

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: P234785

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234785
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-AF48-100-D-U-T2R-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10412 lumens
Efficiency: N/A
Efficacy: 103.1 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): 101
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

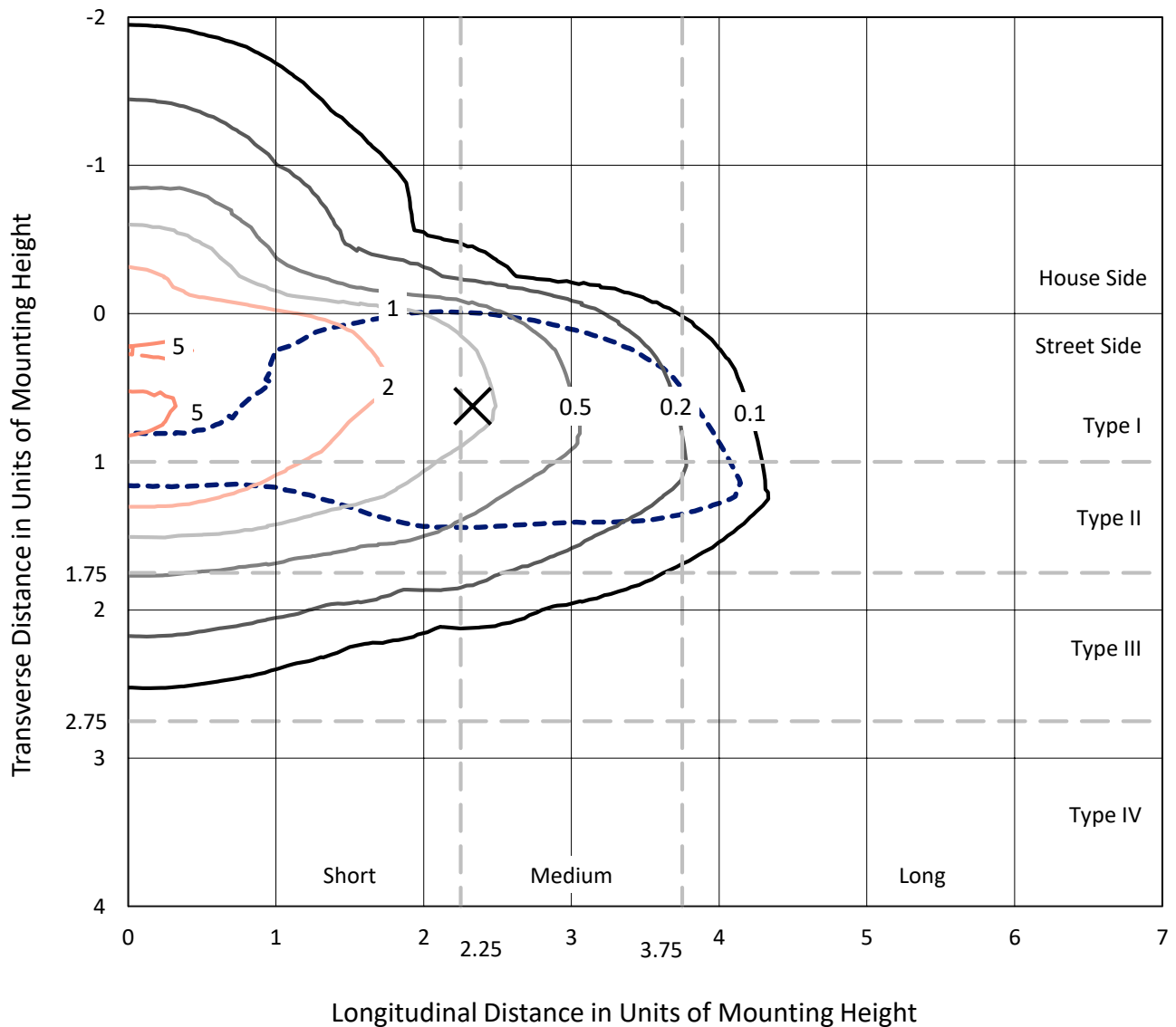


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

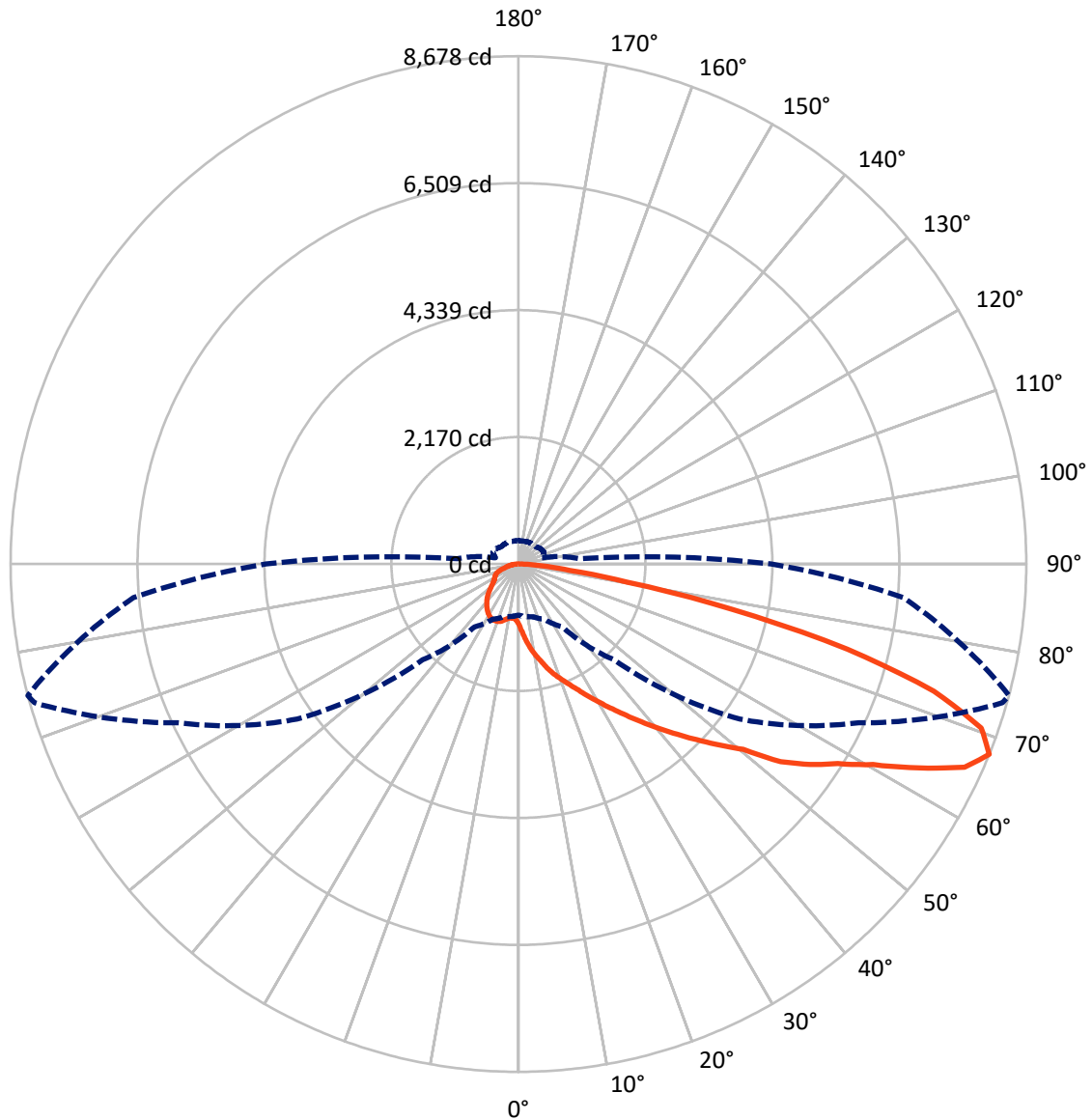


Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - Semi-Cutoff

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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	1778.0	0.0	1778.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	8634.0	0.0	8634.0
	% Fixture	82.9	0.0	82.9
Total	Lumens	10412.0	0.0	10412.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	1.2
10°-20°	438.0	4.2
20°-30°	798.9	7.7
30°-40°	1311.4	12.6
40°-50°	1896.4	18.2
50°-60°	2234.9	21.5
60°-70°	2171.8	20.9
70°-80°	1207.2	11.6
80°-90°	232.1	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°	10412.0	100.0
0°-180°	10412.0	100.0

Coefficient of Utilization



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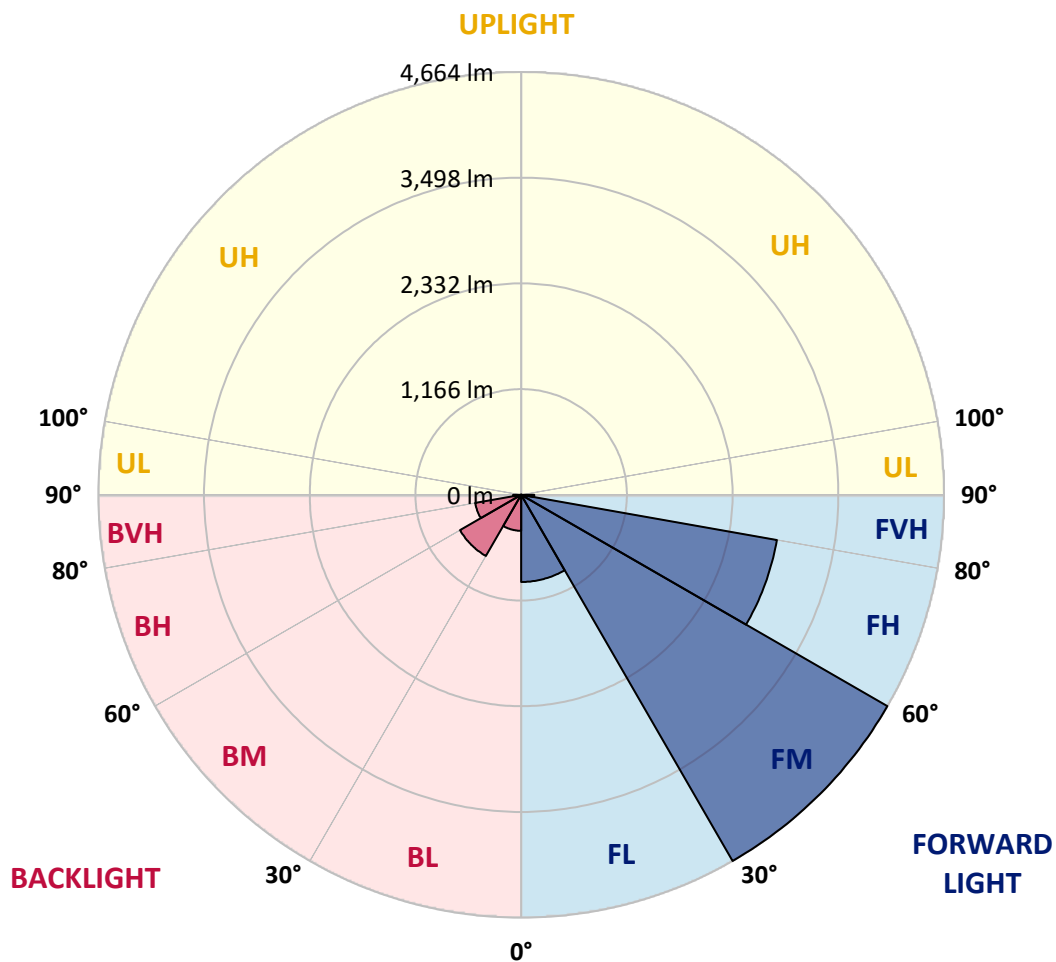
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	961.3	9.2			
FM (30°-60°)	4664.0	44.8			
FH (60°-80°)	2864.2	27.5			G2/5000
FVH (80°-90°)	144.5	1.4			G2/225
BL (0°-30°)	396.8	3.8	B1/500		
BM (30°-60°)	778.7	7.5	B1/1000		
BH (60°-80°)	514.8	4.9	B2/1000		G2/1000
BVH (80°-90°)	87.7	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°	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7
2.5°	1462.7	1467.1	1458.3	1438.8	1410.5	1358.2	1312.5	1232.0	1160.1	1151.4	1075.3
5°	1719.5	1723.9	1713.0	1689.1	1658.6	1602.0	1538.9	1434.4	1319.0	1297.3	1136.2
7.5°	1895.9	1898.0	1885.0	1861.0	1837.1	1780.5	1717.4	1599.8	1458.3	1440.9	1214.6
10°	2046.0	2050.4	2033.0	2017.7	1991.6	1935.0	1869.7	1745.7	1599.8	1575.9	1295.1
12.5°	2185.3	2189.7	2178.8	2165.8	2157.0	2104.8	2033.0	1885.0	1728.3	1702.1	1390.9
15°	2278.9	2283.3	2285.5	2302.9	2313.8	2276.8	2204.9	2043.9	1867.6	1843.6	1504.1
17.5°	2252.8	2263.7	2296.4	2359.5	2427.0	2429.1	2370.4	2200.6	2004.7	1978.6	1619.4
20°	2176.6	2185.3	2224.5	2320.3	2453.1	2529.3	2524.9	2359.5	2133.1	2104.8	1726.1
22.5°	2239.8	2250.6	2250.6	2309.4	2440.0	2581.5	2638.1	2516.2	2261.5	2235.4	1832.7
25°	2509.7	2516.2	2470.5	2446.5	2494.4	2625.0	2731.7	2686.0	2418.2	2387.8	1948.1
27.5°	2886.2	2875.3	2818.7	2723.0	2670.7	2705.6	2814.4	2847.0	2598.9	2561.9	2067.8
30°	3260.6	3254.1	3188.8	3060.4	2942.8	2868.8	2905.8	2990.7	2794.8	2751.3	2183.2
32.5°	3611.0	3600.2	3528.3	3378.1	3245.4	3108.2	3036.4	3121.3	3003.8	2953.7	2311.6
35°	3933.2	3904.9	3833.1	3676.3	3539.2	3408.6	3232.3	3245.4	3230.1	3177.9	2453.1
37.5°	4194.4	4172.6	4094.3	3948.4	3802.6	3678.5	3493.5	3386.9	3473.9	3423.9	2616.3
40°	4425.1	4401.2	4320.6	4174.8	4039.8	3922.3	3776.5	3558.8	3748.2	3691.6	2799.2
42.5°	4599.2	4581.8	4516.5	4372.9	4242.3	4135.6	4063.8	3776.5	4033.3	3978.9	2999.4
45°	4692.8	4675.4	4640.6	4525.2	4405.5	4322.8	4329.3	4035.5	4331.5	4285.8	3236.7
47.5°	4577.5	4590.5	4621.0	4599.2	4525.2	4486.1	4566.6	4303.2	4664.5	4621.0	3493.5
50°	4268.4	4281.4	4403.3	4553.5	4579.6	4627.5	4779.9	4612.3	5017.2	4982.3	3811.3
52.5°	3508.7	3580.6	3918.0	4277.1	4523.1	4721.1	5017.2	5071.6	5611.4	5611.4	4372.9
55°	2651.1	2714.3	3099.5	3726.4	4303.2	4729.8	5191.3	5382.8	6040.2	6048.9	4666.7
57.5°	2148.3	2187.5	2376.9	3019.0	3841.8	4621.0	5398.1	5650.6	6397.1	6436.3	5045.5
60°	1743.5	1765.3	1889.3	2335.5	3204.0	4327.2	5546.1	6033.6	6906.5	6960.9	5528.7
62.5°	1401.8	1423.5	1506.2	1774.0	2514.0	3776.5	5520.0	6432.0	7585.6	7674.8	6162.1
65°	1118.8	1142.7	1197.2	1362.6	1863.2	3093.0	5252.2	6636.6	8288.6	8375.7	6582.2
67.5°	872.8	894.6	931.6	1040.4	1312.5	2313.8	4618.8	6421.1	8604.3	8678.3	6603.9
70°	659.5	670.4	700.9	770.5	938.1	1536.7	3615.4	5698.4	8321.3	8388.8	6168.6
72.5°	511.5	509.3	526.7	561.6	655.2	1057.8	2396.5	4634.1	7357.0	7426.7	5263.1
75°	417.9	415.7	426.6	437.5	474.5	709.6	1414.8	3489.2	5937.9	5805.1	3948.4
77.5°	352.6	350.4	361.3	363.5	378.7	489.7	805.4	2296.4	3961.5	3732.9	2224.5
80°	298.2	296.0	309.1	313.4	324.3	359.1	463.6	1242.9	1989.4	1885.0	1062.2
82.5°	224.2	232.9	256.8	267.7	280.8	265.6	287.3	548.5	922.9	881.5	461.4
85°	108.8	128.4	193.7	215.5	230.7	167.6	195.9	259.0	415.7	396.1	187.2
87.5°	37.0	32.6	115.4	137.1	150.2	76.2	108.8	143.7	172.0	156.7	58.8
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°	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7	1031.7
2.5°	1042.6	1010.0	962.1	925.1	901.1	881.5	872.8	870.7	866.3	864.1	864.1
5°	1064.4	1005.6	931.6	892.4	881.5	872.8	877.2	879.4	879.4	879.4	879.4
7.5°	1097.0	1014.3	925.1	899.0	896.8	896.8	909.8	916.4	920.7	920.7	920.7
10°	1140.6	1029.6	936.0	914.2	920.7	925.1	940.3	949.0	953.4	955.5	957.7
12.5°	1199.3	1062.2	957.7	940.3	949.0	951.2	962.1	966.4	970.8	973.0	973.0
15°	1277.7	1110.1	992.5	970.8	973.0	970.8	970.8	966.4	964.3	964.3	968.6
17.5°	1358.2	1155.8	1023.0	992.5	983.8	966.4	953.4	942.5	936.0	931.6	933.8
20°	1438.8	1197.2	1040.4	996.9	973.0	944.7	920.7	905.5	896.8	888.1	892.4
22.5°	1519.3	1236.3	1047.0	983.8	949.0	907.7	881.5	857.6	838.0	824.9	827.1
25°	1608.5	1279.9	1047.0	968.6	916.4	872.8	840.2	801.0	772.7	761.8	766.2
27.5°	1697.8	1316.9	1036.1	940.3	879.4	835.8	787.9	742.2	724.8	718.3	720.5
30°	1787.0	1345.2	1012.1	905.5	840.2	792.3	729.2	698.7	676.9	659.5	661.7
32.5°	1876.3	1364.8	979.5	861.9	798.8	737.9	685.6	650.8	611.6	589.9	592.0
35°	1978.6	1380.0	940.3	818.4	753.1	690.0	650.8	594.2	552.9	535.5	531.1
37.5°	2085.2	1390.9	899.0	770.5	707.4	655.2	616.0	546.3	507.2	483.2	481.0
40°	2200.6	1395.2	848.9	720.5	663.9	633.4	570.3	518.0	450.6	435.3	435.3
42.5°	2337.7	1393.0	798.8	670.4	616.0	583.3	537.6	513.7	454.9	439.7	431.0
45°	2494.4	1393.0	744.4	611.6	568.1	520.2	500.6	485.4	446.2	452.7	457.1
47.5°	2672.9	1388.7	679.1	563.7	528.9	487.6	476.7	444.0	428.8	433.2	437.5
50°	2918.9	1395.2	620.3	524.6	500.6	465.8	452.7	435.3	428.8	431.0	428.8
52.5°	3260.6	1373.5	563.7	500.6	478.9	433.2	433.2	431.0	433.2	431.0	431.0
55°	3447.8	1325.6	522.4	487.6	463.6	417.9	426.6	431.0	435.3	433.2	433.2
57.5°	3713.3	1292.9	489.7	478.9	454.9	413.6	422.3	431.0	433.2	431.0	431.0
60°	4026.8	1271.2	468.0	481.0	448.4	413.6	424.4	431.0	428.8	426.6	426.6
62.5°	4390.3	1262.5	452.7	487.6	441.9	415.7	424.4	431.0	422.3	420.1	420.1
65°	4527.4	1184.1	433.2	491.9	446.2	415.7	422.3	424.4	413.6	411.4	409.2
67.5°	4316.3	1049.1	404.9	483.2	459.3	415.7	415.7	413.6	400.5	398.3	394.0
70°	3843.9	870.7	361.3	454.9	468.0	417.9	407.0	396.1	383.1	383.1	374.4
72.5°	3147.4	685.6	304.7	404.9	461.4	424.4	389.6	374.4	359.1	359.1	350.4
75°	2268.1	511.5	243.8	337.4	433.2	422.3	367.9	348.3	330.8	328.7	317.8
77.5°	1292.9	359.1	198.1	263.4	385.3	411.4	348.3	317.8	298.2	291.7	285.1
80°	663.9	241.6	161.1	206.8	320.0	380.9	333.0	283.0	261.2	250.3	239.4
82.5°	315.6	161.1	124.1	152.4	241.6	333.0	313.4	243.8	219.8	206.8	193.7
85°	141.5	95.8	82.7	97.9	172.0	259.0	276.4	200.3	172.0	215.5	158.9
87.5°	45.7	43.5	43.5	45.7	82.7	113.2	202.4	148.0	137.1	113.2	95.8
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)