

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: P265978

Luminaire Tested: **ARCH-AF24-90-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-90-D-U-T2R-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6609.3 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 94
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

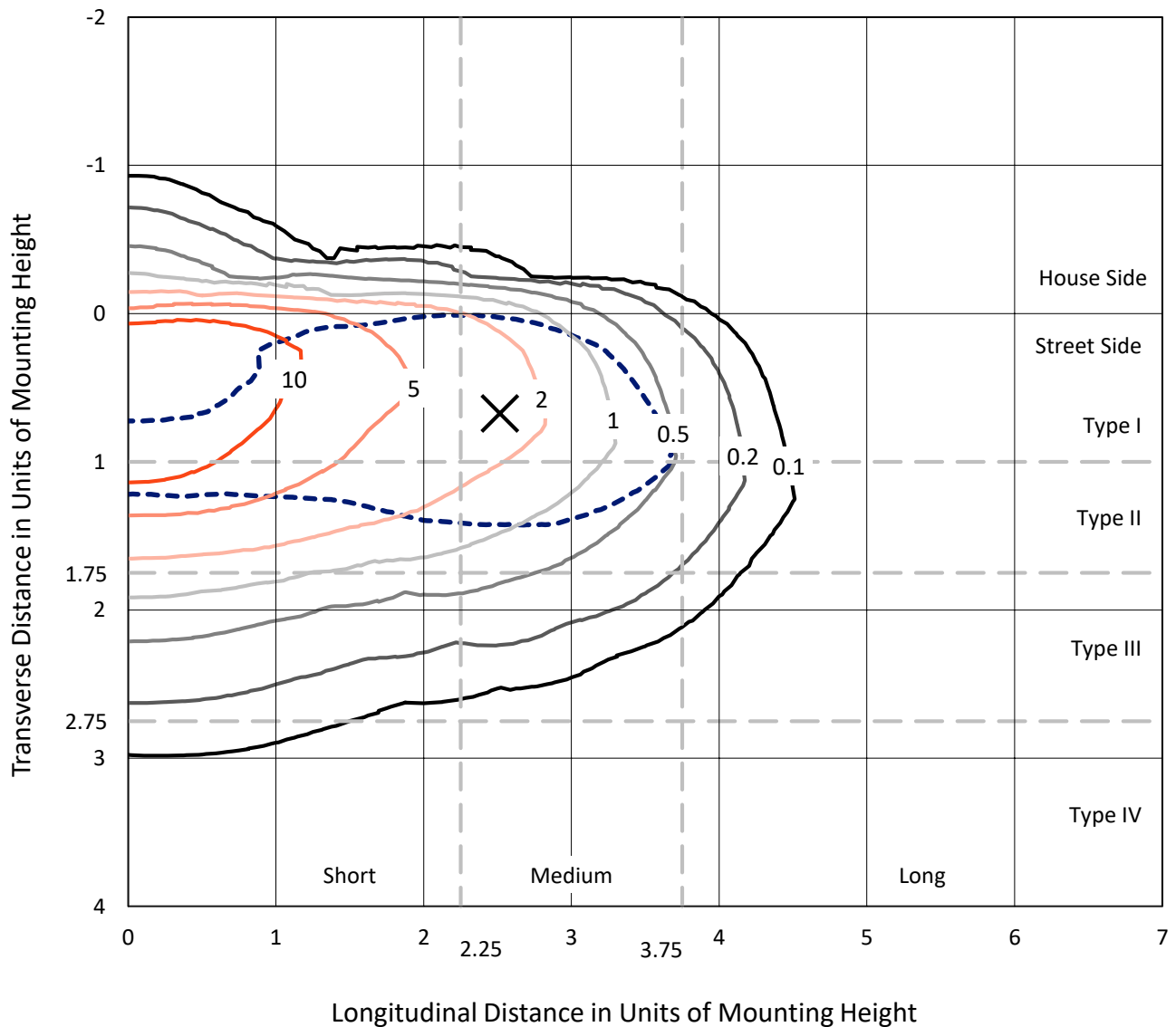


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

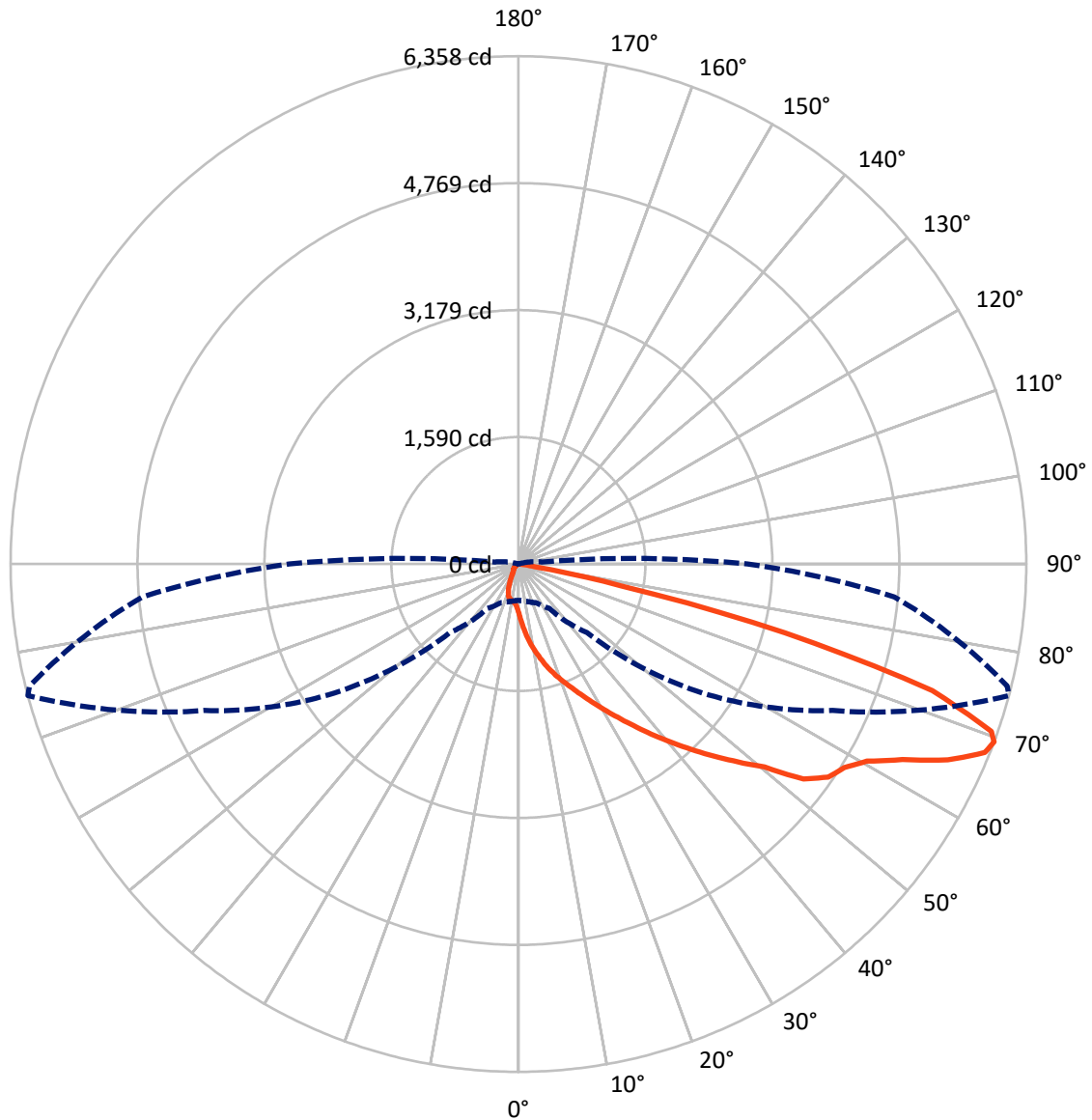


Based on 10 foot mounting height. Maximum calculated value = 16.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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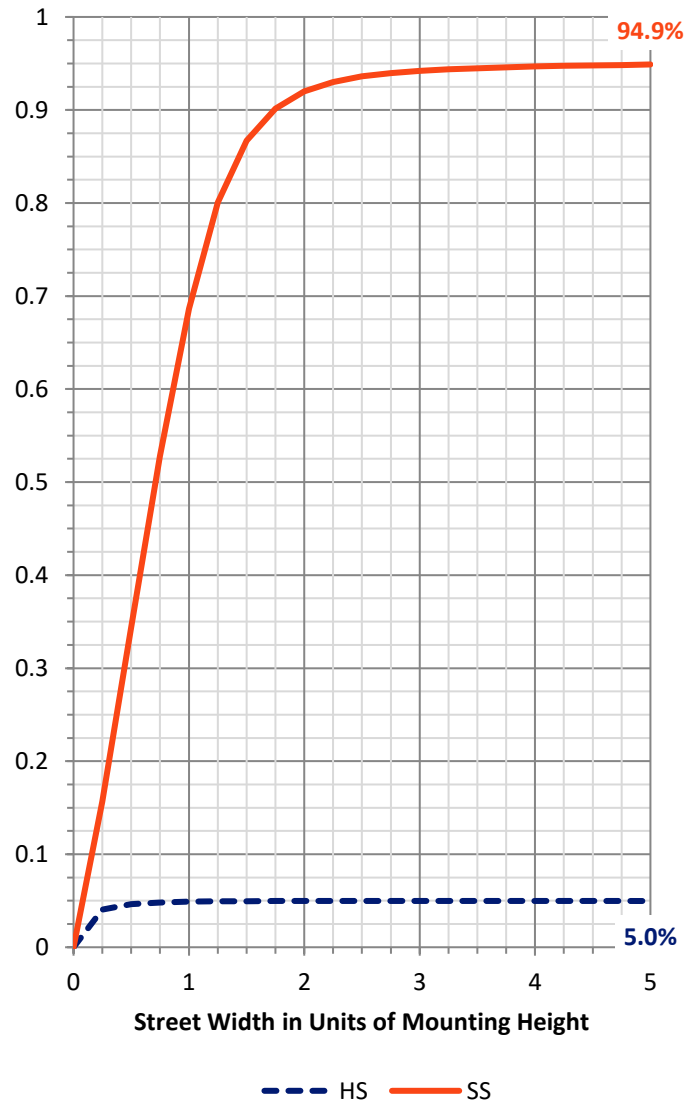
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	329.8	0.0	329.8
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	6279.5	0.0	6279.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	6609.3	0.0	6609.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.1
10°-20°	256.4	3.9
20°-30°	489.4	7.4
30°-40°	877.9	13.3
40°-50°	1345.1	20.4
50°-60°	1563.3	23.7
60°-70°	1384.4	20.9
70°-80°	597.1	9.0
80°-90°	23.9	0.4
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°	6609.3	100.0
0°-180°	6609.3	100.0

Coefficient of Utilization



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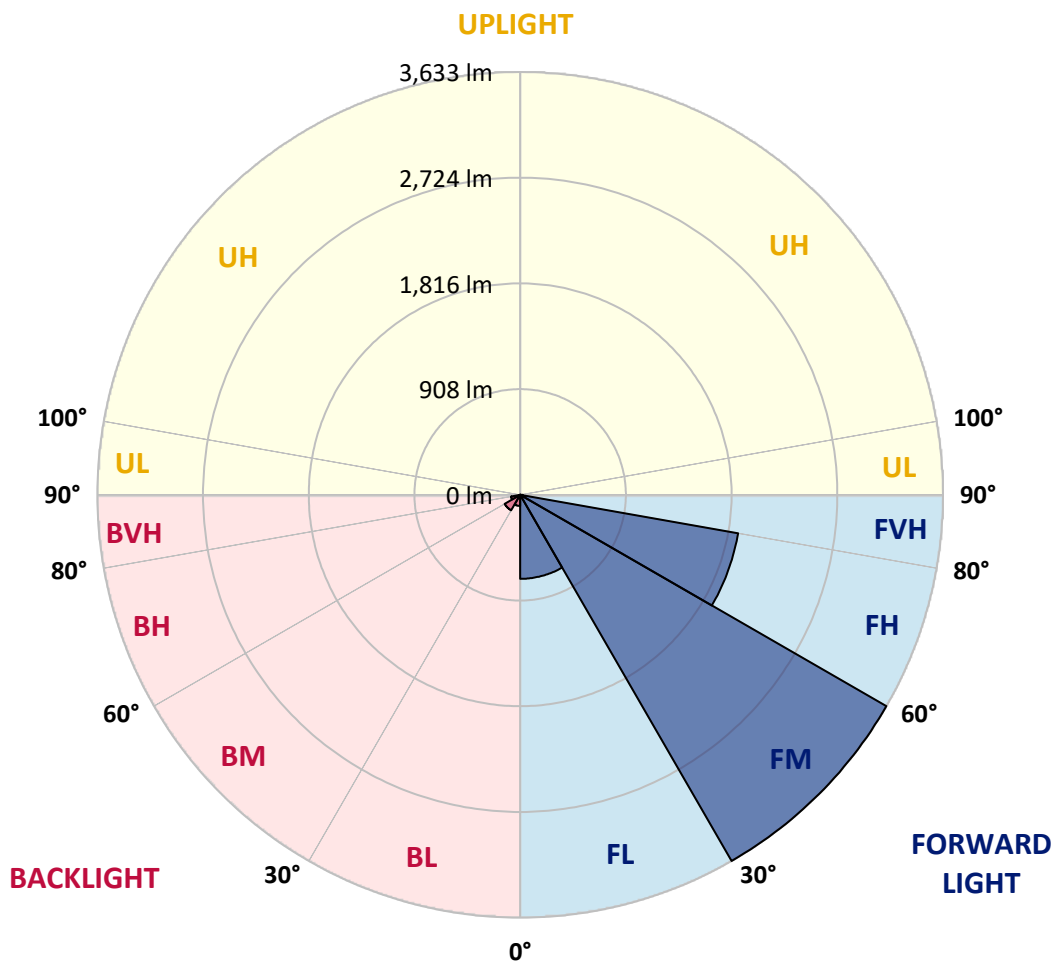
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	721.7	10.9			
FM (30°-60°)	3632.6	55.0			
FH (60°-80°)	1901.6	28.8			G2/5000
FVH (80°-90°)	23.6	0.4			G1/100
BL (0°-30°)	95.8	1.4	B0/110		
BM (30°-60°)	153.7	2.3	B0/220		
BH (60°-80°)	79.9	1.2	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: B0-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
2.5°	1013.1	1003.0	993.2	981.7	956.1	911.8	856.2	796.2	722.0	709.1	649.3
5°	1230.0	1225.6	1215.8	1200.0	1171.5	1123.1	1060.2	971.7	847.6	826.3	699.2
7.5°	1382.8	1379.7	1371.3	1352.7	1327.1	1278.5	1212.8	1117.2	973.1	948.9	761.9
10°	1519.7	1518.2	1511.0	1493.9	1468.3	1415.5	1345.7	1245.7	1093.0	1065.8	834.7
12.5°	1643.8	1645.2	1642.3	1633.7	1615.2	1565.2	1485.3	1376.9	1208.6	1178.7	921.8
15°	1716.5	1720.9	1732.2	1749.4	1755.1	1715.1	1632.4	1512.4	1327.1	1301.4	1021.6
17.5°	1692.2	1696.5	1732.2	1790.7	1846.3	1852.1	1777.9	1640.9	1444.0	1418.3	1120.0
20°	1633.7	1639.4	1676.5	1756.5	1864.9	1940.6	1910.7	1780.8	1555.3	1524.0	1214.2
22.5°	1699.5	1699.5	1710.8	1759.4	1857.9	1976.2	2016.2	1920.5	1669.5	1631.0	1308.6
25°	1924.9	1920.5	1896.3	1876.4	1907.8	2013.3	2096.1	2063.2	1803.5	1759.4	1408.4
27.5°	2210.3	2230.2	2184.6	2111.8	2040.5	2086.1	2167.5	2204.6	1951.9	1906.4	1511.0
30°	2529.8	2538.4	2484.3	2387.2	2261.7	2217.3	2251.6	2325.8	2113.3	2063.2	1618.0
32.5°	2818.2	2810.9	2765.3	2664.1	2508.4	2412.8	2360.0	2422.9	2288.7	2231.7	1728.0
35°	3073.6	3079.2	3023.5	2906.6	2753.9	2652.7	2527.0	2532.7	2485.7	2420.0	1855.0
37.5°	3303.2	3293.2	3240.5	3123.4	2985.1	2875.1	2742.4	2646.9	2701.2	2632.7	1997.7
40°	3490.2	3480.3	3424.6	3310.4	3180.5	3090.7	2986.4	2799.6	2927.9	2849.6	2150.4
42.5°	3638.6	3627.1	3580.0	3470.2	3344.7	3264.7	3214.9	2987.9	3170.6	3092.1	2321.6
45°	3711.3	3701.3	3672.8	3590.0	3480.3	3410.2	3434.5	3204.9	3430.3	3364.6	2510.0
47.5°	3625.7	3621.4	3654.2	3640.0	3577.2	3540.1	3624.3	3441.6	3702.9	3638.6	2726.7
50°	3366.0	3373.1	3468.7	3587.2	3617.1	3661.4	3779.9	3691.3	3995.3	3926.9	2976.5
52.5°	2725.4	2773.8	3062.1	3347.5	3568.6	3735.6	3962.6	4048.1	4471.9	4404.7	3366.0
55°	2034.8	2054.8	2368.7	2856.6	3373.1	3729.9	4098.1	4257.8	4707.4	4638.8	3468.7
57.5°	1613.8	1620.9	1776.5	2274.5	2970.9	3601.5	4169.5	4333.5	4810.1	4753.0	3621.4
60°	1267.1	1275.7	1388.4	1730.9	2404.4	3254.7	4066.6	4399.1	5011.3	4965.7	3888.4
62.5°	986.0	994.6	1063.1	1264.3	1803.5	2721.1	3859.7	4504.7	5393.7	5372.3	4324.9
65°	763.4	766.3	813.3	907.5	1274.2	2143.1	3607.2	4603.2	5910.2	5891.7	4678.8
67.5°	563.6	567.9	600.7	659.3	860.4	1539.7	3193.4	4527.5	6299.8	6245.6	4807.2
69°	455.3	459.5	488.0	535.1	679.2	1212.8	2815.3	4340.6	6358.3	6306.9	4726.0
70°	389.5	392.4	420.9	460.9	579.3	1030.3	2515.7	4179.4	6281.2	6231.3	4540.5
72.5°	249.6	264.0	292.5	318.2	383.8	682.1	1697.9	3465.9	5419.4	5333.7	3555.9
75°	138.3	142.7	194.0	225.5	255.4	443.8	944.6	2161.7	3447.3	3387.5	1902.0
77.5°	114.2	117.0	137.0	171.2	171.2	248.3	356.7	851.9	1311.3	1182.9	515.1
80°	79.9	82.7	104.2	112.7	122.7	139.9	115.6	186.9	202.6	179.8	77.1
82.5°	55.7	58.5	71.3	92.7	98.5	65.7	42.8	55.7	58.5	58.5	30.0
85°	10.1	14.3	52.8	77.1	58.5	20.0	24.3	20.0	18.5	20.0	7.1
87.5°	0.0	0.0	32.8	37.1	31.4	8.5	10.1	7.1	4.3	5.7	2.9
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°	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
2.5°	619.3	589.3	537.9	500.9	469.5	445.2	435.1	419.5	408.1	413.8	406.7
5°	636.4	583.5	500.9	448.1	411.0	379.5	353.8	333.9	318.2	315.3	312.5
7.5°	663.5	587.9	479.4	413.8	358.2	309.6	269.8	239.7	216.9	216.9	208.3
10°	700.6	599.3	466.6	379.5	296.8	231.1	191.2	162.7	151.3	149.8	147.0
12.5°	752.1	620.6	456.6	335.2	231.1	168.4	144.1	134.1	129.8	128.4	127.0
15°	821.9	652.1	445.2	281.1	175.4	138.3	128.4	119.8	115.6	114.2	112.7
17.5°	889.0	680.6	420.9	225.5	142.7	125.6	114.2	107.0	101.2	99.9	99.9
20°	951.8	704.9	379.5	175.4	128.4	112.7	101.2	92.7	87.0	85.6	85.6
22.5°	1017.4	724.8	328.2	142.7	117.0	99.9	88.5	79.9	74.2	72.8	71.3
25°	1087.3	739.1	269.8	127.0	105.6	88.5	75.6	68.5	64.1	62.8	61.4
27.5°	1162.9	744.9	214.1	115.6	92.7	77.1	65.7	58.5	55.7	54.2	54.2
30°	1231.3	739.1	165.5	102.8	81.3	67.1	57.1	51.4	48.5	47.2	47.2
32.5°	1302.7	724.8	132.7	91.3	71.3	57.1	48.5	44.2	42.8	41.4	41.4
35°	1378.4	706.2	114.2	81.3	61.4	49.9	42.8	40.0	38.5	37.1	37.1
37.5°	1466.8	683.5	104.2	72.8	54.2	44.2	37.1	35.7	34.2	34.2	34.2
40°	1566.7	655.0	97.0	65.7	48.5	38.5	32.8	31.4	30.0	30.0	30.0
42.5°	1672.4	622.2	89.9	58.5	42.8	32.8	28.6	28.6	27.0	27.0	25.7
45°	1790.7	589.3	82.7	51.4	37.1	28.6	24.3	22.8	22.8	21.4	21.4
47.5°	1930.5	559.4	75.6	45.6	32.8	24.3	21.4	20.0	18.5	17.1	17.1
50°	2127.5	556.5	67.1	40.0	30.0	20.0	17.1	15.7	14.3	12.8	12.8
52.5°	2322.9	530.8	57.1	32.8	24.3	17.1	12.8	11.4	10.1	10.1	8.5
55°	2367.3	488.0	49.9	28.6	18.5	12.8	10.1	7.1	7.1	5.7	5.7
57.5°	2464.2	468.0	42.8	22.8	14.3	10.1	5.7	4.3	4.3	4.3	4.3
60°	2655.5	462.3	37.1	20.0	10.1	7.1	4.3	2.9	2.9	1.4	1.4
62.5°	2919.4	456.6	31.4	17.1	7.1	4.3	2.9	1.4	0.0	0.0	0.0
65°	3064.9	418.2	25.7	12.8	5.7	4.3	1.4	0.0	0.0	0.0	0.0
67.5°	3026.5	345.3	22.8	8.5	4.3	2.9	1.4	0.0	0.0	0.0	0.0
69°	2865.2	291.1	18.5	7.1	4.3	2.9	1.4	0.0	0.0	0.0	0.0
70°	2671.2	251.2	17.1	5.7	2.9	1.4	1.4	0.0	0.0	0.0	0.0
72.5°	1896.3	131.3	11.4	4.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0
75°	886.1	58.5	7.1	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0
77.5°	195.6	27.0	4.3	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.1	10.1	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.8	4.3	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	0.0	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)