

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: P214794

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214794
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-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 3494.4 lumens
Efficiency: N/A
Efficacy: 83.2 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 - G1

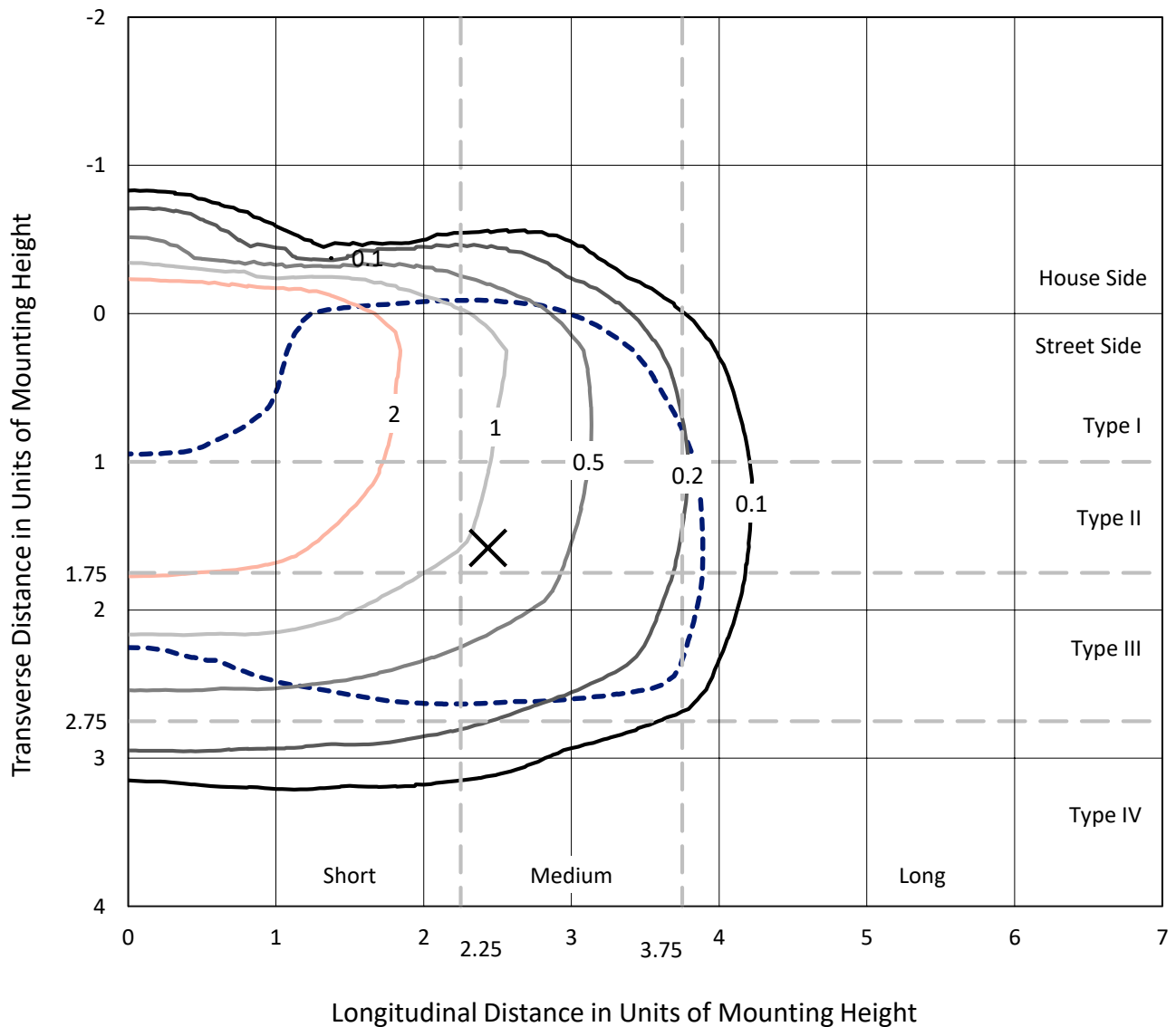
Input Watts (W): 42
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

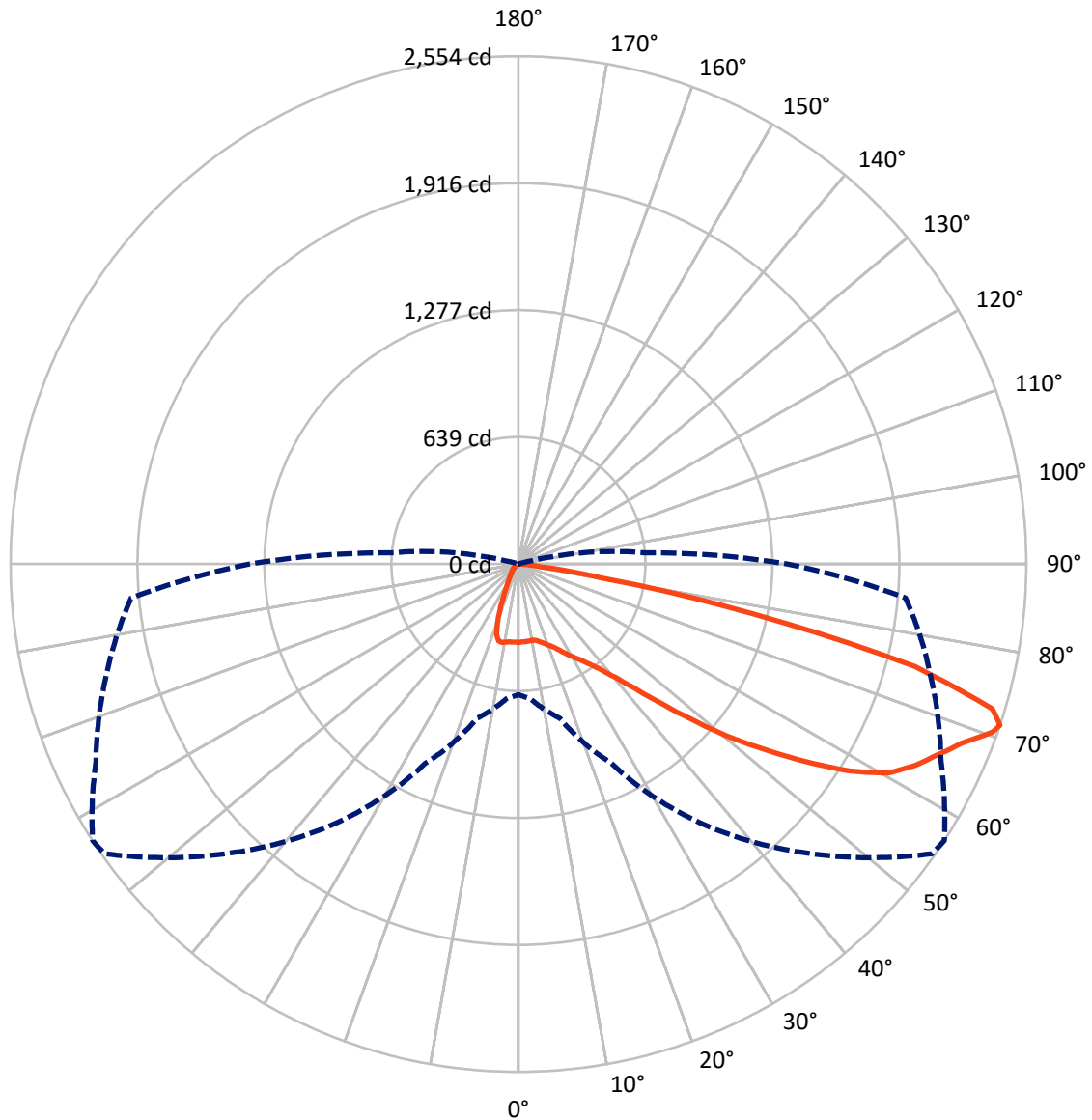


Based on 10 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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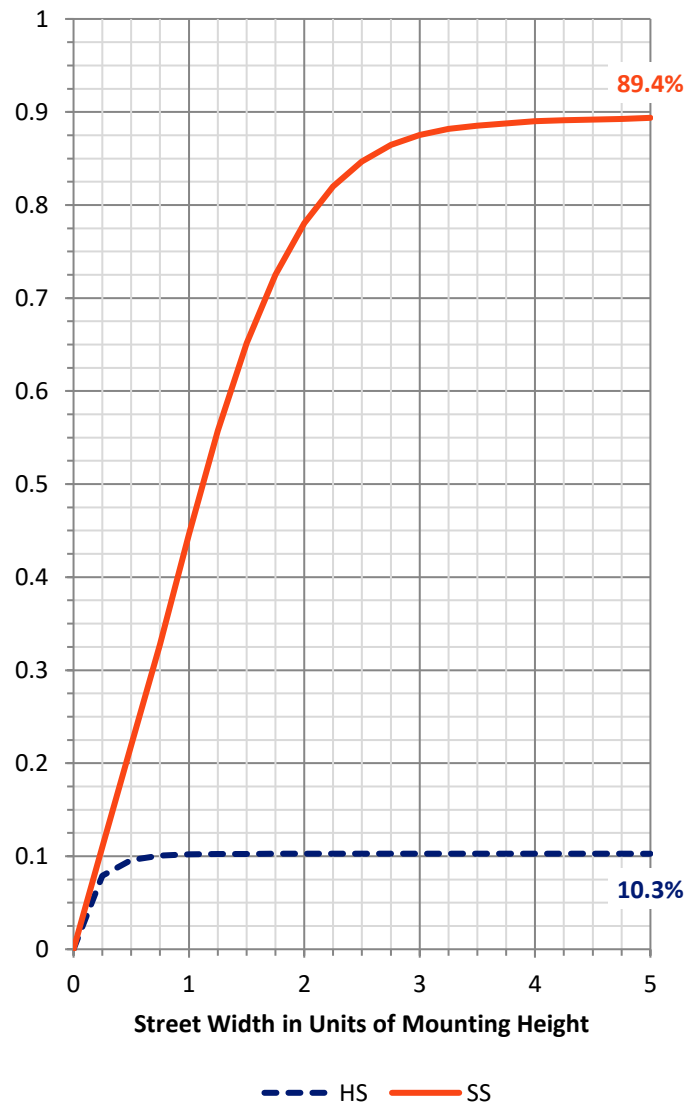
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	362.1	0.0	362.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3132.3	0.0	3132.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	3494.4	0.0	3494.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	1.1
10°-20°	99.2	2.8
20°-30°	154.7	4.4
30°-40°	261.5	7.5
40°-50°	507.8	14.5
50°-60°	852.8	24.4
60°-70°	1017.7	29.1
70°-80°	536.4	15.3
80°-90°	27.3	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°	3494.4	100.0
0°-180°	3494.4	100.0

Coefficient of Utilization



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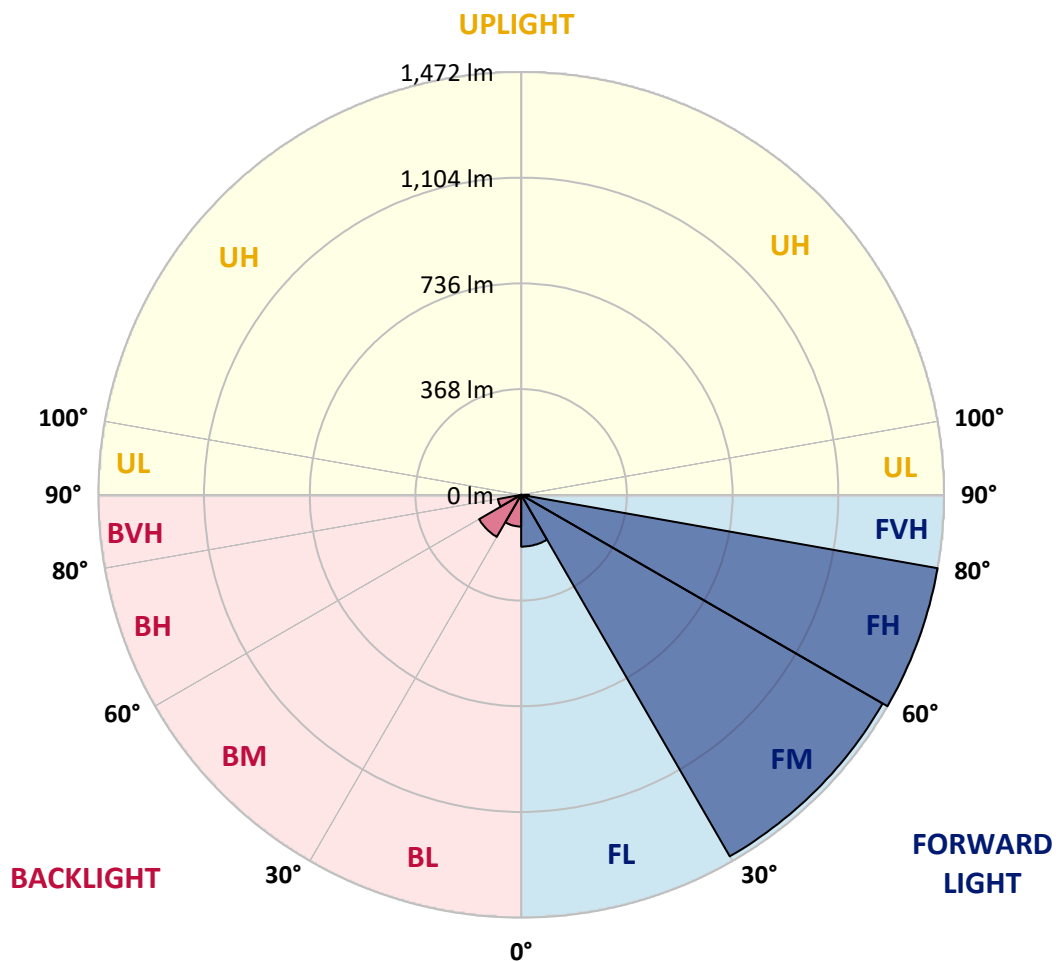
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	180.4	5.2			
FM	(30°-60°)	1453.0	41.6			
FH	(60°-80°)	1471.9	42.1			G1/1800
FVH	(80°-90°)	27.0	0.8			G1/100
BL	(0°-30°)	110.5	3.2	B1/500		
BM	(30°-60°)	169.1	4.8	B0/220		
BH	(60°-80°)	82.2	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0
2.5°	389.2	389.2	389.2	390.1	390.9	390.9	392.5	391.7	391.7	391.7	393.3
5°	378.6	379.4	380.2	381.9	385.1	387.6	391.7	391.7	392.5	394.1	395.0
7.5°	364.0	364.8	367.2	370.5	377.0	382.7	389.2	390.9	393.3	397.3	399.0
10°	355.1	356.6	359.9	364.0	371.3	378.6	386.8	389.2	396.6	403.9	408.0
12.5°	352.6	353.4	356.6	363.1	372.1	381.0	391.7	394.1	404.7	416.1	422.6
15°	356.6	357.4	359.1	366.4	377.0	388.4	402.2	405.5	418.5	431.6	439.7
17.5°	364.0	364.0	365.6	372.1	383.5	396.6	414.5	419.3	434.0	448.7	457.7
20°	368.9	368.9	371.3	377.8	390.9	408.0	429.1	435.7	451.9	468.2	476.4
22.5°	373.8	374.6	377.0	384.3	399.0	422.6	447.0	453.6	472.3	489.4	497.6
25°	387.6	386.8	387.6	394.1	411.2	440.5	471.5	479.6	499.1	517.9	521.9
27.5°	425.9	424.2	413.7	409.6	422.6	459.2	502.4	510.6	533.4	552.1	552.1
30°	513.8	510.6	484.5	451.1	440.5	476.4	531.7	543.1	572.4	588.7	583.8
32.5°	625.3	618.1	584.6	527.6	485.3	499.1	562.6	575.7	613.2	627.0	616.4
35°	747.5	746.7	705.1	631.9	571.6	546.4	602.5	618.1	665.2	677.5	660.4
37.5°	877.0	880.2	852.5	751.6	680.8	623.7	655.5	673.4	731.2	745.8	729.6
40°	1021.1	1020.3	1009.7	890.0	811.8	733.7	732.0	748.3	818.4	841.2	818.4
42.5°	1203.5	1201.9	1163.6	1056.1	970.6	877.0	843.6	849.3	927.4	964.9	931.5
45°	1389.2	1377.7	1333.7	1240.9	1165.2	1054.5	990.9	990.9	1057.7	1109.1	1056.9
47.5°	1492.6	1481.1	1463.2	1412.0	1389.2	1265.4	1171.7	1160.3	1212.4	1264.6	1191.2
50°	1628.5	1628.5	1583.7	1564.2	1603.3	1516.2	1371.3	1359.8	1385.1	1426.6	1330.6
52.5°	1736.0	1716.5	1684.7	1701.8	1813.4	1773.5	1570.7	1548.7	1568.3	1578.8	1451.9
55°	1780.9	1762.0	1759.7	1822.3	1995.0	1939.6	1775.1	1755.6	1754.0	1701.8	1557.6
57.5°	1789.8	1773.5	1804.4	1914.4	2171.6	2075.6	1978.7	1964.1	1918.4	1788.1	1666.0
60°	1714.1	1722.1	1797.1	1964.8	2275.9	2193.6	2150.4	2135.0	2029.9	1861.5	1786.5
62.5°	1558.5	1578.0	1718.1	1969.7	2237.6	2241.7	2245.8	2235.1	2116.3	1928.2	1907.8
65°	1374.4	1380.2	1548.7	1902.2	2170.8	2227.1	2315.8	2314.9	2182.3	2003.1	2044.7
67.5°	1132.6	1142.4	1288.2	1674.2	2037.3	2220.5	2407.8	2405.4	2257.1	2088.6	2126.1
70°	842.8	855.0	973.0	1302.0	1739.3	2139.1	2528.3	2530.0	2336.1	2153.7	2069.8
71°	657.1	679.1	802.9	1105.8	1587.0	2056.8	2539.7	2554.4	2345.1	2144.8	1954.2
72.5°	322.4	348.5	504.0	778.5	1306.1	1872.8	2464.8	2493.3	2289.0	2033.2	1670.9
75°	83.9	88.8	150.7	318.3	700.3	1240.9	1987.6	2060.1	1871.2	1547.9	1021.1
77.5°	52.9	54.5	70.9	123.8	262.2	471.5	1167.7	1203.5	1069.1	784.1	359.9
80°	37.4	38.3	44.8	79.8	153.0	137.6	420.1	435.7	386.8	207.7	64.3
82.5°	22.8	22.8	32.5	51.2	94.4	74.9	110.8	118.0	104.2	57.8	21.2
85°	13.0	13.8	20.4	35.0	44.8	36.6	41.5	44.0	44.8	38.3	9.0
87.5°	10.5	11.4	17.9	29.4	24.4	17.9	17.9	18.7	19.5	22.8	4.1
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°	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0	395.0
2.5°	393.3	393.3	394.1	393.3	393.3	393.3	394.1	394.1	394.1	395.8	396.6
5°	395.0	395.0	395.0	394.1	393.3	393.3	395.0	395.8	395.8	398.1	398.1
7.5°	399.0	399.0	397.3	395.8	394.1	391.7	392.5	393.3	392.5	393.3	393.3
10°	408.0	408.0	405.5	402.2	397.3	390.1	380.2	368.1	356.6	352.6	351.0
12.5°	422.6	421.8	417.0	411.2	400.6	375.4	338.7	295.5	259.7	250.0	246.7
15°	438.8	437.3	431.6	421.8	393.3	326.5	250.0	194.6	160.4	152.3	150.7
17.5°	456.0	453.6	445.4	425.9	359.9	242.6	161.2	122.1	103.4	101.8	102.6
20°	473.9	470.7	459.2	417.7	290.7	162.0	104.2	94.4	92.8	92.8	93.6
22.5°	494.3	490.2	474.8	388.4	211.8	107.5	89.6	88.8	88.0	87.2	87.2
25°	517.9	513.0	489.4	335.5	145.8	88.0	85.5	83.1	81.4	79.8	79.0
27.5°	546.4	539.8	500.7	270.4	100.1	82.2	80.6	76.5	73.2	70.1	70.1
30°	574.9	566.7	497.6	203.6	81.4	76.5	73.2	68.4	63.5	60.3	59.4
32.5°	605.0	596.9	476.4	136.8	74.1	70.1	66.0	58.6	52.9	48.9	48.1
35°	649.8	643.2	434.9	90.4	66.8	61.9	56.2	48.9	41.5	37.4	36.6
37.5°	716.6	708.4	383.5	69.3	58.6	51.2	46.4	38.3	30.9	26.9	26.1
40°	806.1	781.7	322.4	61.1	51.2	42.4	35.8	27.7	22.0	19.5	19.5
42.5°	910.3	852.5	256.5	55.3	45.6	35.0	26.1	18.7	15.4	14.6	14.6
45°	1021.1	918.5	190.6	51.2	39.9	27.7	18.7	13.0	11.4	10.5	10.5
47.5°	1135.1	972.2	132.7	46.4	33.3	21.2	13.0	9.8	8.2	7.4	7.4
50°	1241.8	1007.3	93.6	41.5	28.5	15.4	9.8	7.4	5.7	5.7	5.7
52.5°	1315.8	1004.0	67.6	35.8	22.0	10.5	6.5	4.9	4.9	4.9	4.9
55°	1381.0	991.8	52.9	30.9	17.1	7.4	4.9	4.1	4.1	3.3	3.3
57.5°	1436.3	972.2	44.8	25.3	12.2	5.7	3.3	3.3	2.5	2.5	2.5
60°	1483.6	947.8	37.4	21.2	8.2	4.1	2.5	1.6	1.6	0.8	1.6
62.5°	1547.9	932.3	32.5	16.3	5.7	2.5	1.6	0.8	0.8	0.0	0.0
65°	1595.2	903.1	27.7	11.4	3.3	1.6	0.8	0.8	0.0	0.0	0.0
67.5°	1596.8	850.1	20.4	6.5	2.5	1.6	0.8	0.0	0.0	0.0	0.0
70°	1468.1	724.7	13.0	3.3	1.6	0.8	0.8	0.0	0.0	0.0	0.0
71°	1350.1	641.6	10.5	2.5	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1112.3	471.5	8.2	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0
75°	613.2	171.0	4.1	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	196.2	52.1	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	33.3	8.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.4	3.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.6	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)