

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: P234821

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234821  
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-M-AF48-70-D-U-T3-8027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES 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: 5808 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 73  
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

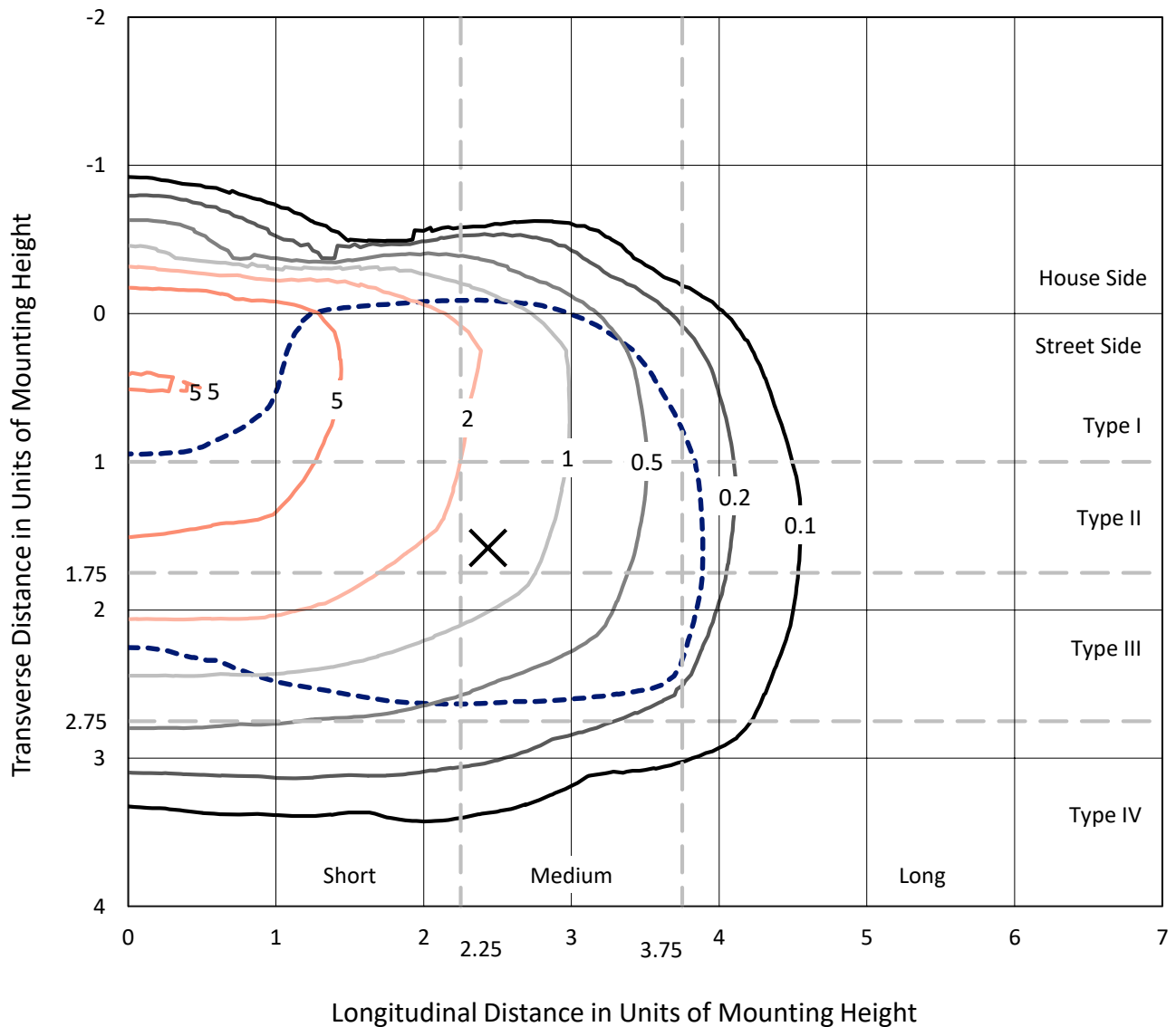


REPORT NUMBER: P234821

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

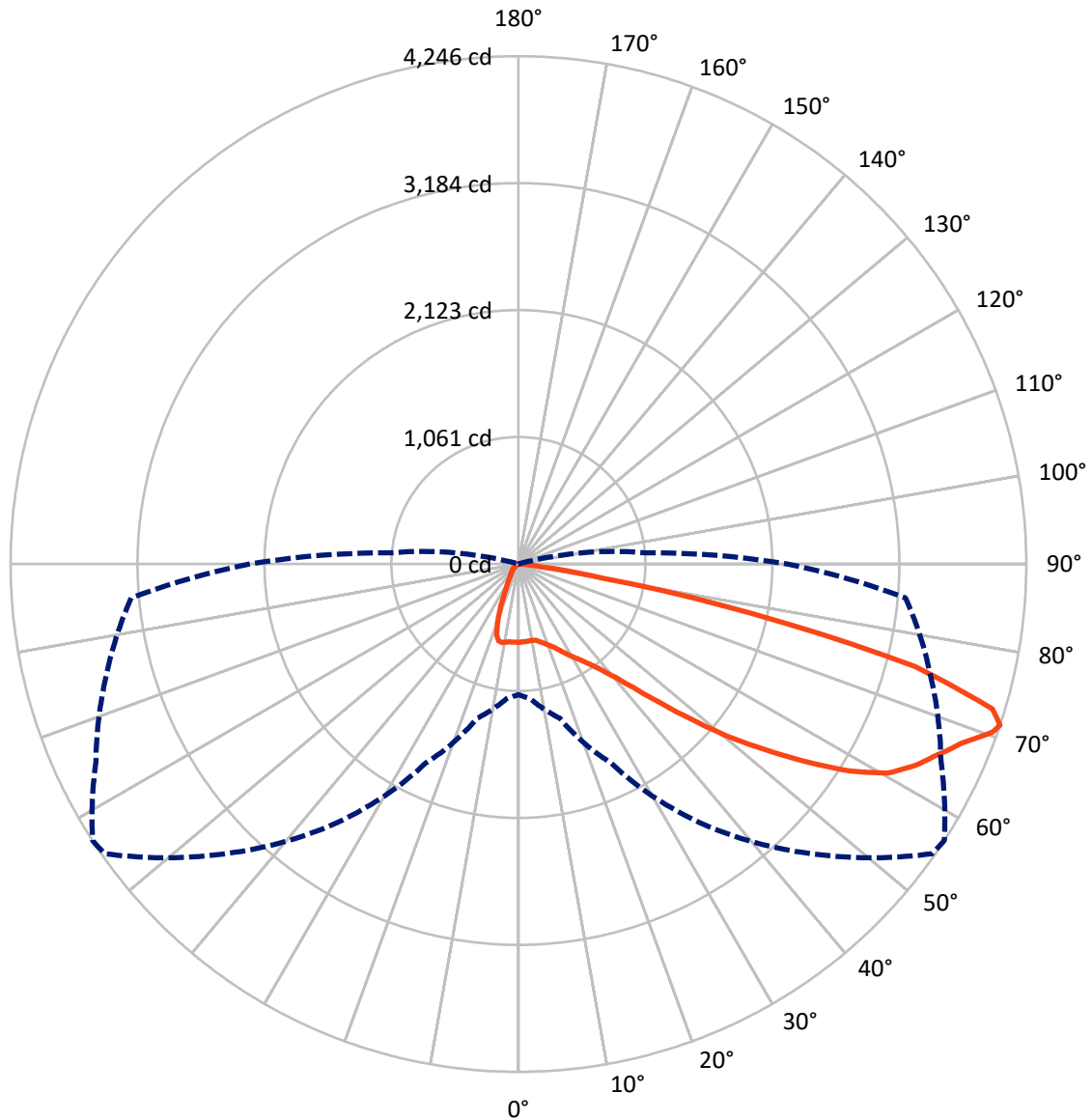


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P234821

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P234821

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

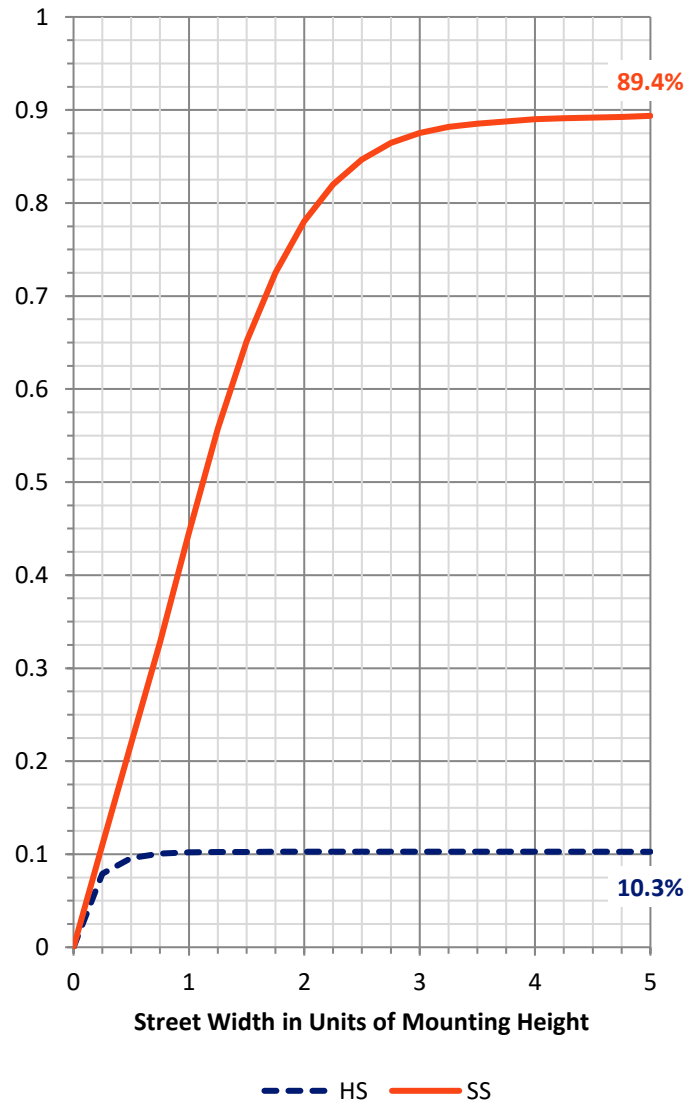
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	601.9	0.0	601.9
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	5206.1	0.0	5206.1
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	5808.0	0.0	5808.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.6	1.1
10°-20°	164.8	2.8
20°-30°	257.1	4.4
30°-40°	434.6	7.5
40°-50°	844.1	14.5
50°-60°	1417.4	24.4
60°-70°	1691.6	29.1
70°-80°	891.5	15.3
80°-90°	45.3	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°	5808.0	100.0
0°-180°	5808.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P234821

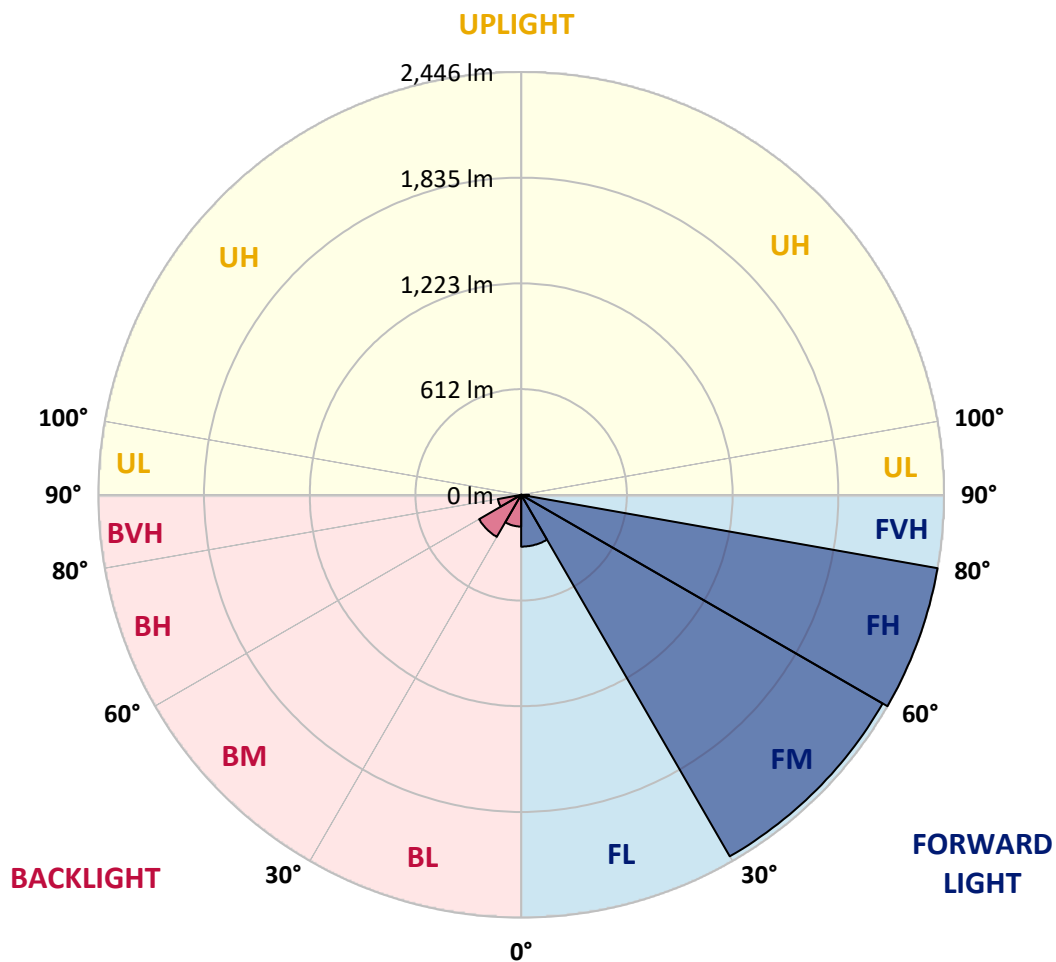
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	299.9	5.2			
FM	(30°-60°)	2415.0	41.6			
FH	(60°-80°)	2446.4	42.1			G2/5000
FVH	(80°-90°)	44.9	0.8			G1/100
BL	(0°-30°)	183.7	3.2	B1/500		
BM	(30°-60°)	281.0	4.8	B1/1000		
BH	(60°-80°)	136.7	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: P234821

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4
2.5°	646.9	646.9	646.9	648.3	649.6	649.6	652.3	651.0	651.0	651.0	653.7
5°	629.3	630.7	632.0	634.7	640.2	644.2	651.0	651.0	652.3	655.0	656.4
7.5°	605.0	606.3	610.4	615.8	626.6	636.1	646.9	649.6	653.7	660.5	663.2
10°	590.1	592.8	598.2	605.0	617.1	629.3	642.9	646.9	659.1	671.3	678.0
12.5°	586.0	587.4	592.8	603.6	618.5	633.4	651.0	655.0	672.6	691.6	702.4
15°	592.8	594.1	596.8	609.0	626.6	645.6	668.6	674.0	695.6	717.3	730.8
17.5°	605.0	605.0	607.7	618.5	637.4	659.1	688.9	697.0	721.4	745.7	760.6
20°	613.1	613.1	617.1	628.0	649.6	678.0	713.2	724.1	751.1	778.2	791.7
22.5°	621.2	622.6	626.6	638.8	663.2	702.4	743.0	753.8	785.0	813.4	826.9
25°	644.2	642.9	644.2	655.0	683.5	732.2	783.6	797.1	829.6	860.8	867.5
27.5°	707.8	705.1	687.5	680.8	702.4	763.3	835.0	848.6	886.5	917.6	917.6
30°	854.0	848.6	805.3	749.8	732.2	791.7	883.8	902.7	951.4	978.5	970.4
32.5°	1039.4	1027.2	971.7	877.0	806.6	829.6	935.2	956.8	1019.1	1042.1	1024.5
35°	1242.4	1241.1	1172.0	1050.2	950.1	908.1	1001.5	1027.2	1105.7	1126.0	1097.6
37.5°	1457.6	1463.0	1417.0	1249.2	1131.4	1036.7	1089.5	1119.2	1215.3	1239.7	1212.6
40°	1697.1	1695.8	1678.2	1479.3	1349.3	1219.4	1216.7	1243.8	1360.2	1398.0	1360.2
42.5°	2000.3	1997.6	1934.0	1755.3	1613.2	1457.6	1402.1	1411.6	1541.5	1603.8	1548.3
45°	2308.9	2289.9	2216.8	2062.6	1936.7	1752.6	1647.1	1647.1	1758.0	1843.3	1756.7
47.5°	2480.8	2461.8	2432.0	2346.8	2308.9	2103.2	1947.5	1928.6	2015.2	2101.8	1980.0
50°	2706.8	2706.8	2632.3	2599.9	2664.8	2520.0	2279.1	2260.2	2302.1	2371.1	2211.4
52.5°	2885.4	2852.9	2800.2	2828.6	3014.0	2947.7	2610.7	2574.1	2606.6	2624.2	2413.1
55°	2959.9	2928.7	2924.7	3028.9	3315.8	3223.8	2950.4	2917.9	2915.2	2828.6	2589.0
57.5°	2974.7	2947.7	2999.1	3181.8	3609.5	3449.8	3288.7	3264.4	3188.6	2972.0	2769.0
60°	2848.9	2862.4	2986.9	3265.7	3782.7	3646.0	3574.3	3548.6	3374.0	3093.8	2969.3
62.5°	2590.4	2622.9	2855.6	3273.8	3719.1	3725.9	3732.6	3715.0	3517.4	3204.8	3171.0
65°	2284.5	2294.0	2574.1	3161.5	3608.1	3701.5	3849.0	3847.7	3627.1	3329.3	3398.4
67.5°	1882.6	1898.8	2141.1	2782.6	3386.2	3690.7	4002.0	3997.9	3751.6	3471.4	3533.7
70°	1400.8	1421.1	1617.3	2164.1	2890.8	3555.3	4202.3	4205.0	3882.9	3579.7	3440.3
71°	1092.2	1128.7	1334.4	1837.9	2637.7	3418.7	4221.2	4245.6	3897.8	3564.8	3248.1
72.5°	535.9	579.2	837.7	1293.8	2170.8	3112.8	4096.7	4144.1	3804.4	3379.4	2777.1
75°	139.4	147.5	250.4	529.2	1163.9	2062.6	3303.6	3424.1	3110.1	2572.8	1697.1
77.5°	88.0	90.7	117.7	205.7	435.8	783.6	1940.8	2000.3	1777.0	1303.3	598.2
80°	62.3	63.6	74.4	132.6	254.4	228.7	698.3	724.1	642.9	345.1	106.9
82.5°	37.9	37.9	54.1	85.3	157.0	124.5	184.1	196.2	173.2	96.1	35.2
85°	21.7	23.0	33.8	58.2	74.4	60.9	69.0	73.1	74.4	63.6	14.9
87.5°	17.6	18.9	29.8	48.7	40.6	29.8	29.8	31.1	32.5	37.9	6.8
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: P234821

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-8027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4	656.4
2.5°	653.7	653.7	655.0	653.7	653.7	653.7	655.0	655.0	655.0	657.7	659.1
5°	656.4	656.4	656.4	655.0	653.7	653.7	656.4	657.7	657.7	661.8	661.8
7.5°	663.2	663.2	660.5	657.7	655.0	651.0	652.3	653.7	652.3	653.7	653.7
10°	678.0	678.0	674.0	668.6	660.5	648.3	632.0	611.7	592.8	586.0	583.3
12.5°	702.4	701.1	692.9	683.5	665.9	623.9	563.0	491.3	431.7	415.5	410.1
15°	729.5	726.8	717.3	701.1	653.7	542.7	415.5	323.5	266.6	253.1	250.4
17.5°	757.9	753.8	740.3	707.8	598.2	403.3	268.0	203.0	171.9	169.2	170.5
20°	787.7	782.3	763.3	694.3	483.2	269.3	173.2	157.0	154.3	154.3	155.6
22.5°	821.5	814.7	789.0	645.6	351.9	178.6	148.9	147.5	146.2	144.8	144.8
25°	860.8	852.6	813.4	557.6	242.3	146.2	142.1	138.0	135.3	132.6	131.3
27.5°	908.1	897.3	832.3	449.3	166.5	136.7	134.0	127.2	121.8	116.4	116.4
30°	955.5	942.0	826.9	338.3	135.3	127.2	121.8	113.7	105.6	100.2	98.8
32.5°	1005.6	992.0	791.7	227.4	123.2	116.4	109.6	97.4	88.0	81.2	79.8
35°	1080.0	1069.2	722.7	150.2	111.0	102.9	93.4	81.2	69.0	62.3	60.9
37.5°	1191.0	1177.4	637.4	115.0	97.4	85.3	77.1	63.6	51.4	44.7	43.3
40°	1339.9	1299.3	535.9	101.5	85.3	70.4	59.5	46.0	36.5	32.5	32.5
42.5°	1513.1	1417.0	426.3	92.0	75.8	58.2	43.3	31.1	25.7	24.4	24.4
45°	1697.1	1526.6	316.7	85.3	66.3	46.0	31.1	21.7	18.9	17.6	17.6
47.5°	1886.6	1615.9	220.6	77.1	55.5	35.2	21.7	16.2	13.5	12.2	12.2
50°	2063.9	1674.1	155.6	69.0	47.4	25.7	16.2	12.2	9.5	9.5	9.5
52.5°	2187.1	1668.7	112.3	59.5	36.5	17.6	10.8	8.1	8.1	8.1	8.1
55°	2295.3	1648.4	88.0	51.4	28.4	12.2	8.1	6.8	6.8	5.4	5.4
57.5°	2387.4	1615.9	74.4	42.0	20.3	9.5	5.4	5.4	4.1	4.1	4.1
60°	2465.9	1575.3	62.3	35.2	13.5	6.8	4.1	2.7	2.7	1.4	2.7
62.5°	2572.8	1549.6	54.1	27.1	9.5	4.1	2.7	1.4	1.4	0.0	0.0
65°	2651.3	1500.9	46.0	18.9	5.4	2.7	1.4	1.4	0.0	0.0	0.0
67.5°	2654.0	1412.9	33.8	10.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0
70°	2440.2	1204.5	21.7	5.4	2.7	1.4	1.4	0.0	0.0	0.0	0.0
71°	2243.9	1066.5	17.6	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1848.7	783.6	13.5	4.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0
75°	1019.1	284.2	6.8	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	326.2	86.6	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	55.5	13.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	18.9	5.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	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)