

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: P234734

Luminaire Tested: **ARCH-AF24-70-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234734
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-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 4723 lumens
Efficiency: N/A
Efficacy: 63.8 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

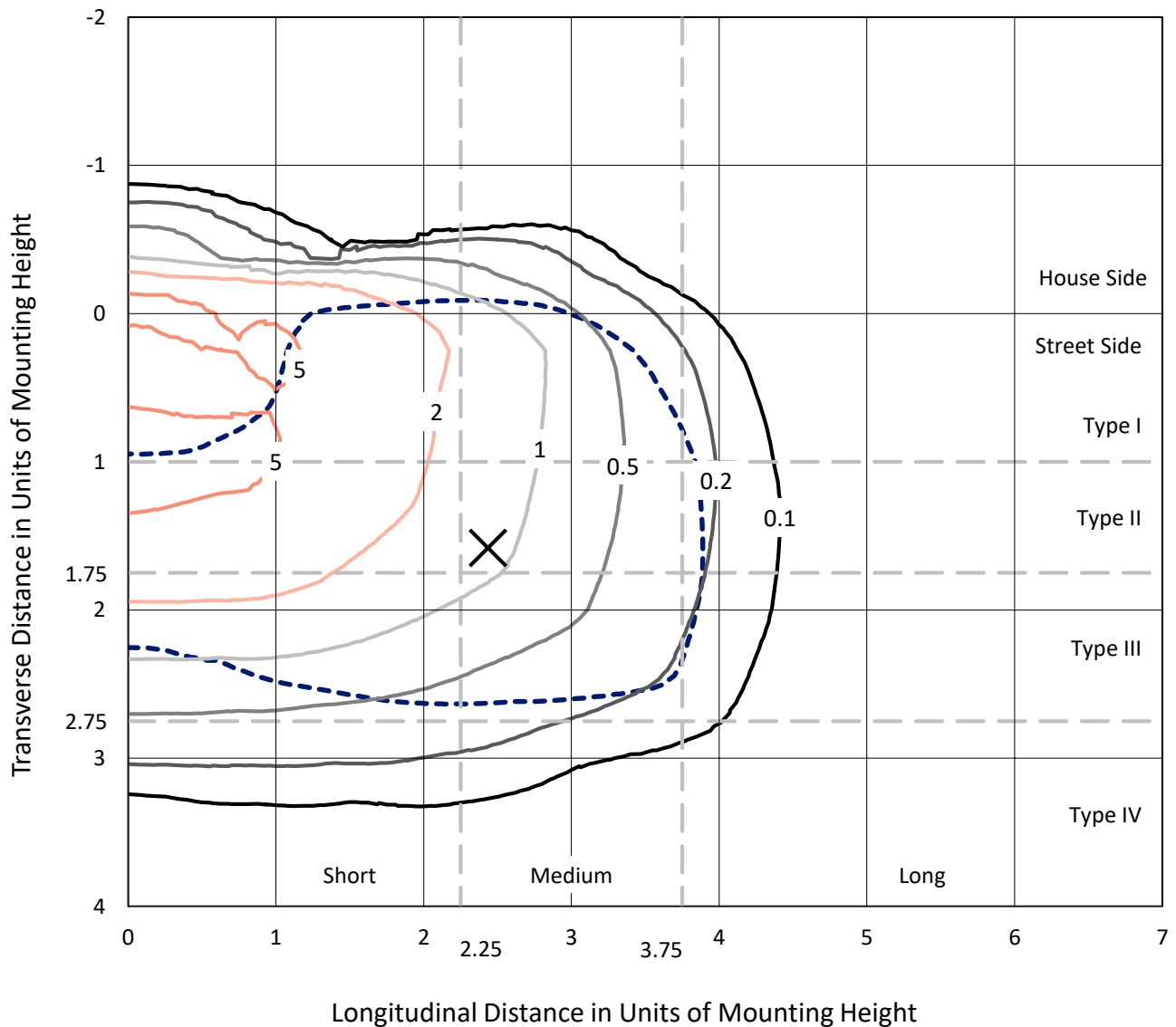


REPORT NUMBER: P234734

CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

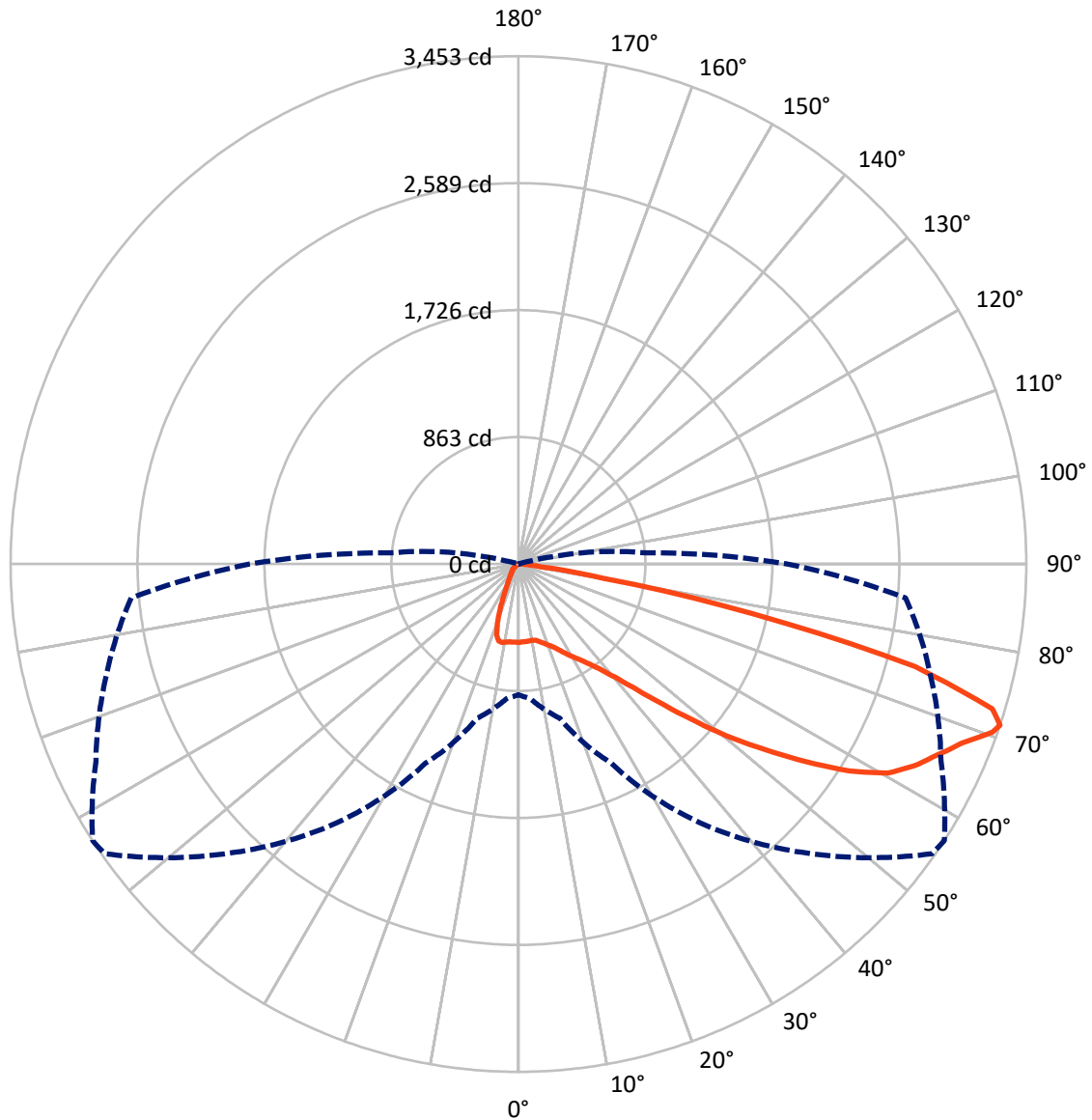


Based on 10 foot mounting height. Maximum calculated value = 6.6 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234734

CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234734

CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

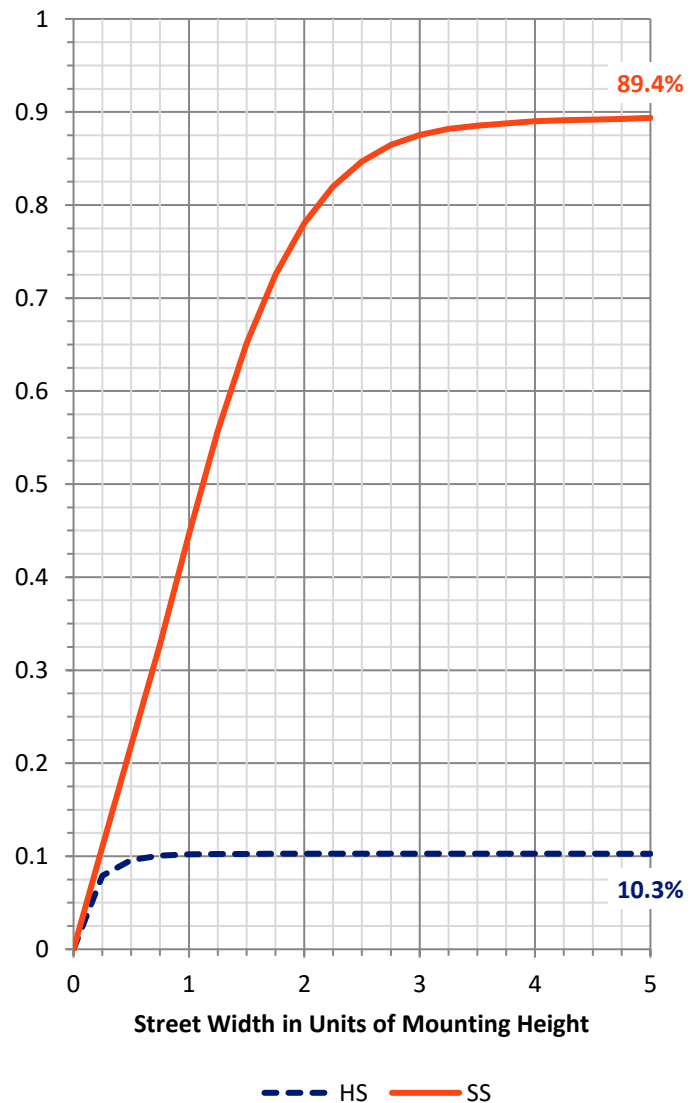
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	489.4	0.0	489.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	4233.5	0.0	4233.5
	% Fixture	89.6	0.0	89.6
Total	Lumens	4723.0	0.0	4723.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	1.1
10°-20°	134.0	2.8
20°-30°	209.1	4.4
30°-40°	353.4	7.5
40°-50°	686.4	14.5
50°-60°	1152.6	24.4
60°-70°	1375.6	29.1
70°-80°	724.9	15.3
80°-90°	36.8	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°	4723.0	100.0
0°-180°	4723.0	100.0



REPORT NUMBER: P234734

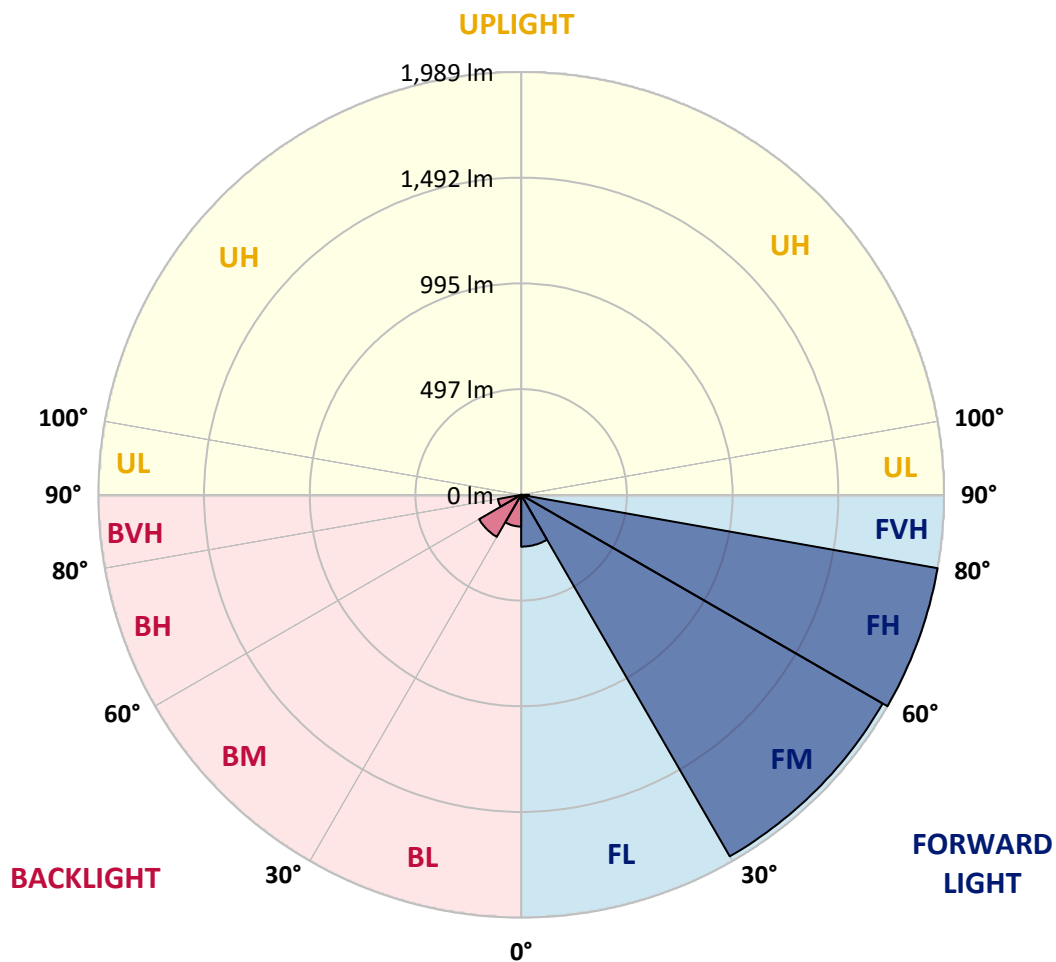
CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	243.8	5.2			
FM	(30°-60°)	1963.9	41.6			
FH	(60°-80°)	1989.4	42.1			G2/5000
FVH	(80°-90°)	36.5	0.8			G1/100
BL	(0°-30°)	149.4	3.2	B1/500		
BM	(30°-60°)	228.5	4.8	B1/1000		
BH	(60°-80°)	111.1	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





REPORT NUMBER: P234734

CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	526.1	526.1	526.1	527.2	528.3	528.3	530.5	529.4	529.4	529.4	531.6
5°	511.8	512.9	514.0	516.2	520.6	523.9	529.4	529.4	530.5	532.7	533.8
7.5°	491.9	493.0	496.4	500.8	509.6	517.3	526.1	528.3	531.6	537.1	539.3
10°	479.8	482.0	486.4	491.9	501.9	511.8	522.8	526.1	536.0	545.9	551.4
12.5°	476.5	477.6	482.0	490.8	503.0	515.1	529.4	532.7	547.0	562.4	571.2
15°	482.0	483.1	485.3	495.3	509.6	525.0	543.7	548.1	565.7	583.3	594.3
17.5°	491.9	491.9	494.2	503.0	518.4	536.0	560.2	566.8	586.6	606.4	618.5
20°	498.6	498.6	501.9	510.7	528.3	551.4	580.0	588.8	610.8	632.8	643.8
22.5°	505.2	506.3	509.6	519.5	539.3	571.2	604.2	613.0	638.3	661.4	672.4
25°	523.9	522.8	523.9	532.7	555.8	595.4	637.2	648.2	674.6	700.0	705.5
27.5°	575.6	573.4	559.1	553.6	571.2	620.7	679.0	690.0	720.9	746.2	746.2
30°	694.5	690.0	654.8	609.7	595.4	643.8	718.7	734.1	773.7	795.7	789.1
32.5°	845.2	835.3	790.2	713.2	655.9	674.6	760.5	778.1	828.7	847.4	833.1
35°	1010.3	1009.2	953.1	854.0	772.6	738.5	814.4	835.3	899.2	915.7	892.6
37.5°	1185.3	1189.7	1152.3	1015.8	920.1	843.0	885.9	910.2	988.3	1008.1	986.1
40°	1380.1	1379.0	1364.7	1202.9	1097.3	991.6	989.4	1011.4	1106.1	1136.9	1106.1
42.5°	1626.6	1624.4	1572.7	1427.4	1311.9	1185.3	1140.2	1147.9	1253.5	1304.2	1259.0
45°	1877.6	1862.1	1802.7	1677.3	1574.9	1425.2	1339.4	1339.4	1429.6	1499.0	1428.5
47.5°	2017.3	2001.9	1977.7	1908.4	1877.6	1710.3	1583.7	1568.3	1638.7	1709.2	1610.1
50°	2201.1	2201.1	2140.6	2114.2	2167.0	2049.2	1853.3	1837.9	1872.0	1928.2	1798.3
52.5°	2346.4	2320.0	2277.1	2300.2	2450.9	2397.0	2123.0	2093.3	2119.7	2134.0	1962.3
55°	2406.9	2381.6	2378.3	2463.0	2696.4	2621.5	2399.2	2372.8	2370.6	2300.2	2105.4
57.5°	2419.0	2397.0	2438.8	2587.4	2935.2	2805.3	2674.4	2654.5	2592.9	2416.8	2251.7
60°	2316.7	2327.7	2428.9	2655.6	3076.1	2964.9	2906.6	2885.7	2743.7	2515.9	2414.6
62.5°	2106.5	2132.9	2322.2	2662.2	3024.3	3029.8	3035.3	3021.0	2860.4	2606.1	2578.6
65°	1857.7	1865.4	2093.3	2570.9	2934.1	3010.0	3130.0	3128.9	2949.5	2707.4	2763.5
67.5°	1530.9	1544.1	1741.1	2262.7	2753.6	3001.2	3254.3	3251.0	3050.7	2822.9	2873.6
70°	1139.1	1155.6	1315.2	1759.8	2350.8	2891.2	3417.2	3419.4	3157.5	2911.0	2797.6
71°	888.2	917.9	1085.2	1494.6	2145.0	2780.0	3432.6	3452.5	3169.6	2898.9	2641.3
72.5°	435.8	471.0	681.2	1052.1	1765.3	2531.3	3331.4	3369.9	3093.7	2748.1	2258.3
75°	113.4	120.0	203.6	430.3	946.5	1677.3	2686.5	2784.4	2529.1	2092.2	1380.1
77.5°	71.5	73.7	95.7	167.3	354.4	637.2	1578.2	1626.6	1445.0	1059.8	486.4
80°	50.6	51.7	60.5	107.9	206.9	186.0	567.9	588.8	522.8	280.6	86.9
82.5°	30.8	30.8	44.0	69.3	127.7	101.3	149.7	159.6	140.9	78.1	28.6
85°	17.6	18.7	27.5	47.3	60.5	49.5	56.1	59.4	60.5	51.7	12.1
87.5°	14.3	15.4	24.2	39.6	33.0	24.2	24.2	25.3	26.4	30.8	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



REPORT NUMBER: P234734

CATALOG NUMBER: ARCH-AF24-70-D-U-T3-8027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8	533.8
2.5°	531.6	531.6	532.7	531.6	531.6	531.6	532.7	532.7	532.7	534.9	536.0
5°	533.8	533.8	533.8	532.7	531.6	531.6	533.8	534.9	534.9	538.2	538.2
7.5°	539.3	539.3	537.1	534.9	532.7	529.4	530.5	531.6	530.5	531.6	531.6
10°	551.4	551.4	548.1	543.7	537.1	527.2	514.0	497.5	482.0	476.5	474.3
12.5°	571.2	570.1	563.5	555.8	541.5	507.4	457.8	399.5	351.1	337.9	333.5
15°	593.2	591.0	583.3	570.1	531.6	441.3	337.9	263.0	216.8	205.8	203.6
17.5°	616.3	613.0	602.0	575.6	486.4	328.0	217.9	165.1	139.8	137.6	138.7
20°	640.5	636.1	620.7	564.6	392.9	219.0	140.9	127.7	125.5	125.5	126.6
22.5°	668.0	662.5	641.6	525.0	286.1	145.3	121.1	120.0	118.9	117.8	117.8
25°	700.0	693.4	661.4	453.4	197.0	118.9	115.6	112.3	110.1	107.9	106.8
27.5°	738.5	729.7	676.8	365.4	135.4	111.2	109.0	103.5	99.1	94.6	94.6
30°	777.0	766.0	672.4	275.1	110.1	103.5	99.1	92.4	85.8	81.4	80.3
32.5°	817.7	806.7	643.8	184.9	100.2	94.6	89.1	79.2	71.5	66.0	64.9
35°	878.2	869.4	587.7	122.2	90.2	83.6	75.9	66.0	56.1	50.6	49.5
37.5°	968.5	957.5	518.4	93.5	79.2	69.3	62.7	51.7	41.8	36.3	35.2
40°	1089.6	1056.5	435.8	82.5	69.3	57.2	48.4	37.4	29.7	26.4	26.4
42.5°	1230.4	1152.3	346.7	74.8	61.6	47.3	35.2	25.3	20.9	19.8	19.8
45°	1380.1	1241.4	257.5	69.3	53.9	37.4	25.3	17.6	15.4	14.3	14.3
47.5°	1534.2	1314.1	179.4	62.7	45.1	28.6	17.6	13.2	11.0	9.9	9.9
50°	1678.4	1361.4	126.6	56.1	38.5	20.9	13.2	9.9	7.7	7.7	7.7
52.5°	1778.5	1357.0	91.3	48.4	29.7	14.3	8.8	6.6	6.6	6.6	6.6
55°	1866.5	1340.5	71.5	41.8	23.1	9.9	6.6	5.5	5.5	4.4	4.4
57.5°	1941.4	1314.1	60.5	34.1	16.5	7.7	4.4	4.4	3.3	3.3	3.3
60°	2005.2	1281.0	50.6	28.6	11.0	5.5	3.3	2.2	2.2	1.1	2.2
62.5°	2092.2	1260.1	44.0	22.0	7.7	3.3	2.2	1.1	1.1	0.0	0.0
65°	2156.0	1220.5	37.4	15.4	4.4	2.2	1.1	1.1	0.0	0.0	0.0
67.5°	2158.2	1149.0	27.5	8.8	3.3	2.2	1.1	0.0	0.0	0.0	0.0
70°	1984.3	979.5	17.6	4.4	2.2	1.1	1.1	0.0	0.0	0.0	0.0
71°	1824.7	867.2	14.3	3.3	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1503.4	637.2	11.0	3.3	1.1	1.1	0.0	0.0	0.0	0.0	0.0
75°	828.7	231.1	5.5	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	265.2	70.4	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	45.1	11.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.4	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)