

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: P214816

Luminaire Tested: **ARCH-AF24-70-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-70-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6079 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

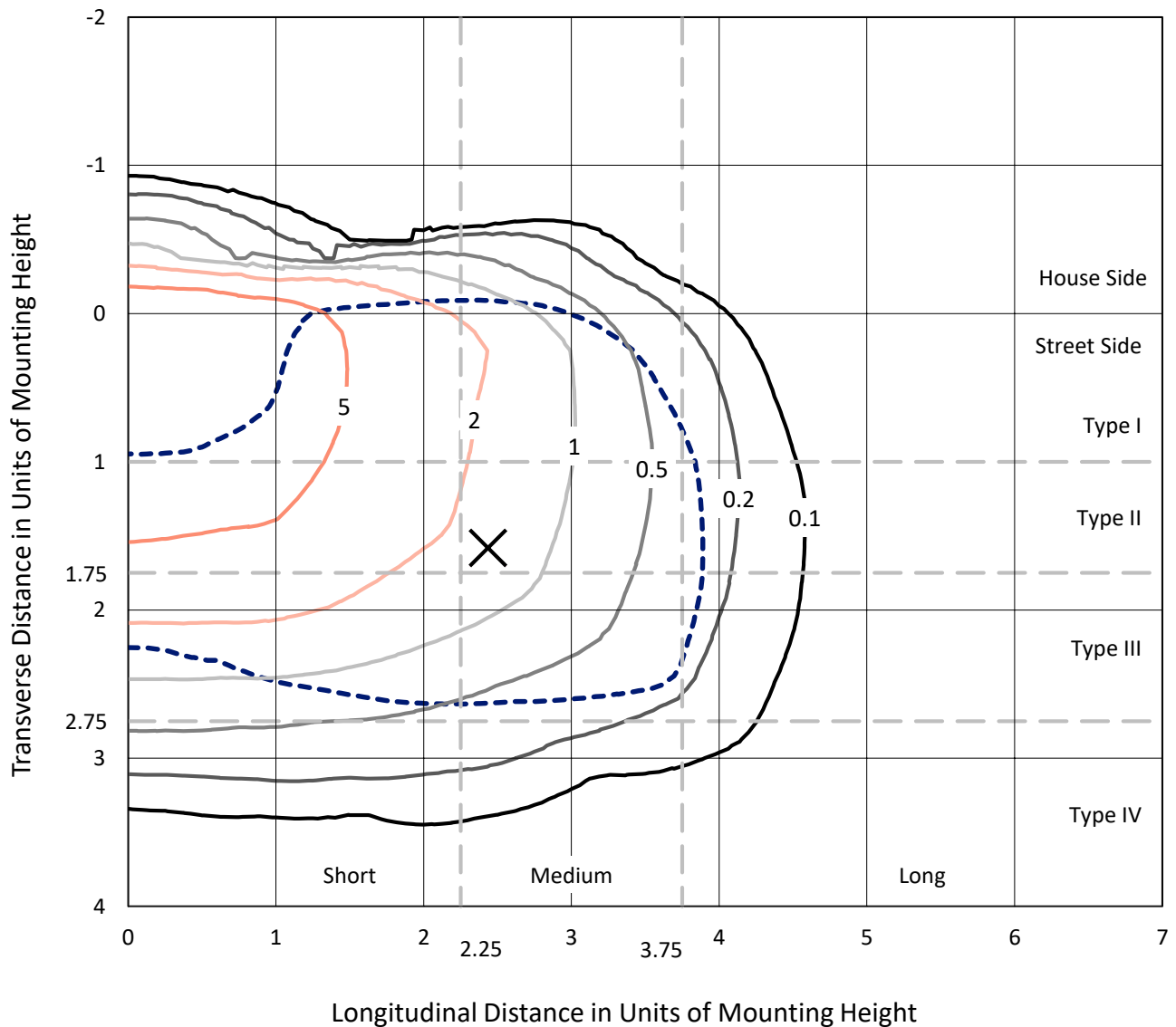
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

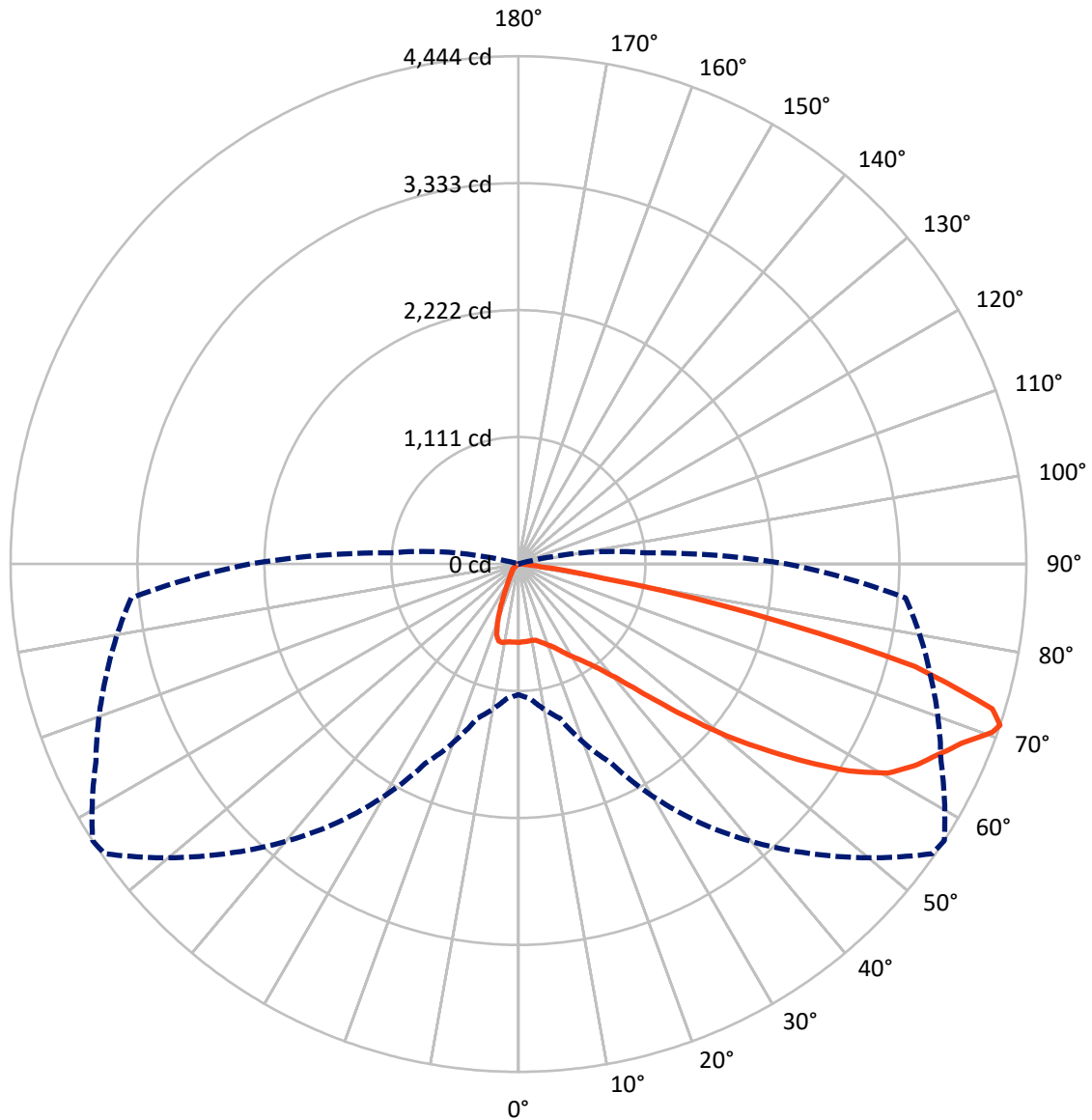


Based on 10 foot mounting height. Maximum calculated value = 8.5 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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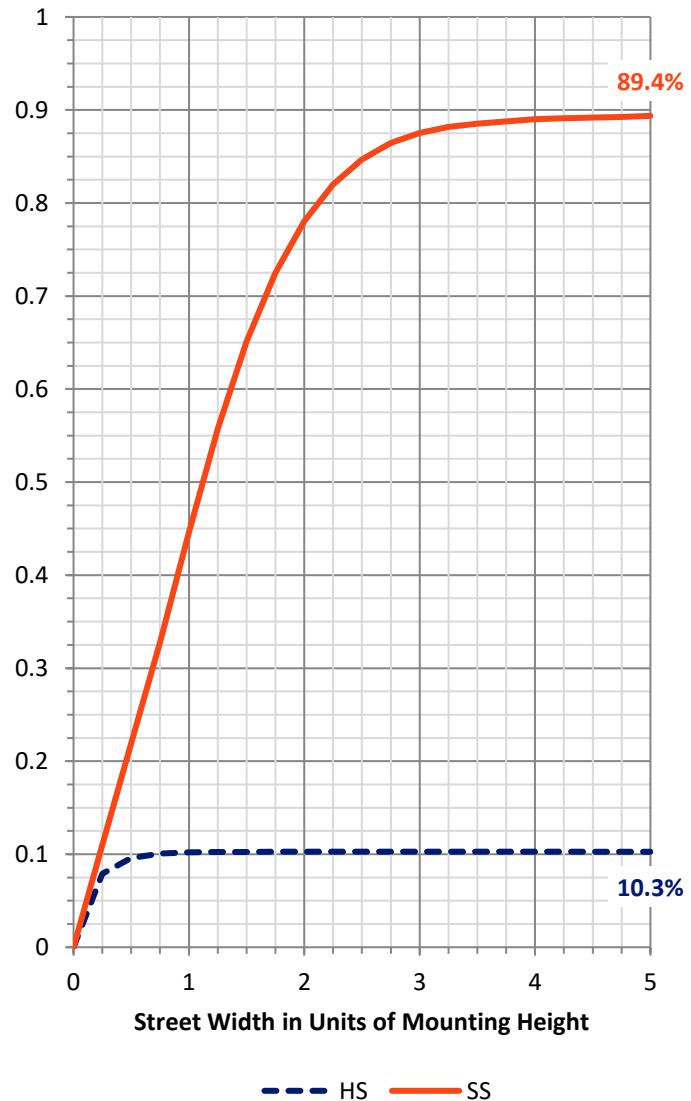
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	630.0	0.0	630.0
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5449.0	0.0	5449.0
	% Fixture	89.6	0.0	89.6
Total	Lumens	6079.0	0.0	6079.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	1.1
10°-20°	172.5	2.8
20°-30°	269.1	4.4
30°-40°	454.8	7.5
40°-50°	883.4	14.5
50°-60°	1483.6	24.4
60°-70°	1770.5	29.1
70°-80°	933.1	15.3
80°-90°	47.4	0.8
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°	6079.0	100.0
0°-180°	6079.0	100.0



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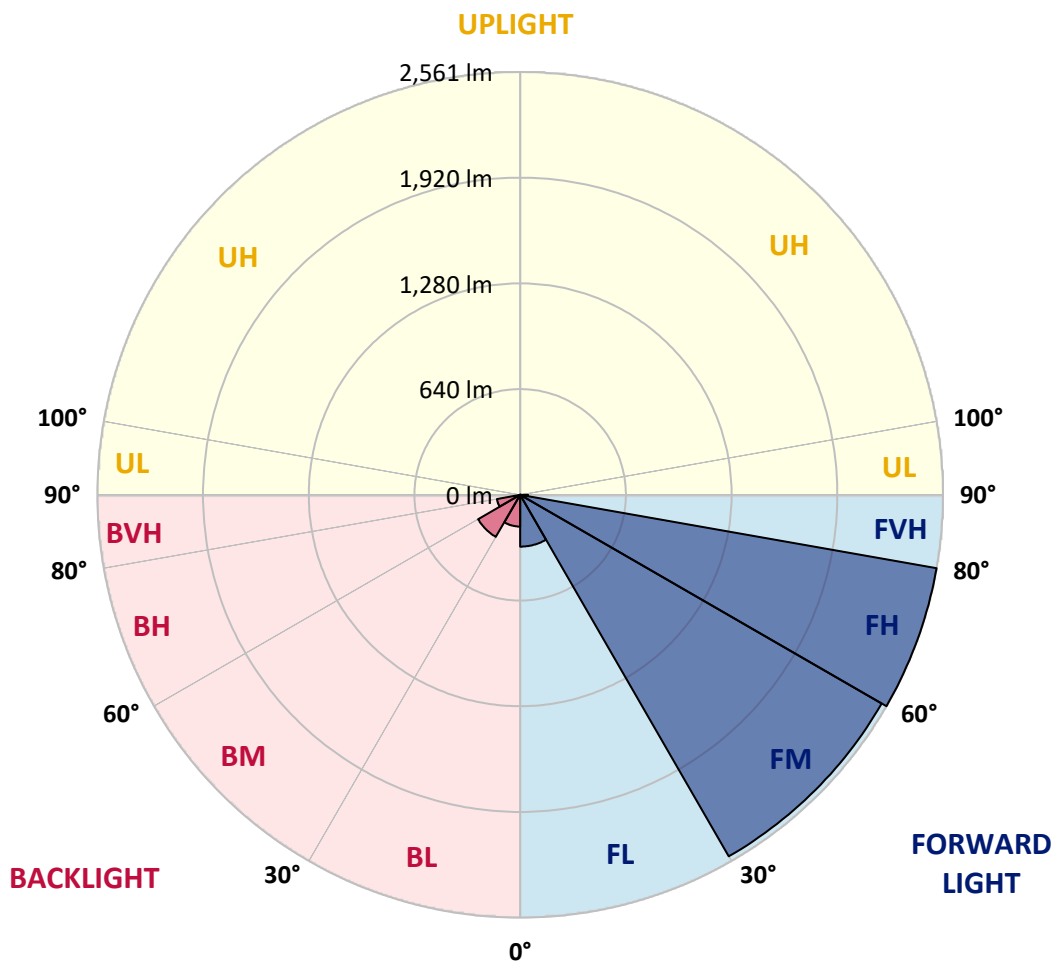
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	313.8	5.2			
FM	(30°-60°)	2527.7	41.6			
FH	(60°-80°)	2560.5	42.1			G2/5000
FVH	(80°-90°)	47.0	0.8			G1/100
BL	(0°-30°)	192.3	3.2	B1/500		
BM	(30°-60°)	294.2	4.8	B1/1000		
BH	(60°-80°)	143.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
2.5°	677.1	677.1	677.1	678.5	679.9	679.9	682.8	681.4	681.4	681.4	684.2
5°	658.7	660.1	661.5	664.4	670.0	674.3	681.4	681.4	682.8	685.6	687.0
7.5°	633.2	634.6	638.9	644.5	655.9	665.8	677.1	679.9	684.2	691.3	694.1
10°	617.6	620.4	626.1	633.2	645.9	658.7	672.9	677.1	689.9	702.6	709.7
12.5°	613.4	614.8	620.4	631.8	647.4	662.9	681.4	685.6	704.0	723.8	735.2
15°	620.4	621.9	624.7	637.4	655.9	675.7	699.8	705.4	728.1	750.8	764.9
17.5°	633.2	633.2	636.0	647.4	667.2	689.9	721.0	729.5	755.0	780.5	796.1
20°	641.7	641.7	645.9	657.3	679.9	709.7	746.5	757.8	786.2	814.5	828.7
22.5°	650.2	651.6	655.9	668.6	694.1	735.2	777.7	789.0	821.6	851.3	865.5
25°	674.3	672.9	674.3	685.6	715.3	766.3	820.2	834.3	868.3	900.9	908.0
27.5°	740.8	738.0	719.6	712.5	735.2	798.9	874.0	888.2	927.8	960.4	960.4
30°	893.8	888.2	842.8	784.8	766.3	828.7	925.0	944.8	995.8	1024.2	1015.7
32.5°	1087.9	1075.1	1017.1	917.9	844.3	868.3	978.8	1001.5	1066.7	1090.7	1072.3
35°	1300.4	1299.0	1226.7	1099.2	994.4	950.5	1048.2	1075.1	1157.3	1178.6	1148.8
37.5°	1525.6	1531.3	1483.1	1307.5	1184.2	1085.1	1140.3	1171.5	1272.0	1297.5	1269.2
40°	1776.3	1774.9	1756.5	1548.3	1412.3	1276.3	1273.5	1301.8	1423.6	1463.3	1423.6
42.5°	2093.6	2090.8	2024.2	1837.2	1688.5	1525.6	1467.5	1477.4	1613.4	1678.6	1620.5
45°	2416.6	2396.8	2320.3	2158.8	2027.1	1834.4	1723.9	1723.9	1840.1	1929.3	1838.7
47.5°	2596.5	2576.7	2545.5	2456.3	2416.6	2201.3	2038.4	2018.6	2109.2	2199.9	2072.4
50°	2833.1	2833.1	2755.2	2721.2	2789.2	2637.6	2385.4	2365.6	2409.5	2481.8	2314.6
52.5°	3020.1	2986.1	2930.8	2960.6	3154.6	3085.2	2732.5	2694.2	2728.2	2746.7	2525.7
55°	3098.0	3065.4	3061.1	3170.2	3470.5	3374.2	3088.0	3054.0	3051.2	2960.6	2709.8
57.5°	3113.5	3085.2	3139.0	3330.3	3777.9	3610.7	3442.2	3416.7	3337.4	3110.7	2898.2
60°	2981.8	2996.0	3126.3	3418.1	3959.2	3816.1	3741.1	3714.2	3531.4	3238.2	3107.9
62.5°	2711.2	2745.2	2988.9	3426.6	3892.6	3899.7	3906.8	3888.4	3681.6	3354.4	3318.9
65°	2391.1	2401.0	2694.2	3309.0	3776.5	3874.2	4028.6	4027.2	3796.3	3484.7	3556.9
67.5°	1970.4	1987.4	2241.0	2912.4	3544.2	3862.9	4188.7	4184.4	3926.6	3633.4	3698.6
70°	1466.1	1487.4	1692.8	2265.0	3025.7	3721.2	4398.3	4401.2	4064.0	3746.7	3600.8
71°	1143.1	1181.4	1396.7	1923.7	2760.8	3578.2	4418.2	4443.7	4079.6	3731.2	3399.7
72.5°	560.9	606.3	876.8	1354.2	2272.1	3258.0	4287.8	4337.4	3981.9	3537.1	2906.7
75°	145.9	154.4	262.1	553.9	1218.2	2158.8	3457.8	3583.8	3255.2	2692.8	1776.3
77.5°	92.1	94.9	123.2	215.3	456.1	820.2	2031.3	2093.6	1859.9	1364.1	626.1
80°	65.2	66.6	77.9	138.8	266.3	239.4	730.9	757.8	672.9	361.2	111.9
82.5°	39.7	39.7	56.7	89.2	164.3	130.3	192.6	205.4	181.3	100.6	36.8
85°	22.7	24.1	35.4	60.9	77.9	63.7	72.2	76.5	77.9	66.6	15.6
87.5°	18.4	19.8	31.2	51.0	42.5	31.2	31.2	32.6	34.0	39.7	7.1
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°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
2.5°	684.2	684.2	685.6	684.2	684.2	684.2	685.6	685.6	685.6	688.4	689.9
5°	687.0	687.0	687.0	685.6	684.2	684.2	687.0	688.4	688.4	692.7	692.7
7.5°	694.1	694.1	691.3	688.4	685.6	681.4	682.8	684.2	682.8	684.2	684.2
10°	709.7	709.7	705.4	699.8	691.3	678.5	661.5	640.3	620.4	613.4	610.5
12.5°	735.2	733.8	725.3	715.3	696.9	653.0	589.3	514.2	451.9	434.9	429.2
15°	763.5	760.7	750.8	733.8	684.2	568.0	434.9	338.6	279.1	264.9	262.1
17.5°	793.3	789.0	774.8	740.8	626.1	422.1	280.5	212.5	179.9	177.1	178.5
20°	824.4	818.8	798.9	726.7	505.7	281.9	181.3	164.3	161.5	161.5	162.9
22.5°	859.8	852.8	825.8	675.7	368.3	187.0	155.8	154.4	153.0	151.6	151.6
25°	900.9	892.4	851.3	583.6	253.6	153.0	148.7	144.5	141.7	138.8	137.4
27.5°	950.5	939.2	871.2	470.3	174.2	143.1	140.2	133.2	127.5	121.8	121.8
30°	1000.1	985.9	865.5	354.1	141.7	133.2	127.5	119.0	110.5	104.8	103.4
32.5°	1052.5	1038.3	828.7	238.0	128.9	121.8	114.7	102.0	92.1	85.0	83.6
35°	1130.4	1119.1	756.4	157.2	116.2	107.7	97.7	85.0	72.2	65.2	63.7
37.5°	1246.6	1232.4	667.2	120.4	102.0	89.2	80.7	66.6	53.8	46.7	45.3
40°	1402.4	1359.9	560.9	106.2	89.2	73.7	62.3	48.2	38.2	34.0	34.0
42.5°	1583.7	1483.1	446.2	96.3	79.3	60.9	45.3	32.6	26.9	25.5	25.5
45°	1776.3	1597.9	331.5	89.2	69.4	48.2	32.6	22.7	19.8	18.4	18.4
47.5°	1974.6	1691.3	230.9	80.7	58.1	36.8	22.7	17.0	14.2	12.7	12.7
50°	2160.2	1752.3	162.9	72.2	49.6	26.9	17.0	12.7	9.9	9.9	9.9
52.5°	2289.1	1746.6	117.6	62.3	38.2	18.4	11.3	8.5	8.5	8.5	8.5
55°	2402.4	1725.3	92.1	53.8	29.7	12.7	8.5	7.1	7.1	5.7	5.7
57.5°	2498.8	1691.3	77.9	43.9	21.2	9.9	5.7	5.7	4.2	4.2	4.2
60°	2580.9	1648.8	65.2	36.8	14.2	7.1	4.2	2.8	2.8	1.4	2.8
62.5°	2692.8	1621.9	56.7	28.3	9.9	4.2	2.8	1.4	1.4	0.0	0.0
65°	2775.0	1570.9	48.2	19.8	5.7	2.8	1.4	1.4	0.0	0.0	0.0
67.5°	2777.8	1478.9	35.4	11.3	4.2	2.8	1.4	0.0	0.0	0.0	0.0
70°	2554.0	1260.7	22.7	5.7	2.8	1.4	1.4	0.0	0.0	0.0	0.0
71°	2348.6	1116.2	18.4	4.2	2.8	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1935.0	820.2	14.2	4.2	1.4	1.4	0.0	0.0	0.0	0.0	0.0
75°	1066.7	297.5	7.1	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	341.4	90.7	4.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	58.1	14.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.8	5.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)