

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: P214662

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6718.7 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

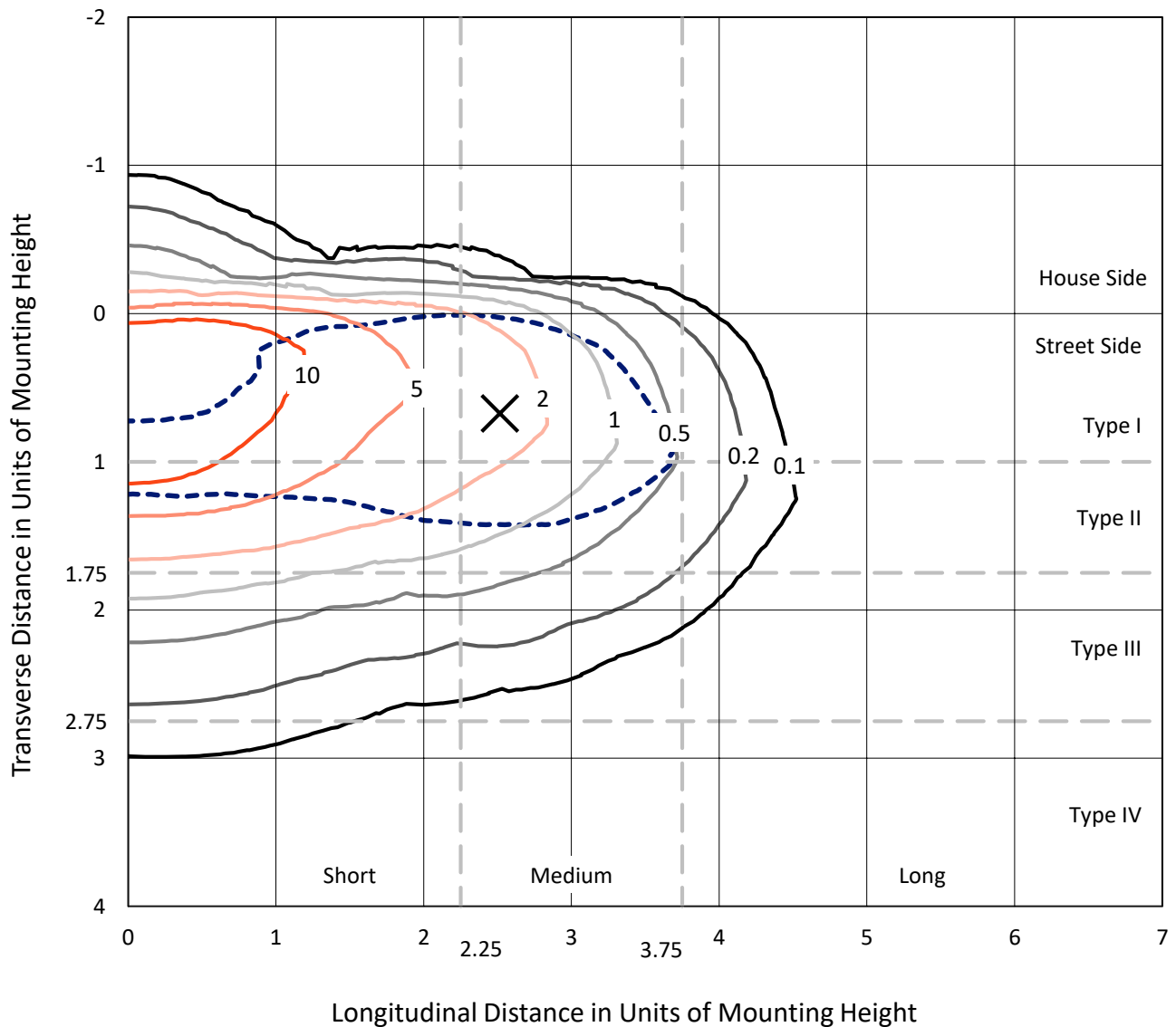
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

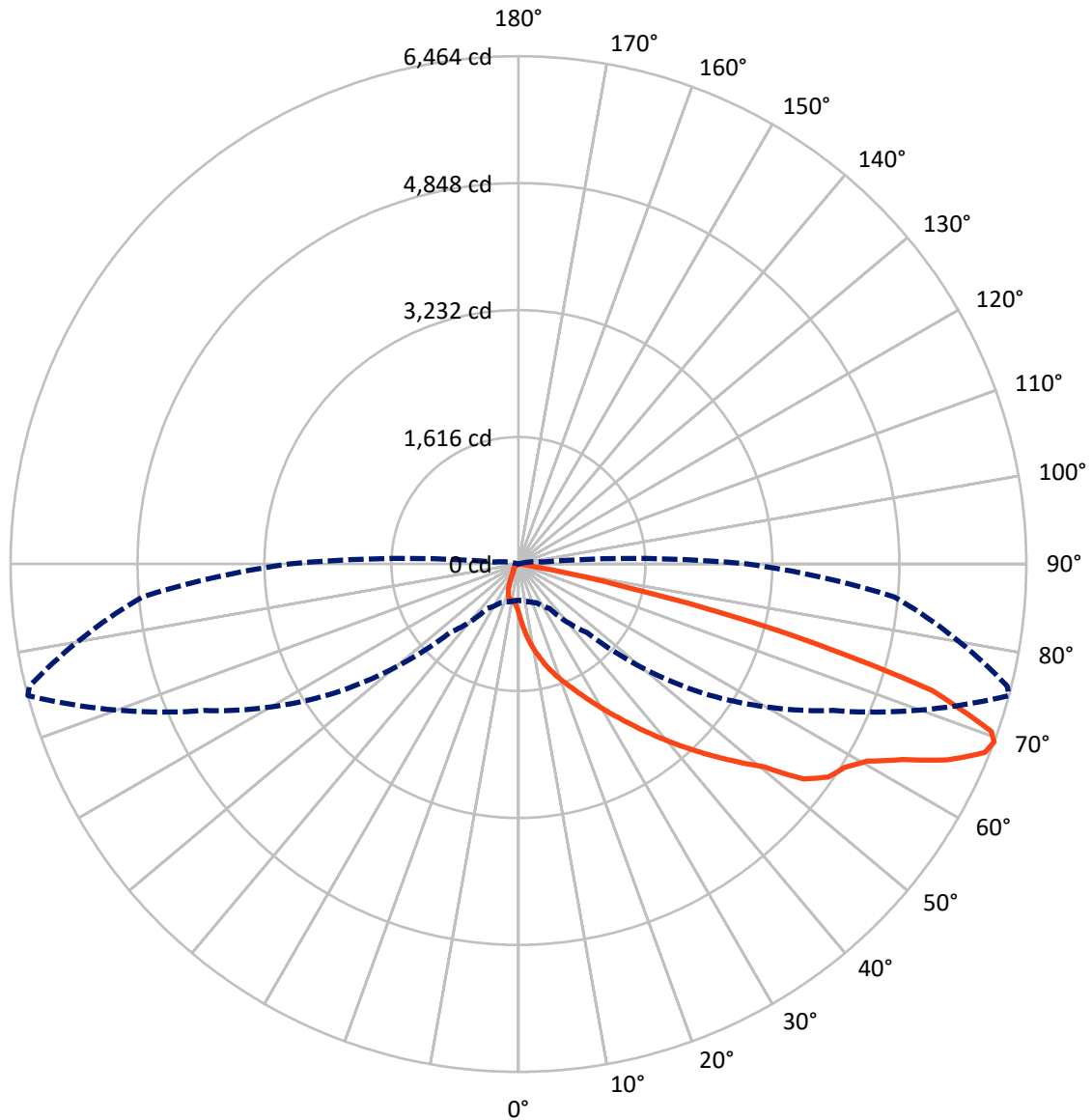
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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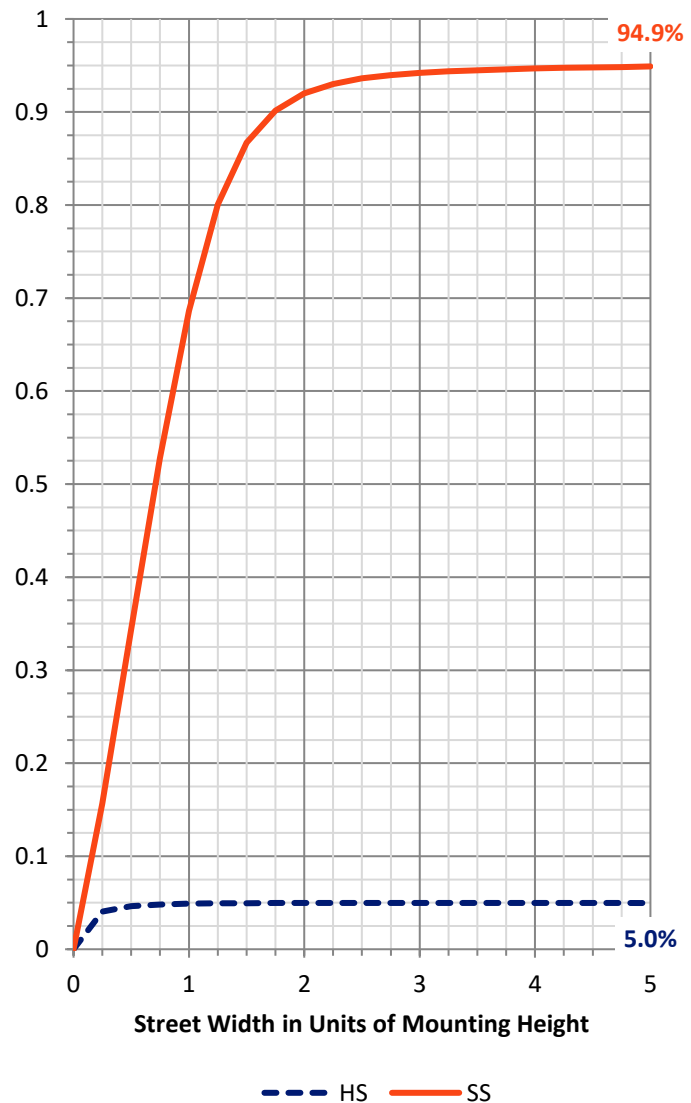
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	335.2	0.0	335.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6383.5	0.0	6383.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	6718.7	0.0	6718.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.9	1.1
10°-20°	260.6	3.9
20°-30°	497.5	7.4
30°-40°	892.5	13.3
40°-50°	1367.4	20.4
50°-60°	1589.2	23.7
60°-70°	1407.3	20.9
70°-80°	607.0	9.0
80°-90°	24.3	0.4
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°	6718.7	100.0
0°-180°	6718.7	100.0

Coefficient of Utilization



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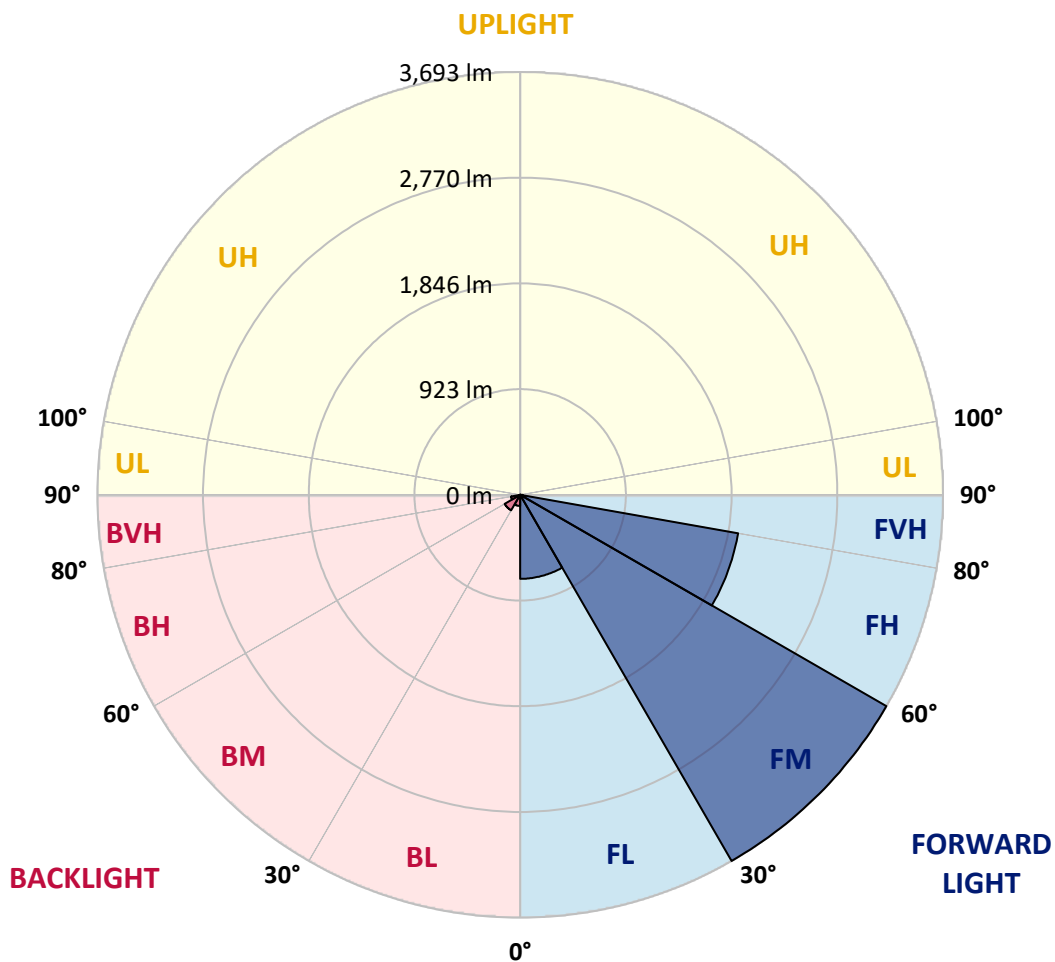
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	733.7	10.9			
FM	(30°-60°)	3692.8	55.0			
FH	(60°-80°)	1933.1	28.8			G2/5000
FVH	(80°-90°)	24.0	0.4			G1/100
BL	(0°-30°)	97.4	1.4	B0/110		
BM	(30°-60°)	156.3	2.3	B0/220		
BH	(60°-80°)	81.2	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1
2.5°	1029.9	1019.7	1009.6	998.0	971.8	926.9	870.3	809.4	734.0	720.9	660.0
5°	1250.4	1246.0	1235.8	1219.9	1190.9	1141.6	1077.8	987.8	861.6	839.8	710.7
7.5°	1405.5	1402.7	1394.0	1375.1	1349.0	1299.7	1233.0	1135.8	989.3	964.6	774.6
10°	1544.9	1543.3	1536.1	1518.7	1492.6	1438.9	1367.9	1266.3	1111.1	1083.5	848.5
12.5°	1671.0	1672.4	1669.6	1660.9	1642.0	1591.2	1510.0	1399.8	1228.6	1198.2	937.0
15°	1744.9	1749.3	1760.9	1778.3	1784.1	1743.5	1659.4	1537.6	1349.0	1322.9	1038.6
17.5°	1720.3	1724.7	1760.9	1820.4	1877.0	1882.7	1807.3	1668.1	1467.9	1441.8	1138.6
20°	1660.9	1666.7	1704.3	1785.6	1895.8	1972.8	1942.3	1810.2	1581.1	1549.2	1234.4
22.5°	1727.6	1727.6	1739.2	1788.5	1888.6	2009.0	2049.6	1952.4	1697.1	1658.0	1330.1
25°	1956.8	1952.4	1927.8	1907.4	1939.3	2046.7	2130.8	2097.5	1833.4	1788.5	1431.6
27.5°	2246.9	2267.2	2220.7	2146.8	2074.2	2120.7	2203.3	2241.1	1984.3	1937.9	1536.1
30°	2571.8	2580.5	2525.4	2426.7	2299.1	2254.1	2289.0	2364.3	2148.2	2097.5	1644.9
32.5°	2864.8	2857.5	2811.1	2708.2	2550.0	2452.8	2399.1	2463.0	2326.6	2268.6	1756.6
35°	3124.4	3130.2	3073.7	2954.7	2799.5	2696.5	2568.8	2574.7	2526.8	2460.1	1885.7
37.5°	3357.9	3347.8	3294.1	3175.2	3034.5	2922.8	2788.0	2690.8	2745.8	2676.2	2030.8
40°	3548.0	3537.9	3481.3	3365.2	3233.2	3141.8	3035.9	2846.0	2976.5	2896.7	2185.9
42.5°	3698.9	3687.2	3639.4	3527.6	3400.0	3318.8	3268.0	3037.4	3223.1	3143.3	2360.0
45°	3772.8	3762.6	3733.7	3649.5	3537.9	3466.8	3491.4	3257.9	3487.0	3420.3	2551.4
47.5°	3685.8	3681.4	3714.8	3700.3	3636.5	3598.7	3684.4	3498.7	3764.2	3698.9	2772.0
50°	3421.8	3429.0	3526.2	3646.6	3677.1	3722.0	3842.4	3752.5	4061.4	3991.9	3025.8
52.5°	2770.5	2819.9	3112.8	3402.9	3627.8	3797.5	4028.1	4115.1	4546.0	4477.8	3421.8
55°	2068.4	2088.8	2407.8	2904.0	3429.0	3791.7	4165.9	4328.4	4785.3	4715.7	3526.2
57.5°	1640.5	1647.8	1805.9	2312.2	3020.0	3661.1	4238.4	4405.2	4889.7	4831.7	3681.4
60°	1288.1	1296.8	1411.4	1759.5	2444.1	3308.6	4133.9	4471.9	5094.3	5047.9	3952.7
62.5°	1002.3	1011.0	1080.6	1285.1	1833.4	2766.2	3923.6	4579.3	5483.0	5461.2	4396.5
65°	776.0	779.0	826.7	922.5	1295.4	2178.7	3667.0	4679.4	6008.1	5989.2	4756.3
67.5°	573.0	577.4	610.7	670.1	874.6	1565.1	3246.2	4602.6	6404.1	6348.9	4886.8
69°	462.7	467.1	496.0	543.9	690.5	1233.0	2861.9	4412.5	6463.5	6411.3	4804.2
70°	396.0	398.8	427.9	468.5	588.9	1047.3	2557.3	4248.6	6385.3	6334.4	4615.6
72.5°	253.8	268.3	297.4	323.5	390.2	693.4	1726.1	3523.3	5509.1	5422.0	3614.7
75°	140.7	145.1	197.2	229.1	259.6	451.1	960.2	2197.5	3504.4	3443.6	1933.6
77.5°	116.0	119.0	139.2	174.1	174.1	252.4	362.6	865.9	1333.0	1202.5	523.6
80°	81.2	84.1	105.9	114.6	124.7	142.2	117.5	190.1	206.0	182.8	78.4
82.5°	56.6	59.4	72.5	94.3	100.0	66.7	43.5	56.6	59.4	59.4	30.5
85°	10.1	14.5	53.7	78.4	59.4	20.4	24.7	20.4	18.8	20.4	7.3
87.5°	0.0	0.0	33.3	37.7	31.9	8.7	10.1	7.3	4.4	5.8	2.9
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°	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1
2.5°	629.5	599.0	546.9	509.1	477.2	452.6	442.4	426.5	414.8	420.6	413.4
5°	646.9	593.3	509.1	455.4	417.8	385.9	359.8	339.4	323.5	320.6	317.6
7.5°	674.5	597.6	487.3	420.6	364.1	314.8	274.2	243.7	220.4	220.4	211.8
10°	712.2	609.3	474.3	385.9	301.7	235.0	194.4	165.3	153.7	152.3	149.5
12.5°	764.5	631.0	464.2	340.8	235.0	171.1	146.5	136.4	132.0	130.5	129.1
15°	835.5	662.9	452.6	285.7	178.4	140.7	130.5	121.8	117.5	116.0	114.6
17.5°	903.7	691.9	427.9	229.1	145.1	127.7	116.0	108.7	103.0	101.6	101.6
20°	967.5	716.6	385.9	178.4	130.5	114.6	103.0	94.3	88.5	87.1	87.1
22.5°	1034.2	736.8	333.6	145.1	119.0	101.6	89.9	81.2	75.4	74.0	72.5
25°	1105.3	751.4	274.2	129.1	107.3	89.9	76.9	69.7	65.3	63.8	62.4
27.5°	1182.2	757.2	217.6	117.5	94.3	78.4	66.7	59.4	56.6	55.1	55.1
30°	1251.8	751.4	168.3	104.4	82.7	68.1	58.0	52.2	49.3	47.9	47.9
32.5°	1324.3	736.8	134.9	92.9	72.5	58.0	49.3	45.0	43.5	42.0	42.0
35°	1401.2	718.0	116.0	82.7	62.4	50.7	43.5	40.6	39.2	37.7	37.7
37.5°	1491.2	694.8	105.9	74.0	55.1	45.0	37.7	36.2	34.8	34.8	34.8
40°	1592.6	665.8	98.6	66.7	49.3	39.2	33.3	31.9	30.5	30.5	30.5
42.5°	1700.0	632.4	91.3	59.4	43.5	33.3	29.1	29.1	27.5	27.5	26.1
45°	1820.4	599.0	84.1	52.2	37.7	29.1	24.7	23.2	23.2	21.8	21.8
47.5°	1962.5	568.6	76.9	46.4	33.3	24.7	21.8	20.4	18.8	17.4	17.4
50°	2162.7	565.7	68.1	40.6	30.5	20.4	17.4	16.0	14.5	13.1	13.1
52.5°	2361.5	539.6	58.0	33.3	24.7	17.4	13.1	11.6	10.1	10.1	8.7
55°	2406.4	496.0	50.7	29.1	18.8	13.1	10.1	7.3	7.3	5.8	5.8
57.5°	2505.1	475.8	43.5	23.2	14.5	10.1	5.8	4.4	4.4	4.4	4.4
60°	2699.5	469.9	37.7	20.4	10.1	7.3	4.4	2.9	2.9	1.4	1.4
62.5°	2967.8	464.2	31.9	17.4	7.3	4.4	2.9	1.4	0.0	0.0	0.0
65°	3115.7	425.0	26.1	13.1	5.8	4.4	1.4	0.0	0.0	0.0	0.0
67.5°	3076.5	351.1	23.2	8.7	4.4	2.9	1.4	0.0	0.0	0.0	0.0
69°	2912.6	295.9	18.8	7.3	4.4	2.9	1.4	0.0	0.0	0.0	0.0
70°	2715.4	255.3	17.4	5.8	2.9	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1927.8	133.5	11.6	4.4	2.9	1.4	0.0	0.0	0.0	0.0	0.0
75°	900.8	59.4	7.3	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	198.8	27.5	4.4	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.7	10.1	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.1	4.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	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)