

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: P214780

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214780  
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-AF16-40-D-U-T3-7030-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3304 lumens  
Efficiency: N/A  
Efficacy: 78.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 42  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

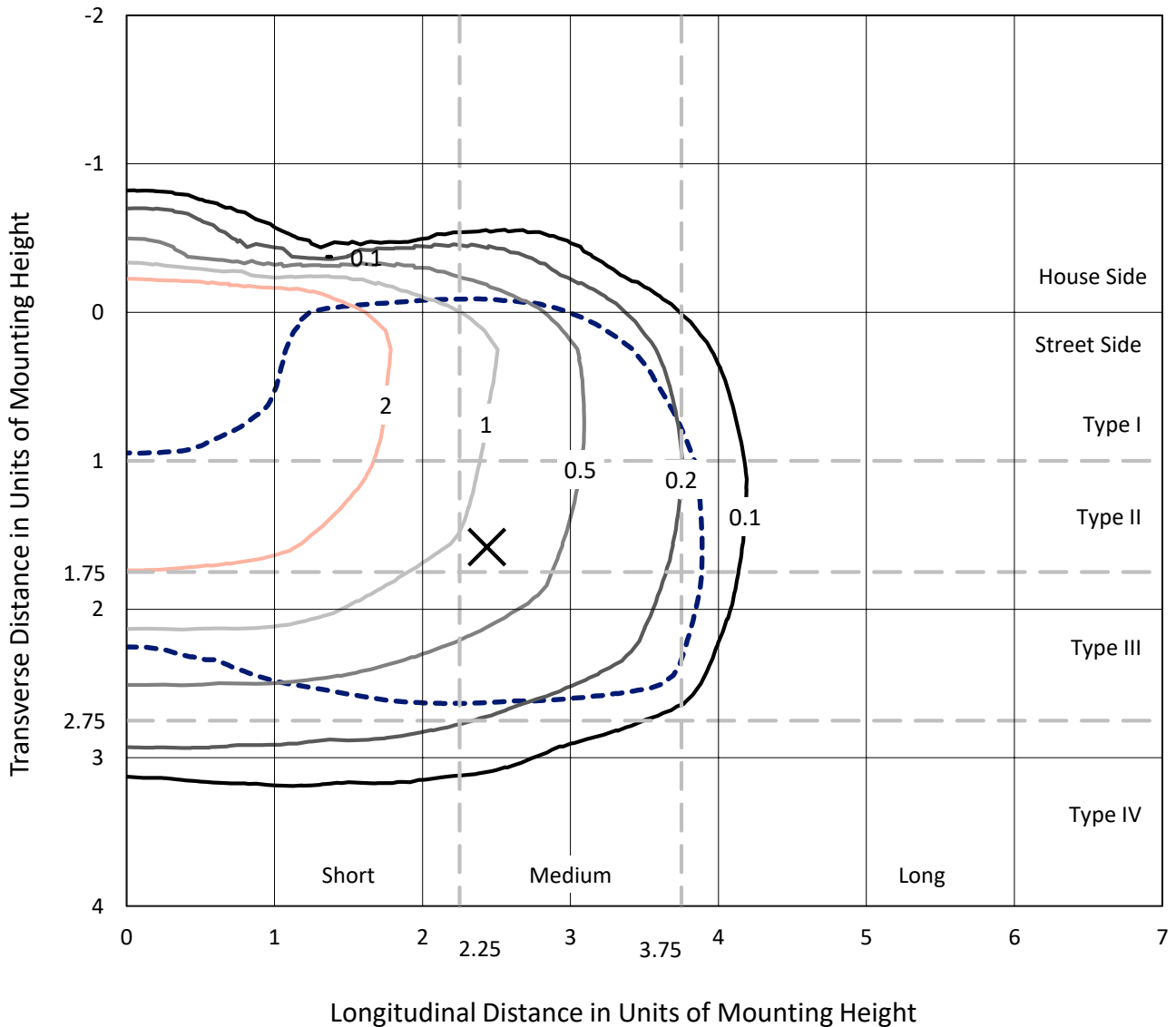


REPORT NUMBER: P214780

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

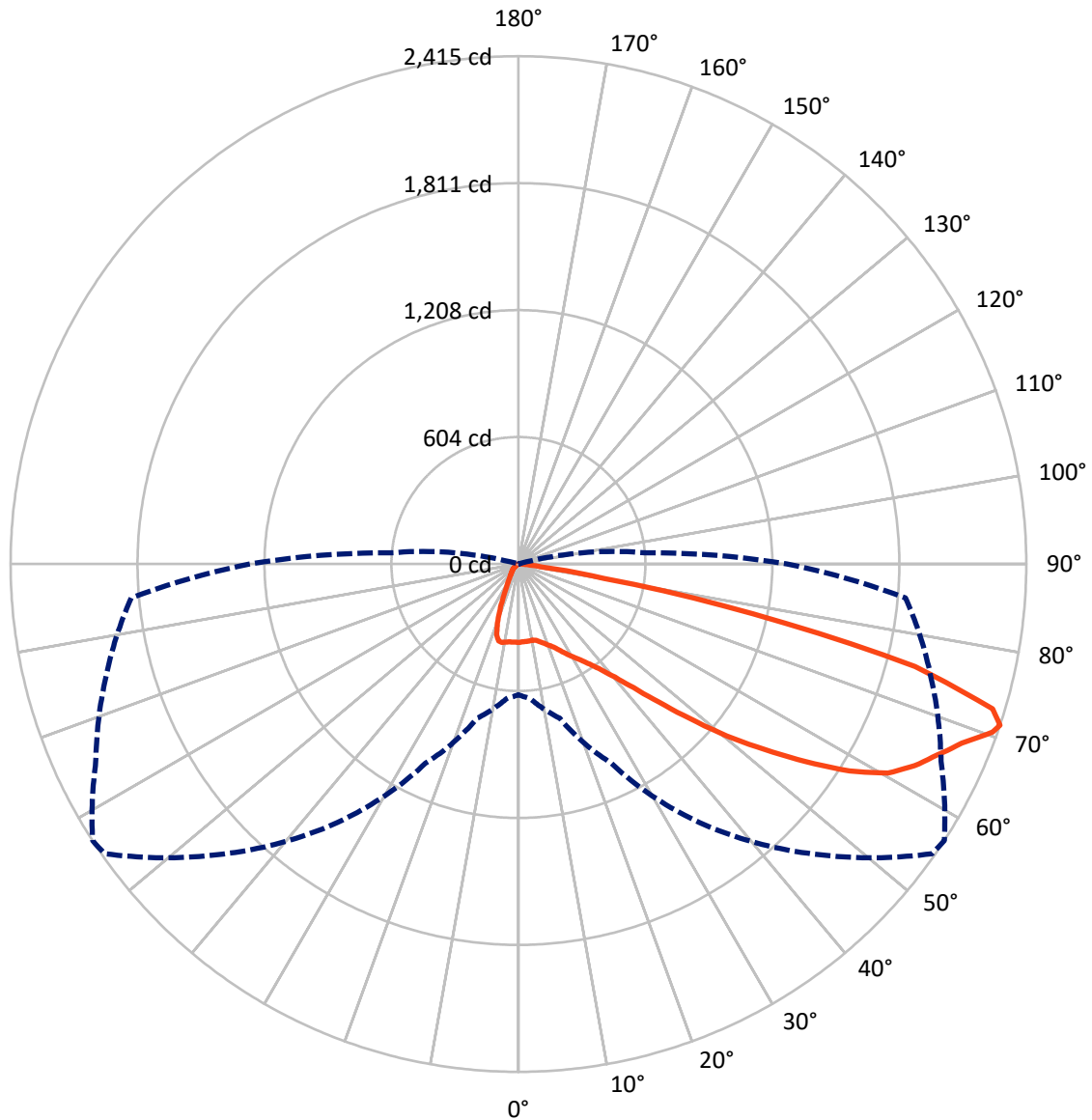


Based on 10 foot mounting height. Maximum calculated value = 4.6 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P214780

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P214780

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

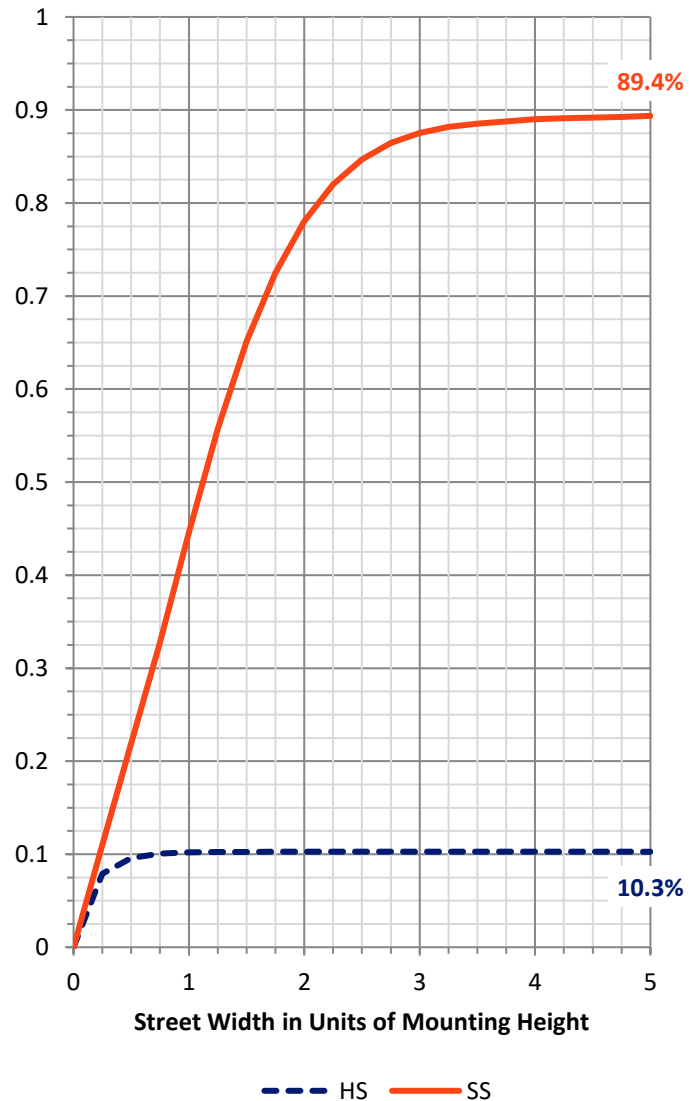
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	342.4	0.0	342.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2961.6	0.0	2961.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	3304.0	0.0	3304.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.1	1.1
10°-20°	93.8	2.8
20°-30°	146.3	4.4
30°-40°	247.2	7.5
40°-50°	480.2	14.5
50°-60°	806.3	24.4
60°-70°	962.3	29.1
70°-80°	507.1	15.3
80°-90°	25.8	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°	3304.0	100.0
0°-180°	3304.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P214780

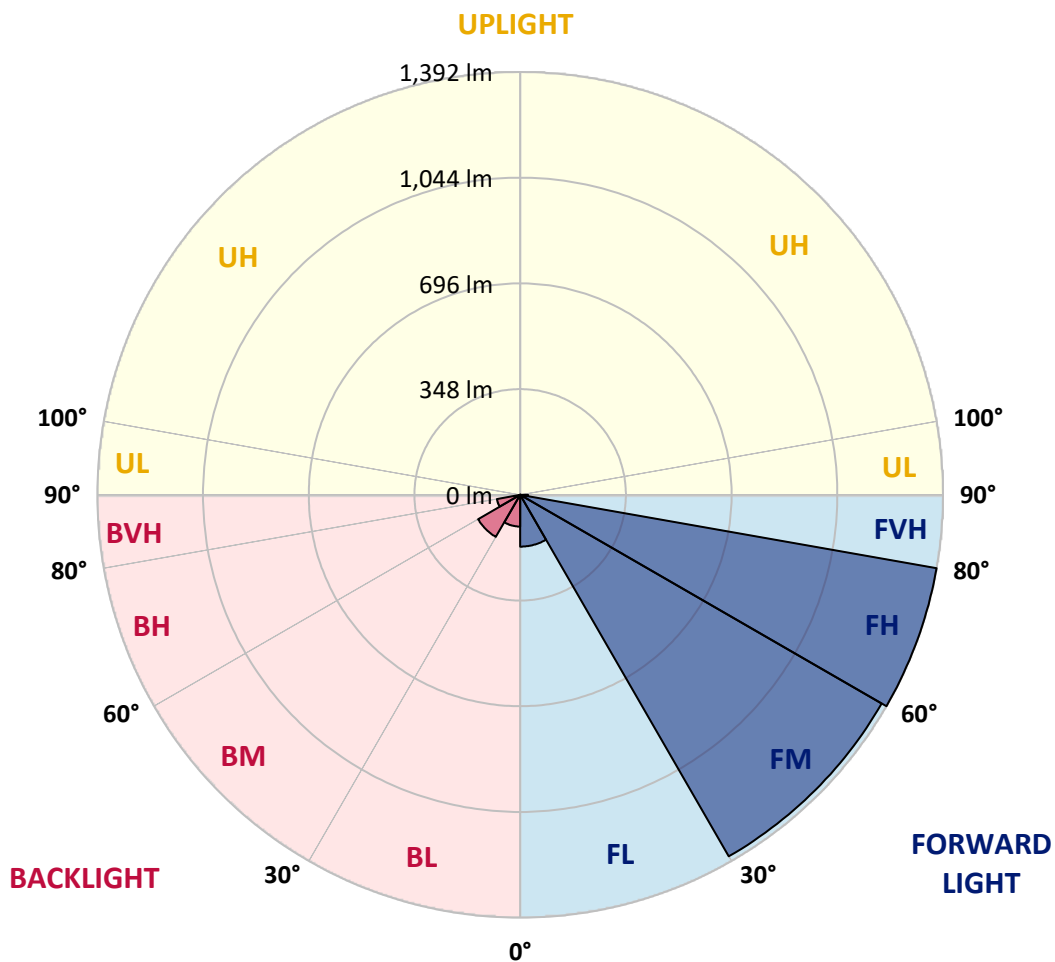
CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	170.6	5.2			
FM	(30°-60°)	1373.8	41.6			
FH	(60°-80°)	1391.7	42.1			G1/1800
FVH	(80°-90°)	25.5	0.8			G1/100
BL	(0°-30°)	104.5	3.2	B0/110		
BM	(30°-60°)	159.9	4.8	B0/220		
BH	(60°-80°)	77.8	2.4	B0/110		G0/110
BVH	(80°-90°)	0.2	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-G1**

Type III Medium





REPORT NUMBER: P214780

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	367.9	367.9	367.9	368.8	369.6	369.6	371.1	370.3	370.3	370.3	371.8
5°	358.1	358.8	359.6	361.1	364.2	366.4	370.3	370.3	371.1	372.7	373.4
7.5°	344.1	344.9	347.2	350.2	356.5	361.8	367.9	369.6	371.8	375.8	377.3
10°	335.7	337.2	340.4	344.1	351.0	358.1	365.7	367.9	375.0	381.9	385.6
12.5°	333.3	334.2	337.2	343.4	351.9	360.3	370.3	372.7	382.6	393.5	399.6
15°	337.2	337.9	339.6	346.5	356.5	367.2	380.3	383.4	395.7	408.1	415.7
17.5°	344.1	344.1	345.7	351.9	362.6	375.0	391.9	396.5	410.4	424.3	432.6
20°	348.7	348.7	351.0	357.3	369.6	385.6	405.8	411.9	427.3	442.7	450.3
22.5°	353.4	354.1	356.5	363.4	377.3	399.6	422.8	428.9	446.6	462.7	470.4
25°	366.4	365.7	366.4	372.7	388.9	416.5	445.8	453.4	472.0	489.7	493.6
27.5°	402.6	401.1	391.1	387.3	399.6	434.2	475.1	482.7	504.2	522.0	522.0
30°	485.7	482.7	458.2	426.5	416.5	450.3	502.7	513.5	541.3	556.6	552.0
32.5°	591.3	584.3	552.8	498.9	458.9	472.0	532.0	544.3	579.7	592.8	582.8
35°	706.8	706.1	666.7	597.4	540.5	516.6	569.7	584.3	629.0	640.6	624.4
37.5°	829.2	832.2	806.2	710.6	643.6	589.8	619.7	636.7	691.4	705.3	689.9
40°	965.5	964.6	954.7	841.6	767.5	693.7	692.1	707.6	773.8	795.3	773.8
42.5°	1137.9	1136.4	1100.2	998.5	917.7	829.2	797.6	803.0	877.0	912.4	880.7
45°	1313.4	1302.7	1261.1	1173.3	1101.8	997.0	937.0	937.0	1000.0	1048.6	999.2
47.5°	1411.2	1400.4	1383.5	1335.0	1313.4	1196.4	1107.9	1097.1	1146.3	1195.7	1126.4
50°	1539.8	1539.8	1497.5	1479.0	1516.0	1433.6	1296.5	1285.8	1309.6	1349.0	1258.0
52.5°	1641.4	1622.9	1592.9	1609.1	1714.6	1676.8	1485.2	1464.4	1482.8	1492.8	1372.8
55°	1683.8	1666.1	1663.8	1723.0	1886.3	1833.9	1678.3	1659.8	1658.3	1609.1	1472.9
57.5°	1692.2	1676.8	1706.1	1810.0	2053.3	1962.6	1870.8	1857.0	1813.9	1690.7	1575.2
60°	1620.7	1628.3	1699.2	1857.7	2151.9	2074.1	2033.4	2018.7	1919.3	1759.9	1689.1
62.5°	1473.6	1492.1	1624.4	1862.5	2115.7	2119.5	2123.4	2113.4	2001.0	1823.1	1803.9
65°	1299.6	1305.0	1464.4	1798.5	2052.6	2105.7	2189.5	2188.8	2063.4	1894.0	1933.3
67.5°	1071.0	1080.1	1218.0	1582.9	1926.2	2099.5	2276.6	2274.3	2134.2	1974.8	2010.3
70°	796.8	808.4	920.1	1231.1	1644.5	2022.5	2390.6	2392.1	2208.9	2036.4	1957.1
71°	621.3	642.1	759.2	1045.5	1500.5	1944.9	2401.3	2415.1	2217.3	2028.0	1847.8
72.5°	304.9	329.5	476.6	736.1	1234.9	1770.8	2330.5	2357.5	2164.2	1922.4	1579.9
75°	79.3	83.9	142.5	301.0	662.1	1173.3	1879.4	1947.9	1769.2	1463.5	965.5
77.5°	50.0	51.6	66.9	117.0	247.9	445.8	1104.1	1137.9	1010.8	741.5	340.4
80°	35.4	36.2	42.4	75.5	144.8	130.1	397.2	411.9	365.7	196.3	60.8
82.5°	21.6	21.6	30.8	48.5	89.3	70.8	104.7	111.7	98.6	54.6	20.0
85°	12.3	13.1	19.2	33.1	42.4	34.6	39.3	41.6	42.4	36.2	8.5
87.5°	10.1	10.8	16.9	27.8	23.1	16.9	16.9	17.7	18.5	21.6	3.9
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: P214780

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-7030-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	371.8	371.8	372.7	371.8	371.8	371.8	372.7	372.7	372.7	374.2	375.0
5°	373.4	373.4	373.4	372.7	371.8	371.8	373.4	374.2	374.2	376.5	376.5
7.5°	377.3	377.3	375.8	374.2	372.7	370.3	371.1	371.8	371.1	371.8	371.8
10°	385.6	385.6	383.4	380.3	375.8	368.8	359.6	348.0	337.2	333.3	331.8
12.5°	399.6	398.8	394.2	388.9	378.8	354.9	320.2	279.4	245.7	236.3	233.3
15°	414.9	413.4	408.1	398.8	371.8	308.7	236.3	184.0	151.7	144.0	142.5
17.5°	431.1	428.9	421.0	402.6	340.4	229.5	152.4	115.5	97.8	96.2	97.0
20°	448.1	445.0	434.2	395.0	274.9	153.2	98.6	89.3	87.7	87.7	88.5
22.5°	467.3	463.5	448.8	367.2	200.2	101.6	84.6	83.9	83.1	82.4	82.4
25°	489.7	485.0	462.7	317.2	137.7	83.1	80.9	78.5	77.0	75.5	74.8
27.5°	516.6	510.5	473.5	255.5	94.7	77.8	76.3	72.3	69.3	66.2	66.2
30°	543.6	535.8	470.4	192.6	77.0	72.3	69.3	64.7	60.1	57.0	56.2
32.5°	572.1	564.4	450.3	129.4	70.0	66.2	62.4	55.4	50.0	46.2	45.5
35°	614.4	608.2	411.2	85.4	63.2	58.6	53.1	46.2	39.3	35.4	34.6
37.5°	677.5	669.9	362.6	65.4	55.4	48.5	43.9	36.2	29.3	25.4	24.6
40°	762.2	739.1	304.9	57.7	48.5	40.0	33.9	26.2	20.8	18.5	18.5
42.5°	860.8	806.2	242.5	52.3	43.1	33.1	24.6	17.7	14.6	13.8	13.8
45°	965.5	868.5	180.2	48.5	37.7	26.2	17.7	12.3	10.8	10.1	10.1
47.5°	1073.3	919.3	125.5	43.9	31.5	20.0	12.3	9.3	7.6	6.9	6.9
50°	1174.1	952.4	88.5	39.3	27.0	14.6	9.3	6.9	5.4	5.4	5.4
52.5°	1244.1	949.3	63.9	33.9	20.8	10.1	6.1	4.6	4.6	4.6	4.6
55°	1305.7	937.8	50.0	29.3	16.2	6.9	4.6	3.9	3.9	3.1	3.1
57.5°	1358.1	919.3	42.4	23.8	11.6	5.4	3.1	3.1	2.3	2.3	2.3
60°	1402.8	896.2	35.4	20.0	7.6	3.9	2.3	1.5	1.5	0.8	1.5
62.5°	1463.5	881.5	30.8	15.4	5.4	2.3	1.5	0.8	0.8	0.0	0.0
65°	1508.3	853.9	26.2	10.8	3.1	1.5	0.8	0.8	0.0	0.0	0.0
67.5°	1509.8	803.8	19.2	6.1	2.3	1.5	0.8	0.0	0.0	0.0	0.0
70°	1388.1	685.2	12.3	3.1	1.5	0.8	0.8	0.0	0.0	0.0	0.0
71°	1276.4	606.7	10.1	2.3	1.5	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1051.7	445.8	7.6	2.3	0.8	0.8	0.0	0.0	0.0	0.0	0.0
75°	579.7	161.7	3.9	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	185.5	49.2	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	31.5	7.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	10.8	3.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	0.8	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)