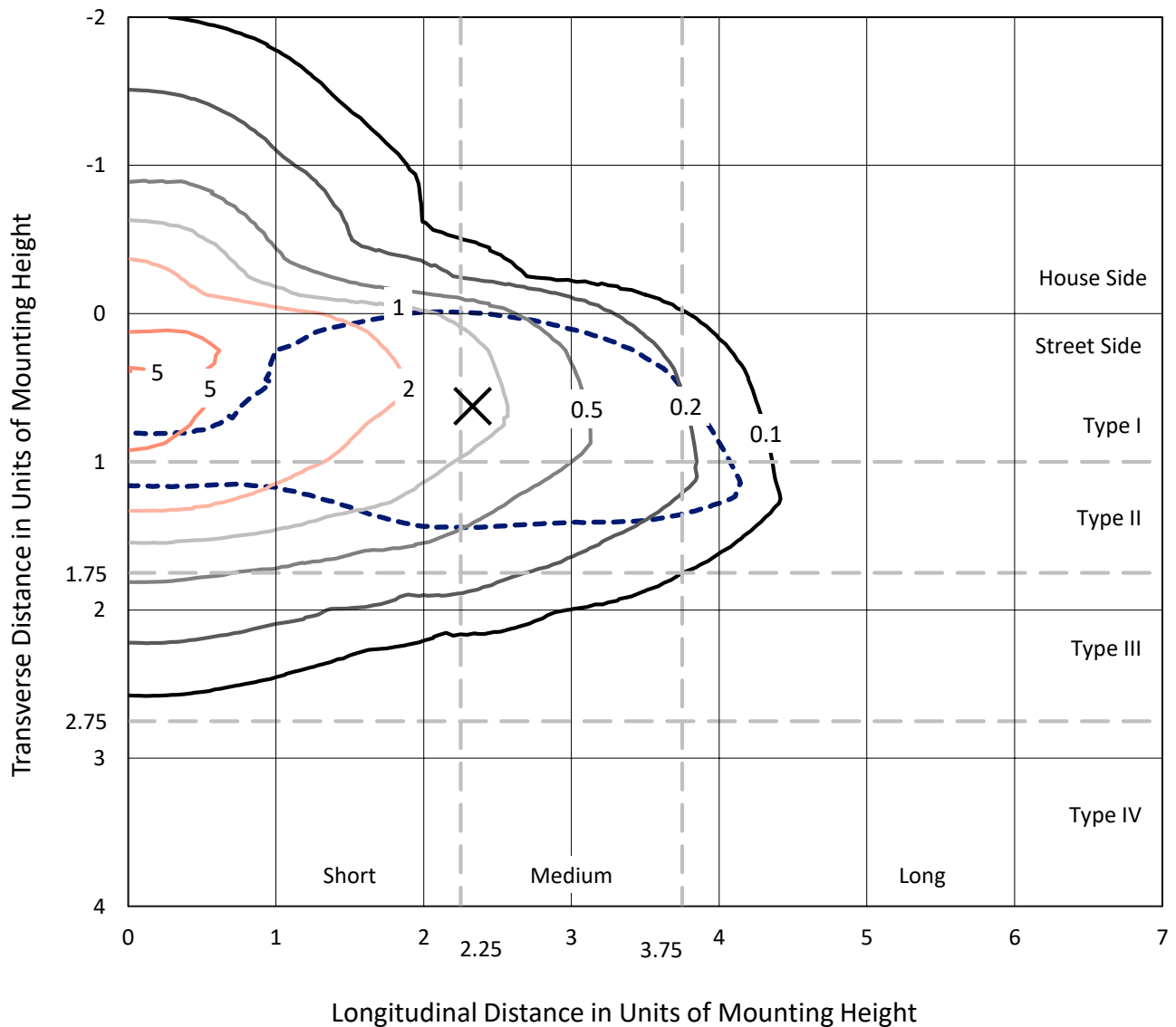


REPORT NUMBER: P231027

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

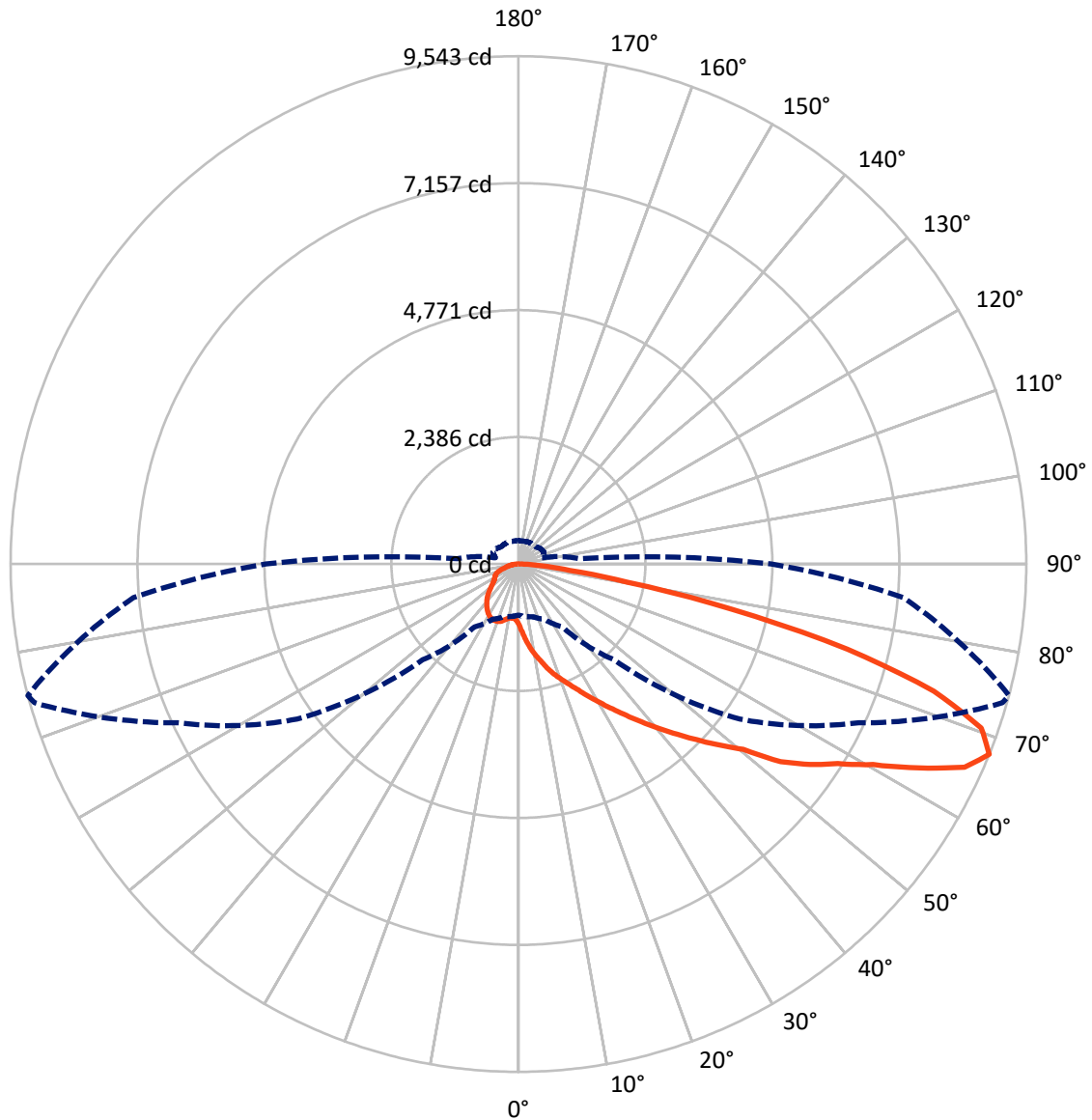


Based on 20 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P231027

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

Luminous Intensity Polar Plot



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

REPORT NUMBER: P231027

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1955.0	0.0	1955.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	9493.8	0.0	9493.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	11448.9	0.0	11448.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	1.2
10°-20°	481.6	4.2
20°-30°	878.5	7.7
30°-40°	1442.0	12.6
40°-50°	2085.3	18.2
50°-60°	2457.5	21.5
60°-70°	2388.1	20.9
70°-80°	1327.4	11.6
80°-90°	255.2	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°	11448.9	100.0
0°-180°	11448.9	100.0



REPORT NUMBER: P231027

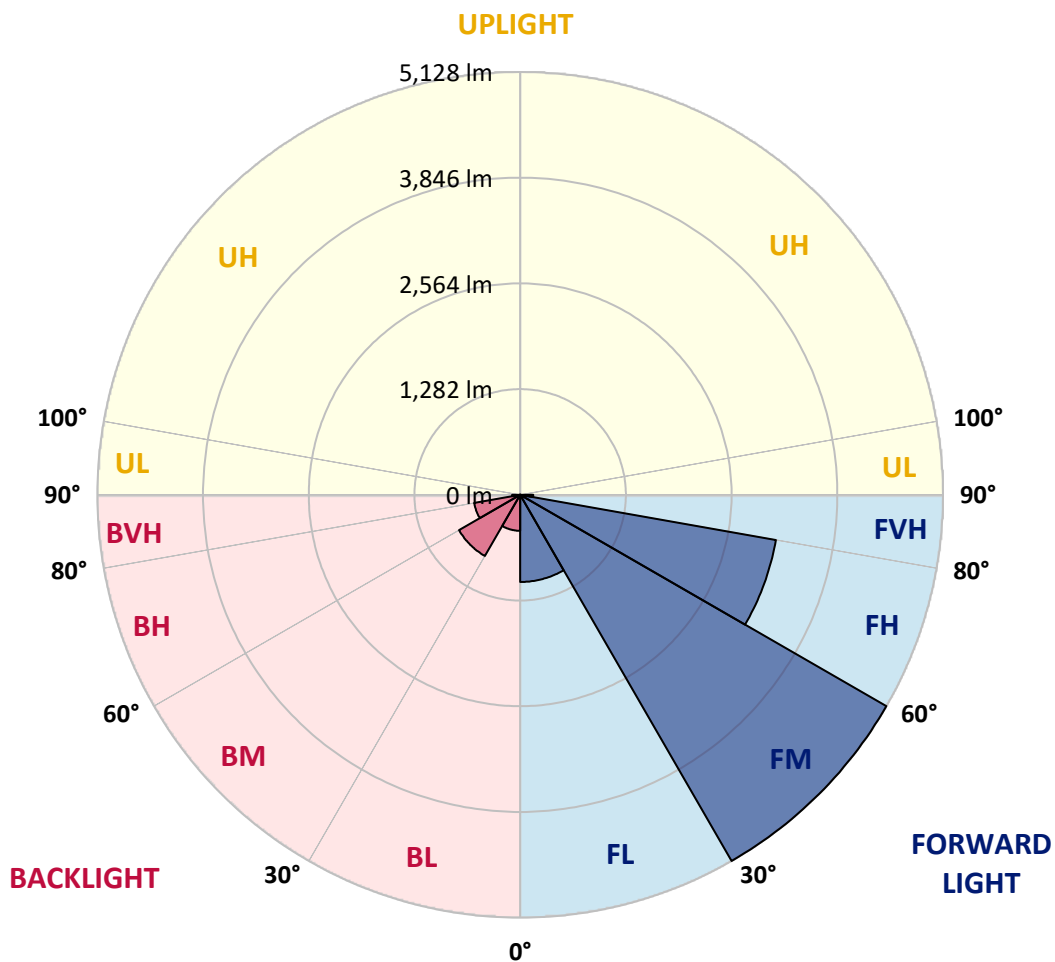
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1057.0	9.2			
FM (30°-60°)	5128.5	44.8			
FH (60°-80°)	3149.5	27.5			G2/5000
FVH (80°-90°)	158.8	1.4			G2/225
BL (0°-30°)	436.4	3.8	B1/500		
BM (30°-60°)	856.2	7.5	B1/1000		
BH (60°-80°)	566.1	4.9	B2/1000		G2/1000
BVH (80°-90°)	96.4	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





REPORT NUMBER: P231027

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5
2.5°	1608.4	1613.2	1603.6	1582.0	1550.9	1493.5	1443.2	1354.7	1275.7	1266.1	1182.3
5°	1890.8	1895.5	1883.6	1857.3	1823.8	1761.5	1692.2	1577.3	1450.4	1426.5	1249.3
7.5°	2084.7	2087.0	2072.7	2046.3	2020.0	1957.8	1888.4	1759.2	1603.6	1584.4	1335.6
10°	2249.8	2254.6	2235.5	2218.7	2189.9	2127.7	2055.9	1919.5	1759.2	1732.8	1424.0
12.5°	2403.0	2407.7	2395.8	2381.4	2371.8	2314.4	2235.5	2072.7	1900.3	1871.6	1529.4
15°	2505.9	2510.6	2513.1	2532.2	2544.2	2503.5	2424.5	2247.4	2053.6	2027.2	1653.8
17.5°	2477.2	2489.1	2525.1	2594.4	2668.7	2671.0	2606.4	2419.7	2204.4	2175.6	1780.7
20°	2393.4	2403.0	2446.1	2551.3	2697.3	2781.1	2776.4	2594.4	2345.5	2314.4	1898.0
22.5°	2462.9	2474.7	2474.7	2539.4	2683.0	2838.6	2900.8	2766.8	2486.7	2458.0	2015.2
25°	2759.6	2766.8	2716.5	2690.2	2742.8	2886.5	3003.7	2953.5	2659.1	2625.6	2142.1
27.5°	3173.6	3161.6	3099.4	2994.2	2936.7	2974.9	3094.6	3130.5	2857.7	2817.0	2273.7
30°	3585.3	3578.2	3506.4	3365.1	3235.9	3154.5	3195.2	3288.5	3073.1	3025.3	2400.6
32.5°	3970.7	3958.7	3879.7	3714.5	3568.6	3417.8	3338.8	3432.1	3302.9	3247.9	2541.8
35°	4324.8	4293.7	4214.8	4042.5	3891.7	3748.1	3554.2	3568.6	3551.8	3494.4	2697.3
37.5°	4612.1	4588.1	4502.0	4341.6	4181.3	4044.8	3841.4	3724.2	3819.9	3764.8	2876.8
40°	4865.8	4839.5	4750.9	4590.5	4442.2	4312.9	4152.6	3913.2	4121.5	4059.2	3078.0
42.5°	5057.3	5038.1	4966.3	4808.4	4664.8	4547.4	4468.5	4152.6	4435.0	4375.2	3298.1
45°	5160.2	5141.0	5102.7	4975.8	4844.3	4753.2	4760.5	4437.4	4762.9	4712.6	3558.9
47.5°	5033.3	5047.6	5081.2	5057.3	4975.8	4932.8	5021.4	4731.8	5129.1	5081.2	3841.4
50°	4693.5	4707.8	4841.8	5007.0	5035.7	5088.4	5255.9	5071.6	5516.8	5478.5	4190.8
52.5°	3858.2	3937.1	4308.2	4703.0	4973.5	5191.3	5516.8	5576.6	6170.1	6170.1	4808.4
55°	2915.2	2984.6	3408.2	4097.5	4731.8	5200.9	5708.3	5918.9	6641.7	6651.2	5131.4
57.5°	2362.3	2405.4	2613.6	3319.7	4224.4	5081.2	5935.7	6213.3	7034.2	7077.3	5547.9
60°	1917.1	1941.0	2077.5	2568.1	3523.0	4758.1	6098.4	6634.4	7594.3	7654.1	6079.2
62.5°	1541.4	1565.3	1656.3	1950.7	2764.4	4152.6	6069.7	7072.5	8341.0	8439.1	6775.7
65°	1230.2	1256.5	1316.3	1498.3	2048.8	3401.0	5775.3	7297.4	9114.1	9209.8	7237.7
67.5°	959.7	983.7	1024.4	1144.1	1443.2	2544.2	5078.7	7060.5	9461.1	9542.5	7261.5
70°	725.2	737.1	770.7	847.3	1031.5	1689.7	3975.4	6265.9	9150.0	9224.2	6782.9
72.5°	562.4	560.1	579.2	617.5	720.4	1163.2	2635.1	5095.5	8089.7	8166.3	5787.2
75°	459.5	457.2	469.1	481.1	521.8	780.2	1555.7	3836.6	6529.2	6383.2	4341.6
77.5°	387.7	385.3	397.3	399.7	416.4	538.5	885.6	2525.1	4356.0	4104.7	2446.1
80°	327.9	325.5	339.8	344.6	356.6	395.0	509.8	1366.7	2187.6	2072.7	1168.0
82.5°	246.5	256.0	282.4	294.4	308.7	292.0	315.9	603.1	1014.8	969.3	507.4
85°	119.7	141.2	213.0	236.9	253.7	184.3	215.4	284.8	457.2	435.6	205.8
87.5°	40.7	35.9	126.8	150.8	165.1	83.8	119.7	157.9	189.0	172.4	64.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231027

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5	1134.5
2.5°	1146.4	1110.5	1057.8	1017.2	990.8	969.3	959.7	957.4	952.6	950.2	950.2
5°	1170.4	1105.7	1024.4	981.3	969.3	959.7	964.5	966.9	966.9	966.9	966.9
7.5°	1206.3	1115.3	1017.2	988.5	986.1	986.1	1000.4	1007.6	1012.4	1012.4	1012.4
10°	1254.1	1132.1	1029.2	1005.3	1012.4	1017.2	1034.0	1043.5	1048.3	1050.7	1053.1
12.5°	1318.8	1168.0	1053.1	1034.0	1043.5	1045.9	1057.8	1062.6	1067.4	1069.8	1069.8
15°	1404.9	1220.6	1091.4	1067.4	1069.8	1067.4	1067.4	1062.6	1060.3	1060.3	1065.1
17.5°	1493.5	1270.9	1124.9	1091.4	1081.8	1062.6	1048.3	1036.4	1029.2	1024.4	1026.7
20°	1582.0	1316.3	1144.1	1096.2	1069.8	1038.7	1012.4	995.6	986.1	976.5	981.3
22.5°	1670.6	1359.4	1151.2	1081.8	1043.5	998.1	969.3	943.0	921.5	907.1	909.5
25°	1768.7	1407.3	1151.2	1065.1	1007.6	959.7	923.8	880.8	849.7	837.7	842.5
27.5°	1866.9	1448.0	1139.3	1034.0	966.9	919.0	866.4	816.1	797.0	789.8	792.2
30°	1965.0	1479.1	1113.0	995.6	923.8	871.2	801.8	768.2	744.3	725.2	727.6
32.5°	2063.1	1500.7	1077.1	947.8	878.4	811.4	753.9	715.7	672.6	648.7	651.0
35°	2175.6	1517.4	1034.0	899.9	828.1	758.7	715.7	653.4	607.9	588.8	584.0
37.5°	2292.8	1529.4	988.5	847.3	777.9	720.4	677.3	600.8	557.6	531.3	529.0
40°	2419.7	1534.1	933.4	792.2	730.0	696.5	627.1	569.6	495.4	478.6	478.6
42.5°	2570.5	1531.8	878.4	737.1	677.3	641.4	591.2	564.9	500.2	483.4	473.9
45°	2742.8	1531.8	818.6	672.6	624.7	572.0	550.4	533.8	490.6	497.9	502.6
47.5°	2939.1	1527.0	746.8	619.9	581.5	536.1	524.2	488.3	471.5	476.3	481.1
50°	3209.5	1534.1	682.1	576.8	550.4	512.2	497.9	478.6	471.5	473.9	471.5
52.5°	3585.3	1510.3	619.9	550.4	526.5	476.3	476.3	473.9	476.3	473.9	473.9
55°	3791.2	1457.6	574.4	536.1	509.8	459.5	469.1	473.9	478.6	476.3	476.3
57.5°	4083.1	1421.7	538.5	526.5	500.2	454.7	464.3	473.9	476.3	473.9	473.9
60°	4427.7	1397.8	514.5	529.0	493.1	454.7	466.7	473.9	471.5	469.1	469.1
62.5°	4827.5	1388.1	497.9	536.1	485.9	457.2	466.7	473.9	464.3	462.0	462.0
65°	4978.3	1302.0	476.3	540.9	490.6	457.2	464.3	466.7	454.7	452.3	450.0
67.5°	4746.1	1153.6	445.2	531.3	505.0	457.2	457.2	454.7	440.4	438.0	433.2
70°	4226.7	957.4	397.3	500.2	514.5	459.5	447.5	435.6	421.3	421.3	411.6
72.5°	3460.8	753.9	335.1	445.2	507.4	466.7	428.4	411.6	395.0	395.0	385.3
75°	2494.0	562.4	268.0	371.0	476.3	464.3	404.5	383.0	363.8	361.4	349.4
77.5°	1421.7	395.0	217.8	289.6	423.6	452.3	383.0	349.4	327.9	320.7	313.5
80°	730.0	265.7	177.1	227.4	351.8	418.8	366.2	311.2	287.2	275.3	263.3
82.5°	347.1	177.1	136.5	167.6	265.7	366.2	344.6	268.0	241.7	227.4	213.0
85°	155.6	105.3	90.9	107.7	189.0	284.8	303.9	220.2	189.0	236.9	174.7
87.5°	50.2	47.9	47.9	50.2	90.9	124.5	222.6	162.8	150.8	124.5	105.3
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)