

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: P265892

Luminaire Tested: **ARCH-AF16-40-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265892  
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-T3-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 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: 2968 lumens  
Efficiency: N/A  
Efficacy: 70.7 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

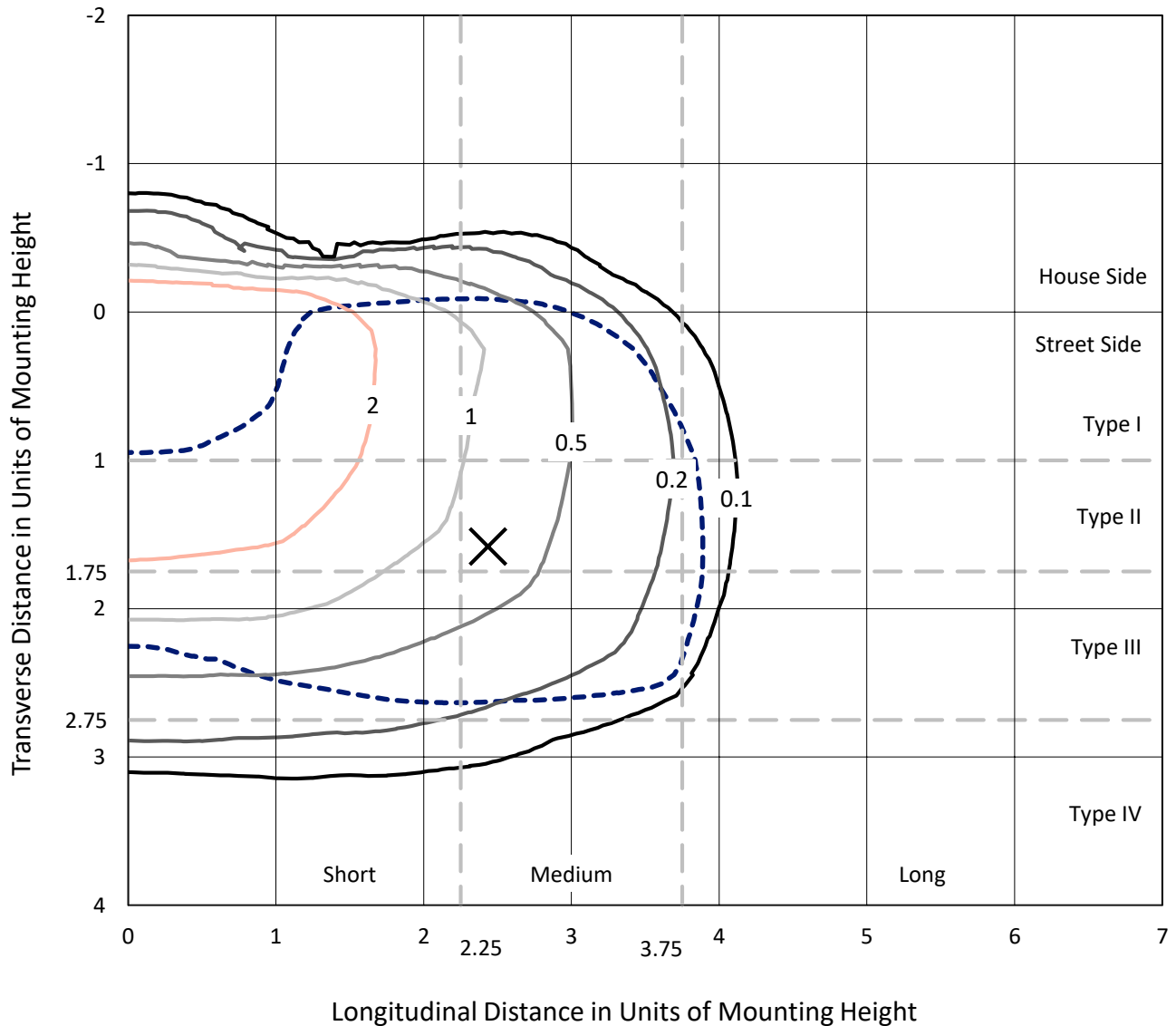


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

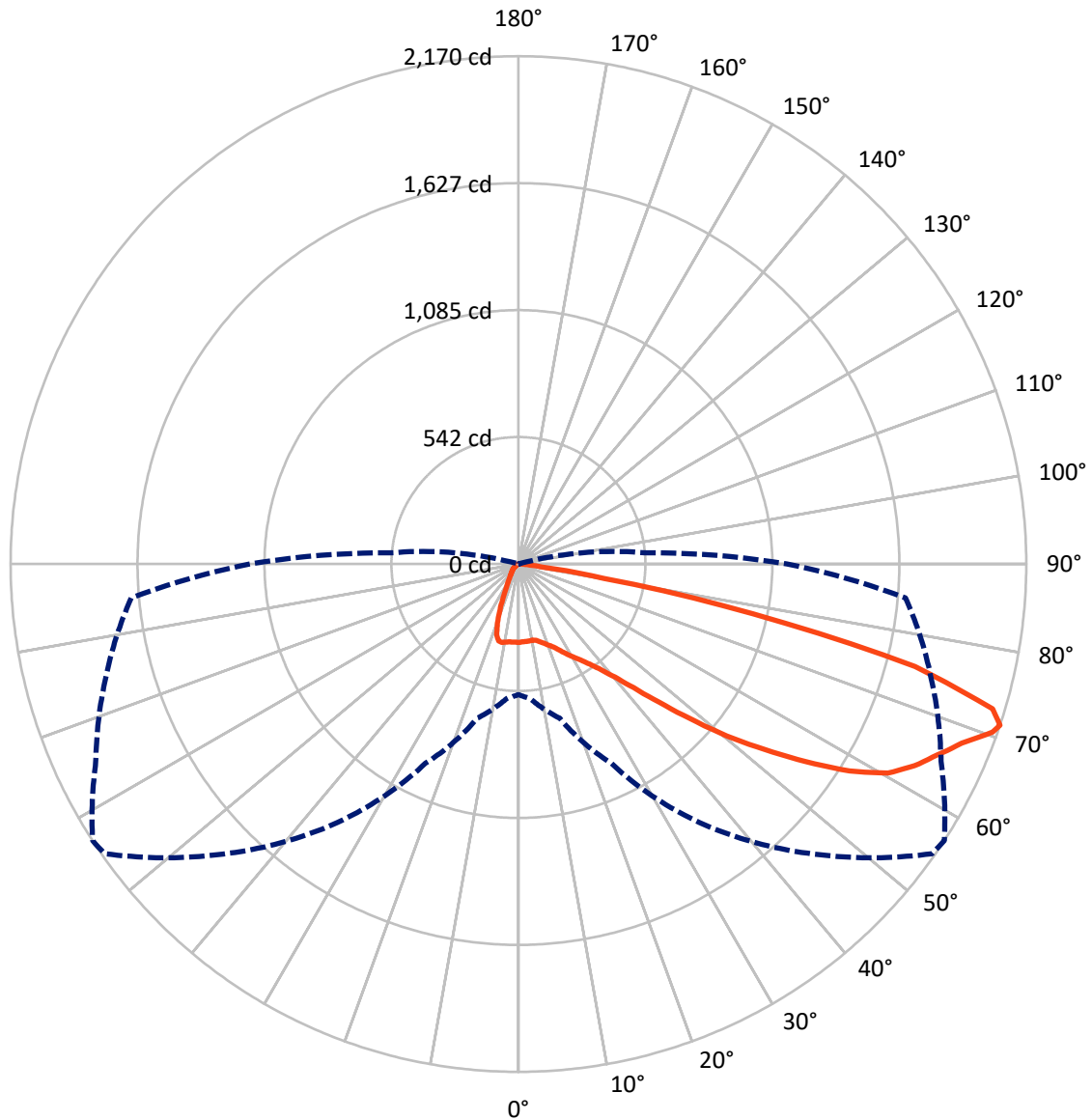


Based on 10 foot mounting height. Maximum calculated value = 4.2 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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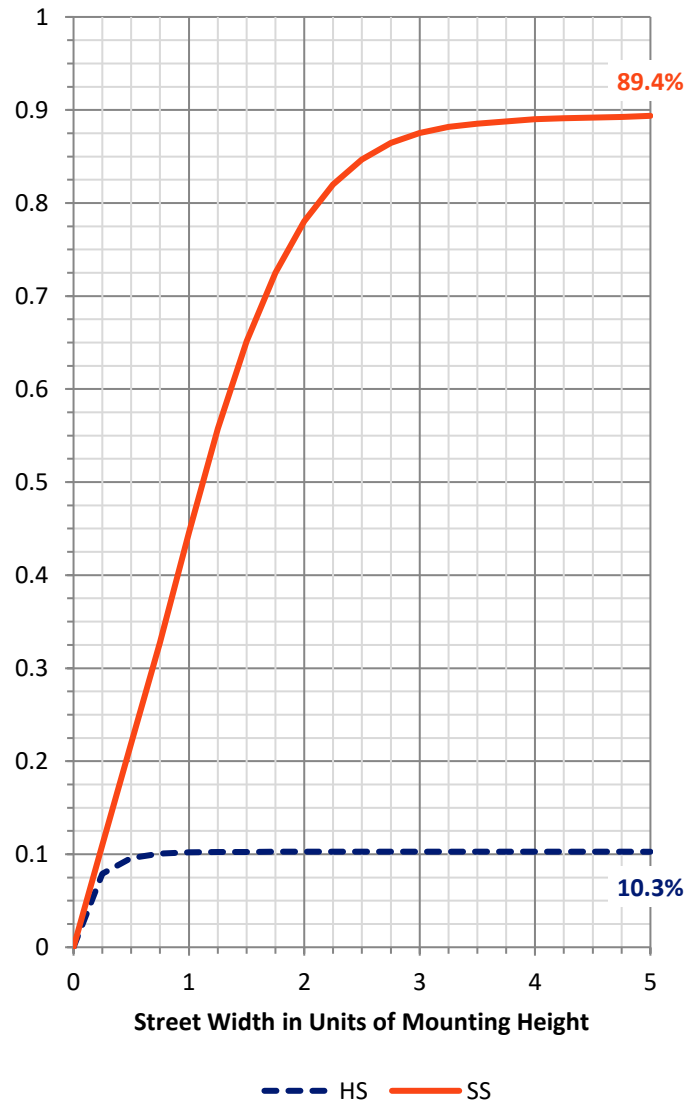
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	307.6	0.0	307.6
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	2660.4	0.0	2660.4
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	2968.0	0.0	2968.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.5	1.1
10°-20°	84.2	2.8
20°-30°	131.4	4.4
30°-40°	222.1	7.5
40°-50°	431.3	14.5
50°-60°	724.3	24.4
60°-70°	864.4	29.1
70°-80°	455.6	15.3
80°-90°	23.2	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°	2968.0	100.0
0°-180°	2968.0	100.0



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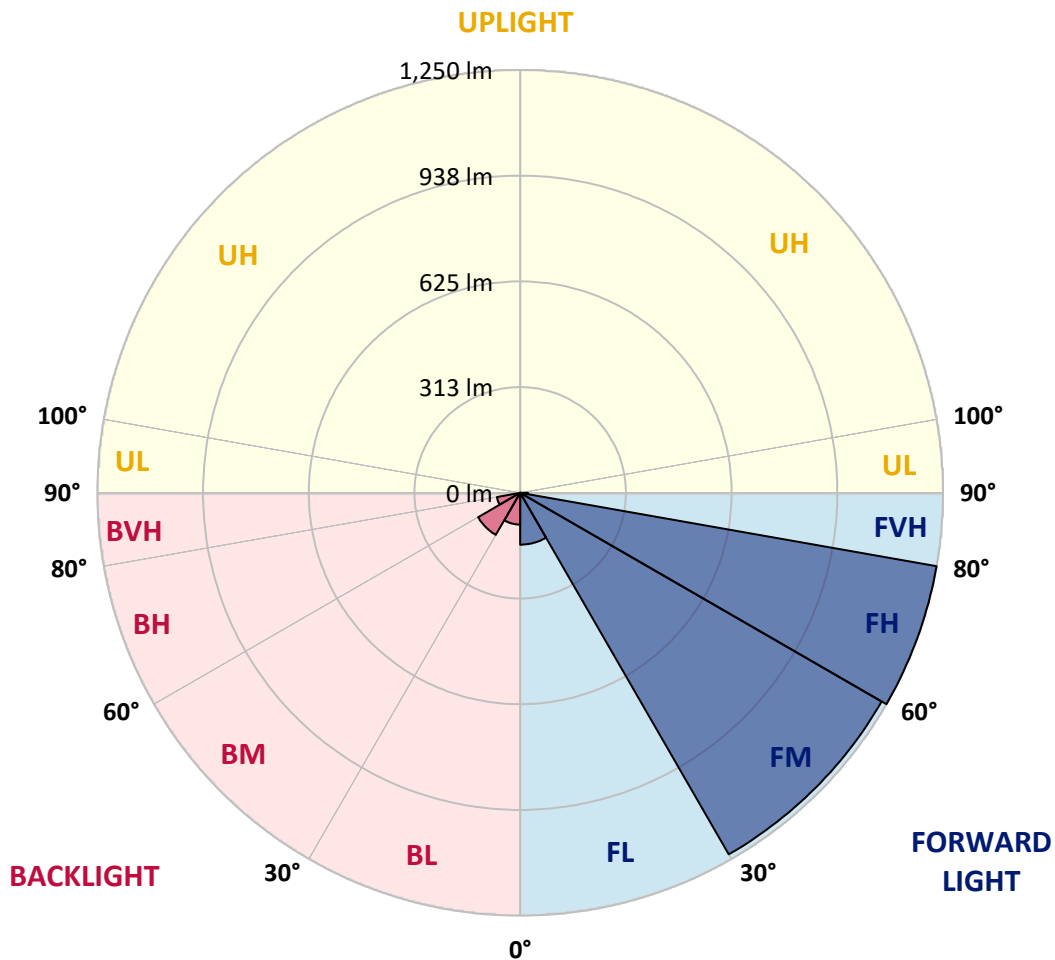
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	153.2	5.2			
FM	(30°-60°)	1234.1	41.6			
FH	(60°-80°)	1250.2	42.1			G1/1800
FVH	(80°-90°)	22.9	0.8			G1/100
BL	(0°-30°)	93.9	3.2	B0/110		
BM	(30°-60°)	143.6	4.8	B0/220		
BH	(60°-80°)	69.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
2.5°	330.5	330.5	330.5	331.3	332.0	332.0	333.4	332.6	332.6	332.6	334.0
5°	321.7	322.3	323.0	324.4	327.2	329.1	332.6	332.6	333.4	334.8	335.4
7.5°	309.1	309.8	311.9	314.6	320.2	325.0	330.5	332.0	334.0	337.6	338.9
10°	301.6	302.9	305.8	309.1	315.3	321.7	328.5	330.5	336.9	343.1	346.4
12.5°	299.4	300.2	302.9	308.5	316.1	323.7	332.6	334.8	343.7	353.5	359.0
15°	302.9	303.5	305.1	311.3	320.2	329.9	341.6	344.4	355.5	366.6	373.4
17.5°	309.1	309.1	310.5	316.1	325.7	336.9	352.0	356.2	368.7	381.2	388.6
20°	313.2	313.2	315.3	321.0	332.0	346.4	364.5	370.0	383.8	397.7	404.5
22.5°	317.5	318.1	320.2	326.4	338.9	359.0	379.8	385.3	401.2	415.6	422.6
25°	329.1	328.5	329.1	334.8	349.4	374.1	400.5	407.3	424.0	439.9	443.4
27.5°	361.7	360.3	351.3	347.9	359.0	390.0	426.8	433.6	452.9	468.9	468.9
30°	436.3	433.6	411.6	383.1	374.1	404.5	451.6	461.3	486.3	500.0	495.9
32.5°	531.2	524.9	496.6	448.2	412.2	424.0	477.9	488.9	520.7	532.5	523.5
35°	634.9	634.3	598.9	536.6	485.5	464.1	511.8	524.9	565.0	575.5	560.9
37.5°	744.9	747.6	724.2	638.3	578.1	529.8	556.7	572.0	621.1	633.6	619.7
40°	867.3	866.5	857.6	756.0	689.4	623.2	621.7	635.6	695.1	714.4	695.1
42.5°	1022.2	1020.8	988.3	897.0	824.4	744.9	716.5	721.3	787.8	819.6	791.1
45°	1179.8	1170.2	1132.9	1054.0	989.8	895.6	841.7	841.7	898.3	942.0	897.6
47.5°	1267.7	1258.0	1242.8	1199.2	1179.8	1074.7	995.2	985.5	1029.7	1074.1	1011.9
50°	1383.2	1383.2	1345.2	1328.6	1361.8	1287.8	1164.7	1155.0	1176.4	1211.8	1130.1
52.5°	1474.5	1457.9	1430.9	1445.5	1540.2	1506.3	1334.2	1315.5	1332.0	1341.0	1233.2
55°	1512.6	1496.7	1494.6	1547.8	1694.5	1647.4	1507.6	1491.0	1489.7	1445.5	1323.1
57.5°	1520.1	1506.3	1532.6	1625.9	1844.5	1763.0	1680.5	1668.2	1629.4	1518.8	1415.0
60°	1455.9	1462.7	1526.4	1668.8	1933.1	1863.2	1826.6	1813.4	1724.1	1580.9	1517.3
62.5°	1323.7	1340.4	1459.2	1673.1	1900.5	1904.0	1907.5	1898.5	1797.5	1637.7	1620.5
65°	1167.4	1172.3	1315.5	1615.6	1843.9	1891.6	1966.8	1966.2	1853.6	1701.4	1736.7
67.5°	962.1	970.3	1094.1	1421.9	1730.3	1886.0	2045.1	2043.0	1917.2	1774.0	1805.9
70°	715.8	726.2	826.5	1105.9	1477.3	1816.8	2147.5	2148.8	1984.3	1829.3	1758.1
71°	558.1	576.8	682.0	939.2	1347.9	1747.1	2157.1	2169.5	1991.8	1821.8	1659.9
72.5°	273.9	296.0	428.1	661.2	1109.3	1590.7	2093.5	2117.8	1944.1	1726.9	1419.2
75°	71.2	75.4	128.0	270.4	594.8	1054.0	1688.3	1749.8	1589.3	1314.7	867.3
77.5°	44.9	46.4	60.1	105.1	222.7	400.5	991.8	1022.2	908.0	666.1	305.8
80°	31.8	32.5	38.1	67.8	130.1	116.9	356.8	370.0	328.5	176.3	54.6
82.5°	19.4	19.4	27.7	43.6	80.2	63.6	94.1	100.3	88.6	49.0	18.0
85°	11.0	11.8	17.2	29.7	38.1	31.1	35.3	37.4	38.1	32.5	7.6
87.5°	9.1	9.7	15.2	25.0	20.8	15.2	15.2	15.9	16.6	19.4	3.5
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°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
2.5°	334.0	334.0	334.8	334.0	334.0	334.0	334.8	334.8	334.8	336.1	336.9
5°	335.4	335.4	335.4	334.8	334.0	334.0	335.4	336.1	336.1	338.2	338.2
7.5°	338.9	338.9	337.6	336.1	334.8	332.6	333.4	334.0	333.4	334.0	334.0
10°	346.4	346.4	344.4	341.6	337.6	331.3	323.0	312.6	302.9	299.4	298.1
12.5°	359.0	358.2	354.1	349.4	340.3	318.8	287.6	251.0	220.7	212.3	209.6
15°	372.7	371.4	366.6	358.2	334.0	277.3	212.3	165.3	136.3	129.4	128.0
17.5°	387.3	385.3	378.2	361.7	305.8	206.2	136.9	103.8	87.9	86.4	87.1
20°	402.5	399.7	390.0	354.8	246.9	137.6	88.6	80.2	78.8	78.8	79.5
22.5°	419.8	416.4	403.2	329.9	179.8	91.3	76.0	75.4	74.6	74.0	74.0
25°	439.9	435.7	415.6	284.9	123.7	74.6	72.7	70.5	69.2	67.8	67.2
27.5°	464.1	458.6	425.3	229.5	85.1	69.9	68.5	64.9	62.3	59.5	59.5
30°	488.3	481.3	422.6	173.0	69.2	64.9	62.3	58.1	54.0	51.2	50.5
32.5°	513.9	507.0	404.5	116.2	62.9	59.5	56.1	49.8	44.9	41.5	40.9
35°	551.9	546.3	369.4	76.7	56.8	52.6	47.7	41.5	35.3	31.8	31.1
37.5°	608.6	601.8	325.7	58.7	49.8	43.6	39.4	32.5	26.3	22.8	22.1
40°	684.7	663.9	273.9	51.8	43.6	35.9	30.5	23.5	18.7	16.6	16.6
42.5°	773.3	724.2	217.8	47.0	38.7	29.7	22.1	15.9	13.1	12.4	12.4
45°	867.3	780.2	161.9	43.6	33.9	23.5	15.9	11.0	9.7	9.1	9.1
47.5°	964.2	825.8	112.7	39.4	28.3	18.0	11.0	8.4	6.8	6.2	6.2
50°	1054.7	855.5	79.5	35.3	24.3	13.1	8.4	6.2	4.9	4.9	4.9
52.5°	1117.6	852.8	57.4	30.5	18.7	9.1	5.5	4.1	4.1	4.1	4.1
55°	1172.9	842.4	44.9	26.3	14.6	6.2	4.1	3.5	3.5	2.8	2.8
57.5°	1220.0	825.8	38.1	21.4	10.4	4.9	2.8	2.8	2.1	2.1	2.1
60°	1260.1	805.1	31.8	18.0	6.8	3.5	2.1	1.3	1.3	0.7	1.3
62.5°	1314.7	791.9	27.7	13.8	4.9	2.1	1.3	0.7	0.7	0.0	0.0
65°	1354.9	767.1	23.5	9.7	2.8	1.3	0.7	0.7	0.0	0.0	0.0
67.5°	1356.3	722.1	17.2	5.5	2.1	1.3	0.7	0.0	0.0	0.0	0.0
70°	1246.9	615.5	11.0	2.8	1.3	0.7	0.7	0.0	0.0	0.0	0.0
71°	1146.6	545.0	9.1	2.1	1.3	0.7	0.0	0.0	0.0	0.0	0.0
72.5°	944.7	400.5	6.8	2.1	0.7	0.7	0.0	0.0	0.0	0.0	0.0
75°	520.7	145.3	3.5	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	166.6	44.2	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	28.3	6.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.7	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.7	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)