

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: P214948

Luminaire Tested: **ARCH-AF16-40-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214948
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
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-T4W-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3364 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 42
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

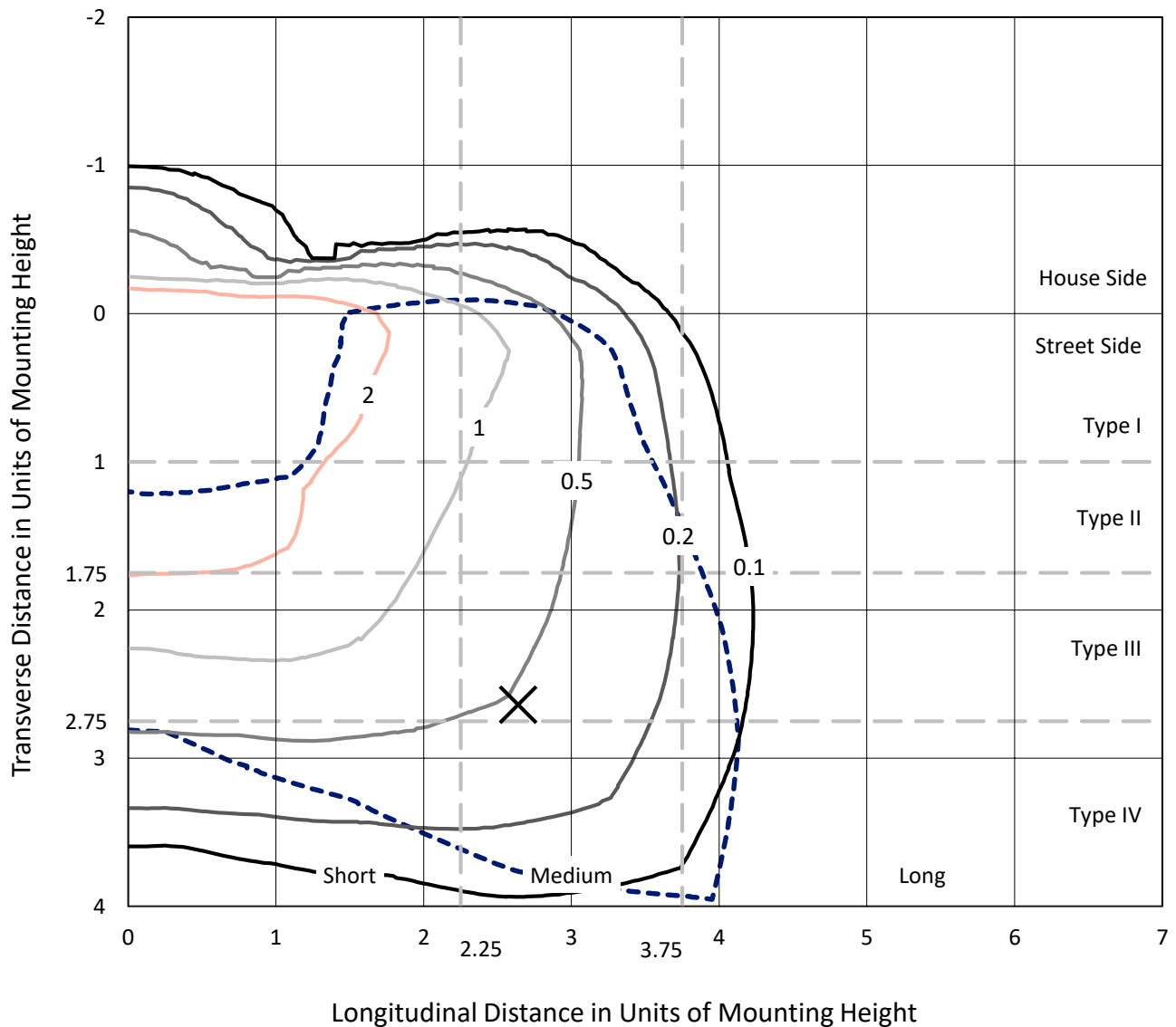


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

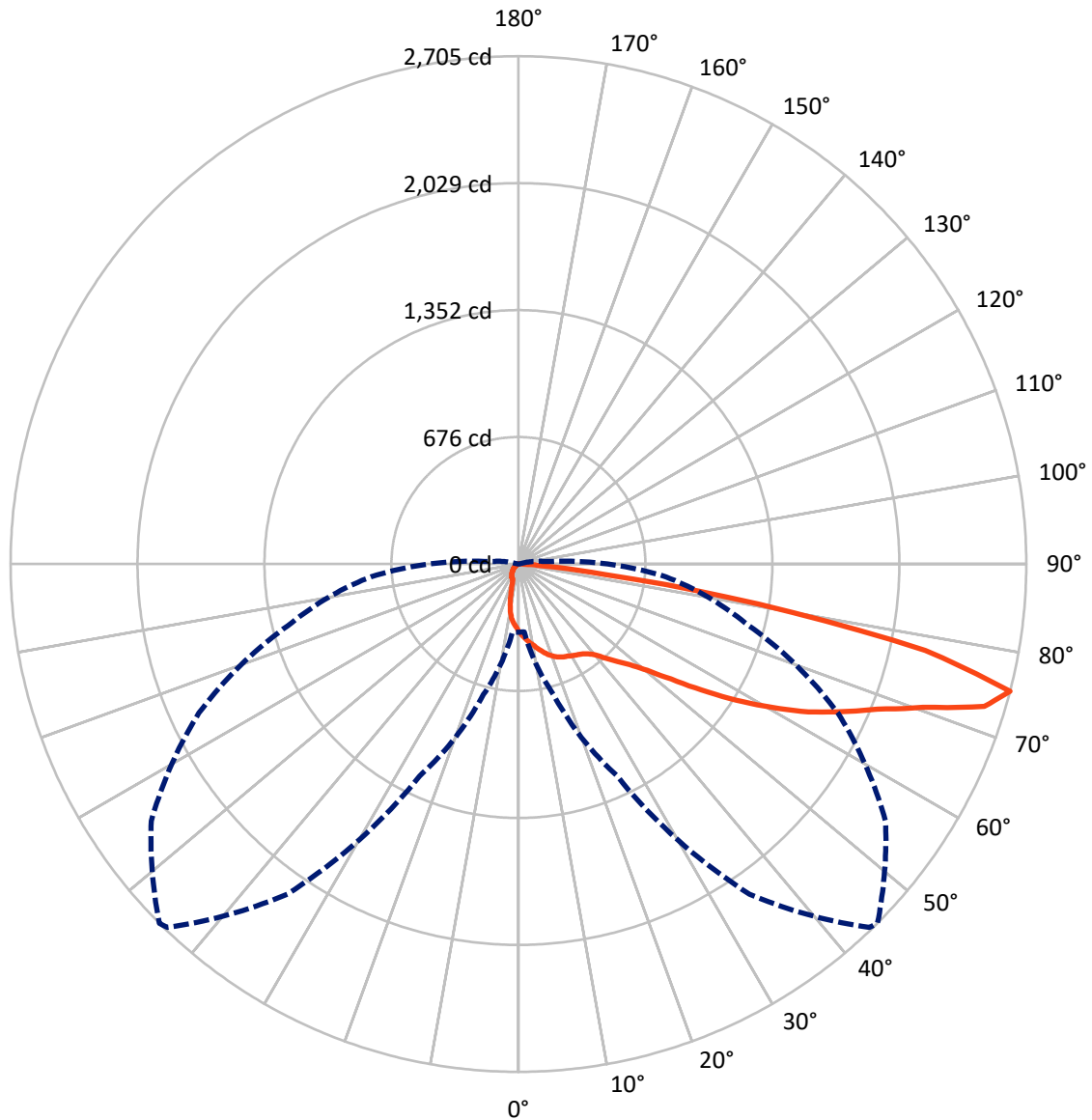


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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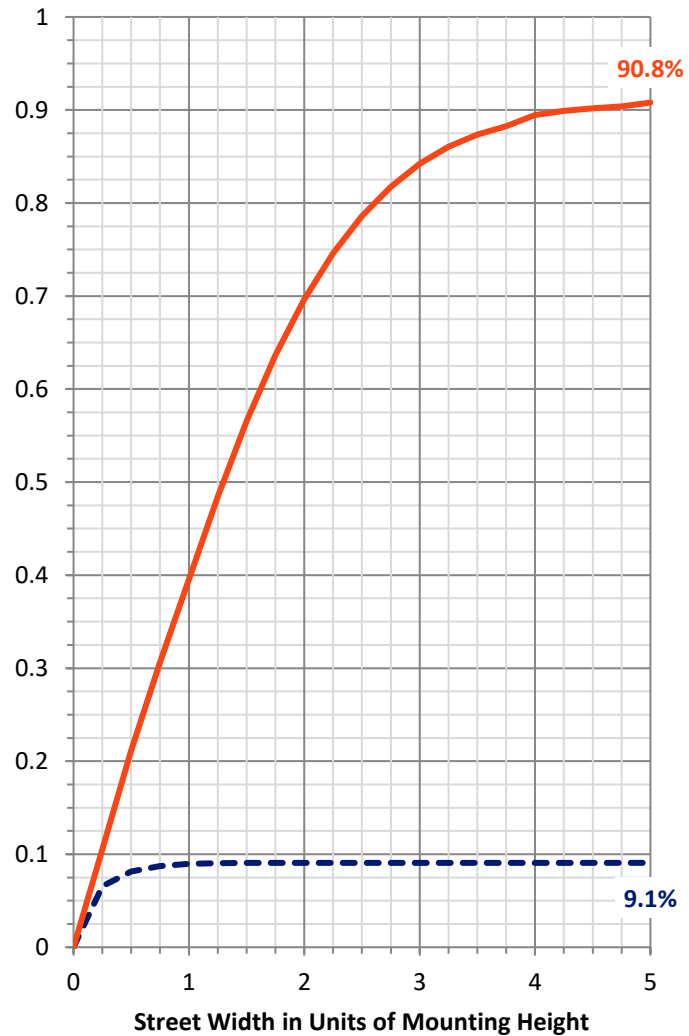
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	307.7	0.0	307.7
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3056.3	0.0	3056.3
	% Fixture	90.9	0.0	90.9
Total	Lumens	3364.0	0.0	3364.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.0	1.0
10°-20°	96.2	2.9
20°-30°	159.3	4.7
30°-40°	230.6	6.9
40°-50°	377.6	11.2
50°-60°	672.7	20.0
60°-70°	989.0	29.4
70°-80°	746.1	22.2
80°-90°	58.5	1.7
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°	3364.0	100.0
0°-180°	3364.0	100.0

Coefficient of Utilization



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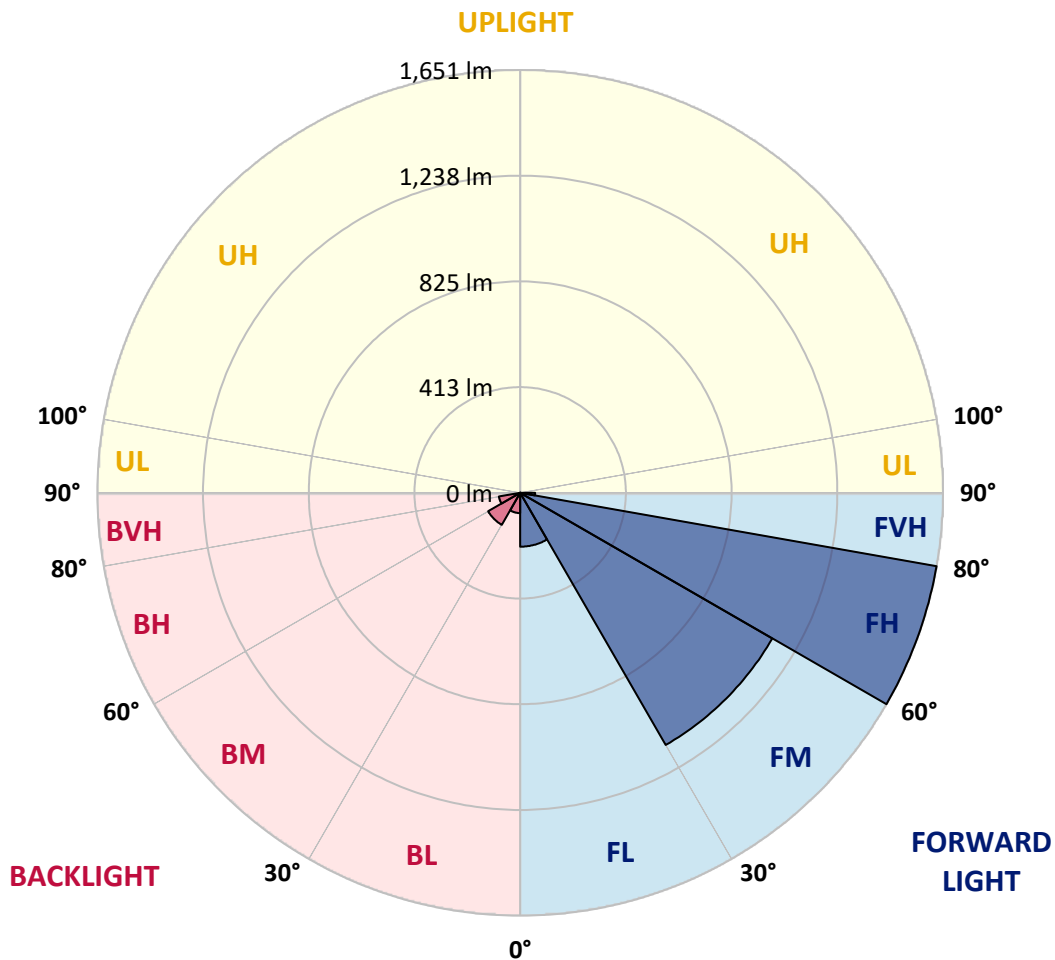
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.4	6.3			
FM	(30°-60°)	1136.7	33.8			
FH	(60°-80°)	1650.8	49.1			G1/1800
FVH	(80°-90°)	58.4	1.7			G1/100
BL	(0°-30°)	79.1	2.4	B0/110		
BM	(30°-60°)	144.2	4.3	B0/220		
BH	(60°-80°)	84.3	2.5	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8
2.5°	390.8	390.8	390.0	389.3	385.3	381.3	380.5	378.1	370.9	366.2	361.4
5°	423.5	424.3	422.7	418.7	409.9	401.2	400.4	394.0	380.5	370.9	360.6
7.5°	454.5	456.1	452.1	445.0	434.6	421.9	421.1	409.2	391.6	378.1	363.0
10°	480.8	480.8	475.2	466.5	455.3	441.8	440.2	426.7	406.8	390.0	370.1
12.5°	509.4	508.7	500.7	488.8	476.0	463.3	462.5	445.8	426.7	405.2	380.5
15°	535.7	534.1	523.8	512.6	499.1	485.6	484.8	468.1	448.2	422.7	395.6
17.5°	550.0	549.2	539.7	528.6	517.4	507.1	506.3	488.8	467.3	441.0	410.7
20°	552.4	553.2	545.3	535.7	529.3	523.8	523.8	507.9	484.8	456.9	426.7
22.5°	553.2	555.6	550.0	537.3	535.7	536.5	538.1	525.4	501.5	475.2	443.4
25°	558.8	562.0	558.0	542.9	541.3	546.9	548.5	542.9	521.4	495.1	462.5
27.5°	569.9	573.1	569.9	550.8	548.5	554.0	555.6	558.8	542.9	514.2	482.4
30°	592.2	593.0	585.9	562.0	557.2	564.4	566.8	575.5	562.8	532.5	501.5
32.5°	631.2	623.3	601.8	569.9	566.0	573.9	576.3	585.9	581.1	550.0	521.4
35°	710.8	669.4	620.1	581.1	577.1	585.1	588.3	601.8	604.2	574.7	546.1
37.5°	710.0	672.6	663.1	602.6	597.0	602.6	606.6	623.3	632.8	607.4	581.9
40°	760.2	744.3	744.3	643.2	624.9	632.8	636.8	653.5	670.2	650.3	624.1
42.5°	917.8	907.5	896.3	721.2	663.9	686.2	688.6	698.9	718.8	712.4	681.4
45°	1093.7	1084.2	1041.2	853.3	730.7	734.7	740.3	757.0	785.7	797.6	761.0
47.5°	1231.4	1221.9	1185.3	1012.5	835.0	800.0	800.0	832.6	877.2	907.5	872.4
50°	1342.1	1330.9	1308.6	1182.1	1006.2	893.9	889.1	927.4	993.4	1040.4	1016.5
52.5°	1449.5	1416.9	1403.4	1357.2	1199.6	1030.0	1017.3	1044.4	1135.9	1194.0	1174.1
55°	1521.2	1516.4	1502.1	1518.0	1402.6	1195.6	1184.5	1190.0	1304.7	1343.7	1319.0
57.5°	1588.0	1587.3	1619.1	1693.1	1623.9	1385.1	1367.6	1358.8	1467.8	1458.3	1479.8
60°	1670.8	1656.5	1730.5	1836.4	1826.9	1569.7	1549.8	1532.3	1592.8	1565.8	1672.4
62.5°	1674.8	1670.8	1821.3	1973.3	2028.2	1757.6	1734.5	1671.6	1701.9	1670.8	1856.3
65°	1522.8	1542.7	1859.5	2045.8	2197.0	1922.4	1894.5	1796.6	1799.0	1778.3	2072.8
67.5°	1488.5	1498.9	1754.4	2123.8	2318.8	2088.7	2062.5	1940.7	1912.0	1913.6	2201.0
70°	1403.4	1419.3	1623.9	2118.2	2415.1	2310.8	2284.6	2152.4	2083.2	2006.0	2102.3
72.5°	1072.2	1099.3	1368.3	1857.1	2388.8	2601.4	2594.2	2420.7	2151.6	1842.0	1590.4
75°	363.0	362.2	718.8	1247.4	2146.1	2690.5	2704.9	2387.2	1877.0	1270.4	789.6
77.5°	78.0	78.8	148.1	505.5	1425.7	2160.4	2215.3	1800.6	1210.7	566.0	180.7
80°	38.2	39.0	61.3	133.7	569.9	1211.5	1297.5	925.8	447.4	113.0	30.2
82.5°	19.1	19.9	31.8	70.8	210.9	430.6	460.1	340.7	128.2	63.7	15.1
85°	7.2	7.2	15.9	42.2	96.3	101.1	124.2	98.7	77.2	51.7	4.0
87.5°	1.6	1.6	8.8	20.7	43.0	31.8	31.8	30.2	47.0	35.0	1.6
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°	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8	359.8
2.5°	359.0	355.8	350.2	344.7	340.7	335.9	333.5	331.1	330.3	329.5	331.1
5°	355.0	350.2	339.9	331.1	323.2	316.8	312.0	307.3	304.9	303.3	304.1
7.5°	355.0	347.9	332.7	319.2	306.5	292.9	279.4	269.1	261.1	256.3	257.1
10°	359.0	349.4	329.5	311.2	287.4	258.7	229.3	207.0	191.8	183.1	183.1
12.5°	367.8	355.0	330.3	301.7	261.1	210.9	166.4	139.3	128.2	121.8	122.6
15°	379.7	364.6	334.3	289.0	224.5	156.8	116.2	98.7	98.7	100.3	101.1
17.5°	393.2	376.5	337.5	269.8	177.5	112.2	91.5	89.9	92.3	96.3	96.3
20°	406.8	388.5	339.1	239.6	132.9	89.2	86.8	86.8	88.4	92.3	93.1
22.5°	423.5	403.6	337.5	202.2	99.5	84.4	83.6	83.6	83.6	88.4	88.4
25°	441.0	421.1	331.1	162.4	84.4	81.2	80.4	79.6	79.6	83.6	84.4
27.5°	460.9	439.4	316.0	124.2	79.6	78.0	77.2	75.6	75.6	78.8	78.8
30°	480.8	460.1	292.9	93.9	75.6	74.8	73.2	71.6	70.0	73.2	73.2
32.5°	502.3	481.6	262.7	74.8	70.0	70.0	69.3	66.9	65.3	66.9	67.7
35°	530.9	506.3	228.5	65.3	62.9	62.9	62.9	62.1	58.9	60.5	60.5
37.5°	569.1	540.5	188.7	60.5	57.3	55.7	55.7	55.7	53.3	54.1	54.1
40°	617.7	580.3	150.4	56.5	53.3	49.4	47.8	48.6	47.0	47.0	46.2
42.5°	683.8	623.3	113.0	53.3	50.1	44.6	41.4	40.6	39.0	38.2	38.2
45°	778.5	675.8	81.2	50.1	47.8	39.0	35.8	33.4	29.5	27.1	27.1
47.5°	901.1	735.5	60.5	47.0	45.4	34.2	30.2	25.5	19.9	18.3	18.3
50°	1050.7	802.4	50.9	42.2	41.4	30.2	23.9	16.7	11.1	9.6	10.3
52.5°	1196.4	865.3	45.4	37.4	36.6	26.3	17.5	8.8	4.8	4.8	4.8
55°	1319.0	909.8	41.4	33.4	31.8	20.7	9.6	4.0	2.4	2.4	2.4
57.5°	1429.6	935.3	37.4	29.5	25.5	14.3	4.0	1.6	1.6	0.8	0.8
60°	1530.7	950.4	32.6	25.5	19.9	8.0	1.6	0.8	0.8	0.0	0.0
62.5°	1630.2	961.6	27.9	20.7	15.1	3.2	0.8	0.8	0.0	0.0	0.0
65°	1705.9	957.6	22.3	16.7	9.6	1.6	0.8	0.0	0.0	0.0	0.0
67.5°	1703.5	903.5	16.7	12.7	4.8	0.8	0.0	0.0	0.0	0.0	0.0
70°	1523.6	761.0	11.1	8.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0
72.5°	1081.0	488.0	7.2	4.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	476.0	148.1	4.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	93.1	34.2	2.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.3	4.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	9.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.4	0.8	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)