

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: P265946

Luminaire Tested: **ARCH-AF24-50-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265946  
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-AF24-50-D-U-T3-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4126.2 lumens  
Efficiency: N/A  
Efficacy: 76.4 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): 54  
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

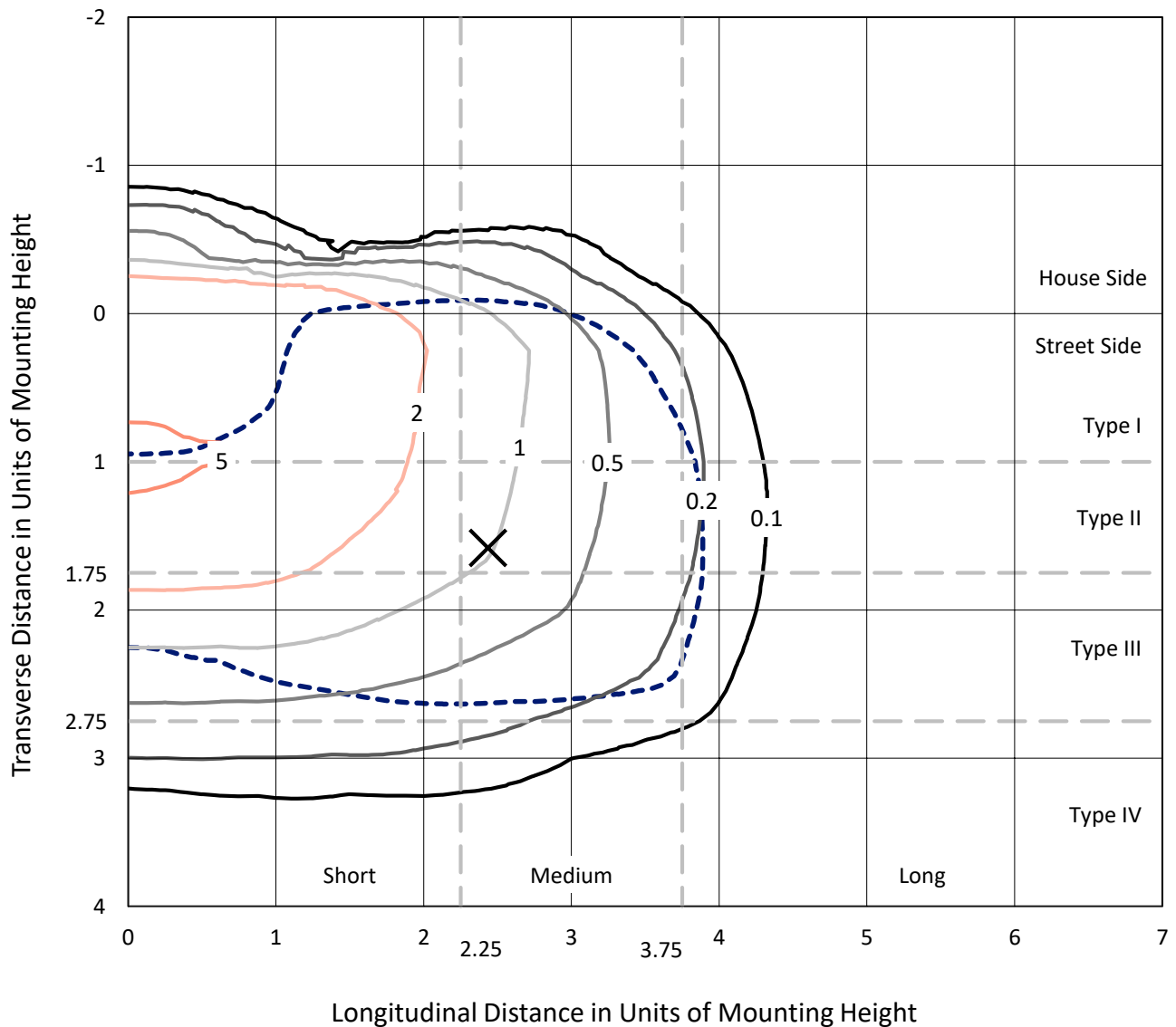


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

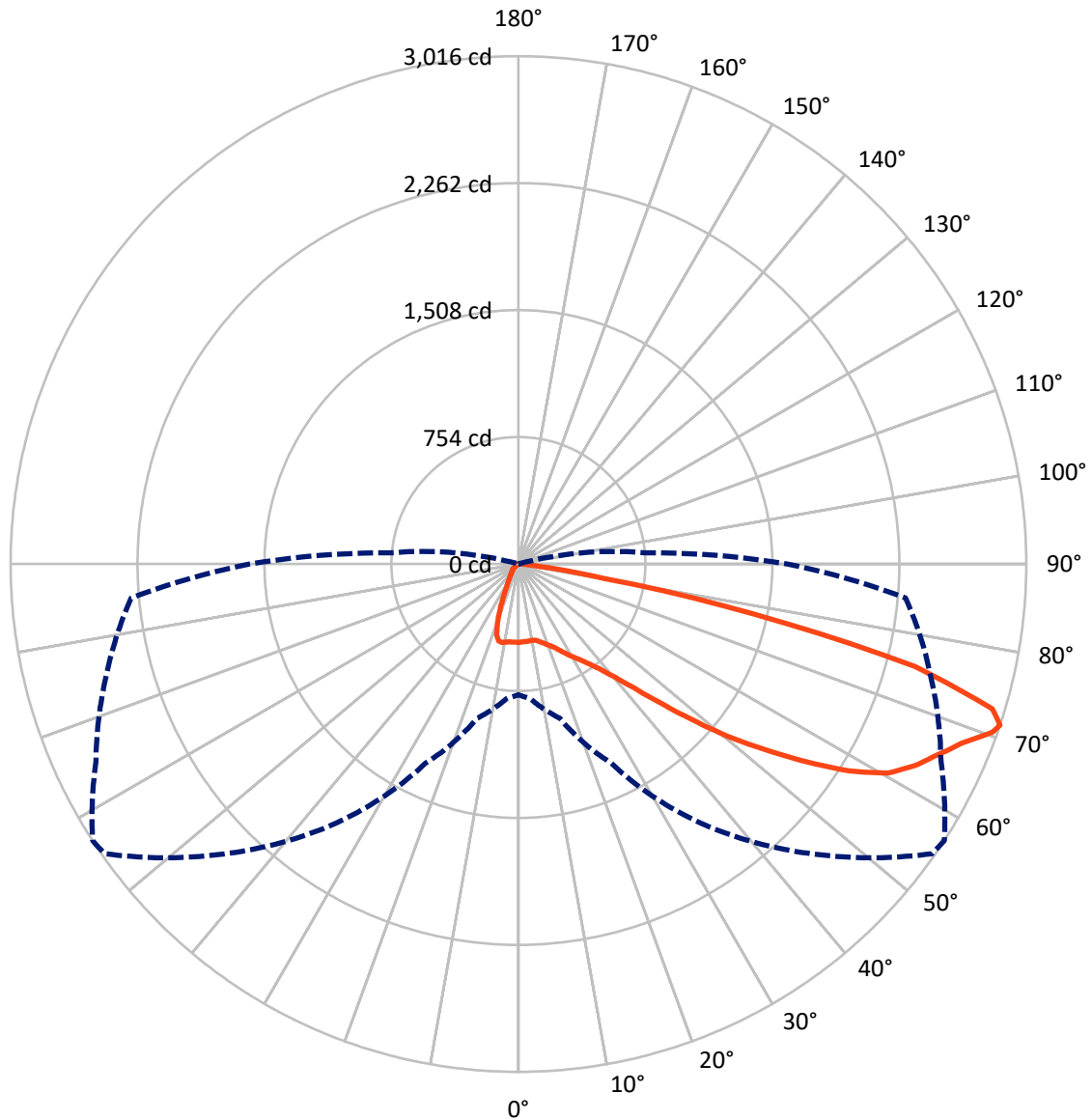


Based on 10 foot mounting height. Maximum calculated value = 5.8 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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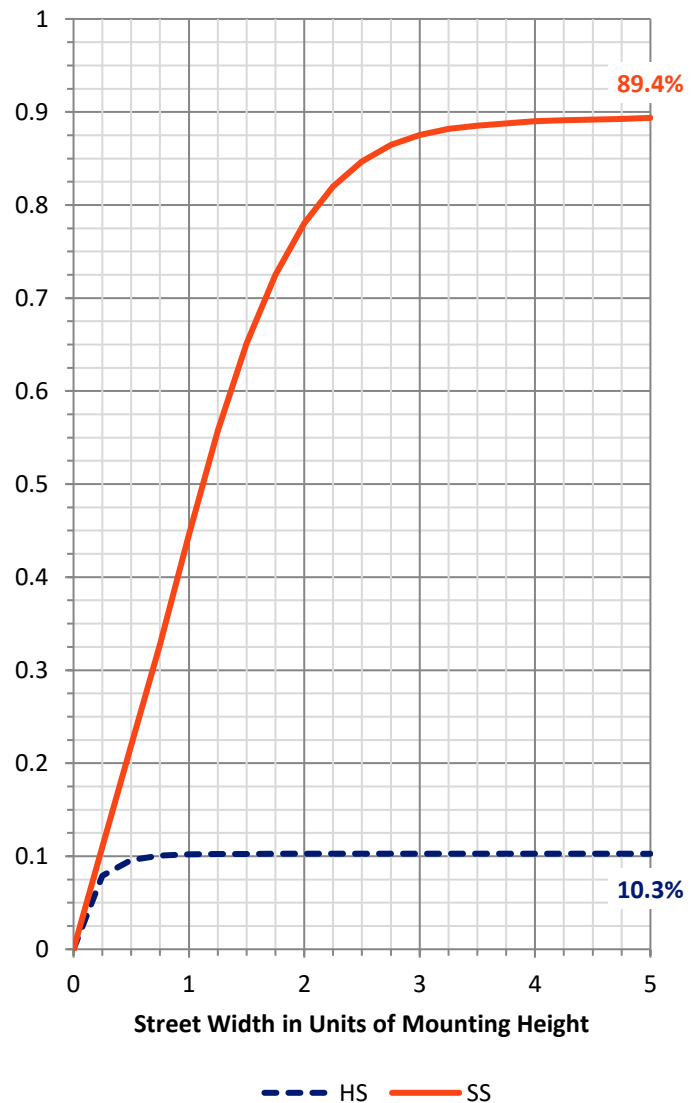
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	427.6	0.0	427.6
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	3698.6	0.0	3698.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	4126.2	0.0	4126.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.8	1.1
10°-20°	117.1	2.8
20°-30°	182.7	4.4
30°-40°	308.7	7.5
40°-50°	599.6	14.5
50°-60°	1007.0	24.4
60°-70°	1201.7	29.1
70°-80°	633.3	15.3
80°-90°	32.2	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°	4126.2	100.0
0°-180°	4126.2	100.0



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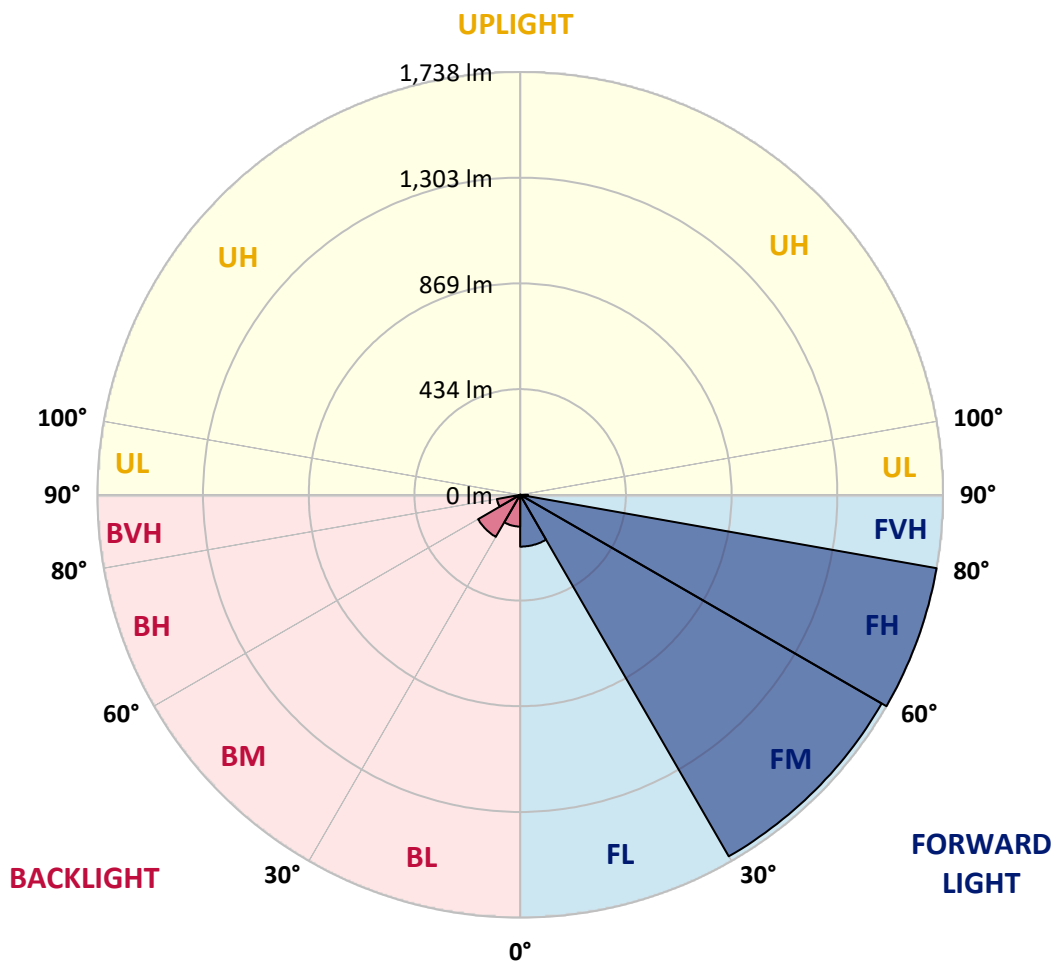
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	213.0	5.2			
FM	(30°-60°)	1715.7	41.6			
FH	(60°-80°)	1738.0	42.1			G1/1800
FVH	(80°-90°)	31.9	0.8			G1/100
BL	(0°-30°)	130.5	3.2	B1/500		
BM	(30°-60°)	199.7	4.8	B0/220		
BH	(60°-80°)	97.1	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°	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3
2.5°	459.7	459.7	459.7	460.6	461.5	461.5	463.4	462.4	462.4	462.4	464.5
5°	447.0	448.1	449.1	450.9	454.8	457.6	462.4	462.4	463.4	465.3	466.3
7.5°	429.7	430.7	433.6	437.5	445.2	451.8	459.7	461.5	464.5	469.3	471.2
10°	419.1	421.1	425.0	429.7	438.5	447.0	456.7	459.7	468.2	476.9	481.8
12.5°	416.4	417.4	421.1	428.9	439.5	450.1	462.4	465.3	477.9	491.4	499.0
15°	421.1	422.2	424.0	432.7	445.2	458.7	474.9	478.8	494.2	509.6	519.2
17.5°	429.7	429.7	431.6	439.5	452.8	468.2	489.3	495.1	512.5	529.8	540.3
20°	435.6	435.6	438.5	446.1	461.5	481.8	506.7	514.4	533.7	552.8	562.5
22.5°	441.2	442.2	445.2	453.9	471.2	499.0	527.8	535.5	557.7	577.9	587.4
25°	457.6	456.7	457.6	465.3	485.5	520.2	556.7	566.3	589.4	611.4	616.2
27.5°	502.8	501.0	488.4	483.6	499.0	542.2	593.2	602.9	629.8	651.9	651.9
30°	606.6	602.9	572.1	532.6	520.2	562.5	627.8	641.3	676.0	695.2	689.4
32.5°	738.3	729.8	690.3	623.1	573.1	589.4	664.3	679.7	724.0	740.4	727.8
35°	882.7	881.6	832.6	746.1	674.9	645.2	711.5	729.8	785.5	799.9	779.8
37.5°	1035.6	1039.3	1006.7	887.4	803.9	736.5	774.0	795.1	863.5	880.7	861.5
40°	1205.6	1204.7	1192.2	1050.8	958.6	866.2	864.3	883.7	966.2	993.2	966.2
42.5°	1421.1	1419.1	1374.0	1247.0	1146.1	1035.6	996.1	1002.8	1095.2	1139.3	1100.0
45°	1640.2	1626.8	1574.9	1465.2	1375.8	1245.1	1170.1	1170.1	1249.0	1309.5	1247.9
47.5°	1762.4	1748.9	1727.8	1667.3	1640.2	1494.2	1383.6	1370.2	1431.7	1493.2	1406.7
50°	1922.9	1922.9	1870.1	1847.0	1893.2	1790.3	1619.1	1605.7	1635.5	1684.5	1571.0
52.5°	2049.9	2026.8	1989.2	2009.5	2141.2	2094.0	1854.7	1828.7	1851.8	1864.3	1714.3
55°	2102.8	2080.7	2077.8	2151.8	2355.6	2290.3	2096.0	2073.0	2071.0	2009.5	1839.3
57.5°	2113.4	2094.0	2130.6	2260.4	2564.2	2450.8	2336.4	2319.1	2265.3	2111.3	1967.2
60°	2023.9	2033.6	2121.9	2320.1	2687.3	2590.3	2539.2	2521.1	2396.9	2198.0	2109.5
62.5°	1840.3	1863.4	2028.7	2325.8	2642.2	2646.9	2651.7	2639.3	2498.8	2276.8	2252.7
65°	1623.0	1629.7	1828.7	2246.0	2563.4	2629.7	2734.4	2733.5	2576.8	2365.2	2414.3
67.5°	1337.4	1349.0	1521.1	1976.8	2405.7	2622.0	2843.0	2840.3	2665.2	2466.1	2510.5
70°	995.1	1009.5	1148.9	1537.4	2053.7	2525.9	2985.3	2987.4	2758.4	2543.1	2444.1
71°	776.0	801.8	948.0	1305.6	1874.0	2428.7	2998.8	3016.1	2769.0	2532.5	2307.6
72.5°	380.7	411.6	595.1	919.1	1542.2	2211.4	2910.4	2944.0	2702.7	2400.8	1972.9
75°	99.1	104.8	177.9	375.9	826.9	1465.2	2347.0	2432.5	2209.6	1827.8	1205.6
77.5°	62.5	64.4	83.6	146.2	309.6	556.7	1378.8	1421.1	1262.4	926.0	425.0
80°	44.2	45.2	52.9	94.2	180.7	162.6	496.1	514.4	456.7	245.1	75.9
82.5°	26.9	26.9	38.4	60.5	111.5	88.5	130.8	139.3	123.1	68.4	25.1
85°	15.5	16.3	24.1	41.3	52.9	43.3	49.0	51.9	52.9	45.2	10.6
87.5°	12.4	13.5	21.2	34.7	28.8	21.2	21.2	22.1	23.0	26.9	4.9
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°	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3	466.3
2.5°	464.5	464.5	465.3	464.5	464.5	464.5	465.3	465.3	465.3	467.3	468.2
5°	466.3	466.3	466.3	465.3	464.5	464.5	466.3	467.3	467.3	470.2	470.2
7.5°	471.2	471.2	469.3	467.3	465.3	462.4	463.4	464.5	463.4	464.5	464.5
10°	481.8	481.8	478.8	474.9	469.3	460.6	449.1	434.6	421.1	416.4	414.4
12.5°	499.0	498.0	492.4	485.5	473.0	443.3	399.9	349.0	306.7	295.2	291.3
15°	518.2	516.3	509.6	498.0	464.5	385.6	295.2	229.7	189.5	179.8	177.9
17.5°	538.4	535.5	526.0	502.8	425.0	286.5	190.4	144.2	122.1	120.3	121.1
20°	559.6	555.7	542.2	493.2	343.2	191.2	123.1	111.5	109.7	109.7	110.6
22.5°	583.5	578.8	560.5	458.7	250.0	126.9	105.8	104.8	103.8	102.9	102.9
25°	611.4	605.7	577.9	396.2	172.1	103.8	101.0	98.1	96.2	94.2	93.2
27.5°	645.2	637.4	591.4	319.2	118.2	97.0	95.2	90.4	86.5	82.6	82.6
30°	678.8	669.1	587.4	240.3	96.2	90.4	86.5	80.8	75.0	71.1	70.2
32.5°	714.4	704.8	562.5	161.5	87.5	82.6	77.9	69.2	62.5	57.8	56.8
35°	767.2	759.5	513.4	106.7	78.8	73.1	66.4	57.8	49.0	44.2	43.3
37.5°	846.2	836.5	452.8	81.7	69.2	60.5	54.7	45.2	36.6	31.7	30.7
40°	951.8	923.0	380.7	72.1	60.5	49.9	42.3	32.7	26.0	23.0	23.0
42.5°	1074.9	1006.7	302.9	65.3	53.9	41.3	30.7	22.1	18.2	17.2	17.2
45°	1205.6	1084.6	224.9	60.5	47.2	32.7	22.1	15.5	13.5	12.4	12.4
47.5°	1340.4	1148.0	156.8	54.7	39.4	25.1	15.5	11.6	9.6	8.7	8.7
50°	1466.3	1189.4	110.6	49.0	33.6	18.2	11.6	8.7	6.7	6.7	6.7
52.5°	1553.8	1185.6	79.8	42.3	26.0	12.4	7.6	5.7	5.7	5.7	5.7
55°	1630.7	1171.1	62.5	36.6	20.2	8.7	5.7	4.9	4.9	3.9	3.9
57.5°	1696.0	1148.0	52.9	29.9	14.5	6.7	3.9	3.9	2.9	2.9	2.9
60°	1751.9	1119.2	44.2	25.1	9.6	4.9	2.9	1.9	1.9	1.0	1.9
62.5°	1827.8	1101.0	38.4	19.3	6.7	2.9	1.9	1.0	1.0	0.0	0.0
65°	1883.6	1066.3	32.7	13.5	3.9	1.9	1.0	1.0	0.0	0.0	0.0
67.5°	1885.5	1003.8	24.1	7.6	2.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	1733.5	855.7	15.5	3.9	1.9	1.0	1.0	0.0	0.0	0.0	0.0
71°	1594.1	757.6	12.4	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1313.4	556.7	9.6	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	724.0	201.8	4.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	231.8	61.5	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.4	9.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.5	3.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)