

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: P214814

Luminaire Tested: **ARCH-AF24-50-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214814
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-AF24-50-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 670mA 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: 4749 lumens
Efficiency: N/A
Efficacy: 87.9 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): 54
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

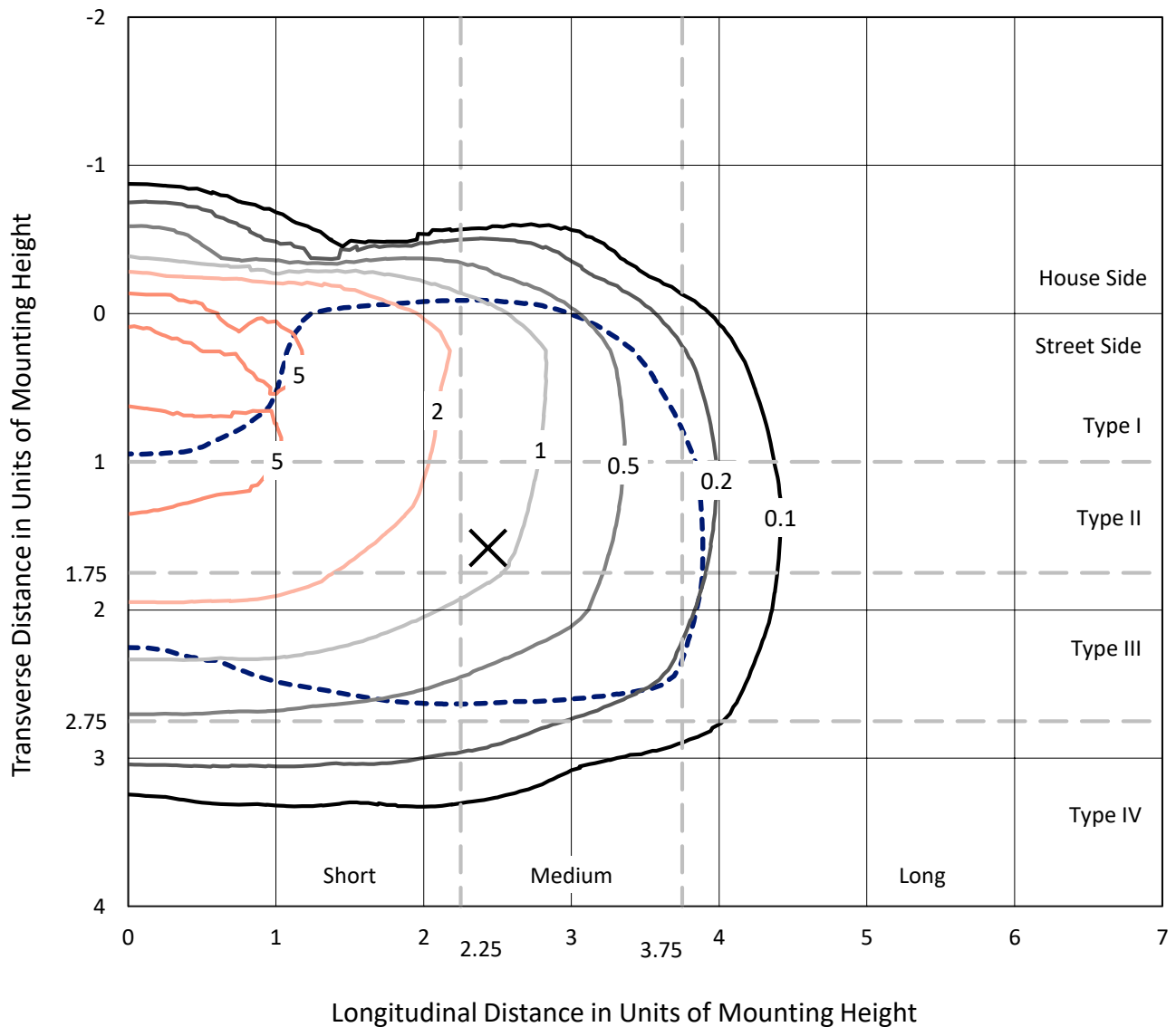


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

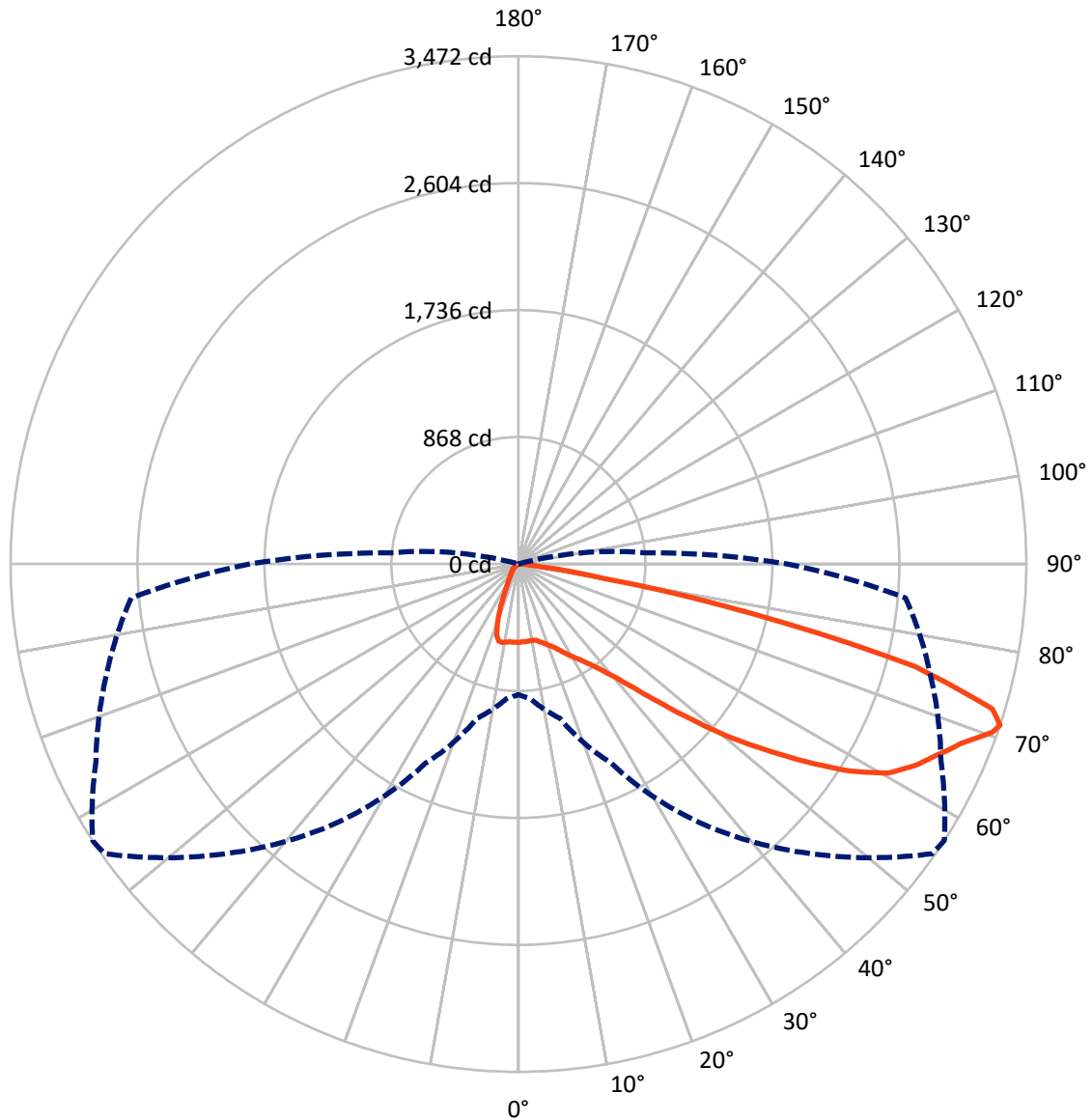


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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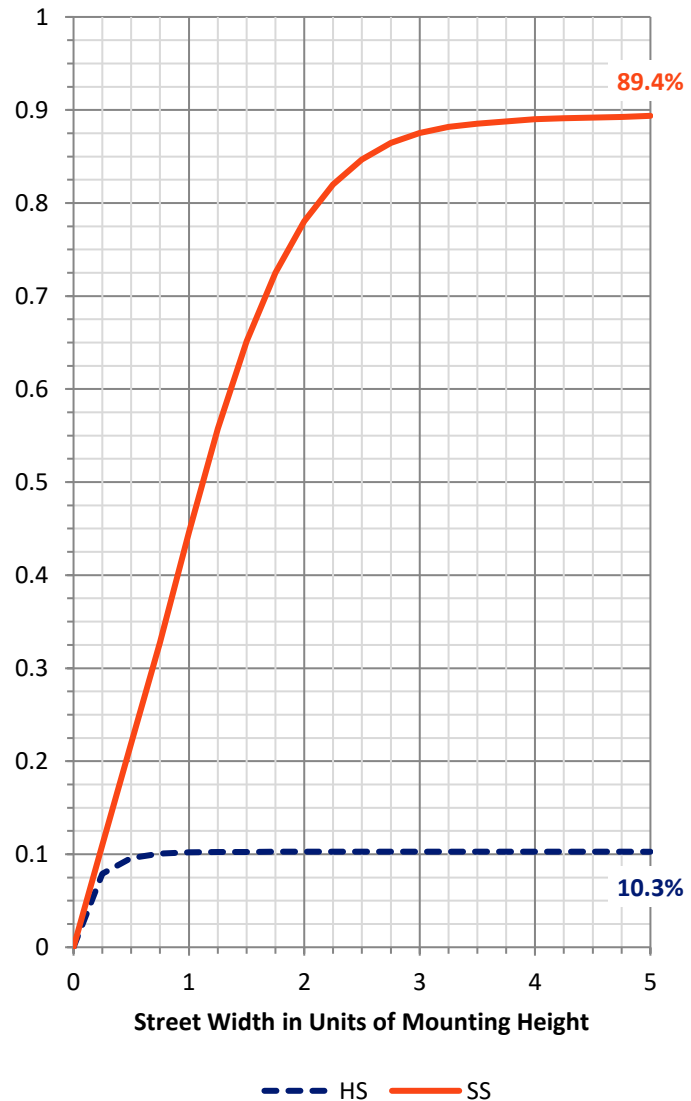
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	492.1	0.0	492.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	4256.9	0.0	4256.9
	% Fixture	89.6	0.0	89.6
Total	Lumens	4749.0	0.0	4749.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	1.1
10°-20°	134.8	2.8
20°-30°	210.2	4.4
30°-40°	355.3	7.5
40°-50°	690.2	14.5
50°-60°	1159.0	24.4
60°-70°	1383.1	29.1
70°-80°	728.9	15.3
80°-90°	37.0	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°	4749.0	100.0
0°-180°	4749.0	100.0



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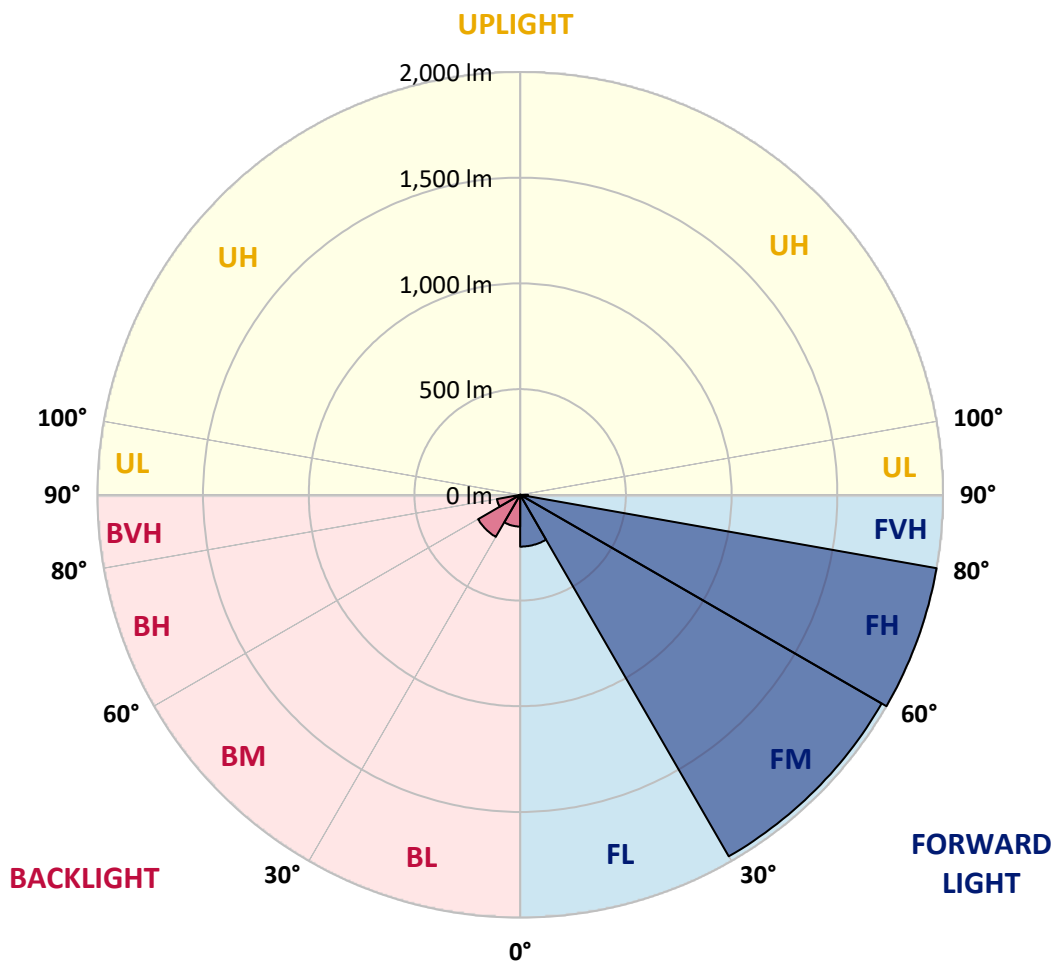
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	245.2	5.2			
FM	(30°-60°)	1974.7	41.6			
FH	(60°-80°)	2000.3	42.1			G2/5000
FVH	(80°-90°)	36.7	0.8			G1/100
BL	(0°-30°)	150.2	3.2	B1/500		
BM	(30°-60°)	229.8	4.8	B1/1000		
BH	(60°-80°)	111.8	2.4	B1/500		G1/500
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: 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°	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7
2.5°	529.0	529.0	529.0	530.1	531.2	531.2	533.4	532.3	532.3	532.3	534.5
5°	514.6	515.7	516.8	519.0	523.4	526.7	532.3	532.3	533.4	535.6	536.7
7.5°	494.7	495.8	499.1	503.5	512.4	520.1	529.0	531.2	534.5	540.0	542.2
10°	482.5	484.7	489.1	494.7	504.6	514.6	525.6	529.0	538.9	548.9	554.4
12.5°	479.2	480.3	484.7	493.6	505.7	517.9	532.3	535.6	550.0	565.5	574.3
15°	484.7	485.8	488.0	498.0	512.4	527.9	546.7	551.1	568.8	586.5	597.6
17.5°	494.7	494.7	496.9	505.7	521.2	538.9	563.3	569.9	589.8	609.7	621.9
20°	501.3	501.3	504.6	513.5	531.2	554.4	583.2	592.0	614.2	636.3	647.4
22.5°	507.9	509.0	512.4	522.3	542.2	574.3	607.5	616.4	641.8	665.1	676.1
25°	526.7	525.6	526.7	535.6	558.8	598.7	640.7	651.8	678.4	703.8	709.3
27.5°	578.8	576.5	562.2	556.6	574.3	624.1	682.8	693.8	724.8	750.3	750.3
30°	698.3	693.8	658.4	613.1	598.7	647.4	722.6	738.1	778.0	800.1	793.4
32.5°	849.9	839.9	794.6	717.1	659.5	678.4	764.7	782.4	833.3	852.1	837.7
35°	1015.9	1014.8	958.3	858.7	776.8	742.5	818.9	839.9	904.1	920.7	897.5
37.5°	1191.8	1196.3	1158.6	1021.4	925.1	847.7	890.8	915.2	993.7	1013.7	991.5
40°	1387.7	1386.6	1372.2	1209.5	1103.3	997.1	994.8	1017.0	1112.1	1143.1	1112.1
42.5°	1635.6	1633.4	1581.4	1435.3	1319.1	1191.8	1146.5	1154.2	1260.4	1311.3	1266.0
45°	1887.9	1872.4	1812.6	1686.5	1583.6	1433.1	1346.8	1346.8	1437.5	1507.2	1436.4
47.5°	2028.4	2012.9	1988.6	1918.9	1887.9	1719.7	1592.4	1576.9	1647.8	1718.6	1619.0
50°	2213.2	2213.2	2152.4	2125.8	2178.9	2060.5	1863.5	1848.0	1882.4	1938.8	1808.2
52.5°	2359.3	2332.7	2289.6	2312.8	2464.4	2410.2	2134.7	2104.8	2131.3	2145.7	1973.1
55°	2420.2	2394.7	2391.4	2476.6	2711.2	2636.0	2412.4	2385.9	2383.7	2312.8	2117.0
57.5°	2432.3	2410.2	2452.3	2601.7	2951.3	2820.8	2689.1	2669.2	2607.2	2430.1	2264.1
60°	2329.4	2340.5	2442.3	2670.3	3093.0	2981.2	2922.6	2901.5	2758.8	2529.7	2427.9
62.5°	2118.1	2144.6	2335.0	2676.9	3041.0	3046.5	3052.0	3037.7	2876.1	2620.5	2592.8
65°	1868.0	1875.7	2104.8	2585.1	2950.2	3026.6	3147.2	3146.1	2965.7	2722.3	2778.7
67.5°	1539.3	1552.6	1750.7	2275.2	2768.8	3017.7	3272.3	3268.9	3067.5	2838.5	2889.4
70°	1145.3	1161.9	1322.4	1769.5	2363.7	2907.1	3436.0	3438.3	3174.9	2927.0	2813.0
71°	893.0	922.9	1091.1	1502.8	2156.8	2795.3	3451.5	3471.5	3187.1	2914.8	2655.9
72.5°	438.2	473.6	685.0	1057.9	1775.0	2545.2	3349.7	3388.5	3110.7	2763.2	2270.8
75°	114.0	120.6	204.7	432.7	951.7	1686.5	2701.3	2799.7	2543.0	2103.7	1387.7
77.5°	71.9	74.1	96.3	168.2	356.3	640.7	1586.9	1635.6	1453.0	1065.7	489.1
80°	50.9	52.0	60.9	108.4	208.0	187.0	571.0	592.0	525.6	282.2	87.4
82.5°	31.0	31.0	44.3	69.7	128.4	101.8	150.5	160.5	141.6	78.6	28.8
85°	17.7	18.8	27.7	47.6	60.9	49.8	56.4	59.8	60.9	52.0	12.2
87.5°	14.4	15.5	24.3	39.8	33.2	24.3	24.3	25.5	26.6	31.0	5.5
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°	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7	536.7
2.5°	534.5	534.5	535.6	534.5	534.5	534.5	535.6	535.6	535.6	537.8	538.9
5°	536.7	536.7	536.7	535.6	534.5	534.5	536.7	537.8	537.8	541.1	541.1
7.5°	542.2	542.2	540.0	537.8	535.6	532.3	533.4	534.5	533.4	534.5	534.5
10°	554.4	554.4	551.1	546.7	540.0	530.1	516.8	500.2	484.7	479.2	477.0
12.5°	574.3	573.2	566.6	558.8	544.5	510.2	460.4	401.7	353.0	339.7	335.3
15°	596.5	594.3	586.5	573.2	534.5	443.8	339.7	264.5	218.0	206.9	204.7
17.5°	619.7	616.4	605.3	578.8	489.1	329.8	219.1	166.0	140.5	138.3	139.4
20°	644.1	639.6	624.1	567.7	395.1	220.2	141.6	128.4	126.2	126.2	127.3
22.5°	671.7	666.2	645.2	527.9	287.7	146.1	121.7	120.6	119.5	118.4	118.4
25°	703.8	697.2	665.1	455.9	198.1	119.5	116.2	112.9	110.7	108.4	107.3
27.5°	742.5	733.7	680.6	367.4	136.1	111.8	109.6	104.0	99.6	95.2	95.2
30°	781.3	770.2	676.1	276.7	110.7	104.0	99.6	93.0	86.3	81.9	80.8
32.5°	822.2	811.1	647.4	185.9	100.7	95.2	89.6	79.7	71.9	66.4	65.3
35°	883.1	874.2	590.9	122.8	90.7	84.1	76.4	66.4	56.4	50.9	49.8
37.5°	973.8	962.8	521.2	94.1	79.7	69.7	63.1	52.0	42.1	36.5	35.4
40°	1095.6	1062.4	438.2	83.0	69.7	57.5	48.7	37.6	29.9	26.6	26.6
42.5°	1237.2	1158.6	348.6	75.2	62.0	47.6	35.4	25.5	21.0	19.9	19.9
45°	1387.7	1248.3	258.9	69.7	54.2	37.6	25.5	17.7	15.5	14.4	14.4
47.5°	1542.6	1321.3	180.4	63.1	45.4	28.8	17.7	13.3	11.1	10.0	10.0
50°	1687.6	1368.9	127.3	56.4	38.7	21.0	13.3	10.0	7.7	7.7	7.7
52.5°	1788.3	1364.5	91.8	48.7	29.9	14.4	8.9	6.6	6.6	6.6	6.6
55°	1876.8	1347.9	71.9	42.1	23.2	10.0	6.6	5.5	5.5	4.4	4.4
57.5°	1952.1	1321.3	60.9	34.3	16.6	7.7	4.4	4.4	3.3	3.3	3.3
60°	2016.3	1288.1	50.9	28.8	11.1	5.5	3.3	2.2	2.2	1.1	2.2
62.5°	2103.7	1267.1	44.3	22.1	7.7	3.3	2.2	1.1	1.1	0.0	0.0
65°	2167.9	1227.2	37.6	15.5	4.4	2.2	1.1	1.1	0.0	0.0	0.0
67.5°	2170.1	1155.3	27.7	8.9	3.3	2.2	1.1	0.0	0.0	0.0	0.0
70°	1995.2	984.9	17.7	4.4	2.2	1.1	1.1	0.0	0.0	0.0	0.0
71°	1834.8	872.0	14.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1511.6	640.7	11.1	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0
75°	833.3	232.4	5.5	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	266.7	70.8	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	45.4	11.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.5	4.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	1.1	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)